FEB 14 2001

CDM Fax

CDM Camp Dresser & McKee Inc.

One Walnut Creek Center
100 Pringle Avenue, Suite 300
Walnut Creek, CA
Tel: 925-296-8049
FAX: 925-933-4174

To:	Barney Chan Alameda County Health Care Services Agency	**From:**	Charlie O'Neill
CC:		**Date:**	February 12, 2001
Fax No.:	510-337-9335	**Time:**	3:05 PM
Re:	Port of Oakland Monitoring Wells at UPMF and TOFC	**CDM Job #:**	
# of Pages: (Including cover sheet)	5		

Barney -

Attached please find a letter addressed to Mr. Larry Seto regarding destruction of groundwater monitoring wells at the Port of Oakland. I understand that you have taken over his responsibilities regarding well destruction at the Port of Oakland.

This letter has been faxed to you because I was not certain that you had received a copy, and the Port is looking forward to executing this well destruction program in the near future.

If you have any questions or comments regarding this letter, please contact Mr. John Prall, Port of Oakland, at 510-627-1373.

Thank you,

Charlie O'Neill

\\WCKSVR\PROJECTS\PORTOAK\TSO09\Well Dest. Pro\02120B_ChanFax.doc

FEB 0 1 2001

PORT OF OAKLAND

January 30, 2001

Mr. Larry Seto
Sr. Hazardous Material Specialist
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

SUBJECT: ***Request for Well Destruction***
TOFC and UPMF Sites
Former Union Pacific Intermodal Railroad
Oakland, California

Dear Mr. Seto:

The Port of Oakland presents this letter to request your concurrence with the proposed monitoring well destruction program planned for the Trailer-On-Flat Car (TOFC), 1717 Middle Harbor Road, STID #4020, and the Union Pacific Motor Freight (UPMF), 1750 Ferro Street, STID #2040, Sites. Based on your verbal request on October 25, 2000 to Camp Dresser & McKee, Inc. this letter provides a justification for the destruction of the wells, a table and maps of the wells to be destroyed, the proposed destruction method, and the proposed plan for new well installation.

Purpose of Well Destruction

As presented in the Port of Oakland's (Port's) letter to Alameda County Health Care Services Agency (Alameda County) on June 26, 2000, the purpose of the well destruction is to accommodate the overall land conversion of the sites from a railyard to a container terminal. Current and future demolition and construction efforts will likely result in damage and loss of these wells. Due to the full scale demolition and construction activities occurring at the sites, the Port proposes to destroy the wells during one or two events.

Proposed Wells to be Destroyed

excludes OU2-W4 previously destroyed

Currently, there are 21 monitoring wells and 6 extraction wells associated with the TOFC and UPMF sites, see Table 1 and Figure 1-2. Of these wells, the Port would like to destroy 19 monitoring wells and 6 extraction wells. These well are in direct path of the planned construction activities and will be impacted by site activities. The remaining wells will either be destroyed during excavation activities or be kept for monitoring purposes. Specifically, well MW-6 will be destroyed during shoreline excavation activities and wells (APL/UP-W1 and APL/UP-W2) will be kept for continued monitoring purposes.

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

Proposed Destruction Method

According to Mr. James Yoo with the County of Alameda Public Work Agency (Agency), the Agency currently has an agreement with the Port allowing wells to be destroyed via pressure injection. Pressure injection consists of injecting a neat cement slurry under a pressure of 5 pounds per square inch (psi) for a duration of 15 minutes. Following the initial cement slurry injection into the well, additional slurry will be added as necessary until the well is filled level to the ground surface. The surface completion well boxes will be discarded. CDM/FEJ will submit a Well Destruction Permit Application to the Agency following Alameda County's concurrence with this request.

Proposed Plan for New Well Installation

After construction has been completed, the Port will replace the destroyed wells with new monitoring well networks at each site. Specifically, a minimum of ten wells will be installed at the TOFC and UPMF sites, respectively. The new wells will be installed following completion of paving and stripping of the new container terminal (tentatively June 2002). The final well locations will be situated in vehicle isle ways and the well covers will be matched to final pavement grade. Prior to constructing new wells, the proposed locations will be plotted on plan(s) that would be submitted for Alameda County's review and comment.

The Port has started the construction of the TOFC replacement free product and groundwater extraction and treatment system. The plan set for the new system and an explanation of the operating principle was previously submitted to you. As a consequence of the replacement, the five extraction wells that were part of the old extraction system will not be replaced.

CDM/FEJ and the Port appreciate your review of the request for well destruction and would like your feedback on the request within one week. Please contact me at (510) 627-1373 if you have any questions or comments regarding this letter.

Sincerely,

John Prall, R.G.
Associate Environmental Scientist

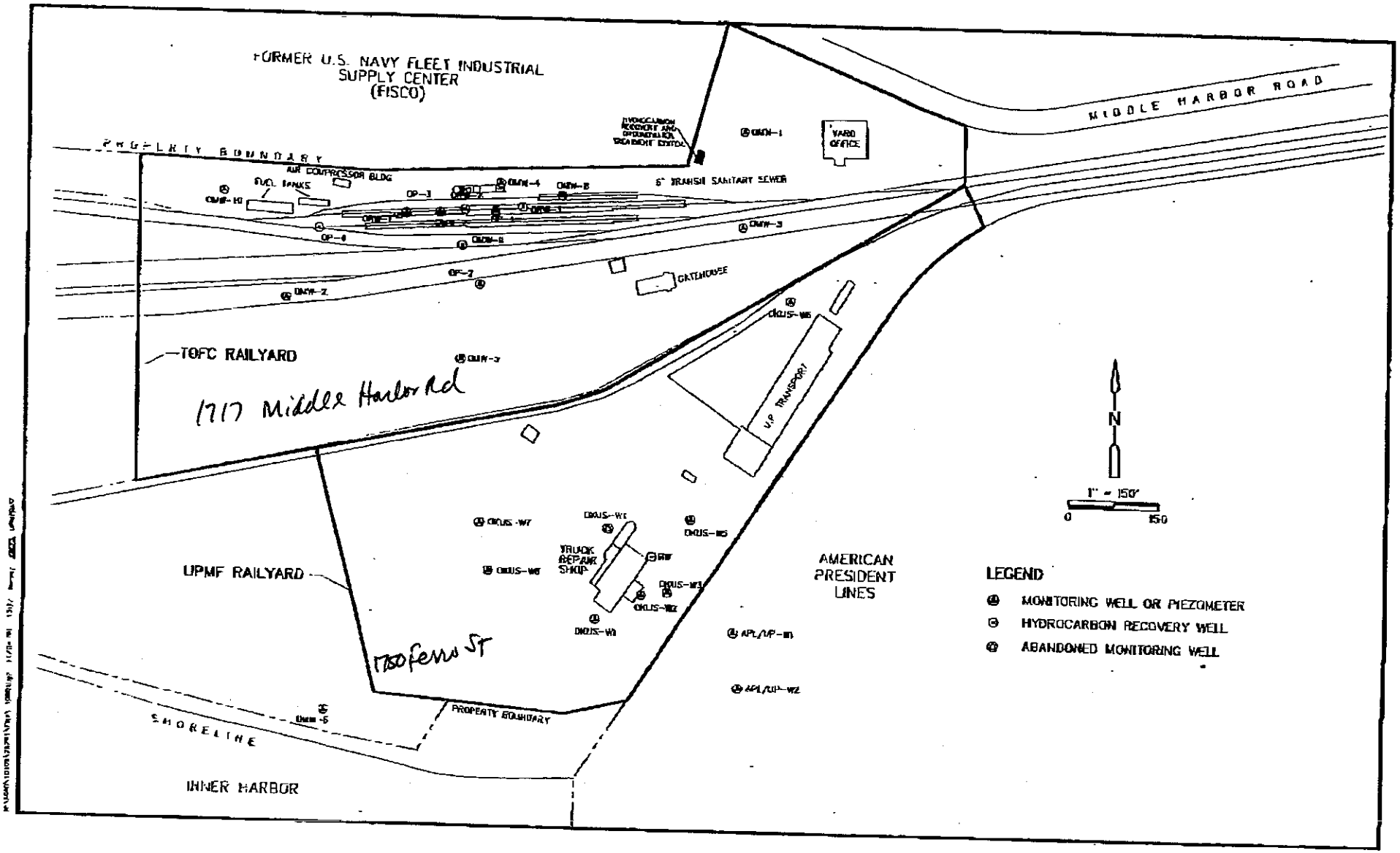
Cc: Jeff Jones, Port of Oakland
Delphine Prevost, Port of Oakland
Charlie O'Neill, Camp Dresser & McKee

Enclosures

Table 1
List of Wells to be Destroyed
Request for Well Destruction Letter
Former Union Pacific Intermodal Railyard

Well No.	Well Depth (feet)	Well Use	Comments
Trailer-On-Flat-Car Railyard - TOFC			
OMW-1	13	Monitoring	Request to be destroyed
OMW-2	13	Monitoring	Request to be destroyed
OMW-3	13	Monitoring	Request to be destroyed
OMW-4	13	Extraction	Request to be destroyed
OMW-5	13	Monitoring	Request to be destroyed
OMW-6	15	Monitoring	Request to be destroyed
OMW-7	13.5	Monitoring	Request to be destroyed
OMW-8	13.5	Monitoring	Request to be destroyed
OMW-9	14	Extraction	Request to be destroyed
OMW-10	14.5	Monitoring	Request to be destroyed
ORW-1	12	Extraction	Request to be destroyed
ORW-2	13	Extraction	Request to be destroyed
ORW-3	13	Extraction	Request to be destroyed
OP-1	~15	Monitoring	Request to be destroyed
OP-2	~15	Monitoring	Request to be destroyed
OP-3	~15	Monitoring	Request to be destroyed
OP-4	~15	Monitoring	Request to be destroyed
17 **Union Pacific Motor Freight Railyard - UPMF**			
OKUS-W1	22	Monitoring	Request to be destroyed
OKUS-W2	22	Monitoring	Request to be destroyed
OKUS-W3	21.5	Monitoring	Request to be destroyed
OKUS-W4	Unknown	Monitoring	Previously Destroyed By UP Railroad
OKUS-W5	21	Monitoring	Request to be destroyed
OKUS-W6	22	Monitoring	Request to be destroyed
OKUS-W7	20	Monitoring	Request to be destroyed
OKUS-W8	15	Monitoring	Request to be destroyed
APL/UP-W1	22	Monitoring	*Kept for Monitoring Purposes*
APL/UP-W2	17	Monitoring	*Kept for Monitoring Purposes*
RW	~15	Monitoring	Request to be destroyed

11
38



CDM/Ted Joint Association

Figure 1-2

Site Vicinity Map
Second Semi-Annual 1999
Groundwater Monitoring Report – UPMF
Port of Oakland, California

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

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

February 14, 2001
StID # 4020 & 2044

Mr. John Prall
Port of Oakland
P.O. Box 2064
Oakland CA 94604-2064

Re: Trailer-On-Flat-Car (TOFC), 1717 Middle Harbor Road, Oakland CA 94607
Union Pacific Motor Freight (UPMF), 1750 Ferro St., Oakland CA 94607

Dear Mr. Prall:

Our office has received and reviewed your request to decommission all existing monitoring and extraction wells at the two referenced sites to accommodate the conversion of these sites to a container facility. Wells APL/UP-W1 and APL/UP-W2 will be kept for continued monitoring. A minimum of ten wells at each site would be installed at these sites after the completion of the construction project, tentatively in June 2002.

I have discussed your request with the Water Board and they concur that this is a reasonable request given the presence of the slurry wall and extraction sumps along the down-gradient Inner Harbor shoreline pursuant to Water Board order 99-055. Therefore, our office concurs with your well decommission request with the following conditions:

- Please clarify when these two wells will be monitored.
- Please submit a report for these two sites separate from that required for the APL site. The report should also give the status of the newly proposed collection-extraction system on the TOFC site.
- Prior to 6/02, please provide a brief work plan and site map describing the location of the replacement wells.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. C. O'Neill, Mr. M. Gray, CDM, One Walnut Creek Center, 100 Pringle Ave., Suite 300, Walnut Creek, CA 94596
Mr. G. Bartow, SFRWQCB
WelldecomTOFC-UPMF

PORT OF OAKLAND

January 30, 2001

Mr. Larry Seto
Sr. Hazardous Material Specialist
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

SUBJECT: ***Request for Well Destruction***
TOFC and UPMF Sites
Former Union Pacific Intermodal Railroad
Oakland, California

Dear Mr. Seto:

The Port of Oakland presents this letter to request your concurrence with the proposed monitoring well destruction program planned for the Trailer-On-Flat Car (TOFC), 1717 Middle Harbor Road, STID #4020, and the Union Pacific Motor Freight (UPMF), 1750 Ferro Street, STID #2040, Sites. Based on your verbal request on October 25, 2000 to Camp Dresser & McKee, Inc. this letter provides a justification for the destruction of the wells, a table and maps of the wells to be destroyed, the proposed destruction method, and the proposed plan for new well installation.

Purpose of Well Destruction

As presented in the Port of Oakland's (Port's) letter to Alameda County Health Care Services Agency (Alameda County) on June 26, 2000, the purpose of the well destruction is to accommodate the overall land conversion of the sites from a railyard to a container terminal. Current and future demolition and construction efforts will likely result in damage and loss of these wells. Due to the full scale demolition and construction activities occurring at the sites, the Port proposes to destroy the wells during one or two events.

Proposed Wells to be Destroyed

Currently, there are 21 monitoring wells and 6 extraction wells associated with the TOFC and UPMF sites, see Table 1 and Figure 1-2. Of these wells, the Port would like to destroy 19 monitoring wells and 6 extraction wells. These well are in direct path of the planned construction activities and will be impacted by site activities. The remaining wells will either be destroyed during excavation activities or be kept for monitoring purposes. Specifically, well MW-6 will be destroyed during shoreline excavation activities and wells (APL/UP-W1 and APL/UP-W2) will be kept for continued monitoring purposes.

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

Proposed Destruction Method

According to Mr. James Yoo with the County of Alameda Public Work Agency (Agency), the Agency currently has an agreement with the Port allowing wells to be destroyed via pressure injection. Pressure injection consists of injecting a neat cement slurry under a pressure of 5 pounds per square inch (psi) for a duration of 15 minutes. Following the initial cement slurry injection into the well, additional slurry will be added as necessary until the well is filled level to the ground surface. The surface completion well boxes will be discarded. CDM/FEJ will submit a Well Destruction Permit Application to the Agency following Alameda County's concurrence with this request.

Proposed Plan for New Well Installation

(each site?)

After construction has been completed, the Port will replace the destroyed wells with new monitoring well networks at each site. Specifically, a minimum of ten wells will be installed at the TOFC and UPMF sites, respectively. The new wells will be installed following completion of paving and stripping of the new container terminal (tentatively June 2002). The final well locations will be situated in vehicle isle ways and the well covers will be matched to final pavement grade. Prior to constructing new wells, the proposed locations will be plotted on plan(s) that would be submitted for Alameda County's review and comment.

The Port has started the construction of the TOFC replacement free product and groundwater extraction and treatment system. The plan set for the new system and an explanation of the operating principle was previously submitted to you. As a consequence of the replacement, the five extraction wells that were part of the old extraction system will not be replaced.

CDM/FEJ and the Port appreciate your review of the request for well destruction and would like your feedback on the request within one week. Please contact me at (510) 627-1373 if you have any questions or comments regarding this letter.

Sincerely,

John Prall

John Prall, R.G.
Associate Environmental Scientist

Cc: Jeff Jones, Port of Oakland
Delphine Prevost, Port of Oakland
Charlie O'Neill, Camp Dresser & McKee

Enclosures

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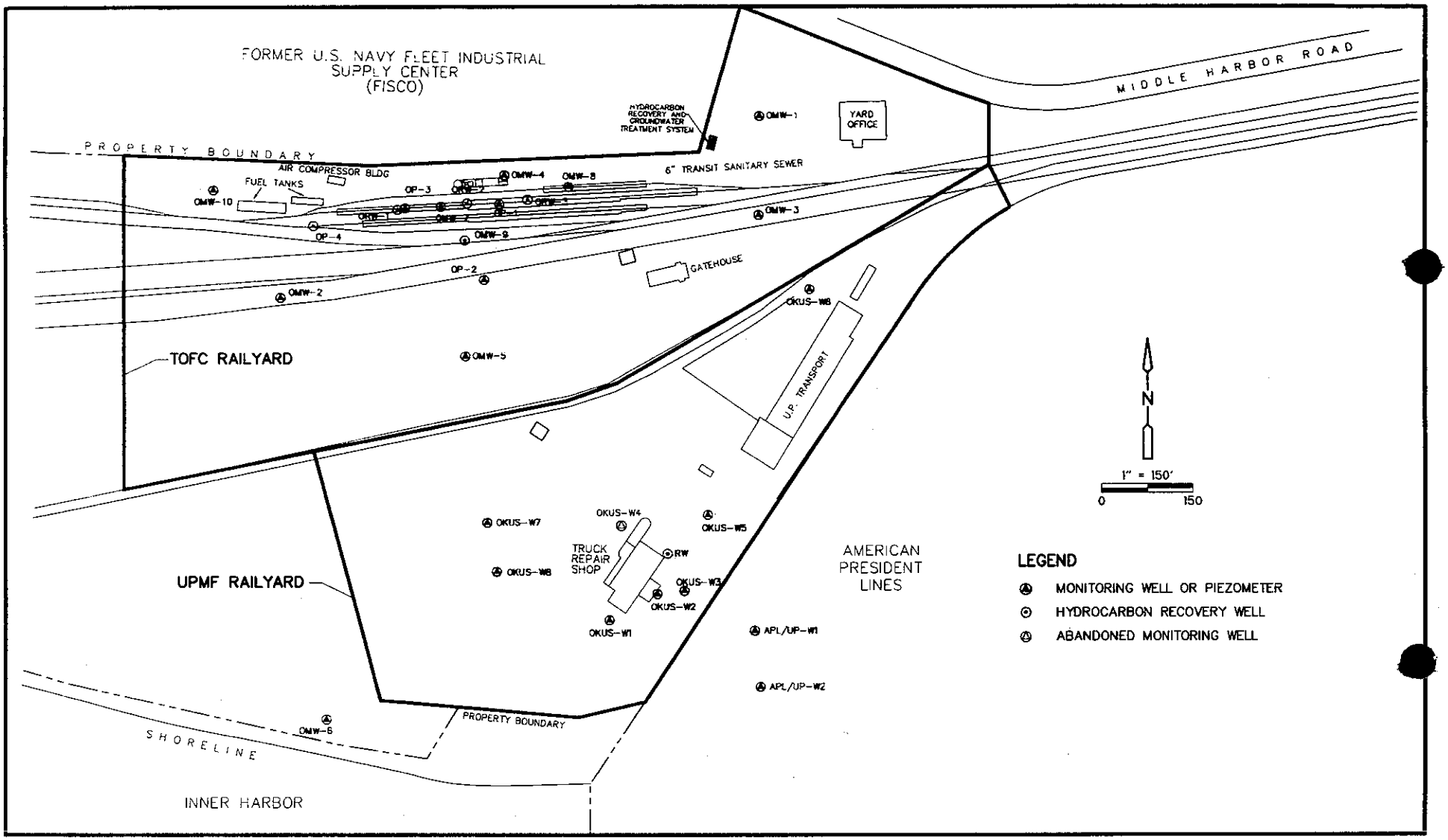


Figure 1-2

Site Vicinity Map
Second Semi-Annual 1999
Groundwater Monitoring Report - UPMF
Port of Oakland, California

Berth 57, 58, 59
Container Yards.

PORT OF OAKLAND

October 27, 2000

Mr. Larry Seto:
Sr. Hazardous Materials Specialist
Alameda County Health Care Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

SUBJECT: **Trailer-On-Flat-Car (TOFC), 171 Middle Harbor Road, Oakland, California**
Union Pacific Motor Freight (UPMF), 1750 Ferro Street, Oakland, California

Dear Mr. Seto:

The Port of Oakland acknowledges your acceptance of the Port's intent to rebuild and reinstall the TOFC recovery and treatment system. The Port anticipates that the system installation will take from 12 to 16 weeks and the system will be operational by the end of February 2001.

If you have any questions, please contact me at 627-1373.

Sincerely,

John Prall, R.G.
Associate Environmental Scientist

Cc: Jeff Jones

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

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

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

October 23, 2000

Mr. John R. Prall, R.G.
Associate Environmental Scientist
Port of Oakland EH&SC Department
530 Water Street
Oakland, CA 94583
STID #4020
STID #2040

RE: Trailer-On-Flat-Car (TOFC), 1717 Middle Harbor Road, Oakland, CA 94607
Union Pacific Motor Freight (UPMF), 1750 Ferro Street, Oakland, CA 94607

Dear Mr. Prall:

I have reviewed your report TOFC & UPMF Sites, Former Union Pacific Inermodal Railyard, Oakland, CA dated June 26, 2000. I have also reviewed the TOFC System Description dated August 30, 2000 prepared by URS Corporation. It is acceptable. Please inform this office within 10 days the anticipated installation date for this system, and the estimated date when the system will begin operation.

If you have questions, please contact me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Avram Frankel, URS Corp., 100 California Street, Suite 500,
San Francisco, CA 94111
Tom Peacock, Alameda County Environmental Health
Files

URS

1717 Middle Harbor Rd.
Oak.
STID#4020

August 30, 2000

COPY

00 AUG 31 PM 2:57

ENVIRONMENTAL PROTECTION

Mr. John R. Prall, R.G.
Associate Environmental Scientist
Port of Oakland EH&SC Department
530 Water Street
Oakland, CA 94583

TOFC System Description/Response to ACEHS Letter
Vision 2000 Program
Oakland, California
For Port of Oakland

Dear John:

Per your request, and in response to an August 16, 2000 letter copied to me by Larry Seto of the Alameda County Environmental Health Services (ACEHS), I have prepared this letter describing the product recovery and groundwater treatment system design for the Trailer-On-Flat-Car (TOFC) site and our experience at a similar site. As you know, URS/Dames & Moore (URS/D&M) submitted the 100% design package for this project to the Port on July 24, 2000. The TOFC system includes extraction and treatment components designed to meet the following objectives:

- Intercept and extract diesel free product beneath the site at higher rates than the existing remediation system;
- Maintain hydraulic control of the dissolved-phase diesel plume associated with the site;
- Separate diesel product from the extracted fluid flow for recycling;
- Remove dissolved-phase hydrocarbons from extracted groundwater prior to discharge to the sanitary sewer;
- Prevent biofouling of the treatment system and provide for future biofouling control in the extraction system.

Based on engineering calculations previously submitted to you, the design flow rates for the project are 3 gallons per minute (gpm) and 20 gpm for diesel free product and groundwater, respectively. To accommodate potential future flows from the TOFC and other sites, URS/D&M sized the treatment facility to accommodate up to 40 gpm of groundwater. The extraction and treatment systems are detailed below followed by a brief description of a similar system URS/D&M designed for Chevron U.S.A. Inc

URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105-1917
Tel: 415.896.5858
Fax: 415.882.9261

EXTRACTION SYSTEM

The extraction system consists of three trenches, five sumps, product and groundwater pumps, and associated piping, appurtenances, and instrumentation. Trench locations and lengths were selected based on a review of groundwater and product thickness data provided by the Port for 1997 through 1999. The design includes one 300-foot-long and two 100-foot-long extraction trenches aligned perpendicular to the historical groundwater flow direction. URS/D&M sized the trench widths based on constructability and minimum sump diameter requirements. The trenches will be keyed into, but not penetrate, the Young Bay Mud to provide vertical hydraulic control. URS/D&M determined trench depths based on Young Bay Mud contact elevation data provided by the Port. The trench design includes uniformly graded drain rock backfill wrapped in a filter fabric permeable to water and diesel product. The purpose of the filter fabric is to prevent fines from entering the trench. The drain rock has been selected to provide structural stability and fluid permeability within the trench.

The trench array includes five extraction sumps to collect free product and groundwater. URS/D&M selected 4-foot-diameter sumps based on the trench width, extraction equipment space requirements, and to allow room for operation and maintenance activities. The sumps will be constructed of galvanized carbon steel to provide structural strength and durability, and be seated into, but not penetrate, the Young Bay Mud. The sumps will also include factory slotting of sufficient width to capture extracted fluids while avoiding premature clogging by anticipated biogrowth. Precast concrete vaults will be installed to complete the sump heads. The vaults will include steel covers rated for the surface loads provided by the Port.

The vaults will house sumphead equipment to extract free product and groundwater. A programmable logic controller (PLC) located at the treatment plant will control variable-speed electric submersible groundwater pumps based on input from a water level transmitter. The combination of PLC control and variable speed drives will allow continuous, automatic adjustment of the pump flow rates to draw free product into the trenches and sumps. Passive fixed-weir skimmers will collect free product within the sumps. A float switch connected to the PLC will activate a pneumatic diaphragm pump at the treatment plant to remove free product from the skimmers. Instrumentation within the sumps will also allow for the measurement of fluid flow rates and total flows. All instrumentation and controls within the sumps will be intrinsically safe.

The extraction system includes three pipelines constructed in utility trenches from the sumps to the treatment plant. Double-walled polyvinylidene fluoride (PVDF) pipe will convey free product, and polyvinyl chloride (PVC) pipe will transport groundwater. The double-walled PVDF pipe is sloped towards and terminates in a leak detection vault at the treatment plant. The leak detection vault contains a leak sensor within the termination fitting of the secondary piping. The remaining primary PVDF piping

continues from the leak detection vault into the treatment plant. The extraction system design also includes PVC biocide piping that runs from the treatment plant through the sumpheads and to the trenches. The biocide pipe in the trenches is perforated on its bottom, and runs along the top of the trenches in three segments. One segment runs down the center of each trench, and the other two run along each side. The biocide pipe is stubbed out at the treatment plant for future connection to a biocide pump and tank. The need for biocide delivery to the trenches will be determined based on future monitoring.

TREATMENT SYSTEM

The treatment system consists of a reinforced and curbed concrete pad with fencing, lighting, and a potable water hose bib; groundwater storage and treatment equipment; free product storage equipment; pumps; an ozone system; a control and storage building; and associated valving, electrical, and instrumentation. Product withdrawn by the diaphragm pump from the trenches will be stored in an 8,000-gallon double-walled steel tank for recycling. Extracted groundwater treatment will initially flow into a polyethylene equalization tank to reduce velocity prior to gravity flow into a coalescing plate oil/water separator (OWS). Free product removed by the OWS will flow via gravity into a 1,000-gallon double-walled steel product storage tank for recycling. Water leaving the OWS will then flow to a polyethylene holding tank. A variable-speed, PLC-driven centrifugal transfer pump will convey water from the holding tank through two bag filters plumbed in parallel and two liquid-phase granular activated carbon (LGAC) vessels connected in series. The bag filters have been included to remove particulates, and the LGAC vessels to remove dissolved-phase hydrocarbons from the water. Both the bag filters and LGAC units are existing equipment that will be moved from the current treatment facility and refurbished prior to use at the new treatment plant. Treated groundwater will be discharged into the sanitary sewer system.

An ozone system will pump ozone into the groundwater equalization tank influent to control anticipated biogrowth. Although ozone effectively oxidizes biogrowth, it also consumes LGAC. Accordingly, ozone flows to the holding tank will be calibrated to control biogrowth in downstream equipment while maintaining a zero ozone residual at the LGAC vessel influent to prevent LGAC deactivation.

The control building will house a motor control center, control panel, lighting panel, phone box, and autodialer. The control panel will contain the PLC and serve as the operator interface. All controls will be routed through the PLC, and the PLC will be programmed with a project-specific routine to be updated as required by the Port. Controls at the treatment plant will include fluid level, flow, and pressure sensors. In addition, a sensor in the OWS will detect the presence of product in the water effluent. The PLC will use inputs from the field sensors to continuously optimize pump operations and shut down individual pumps or the entire system under predetermined alarm

conditions. The autodialer will receive alarm signals from the PLC and call designated Port pager and telephone numbers.

A Spill Prevention Countermeasure and Control Plan will be completed for the treatment plant. In addition, the Port will obtain any required air permits for the product storage tanks. The Port has a sewer discharge permit for the existing system that will be amended for the new facility.

SIMILAR SITE EXPERIENCE

URS/D&M has completed the design of trench recovery systems at similar sites. For example, from 1989 to 1991, URS/D&M supported Chevron U.S.A. Inc. in the design of a groundwater protection system (GPS) at their Richmond Refinery. The GPS includes seven sites. Similar to the TOFC site, the GPS is underlain by Bay Mud, has groundwater table gradients towards the San Francisco Bay, and includes subsurface fill soils with considerable fines content. Site gradient values, fill thicknesses, and depths to groundwater are within ranges found at the TOFC site. While the primary purpose of the GPS was to intercept groundwater, the GPS performance criteria included capture of free product. URS/D&M completed a lengthy design analysis comparing a trench design consisting of graded gravel and a drain pipe wrapped in filter fabric versus a trench comprised of uniform drain rock wrapped in filter fabric. In the end, URS/D&M recommended the latter. Both designs included collection sumps. Construction involved installation of various lengths of trench with intermittent barrier walls over 25,000 feet. To date, the trench recovery system has performed as designed for nearly 10 years.

■ ■ ■

If you have any further questions regarding the TOFC system please call me at (415) 243-3777.

Sincerely,

URS/DAMES & MOORE

AJ Frankel

Avram J. Frankel, P.E.
Project Manager

Attachment: ACEHS Letter of August 16, 2000

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

August 16, 2000

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. John Prall
Port of Oakland
PO Box 2064
Oakland, Ca 94604
STID# 4020
STID# 2040

RE: Trailer-On-Flat-Car (TOFC), 1717 Middle Harbor Road, Oakland, CA 94607
Union Pacific Motor Freight (UPMF), 1750 Ferro Street, Oakland, CA 94607

Dear Mr. Prall:

I have reviewed your report TOFC & UPMF Sites, Former Union Pacific Intermodal Railyard, Oakland, CA dated June 26, 2000. In this report, a proposal was made to change your product recovery system to a collection system with a series of three parallel gravel-filled trenches with a series of sumps each equipped with a submersible pump and a product skimmer. Please have your consultant, URS Dames and Moore, Inc. submit a detail description of this proposed system. In addition, please identify any sites with a similar subsurface that used this system.

The proposal to destroy the existing TOFC and UPMF monitoring well networks and replace them at a later date is acceptable with the condition that a minimum number of wells are kept on each site at all times to monitor the groundwater during and after the construction phase. We can met and determine which wells can be destroyed, and in what sequence.

If you have any questions, please contact me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Avram Frankel, URS Corp., 100 California Street, Suite 500,
San Francisco, CA 94111
Tom Peacock, Alameda County Environmental Health
Files

PORT OF OAKLAND

July 26, 2000

Mr. Larry Seto
Sr. Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Protection (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

SUBJECT: TOFC Site
Former Union Pacific Intermodal Railyard
1717 Middle Harbor Road,
Oakland, California

Dear Mr. Seto:

The Port of Oakland (Port) recently sent to you a plan set for the reconstruction of the Trailer-On-Flat-Car (TOFC) remediation system. Besides upgrading the above ground components, the in-ground recovery portion of the system will also be upgraded. The Port intends to switch from the current usage of extraction wells to a trench design. Please find enclosed, information supplemental to the plan set the engineer's trench design calculations.

If you have any questions, please give me a call at 627-1373.

Sincerely,

John Prall, R.G.
Associate Environmental Scientist

Enclosure

Cc: Roberta Shoenholz, Port of Oakland, EH&SC Department
Jeff Jones, Port of Oakland, EH&SC Department
Delphine Prevost, Port of Oakland, Environmental Planning Department

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

URS

July 17, 2000
Job No. 02801-029-043

Port of Oakland
530 Water Street
Oakland, CA 94607

Attention: Mr. John Prall

Dear Mr. Prall:

Flow Rate Calculations,
Extraction Trench and Sump Sections
TOFC Product Recovery and
Groundwater Treatment System
Port of Oakland
Oakland, California

As requested, this letter transmits our engineering calculations for the trench portion of the TOFC product recovery system recently designed by URS/Dames & Moore. We have also included a drawing showing extraction trench and sump sections and details.

If you have any questions, please give me a call at (415) 243-3834.

Very truly yours,

URS/DAMES & MOORE

Raymond H. Rice
Principal Engineering Geologist

Attachments:

Development of Design Trench Flow Rate, Drawdown, and System Influent Contaminant Concentrations (4 pages)

Extraction Trench and Sump Sections

URS Corporation
221 Main Street, Suite 600
San Francisco, CA 94105-1917
Tel: 415.896.5858
Fax: 415.882.9261

K:\WP\QR\00RHR040.DOC

Development of Design Trench Flow Rate, Drawdown, and System Influent Contaminant Concentrations
Port of Oakland TOFC Area

Approach

1. Analyze pump test and hydrogeologic data to determine range of Transmissivity (T), gradient (i), and aquifer thickness (b) values.
2. Calculate range of aquifer permeability (K) values from K=T/b
3. Use aquifer area (A) intercepted by trench to solve Darcy's equation for groundwater flow rate (Q), where Q = KiA
4. Calculate value for free product flow rate (Q_p) based on development of free product effective permeability value (K_i), where
   K_i = intrinsic permeability (k) x fluidity of free product (f_i). k is derived from K/f, where f_i = water density (p) * g / water viscosity (u).
   K_i is then solved using k and f_i, where f_i = free product density (p_i) * g / free product viscosity (u_i).
5. Q and Q_p, representing the range of flow rates expected for the two-fluid water/diesel system, are then used to calculate the expected range of drawdown values in the trench using an equation for linear flow in a water table aquifer where,
   Q/trench length (x) = {K * (initial aquifer head $(H)^2$ - final trench head $(h)^2$)} / distance to line source (L). Assuming a value for H allows calculation of h and H-h = drawdown (from Foundation Eng. Handbook, Fang, 1991).
6. Radial end effects have not been considered in this analysis since it is assumed that the radial flow contribution will be a small part of the overall flow in a 500 foot trench.

Discussion of Parameter Development

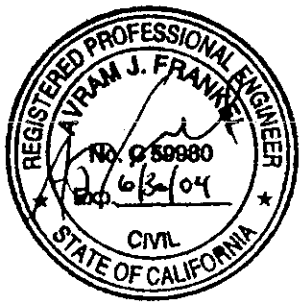
Transmissivity

Transmissivity values were taken from the USPCI pump test on ORW-2 in 1992. This test used the drawdown recovery method to solve the Theis and Cooper-Jacob equations for transmissivity in monitoring wells OMW-3, 7, and 9. Both the Theis and Cooper-Jacob values are considered here.

Gradient

The time-drawdown curves for the pump tests were analyzed to find the drawdown at the time the pump was turned off (max drawdown). This is a conservative estimate of sustained drawdown during pumping. The distance from pumping wells was given in the pump test report as 100, 43.5 and 60 ft for OMW-3,7, and 9, respectively. A comparative gradient was calculated from drawdown/distance. A separate gradient value was calculated from the CDM May 1999 water level map as 0.006 ft/ft. Results as follows:

Well	Drawdown	Distance	i (ft/ft)
OMW-3	0.5	100	0.005
OMW-7	0.9	43.5	0.021
OMW-9	0.7	60	0.012



Aquifer Thickness
The wells onsite intercept approximately 5-8 feet of saturated aquifer material seasonally. A value of 8 ft. was used in these calculations. This value is conservative as Q will decline in this analysis as b increases.

Hydraulic Permeability
The hydraulic permeability values were developed for the aquifer materials surrounding each monitoring well in the pump test as described in 2 above.

Aquifer Area
500 feet of trench (1x300 foot and 2x100 foot trench) was considered with a depth of 9 feet. Both trench faces were considered for an area of 9000 ft^2.

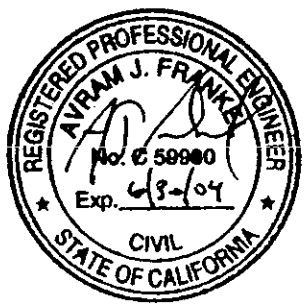
Physical Properties for Water and Diesel
Density and viscosity values of field samples were determined by a certified analytical laboratory. These samples were collected from two on-site wells OP-3 and ORW-2.

Initial Aquifer Head
An analysis was completed of groundwater elevations in non-product containing wells at the site. The depth to groundwater varied from 1 to 6 feet bgs across the site and seasonally. According to previous site studies, Young Bay Mud, which comprises the bottom of the uppermost aquifer is encountered at 7 to 11 feet bgs. The trench bottom has been designed at 9 feet bgs. Assuming a maximum depth to groundwater of 1 foot bgs we have a head of 8 feet at the bottom of the trench. For design purposes assume H = 8 feet.

Distance to Line Source
This is the horizontal distance from the centerline of the trench to the point in the aquifer were no drawdown due to the trench exists. For the purposes of calculating drawdown this parameter is assumed to equal the distance of a line perpendicular from the centerline of the trench to the edge of the product plume (where sheen is encountered). Based on a review of available data this distance ranges from 150 to 200 ft. For the purposes of design 175 feet was used.

Groundwater Flow Calculations and Analysis

Run	Description	T (ft2/day)	b (ft)	K (ft/day)	i (ft/ft)	A (ft2)	Q (ft^3/day)	Q (gpm)
1	OMW-3 Cooper-Jacob	105	8	13.1	0.005	9000	590.625	3.07
2	OMW-3 Theis	73	8	9.1	0.005	9000	410.625	2.13
3	OMW-7 Cooper-Jacob	187	8	23.4	0.021	9000	4418	22.9



Run	Description	T (ft2/day)	b (ft)	K (ft/day)	i (ft/ft)	A (ft2)	Q (ft^3/day)	Q (gpm)
4	OMW-7 Theis	225	8	28.1	0.021	9000	5316	27.6
5	OMW-9 Cooper-Jacob	173	8	21.6	0.012	9000	2336	12.1
6	OMW-9 Theis	16	8	2	0.012	9000	216.0	1.12
7	See Below	225	8	28.1	0.013	9000	3206	**16.7**

Notes for Run 7

1. Highest calculated K (from run 4) is in the range of reference K for fine to medium sands (fine sands = 27.4 ft/day, medium sands = 68.5 ft/day, Physical and Chemical Hydrogeology, Domenico and Schwarz,1990) so it can be considered a max value for site.
2. 4x spread in calculated i from pump test data so avg. of values appropriate (0.013). Avg. is greater than value calculated from recent data so it is conservative for design purposes.

Average of Runs 1 to 6	11.5 gpm
Average of All Runs	12.2 gpm
Run 7	**16.7** gpm

Run 7 is a conservative value. Considering contingencies use 20 gpm for design.

Design Total Trench Groundwater Flow Rate: 20 gpm

Note: existing treatment system designed for 50 gpm (21 gpm plus expansion)

Free Product Flow Calculations and Analysis

To calculate k for water, calculate f_i and use K = 28.1 ft/day from above for water. Then calculate f for diesel and use k calculated for water to obtain K for diesel Dynamic viscosity for diesel (u_i) was converted to kinematic viscosity of diesel (v_i), determined by lab by the equation $u_i = v_i p_i$, where v_i = kinematic viscosity of diesel and p_i is density of diesel.

Average v_i from lab results = 6.295 cSt = 6.295×10^{-6} m^2/s

Average p_i from lab results = 867 kg/m^3

Constituent	p (kg/m^3)	g (m/s^2)	u (kg/m-s)	f (1/m-s)	f (1/ft-day)	K ft/day	k (ft^2)
water	998	9.81	1.00E-03	9.79E+06	2.58E+11	28.1	1.09E-10
Constituent	p_i (kg/m^3)	g (m/s^2)	u_i (kg/m-s)	f_i (1/m-s)	f_i (1/ft-day)	K_i ft/day	k_i (ft^2)
diesel	867	9.81	5.46E-03	1.56E+06	4.11E+10	**4.48**	1.09E-10

Q for diesel is then found as for water above using K for diesel and other parameters from Run 7 above. This assumes the gradient values developed above are applicable to an analysis of diesel flow rates.

K_t (ft/day)	i (ft/ft)	A (ft^2)	Q_p (ft^3/day)	Q_p (gpm)
4.48	0.013	9000	523.8	**2.7**

Design Total Trench Free Product Flow Rate: **3 gpm**

Conclusion

The trench will intercept a two-fluid system. Based on the above calculations the total flow rate into the trench will vary from 2 to 20 gpm. The total flow rate will vary according to what relative percentages of free product and water are intercepted by the trench.

Design Total Trench Flow Rate Range: **3 to 20 gpm**

Trench Drawdown

From Darcy Formula in 5. above $h = \text{sqrt}\{H^2 - [(Q * L * 192.5) / (x * K)]\}$

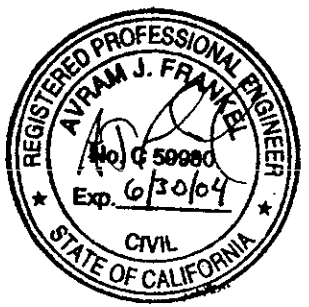
Run	Q (gpm)	K (ft/day)	x (feet)	L (feet)	H (feet)	h (feet)	H-h (feet)
Water	20	28.1	500	175	8	4.0	4.0
Diesel	3	4.48	500	175	8	4.3	3.7

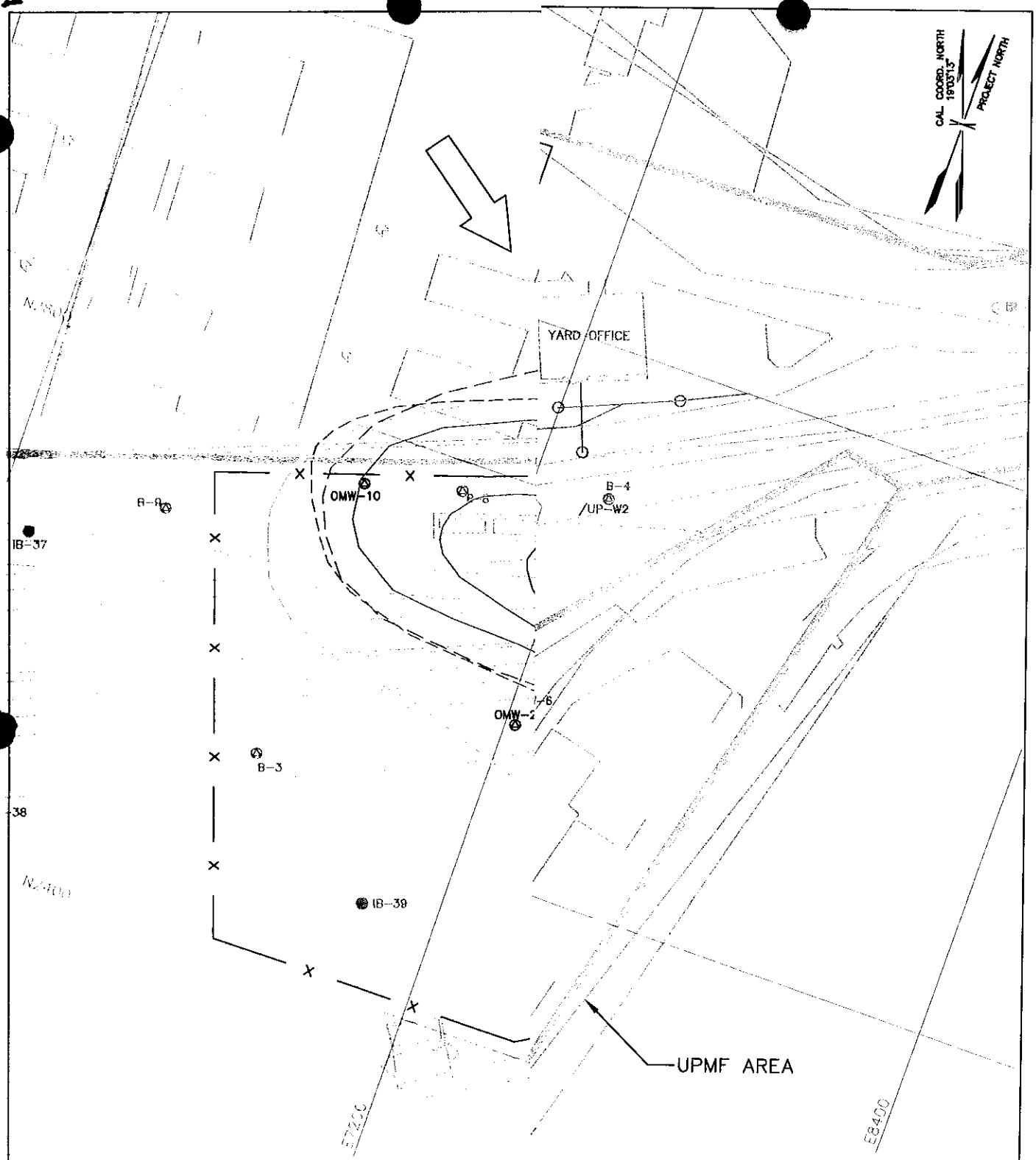
Design Trench Drawdown Range: **4 feet**

Design System Influent Concentrations

Data was reviewed from the CDM 1st Semi-Annual 1999 Groundwater Monitoring Report for 1999. Existing treatment system influent data from 1998 and 1999 were averaged. If the resulting value was ND, than 1 ug/l was used. Results as follows in ug/l:

Constituent	Design Influent Conc.	Existing Permit Limit
Benzene	2	5
Toluene	1	5
Ethyl Benzene	1	5
Xylenes	1	5
TPH-D	16	NA





LEGEND

●	IB-7	ICF KAISER SOIL SAMPLE LOCATION
●	OM-2	ARCADIS/GERAGHTY & MILLER SAMPLE
⊘	B-9	TOFC BORINGS
⊘	OMW-10, OP-3	TOFC MONITORING WELLS
⊘	ORW-1, OP-4	TOFC RECOVERY WELLS
▽	OKUS-W7	UPMF MONITORING WELLS

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

JOB# 02801-029

REFERENCES:

CAUTION:

NO.	REVISIONS	DATE	APPD

TOFC SITE

PORT'S REMEDIAL ACTION PLAN/ PRELIMINARY DESIGN REPORT

COMPOSITE PRODUCT THICKNESS CONTOUR MAP AND PROPOSED TRENCH LOCATION

DATE: 01-21-00
SCALE: AS NOTED
SHEET: OF SHEETS

FIG. 7

PORT OF OAKLAND

June 26, 2000

Mr. Larry Seto
Sr. Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Protection (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

SUBJECT: TOFC & UPMF Sites
Former Union Pacific Intermodal Railyard
Oakland, California

Dear Mr. Seto:

The Port of Oakland (Port) herein would like to take the opportunity with the submittal of this groundwater monitoring report to provide a briefing regarding pending redevelopment projects that will impinge upon the Trailer-On-Flat-Car (TOFC), 1717 Middle Harbor Road, STID #4020, and the Union Pacific Motor Freight (UPMF), 1750 Ferro Street, STID # 2040, Sites. However, before beginning the briefing, we would like to call your attention to the latest enclosed report for the TOFC site:

> March 20, 2000, *Second Semi-Annual 1999 Groundwater monitoring Report, Union Pacific Railroad, Trailer-On-Flat-Car Site, 1717 Middle Harbor Road, Oakland, California*, Camp Dresser & McKee/FEJ Joint Association.

The Port through Camp Dresser and McKee (CDM) has completed the first quarter 2000 groundwater monitoring event and intends to complete the second event the first week of next month. Following the completion of the second quarter event, the data will be summarized into a report and submitted to the County at the end of July.

Port of Oakland Redevelopment Projects

The Port has started the construction of two new marine terminals, Berths 55/56 and 57/58/59 that are located in an area formerly occupied by the railyard known as the Union Pacific Intermodal Railyard (UPIR) and the military base known as the Fleet Industrial Supply Center Oakland (FISCO). The TOFC and UPMF sites are located in the extreme eastern end of the UPIR. Construction of the Berths 55/56 wharf and

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container yard project has already begun. The next major construction phase will be the Berths 57/58 (and 59) terminal that will begin in July-August of this year. The Berths 57/58/59 project footprint will include both the TOFC and the UPMF sites, which after construction has been completed, the sites will lie within a container yard.

Construction Project Description. The overall construction project will require partial cutback of the railyard shoreline adjacent to the Inner Harbor; the construction of approximately 6,600 lineal feet of a concrete deck ship wharf; and the construction of two, 150 acre container storage yards. The cutback ranges from a maximum of 300 feet at the western end of the former railyard to approximately 100 feet at the eastern end (vicinity of the UPMF site). After the shoreline has been cut back, the new bank will have a rock armored slope. The overall average land surface elevation of the remaining portion of the railyard, including the area now occupied by the two sites, and a major portion of FISCO will be raised and completed as shipping container storage yards. The change in land surface elevation will be accomplished by reuse of pre-existing artificial fill soils excavated from the railroad bank cutback.

Project Environmental Permits. The Port will perform the land conversion under permits that have been obtained from the California Regional Water Quality Control Board, San Francisco Bay Region (CRWQCB), the Bay Conservation and Development Commission (BCDC), the US Army Corps of Engineers (USACE), and the California State Lands Commission (SLC). The CRWQCB permit, Waste Discharge Requirement, Order Number 99-055 has been issued (a copy of the permit is attached). At the Regional Board, the Port has been working with Mr. Greg Bartow (510-622-2315). Mr. Bartow has been the point of contact for the relocation of the railyard fill soils as upland fill and overall groundwater concerns.

Trailer –On-Flat-Car Site

The TOFC site problem area lies under a former Union Pacific Railroad, locomotive fueling facility. The railroad has previously characterized a diesel fuel release under the facility and subsequently installed a total fluids recovery system and a monitoring well network. The release has been estimated to be 200,000 to 300,000 gallons of free-phase diesel fuel that lies upon the shallow groundwater table, and a dissolved phase groundwater plume. Union Pacific operated the recovery system and performed quarterly monitoring of the wells until the Port assumed day-to-day responsibilities in December 1998. The recovery system has operated for approximately 9 years and has recovered approximately 11,000 gallons of diesel fuel and has treated approximately 7,000,000 gallons of groundwater.

On or about May 18th, operation of the system was abruptly ended when unbeknownst to the Port; the railroad removed the electrical service that powered the system air compressor. The termination of service, as it turned out, was part of the pullout of the remaining railyard operations that had started on May 1st.

Union Pacific Motor Freight Site

The Motor Freight Site contains a dissolved product plume of petroleum hydrocarbons that originated from a series of five former underground storage tanks. The USTs were located adjacent to the yard maintenance building and were used to store diesel and gasoline fuels and new and used motor oil. Union Pacific Railroad removed the USTs, installed a single well recovery system in the vicinity of the tanks, and has installed a groundwater monitoring well network. The single well recovery system was shut down by the Railroad in 1998 following permission from Alameda County simply due to the lack of any free product to collect. Groundwater monitoring and sampling has continued on a quarterly basis.

Port Proposal – TOFC Site Product Recovery System

The Port proposes to replace the existing TOFC treatment system. The system has served the railroad by addressing free and dissolved phase diesel product recovery in a very busy railyard. However, the recovery data indicate that the system has not been very efficient in recovering free-phase product. A brief calculation indicated that approximate 5% of the free phase fuel have been recovered in the last 9 years. The Port intends to replace and upgrade the actual treatment facility and to significantly upgrade the way fluids are collected in the subsurface.

The Port has retained URS Dames and Moore, Inc., San Francisco to design the above and below ground system components and the design process is now well underway (see enclosed drawings). Dames and Moore has proposed free and dissolved phase recovery at the TOFC Site, not unlike the existing recovery system. However, the difference between the old and new systems will be an emphasis on rapid free-phase recovery. The collection system will be through a series of three parallel gravel-filled trenches (see Plates G-2 and C-1). The trenches will be located in the thickest portion of free product and situated at right angles to the known groundwater flow direction. Fluid recovery from the trenches will be by a series of sumps each equipped with a submersible pump and a product skimmer. The submersible pump will be used to locally depress the groundwater surface, which will increase the effective radius of influence of floating, free product capture. Floating product skimmers will collect the free-phase fuel. Groundwater pumping (and treatment) will also address control of the dissolved phase plume and prevent its migration to the Bay (see Plate C-3, Detail A).

The new treatment system will be similar to the older system. The difference will be a separate circuit connected to the product skimmers for free-phase fuel recovery and independent temporary product storage (see Plate P-1. Plate P-1 also depicts the groundwater system process flow diagram.). Groundwater will be treated as before but with some enhancements. The enhancements will include variable speed pumps, a high efficiency oil-water separator, a different approach to control biological growth, and a new programmable system controller. The treatment system will be situated within a small fenced compound located within one of the new container yards (see Plate C-4). Recovered product will be recycled (as it is at present). Groundwater will be treated by

passing it through activated carbon canisters then discharging it under permit to an EBMUD sanitary sewer (as it is at present).

The Port intends to salvage portions of the old treatment system and to scrap the rest of it. As part of the demolition process, the contractor will be charged with abandonment of the extraction wells, subsurface utility lines, and a large diameter concrete-lined sump (part of the railroad-built former fuel recovery system).

Port Proposal – TOFC and UPMF Monitoring Well Networks

In order to accommodate the overall land conversion from a railyard to a container terminal, the Port would like to destroy the existing TOFC and UPMF monitoring well networks. Since all of the wells are at grade completions, it will be difficult to retain these wells through out the demolition and construction effort. Simply because the wells can be easily covered and thereby lost and/or damaged. Because of the phasing of the impending construction, the Port proposes to abandon the monitoring wells on a case by case basis. Further, at present, we would like to establish the abandonment criteria and the notification and reporting procedures.

After construction has been completed, the Port would replace the network with a comparable number of new monitoring wells at each site (ten wells per site). The Port proposes to delay well replacement until the container terminals have been paved and stripped. So that the final well locations can be situated in vehicle isle ways and the well covers can be matched to the final pavement grade. Further, the well locations will be predetermined according to a plan(s) that would be submitted for agency review and comment.

The immediate concern is well OMW-6. The well is located along the shoreline adjacent to a storm drain out fall. The well construction record indicated that the well is 15 feet in depth. Instead of abandoning the well, the Port proposes to dig it out during the overall shoreline excavation process. The excavation in the vicinity of the well will eventually be 10's of feet in depth.

Construction Schedule

The Port construction work in the area occupied by the TOFC, UPMF and general area will be phased. The construction schedule consists of the following:

Removal of rail and cross-ties (Impact on TOFC Site)
Start: August 2000
Finish: September 2000

Berth 57/58 & 59 Excavation and Wharf Construction (Impact on UPMF Site)
Start: July 2000
Finish: January 2002

Berth 57/58 & 59 Container Yard (Impact on TOFC and UPMF Sites)
Start: March 2001
Finish: June 2002

Construction of Replacement Treatment System (TOFC Site)
Start: August 2000
Finish: November 2000

Summary

The Port has outlined the construction projects that will impact the TOFC and UPMF Areas. As a result of the construction, both areas will eventually be incorporated into a container yard that will be part of the new marine terminals. The Port proposes herein to remove the existing TOFC treatment system and replace it with a new and significantly enhanced system. The system is presently down due to a lack of power. We would like to restart it this November upon completion of the new installation. We have enclosed the proposed treatment system plan set for your review and comment.

The Port also proposed to abandon and replace the existing monitoring well network. Because of the phased nature of the construction, the wells would be abandoned as the need arises on a case by case basis. However, we would like to establish now the reporting arrangements and the abandonment criteria. The Port proposes that the well networks would be replaced after construction has been completed.

We would appreciate your feedback on the proposed treatment system and monitoring well abandonment and replacement within the next two weeks. Should you have any questions, please contact me at 627-1373.

Sincerely,

John Prall
Associate Environmental Scientist

Enclosure

Cc: Roberta Shoenholz, Port of Oakland, EH&SC Department
Jeff Jones, Port of Oakland, EH&SC Department
Delphine Prevost, Port of Oakland, Environmental Planning Department

PORT OF OAKLAND

October 22, 1999

Mr. Raymond A. Maxwell
Wastewater Control Representative
Source Division
East Bay Municipal Utility District (EBMUD)
P.O. Box 24055
Oakland, California 94623-1055

Subject: **Application for Wastewater Discharge Permit**
Former Union Pacific Intermodal Railyard,
Oakland, California

Dear Mr. Maxwell:

The Port of Oakland is pleased to submit the enclosed application for a wastewater discharge permit for a groundwater treatment system (the Site) located within the former Union Pacific Railroad (UPRR) facility at 1717 Middle Harbor Road, Oakland, California. The requested discharge permit is for the continued discharge of treated groundwater at the Site to the EBMUD wastewater sewer system with the Port as the permitee in lieu of the railroad. Treated water is currently being discharged to the sewer system in accordance with EBMUD discharge permit number 502-51231, established for Union Pacific.

As part of the permit application, this letter presents a written request to waive EBMUD Ordinance No. 311, groundwater characterization data, description of the pretreatment system, feasibility of other alternatives for the treated water, and the existing monitoring program. It is my understanding that the new discharge permit, if granted, will detail the terms and conditions of the permit and associated fees for monitoring and disposal of the treated water. The permit application and associated figures are attached to this letter.

EBMUD Ordinance No. 311

EBMUD Ordinance No. 311 prohibits the discharge of storm water, drainage water, and groundwater to the wastewater sewer system. However, EBMUD will consider waiving the prohibition and may issue a permit to discharge groundwater

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at the Site if no additional pollutants are introduced to the system and other methods of disposal are not available. The Port of Oakland request that this Ordinance be waived and a discharge permit be granted for the treated groundwater at the Site. Conditions required for EBMUD's approval of a new permit are addressed in the subsequent sections.

Groundwater Characterization Data

Previous environmental investigations at the Site have indicated the presence of subsurface free product petroleum hydrocarbons as diesel (TPH-D) and low dissolved concentrations of volatile aromatics including benzene, toluene, ethylbenzene, and total xylenes (BTEX). Concentration trends of these constituents based upon previous groundwater and treatment system monitoring activities are summarized in Camp Dresser & McKee Inc./F.E. Jordan Joint Association's (CDM/FEJ's) *First Semi-Annual 1999 Groundwater Monitoring Report,* dated August 2, 1999 previously submitted to EBMUD by the Port on September 15, 1999.

Pre-Treatment System

The treatment system consists of five recovery wells (identified as ORW-1, ORW-2, ORW-3, OMW-9, and OP-4), a free product/water separator, a recovered oil storage tank, an equalization tank and a granular activated carbon (GAC) treatment system (see Figures 1 through 3 of the permit application). Recovery of free product and groundwater is accomplished by depressing the groundwater table with total-fluid pumps thus creating a cone of depression surrounding the recovery wells.

A total of approximately 3 gallons per minute (gpm) of free product/water mixture are recovered from the wells. The mixture is pumped to a large free product/water separator where the floating free product is skimmed off and transferred to an 800-gallon capacity storage tank. The dissolved phase petroleum hydrocarbons/water is transferred to a 1,000-gallon equalization tank. When the fluid level in the equalization tank reaches a high level (approximately 800 gallons), the water is pumped through two bag filters to remove any suspended solids then is further treated by sequential passage through two 2,000-pound GAC canisters. The treated water discharged from the canisters is then released into a 6-inch transite community sewer (see Figure 2).

According to the preliminary design report, the design capacity for the free product/water separator and the granular activated carbon canisters is

approximately 50 gallons per minute. Biological treatment consists of dosing Sodium Hypochlorite (12.5%) into the free product/water separator to control iron bacteria growth.

Feasibility of Other Alternatives for the Treated Water

Reclamation and other disposal options were investigated for the treated water at the Site. Reuse of the treated water for irrigation, landscaping, and industrial uses were deemed inappropriate due to the location of the Site. The area surrounding the Site is used for light to heavy commerce (i.e., rail yards and marine terminals) and is mostly paved with asphalt. In addition, no present or future industrial water usages in the area were identified. Based on the location of the Site, it is not feasible to reclaim the treated water or dispose of it by other means besides the wastewater sewer system.

Existing Monitoring Program

In accordance with EBMUD discharge permit number 502-51231, the Port presently monitors the treated water on a monthly basis prior to discharge into the sewer system. The constituents of concern include TPH-D and BTEX. According to the existing permit, the wastewater discharge limitations for BTEX is 0.005 milligram/liter (mg/l) for each constituents. According to the First Semi-Annual 1999 Groundwater Monitoring Report, BTEX concentrations have always been below laboratory detection limits (0.005 mg/l) for the effluent samples (collected prior to discharge to the sewer system). There is no stated wastewater discharge limitation for TPH-D.

The present monitoring program is presented below:

Sample Location	Sampling Frequency	Analytes	EPA Method	Sampling Method
Midpoint	Monthly	BTEX	8020	3 - 40 ml vials with HCl 4 degree Celsius
Influent Effluent	Quarterly January, April, July, October	BTEX TPH-D	8020 8015M	3 - 40 ml vials with HCl 1 - 1 liter amber glass 4 degree Celsius

In closing, please review the enclosed application and grant a wastewater discharge permit to the Port of Oakland for the Site. It is our understanding that the treatment system and request to discharge to treated water to the wastewater

sewer system is consistent with the Regional Water Quality Control Board, San Francisco Bay Region policies.

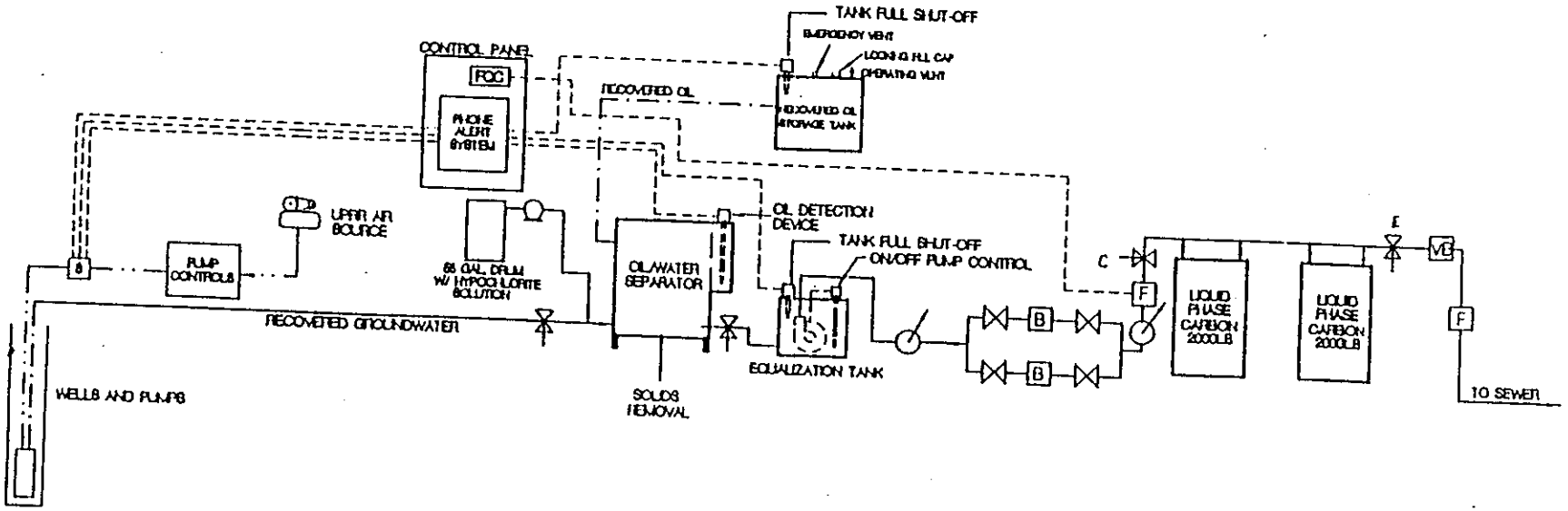
Please call Mr. John Prall at (510) 272-1373 if you have any questions or comments regarding the information and permit application presented in this letter.

Sincerely,

Mark O'Brien
Manager, Environmental Health
And Safety Compliance Department

Enclosure

Cc: Neil Warner & John Prall, Port of Oakland
Larry Seto, Alameda County
Michael Gray & Hoa Voscott, CDM/FEJ (Walnut Creek)



LEGEND

- METERING PUMP
- CENTRIFUGAL PUMP
- VACUUM BREAK
- TOTALIZING FLOW METER
- PRESSURE GAUGE
- TIME METER
- SAMPLING PORT
- VALVE
- BAG FILTER
- EXISTING SOLENOID VALVE
- FLOW QUANTITY INDICATOR
- ELECTRIC CONTROL LINE
- RECOVERED GROUNDWATER
- PRESSURIZED AIR LINE
- RECOVERED OIL LINE

Figure 1
Groundwater Recovery and Treatment System
Process Flow Diagram

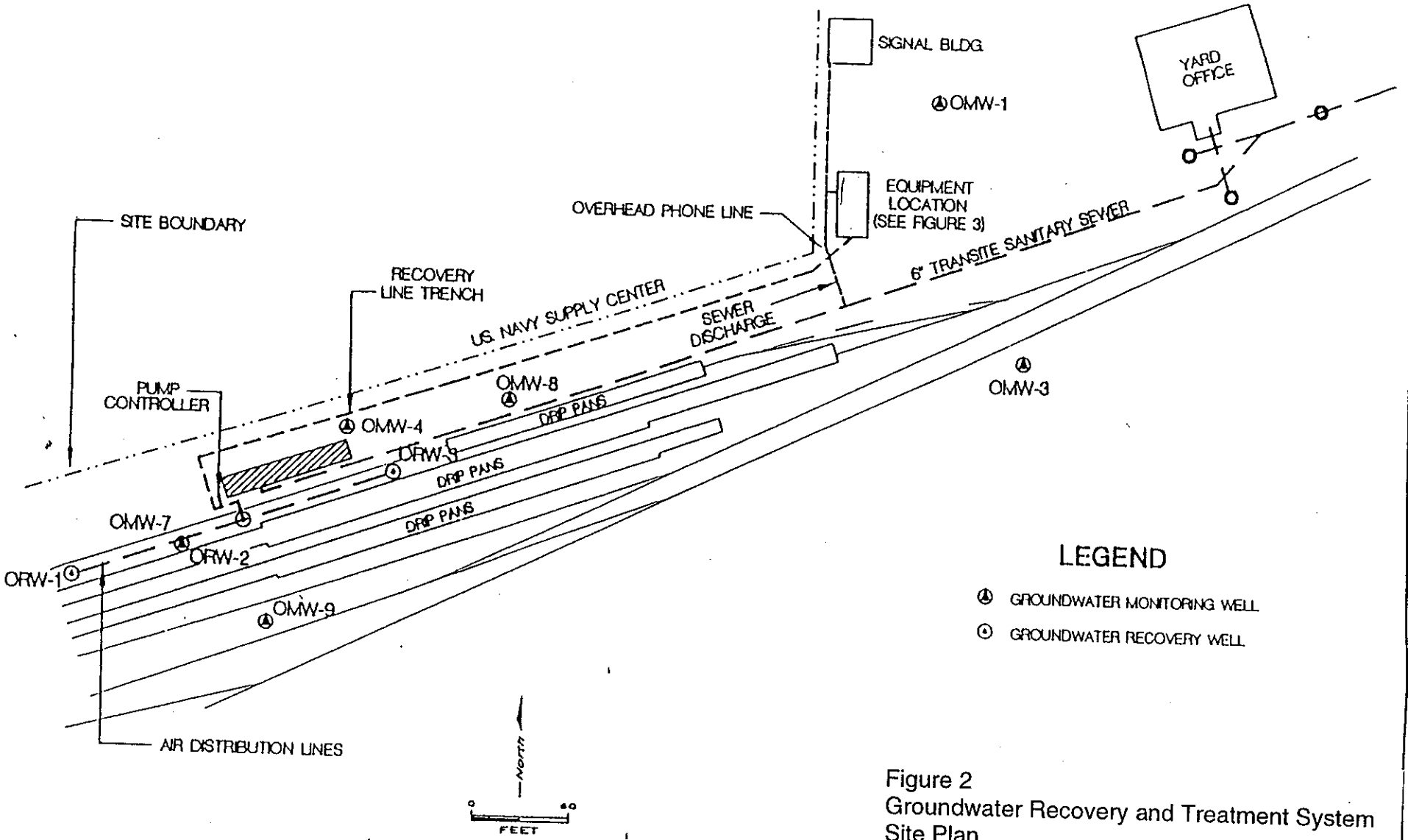
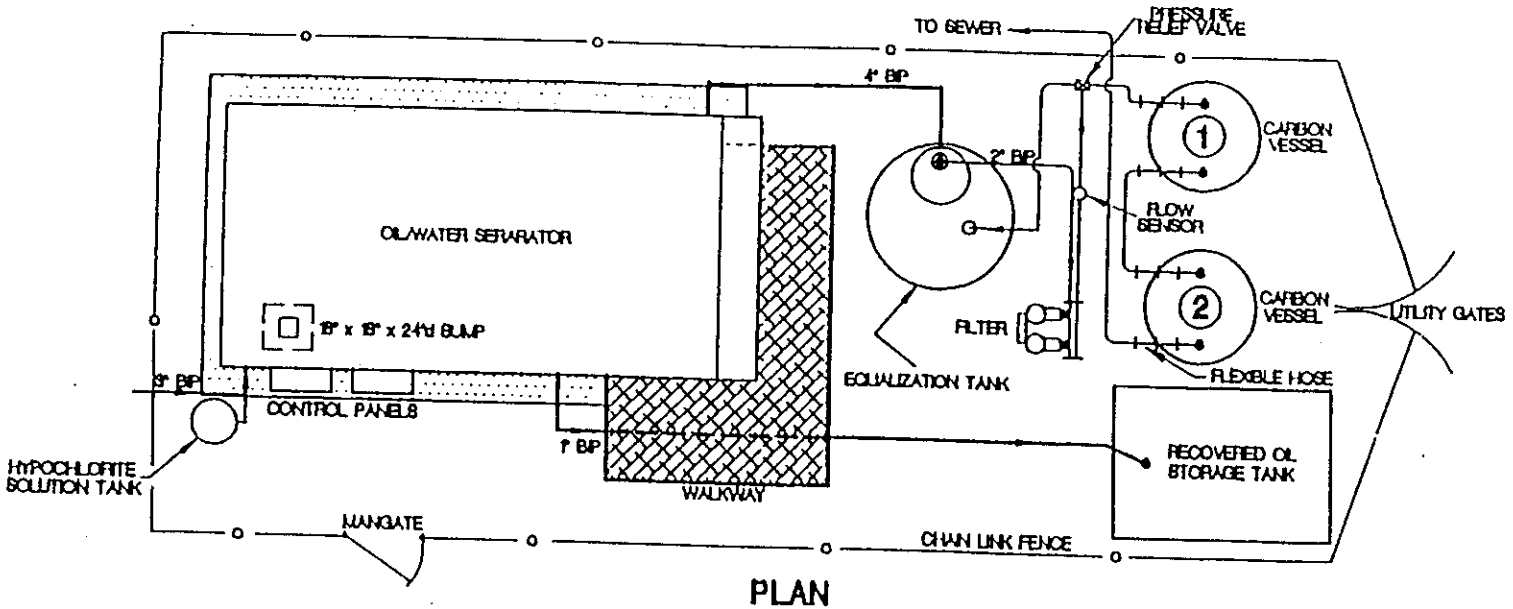


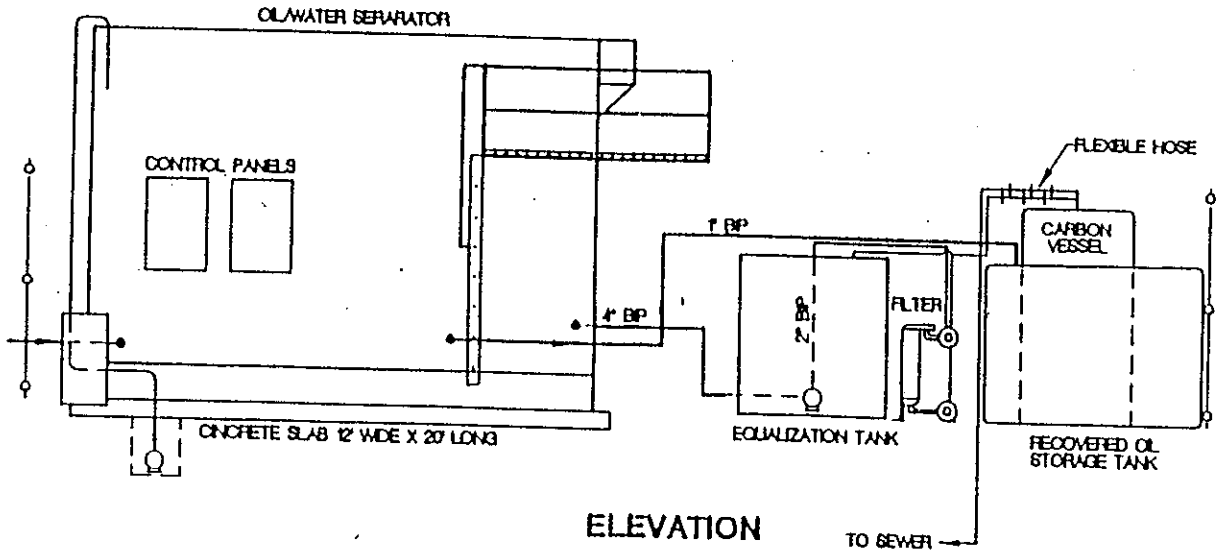
Figure 2
Groundwater Recovery and Treatment System
Site Plan



PLAN

K IRON PIPE

0 5
FEET



ELEVATION

Figure 3
Groundwater Recovery and Treatment System
Treatment System Layout

EBMUD

WASTEWATER DISCHARGE PERMIT
Terms and Conditions
APPLICANT INFORMATION

PERMIT NUMBER _____

APPLICANT BUSINESS NAME
Port of Oakland

PERSON TO BE CONTACTED IN EVENT OF EMERGENCY

Neil Werner
Name Port Environmental Compliance Supervisor

(510) 272-1176 (510) 678-5613
Day Phone Night Phone

(510) 451-5916
Fax Number

ADDRESS OF PREMISES DISCHARGING WASTEWATER

1717 Middle Harbor Road
Street Address

Oakland 94607
City Zip Code

PERSON TO BE CONTACTED ABOUT THIS APPLICATION

John Prall
Name

Associate Environmental Scientist
Title

(510) 272-1373 (510) 451-5916
Day Phone Fax Number

FACILITY MAILING ADDRESS
Port of Oakland, EH&SC Department
530 Water Street
Street Address

Oakland 94607
City Zip Code

jprall@portoakland.com
Electronic Mail Address (E-Mail)

CHIEF EXECUTIVE OFFICER/DULY AUTHORIZED REPRESENTATIVE

Mark O'Brien
Name (printed)

Manager, EH&SC
Title

530 Water Street
Street Address

Oakland 94607
City Zip Code

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____
Signature (see certification requirements on reverse)

10/22/99
Date

Revised 6/26/97

EBMUD

WASTEWATER DISCHARGE PERMIT
Terms and Conditions
PROCESS DESCRIPTION

FACILITY NAME Former Union Pacific Intermodal Railyard

PURPOSE - The **Process Description** is intended to provide a description of the primary business activities and the substances which may enter into the wastewater from the business activity.

Permit Number:

BUSINESS ACTIVITY: Railyard - Groundwater recovery and treatment system

Standard Industrial Classification: 6517 - Railroad Property

Business Classification Code: 76578 - Railroad Switch Stand

DESCRIPTION OF PRODUCT

TYPE OF PRODUCT OR BRAND NAME	QUANTITIES - INDICATE UNITS	
	Past Year 9/98 (Mo. Year) to 9/99 (Mo. Year)	Estimated This Year 9/99 (Mo. Year) to 9/00 (Mo. Year)
Treated groundwater	990,000 Gallons	1,000,000 Gallons

PROCESS DESCRIPTION

Process Description (List all wastewater generating operations)	Characteristics (List all substances that may be discharged to the sewer)	Process Number (From Schematic)
Free product/water separator and granular activated carbon adsorption	Treated water	1

PRETREATMENT FACILITIES

Pretreatment: Check the type of treatment, if any, given wastewater before it is discharged to the community sewer:

☐ None ☑ holding tank ☐ grease trap ☑ oil and water separator ☐ grinding ☐ sedimentation ☐ pH adjustment ☑ biological treatment ☐ screening ☐ chlorination ☑ other (describe) granular activated carbon

Description: Describe the loading rates, design capacity, physical size, etc. of each pretreatment facility checked above. Identify the side sewer to which treated wastewater is discharged.

See description for pretreatment facilities (in cover letter)

OTHER WASTES: List the type and volume of liquid waste and sludge removed from the premises by means other than the community sewer.

Facility EPA Generator I.D. Number CAL 000 177 845

Waste removed by Name, address, State Transporter I.D. No.	Type of Waste Example: Alkaline cleaners, Organic solvents	EPA Waste No.	State Waste No.	Quantity generated lbs. or gal. /month
Evergreen Oil Newark, CA CAD 982413282	Weathered diesel fuel		CA 221	50 gal/mo.
Westates Carbon Oakland, CA 94621 CAR 000634918	Spent carbon for regeneration	NA	NA	200 lbs/mo.

EBMUD

WASTEWATER DISCHARGE PERMIT
Terms and Conditions
WATER SOURCE AND USE

FACILITY NAME Former Union Pacific Intermodal Railyard

PURPOSE: This information will enable EBMUD to evaluate the volumes and source(s) of wastewater discharged to the community sewer.

Permit Number

Water Use and Disposition Estimate the average quantity of water received and wastewater discharged daily.
NOTE: Show on a separate sheet the METHOD AND CALCULATIONS used to determine the quantities shown on the table.

	Supply From			Discharged To		
	EBMUD	Other (1)		Community Sewer	Other (2)	
WATER USED FOR:	gal/day	gal/day	code	gal/day	gal/day	code
SANITARY				4,500		
PROCESSES						
BOILER						
COOLING						
WASHING						
IRRIGATION						
OTHER (3)		4,500	3			
TOTAL						

Notes:

(1) Enter the quantity and the appropriate code letter indicating the source:
a. well b. creek c. estuary d. bay e. stormwater f. reclaimed water

(2) Enter the quantity and the appropriate code letter indicating the discharge point:
a. well b. creek c. estuary d. bay e. stormdrain f. rail, truck, barge g. evaporation h. product

(3) Describe: Groundwater recovery wells

Total Number of Employees Total unmanned - periodic operations and maintenance

	Office		Production (number of employees per shift)					
			Day Shift		Swing shift		Night shift	
	No.	Hours	No.	Hours	No.	Hours	No.	Hours
Weekday	0	to	1	8 to 10	0	to	0	to
Saturday	0	to	0	to	0	to	0	to
Sunday	0	to	0	to	0	to	0	to

Source of Wastewater Discharged

Water Meter Number	Use Code (see reverse)	Percent (%) discharged to: Side Sewer									Total % Disch. to all side sewers
		No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	
No. 1	F	100%									100%

WASTEWATER DISCHARGE PERMIT
Terms and Conditions
STRENGTH SUMMARY

EBMUD

FACILITY NAME Former Union Pacific Intermodal Railyard

PURPOSE: This information will identify for EBMUD the variation in flow rate and the type of constituents and characteristics of the discharge for each side sewer.

Permit Number

Side Sewer No. 1 Side Sewer Location 6-inch diameter transite line south of the yard office

Wastewater Flow Rate

Peak Hourly (gallons/minute)	Maximum Daily (gallons/day)	Annual Daily Average (gallons/day)	Max. Monthly (CCF *)
20	5,000	4,500	210

* CCF = hundred cubic feet = 748 gallons

5,000 gal x 31 days / 748 ≈ 210

Discharge Frequency

Discharge Period

☐ Continuous ☐ 24 hrs./day

☐ 365 day/year; or

a. Time of day from 8 AM to 8 AM

b. Days of the week 7

Batch Discharge(s)

a. Day(s) of the week 7 b. Time(s) of the day periodic

c. Volume discharged 5,000 gal/day d. Rate of Discharge to 20 gal/min

Stormwater Area - Total area in square feet exposed to stormwater, rainwater, and groundwater and draining to this side sewer 400 sq. ft. Bermed area around separator

Wastewater Strength Estimates - Enter the average annual and maximum wastewater strength for this side sewer for each of the following elements of wastewater strength for the period covered by the Permit. These values will become the basis for sewage disposal charges and are the average and maximum limits on the elements of the discharger's wastewater strength.

* TO BE SUPPLIED BY EBMUD FOR GRANULAR ACTIVATED CARBONS

Elements of Wastewater Strength	Unit	Average	Maximum
Total Suspended Solids (TSS) *	mg/L		
Filtered Chemical Oxygen Demand (CODF)*	mg/L		

Provide the name and address of the laboratory and the State of California, Department of Health Services, Environmental Laboratory Accreditation Program Certificate Number of the laboratory performing self-monitoring analyses.

Name Curtis & Tompkins, Ltd. Telephone (510) 486-0900

Street 2323 Fifth Street City Berkeley State CA Zip 94710

Certificate Number 1454

PORT OF OAKLAND

October 8, 1999

Mr. Ray Maxwell
Senior Hazardous Materials Specialist
East Bay Municipal Utility District
375 11th Street
Oakland, California 94607

SUBJECT: EBMUD GROUNDWATER/DRAINAGE WATER PERMIT

Dear Mr. Maxwell:

The Port of Oakland intends to submit an application for an EBMUD Groundwater/Drainage Water Permit for discharge of treated groundwater into the sanitary sewer system from a treatment system located at 1717 Middle Harbor Road, Oakland, California. The system was initially installed, permitted, and operated by Union Pacific Railroad. However, since the beginning of this year, the Port of Oakland has assumed overall responsibility for the system. Camp Dresser & McKee, Inc. (CDM) will prepare the Port's EBMUD permit application through their office located in Walnut Creek, California. Representatives from CDM that may contact you as the permit application is assembled should include Mr. Mike Grey, Project Manager and/or Mr. Hoa Voscott, Task Manager. It is anticipated that the completed application should be forwarded to you in approximately one week. Should any questions arise during the application review, please call me at 272-1373.

Sincerely,

John Prall

John Prall, R.G.
Associate Environmental Scientist

Cc: Neil Werner, Port of Oakland
Larry Seto, Alameda County
Mike Grey, Hoa Voscott, CDM

530 Water Street ■ Jack London Square ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

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

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

September 29, 1999

Mr. John Prall
Port of Oakland
530 Water Street
Oakland, CA 94607
STID 4020

RE: 1717 Middle Harbor Road, Oakland, CA 94607

Dear Mr. Prall:

I spoke with Mr. Ray Maxwell with East Bay Municipal Utility District (EBMUD) concerning waste discharge permit #502-5123 issued for the above site. This permit was issued to the former property owner Union Pacific for the discharge of treated groundwater, and is non-transferable. I impressed upon Mr. Maxwell the importance of keeping the remediation system for the groundwater operating. He said the review process for a new waste discharge permit for this site is not complicated. The Port of Oakland needs to complete the application and submit it EBMUD for review.

If you have any questions, please contact Mr. Maxwell at 287-1655 or me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Ray Maxwell, EBMUD, 375 11th Street, Oakland, CA 94607
Files

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

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700

August 14, 1998

Mr. Harry Patterson
Union Pacific Railroad
1416 Dodge Street, Room 930
Omaha, Nebraska 68179
STID 4020

RE: Union Pacific Railroad, 1717 Middle Harbor Road, Oakland, CA

Dear Mr. Patterson:

I have received a letter dated July 30, 1998, from Lisa Hennessy of Laidlaw Environmental Services requesting to change the semi-annual reporting dates from April and October of each year to July and January. Groundwater sampling would continue during the first and third quarters of the year to account for seasonal fluctuations. This is acceptable.

In addition, fluid level measurements should continue on a bi-monthly basis.

If you have any questions, please contact me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Lisa Hennessy, Laidlaw Environmental, 5665 Flatiron Parkway, Boulder, CO 80301-2800
Files

LAIDLAW ENVIRONMENTAL SERVICES

Consulting Services

ENVIRONMENTAL PROTECTION
98 AUG -3 PM 2:49

ENVIRONMENTAL PROTECTION
98 JUL 34 PM 2:41

July 30, 1998

Mr. Larry Seto
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Change request in the semi-annual report submittal dates for Oakland Fueling Area, UPRR OaklandTOFC Railyard at 1717 Middle Harbor Road

Dear Mr. Seto:

On behalf of the Union Pacific Railroad (UPRR), Consulting Services of Laidlaw Environmental Services, Inc. (Laidlaw) is requesting to change the semi-annual reporting dates from April and October of each year to July and January.

Currently, the Alameda County Department of Environmental Health (ACDEH) and the East Bay Municipal Utility District (EBMUD) each require the submittal of semi-annual reports. The ACDEH reports are submitted in April and October of each calendar year, while the EDMUD reports are submitted in July and January. The reporting arrangement necessitates the preparation of four reports per year, with the reporting periods overlapping.

To allow the completion of only two reports per year and to encompass information required by both agencies, Laidlaw recommends changing the submittal dates of the ACDEH reports from April and October of each year to July and January. This would enable the ACDEH and EBMUD reports to be combined into one single semi-annual report and would streamline the reporting process to two reports per year. Groundwater sampling would continue during the first and third quarters of the year to account for seasonal fluctuations.

We hope to get a response from ACDEH regarding the revised reporting arrangement by August 31, 1998. If we do not receive a response, Laidlaw will contact ACDEH about the reporting arrangement.

If you have any questions, please call me at (303) 938-5500.

Sincerely,

Lisa Hennessy

Lisa Hennessy, E.I.T.
Project Manager

cc: Harry Patterson, UPRR

oakfa\qtrfa297.ltr, 96199, July 30, 1998

5665 Flatiron Parkway Boulder, Colorado 80301-2800
Phone 303.938.5500 Fax 303.938.5520

Burns & McDonnell	Waste Consultants, Inc.

ENVIRONMENTAL PROTECTION

98 JUL -1 PM 2:57

June 24, 1998

Mr. Larry Seto
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Union Pacific Railroad Company - 1717 Middle Harbor Road, Oakland, California**

Dear Mr. Seto:

The purpose of this letter is to notify you that repairs to the groundwater recovery and treatment system at the above-referenced site have been completed, and the system has been restarted.

If you have any questions or require any additional information, please call me at (650) 871-2926 (ext. 224).

Sincerely,

Scott D. Kellstedt
Project Manager

cc: Harry Patterson - UP/Omaha, NE
Lisa Hennessy - USPCI/Boulder, CO

377 Oyster Point Boulevard
Suite 13
South San Francisco, California 94080

Phone: 650 871-2926
Fax: 650 871-2653
http://www.burnsmcd.com
California Contractor #709602

A Burns & McDonnell Company

Burns & McDonnell | Waste Consultants, Inc.

ENVIRONMENTAL PROTECTION

98 JUN -3 PM 3:09

May 28, 1998

Mr. Larry Seto
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Union Pacific Railroad Company - 1717 Middle Harbor Road, Oakland, California

Dear Mr. Seto:

Burns & McDonnell Waste Consultants, Inc. (BMWCI) has been contracted by Union Pacific Railroad Company (UP) to restart and operate the groundwater recovery system at the referenced site. In his letter to you dated May 20, 1998, Mr. Harry Patterson of UP indicated that the system would be restarted and operational by the last week in May.

BMWCI restarted the system on May 26, 1998. Three of the five recovery wells are operational, but two recovery pumps/controllers suffered water damage and will need to be repaired. In addition, the oil/water separator is not functioning properly. Therefore, the system is not currently operative.

We estimate these problems can be fixed within approximately two weeks. We will notify you when the system has been restarted. If you have any questions or require any additional information, please call me at (650) 871-2926 (ext. 224).

Sincerely,

Scott D. Kellstedt
Project Manager

cc: Harry Patterson - UP/Omaha, NE

377 Oyster Point Boulevard
Suite 13
South San Francisco, California 94080

Phone: 650 871-2926
Fax: 650 871-2653
http://www.burnsmcd.com
California Contractor #709602

A Burns & McDonnell Company

UNION PACIFIC RAILROAD COMPANY

K. R. (KEN) WELCH
Assistant Vice President
Environmental Management

Mailing Address:
Room 930
1416 Dodge Street
Omaha, Nebraska 68179
Fax No. (402) 271-4461

G. (GLENN) THOMAS
Director-Environmental Operations South
S. W. (STEVE) BERKI
Director-Environmental Operations-Central
L. A. (LANNY) SCHMID
Director-Environmental Operations-West
B. A. (BROCK) NELSON
Director-Environmental Operations-North
R. L. (RICK) EADES
Director-Environmental Site Remediation

File: Oakland, Ca
Environmental

May 20, 1998

Mr. Larry Seto
Sr. Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Dear Mr. Seto:

In reply to your letter of May 4, RE; the Union Pacific Railroad at 1717 Middle Harbor Road in Oakland, CA, the new air compressor was installed May 18 and the system will be operational in the next week once one minor electrical problem is fixed.

As soon as the recovery system is running smoothly, I will call you on the system's operation.

Should you have any questions, please call me at (402) 271-4078.

Yours truly,

Harry P Patterson

Harry P. Patterson, P.E.
Manager Environmental Site Remediation

CC: Scott Kellstedt - Burns & McDonnell
Denton Mauldin - Laidlaw Environmental Services

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

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

May 4, 1998

Mr. Harry Patterson
Union Pacific Railroad
1416 Dodge Street, Room 930
Omaha, Nebraska 68179
STID 4020

RE: Union Pacific Railroad, 1717 Middle Harbor Road, Oakland, CA

Dear Mr. Patterson:

I have reviewed the Semi-Annual Monitoring Report (October 1, 1997 to March 31, 1998) for the above site dated April 28, 1998 by Laidlaw Environmental Services. The report stated the recovery system, consisting of recovery wells ORW-1, ORW-2, ORW-3, OMW-9 and OP-4, has not been operative since the last week of September 1997. This was due to a broken air compressor. A replacement air compressor has been obtained by UPRR. The approximate restart date for the system is Mid- May, 1998.

Please inform this office within 10 days of the receipt of this letter the current status of the recovery system.

If you have any questions, please contact me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Files

CC: Mr. Larry Seto
Alameda County Dept of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

Mr. John Prall
Port of Oakland
530 Water Street
Oakland, Ca. 94607

Ms. Jami Matanky
American President Line
1111 Broadway
Oakland, California 94607

Jeff Asay - Law - Los Angeles
Lanny Schmid - Room 930
Denton Mauldin - USPCI

K. R. (KEN) WELCH
Assistant Vice President
Environmental Management

Mailing Address:
Room 930
1416 Dodge Street
Omaha, Nebraska 68179
Fax No. (402) 271-4461

UNION PACIFIC RAILROAD COMPANY

G. (GLENN) THOMAS
Director-Environmental Operations South
S. W. (STEVE) BERKI
Director-Environmental Operations-Central
L. A. (LANNY) SCHMID
Director-Environmental Operations-West
B. A. (BROCK) NELSON
Director-Environmental Operations-North
R. L. (RICK) EADES
Director-Environmental Site Remediation

File: Oakland, Ca.
Environmental

December 30, 1997

Mr. Raymond A. Maxwell
East Bay Municipal Utility District
Source Control Division, Mail Slot 702
375 Eleventh Street
Post Office Box 24055
Oakland, Ca. 94623-1055

Dear Mr. Maxwell:

Semi-Annual Monitoring Report for Groundwater Discharge Permit account number 502-51231, for Union Pacific Railroad's Hydrocarbon Recovery System in Oakland, Ca.

Attached is the Semi-Annual (July 1997 to November 30, 1997) Monitoring Report" for our Hydrocarbon Recovery System in Oakland.

If you have any questions on the report, please call me at (402) 271-4078.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true , accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Yours truly,

Harry P. Patterson, P.E.
Manager Environmental Site Remediation

STID 4020
LS

Burns	Waste
&	Consultants,
McDonnell	Inc.

November 20, 1997

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Union Pacific Railroad TOFC Facility, 1717 Middle Harbor Rd., Oakland, CA
94607

Dear Ms. Eberele:

The purpose of this letter is to provide a brief status update regarding the above-referenced site. The air compressor that powers all five groundwater/free product recovery wells has broken down. Union Pacific Railroad Company is in the process of locating a replacement air compressor for the site. Until a replacement compressor is located, the groundwater remediation system at the site is inoperative.

Burns & McDonnell will notify you when a replacement air compressor is installed and the system is running again. If you have any questions or require any additional information, please feel free to call me at (650) 871-2926 ext. 224.

Sincerely,

Scott D. Kellstedt
Project Manager

cc: Mr. Harry Patterson - Union Pacific Railroad
Mr. Denton Mauldin - USPCI

377 Oyster Point Boulevard
Suite 13
South San Francisco, California 94080

Phone: 650 871-2926
Fax: 650 871-2653
http://www.burnsmcd.com
California Contractor #709602

A Burns & McDonnell Company

Burns	Waste
&	Consultants,
McDonnell	Inc.

May 16, 1997

Ms. Jennifer Eberle
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Union Pacific Railroad TOFC Facility, 1717 Middle Harbor Rd., Oakland, CA

Dear Ms. Eberele:

Burns & McDonnell Waste Consultants, Inc. (BMWCI) has been retained by Union Pacific Railroad to implement the activities described in the March 14, 1997 Additional Remediation Workplan prepared by Laidlaw Environmental Services for the above-referenced site.

However, due to several factors including the lead time associated with purchasing the required pumping equipment, and the time necessary to coordinate activities with railyard personnel and subcontractors, it is not possible to begin field work by May 6, 1997. The tentative schedule is as follows:

May 12 - 16:
- order pumping equipment
- conduct bid walk with subcontractors

May 19 - 23:
- prepare site health & safety plan
- conduct engineering study to determine best piping locations
- coordinate field activities with railyard operations

June 2 - 13:
- system installation and start-up

Please understand that Union Pacific Railroad is committed to implementing this scope of work as quickly as possible, but due to ongoing operations at the railyard, the tentative schedule is subject to change. BMWCI will contact you at least two business days in advance of field activities so that you may arrange to be on-site. If you have any questions or require any additional information, please contact me at (415) 876-5261.

Sincerely,

Scott D. Kellstedt
Project Manager

cc: Mr. Harry Patterson - Union Pacific Railroad
Mr. Denton Mauldin - USPCI

P.O. Box 281647
San Francisco, California 94128

Phone: 415 876-5261
Fax: 415 876-3639
http://www.burnsmcd.com
California Contractor #709602

A Burns & McDonnell Company

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

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 21, 1997
STID 4020

Attn: Harry Patterson, P.E.
Union Pacific Railroad Co.
1416 Dodge St., Room 930
Omaha NE 68179

RE: Union Pacific Railroad Co. Trailer-on-Flat-Car (TOFC) Site, aka Former Diesel Refueling Area, 1717 Middle Harbor Rd., Oakland CA 94607

Dear Mr. Patterson,

Since our last letter to you, dated 1/23/97, the following documents have been received in this office:

1) letter regarding file update, prepared by Laidlaw Environmental Services, dated 2/20/97; and

2) "Additional Remediation Workplan," prepared by Laidlaw Environmental Services, dated 3/14/97.

The 3/14/97 workplan involves the conversion of two existing wells (OP-4 and OMW-9) to recovery wells, as well as a capture zone analysis after three quarters of operational data have been collected from the enhanced recovery system. **This workplan is acceptable. Field work should begin within 45 days, or by May 6, 1997. The report of field activities should be submitted to this office within 75 days, or by June 6, 1997.** This schedule allows ample time.

At present, the outstanding items requested in my 1/23/97 letter are 1) submittal of a brief letter report detailing well destruction activities (DS1, DS2, and DS3), and 2) submittal of USPCI's 9/5/91 "Preliminary Design Report." **Please submit these two items within 30 days, or by April 21, 1997.**

Lastly, the groundwater monitoring and sampling schedule should be changed from second and fourth quarters to first and third quarters. This will take into account the seasonal high and low groundwater table.

Please notify me at least 2 business days in advance of field activities so that I may arrange to be onsite. If you have any questions, please contact me at 510-567-6761.

USPCI
A LAIDLAW COMPANY

Consulting Services

February 20, 1997

Ms. Jennifer Eberle
Alameda County
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RE: File Update, Fueling Area, UPRR Oakland TOFC Railyard, 1717 Middle Harbor Road

Dear Ms. Eberle:

In response to your letter dated January 23, 1997, enclosed are documents for updating your file of the Union Pacific Railroad (UPRR) Fueling Area at the Oakland trailer-on-flat-car (TOFC) facility. The enclosed documents consist of Figures 2, 3A, 3B, 4, and 5, boring logs for groundwater monitoring wells OMW-9 and OMW-10, and boring logs for recovery wells ORW-1, ORW-2, and ORW-3.

Regarding your question about the "french drain", Laidlaw contacted representatives of UPRR about a drawing that describes the location of the drain system. Unfortunately, it does not appear that such a drawing exists. As documented in the *Hydrocarbon Investigation and Remedial Design*, dated June 5, 1991, the perforated drain pipe is located approximately 1.5 feet below the ground surface. The depth to groundwater at the site varies from 2 to 7 feet below the ground surface and can be deeper near the pumping wells. It appears that the "french drain" could not be used to enhance the recovery of light non-aqueous phase liquid (diesel) at the site.

The groundwater monitoring wells OMW-9 and OMW-10 were installed after the *Hydrocarbon Investigation and Remedial Design* was completed. Laidlaw was unable to locate the report that includes the boring logs for OMW-9 and OMW-10. The boring logs for recovery wells ORW-1, ORW-2, and ORW-3 were included in the draft *Preliminary Design Report*, dated September 5, 1991, and prepared by USPCI. Our records do not indicate that the report was finalized.

If you have any questions or require additional information, please contact Harry Patterson of UPRR or Denton Mauldin at (303) 938-5539.

Sincerely,

Denton Mauldin, P.E.
Project Manager

Mark Gallup, P.E.
Senior Project Manager

97 FEB 24 PM 3:30
ENVIRONMENTAL PROTECTION

cc: Harry Patterson, UPRR
Ken Rose, Laidlaw

5665 Flatiron Parkway Boulder, Colorado 80301-2800
Phone 303.938.5500 Fax 303.938.5520

USPCI
a Laidlaw Company

LOG

WELL NO. OMW-9

CLIENT: *UP RAILROAD*			JOB NO.: *98199*
PROJECT: *OAKLAND, UPRR YARD*		LOCATION: *OAKLAND, CALIFORNIA*	
DRILLED BY: *PC EXPLORATION*	DRILLER: *BRAD*		METHOD: *8-3/4" HSA*
DATE START: *6/18/91*	DATE COMP: *6/18/91*	TOC EL: *6.64 MSL*	TD: *14 BGS*
LOGGED BY: *KV ROSE*	APPROVED BY:		DEPTH TO WATER: *4.5 FT.*

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVM	SAMPLE NUMBER	SAMPLE ANAL
		0.0' to 1.5' GRAY RR BALLAST UNDERLAIN BY GRAY TO DARK GRAY, SILTY FINE TO MEDIUM SAND WITH SOME CLAY AND COARSE SAND, TRACE GRAVEL, STRONG DIESEL ODOR AT 1.5', MOIST	AF	123 ppm	(1.5' grab)	
	5	1.5' to 10.0' GRAY SILTY FINE TO MEDIUM SAND, SOME COARSE SAND, TRACE CLAY AND GRAVEL, VISIBLE FREE DIESEL PRODUCT AT 2.5', VISIBLE DIESEL PRODUCT AT 4.3'	SM	205 ppm	OMW-9,1A 4'	
	10	10.0' to 15.0' GRAY FINE TO MEDIUM SAND, TRACE SILT AND COARSE SAND, WET, NO DIESEL ODOR AT 12'	SP	14 ppm	OMW-9,2A 13'	
		BORING COMPLETED TO 14'				
	15	WELL CONSTRUCTION DETAILS: BLANK CASING: 0 TO 3.5' 2" SCH. 40 PVC SCREEN CASING: 3.5' TO 13.5' 0.01" SLOT SAND PACK: 3.0' TO 14.0' 2.5 BAGS #3 SILICA BENTONITE SEAL: 1.5' TO 3.0' FLUSH WELL COVER (9/16" BOLT) GROUNDWATER @ ~4.5' BGS				
	20					

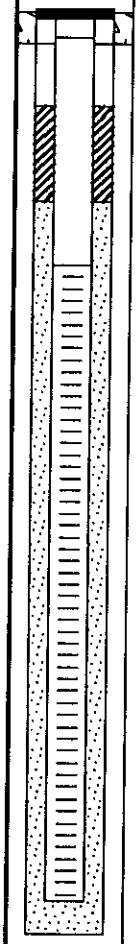
JOB NUMBER: 98199

USPCI
a Laidlaw Company

LOG

WELL NO. OMW-10

CLIENT: UP RAILROAD			JOB NO.: 96199
PROJECT: OAKLAND, UPRR YARD		LOCATION: OAKLAND, CALIFORNIA	
DRILLED BY: PC EXPLORATION	DRILLER: BRAD		METHOD: 8-3/4" HSA
DATE START: 6/18/91	DATE COMP: 6/18/91	TOC EL: 7.56 MSL	TD: 14.5 BGS
LOGGED BY: KV ROSE	APPROVED BY:		DEPTH TO WATER: 5.5 FT.



DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVM	SAMPLE NUMBER	SAMPLE ANAL
	0.0' to 0.5' ASPHALT	AF			
	0.5' to 1.5' GREENISH BROWN SILTY SAND WITH SOME CLAY AND GRAVEL, V. SLIGHT DIESEL ODOR, MOIST	SM SC	11 ppm	OMW-10, 1A,2.5'	
	1.5' to 10.0' GRAY TO DARK GRAY, FINE SAND WITH SOME SILT AND MEDIUM SAND, WET AT ~5.5', SLIGHT ODOR	SM	18 ppm		
5	LIGHT GRAY TO GRAY, FINE TO MEDIUM SAND, TRACE SILT, WET, NO ODOR				
10	10.0' to 14.5' GRAY, DARK GRAY, SILTY FINE SAND WITH SOME CLAY, TRACE MEDIUM TO COARSE SAND, WET, NO ODOR	SC	5 ppm	OMW-10, 2A,10'	
	BORING COMPLETED TO 14.5'		0 ppm		
15	WELL CONSTRUCTION DETAILS: BLANK CASING: 0 TO 4.0' 2" SCH. 40 PVC SCREEN CASING: 4.0' TO 14.0' 0.01" SLOT SAND PACK: 3.0' TO 14.5' 2 BAGS #3 SILICA BENTONITE SEAL: 1.5' TO 3.0' FLUSH WELL COVER (9/16" BOLT) GROUNDWATER @ ~5.5' BGS				
20					

JOB NUMBER: 96199

USPCI

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Union Pacific Corporation

LOG BORING NO. ORW-1

WELL NO. ORW-1

CLIENT: UP RAILROAD			JOB NUMBER: 98199
PROJECT: OAKLAND, UPRR YARD		LOCATION: OAKLAND, CALIFORNIA	
DRILLED BY: PC EXPLORATION	DRILLER: JOE		METHOD: 12" HSA
DATE START: 6/17/91	DATE COMP: 6/17/91	SURF. EL:	TD: 15.0 BGS
LOGGED BY: K.V. ROSE	MEAS. PT. EL.:		DEPTH TO WATER: 3.5 FT.

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA	SAMPLE NUMBER	SAMPLE ANAL
	0	0.0 to 1.5 RAILROAD BALLAST, GRAY LIMESTONE GRAVEL, NO STAINING	AF			
		1.5 TO 3.0 DARK GRAY, GRAY (STAINED) SANDY SILT WITH SOME GRAVEL, MOIST, STRONG DIESEL ODOR FREE PRODUCT AT 3.5'	ML	110 ppm		TPH
	5	3.0 TO 11.0 DARK GRAY, GRAY FINE TO MEDIUM SAND, TRACE CLAY, SILT AND COARSE SAND, TRACE SHELLS, WET AT 3.5, STRONG DIESEL ODOR	SM	241 ppm	ORW1-4.5	18000 ppm
	10	AS ABOVE, TRACE GRAVEL, WET, STRONG ODOR		111 ppm		
		DARK GRAY, GRAY SILTY FINE SAND WITH SOME CLAY AND MEDIUM SAND, TRACE COARSE SAND, WET, SLIGHT DIESEL ODOR	SC	161 ppm	ORW1-14	<10 ppm
	15	BORING COMPLETED TO 15.0 FEET ON JUNE 17, 1991 GROUNDWATER ENCOUNTERED AT 3.5 FEET ********** MONITOR WELL INFORMATION **********				
	20	BLANK CASING: 0.0 TO 2.9 FT 6" SCH. 40 PVC				
		SCREEN CASING: 2.9 TO 12.25 FT FACTORY SLOTTED 0.010"				
	25	SAND PACK: 2.5 TO 15.0 FT 7.0 SACKS #3 MONTEREY SILICA SAND				
		BENTONITE SEAL: 2.5 TO 1.0 FT 1 BUCKET 3/8" PELLETS				
		CONCRETE SEAL: 0.0 TO 1.0 FT 1.0 SACKS CMIX				
	30	FLUSH MOUNT: 0 TO 1.2 FT				
	35					
	40					

USPCI

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Union Pacific Corporation

LOG BORING NO. ORW-2

WELL NO. ORW-2

CLIENT: UP RAILROAD			JOB NUMBER: 96199
PROJECT: OAKLAND, UPRR YARD		LOCATION: OAKLAND, CALIFORNIA	
DRILLED BY: PC EXPLORATION	DRILLER: JOE		METHOD: 12" HSA
DATE START: 6/18/91	DATE COMP: 6/18/91	SURF. EL: 6.79 '	TD: 14.0 BGS
LOGGED BY: K.V. ROSE	MEAS. PT. EL.:		DEPTH TO WATER: 4.0 FT.

WELL COMP	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA	SAMPLE NUMBER	SAMPLE ANAL
	0	0.0 to 1.0 RAILROAD BALLAST, GRAY LIMESTONE GRAVEL, NO STAINING	AF / ML	125 ppm		TPH
	5	1.0 TO 2.5 DARK GRAY, GRAY (STAINED) SANDY SILT WITH SOME GRAVEL, MOIST, SLIGHT DIESEL ODOR, STRONG DIESEL ODOR AT 2'	SM	193 ppm	ORW2-5.0	<10 ppm
		2.5 TO 10.0 DARK GRAY, GRAY FINE TO MEDIUM SAND, TRACE CLAY, SILT AND COARSE SAND, WET AT 4.0, STRONG DIESEL ODOR				
	10	AS ABOVE, TRACE SHELLS, WET, SLIGHT ODOR		88ppm		
		DARK GRAY, GRAY SILTY FINE SAND WITH SOME CLAY AND MEDIUM SAND, TRACE INTERBEDDED MED. TO COARSE SAND, WET, NO DIESEL ODOR	SC			
	15	BORING COMPLETED TO 14.0 FEET ON JUNE 18, 1991 GROUNDWATER ENCOUNTERED AT 4.0 FEET		0ppm	ORW2-14	<10 ppm
		********** MONITOR WELL INFORMATION **********				
	20	BLANK CASING: 0.0 TO 3.0 FT 8" SCH. 40 PVC				
		SCREEN CASING: 3.0 TO 13.0 FT FACTORY SLOTTED 0.010"				
	25	SAND PACK: 2.5 TO 14.0 FT 8.0 SACKS OF #3 MONTEREY SILICA SAND				
		BENTONITE SEAL: 2.5 TO 1.0 FT 1 BUCKET 3/8" PELLETS				
		CONCRETE SEAL: 0.0 TO 1.0 FT 1.0 SACKS CMIX				
	30	FLUSH MOUNT: 0 TO 1.2 FT				
	35					
	40					

USPCI

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Union Pacific Corporation

LOG BORING NO. ORW-3

WELL NO. ORW-3

CLIENT: UP RAILROAD			JOB NUMBER: 98199
PROJECT: OAKLAND, UPRR YARD		LOCATION: OAKLAND, CALIFORNIA	
DRILLED BY: PC EXPLORATION	DRILLER: JOE		METHOD: 12" HSA
DATE START: 6/18/91	DATE COMP: 6/18/91	SURF. EL: 6.30	TD: 15.0 BGS
LOGGED BY: K.V. ROSE	MEAS. PT. EL.:		DEPTH TO WATER: 5.0 FT.

WELL COMP	OPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA	SAMPLE NUMBER	SAMPLE ANAL
	0	0.0 to 2.0 RAILROAD BALLAST, GRAY LIMESTONE GRAVEL, NO STAINING	AF	19ppm		TPH
	5	2.5 TO 10.0 GRAY FINE TO MEDIUM SAND, TRACE CLAY, SILT AND COARSE SAND, WET AT 5.0, STRONG DIESEL ODOR	SM	43ppm	ORW3-5.0	<10 ppm
	10	AS ABOVE, TRACE SHELLS, WET, SLIGHT ODOR		18ppm		
	15	DARK GRAY, GRAY SILTY FINE SAND WITH SOME CLAY AND MEDIUM SAND, TRACE INTERBEDDED MED. TO COARSE SAND, WET, NO DIESEL ODOR	SC	Oppm	ORW3-14	<10 ppm
	20	BORING COMPLETED TO 15.0 FEET ON JUNE 18, 1991 GROUNDWATER ENCOUNTERED AT 5.0 FEET ********** MONITOR WELL INFORMATION ********** BLANK CASING: 0.0 TO 3.0 FT 6" SCH. 40 PVC SCREEN CASING: 3.0 TO 13.0 FT 6" FACTORY SLOTTED 0.010"				
	25	SAND PACK: 2.5 TO 15.0 FT 8.0 SACKS OF #3 MONTEREY SILICA SAND BENTONITE SEAL: 2.5 TO 1.0 FT 1 BUCKET 3/8" PELLETS				
	30	CONCRETE SEAL: 0.0 TO 1.0 FT 1.0 SACKS CMIX FLUSH MOUNT: 0 TO 1.2 FT				
	35					
	40					

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

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

January 23, 1997
STID 4020

Attn: Harry Patterson, P.E.
Union Pacific Railroad Co.
1416 Dodge St., Room 930
Omaha NE 68179

RE: Union Pacific Railroad Co. Trailer-on-Flat-Car (TOFC) Site, aka Former Diesel Refueling Area, 1717 Middle Harbor Rd., Oakland CA 94607

Dear Mr. Patterson,

Since our last letter to you, dated 10/18/95, signed by Dale Klettke, the following documents have been received in this office:

1) "Semi-Annual Monitoring Report, Hydrocarbon Recovery System," prepared by Laidlaw Environmental Services, dated 12/19/95;

2) "Environment Assessment of the Diesel Spill Site," prepared by Laidlaw Environmental Services, dated 1/8/96;

3) "First Quarter 1996 Monitoring Report," prepared by Laidlaw Environmental Services, dated 4/30/96;

4) "Semi-Annual Monitoring Report, Hydrocarbon Recovery System," prepared by Laidlaw Environmental Services, dated 7/26/96;

5) "Third Quarter 1996 Monitoring Report," prepared by Laidlaw Environmental Services, dated 10/30/96; and

6) "Semi-Annual Monitoring Report, Hydrocarbon Recovery System," prepared by Laidlaw Environmental Services, dated 12/20/96.

As you know, a derailment caused a spill of approximately 750 gallons of diesel product on 10/1/95. Three groundwater monitoring wells (DS1, DS2, and DS3) were installed in this area on 11/8/95. Soils with obvious staining were excavated to a depth of 0.5 feet on 1/5/96. No diesel product was detected in the DS wells over a period of one year (11/95 to 11/96). TPHd, TPHg and BTEX have been ND during this time, while heavier hydrocarbons have been present. It appears that the diesel product had already dispersed in the sandy and gravelly subsurface by the time the wells were installed. **Your request to properly abandon these wells is acceptable. Please provide a brief letter report detailing well destruction activities.**

A free product recovery system (consisting of three 8" diameter recovery wells and pumps) was installed by April 1992. Groundwater/free product is pumped out, the product is separated into a storage tank, and the groundwater is treated by carbon and discharged to the sewer under EBMUD permit. This system reportedly commenced operation on 5/8/92. Prior to system startup, the maximum thickness of free product recorded was 5.45 feet (ORW-1, 6/19/91) (see Table 5, "Semi-annual Monitoring Report," Laidlaw, 12/20/96). Since system startup, the maximum thickness of free product recorded was 5.99 feet (OMW-9, 5/14/93). The maximum thickness of free product during the last quarterly monitoring event (11/12/96) was 3.46 feet (OP-4).

Clearly, a significant amount of free product still exists at this site. Laidlaw's conclusions report that the system is effective, based on gallons of diesel removed and effluent concentrations in the water stream from the carbon units. However, **the thickness of free product has not been significantly reduced over nearly five years of system operation.** Only three recovery wells are included in the system (ORW-1, ORW-2, and ORW-3). However, the free product plume extends approximately 150' to the southwest of ORW-1 (3.46' product in OP-4 on 11/12/96), and approximately 150' to the south of wells ORW-2 and ORW-3 (2.13' product in OP-2 on 11/12/96), and approximately 35' to the north-northwest of ORW-3 (1.54' product in OMW-4 on 11/12/96).

I understand that the hydrocarbon recovery system was originally designed for additional flow capacity, due to the possibility of adding additional recovery wells. **You are requested to submit an additional remediation workplan for improving the hydrocarbon recovery system in order to enhance free product recovery, within 45 days, or by March 11, 1997.** This may entail hooking up additional existing wells to the system, creating new trench(es) to remove free product, or other means. **Our main concern is the migration and remediation of the free product plume. Free floating product must be removed "to the maximum extent practicable, as determined by the local agency," and "in a manner that minimizes the spread of contamination,"** as per state law {23 California Code of Regulations, Division 3, Chapter 16, Sections 2722 (b), and 2655 (a) and (b)}.

I have recently reviewed the "Draft Final Revised UST Investigation Report," for "Former Underground Storage Tank Sites 211, 331N, 331S, 331E, 332, 334, 511D, 750, 842, and 845." This report was dated December 1996 and was prepared by ERM-West, Inc. for the Navy's Fleet and Industrial Supply Center, in Oakland (FISCO) site. This report details UST investigation activities for ten separate sites within FISCO. There are three such UST sites which are located on the southeast border of the FISCO site, nearest to this UPRR site. They are UST sites 750, 842, and 845; see attached map. Three monitoring wells were installed at each UST site. Groundwater flow direction was south-southwest at UST site 750 on 8/2/96, northwest at UST site 842 on 1/20/95, and north-northeast at UST site 845 on 1/23/95. **Groundwater results**

indicate no free product in any of these 9 wells. Maximum dissolved groundwater concentrations were 1800 ug/L TPHd, 550 ug/L TPHg and 24 ug/L benzene at UST site 750; 156,000 ug/L TPHd and 3 ug/L benzene at UST site 842; and 7,563 ug/L TPHd at UST site 845. These concentrations were reported on the respective site maps; dates were not included. Of these concentrations, the highest concentration was 156,000 ug/L TPHd at UST site 842. This was a grab sample collected in boring 842-W3 via direct push technique. Another grab sample collected approximately 50 feet to the west (sample 842-W9 in the former UST excavation) contained ND results. A water sample collected from 842-MW1, located approximately 25' to the southeast contained ND results as well.

A cursory review of this data indicate that **the Navy property appears not to be the source of the free product on your site.** Pertinent sections of this report are being copied and sent to your consultant (Laidlaw) for review. Further subsurface investigation work is recommended for these 3 UST sites. [Information regarding the tank removals is not included in this report, and may not have been compiled at all.]

In addition, **you are requested to submit the following figures** which were not included in the "Hydrocarbon Investigation and Remedial Design" report prepared by USPCI, dated 6/5/91: Figure 2, 3A, 3B, 4, and 5. **Please submit these figures within 30 days, or by February 23, 1997.** Page 15 of this report mentions an "operating groundwater recovery system (french drain)" which "exists just west of the fueling facility" and was "designed to depress the groundwater surface and prevent water damage to rail switches and has been in operation for several years." The report goes on to say that "The recovery system was not designed to recover free product, but does discharge to an oil/water separator." **Please submit a site map which depicts the location of this french drain and associated appurtenances, within 30 days or by February 15, 1997.** As per a telecon with Denton Mauldin of Laidlaw on 1/15/97, this french drain was never hooked up to the oil/water separator. Incidentally, the oil/water separator mentioned here is the same structure which is part of the hydrocarbon recovery system.

The 6/5/91 USPCI report also presents boring logs for OMW-1 through OMW-8. However, it does not include boring logs for OMW-9 and OMW-10. **Were these wells installed at a later date? If so, which report includes their boring logs? Please respond to these inquiries, and submit the boring logs for these two wells within 30 days or by February 23, 1997.**

Page 3 of the 7/20/92 "Hydrocarbon Recovery System, As-Built Construction Report" prepared by USPCI refers to an (undated) "Preliminary Design Report" which should contain boring logs for the three recovery wells (ORW-1 thru ORW-3). However, I could not locate this report in our files. **Please reference this report by date and consultant (and exact title), and please submit the boring logs for these recovery wells within 30 days or by February 23, 1997.** It is

possible that somebody took this report from the file. Our files are public records, and do get reviewed by the general public on a regular basis.

If you have any questions, please contact me at 510-567-6761.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: John Prall, Port of Oakland, Environmental Dept., 530 Water St., Oakland CA 94607
Denton Mauldin, Laidlaw, 5665 Flatiron Pky, Boulder CO 80301
Vince Christian, RWQCB
J. Eberle/file

je.4020

ENVIRONMENTAL DEPARTMENT

Port of Oakland
530 Water Street
Oakland, CA 94607
Telephone
(510)272-1174
Fax
(510)465-3755

PORT OF OAKLAND

TRANSMITTAL

To: Ms. Jennifer Eberle
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Date: January ~~14~~ 15, 1997

Project #:

Subject:

Enclosed please find one copies

Description:

X As requested
X For your use
___ For your approval and return
___ For your review and comment
___ For return

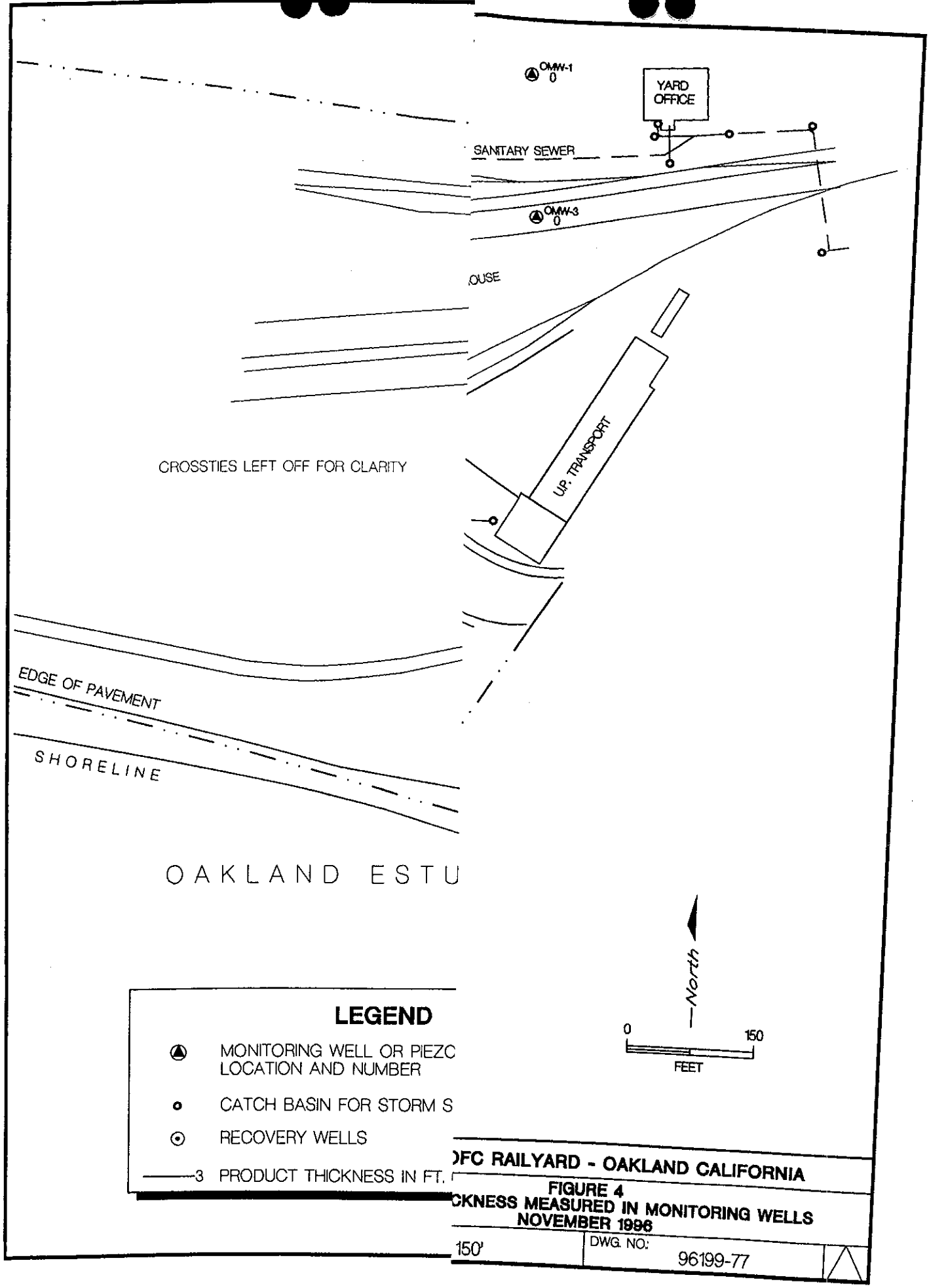
COMMENTS:

Map has been reduced to a scale of ≃ 1"=250'. Map was derived from: USPCI report titled: Semi-Annual Monitoring Report, Hydrocarbon Recovery System, Union Pacific Railyard, Oakland, California, July 1996 to November 1996.

Transmitted by:

John Prall

P.S. Also put in one copy at original scale.



FC RAILYARD - OAKLAND CALIFORNIA

FIGURE 4
CKNESS MEASURED IN MONITORING WELLS
NOVEMBER 1996

150'

DWG. NO:
96199-77

DEPARTMENT OF THE NAVY
ENGINEERING FIELD ACTIVITY, WEST
NAVAL FACILITIES ENGINEERING COMMAND
900 COMMODORE DRIVE
SAN BRUNO, CALIFORNIA 94066-2402

IN REPLY REFER TO:
5090
Ser 1822.3/L7072
23 Jan 1996

Mr. Chein Kao
California Department of Toxic Substances Control
700 Heinz Avenue, Suite 201
Berkeley, CA 94710

Subj: DRAFT FINAL REVISED UST INVESTIGATION REPORT FOR FORMER UNDERGROUND STORAGE TANK (UST) SITES AT THE FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, CA

Dear Mr. Kao:

Underground storage tanks (USTs) at Fleet and Industrial Supply Center (FISC) Oakland were removed prior to September 1994 from former UST Sites 211, 331E, 331N, 331S, 332, 334, 511D, 750, 842 and 845. Analytical results of soil samples collected during the tank removal activities indicated that a release of hydrocarbon compounds occurred at these sites. Therefore this Command contracted with ERM-West, Inc. to conduct site investigation to characterize the sites from November 1994 through August 1995. The site investigation activities included soil and groundwater sampling using a geoprobe sampler and groundwater sampling from monitoring wells installed at the sites. Analytical results of the soil and groundwater samples collected at these sites indicated that the shallow groundwater beneath the sites may be impacted.

The Navy submitted two UST investigation study reports covering all of these sites in October 1995. These reports provided an initial characterization of the sites based on the analytical results. The reports also offered recommendations for further action for each site. Comments to these two reports were provided by the California Regional Water Quality Control Board (RWQCB) in two letters both dated 27 November 1995. This Command has incorporated all comments and has also consolidated these two reports into one report. Please find enclosed this revised investigation report for these ten former UST sites. This report summarizes the site characterization and investigation activities undertaken to date at each of the sites, presents conclusions based on the results of the investigations, and presents recommendations to achieve closure at each site based on low risk site interim guidelines dated 6 January 1996 by the RWQCB, San Francisco Bay Region.

At nine of these sites, the report recommends for further investigation in order to obtain sufficient information to support a possible low risk site or recommend cleanup. Your comment/concurrence is requested. This Command will be initiated a contract action for this addition work. For one UST site, UST Site 332, the information in the report supports this site as being low risk and recommends no further action. Therefore, site closure is requested for former UST Site 332.

Because of its bulk, Volume 2-Appendices of the enclosed report will not be resubmitted with any further updates at the report.

5090
Ser 1822.3/L7072
23 Jan 1996

Subj: DRAFT FINAL REVISED UST INVESTIGATION REPORT FOR FORMER UNDERGROUND STORAGE TANK (UST) SITES AT THE FLEET AND INDUSTRIAL SUPPLY CENTER OAKLAND, CA

If you have any questions on this letter report, the point of contact at this Command is Mr. Warren Feng (Code 1822.3) at (415) 244-3597.

Sincerely,

LARRY L. LIND
Manager, UST/HW Programs
By direction of
the Commanding Officer

Encl: (1) Draft Final Revised UST Investigation Report for Former Underground Storage Tank Sites at the Fleet and Industrial Supply Center, Oakland, Volume I and Volume II, dated December 1996

Copies (w/encl) to:
California Regional Water Quality Control Board, Region 2, San Francisco Bay Region
(attn: Mr. Vince Christian)
U. S. Environmental Protection Agency, Region 9 (attn: Mr. Phillip Ramsey)
Fleet and Industrial Supply Center, Oakland (attn: Mr. Dick Hegarty) (w/o encl)
Department of Environmental Health, County of Alameda (attn: Ms. Jennifer Eberly) (w/o encl)

5. Page 6-7: Two approaches are proposed for determining closure at UST sites involving only groundwater monitoring. The second proposal involves monitoring groundwater at the perimeter of the hydrocarbon affected area for at least one year until hydrocarbon concentrations are below cleanup goals. At both of these sites, the monitoring wells are located outside the hydrocarbon affected areas. Therefore, results from these wells will not indicate whether or not remediation has been effective. The monitoring locations for determining when closure is appropriate should be decided on and approved by the Regional Board before this approach is used.

If you have any questions or comments regarding this document, please feel free to contact me at (510) 286-4222.

Vincent Christian

Vincent Christian
Water Resource Control Engineer

enclosures: Memorandum dated June 1, 1995
Regional Board staff letter dated November 27, 1995

cc: Mary Rose Cassa, DTSC
Kathie Roos, PRC

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To JENNIFER EBERLE	From VINCE CHRISTIAN
Co. ALAMEDA Co.	Co. RWQCB
Dept.	Phone # 286-4222
Fax # 337-9335	Fax # -3986

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
KLAND 94612

Phone: (510) 286-1255
Fax: (510) 286-1380
BBS (510) 286-0404

November 27, 1995
File: 2199.9080A (VC)

Baha Y. Zarah
Head, Environmental Compliance UST Section
Engineering Field Activities, West
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-5006

Subject: UST Investigation and Corrective Measures Study - Phase 1 for Former Underground Storage Tank Sites at Fleet and Industrial Supply Center, Oakland, California, September 1995

The subject report has been reviewed by Regional Board staff. This report summarizes the investigative work that has been performed at former UST sites 750, 842, and 845, evaluates remedial options, and recommends remedial actions for sites 842 and 845. The specific comments below address Regional Board and Department of Toxic Substances Control concerns:

1. Page 2-8, 4th bullet: This paragraph proposes to filter groundwater samples prior to analysis for lead. Please be consistent with the groundwater sampling procedures for metals used at FISCO for the Installation / Restoration program (see attached memorandum from the Regional Board dated June 1, 1995).

2. Figure 11: Two of the Geoprobe locations in the lower portion of this figure are identified as "842-S7 and 842-S9". Are these wells actually 845-S7 and 845-S9?

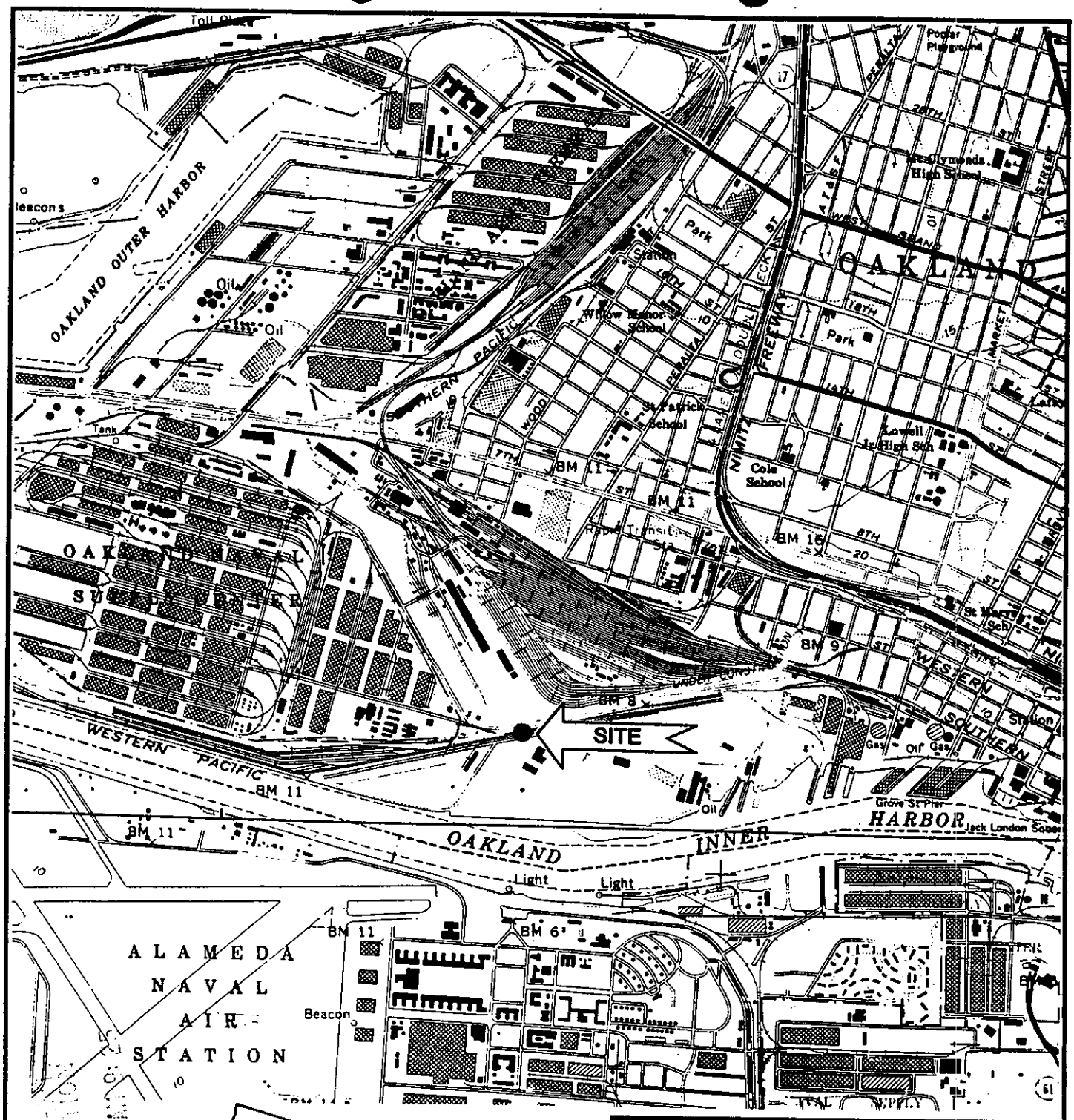
3. Page 3-6: The last sentence of the fourth paragraph of this page states that "there is currently no indication that the presence of storm drains has affected the migration of impacted groundwater at either site". While this may be true, there is also no indication that the presence of storm drains has not affected the migration of impacted groundwater at either site. The Navy has not addressed this concern! Regional Board staff will not approve any remedial actions at any UST sites at FISCO until this potential exposure pathway has been adequately assessed. Please see comment #6 of the enclosed letter from Regional Board staff, dated November 27, 1995, regarding USTs 211, 331, 332, and 551.

4. Page 5-10: Regional Board staff agrees that alternative 2 may be the best option for this site, pending investigation of potential migration pathways through the storm sewer system or utility corridors. However, the Navy may want to consider the use of oxygen releasing compounds as a technology that may expedite cleanup time. Please see comment #7 of the enclosed letter from Regional Board staff regarding USTs 211, 331, 332, and 551.

TABLE 2
WATER SAMPLES
TOTAL PETROLEUM HYDROCARBONS
DIESEL FUEL SPILL
1717 MIDDLE HARBOR ROAD
OAKLAND, CALIFORNIA
NOVEMBER 1995

SAMPLE NUMBER	C5 – C12 Hydrocarbons (mg/L)	TPH Gasoline (mg/L)	C10 – C50 Hydrocarbons (mg/L)	TPH DIESEL (mg/L)	BENZENE (mg/L)	ETHYLBENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)
MDL	0.05	0.05	0.5	0.5	0.002	0.002	0.002	0.002
DSMW–1	0.06	BDL	0.6	BDL	BDL	BDL	BDL	0.003
DSMW–2	0.12	BDL	5.5	BDL	BDL	BDL	BDL	BDL
DSMW–3	BDL	BDL	0.6	BDL	BDL	BDL	BDL	BDL

EPA 8020, CA Draft used for all Hydrocarbon analysis
MDL = Method Detection Limit
BDL = Below Detection Limit



ADAPTED FROM U.S.G.S. 7.5' OAKLAND WEST, CALIF. QUADRANGLE (1980)

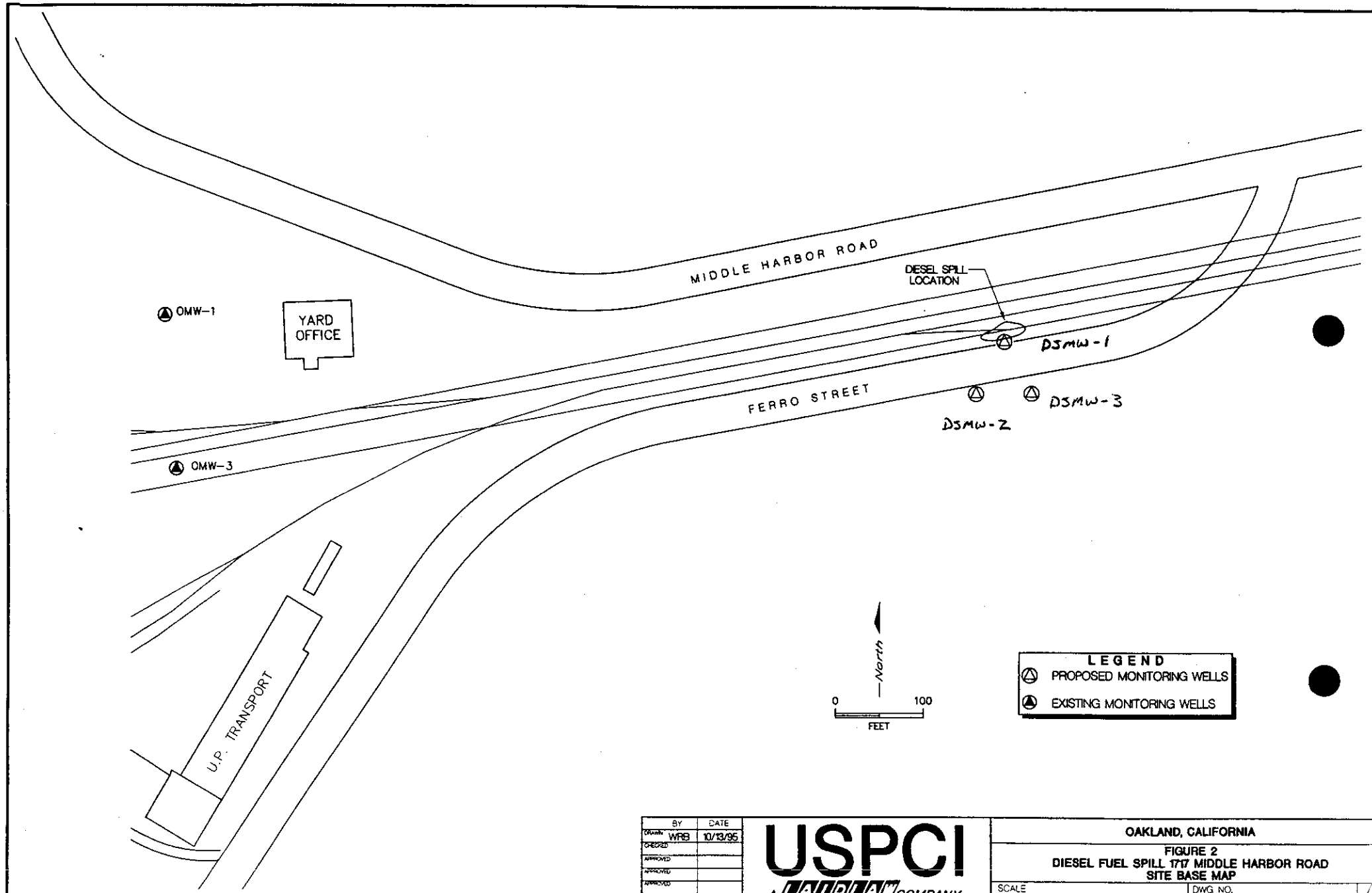
IOCMAP

USPCI
A LAIDLAW COMPANY

OAKLAND, CALIFORNIA

FIGURE 1
1717 MIDDLE HARBOR ROAD
SITE LOCATION MAP

SCALE	DATE
1" = 2000'	10/16/95



BY	DATE
DRAWN WRB	10/13/95
CHECKED	
APPROVED	
APPROVED	
APPROVED	

USPCI
A LAIDLAW COMPANY

OAKLAND, CALIFORNIA

FIGURE 2
DIESEL FUEL SPILL 1717 MIDDLE HARBOR ROAD
SITE BASE MAP

SCALE 1" = 100'

DWG NO. 96464-01

USPCI
a Laidlaw Company

LOG

Page 1 of 1

WELL NO. DSMW-1

CLIENT: *Union Pacific Railroad*			JOB NO.: *96464*
PROJECT: *Derailment Site, 1717 Middle Harbor Rd.*		LOCATION: *Oakland, California*	
DRILLED BY: *Exploration Geoservices*	DRILLER: *Dave/Howard*	METHOD: *8" HSA*	
START DATE: *11/8/95*	COMP. DATE: *11/8/95*	SURF. EL.: *FT. est.*	TD: *17.0 FT. BGS*
LOGGED BY: *Ken Rose*			D. T. WATER: *8.0 FT. BGS*

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA ppm	SAMPLE NUMBER	Blow Count
		0.0' to 2.0' Gravel, lt. grayish brown w/ some sand, wood and metal debris (fill), damp, strong diesel odor	Fill			
	5	2.0' to 7.0' Medium to coarse sand, lt. grayish brown w/ some gravel, trace silt, moist, strong diesel odor As above, v. moist, strong diesel odor	SP			
	10	7.0' to 15.0' Fine to medium sand, gray, greenish gray, w/ some silt, trace clay, wet at 8', strong diesel odor, Bay Mud As above, wet, slight diesel odor	SW			
	15	15.0' to 17.0' Clayey silt, gray, greenish gray w/ some fine sand, wet, no odor, Bay Mud	ML			
	20	Boring completed to 17.0' Groundwater encountered at 8.0' Monitor well installed to 17', 10' of 0.010" screen 7' of SCH 40 2" PVC blank 3.5 sacks of #10-20 silica, 1 bucket of bentonite pellets 8" Flush mount well cover				
	25					
	30					

JOB NUMBER: 96464

USPCI
a Laidlaw Company

LOG

WELL NO. DSMW-2

CLIENT: *Union Pacific Railroad*			JOB NO.: *96464*
PROJECT: *Derailment Site, 1717 Middle Harbor Rd.*		LOCATION: *Oakland, California*	
DRILLED BY: *Exploration Geoservices*	DRILLER: *Dave/Howard*	METHOD: *8" HSA*	
START DATE: *11/8/95*	COMP. DATE: *11/8/95*	SURF. EL.: *FT. est.*	TD: *12.0 FT. BGS*
LOGGED BY: *Ken Rose*			D. T. WATER: *10.0 FT. BGS*

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA ppm	SAMPLE NUMBER	Blow Count
		0.0' to 3.0' Sand, lt. brown w/ some glass and organic debris (roots, leaves), damp, no odor or staining	SP			
		3.0' to 5.0' Encounter gravel, cobbles and concrete debris	GW			
	5	5.0' to 10.0' Fine to medium sand, brown, lt. brown w/ trace silt and gravel, slightly moist, no odor or staining As above, becomes wet at 10.0'	SP			
	10	10.0' to 12.0' Clayey silt, gray, greenish gray w/ some fine sand, wet, no odor, encounter obstruction at 12.0' (City Water Main)	ML			
		Boring completed to 12.0' Groundwater encountered at 10.0' Monitor well installed to 12', 5' of 0.010" screen 7' of SCH 40 2" PVC blank 2 sacks of #10-20 silica, 1 bucket of bentonite pellets Flush mount well cover				
	15					
	20					
	25					
	30					

JOB NUMBER: 96464

USPCI
a Laidlaw Company

LOG

WELL NO. DSMW-3

CLIENT: *Union Pacific Railroad*			JOB NO.: *98464*
PROJECT: *Derailment Site, 1717 Middle Harbor Rd.*		LOCATION: *Oakland, California*	
DRILLED BY: *Exploration Geoservices*	DRILLER: *Dave/Howard*	METHOD: *8" HSA*	
START DATE: *11/8/95*	COMP. DATE: *11/8/95*	SURF. EL.: *FT. est.*	TD: *12.0 FT. BGS*
LOGGED BY: *Ken Rose*		D. T. WATER: *10.0 FT. BGS*	

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA ppm	SAMPLE NUMBER	Blow Count
		0.0' to 3.0' Sand, lt. brown w/ some glass and organic debris (roots, leaves), damp, no odor or staining	SP			
		3.0' to 5.0' Encounter gravel, cobbles and concrete debris	GW			
	5	5.0' to 10.0' Fine to medium sand, brown, lt. brown w/ trace silt and gravel, slightly moist, no odor or staining As above, becomes wet at 10.0'	SP			
	10	10.0' to 12.0' Clayey silt, gray, greenish gray w/ some fine sand, wet, no odor, encounter obstruction at 12.0' (City Water Main)	ML			
		Boring completed to 12.0' Groundwater encountered at 10.0' Monitor well installed to 12', 5' of 0.010" screen 7' of SCH 40 2" PVC blank 2 sacks of #10-20 silica, 1 bucket of bentonite pellets Flush mount well cover				
	15					
	20					
	25					
	30					

JOB NUMBER: 98464

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # 4020 Site Name USPCI Today's Date 11/8/95

Site Address 1717 MIDDLE HARBOR ROAD

City OAKLAND Zip 94607 Phone _____

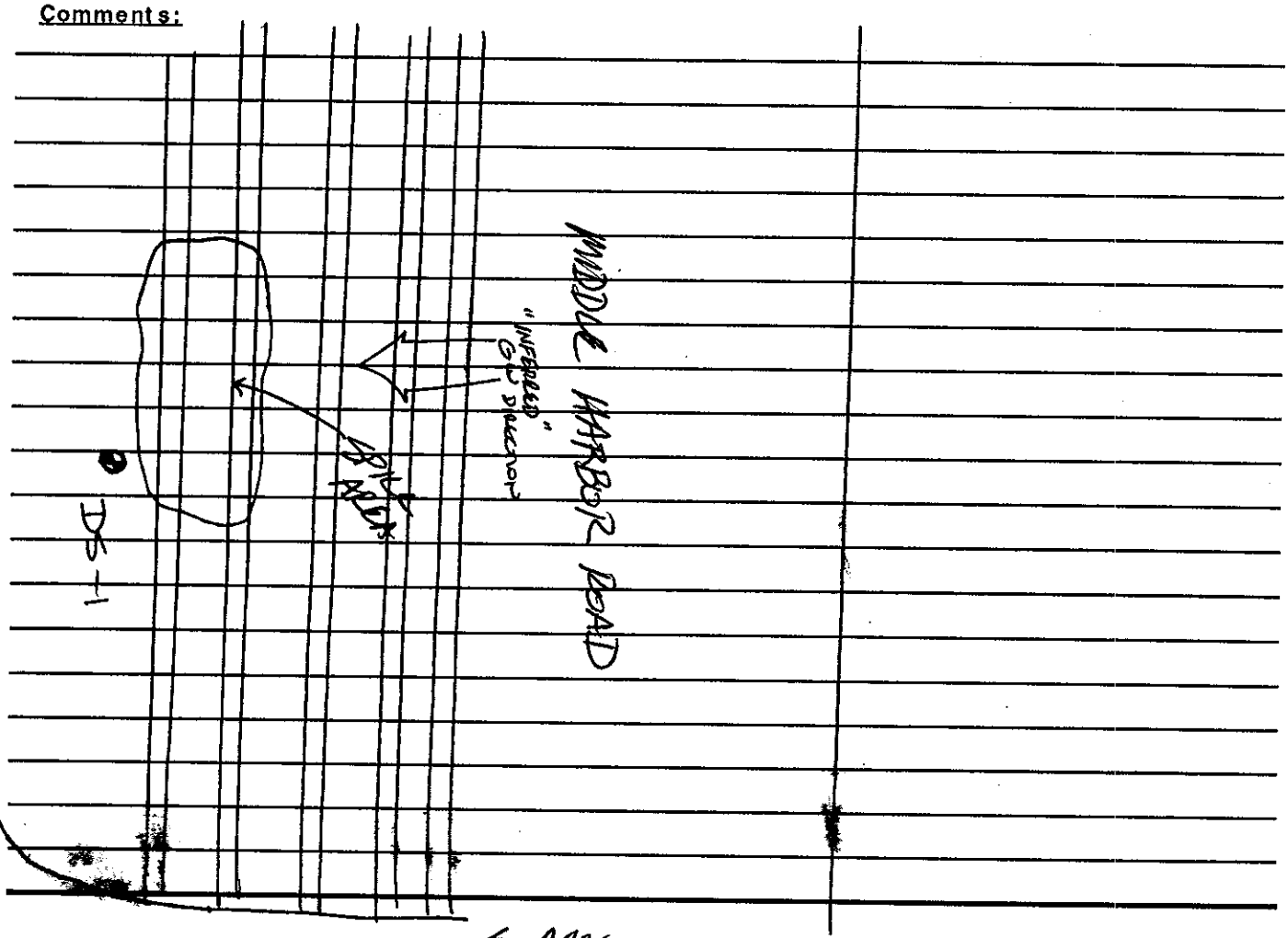
_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

_____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
_____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
X III. Underground Storage Tanks
OK. III SPILL (@ 700 GALLONS)

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:



DS-2
DS-3

Contact _____ II, III

Title _____ Inspector Dale Keller

Signature _____ Signature _____

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

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

STID 4020

October 18, 1995

Harry Patterson
Union Pacific Railroad Company
1416 Dodge Street, Room 930
Omaha NE 68179-0930

RE: UNION PACIFIC RAILROAD SITE, 1717 MIDDLE HARBOR RD, OAKLAND, CA

This letter is in response to a October 17, 1995 - USPCI "Proposal for the Subsurface Investigation of the Diesel Fuel Spill near the Union Pacific Railroad yard at 1717 Middle Harbor Road in Oakland, California" prepared by Ken Rose of the USPCI office in Boulder, Colorado.

At approximately 1:00 am on October 1, 1995, approximately 700 gallons of diesel fuel was spilled on the railroad tracks on the eastern end of the property located at 1717 Middle Harbor Road in Oakland, California. The spill immediately penetrated the coarse rocks underlying the railroad tracks and into the soils beneath. On Tuesday, the 3rd of October, a hand auger soil boring was advanced in the area of the spill to determine whether the diesel spill had already reached shallow groundwater, which is first encountered at approximately eight (8) feet below the ground surface. Free product was observed floating on the groundwater.

The above referenced proposal involves the drilling of three soil borings to an approximate depth of fifteen (15) feet below surface. The borings will then be subsequently converted to groundwater monitoring wells. These wells will then be monitored and free product recovery will be initiated in the wells that contain measurable levels of diesel fuel.

This proposal is approved by this office with the stipulation that free product recovery should be initiated as soon as possible.

I am temporary covering for Jennifer Eberle in her absence. Please feel free to call me directly at (510)567-6880 with any of your questions or comments.

Sincerely,

Dale Klettke, CHMM
Hazardous Materials Specialist

c: Thomas Peacock, Supervising Hazardous Materials Specialist--files
Ken Rose, 5665 Flatiron Parkway, Boulder, Colorado 80301-2800

USPCI
A LAIDLAW COMPANY

Consulting Services

October 17, 1995

Mr. Dale Klettke
Alameda County
Health Care Services Agency
1131 Harbor Bay Pkwy., Room 250
Alameda, CA. 94502-6577

RE: Proposal for the Subsurface Investigation of the Diesel Fuel Spill near the Union Pacific Railroad yard at 1717 Middle Harbor Road in Oakland, California
Job# 96464

Dear Mr. Klettke:

At the request of the Union Pacific Railroad (UPRR), USPCI, a Laidlaw company (Laidlaw) is pleased to present this Proposal for the Subsurface Investigation and Reporting requirements for the diesel fuel spill site near the UPRR yard at 1717 Middle Harbor Road in Oakland, CA. The proposed scope of work consists of the following tasks:

- Drill three soil borings each to an approximate depth of 15 feet in the immediate vicinity of the diesel fuel spill (see Figure 2). Continuously monitor and document the soils penetrated during drilling.
- Install three groundwater monitor wells in the soil boring locations (Figure 2).
- Develop and survey monitor wells and measure groundwater elevations and any free product thickness.
- Collect groundwater samples for laboratory analyses from each well location that does not contain free product.
- Laboratory analyze all groundwater samples for TPH (EPA 8015m) and BTEX (EPA 8020);
- Initiate free product recovery from monitor wells that contain measurable levels of diesel fuel.
- Complete a technical evaluation of the data and prepare a subsurface investigation report including analytical laboratory results and a groundwater potentiometric surface figure.
- Develop a site specific Remedial Options Analyses, if appropriate.

5665 Flatiron Parkway Boulder, Colorado 80301-2800
Phone 303.938.5500 Fax 303.938.5520

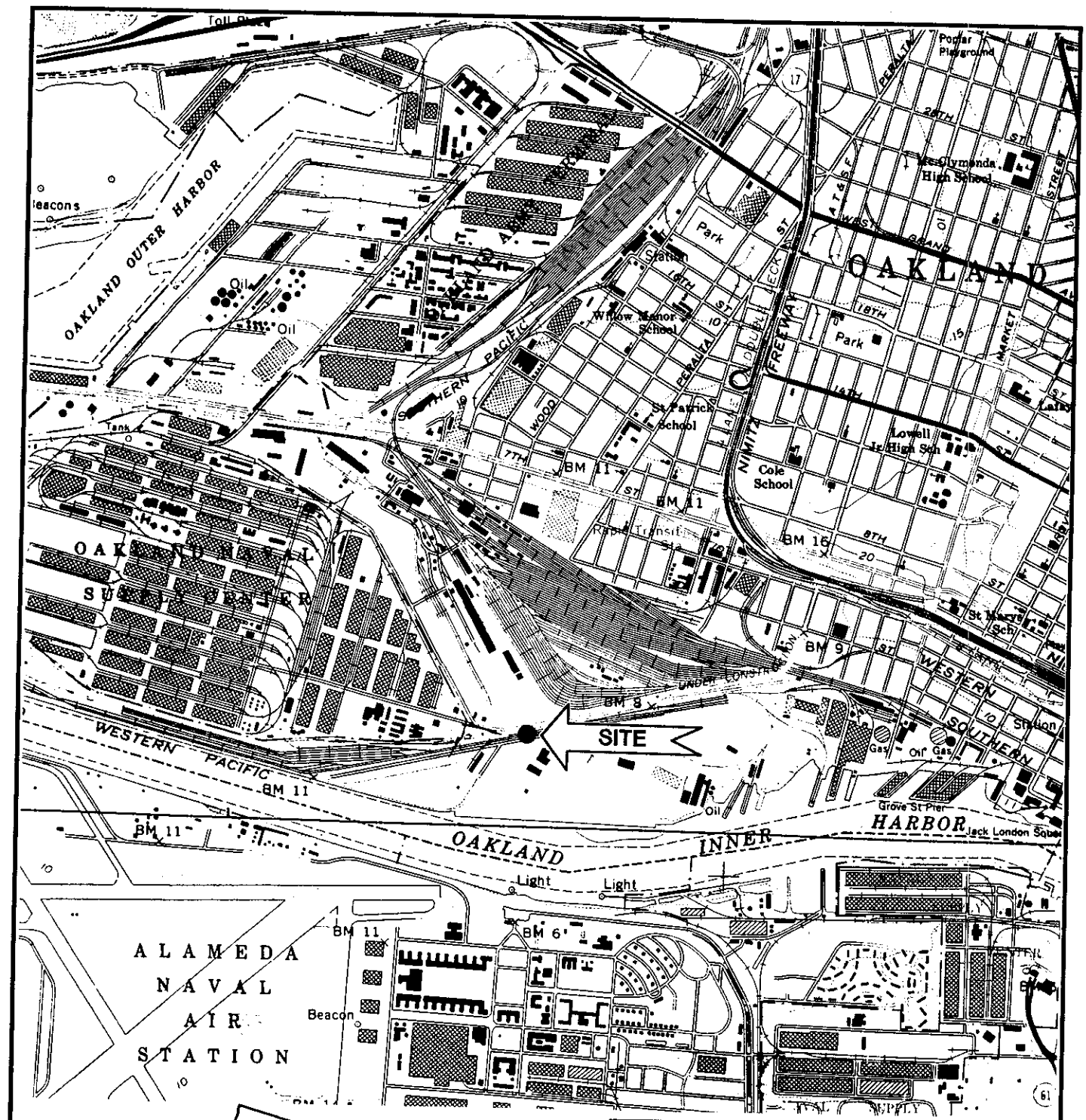
Following your review of the enclosed Proposal, I will send to you a timeline schedule for the implementation of the investigation activities. If you have any questions regarding any aspect of the proposed scope work, please call us at (303) 938-5500.

Sincerely,

Kenneth V. Rose
Geologist

Jerome Edwards
Senior Project Manager

cc: Jim Gorley, UPRR
Denton Mauldin, Laidlaw



SITE

CALIFORNIA

ADAPTED FROM U.S.G.S. 7.5' OAKLAND WEST, CALIF. QUADRANGLE (1980)

LOCMAP

North

0 2000

FEET

USPCI

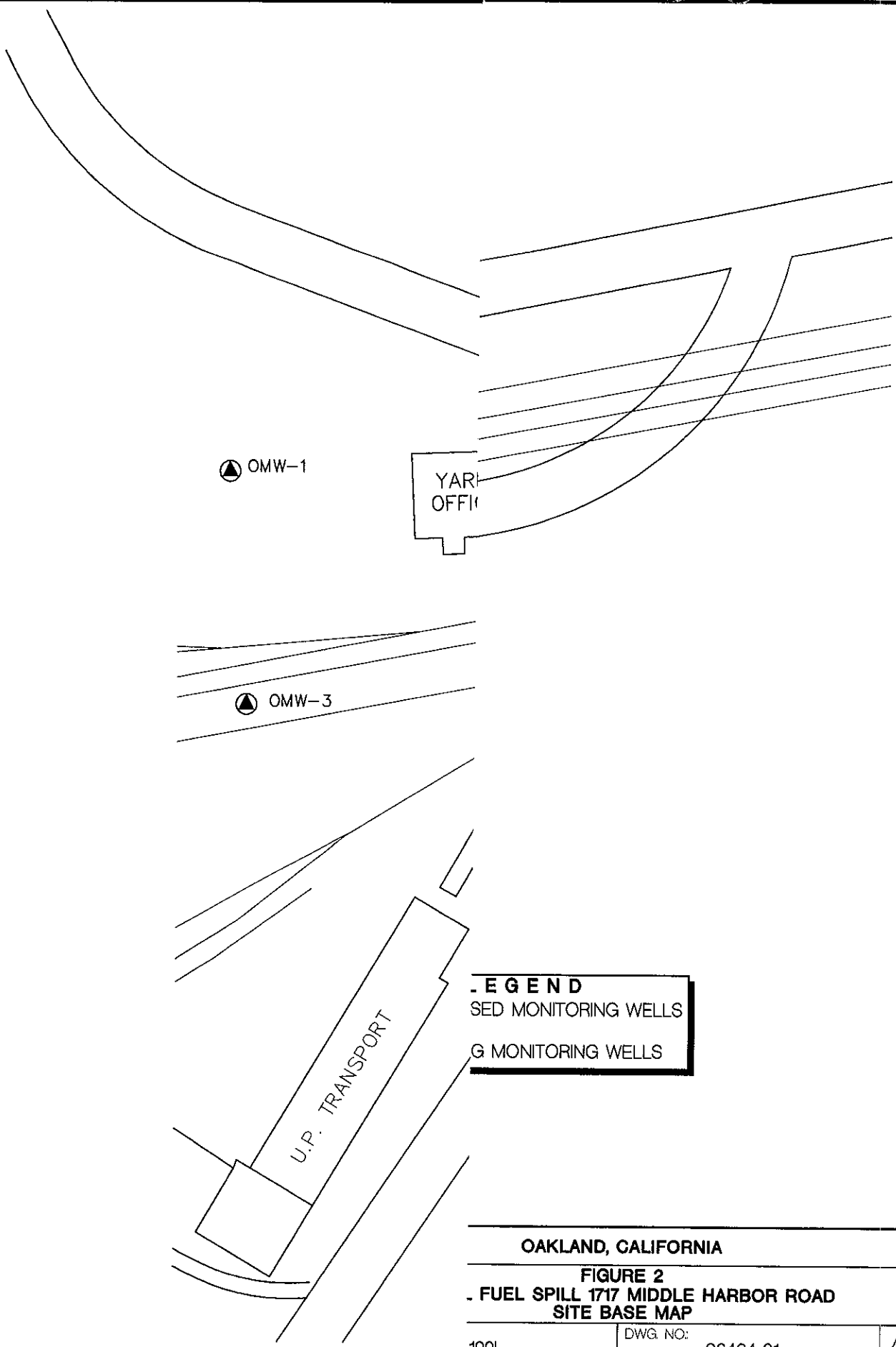
A LAIDLAW COMPANY

OAKLAND, CALIFORNIA

FIGURE 1
1717 MIDDLE HARBOR ROAD
SITE LOCATION MAP

SCALE: 1" = 2000'

DATE: 10/16/95



OAKLAND, CALIFORNIA

FIGURE 2
FUEL SPILL 1717 MIDDLE HARBOR ROAD
SITE BASE MAP

100'

DWG. NO: 96464-01

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

1131 Harbor Bay Pkwy
Alameda CA 94502
510/567-6700

II, III

Site ID # _____ Site Name UNION PACIFIC Today's Date 10/2/95

Site Address 1717 MIDDLE HARBOR ROAD

City OAKLAND Zip 94607 Phone _____

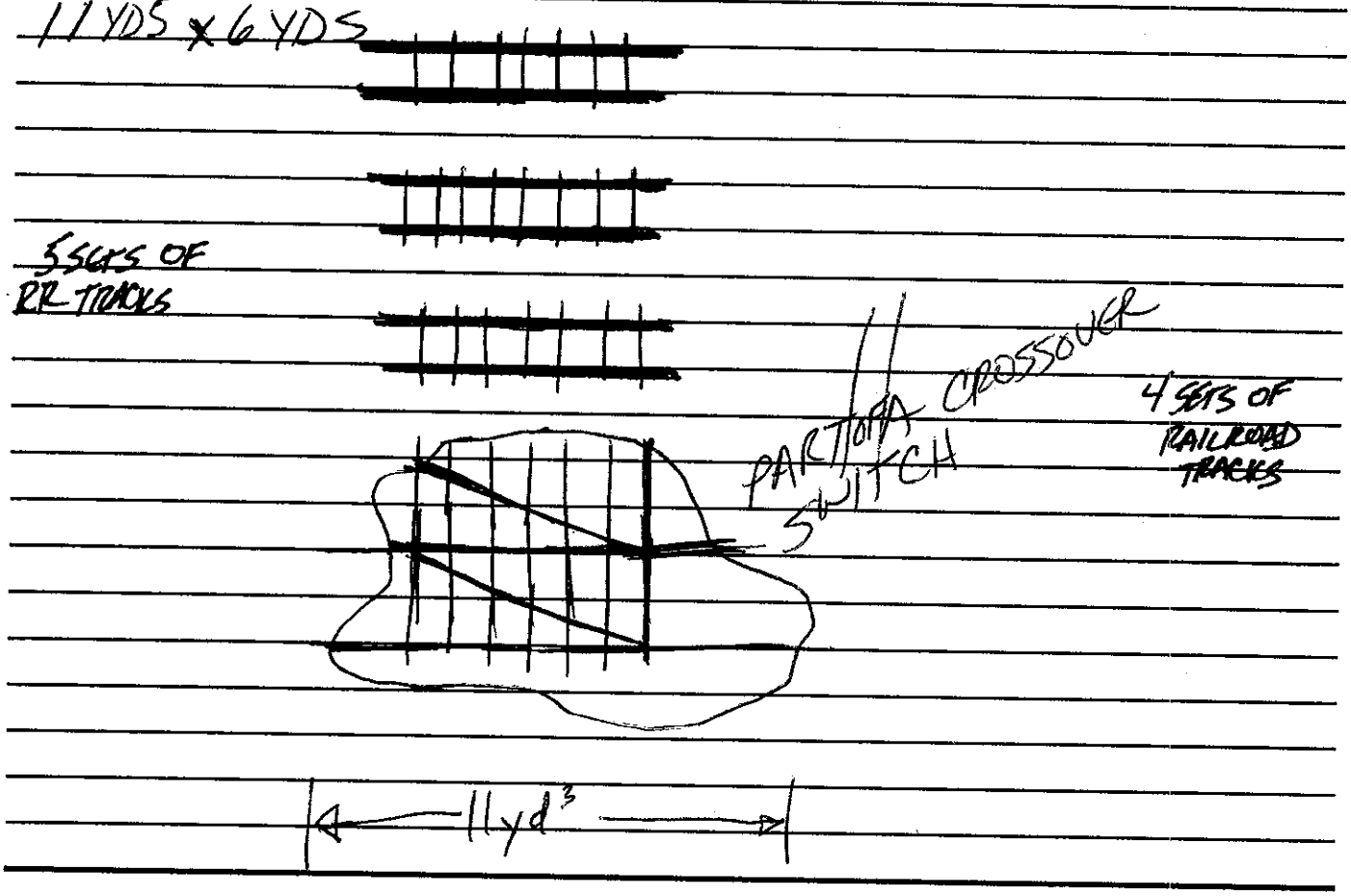
_____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Hazardous Materials Business Plan, Acutely Hazardous Materials
____ III. Underground Storage Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments: 1-2 HRS MAXIMUM JAY JONES 23 TIES IN SWITCH



Contact _____ **II, III**

Title _____ Inspector _____

Signature _____ Signature _____

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

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 HARBOR BAY PARKWAY, 2ND FLOOR
ALAMEDA, CA 94502-6577

September 21, 1994
STID 4020

Harry Patterson
Union Pacific Railroad Co.
1416 Dodge St., Rm 930
Omaha NE 68179-0930

RE: Union Pacific Railroad site, Refueling Area, 1717 Middle Harbor Rd., Oakland CA 94607

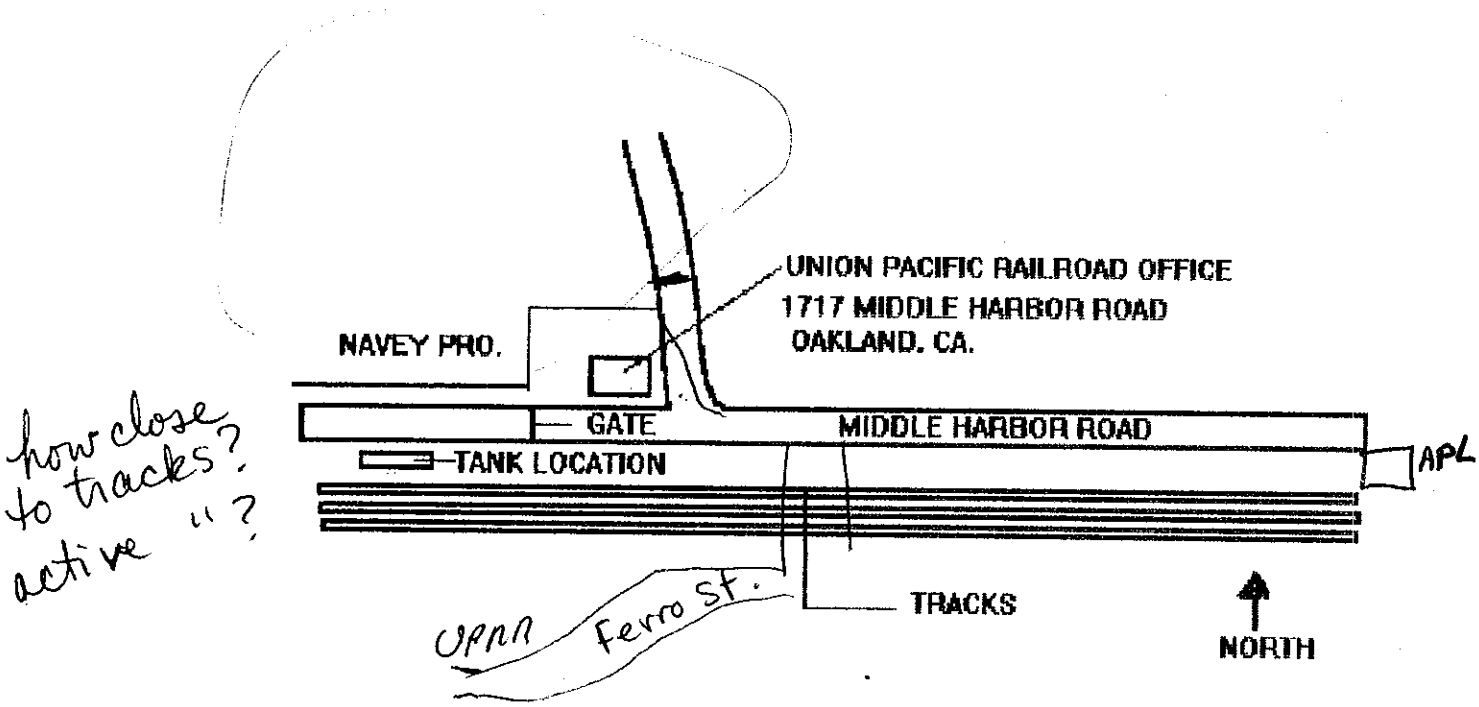
Dear Mr. Patterson,

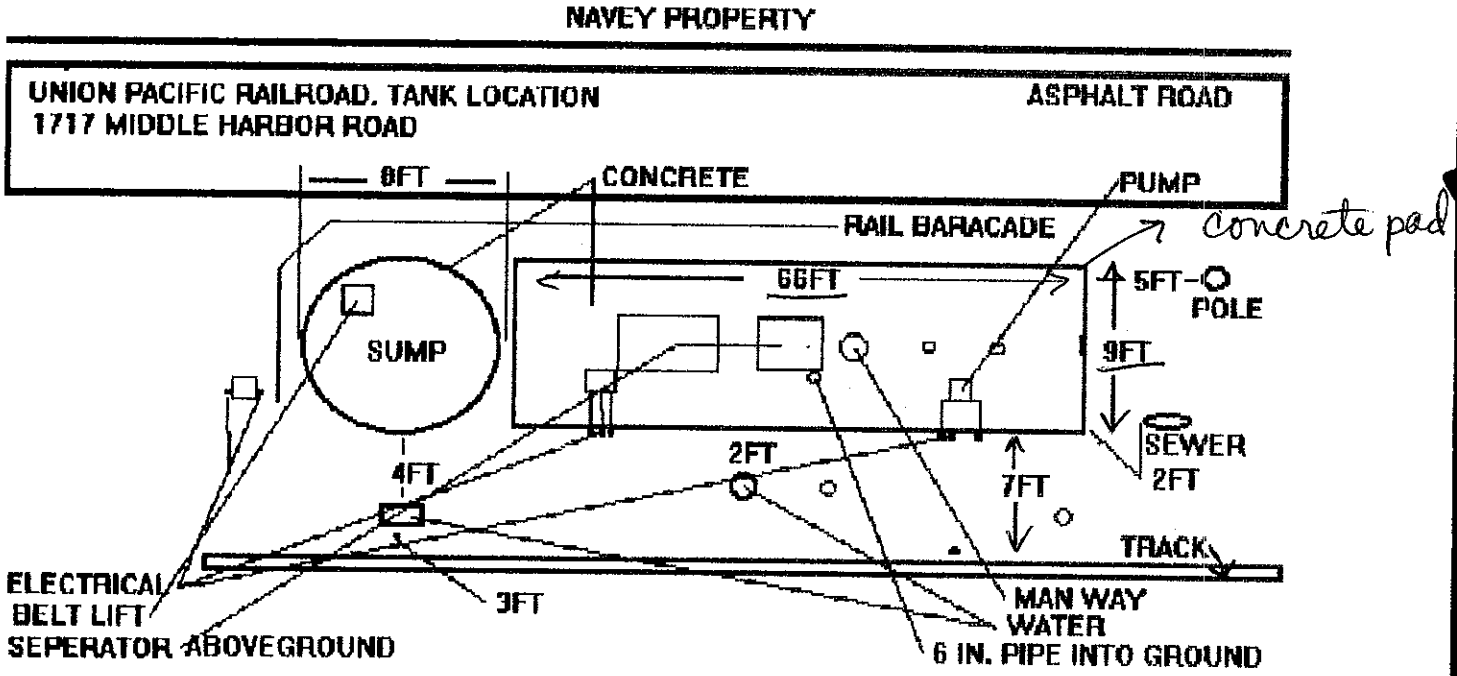
I am in receipt of the "Quarterly Monitoring Report, Hydrocarbon Recovery System," prepared by USPCI, dated 7/14/94. This report documented the sampling of groundwater on 5/2/94, as well as the operation of the free product recovery system.

On 9/21/94, I spoke with Denton Mauldin of USPCI regarding the frequency of report submittals. I requested quarterly free product recovery reports and biannual (twice per year) groundwater sampling reports. The quarterly free product recovery reports should include a discussion section regarding the overall efficacy of the treatment system, and potentiometric maps. The discussion on the treatment system should be backed up with groundwater modelling, including pumping rates, capture zones maps, and isoconcentration maps, in order to discern whether the plume is migrating. Water level measurements are being done semi-monthly (every 2 months); please include potentiometric maps for each event. Groundwater is being sampled twice a year at this site. Groundwater sampling results can simply be incorporated into the quarterly free product reports. Obviously, laboratory reports for the sampling should be included. In total, I should receive four reports per year. Mr. Mauldin agreed to submit these reports within 30 days from the end of each quarter. **The next quarterly report is therefore due by October 31, 1994. Please note that reports may be submitted double-sided to save precious paper.**

Lastly, we have not yet received the Unauthorized Leak Report (ULR) for the release(s) from this site. This site is not listed in the State WAter Resources Control Board's "Report on Releases of Hazardous Substances from USTs," aka LUSTIS database, dated January 1992. I requested the ULR in my last letter to you, dated 2/15/94. The ULR should have been submitted within 5 days of when this release was first discovered, in February 1991. **Please submit the ULR within 10 days, or by October 3, 1994.** The ULR form was sent to you along with my 2/15/94 letter.

UNION PACIFIC RAILROAD
TANK REMOVAL LOCATION





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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR
DEPARTMENT OF ENVIRONMENTAL HEALTH
ALAMEDA COUNTY CC4580
DEPT. OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIVISION
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577

January 26, 1995
STID 4020

Harry Patterson
Union Pacific Railroad Co.
1416 Dodge St., Rm 930
Omaha NE 68179-0930

RE: Union Pacific Railroad site, Refueling Area, 1717 Middle Harbor Rd., Oakland CA 94607

Dear Mr. Patterson,

I am in receipt of the "Third Quarter 1994 Monitoring Report," prepared by USPCI, dated 10/28/94. This report documented the sampling of groundwater on 5/2/94, as well as the gauging of wells on 7/29/94 and 9/26/94 to determine groundwater flow direction. This report also reported the results of capture zone modeling. The conclusion was that the current remediation system is probably not creating enough of an influence to completely capture and control the free product and/or dissolved plumes. A recommendation was made to install piezometers to measure the effectiveness of the existing remediation system.

Subsequently, a workplan dated 1/13/95, prepared by USPCI, was submitted for piezometer installation. This workplan includes three 2" piezometers and one additional 4" recovery well. Fluid levels will be measured in the piezometers. **This workplan is acceptable; I imagine work will commence within 45 or 60 days at the outset.**

Please note that reports may be submitted double-sided to save precious paper. If you have any questions, please contact me at 510-567-6700, extension 6761.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Denton Mauldin, USPCI, 5665 Flatiron Pkwy, Boulder CO 80301
Jon Amdur, Port of Oakland, 530 Water St., Oakland CA 94607
Larry Blazer, Alameda County District Attorney's office
Ray Balcom, RWQCB
Ed Howell/file

je 4020-C

USPCI
A Subsidiary of Union Pacific Corporation

Consulting Services

January 13, 1995

Ms. Jennifer Eberle
Alameda County
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502-6577

RE: Piezometer Installation at the Fueling Area in the UPRR Oakland TOFC Railyard, 1717 Middle Harbor Road, Oakland, California

Dear Ms. Eberle:

Pursuant to our telephone conversation on November 10, 1994, this document represents the workplan for the installation of the piezometers at the fueling area in the Union Pacific Railroad (UPRR) trailer-on-flat-car (TOFC) facility in Oakland, California.

As discussed in the **"Third Quarter 1994 Monitoring Report"**, dated October 28, 1994, the installation of piezometers can establish the effectiveness of the existing remediation system. USPCI proposes to install three piezometers near the fueling area and to monitor the fluid levels on a frequency equal to the current fluid level activities. The locations are indicated on Figure 1. A proposed piezometer completion diagram has been included as Figure 2.

Based on the random occurrence of a lighter-than-water, non-aqueous phase liquid (diesel) or a sheen in monitoring well OMW-10 in the past and the lack of information in the area of the above-ground storage tanks to the east of the fueling area, it is proposed that a 4-inch-diameter, recovery well be installed down-gradient of the above-ground storage tanks. The installation of this well during the installation of the piezometers will allow a drilling mob- and -demobilization and workplan preparation costs savings. Groundwater sampling and fluid level measurements will be incorporated into the existing monitoring program.

If continued monitoring results indicate that active recovery from the new recovery well will benefit the overall remediation activities at the site, then a pump will be installed in the well and plumbed into the existing hydrocarbon recovery and treatment system. The location of the proposed recovery well ORW-4 is indicated on Figure 1. A proposed recovery well completion diagram has been included as Figure 3.

5665 Flatiron Parkway
Boulder, Colorado 80301
303/938-5500
Fax 303/938-5520

24125 Aldine Westfield
Spring, Texas 77373
713/350-7240
Fax 713/350-7246

The piezometers and recovery wells will be installed in accordance with the applicable California Code of Regulations.

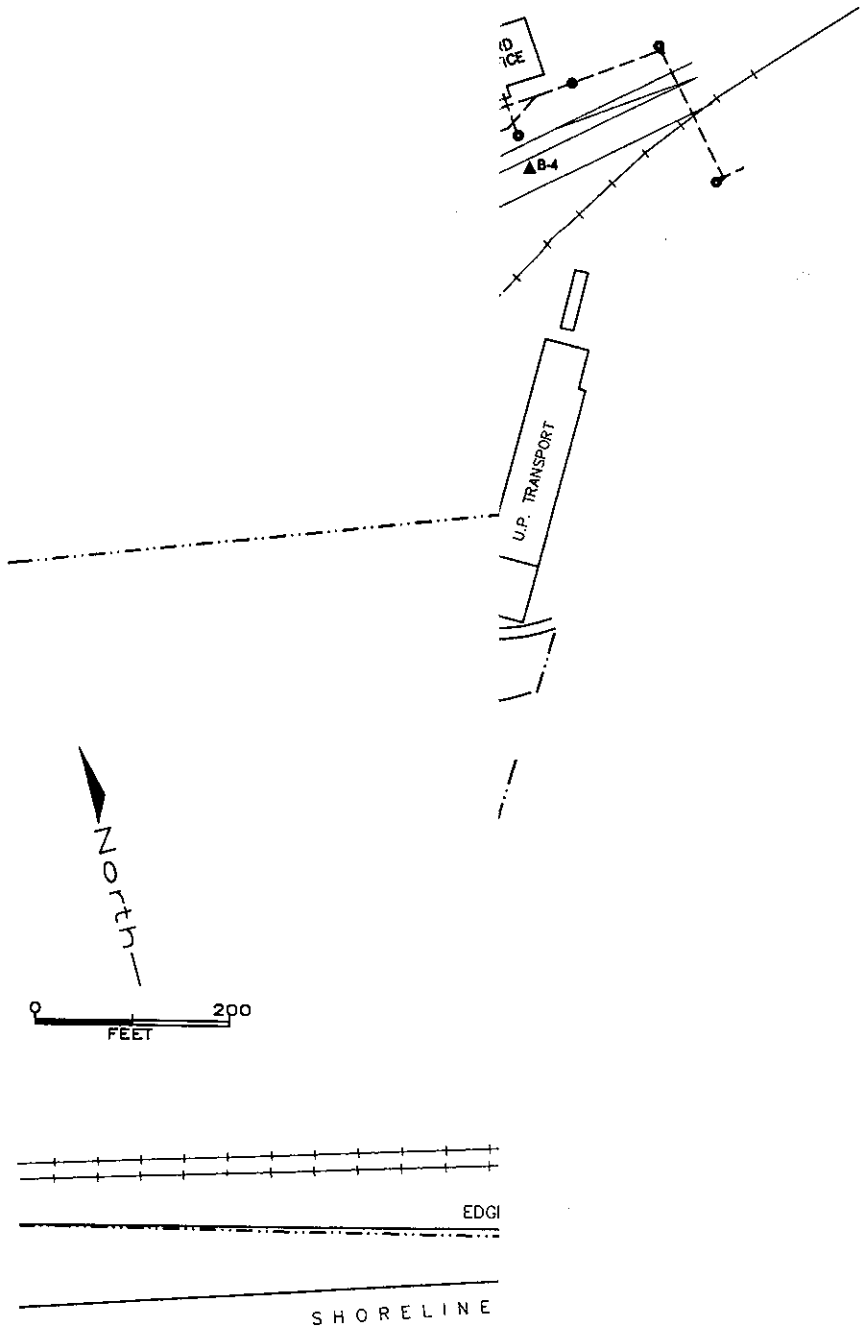
If you have any questions, please call me at (303) 938-5539.

Sincerely,

Denton Mauldin
Engineer III

cc: Harry Patterson, UPRR
Ken Fossey, USPCI
Ken Rose, USPCI

Enclosures
DM/tjh



LEGEND

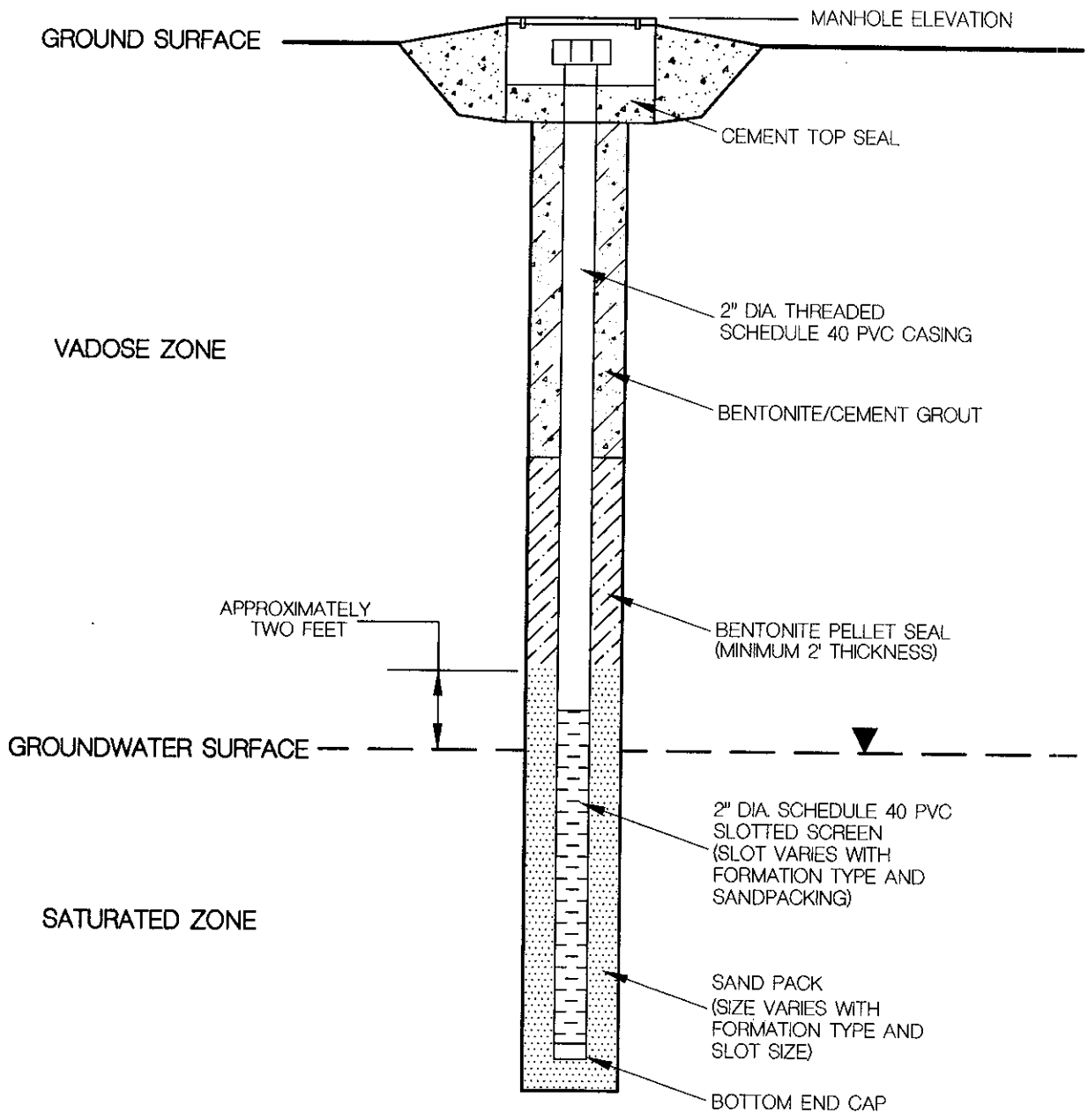
- MONITORING WELL LOCATION AND NUMBER
- BORING LOCATION AND NUMBER
- CATCH BASIN FOR STORM SEWER
- RECOVERY WELLS
- PROPOSED 4" RECOVERY WELL
- PROPOSED PIEZOMETER LOCATIONS

FC RAILYARD - OAKLAND CALIFORNIA

FIGURE 1
SITE MAP

DATE	DWG. NO.
10/19/94	96199-47

FIGURE 2
PROPOSED PIEZOMETER COMPLETION DIAGRAM



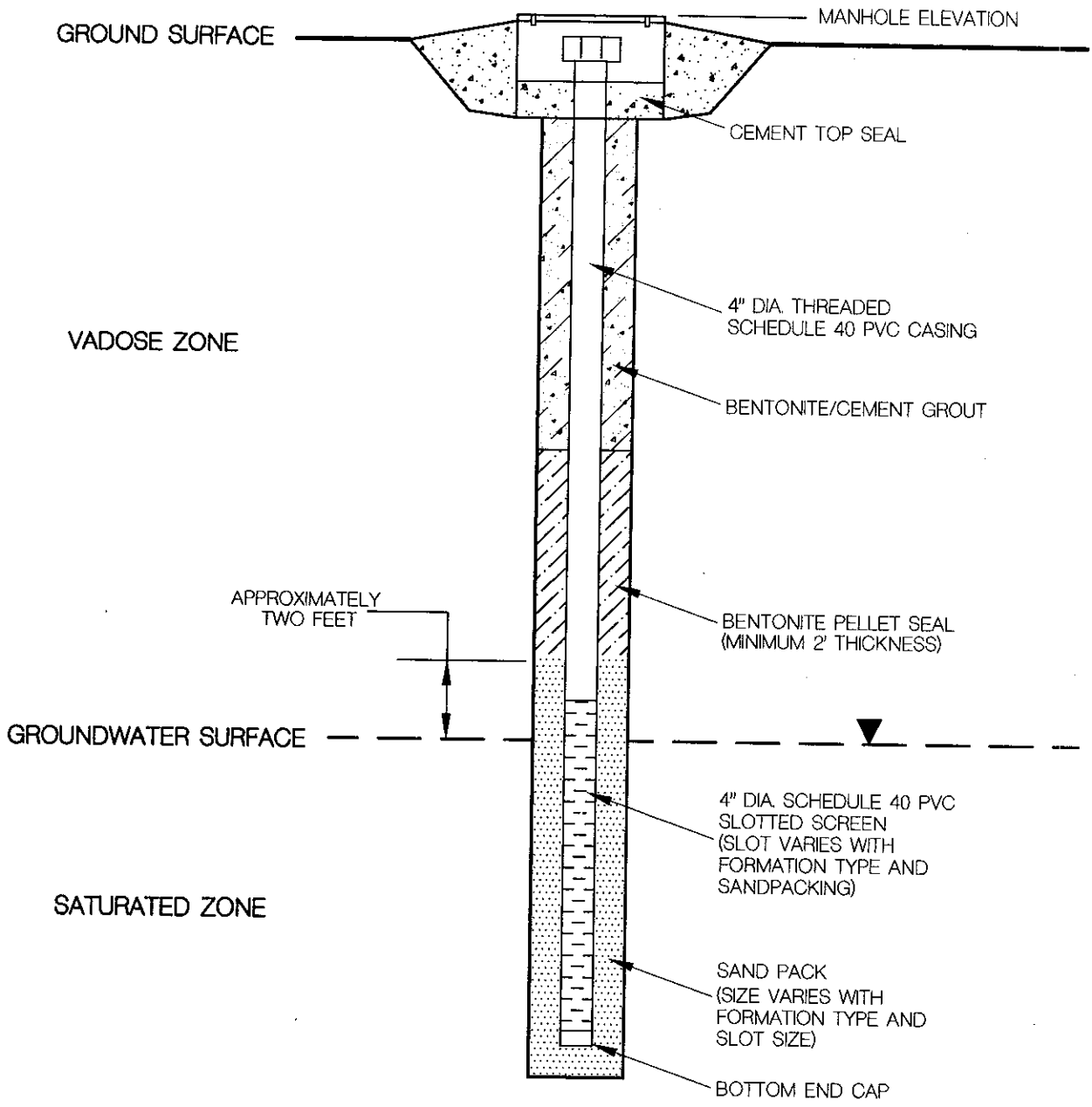
USPCI
A Subsidiary of
Union Pacific Corporation

* PROTECTIVE SURFACE COVER MAY BE GRADE LEVEL STREET BOX IF WELL IS COMPLETED IN HIGH TRAFFIC AREA

96199-48

FIGURE 3

PROPOSED RECOVERY WELL COMPLETION DIAGRAM



USPCI
A Subsidiary of
Union Pacific Corporation

* PROTECTIVE SURFACE COVER MAY BE GRADE LEVEL STREET BOX IF WELL IS COMPLETED IN HIGH TRAFFIC AREA

96199-49

USPCI
A Subsidiary of
Union Pacific Corporation

State Contractors License: USPCI, Inc. and Subsidiaries
United States Pollution Control
731-M North Market Boulevard
Sacramento, California. 95834

License Number: 497384 A Haz

Expiration Date: August 31, 1994

State law mandates that we do not include a Photo copy of our State Contractors License. Should you have any questions regarding out license status please contact the California Contractors State License Board in Sacramento.

California Contractor State
License Board

(916) 366-5153

ACORD CERTIFICATE OF INSURANCE

PRODUCER

JOHNSON & HIGGINS
125 Broad Street
New York, NY 10004

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INSURED

USPCI, INC.
U.S. POLLUTION CONTROL, INC.
D/B/A USPCI
515 WEST GREENS ROAD
HOUSTON, TX 77067

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A — NATIONAL UNION FIRE INSURANCE CO.

COMPANY LETTER B — THE INS. CO. OF THE STATE OF PA

COMPANY LETTER C

COMPANY LETTER D

COMPANY LETTER E

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$ 3,000,000
A	X COMMERCIAL GENERAL LIABILITY	RMGL143-6801 (TX)	1/1/93	1/1/94	PRODUCTS-COMP/OP AGG.	$ 3,000,000
	CLAIMS MADE X OCCUR.				PERSONAL & ADV. INJURY	$ 3,000,000
	OWNER'S & CONTRACTOR'S PROT.	RMGL143-6802			EACH OCCURRENCE	$ 3,000,000
					FIRE DAMAGE (Any one fire)	$
					MED. EXPENSE (Any one person)	$
	AUTOMOBILE LIABILITY					
A	X ANY AUTO	RMCA142-9299 (TX)	1/1/93	1/1/94	COMBINED SINGLE LIMIT	$ 4,000,000
	ALL OWNED AUTOS	RMCA142-9300				
	SCHEDULED AUTOS				BODILY INJURY (Per person)	$
	HIRED AUTOS					
	NON-OWNED AUTOS				BODILY INJURY (Per accident)	$
	GARAGE LIABILITY					
					PROPERTY DAMAGE	$
	EXCESS LIABILITY				EACH OCCURRENCE	$ 2,000,000
A	X UMBRELLA FORM	BE308-6087	1/1/93	1/1/94	AGGREGATE	$ 2,000,000
	OTHER THAN UMBRELLA FORM					
A	WORKER'S COMPENSATION	RMWC123-8647	1/1/93	1/1/94	STATUTORY LIMITS	
A	AND	RMWC123-8649			EACH ACCIDENT	$ 2,000,000
B	EMPLOYERS' LIABILITY	RMWC123-8651			DISEASE—POLICY LIMIT	$ 2,000,000
					DISEASE—EACH EMPLOYEE	$ 2,000,000
	OTHER				EACH LOSS	5,000,000
A	POLLUTION LEGAL LIAB	*PRM7063130	1/1/93	1/1/94	TOTAL ALL LOSSES	10,000,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

* LOCATIONS: GRASSY MT, UT; SAWYER, ND; PHILADELPHIA, PA; GRAYBACK MT, UT; TULSA, OK; TUCKER, GA; SAN JOSE, CA; LONE MT, OK; TWINSBURG, OH; KANSAS CITY, MO; VERNON, CA; WICHITA, KS; ROSEMOUNT, MN; SAN ANTONIO, TX

CERTIFICATE HOLDER

For Sample Purposes Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

Robert A Kuehn

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

March 7, 1994
STID 4020

Lester Feldman
Regional WAter Quality Control Board
2101 Webster St., Suite 500
Oakland CA 94612

RE: Union Pacific Railroad site
1717 Middle Harbor Rd.
Oakland CA 94607

Dear Mr. Feldman,

I would like to inform you of the transfer of lead agency oversight status from RWQCB to Alameda County for the above-referenced site. This matter has been discussed between myself and Ray Balcom of your staff. This is a free product case with ongoing groundwater treatment. I also oversee the adjacent UPRR site, which also has free product.

If you have any questions, please contact me at 510-271-4530.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Denton Mauldin, USPCI, 5665 Flatiron Pkwy, Boulder CO 80301
Harry Patterson, Union Pacific Railroad Co., 1416 Dodge St., Room 930, Omaha, Nebraska 68179-0930
Ed Howell/file

je

USPCI
A Subsidiary of
Union Pacific Corporation

Consulting Services

ALCO
HAZMAT

94 FEB 28 PM 1:49

February 25, 1994

Ms. Jennifer Eberle
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, California 94621-1439

RE: UPRR Fueling Area, 1717 Middle Harbor Road, Oakland, California

Dear Ms. Eberle:

As requested in your letter dated February 15, 1994, enclosed is information pertaining to the Fueling Area at the Union Pacific Railroad (UPRR), Oakland trailer on flat car railyard in Oakland, California. The following reports have been enclosed:

- **"Quarterly Monitoring Report, Hydrocarbon Recovery System, Fourth Quarter 1993"**, dated January 10, 1994;
- **"Hydrocarbon Recovery System As-Built Construction Report"**, dated July 20, 1992;
- **"Hydrocarbon Investigation and Remedial Design"**, dated June 5, 1991; and
- **"Underground Storage Tank Closure Report"**, dated February 24, 1994.

As we discussed in our telephone conversation yesterday, to the best of my knowledge an "Unauthorized Release Form" has not been submitted by USPCI (on behalf of the Union Pacific Railroad) for this site. However, I appreciate your checking on this issue since the form may have been submitted for UPRR by another consultant or directly by UPRR personnel. Also as we discussed, it is the firm belief of USPCI, based on the findings of the site assessment investigation, that the diesel fuel encountered in the vicinity of the waste oil tank is the result of a release associated with the former locomotive fueling facility. As stated in the enclosed UST Closure Report, there is no evidence to indicate that a release occurred as a result of the operation of the former waste oil tank.

5665 Flatiron Parkway • Boulder, Colorado 80301 • 303/938-5500 • Fax 303/938-5520
24125 Aldine Westfield • Spring, Texas 77373 • 713/350-7240 • Fax 713/350-7246

If you have any questions or require any additional information regarding the fueling area site, please call Denton Mauldin at (303) 938-5539. If you have any questions regarding the work associated with the removal of the waste oil tank or any underground storage tank site owned by UPRR in California, please call me at (303) 938-5562.

Sincerely,

Kenneth V. Rose

Kenneth V. Rose
USPCI Geologist

cc: Harry Patterson, UPRR
Denton Mauldin, USPCI

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

February 15, 1994
STID 4020

Harry Patterson
Union Pacific Railroad Co.
1416 Dodge St., Room 930
Omaha, Nebraska 68179-0930

RE: Union Pacific Railroad site
1717 Middle Harbor Rd.
Oakland CA 94607

Dear Mr. Patterson,

This letter is being written pursuant to our telephone conversation earlier today. As per our discussion, you agreed to send me the most recent report of groundwater extraction/monitoring activities for the above referenced site. I would appreciate this report within the next week.

Upon a review of the file for this case, I noticed that a tank removal report has not yet been submitted. Therefore, we request that you **submit this tank removal report within 30 days, or by March 15, 1994.** This report was due within 60 days of tank removal, as stipulated in the tank closure plan which was signed by Tim Albright and yourself on 4/1/93. This report should include copies of the signed manifests, including those for the tank, offhauled soil, and any water which may have been removed from the excavation. There should also be a narrative section describing the tank removal activities, a clearly defined site map, and the other items specified in the instructions for the tank closure plan (see attachment). In addition, an Unauthorized Leak Report (ULR) has not been submitted. The ULR is usually due within five days of discovery of the release. I have attached a blank copy for your convenience. **Please submit the ULR with the tank removal report, or earlier.**

If you have any questions, please contact me at 510-271-4530.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Denton Mauldin, USPCI, 5665 Flatiron Pkwy, Boulder CO 80301
Ed Howell/file

je
attachment

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320

2050 TFD

Jennifer Eberle 94
See revisions in red

ACCEPTED Alberle 4-6-93

Underground Storage Tank Closure Permit Application

Alameda County Division of Hazardous Materials
80 Swan Way, Suite 200,
Oakland, CA 94621
Telephone: (510) 271-4320

These closure/removal plans have been received and found to be complete and generally meet the requirements of State and local Health Laws. Changes to your closure plans indicated by this Department are to assure compliance with State and local laws. [illegible] are now and remain in force for issuance of any required building permits for construction/destruction.

One copy of the approved plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws.

Notify this Department at least 72 hours prior to the following required inspections: *

_____ Removal of Tank(s) and Piping
_____ Sampling
_____ Final Inspection

Issuance of a) permit to operate, b) permanent site closure, is dependent on compliance with accepted plans and all applicable laws and regulations.

*THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS

Contact Specialist:

UNDERGROUND TANK CLOSURE PLAN
*** * * Complete according to attached instructions * * ***

1. Business Name UNION PACIFIC RAILROAD

   Business Owner UNION PACIFIC RAILROAD

2. Site Address 1717 MIDDLE HARBOR RD.

   City OAKLAND Zip 94607 Phone 402-271-4078

3. Mailing Address 1416 DODGE ST

   City OMAHA Zip NE Phone 402-271-4078

4. Land Owner UNION PACIFIC RAILROAD.

   Address 1416 DODGE ST City, State OMAHA, NE. Zip 68179

5. Generator name under which tank will be manifested _____

   UNION PACIFIC RAILROAD.

   EPA I.D. No. under which tank will be manifested CAD981385495

Tim Albright #139
510-732-6300
tank to be pulled in June 93.

6. Contractor U.S. POLLUTION CONTROL

Address 4385 E. LOWELL ST., SUITE-C

City ONTARIO CA Phone 909-467-3733

License Type* A-HAZ ID# 497384

*Effective January 1, 1992, Business and Professional Code Section 7058.7 requires prime contractors to also hold Hazardous Waste Certification issued by the State Contractors License Board. Indicate that the certificate has been received, in addition, to holding the appropriate contractors license type.

7. Consultant USPCI

Address 5665 FLATIRON PARKWAY

City Boulder, CO. Phone 303-938-5500

8. Contact Person for Investigation USPCI

Name KEN ROSE Title GEOLOGIST- ENVIRONMENTAL ASSESSMENTS

Phone 303-938-5500 ~~Denver~~
Boulder CO

9. Number of tanks being closed under this plan 1

Length of piping being removed under this plan All ABOVEGROUND

Total number of tanks at facility 1

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name U.S. POLLUTION CONTROL. EPA I.D. No. TXD 988052494

Hauler License No. 1212 License Exp. Date N/A

Address 2425 ALDIN WEST [redacted] FIELD RD

City SPRING State TEXAS Zip 77373

b) Product/Residual Sludge/Rinsate Disposal Site ok

Name SOLVENT SERVICE EPA I.D. No. CAD059494310

Address 1021 [redacted] BERRYESSA

City SAN JOSE State CA Zip 95112

DTSC
Dave
Tao
540-3934
off works every other Friday

rev 3/92

c) Tank and Piping Transporter

Name ERICKSON. EPA I.D. No. CAD009466392

Hauler License No. 0019 License Exp. Date NONE

Address 255 PARR Blvd

City RICHMOND State CA Zip 94801

d) Tank and Piping Disposal Site T+D Cost 2,050.00

Name ERICKSON EPA I.D. No. CAD009466392

Address 255 PARR Blvd

City RICHMOND State CA Zip 94801

11. Experienced Sample Collector

Name KEN ROSE

Company U.S. POLLUTION CONTROL.

Address 5665 FLATIRON PARKWAY.

City BOULDER State CO Zip 80301 Phone 303-938-5500

OK (12.) Laboratory
fed ex

Name USPCI ANALYTICAL SERVICES

Address 4322 SOUTH 49TH WEST AVENUE

City TULSA State OK Zip 74107

State Certification No. 1293

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe.

14. Describe methods to be used for rendering tank inert

20 lb. DRY ICE per 1000 gal. of tank.

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. **It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.**

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
12,000 G	WASTE OIL TANK ONLY	OIL, TANK CONTENTS	INSIDE TANK
AFTER TANK REMOVAL.		SOIL gw if present	TWO FEET BELOW NATIVE SOIL. at least 2 soil samples

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) 100 TONS	Sampling Plan 1 composiT SAMPLE. per ~~20 yds~~ 50 yd^3 if it's offhauled.

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
oil + grease		418.1	1.PPm.
TPH-g		8015 ~~8020~~	0.005 PPm.
metals		AA METALS Cd CR Pb ~~Pd~~, ZN, NI	
semi-VOCs		~~8240~~ 8270	
TPH-d		8015 ~~8240~~	
BTEX		8020	
Cl. HCs		8010	1 PPm
~~HALOGENS~~		418.1	
		~~602~~	
		624	
		AA METALS Cd, CR, Pd Pb	
		ZN, NI	
		8270	

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer ~~USPCI, INC~~ Self-Insured USPCI

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. **Report any leaks or contamination to this office within 5 days of discovery.** The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) TIM ALBRIGHT USPCI

Signature [signature]

Date 4/1/93

Signature of Site Owner or Operator

Name (please type) ~~HARRY P PATTERSON~~ Union Pacific RR

Signature [signature]

Date 4/1/93

916-421-2025

AMENDMENT TO UNION PACIFIC YANK TANK HEALTH AND SAFETY PLAN
RE: 1717 MIDDLE HARBOR RD. OAKLAND CA.
PROJECT # 94-808

Start Date: June 1993

Introduction:

UPRR has requested USPCI to remove and disposal of one 12,000 gallon underground waste oil storage tank and the oil water separator associated with the tank. Location of the tank, (see site map) is off Middle Harbor Road on the frontage road running along the tracks. The tank is in a open and will ventilated area. Nearest population is the US Navy approx. 22 feet north from the tank. The tank is within 7 feet of several active tracks. With the Ground water at 6 ft and the excavation being approx. 8 to 10 feet in depth, any heavy equipment (trains) within 20 feet could cause a cave-in. All active tracks within 20 feet of the excavation will be removed from service by UPRR by installing derails on the tracks to insure a safe working area. All tank contents will be removed using USPCI vacuum truck and transported to Solvent Services in San Jose under proper hazardous waste manifest for disposal. After approval from the Fire Dept. and the County to remove the tank , the tank will be loaded onto Erickson flat bed truck and transported under proper hazardous waste manifest to there facility for cleaning and disposal. Samples from the excavation will be collected as directed by the County. Soil samples will be placed into bras tubes, covered with teflon sheets and a plastic cap. If ground water is encounter, samples of the water will also be required.

on top of list

Listed below, there will not be any deviation from the original Health and Safety Plan EXCEPT AS NOTED:

SCOPE OF WORK
CLIENT'S BUSINESS
HISTORY OF SITE:
The site is used to switch out rail cars and loading rail cars. The area next to the tank was used to fuel the trains.
GENERAL SCOPE OF WORK
SPECIFIC TASK
INSPECTIONS BEFORE SHIPMENT TANKS
PERSONNEL:
Project Supervisor Tim Albright
Overall responsible for all operations.

Equipment Operator Don Ostrand
Responsible for Backhoe

Technicians Orin Rhodius
Responsible. Directions from Project Supervisor

PERSONNEL CONTINUE:

Health and Safety Tim Albright
Responsible for all Health and safety

Instruments Tim Albright
Responsible for calibrating 1314 and PEL levels throughout working hours.

EQUIPMENT
CHEMICAL HAZARD
POTENTIAL PHYSICAL HAZARDS/CONTROL
PERSONAL PROTECTIVE EQUIPMENT (PPE)
INSTRUMENTATION/MONITORING
SITE CONTROL MEASURES
DECONTAMINATION PROCEDURES
TRAINING
MEDICAL MONITORING
EMERGENCY PLAN

Emergency Phone:

WPRR

The entrance to the office next to Middle Harbor Rd.

EMERGENCY NUMBER----911------

Directions to Hospitals:

Oakland: Kaiser Foundation
280 W. MacAthur Blvd.
Oakland, Ca 415-428-5000

Exit site on Middle Harbor Rd to 3rd St.
turn right to Broadway
Turn left and follow to MacArthur Blvd
Turn right Hospital on left side

SIGN OFF:

I acknowledge that I have read and understood the above amendment to the Health and Safety plan and will abide by the requirements specified in it.

Name	Signature	Representing	Date/Time

USPCI

HEALTH AND SAFETY PLAN

REVIEW APPROVAL FORM

CLIENT: UPRR

PROJECT: Waste Oil & saperator - 94808

LOCATION: Oakland

SUBMITTED BY: Tim Albright

DATE RECEIVED: 4-2-93

To be attach to master UPRR plan.

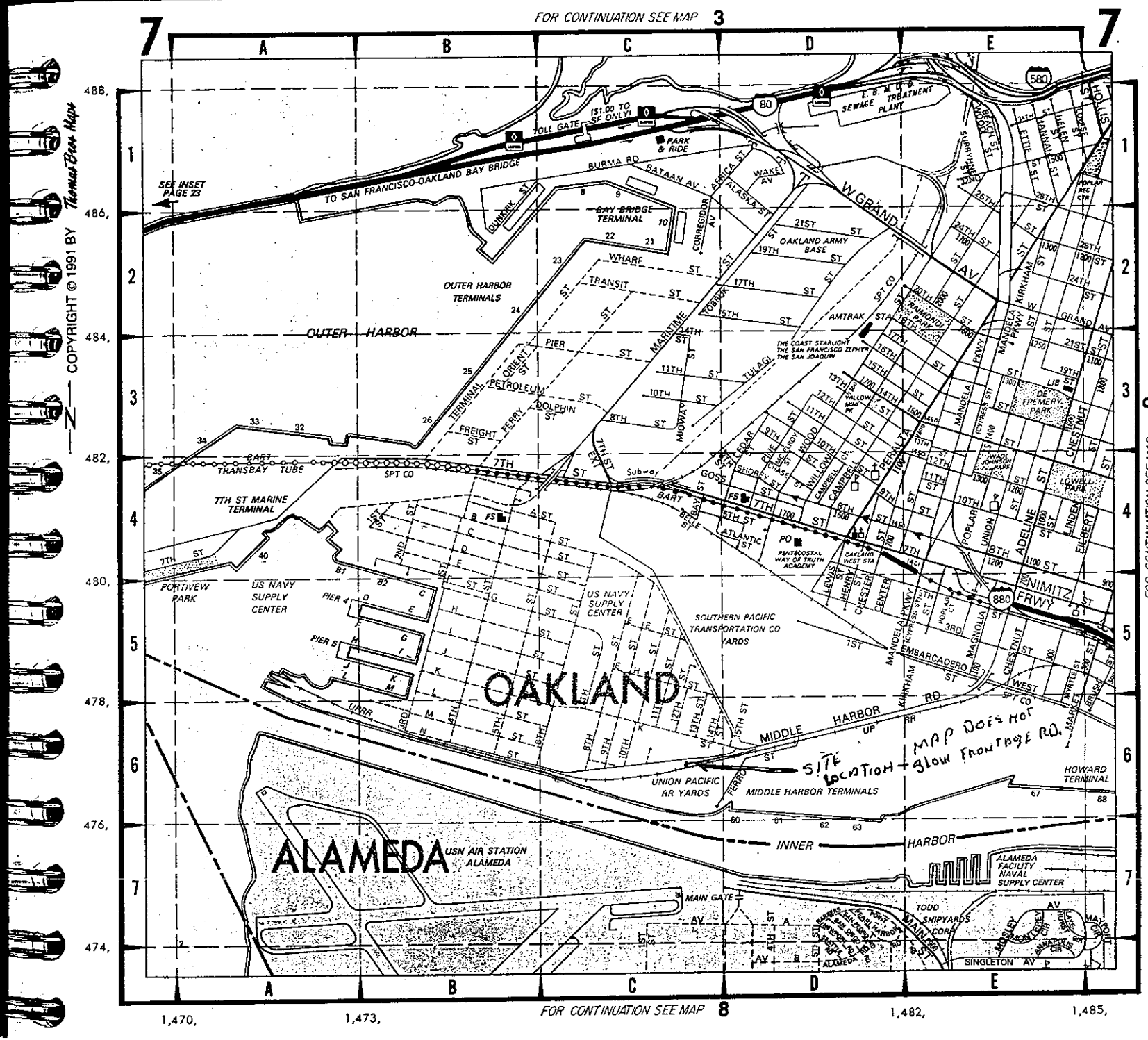
☒	APPROVED (please note comments)
☐	APPROVED WITH CHANGES INDICATED*
☐	RESUBMIT WITH CHANGES INDICATED

*Changes must be made before plan can be considered approved and before job begins (ATTACH REVIEW SHEETS).

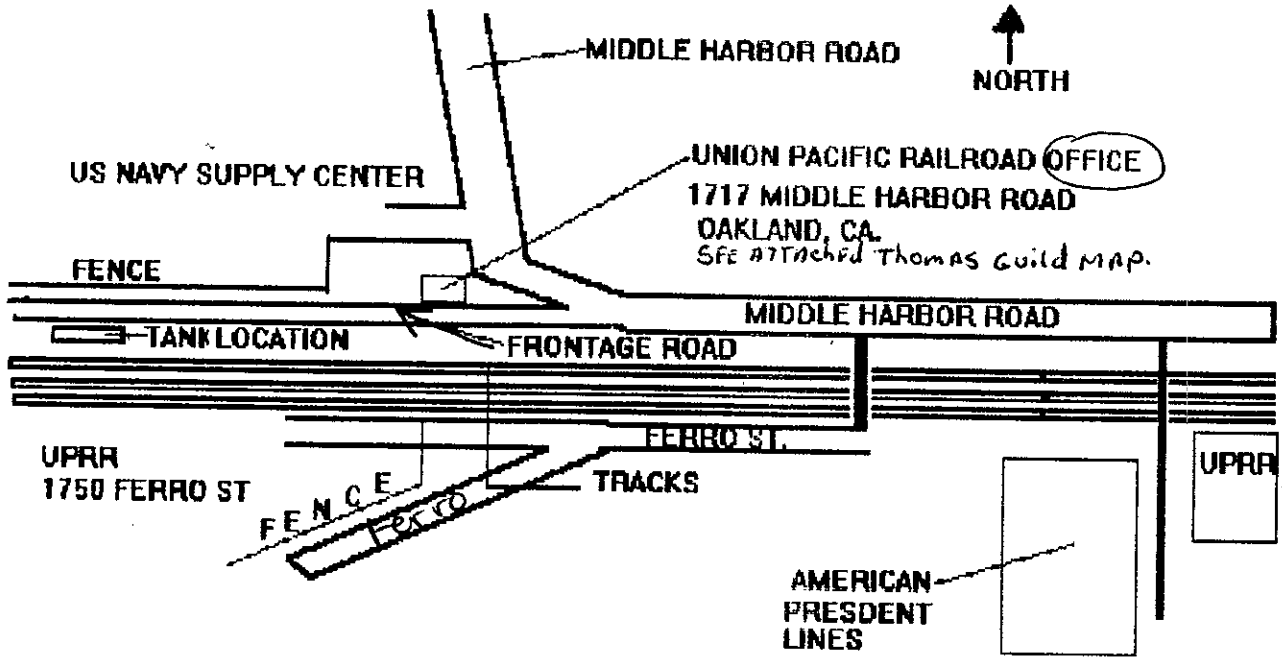
REVIEWED BY: [signature]

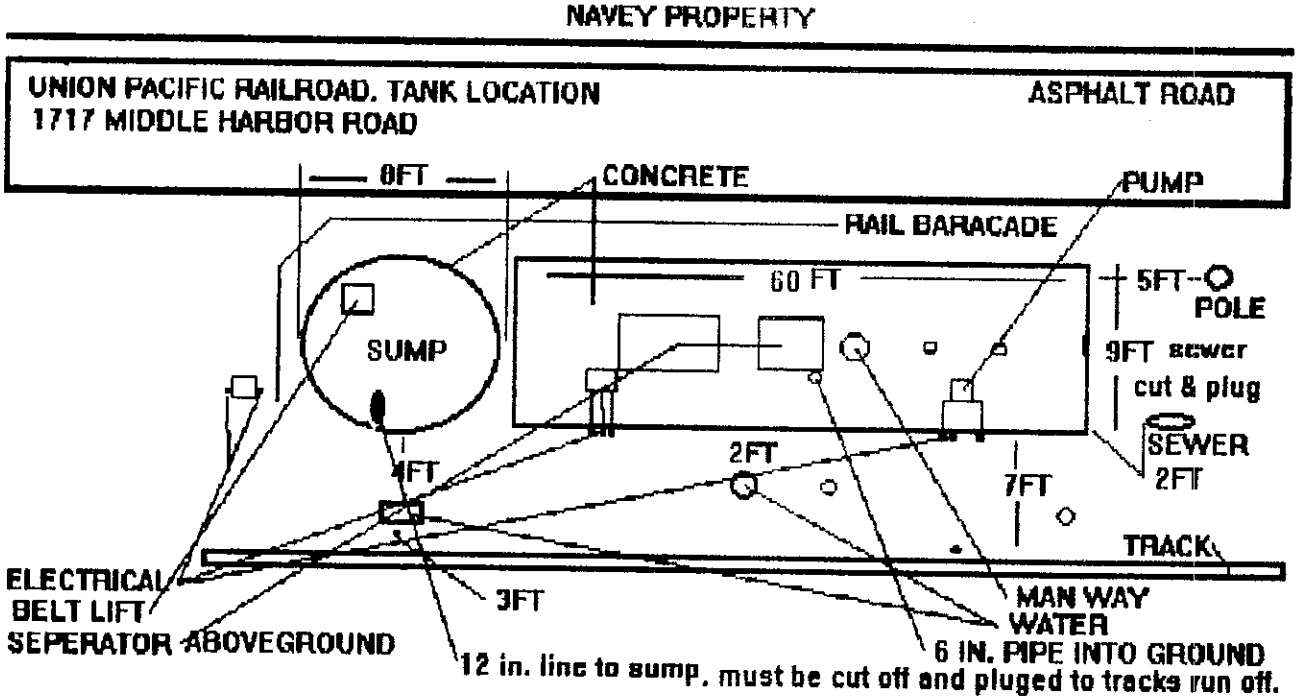
DATE: 4-2-93

THE SIGNED REVIEW APPROVAL FORM MUST ACCOMPANY THE ONSITE HEALTH AND SAFETY PLAN



UNION PACIFIC RAILROAD
TANK REMOVAL LOCATION





UNION PACIFIC RAILROAD COMPANY

W. E. (BILL) WIMMER
ASSISTANT VICE PRESIDENT
ENVIRONMENTAL MANAGEMENT

MAILING ADDRESS:
ROOM 930
1416 DODGE STREET
OMAHA, NEBRASKA 68179

June 21, 1991
Environmental Protection
CA, Oakland

Mr. Ray Balcon
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster, 5th Floor
Oakland, CA 94612

RB

Dear Mr. Balcon:

Reference our containment and cleanup efforts relating to the February oil release.

The water and oil pumped out of the drain line at the estuary was estimated at 6,000 gallons water and 50-100 gallons oil, all of which was transferred to our waste water treatment system on site.

Attached are waybills for 17 rail cars of oil contaminated track ballast and oil which was removed from tracks adjacent to the fueling area. These soils are recycled into road subbase material by Glen's Excavating & Grading Asphalt Products in Tooele, Utah.

Should you have additional questions, please contact Harry Patterson, Director Environmental Operations-Western, at 402-271-4078.

Yours truly,

W. E. WIMMER
AVP Environmental Management

UP 030620 G

INFO COPY
\- 03 14 91 800749

8266 ERDA UT 60007 OAKLAND CA
9001 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

KB 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
UNION PACIFIC SYSTEMS

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
PER JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

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INFO COPY
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8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

LC 01 890AKLANDCA

GLENNS EXCAVATING
A/O J HOWARD,801-322-1139
UNION PACIFIC SYSTEMS
ERDA, UT

COMPANY MATERIAL
DO NOT HUMP

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CUSTOMER FURNISHED CONTRACT DATA - NS

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INFO COPY
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8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL

CUSTOMER FURNISHED CONTRACT DATA - NA

UP 031948 G

INFO COPY
03 14 91 800747

8266 ERDA UT 60007 OAKLAND CA
9001 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

KB 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
UNION PACIFIC SYSTEMS

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
PER JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 031963 G

INFO COPY
03 11 91 839785

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 89OAKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
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3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

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INFO COPY
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8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 89OAKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 031984 G

INFO COPY

* 03 11 91 839783

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 89OAKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925

C/L OILY SOIL 50,000

.0 P

3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL

TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032026 G

INFO COPY
* 04 03 91 803511

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

LC 01 89OAKLANDCA

GLENNS EXCAVATING
A/O J HOWARD,801-322-1139
UNION PACIFIC SYSTEMS
ERDA, UT

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
NOBILL 4/3/91 .0 P
SEE 3/11 WAYBILL
WB#839787
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NS

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 032026 G

INFO COPY
\- 03 11 91 839787

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL

CUSTOMER FURNISHED CONTRACT DATA - NA

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 032027 G

INFO COPY
03 11 91 839786

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 89OAKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 032027 G

INFO COPY

05 14 91 811386

8266 ERDA UT 60007 OAKLAND CA

7 ST LOUIS MO 63103

13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 89OAKLANDCA

GLENNS EXCAVATING
A/O JAY HARWOOD - 801-322-1139
UNION PACIFIC RAILROAD
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925

C/L OILY SOIL 70,000

.0 P

05/14 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL

TOTALS 70,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032037 G

INFO COPY
* 03 14 91 800746

8266 ERDA UT 60007 OAKLAND CA
9001 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

KB 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
UNION PACIFIC SYSTEMS

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
PER JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032041 G

INFO COPY

* 05 14 91 811382

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HARWOOD - 801-322-1139
UNION PACIFIC RAILROAD
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925

C/L OILY SOIL 70,000

.0 P

05/14 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL

TOTALS 70,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032054 G

INFO COPY
\- 05 14 91 811383

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HARWOOD - 801-322-1139
UNION PACIFIC RAILROAD
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 70,000
.0 P

05/14 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL
TOTALS 70,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032069 G

INFO COPY
\- 03 14 91 800748

8266 ERDA UT 60007 OAKLAND CA
9001 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC SYSTEM
OAKLAND, CA

KB 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
UNION PACIFIC SYSTEMS

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
PER JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032073 G

INFO COPY
\- 05 14 91 811384

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HARWOOD - 801-322-1139
UNION PACIFIC RAILROAD
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 70,000
.0 P

05/14 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL
TOTALS 70,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 032084 G

INFO COPY
\- 05 14 91 811385

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HARWOOD - 801-322-1139
UNION PACIFIC RAILROAD
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925

C/L OILY SOIL 70,000

.0 P

05/14 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL

TOTALS 70,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UP 032094 G

INFO COPY
* 04 08 91 804549

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7
UP S
ENVIRONMENTAL FILTER
OAKLAND, CA

BG 01 890AKLANDCA

GLENN EXCAVATING
A/O JAY HARWOOD 801-322-1139
UNION PACIFIC SYSTEMS

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P
04/08 PER JAY HARWOOD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

UZ057 00-000-00 802 - UNION PACIFIC RAILROAD COMPANY - 802

UP 032094 G

INFO COPY
\- 03 11 91 839788

8266 ERDA UT 60007 OAKLAND CA
7 ST LOUIS MO 63103
13TH & OLIVE, ROOM 400 DESK 7

UP S

ENVIRONMENTAL FILTER
ALLEN JENSEN, MANAGER
UNION PACIFIC RAILROAD
OAKLAND, CA

BG 01 890AKLANDCA

GLENNS EXCAVATING
A/O JAY HOWARD, 801-322-1139
ERDA, UTAH
ERDA, UTAH

COMPANY MATERIAL
DO NOT HUMP

1491925
C/L OILY SOIL 50,000
.0 P

3/9 JAY HOWARD
801-322-1139
0. DHCO MATERIAL
TOTALS 50,000

CUSTOMER FURNISHED CONTRACT DATA - NA

TARIFF DHCO 00000 ITEM 000000

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Division Inspection Form

Site ID# _____ Site Name Union Pacific RR Today's Date 5/13/93

Site Address 1717 Middle Harbor Rd. EPA ID# _____

City Oakland Zip 94607 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ✓ III. Underground Tanks Removal

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22) 8:45

	1. Waste ID	* 66471
	2. EPA ID	66472
	3. > 90 days	66508
	4. Label dates	66508
	5. Biennial	66493
Manifest	6. Records	66492
	7. Correct	66484
	8. Copy sent	66492
	9. Exception	66484
	10. Copies Rec'd	66492
Misc.	11. Treatment	66371
	12. On-site Disp. (H.S.&C.)	26189.5
	13. Ex Haz. Waste	66570
Prevention	14. Communications	67121
	15. Aisle Space	67124
	16. Local Authority	67126
	17. Maintenance	67120
	18. Training	67105
Contin. gency	19. Prepared	67140
	20. Name List	67141
	21. Copies	67141
	22. Emg. Coord. Trng.	67144
Containers, Tanks	23. Condition	67241
	24. Compatibility	67242
	25. Maintenance	67243
	26. Inspection	67244
	27. Buffer Zone	67246
	28. Tank Inspection	67259
	29. Containment	67245 10:10
	30. Safe Storage	67261
	31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	32. Applic./Insurance	66428
	33. Comp. Cert./CHP Insp.	66448
	34. Containers	66465
Manifest	35. Vehicles	66465
	36. EPA ID #s	66531
	37. Correct	66541
	38. HW Delivery	66543
	39. Records	66544
Cont'rs	40. Name/ Covers	66545
	41. Recyclables	66800

Comments:

UST is partially pulled (one end is out of the ground), + liquid beneath it is being pumped out by Erickson. Denton Mauldin of USPCI showed me the 10 mws, 3 rws, + gw treatmt system (since 5-92) for the diesel floating on gw in the vicinity of the UST. The source is believed to be the cumulative RR use. A discharge to the estuary was discovered ~2 yrs. ago, + traced back from a storm drain to this area. The County filed a lawsuit against Union Pacific ~1 yr. ago. Who in the County is overseeing this?

Calvin Choyce from OFD onsite.

12,000 gal UST removed. It's fiberglass, + appears free of holes. Water in pit at ~6' bgs has dark brown floating substance (photo taken). Tank had a rupture on one end, made during its removal. UST transported by Erickson under manifest # 84117796. Liquid transported by Erickson under manifest # 90834547.

Rev 6/88

Contact: Tim DeBright

Title: _____

Signature: _____

Inspector: Jennifer Eberle

Signature: J Eberle

ALAMEDA COUNTY, DEPARTMENT OF
ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Hazardous Materials Division Inspection Form p. 2

Site ID# _____ Site Name Union Pacific RR Today's Date 5-13-93

Site Address 1717 Middle Harbor Rd. EPA ID# _____

City Oakland Zip 94607 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
___ II. Business Plans, Acute Hazardous Materials
✓ III. Underground Tanks removal

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I.A GENERATOR (Title 22)

	___ 1. Waste ID	* 66471
	___ 2. EPA ID	66472
	___ 3. > 90 days	66508
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	___ 8. Copy sent	66492
	___ 9. Exception	66484
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Misc.	___ 11. Treatment	66371
	___ 12. On-site Disp. (H.S.&C.)	26189.5
	___ 13. Ex Haz. Waste	66570
Prevention	___ 14. Communications	67121
	___ 15. Aisle Space	67124
	___ 16. Local Authority	67126
	___ 17. Maintenance	67120
	___ 18. Training	67105
Contin. gency	___ 19. Prepared	67140
	___ 20. Name List	67141
	___ 21. Copies	67141
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Containers, Tanks	___ 23. Condition	67241
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	___ 27. Buffer Zone	67246
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	___ 31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	___ 32. Applic./Insurance	66428
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	___ 34. Containers	66465
Manifest	___ 35. Vehicles	66465
	___ 36. EPA ID #s	66531
	___ 37. Correct	66541
	___ 38. HW Delivery	66543
	___ 39. Records	66544
Cont'rs	___ 40. Name/ Covers	66545
	___ 41. Recyclables	66800

Comments:

The 3 ASTs, currently empty, previously fed the filling area (photo taken), apparently by gravity, not pumps. USPCI plans to empty the lines & pressure grout them next week.

Soil sampled from west end at ~4.5' bgs in native, greenish soil w/HC odor. The oil-water separator was located directly above this sample location. Strong HC odor from pit.

Soil sampled from east end at ~5.5' bgs in native soil.

There are no plans for overexcavation due to proximity of RR tracks, telephone pole, & sump, which they intend to continue to use, along with a new AST & oil/water separator. ② gw treatmt system already in place in immediate area. ~~Therefore~~ SP is ~15 yd³ & is to be offhauled to Glen's Excavating in Tooele, Utah for recycling.

Rev 6/88

Contact: Tim Albright

Title: _____

Signature: _____

Inspector: Jennifer Eberle

Signature: JEberle

USPCI
A Subsidiary of
Union Pacific Corporation

RB

Remedial Services

March 2, 1991

Mr. Ray Bacon
California Regional Water Quality Control Board
San Francisco Bay Region
1111 Jackson St., Room 6040
Oakland, CA 94067

RE: Union Pacific Railroad's Oakland TOFC Yard

Dear Mr. Bacon:

Enclosed is the investigation work plan for the UPRR, Oakland, California, TOFC Yard. USPCI is sending you this work plan at the request of UPRR in an attempt to expedite the implementation of this plan. The objective of the work plan is to determine the nature and extent of soil, free phase, and dissolved product plumes at the TOFC Yard refueling area.

USPCI, as the consultant to UPRR, has prepared this plan and will implement it upon your approval. If you have questions or concerns regarding this plan please contact either Harry Patterson (402) 271-4078, or Alan Jensen (801) 595-3566.

Sincerely,

Curtis G. Hull
Program Manager
Environmental Assessments

cc: J.A. Yellich, USPCI
Harry Patterson, UPRR
Alan Jensen, UPRR

DLG\F:\HOLD\OAKLET\2.28.91

5665 Flatiron Parkway • Boulder, Colorado 80301 • 303/938-5500 • Fax 303/938-5520

PORT OF OAKLAND

FAX To: Ray Belkin

FAX Number: 464-1380

FROM: A. Clark-Clough Phone: 272-1178

☐ Commercial Real Estate Division

☑ Port Planning Division

If there is any problem with this FAX, please call as soon as possible.

Name of sender: A. Clark-Clough Phone: _____

Return FAX number: (415) 839-2793

Number of pages faxed (including cover sheet) 2

PORT OF OAKLAND

February 20, 1991

Mr. Ray Belkin
Regional Water Quality Control Board
1800 Harrison Street, Suite 700
Oakland, CA 94612

SUBJECT: FUEL SPILL AT UNION PACIFIC INTERMODAL YARD

Dear Mr. Belkin:

This letter is to confirm our conversation on February 20, 1991.

On February 7, 1991, I observed a sheen on the waters of the Oakland Inner Harbor Channel in the vicinity of a storm drain outfall at the Union Pacific Intermodal Yard. The storm drain outfall is approximately 600 feet west of Middle Harbor Park.

Sincerely,

Andrew B. Clark-Clough
Environmental Scientist

pc\wp\upspill.ltr

PORT OF OAKLAND

February 20, 1991

Balcom

Mr. Ray ~~Belkin~~
Regional Water Quality Control Board
1800 Harrison Street, Suite 700
Oakland, CA 94612

SUBJECT: FUEL SPILL AT UNION PACIFIC INTERMODAL YARD

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Sincerely,

Andrew B. Clark-Clough
Environmental Scientist

pc\wp\upspill.ltr

530 Water Street ■ Jack London's Waterfront ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (415) 272-1100 ■ Fax 272-1172 ■ Telex 336-334 ■ Cable address, PORTOFOAK, Oakland