CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 00-053

ADOPTION OF FINAL SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER NO. 92-056 FOR:

SHORE TERMINALS, LLC,
SHORE TERMINALS, LLC RICHMOND TERMINAL
RICHMOND, CONTRA COSTA COUNTY

for the property located at

488 WRIGHT AVENUE
RICHMOND
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location**: The 9-acre Facility is located at 488 Wright Avenue at the City of Richmond's inner harbor. Wright Avenue is to the north, Santa Fe Channel and Lauritzen Channel adjoins the west, Harbor Channel abuts to the south, and Parr-Rich Canal is directly to the east. The properties to the east and west are both owned by Levin-Richmond Terminals and are used to store dry bulk materials. A small parcel north of the site is operated by Sequoia Trucking and used for truck parking. Northeast of the site is a property owned by the city of Richmond and leased to Simms Metal for use as a metals recycling facility.

2. **Site History**: Shore Terminals, LLC Richmond, (hereinafter called the Discharger) owns and operates a petroleum and chemical bulk storage facility (hereinafter called the Facility), which is presently used to store gasoline, diesel fuel, jet fuel, heavy petroleum distillates, methanol, kerosene, and fuel oil. The site was previously owned by Time Oil Company. In addition, the Facility has stored a variety of petroleum hydrocarbons including methyl tertiary butyl ether (MTBE), ethanol, and penhex.

3. **Named Dischargers**: Shore Terminals, LLC is named as a Discharger due to it's recent purchase from Time Oil Company and assumption of responsibility of the Facility conditions. Current and past storage of gasoline, diesel and jet fuel, and the presence of these same pollutants in soil and groundwater throughout the site indicate the operations at the site are the source of the contamination.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Board will consider adding those parties' names to this order.

4. **Regulatory Status**: This site was subject to the following Board orders:

- Site Cleanup Requirements Order No. 92-056 adopted May 1992

5. **Lithology**: The Discharger has investigated the lithology beneath the Facility. Within a 30-foot depth the Discharger identified three distinct strata as follows:

- Fill Zone - This is the uppermost soil layer at the Facility and ranges in thickness from approximately 6 feet to 30 feet of well graded material including debris, sand, silt, gravel and clay. The Discharger states that much of this material may be spoils from bay dredging which was used as fill to raise ground surface for reclamation of bay lands. Fill thickness under most of the site is about 10 feet.

- Bay Mud - This consists of soft marine clay deposits. The Bay Mud underlies the fill zone in the northern two-third of the site. Bay Mud is absent towards the southern portion of the site. The Discharger states that the absence of Bay Mud may be due to bay dredging activity in the past.

- Merrit Sand - A few borings reached the upper section of the Merrit Sand, which is believed to underlie the bay mud in the north and the fill zone towards the southern portion of the site. The thickness and lateral extent of this layer is not known.

6. **Site Hydrology**: The Discharger has investigated the shallow Fill Zone hydrology of the Facility. Groundwater has been encountered within 2.5 feet to the north and 10 feet beneath the ground surface in the south. The groundwater flow direction appears to be toward the south at a gradient range of 0.00029 foot/foot to 0.045 foot/foot. Hydraulic conductivity in the site ranges from 5.75×10^{-5} cm/sec to 1.52×10^{-3} cm/sec. Groundwater levels appear to be influenced by the water level in the adjacent Parr-Rich Canal. A water table depression appears to exist in the southern portion 250 feet inland from the Santa Fe Channel. The Discharger has investigated the influence of the channels and harbor on the site groundwater and found that tidal influence could be measured as far inland as approximately 250 feet from the shoreline.

7. **Remedial Investigation**: Five groundwater-monitoring wells (B-1 through B-5) were installed in March 1986 after the observation of a petroleum sheen on groundwater during the removal of two underground tanks. The wells are about 15 feet in depth and monitor the Fill Zone groundwater. In August 1993, one groundwater monitoring well (B-6) was installed during a limited subsurface investigation in the vicinity of wells B-4 and B-5. Two additional groundwater-monitoring wells (B-7 and B-8) were installed in October 1998 to investigate the extent of contamination after 3,700 gallons of kerosene was spilled at the Facility.

Twenty additional monitoring wells (CS-1 through CS-20) were constructed to depths ranging from 7 feet to 35 feet in September 1990. No soil samples were obtained during the construction of these wells. Groundwater samples, groundwater elevation, and free product thickness were obtained from the 20 new monitoring wells and 4 existing monitoring wells. The results are summarized in Time Oil Company's January, 1991 submittal entitled "Site Assessment Report". Time Oil Company's March 13, 1992 document entitled "Letters and reports that document initial stages of our investigation at Time Oil Co., Richmond Terminal" summarized the depth of the water table, thickness of free product, and results of soil and groundwater samples analyzed for contaminants.

8. **Groundwater** contamination has been reported in 27 existing groundwater monitoring wells (B-2 through B-8, and CS-1 through CS-20). Some of the contamination parameters are as follows:

   a. Free phase liquid petroleum hydrocarbons have been detected in eight wells, as thick as 5.5 feet in well CS-11.

   b. Benzene was reported in 17 wells at concentrations as high as 9,100 ug/L in Well B-7. Toluene, ethylbenzene and xylene were reported above detection levels in 11 of 24 wells. Toluene concentrations as high as 300 ug/L were reported. Ethylbenzene concentrations as high as 140 ug/L were reported. Xylene was reported at concentrations as high as 570 ug/L.

   c. Total extractible petroleum hydrocarbons as diesel (EPA 8015 modified) was reported in all 27 wells and in concentrations as high as 680,000 ug/L in well CS-17.

   d. MtBE has been found at the site at concentrations as high as 6,800 ug/l in well CS-14.

9. **Soil** samples were taken from the four shallow borings (B-1 through B-4), which were subsequently developed as monitoring wells. Total Volatile Organic Hydrocarbons, with reference to unleaded gasoline, were reported by EPA method 5020 / 8015 in three of the four soil samples in concentrations ranging from 9.3 ppm to 310 ppm.

   During the installation of two water tanks in 1991, the Time Oil Company collected and analyzed soil samples for lead. The Time Oil Company reported that concentrations ranged from 12 ppm to 3,000 ppm. A detailed soil investigation was performed during May 1992 at the site to determine the vertical and lateral extent of soil contamination. The investigation included analyses for metals and organics, including DDT. The results indicated that petroleum hydrocarbons were present throughout the Facility.

10. **Interim Remedial Measures**: Time Oil Company instituted a corrective action program. The two main goals of the program involved depletion of the free phase hydrocarbon thickness and prevention of offsite migration. However, offsite migration is suspected to occur east and west of the Facility. Details of the program are included in Time Oil

Company's report "Corrective Action Plan, February 1992". Groundwater extracted in the process is currently treated and stored in two water tanks on site. Thereafter the treated water is discharged to the City of Richmond sanitary sewer system.

11. **Cleanup Plan:** The Discharger shall, in a timely manner, conduct site investigation, remediation, management, and monitoring activities to adequately define the current hydrogeologic conditions, define the lateral and vertical extent of soil pollution, defined the lateral and vertical extent of groundwater pollution on or emanating from the site, eliminate the primary cause for the discharge on or emanating from the site, remove where practicable any free product or soil saturated with contaminant, remediate as may be required any soil pollution on or emanating from the site, remediate as may be required any groundwater pollution on or emanating from the site, and monitor and manage any remaining polluted soil and groundwater and any associated water quality, human health, or environmental risk.

In addition to an active remediation plan, the Discharger shall prepare a residual contamination risk management plan, as needed, to include:

- An assessment of residual risks;
- Measures to manage risks (e.g., health and safety plans, worker notices, etc.); and,
- Necessary arrangements with neighboring properties and other affected parties for plan implementation.

A Point of Compliance Monitoring Boundary (POC) will consist of monitoring wells located inboard of tidal influence (within 250 feet of the shoreline). The POC will consist of a sufficient number of wells located at the southern edge and perimeter of the Facility and on the adjacent properties. Contaminate concentrations in these wells shall be in compliance with groundwater cleanup standards set forth in this Order.

12. **Contingency Plan** – The Discharger shall immediately resample wells upon determination of an exceedance of applicable compliance levels (Table 1). If the well(s) continue to exceed the compliance level, then additional remediation activities shall begin in the areas of the out-of-compliance well as required in Task C.5.

ABOVEGROUND PETROLEUM STORAGE TANKS

13. The Discharger operates approximately 27 aboveground petroleum storage tanks at the Facility. Operators of aboveground petroleum storage tanks shall comply with the requirements of Chapter 6.67 Section 25270 of the Health and Safety Code, and with Part 112, Title 40 of the Code of Federal Regulations. In part, the regulations require the Discharger to install and utilize a leak detection system for each regulated tank. The Discharger has proposed to monitor the 27 aboveground tanks quarterly for leakage with 17 groundwater monitoring wells and with double bottoms.

14. Staff has reviewed the leak detection monitoring systems for the Facility's petroleum tanks. The Board finds that 25 of the 27 tanks are double bottomed, which is an

acceptable form of leak detection. Two tanks are not double bottomed and utilize groundwater monitoring wells as a leak detection system. Groundwater monitoring wells are not an acceptable form of leak detection for aboveground tanks at the Facility. Leak detection systems must be designed to detect a release before the product reaches the groundwater.

15. **Secondary Containment:** Aboveground petroleum storage tank facilities are required to have secondary spill containment for capture of sudden releases from an aboveground petroleum tank. The secondary containment shall be sufficiently impervious to contain spilled petroleum (Code of Federal Regulations, Title 40, Section 112.7(e)(2)(ii)). The Facility utilizes soil berms located in the vicinity of an aboveground petroleum tank for containment of petroleum hydrocarbon releases.

16. **Internal Tank Inspections**: All regulated tanks shall have their tank bottoms tested (using API Standard 653 or the most current industry or regulatory approved standard) for integrity and thickness. The inspection time interval shall be no more than 20 years and the interval will be dependant on the likelihood of tank bottom corrosion and the age of the tank. A summary of inspection results shall be reported to the Board annually.

17. **Risk Assessment**: The Discharger has not conducted a formal risk assessment for the contamination at the site.

18. **Basis for Cleanup Standards**

    a. **General**: State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. This order and its requirements are consistent with Resolution No. 68-16.

    State Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

    b. **Beneficial Uses**: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in Title 23, California Code of Regulations, Section 3912. The Basin

Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels. Groundwater underlying and adjacent to the site qualifies as a potential source of drinking water.

The existing and potential beneficial uses of the Santa Fe Channel, Lauritzen Channel, and Parr-Rich Canal are:

a. Water contact recreation;
b. Non-contact water recreation;
c. Wildlife Habitat;
d. Preservation of Rare and Endangered Species;
e. Estuarine Habitat;
f. Fish migration and spawning;
g. Industrial service supply;
h. Navigation; and,
i. Commercial and Sport Fishing.

The existing and potential beneficial uses of the groundwater in the area are:

j. Industrial Process and Service Supply;
k. Agricultural Supply; and,
l. Fresh water replenishment to surface water

c. **Basis for Groundwater Cleanup Standards**: USEPA National Ambient Water Quality Criteria (Saltwater Aquatic Life Protection) or applicable risk-based levels for ecological receptors and human health standards.

19. **Future Changes to Cleanup Standards**: The goal of this remedial action is to restore the beneficial uses of groundwater underlying and adjacent to the site. Results from other sites suggest that full restoration of beneficial uses to groundwater as a result of active remediation at this site may not be possible. If full restoration of beneficial uses is not technologically nor economically achievable within a reasonable period of time, then the Discharger may request modification to the cleanup standards or establishment of a containment zone, a limited groundwater pollution zone where water quality objectives are exceeded. Conversely, if new technical information indicates that cleanup standards can be surpassed, the Board may decide that further cleanup actions should be taken.

20. **Reuse or Disposal of Extracted Groundwater**: Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

21. **Basis for 13304 Order**: The Discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

22. **Cost Recovery**: Pursuant to California Water Code Section 13304, the Discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

    The Board's staff has notified Shore Terminals LLC that pursuant to Section 25270.0 and 25270.11 of Chapter 6.67, Division 20 of California's Health and Safety Code Shore Terminals LLC shall be liable to the extent of the reasonable cost actually incurred in overseeing or contracting for cleanup or abatement efforts. Shore Terminals LLC has agreed to reimburse the State according to Section 25270.9 and 25270.11.

23. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

24. **Notification**: The Board has notified the Discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

25. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the Discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. CLEANUP PLAN AND CLEANUP STANDARDS

1. **Implement Cleanup Plan**: The Discharger shall complete the investigation, remediation, management, and monitoring activities described in Finding 11.

2. **Groundwater Cleanup Standards**: The following groundwater cleanup standards shall be met in all Point of Compliance wells identified in Finding 11:

Table 1
Groundwater Cleanup Standards
250 Foot Cleanup Zone

Constituent	Standard (ug/l)	Basis
BENZENE	71	RWQCB, Order No. 99-045
MtBE	8,000 (Interim Standard)	RWQCB, Order No. 99-045
TPH-diesel	640	RWQCB, Order No. 99-045
TPH-Jet Fuel	640	RWQCB, Order No. 99-045
TPH-gasoline	3,700	RWQCB, Order No. 99-045

C. TASKS

1. **INSTALLATION OF ADDITIONAL GROUNDWATER MONITORING WELLS**

COMPLIANCE DATE: **January 30, 2000**

Submit a technical report, acceptable to the Executive Officer, documenting the proposed placement and installation specifications of additional groundwater monitoring wells. The new wells shall be installed to delineate the vertical and lateral extent of the contamination. Additional wells shall be installed as needed.

2. **LEAK DETECTION**

COMPLIANCE DATE: **September 30, 2000**
ANNUAL SUBMITTAL DUE: **December 30, 2000**
Thereafter every December30th

The Discharger shall submit a leak detection plan and schedule acceptable to the Executive Officer for each regulated aboveground petroleum tank which is not equipped with leak detection systems or utilize groundwater wells for petroleum tank leak detection systems. All regulated tanks must be fully upgraded with

approved leak detection systems by November 2005. A summary of upgraded tanks shall be reported to the Board annually.

3. **TANK BOTTOM TESTING**

COMPLIANCE DATE: **September 30, 2000**
ANNUAL SUBMITTAL DUE: **December 30th**

All regulated tanks shall have their bottoms tested (using API Standard 653 or the most current regulatory approved standard) for integrity and thickness. The inspection time interval shall be no more than 20 years and the interval will be dependent on the likelihood of tank bottom corrosion and the age of the tank. A report shall be submitted that identifies all regulated aboveground petroleum storage tanks at the Facility. The report shall be acceptable to the Executive Officer and shall also include: tank age, tank contents, type of tank bottom, date of last internal integrity and thickness test, tanks which have not had internal integrity and thickness tests within the last 20 years, and a schedule for tank integrity and thickness testing for all regulated tanks. A summary of inspection results shall be reported to the Board annually.

4. **SECONDARY CONTAINMENT**

COMPLIANCE DATE: **November 30, 2000**

The Discharger shall submit a technical report, acceptable to the Executive Officer, which includes a detailed map identifying all tanks regulated under Chapter 6.67, Section 25270 of the Health and Safety Code, and Part 112 of the Federal Code Of Regulations. Secondary containment features for all regulated storage tanks shall be identified on the map. Arrows identifying the direction of petroleum flow from a regulated tank to the containment area shall be drawn on the map unless the secondary containment consists of berms that immediately surround the tank.

The Discharger shall identify in the report tanks where sudden petroleum releases may impact large areas (soil and/or surface water) within or along the perimeter of the site. The Discharger shall document in the report any deficiencies in the regulated tank's secondary containment features and include a plan for improving secondary aboveground tank containment features so that the secondary containment is sufficiently impervious to contain spilled petroleum. The Discharger shall propose in the report clean-up protocol, acceptable to the Executive Officer, for petroleum releases at the site.

5. CONTINGENCY PLAN FOR THE REMEDIATION SYSTEM

COMPLIANCE DATE: **30 days following confirmed out-of-compliance detection in the 250 foot point of compliance (POC) area**

Submit a workplan acceptable to the Executive Officer for additional groundwater remediation in the 250 foot point of compliance area (POC described in Findings 6 and 11). The workplan shall describe all significant implementation steps and include an implementation schedule.

6. IMPLEMENTATION OF REMEDIATION SYSTEM

COMPLIANCE DATE: **March 30, 2001**

Submit a technical report, acceptable to the Executive Officer, documenting activities conducted to meet the discharge requirements contained in Finding 11 and Table 1. This report shall document remediation start-up and shall present initial results.

7. FIVE-YEAR STATUS REPORT

COMPLIANCE DATE: **June 30, 2005**

Submit a technical report acceptable to the Executive Officer evaluating the effectiveness of the approved cleanup plan. The report shall include:

- Summary of effectiveness in controlling contaminant migration and protecting human health and the environment
- Comparison of contaminant concentration trends with cleanup standards
- Comparison of anticipated versus actual costs of cleanup activities
- Performance data (e.g. groundwater volume extracted, chemical mass removed, mass removed per million gallons extracted)
- Cost effectiveness data (e.g. cost per pound of contaminant removed)
- Summary of additional investigations (including results) and significant modifications to remediation systems
- Additional remedial actions proposed to meet cleanup standards including time schedule

If cleanup standards have not been met and are not projected to be met, within a reasonable time, the report should assess the technical practicability of meeting cleanup standards and may propose an alternative cleanup strategy.

8. **PROPOSED CURTAILMENT**

COMPLIANCE DATE: **60 days prior to proposed curtailment**

Submit a technical report acceptable to the Executive Officer containing a proposal to curtail remediation. Curtailment includes system closure (e.g. well abandonment), system suspension (e.g. cease extraction but wells retained), and significant system modification (e.g. major reduction in extraction rates, closure of individual extraction wells within extraction network). The report should include the rationale for curtailment. Proposals for final closure should demonstrate that cleanup standards have been met, contaminant concentrations are stable, and contaminant migration potential is minimal.

9. **IMPLEMENTATION OF CURTAILMENT**

COMPLIANCE DATE: **60 days after Executive Officer approval**

Submit a technical report acceptable to the Executive Officer documenting completion of the tasks identified in Task 8.

10. **EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: **90 days after requested by Executive Officer**

Submit a technical report acceptable to the Executive Officer evaluating new technical information which bears on the approved cleanup plan and cleanup standards for this site. In the case of a new cleanup technology, the report should evaluate the technology using the same criteria used in the feasibility study. Such technical reports shall not be requested unless the Executive Officer determines that the new information is reasonably likely to warrant a revision in the approved cleanup plan or cleanup standards.

11. **Delayed Compliance**: If the Discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the Discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

D. PROVISIONS

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

2. **Good O&M**: The Discharger shall maintain in good working order and operate as efficiently as possible any Facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery**: The Discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the Discharger shall permit the Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

   c. Inspection of any monitoring or remediation facilities installed in response to this Order.

   d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the Discharger.

5. **Self-Monitoring Program**: The Discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor / Consultant Qualifications**: All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications**: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. City of Richmond, Planning Department
   b. County of Contra Costa, Health Department

   The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator**: The Discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.

10. **Petroleum Releases:** Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. (CWC Section 13272)

11. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the Discharger shall report such discharge to the Regional Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00).

    A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

    This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

12. **Rescission of Existing Order**: This Order supercedes and rescinds Order No. 92-056.

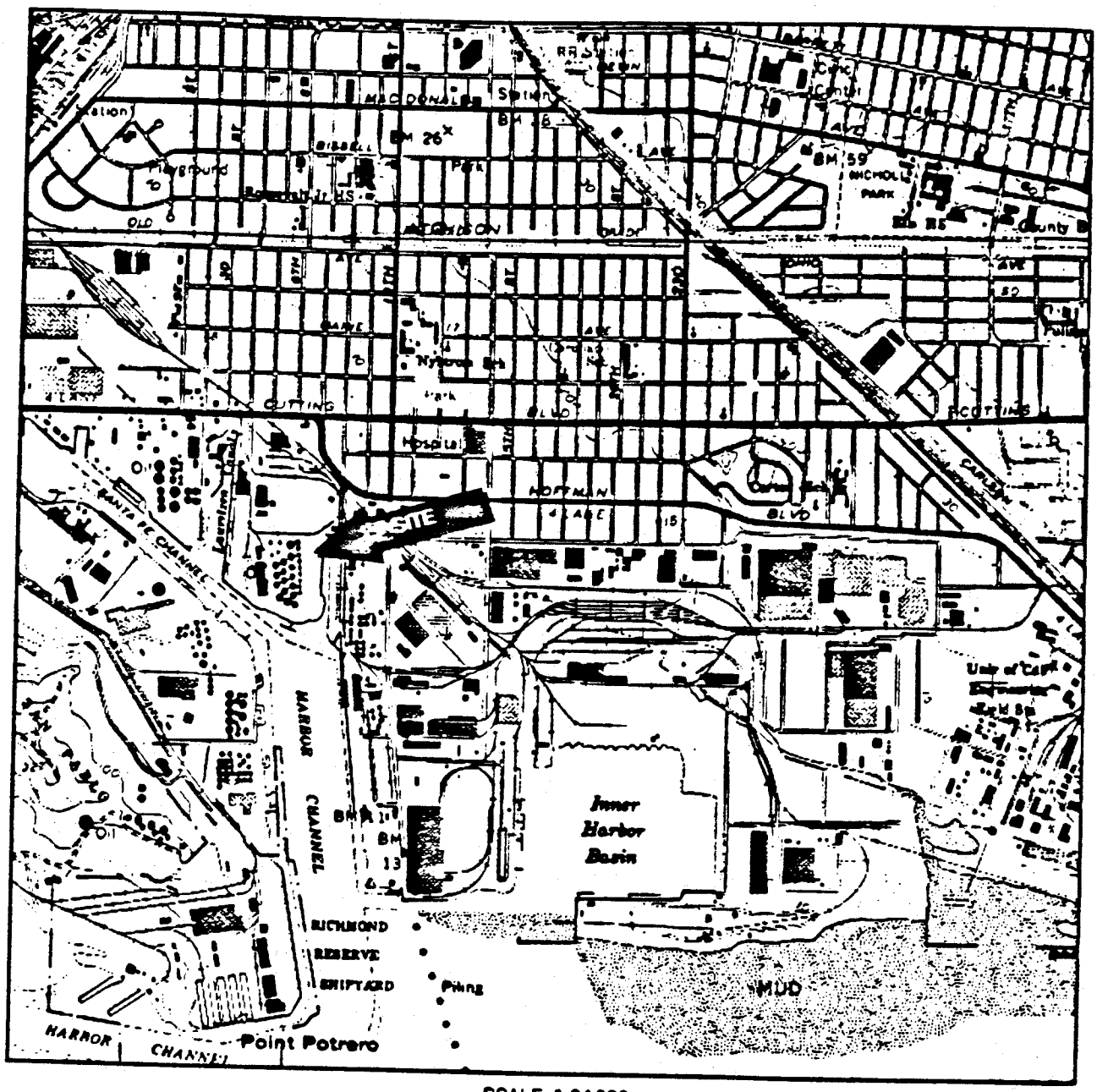
13. **Periodic SCR Review**: The Board will review this Order periodically and may revise it when necessary.

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on June 21, 2000.

Lawrence P. Kolb
Acting Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Figure 1 - Site Map
Figure 2 - Groundwater Monitoring System Map
Self-Monitoring Program



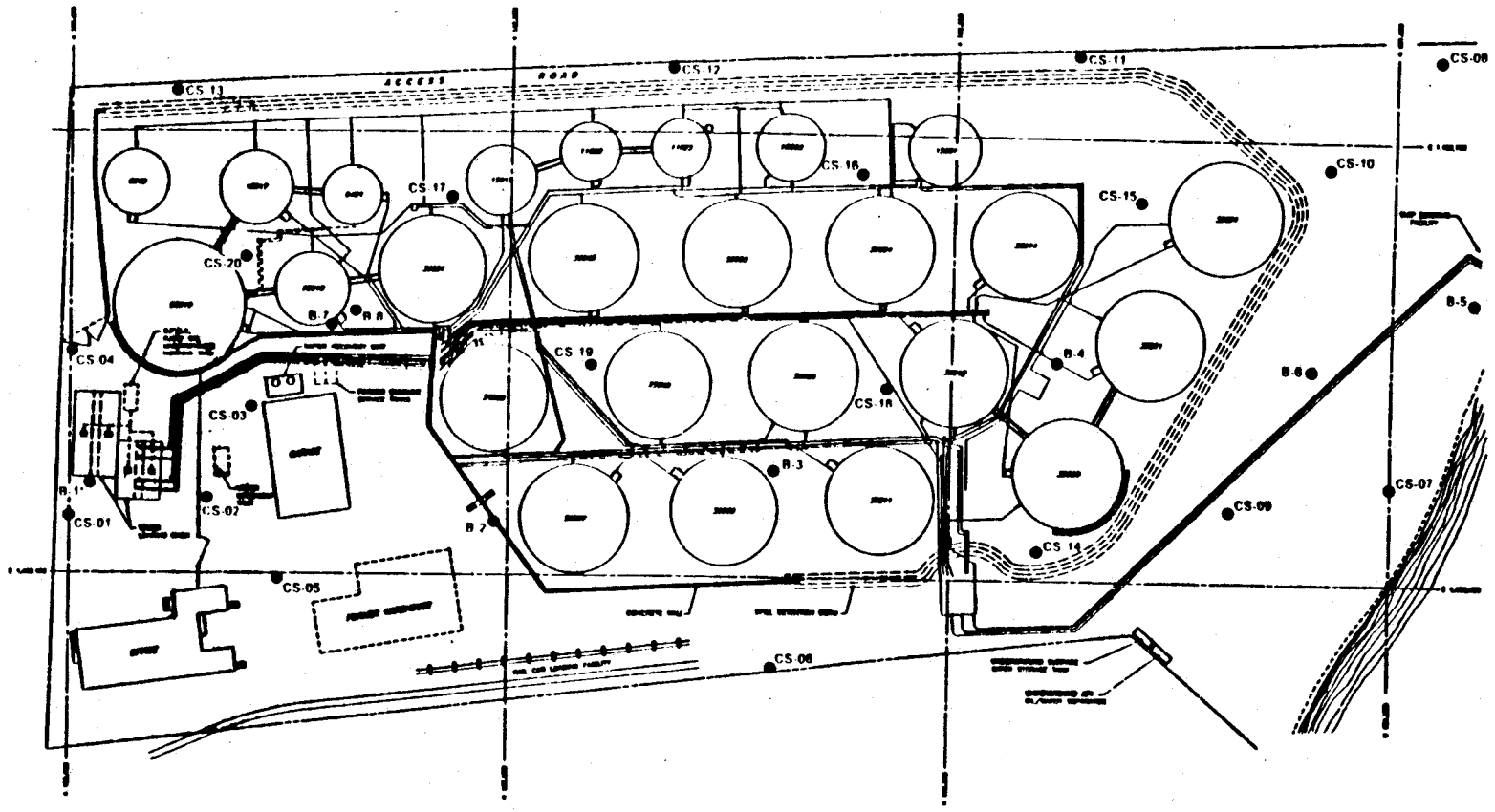
Reference: U.S.G.S. 7.5-minute Richmond, California Quadrangle, Photorevised 1980.

ARCADIS
GERAGHTY & MILLER

SITE LOCATION MAP

Richmond Marine Terminal
488 Wright Avenue
Richmond, California

RC000264.0000
FIGURE
1



EXPLANATION

PROPERTY LINE

B-2 ● EXISTING MONITORING WELL

B-1* ● DESTROYED WELL

0 60

SCALE IN FEET

REFERENCE
Coordinates are based on the California State Plane Coordinate System, Zone 3

SITE PLAN
Shore Terminals - Richmond Facility
488 Wright Avenue
Richmond, California

GEOMATRIX | Project No 000 004 A | Figure 2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGION

SELF MONITORING AND REPORTING PROGRAM

FOR

SHORE TERMINALS, LLC

RICHMOND TERMINAL

CONTRA COSTA COUNTY

ORDER NO. 00-053

CONSIST OF

PART A

AND

PART B

PART A

A. GENERAL

The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 00-053 (site cleanup requirements).

B. SAMPLING AND ANALYTICAL METHODS

Sampling

Sample collection, storage, and analyses shall be performed according to most recent version of EPA Standard Methods for the Analysis of Wastewater and in accordance with an approved sampling and analysis plan.

Water and wastewater analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytic work in his/her laboratory and he/she or their authorized representative shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. A composite sample is a sample composed of individual grab samples mixed in proportions varying not more than plus or minus five percent from the instantaneous rate of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of continuous automatic sampling devices capable of attaining the proportional accuracy stipulated above throughout the period of discharge or 24 consecutive hours, whichever is shorter.

D. RECORDS TO BE MAINTAINED

Written detection monitoring reports shall be maintained by the Discharger or laboratory and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used. A reference to a specific section of standard EPA methods.

5. Calculation of results.

6. Results of analyses, and detection limits for each analyses.

E. REPORTS TO BE FILED WITH THE BOARD

1. **Quarterly Monitoring Reports**: The Discharger shall submit quarterly monitoring reports to the Board no later than the following due dates each year:

Report	Due Date
First Quarter (January – March)	April 30
Second Quarter (April – June)	July 30
Third Quarter (July – September)	October 30
Fourth Quarter (October – December) and Annual	January 30

Note: The annual report can be combined with the Discharger's fourth quarter report.

The first quarterly monitoring report is due the following quarter after adoption of this Order. The reports shall include:

a. **Transmittal Letter**: A letter transmitting the essential points in each report should accompany each submittal. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the Discharger have previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the Facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. **Groundwater Sampling:** a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

c. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each

monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

d. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, shall also be included.

e. **Groundwater Extraction:** If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems expressed in units of chemical mass per day and mass for the quarter. Historical mass removal results shall be included in the fourth quarterly report each year.

f. **Aboveground Tanks:** A description of aboveground petroleum storage tanks that have received leak detection upgrades or internal integrity inspections during the prior reporting period, and identification of aboveground petroleum storage tanks that are scheduled for leak detection upgrades or internal integrity inspections during the reporting period.

g. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g. site investigation, interim remedial measures) and work planned for the following quarter.

h. **Map:** A map shall accompany each report showing observation and monitoring station locations.

i. **Laboratory Analytical Results:** Laboratory analytical results must be included in each report. In accordance with the Executive Officer's November 5, 1996 letter, laboratory statements and other raw data are not required to be submitted, however; the data must be retain by the Discharger for a minimum of six years after origination and the data must be made available for Board staff upon request. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other

than EPA Methods or Standard Methods are used, the exact methodology must be submitted for review and approved by the Executive Officer prior to use.

2) In addition to the results of the analyses, the laboratory QA/QC information should include the method, equipment and analytical reporting limits; the recovery rates; an explanation for any recovery rate that is less than 80% or greater than 120%; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

2. The **Annual Monitoring Report** shall be submitted to the Board covering the previous monitoring year. The Annual Self-Monitoring shall be filed by **January 30th**. The annual report can be combined with the Discharger's fourth quarter report. The report shall contain:

a. A Graphical Presentation of selected analytical data for selected Monitoring Points, submit in graphical format the laboratory analytical data for selected samples taken. Each such graph shall plot the concentration of one or more constituents over time for a given Monitoring Point, at a scale appropriate to show trends or variations in water quality. On the basis of aberrations noted in the plotted data, the Executive Officer may direct the Discharger to carry out a preliminary investigation, the results of which will determine whether or not a release is indicated;

b. A tabular summary of all the monitoring data obtained during the previous year;

c. A comprehensive discussion of the compliance record, and the result of any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the site cleanup requirements; and,

d. A written summary of the groundwater analysis from the previous year indicating any change in the quality of the groundwater.

F. CONTINGENCY REPORTING

1. **Violation Reports**: If the Discharger violates requirements in the Site Cleanup Requirements, then the Discharger shall notify the Board office by telephone as soon as practicable once the Discharger has knowledge of the violation. Board staff may, depending on violation severity, require the Discharger to submit a separate technical report on the violation within five working days of telephone notification.

2. **Other Reports**: The Discharger shall notify the Board in writing prior to any site activities, such as construction or tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.

G. WELL LOGS

A boring log and any new monitoring well construction log shall be submitted for each sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

PART B

Description of Monitoring Points and Schedule of Sampling

A. **Groundwater Monitoring**: The Discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater (wells that contain visual petroleum product shall not be sampled) according to the following tables:

Well Number	Sampling Frequency	Well Number	Sampling Frequency
CS-01	SA	CS-15	Q
CS-02	SA	CS-16	SA
CS-03	SA	CS-17	SA
CS-04	SA	CS-18	SA
CS-05	Q	CS-19	Q
CS-06	Q	CS-20	SA
CS-07	Q	B-2	Q
CS-08	Q	B-3	Q
CS-09	Q	B-4	SA
CS-10	Q	B-5	Q
CS-11	Q	B-6	Q
CS-12	Q	B-7	SA
CS-13	Q	B-8	SA
CS-14	Q	New Wells	Q

Key: Q = Quarterly SA = Semi-annual

Monitoring Parameters	Method (USEPA)
TPHg	8015(mod)
TPHd	8015(mod)
BTEX	8020 (mod)
Total Oil & Grease	418.1
MTBE	8020 (mod)
Basin Plan 10 Metals* (Annually in all wells)	6010, 7470 (Mercury)

* = Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Zinc

The Discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

B. **Record Keeping**: The Discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.

C. **SMP Revisions**: Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the Discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Lawrence P. Kolb, Acting Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on June 21, 2000.

Lawrence P. Kolb
Acting Executive Officer