MORRISON & FOERSTER

LOS ANGELES
SACRAMENTO
ORANGE COUNTY
PALO ALTO
WALNUT CREEK
SEATTLE

ATTORNEYS AT LAW

345 CALIFORNIA STREET
SAN FRANCISCO, CA 94104-2675
TELEPHONE (415) 677-7000
TELEFACSIMILE (415) 677-7522
TELEX 34-0154 MRSN FOERS SFO

NEW YORK
WASHINGTON, D.C.
DENVER
LONDON
BRUSSELS
HONG KONG
TOKYO

STID 1184

DIRECT DIAL NUMBER

July 16, 1993

(415) 677-7117

BY FEDERAL EXPRESS

Susan L. Hugo
Senior Hazardous Materials Specialist
Department of Environmental Health
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, California 94621

Re: Former P.I.E. Freight Terminal Site
5500 Eastshore Highway, Emeryville, CA

Dear Ms. Hugo:

On behalf of Ætna Real Estate Associates, L.P. ("Ætna"), I am writing to confirm receipt of your letter to Maria Burgi dated June 4, 1993. This will also confirm that Ætna owns the above-referenced property (the "Site"), and that Ms. Burgi provides asset management services for it through Ætna Realty Investors, Inc. We understand that it was your intention to address your letter to the property owner, which was inadvertently misidentified.

As explained in detail below, Ætna believes that the primary responsibility for responding to your letter belongs to Eastshore Partners ("Eastshore"), who sold the Site to Ætna in 1990. In the sale agreement, Eastshore promised Ætna that it would clean up the property and indemnify Ætna for the consequences of failing to do so. In accordance with that contractual undertaking, Ætna has demanded that Eastshore assume responsibility for responding to your letter, and Eastshore has agreed to do so. However, Eastshore has rejected Ætna's request that it be permitted an opportunity to review Eastshore's submission to you in advance of your July 19 deadline. Although Ætna trusts that Eastshore will abide by its contractual and legal obligations, Ætna wishes to make clear to you that, as the current owner of the property, Ætna will take responsibility for complying with your requests if Eastshore does not.

As is also explained below, Ætna believes that Eastshore is a "responsible party" within the meaning of 23 Cal. Code Regs. §2720, even apart from its contractual obligations. Although we understand that your agency sometimes elects to proceed only against the current property owner to minimize the burden on scarce resources, Ætna urges you to include Eastshore along with Ætna in the future as a direct recipient of agency requests.

First of all, the State Water Resources Control Board has ruled that "[i]n cases involving several potentially responsible parties, it is appropriate to name in cleanup orders all parties for which there is reasonable evidence of responsibility." In the Matter of the Petition of U.S. Cellulose, Order No. WQ 92-04 at p. 4 (emphasis supplied) (copy attached as Exhibit A). Indeed, the Board has made clear many times before that, while current landowners who did not contribute to contamination themselves may properly be named as responsible parties, they should be named only as "secondarily responsible". By contrast, the parties actually responsible for the pollution should be primarily responsible: "[B]ecause [the present owner and tenant] had nothing to do with the actual discharge and because the two primarily responsible parties are capable of and willing to undertake the cleanup [the present owner and tenant] should be required to perform the cleanup only in the event of default by [the primarily responsible parties]." In the Matter of the Petitions of Wenwest, Inc., Order No. WQ 92-13 at p. 9 (copy attached as Exhibit B).

In terms of mechanics, the Board has also ruled that agencies should give secondarily responsible parties actual notice of default by primarily responsible parties and a reasonable opportunity to cure the default before deeming the secondarily responsible parties to be out of compliance. In the matter of the Petition of Prudential Ins. Co. of America, Order No. WQ 87-6 at p. 5 (copy attached as Exhibit C) (sixty-day cure provision); In the Matter of the Petition of Schmidl, Order No. WQ 89-1 (copy attached as Exhibit D) (same). As the Board has pointed out, without such a provision, the secondarily responsible party is placed in an untenable position:

> If [the primarily responsible parties] are to turn in a report on June 1, 1987, [the secondarily responsible party] will not necessarily know until June 2 that

> they have not done so. By then it will be too late for the [secondarily responsible party] to comply with the time schedule. Thus, in order for the [secondarily responsible party] to ensure that it does not violate the order, it will have to assume that there will be non-compliance on the part of both the [primarily responsible] parties and comply independently.
>
> The difficult position into which the [secondarily responsible party] has been placed does not further any legitimate public purpose.

In the Matter of the Petition of Prudential, supra at 3-4.1/ Ætna accordingly respectfully requests that DEH clarify Ætna's status as secondarily responsible only and look to Eastshore as the primarily responsible party.

To help you understand Ætna's belief that Eastshore -- not Ætna -- should be answerable in the first instance for environmental conditions at the Site, we would like to explain the history of the Site in some detail. Ætna purchased it from Eastshore by means of a Purchase and Sale Agreement (the "Agreement"), effective February 14, 1990.2/ (Relevant portions of the Agreement are attached as Exhibit E.) At the time of the purchase, Ætna was aware that petroleum had been released from various underground storage tanks that had earlier been removed from the Site. The Agreement therefore clearly provided that Eastshore

---

1/ Although none of these cases arose under the underground tank statute, there is no reason for a different result in cases, like this one, that do.

2/ Eastshore was a California limited partnership, which has since dissolved. However, Eastshore had three general partners, all of which Ætna understands continue to exist: Emeryville Terranomics Associates, East Bay Park Company, and Martin-Eastshore. Under California law, general partners are responsible for the liabilities of the partnership, even after dissolution. Cal. Corp. Code §§15015(b), 15036(1), 15643(b). For ease of reference, the three general partners are therefore collectively referred to herein as "Eastshore".

would take responsibility for cleaning up these releases and indemnify Ætna for the harm. These environmental warranties were set out in Section 14.01(s) of the Agreement.

Eastshore had purchased the Site from P.I.E. Nationwide, Inc. by agreement dated April 11, 1986. That agreement, as later amended, required PIE to remove leaking USTs prior to closing -- that is, before Eastshore took title to the property. Ætna understands that the USTs were removed in July 1986. The agreement provided that Eastshore would "cooperate with [PIE] in the removal of [the] tanks," and obligated Eastshore to pay half the cost of removal. Thus, under the PIE-Eastshore agreement, Eastshore owned the tanks or at a minimum had control over them "at the time of or following an unauthorized release of a hazardous substance" within the meaning of 23 Cal. Code Regs. §2720.

Eastshore's agreement with PIE obligated PIE to conduct a cleanup, and PIE contracted with CytoCulture to do so. (A copy of that contract, which Aetna received from Eastshore, is attached as Exhibit F.) In the Eastshore-Ætna Agreement, Eastshore warranted that the CytoCulture cleanup would be completed. However, Ætna understands that, when PIE ceased paying CytoCulture's bills, CytoCulture terminated operation of the cleanup system, apparently in May or June of 1990. PIE filed a bankruptcy petition in October of that year.

By letters dated October 7, 1992, and December 1, 1992 (attached as Exhibits G and H, respectively), Ætna wrote Eastshore's attorney to demand that Eastshore complete the cleanup as it had promised to do in the Agreement. On December 18, 1992, Eastshore's attorney wrote back (in a letter attached as Exhibit I) and denied that Eastshore had any obligation to clean up the property other than its duty to indemnify Ætna against government claims. Because it appeared that litigation would be necessary to force Eastshore to honor its commitments, Ætna sent out a notice letter on January 11, 1993, pursuant to the citizen suit provision in the Resource Conservation and Recovery Act, 42 U.S.C. §6972 (attached as Exhibit J). Such a letter is a jurisdictional prerequisite to instituting a citizen suit to force cleanup. Eastshore still refused to accept responsibility for a comprehensive cleanup. (However, Eastshore has agreed to conduct certain free product removal activities, as described in the November 9, 1992 workplan attached as Exhibit K. As of this writing, Ætna has not received any written reports on the project from Eastshore.)

As soon as Ætna received your June 4 letter (this office received its courtesy copy on June 14, 1993), we wrote Eastshore to demand that Eastshore assume responsibility for responding to you; our June 15, 1993 letter is attached as Exhibit L. In it, Ætna requested an opportunity to review Eastshore's submission in draft prior to the submission date of July 19, 1993. On June 21, 1993, Eastshore responded and agreed to accept responsibility for responding to your letter, but refused Ætna's request to review Eastshore's proposed submission in draft. (Eastshore's letter is attached as Exhibit M.) Therefore, Ætna has had no opportunity to evaluate Eastshore's response for adequacy prior to its submission to you. As explained above, this is the very reason why the State Board has determined that parties like Ætna should be only secondarily responsible. In our telephone conversation on July 14, 1993, you agreed that Ætna would be given additional time to rectify any deficiencies in Eastshore's submission if Eastshore does not do so itself, without being considered out of compliance with your July 19 deadline.

As previously noted, Ætna was never in control of cleanup activities at the Site, because others were contractually obligated to conduct them. Therefore, Ætna's ability to answer the information requests in your letter is incomplete. However, at Ætna's request, CytoCulture did prepare a summary of past remedial efforts at the Site on July 20, 1992 to enable Ætna to understand the circumstances under which those efforts had been terminated, and a copy is enclosed for your reference as Exhibit N; a copy was previously provided by this office to Eastshore to help it respond to your June 4 letter. Please be advised that, although Ætna has no reason to doubt any of the statements in the CytoCulture letter, Ætna is not in a position to provide an independent assessment of the accuracy of the letter.

In closing, let me emphasize that Ætna has every expectation and hope that Eastshore will comply with your requests. Nevertheless, we wanted you to understand the reasons why Ætna will not be answering your questions

directly and to underscore that Ætna wishes to cooperate fully with your agency in seeing to it the Site is cleaned up as expeditiously as possible.

Very truly yours,

Barry S. Sandals

BSS/la
Enclosures

cc: Thomas Gram (w/encls.)
David Cooke, Esq. (w/o encls.)
Richard C. Hiett, Regional Water Quality Control Board (w/encls.)
Rafat A. Shahid, Asst. Agency Director, Environmental Health (w/o encls.)
Gil Jensen, Alameda County District Attorney's Office (w/o encls.)
Edgar B. Howell, Chief, Hazardous Materials Division (w/o encls.)

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of U.S. CELLULOSE AND LOUIS J. AND SHIRLEY D. SMITH For Review of Site Cleanup Requirements Contained in Orders Nos. 90-036 and 90-162 of the California Regional Water Quality Control Board, San Francisco Bay Region. Our File No. A-723 and 723(a)	ORDER NO. WQ 92-04

BY THE BOARD:

On February 21, 1990, the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board) issued Order No. 90-036 containing requirements for the cleanup of chemicals (primarily organic solvents) which leaked into the soil and ground water from underground storage tanks located at 1547 Almaden Road in San Jose. That Order named the current landowners (Louis J. and Shirley D. Smith), the tenant who occupied the premises when the tanks were removed (Pacific States Chemical), and a prior tenant who occupied the premises and used the storage tanks to store lacquer thinner and acetone (U.S. Cellulose) as dischargers. Haz/Control, a firm which had stored methyl ethyl ketone (MEK) in the underground storage tanks for a brief period of time was not named.

Pacific States Chemical (Pacific) appealed to the Regional Board to be removed from the Order, and, following a hearing on December 12, 1990, the Regional Board amended Order No. 90-036 by removing Pacific as a discharger.

The Smiths and U.S. Cellulose appealed to the State Water Resources Control Board (State Water Board) requesting that Pacific and Haz/Control be included in the Regional Board's Order as dischargers to share the burden of the cleanup.

I. BACKGROUND

The following facts are undisputed:

The property at 1545-1547 Almaden Road in San Jose, California included two underground storage tanks, a 6000 gallon tank and a 2000 gallon tank. The tanks were installed in 1963 by then-tenant Almaden Paint Company. They were removed in August 1985, at which time evidence of leakage was observed in the excavation. Both tanks were corroded. Soil and ground water samples were taken in 1985 from the area beneath and around the excavation.

Hazardous substances, including MEK and other organic solvents (acetone, isopropanol, toluene, xylene, ethyl benzene, methylene chloride, trichloroethene, trichloroethane, dichloroethene, dichloroethane, tetrachloroethane and trichlorotriflouroethane) were present in the samples. MEK was present in the highest concentration by an order of magnitude: 57,000 parts per million (ppm), followed by acetone and isopropanol at 2,800 ppm.

Petitioners Louis J. and Shirley D. Smith (Smiths) purchased the property from Samuel H. and Beulah Tyler and Robert R. and June T. Rogers in 1968 and have owned the property ever since.

Petitioner U.S. Cellulose purchased the assets of Richard Castner (who was doing business at the site as a sole proprietor under the name U.S. Cellulose) and continued to lease the property from the Smiths. U.S. Cellulose stored "lacquer thinner" (consisting of toluene, acetone, and isopropanol, among other things) in the 6000 gallon tank and acetone in the 2000 gallon tank until it vacated the premises in 1980.

Respondent Pacific leased and occupied the property after U.S. Cellulose moved out in 1980, but did not use the tanks.

Respondent Haz/Control stored at least 1500 gallons of MEK in one of the tanks for a short time in October 1982.

CONTENTIONS

Petitioners contend that Pacific and Haz/Control should be added to the Regional Board order as dischargers because of their control and use of the underground tanks from which the discharge occurred.

DISCUSSION

Water Code Section 13304 authorizes Regional Water Quality Control Boards to issue Orders requiring cleanup activities to any person "who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged into waters of the state and creates, or threatens to create, a condition of pollution or nuisance." In a series of prior Orders, we have established certain principles regarding liability for groundwater cleanups. Cleanup liability is broad and may extend, depending on the facts of the case to old

landowners, present landowners, old tenants, and present tenants. In cases involving several potentially responsible parties, it is appropriate to name in cleanup orders all parties for which there is reasonable evidence of responsibility. There must be substantial evidence to support a finding of responsibility for each party named. In reviewing an action of a Regional Board, we look at the record to determine whether, in light of the record as a whole, there is a reasonable and credible basis to name a party.

With these principles in mind, we turn to the case at hand.

A. Pacific

Petitioners contend that Pacific should be named as a discharger because it was the tenant in possession of the premises when Haz/Control stored MEK in the tanks on the property. Petitioners also contend that Pacific controlled access to the tanks and induced the Smiths to allow Haz/Control to use the tanks. Pacific argues that it referred Haz/Control's request for temporary use of the tanks to the Smiths, and that Haz/Control negotiated access to the tanks, and insurance coverage, directly with the landowners.

While we have found that landowners and tenants may be characterized as dischargers despite the lack of any direct action causing a discharge, we decline to find that Pacific was a discharger under the circumstances of this case. Pacific did not use the underground storage tanks located on the premises it leased from the Smiths and did not authorize Haz/Control to do so.

We do not accept Petitioners' argument that Pacific's referral of Haz/Control to the Smiths for authorization to use the underground storage tanks located on the premises leased by Pacific was sufficient involvement to support the conclusion that Pacific should be named as a discharger. Although a lessee has exclusive control of the leased premises, in this case Pacific carefully refrained from exercising any control over the tanks and deferred control of the tanks to the Smiths as the property owners.

B. Haz/Control

Petitioners contend that respondent Haz/Control should be identified as a discharger because it is the only known source for the MEK found at the site. Petitioners contend that the conclusions reached by the Regional Board are not supported by the evidence presented by the parties, the samples taken at the site, and the inventory reconciliation information presented by Haz/Control. In particular petitioners dispute the Regional Board's findings that: (1) all of the pollution at the site was the result of leakage from the larger of the two tanks; (2) Haz/Control used the smaller of the two tanks to store MEK; (3) the smaller tank did not leak; and (4) Haz/Control accounted for substantially all of the MEK that it had stored at the site.

Based upon our independent review of the record developed by the Regional Board, as supplemented by the parties during the course of this review, we find that there is substantial direct and circumstantial evidence that Haz/Control caused or permitted MEK to be discharged to the soil and ground

water at the site by storing MEK in a corroded tank.

At the time of removal both tanks were characterized as corroded. The contractor who removed the tanks located a distinct hole in the 6000 gallon tank, stated that the 2000 gallon tank appeared to be in a similar state of decay, and believed that both tanks had leaked. Despite the absence of direct evidence of holes in the 2000 gallon tank, the record does not justify a conclusion that only the larger tank leaked. On the contrary, it suggests the conclusion that, if one tank leaked, it would be more likely than not that the other leaked as well.

The soil and ground water samples taken from the site do not provide enough information to determine which of the tanks leaked, or that one of them did not leak. However, the sampling data are consistent with a conclusion that both tanks leaked.

The record is not sufficient to account for the full amount of MEK that Haz/Control put into the tanks. Depending on the assumptions made in attempting to reconcile the inventory and sales information presented by Haz/Control, the volume of "missing" MEK ranges from about 10 gallons to as much as a barrel. We note in passing that our experience with developing regulations governing underground storage of hazardous substances convinced us that inventory reconciliation is a notoriously inaccurate method of monitoring the amount of liquid that might be in a tank.

More significantly, MEK was the most concentrated pollutant in samples from the site and Haz/Control is the only person known to have stored pure MEK in the underground storage

tanks at the site since Pacific occupied the premises. MEK was not identified as a major constituent of any of the chemical mixtures that were stored in the tanks before 1980. We conclude that some of the MEK stored in the tanks by Haz/Control in 1982 leaked out. This accounts for the high concentration of MEK in the samples taken from the excavation following the removal of the tanks.

CONCLUSION

We concur with the Regional Board's determination to delete Pacific from the Order prescribing cleanup and abatement requirements for the site at 1545-1547 Almaden Road in San Jose.

We conclude that Haz/Control should be added to the order because it is a known source of the MEK that was such a dominant constituent of the pollution at the site.

ORDER

IT IS ORDERED that Order No. 90-036, as amended by Order No. 90-162, is amended to include Haz/Control as a discharger responsible for cleanup and abatement actions in compliance with those orders.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does herby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on March 19, 1992.

AYE: W. Don Maughan
Eliseo M. Samaniego
John Caffrey
Marc Del Piero
James M. Stubchaer

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché

Maureen Marché
Administrative Assistant to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petitions of **WENWEST, INC., SUSAN ROSE, WENDY'S INTERNATIONAL, INC. AND PHILLIPS PETROLEUM COMPANY** For Review of Cleanup and Abatement Order No. 92-041 by the California Regional Water Quality Control Board, San Francisco Bay Region. Our Files Nos. A-799, A-799(a), and A-799(b).	**ORDER NO. WQ 92-13**

BY THE BOARD:

On April 15, 1992, the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), adopted Cleanup and Abatement Order No. 92-041 directing the cleanup of soil and ground water at a site in Concord. The contamination consists of gasoline and dissolved hydrocarbons at and near a former service station. The site is now occupied by a Wendy's hamburger restaurant. The RWQCB named five parties in its order: the former operators of the service station, the oil company whose predecessor owned the property, Wendy's International, Wenwest--the franchise owner, and Susan Rose, a retired school teacher in Hawaii who has inherited the real property from her mother. All but the former operators have filed timely petitions with the State Water Resources Control Board (State Water Board). All argue that it is improper to name them in the order and, in the alternative, that the RWQCB abused its discretion when it refused to place them in a position of secondary responsibility.

I. BACKGROUND

There has been a service station on the site since near the end of World War II. From 1960 until 1980, the property was owned by a subsidiary of Aminoil USA, Inc. and leased to Redding Petroleum, Inc. (Redding). Aminoil USA, Inc. merged with Phillips Oil Company which became Phillips Petroleum Company in 1985. Redding operated a service station at this location from 1960 until 1984. Redding bought the property from Aminoil in 1980 and transferred title to Mr. and Mrs. Redding. They transferred it back to their corporation for sale to Wendy's International in 1984. Later that same year, after Wendy's found that Wenwest was qualified to build and run a restaurant, it sold the site to the franchisee. The following year, Wenwest sold the property to the mother of Susan Rose and immediately leased it back. Before escrow closed, the woman died leaving her daughter to take title. Ms. Rose still owns the property subject to a lease with Wenwest.

Contamination problems first came to light in the early 1980's. A neighbor began to detect floating gasoline in his well located some 150 feet downgradient of the service station. In 1983, responding to a complaint from that neighbor, Redding determined that an inventory loss of 600-800 gallons had taken place. Redding did some cleanup work with an extraction well and closed the underground tanks. When the property was sold in 1984, Redding claims it told Wendy's of the problem. Wendy's consultant noted in a report that "a gasoline layer was noticed floating on the groundwater in the borehole." However, no

remediation was recommended or undertaken. In 1985, after Wenwest bought the property and built the restaurant, strong hydrocarbon odors were found in the women's restroom. An investigation by a different consultant was inconclusive and no action was taken. A subsequent and more extensive investigation by the second consultant began about three years later. By 1990 they had found strong evidence of gasoline contamination. Levels as high as 210,000 ppb total petroleum hydrocarbons were found in ground water. Those findings are the basis of the order RWQCB's order we now review.

II. CONTENTIONS AND FINDINGS

Contention: Each petitioner makes the same basic claim that the RWQCB should have left them off the order or that they should have been treated as secondarily responsible for the cleanup.[1]

Findings: The RWQCB properly included Phillips Petroleum as a fully responsible party. Wendy's International should not have been included as a discharger in the cleanup and abatement order. Wenwest and Susan Rose are properly included in the order but should be treated as secondarily responsible for the tasks in the order.[2]

---

1 All contentions not discussed in this order are denied for failure to raise substantial issues appropriate for review. Title 23, California Code of Regulations, Section 2052(a)(1). People v. Barry (1987) 194 Cal.App.3d 158, 139 Cal.Rptr. 349.

2 At the time the RWQCB issued its order, work was not progressing on the cleanup. This led the RWQCB to decide that the primary/secondary distinction was inapplicable. This was not an unreasonable conclusion for the RWQCB to reach. We now take notice that work is progressing satisfactorily and will address the case as it stands before us.

1. Phillips Petroleum

Although the Phillips name was not associated with the service station during its years of operation, the entity which owned the property from 1960 until 1980 was a subsidiary of what has since become Phillips Petroleum. The question before us is whether Phillips' predecessor acted in such a way as to obligate Phillips to participate in the cleanup. Under precedent established by this Board (see Petition of John Stuart, Order No. WQ 86-15), we apply a three-part test to former owners: (1) did they have a significant ownership interest in the property at the time of the discharge?; (2) did they have knowledge of the activities which resulted in the discharge?; and (3) did they have the legal ability to prevent the discharge? The answer to all three questions is affirmative as regards Phillips' predecessor.

While the only documented discharge of gasoline occurred in 1983, the record shows clearly that discharges took place much earlier. Phillips has offered no evidence to rebut the reports made by Wendy's and Wenwest's consultant that, considering the soil in the area and the distance the gasoline has travelled to reach the neighbor's well, discharges took place at least 12 years before it was detected by the neighbor. That places the time of discharge well within the ownership of the property by Phillips' predecessor. Phillips' argument that the 1983 leak somehow caused the pollution of the well that same year flies in the face of common sense and the laws of nature.

That Phillips' liability arises because of discharges which took place before 1980 is of no legal significance. The discharge of hydrocarbons into the State's ground water was a violation of the law long before 1980.

2. Wendy's International

We have issued many orders addressing the question of who is responsible for ground water cleanups. No order issued by this Board has held responsible for a cleanup a former landowner who had no part in the activity which resulted in the discharge of the waste and whose ownership interest did not cover the time during which that activity was taking place. Considering those facts and the existence of other fully responsible parties, we see no reason to establish that precedent in this case. We have applied to current landowners the obligation to prevent an ongoing discharge caused by the movement of the pollutants on their property, even if they had nothing whatever to do with putting it there. (See Petition of Spitzer, Order No. WQ 89-8; Petition of Logsdon, Order No. WQ 84-6; and others.) The same policy and legal arguments do not necessarily apply to former landowners.

In this case, the gasoline was already in the ground water and the tanks had been closed prior to the brief time Wendy's owned the site. They were told about the pollution problem by their consultant and perhaps by Redding. They took no steps to remedy the situation. On the other hand, they did nothing to make the situation any worse. Had a cleanup been ordered while Wendy's owned the site, it would have been

proper to name them as a discharger. Under the facts as presented in this case, it is not.

In short, we conclude that it is inappropriate to include Wendy's as a discharger based on a number of considerations. Among the factors unique to this case are:

- Wendy's purchased the site specifically for the purpose of conveying it to a franchisee.
- Wendy's owned the site for a very brief time.
- The franchisee who bought the property from Wendy is named in the order.
- Wendy's had nothing to do with the activity that caused the leaks. (In previous orders in which we have upheld naming prior owners, they have been involved in the activity which created the pollution problem. [See Logsdon Petition, op. cit., Petition of Stinnes-Western, Order No. WQ 86-16, and Petition of The BOC Group, Order No. WQ 89-13.])
- Wendy's never engaged in any cleanup or other activity on the site which may have exacerbated the problem.
- While Wendy's had some knowledge of a pollution problem at the site, the focus at the time was on a single spill, not an on-going leak.
- Wendy's purchased the site in 1984 at a time when leaking underground tanks were just being recognized as a general problem and before most of the underground tank legislation was enacted.

- There are several responsible parties who are properly named in the order.
- The cleanup is proceeding.

3. Susan Rose

As we indicated above, the current landowner, however blameless for the existence of the problem, should be included as a responsible party in a cleanup order. We have taken that position many times in the past and have never ruled to the contrary. Thus, we find that the RWQCB was correct in naming Susan Rose in its order.

The issue of secondary liability remains. This concept is one which we have discussed in a relative few of our orders. We first used it, without that label, in our order concerning the development of solar power plants in the Southern California desert. (See Petition of Southern California Edison, Order No. WQ 86-11.) Later we applied the principle to a mining operation on federal land. (See Petition of U.S. Department of Agriculture, Order No. WQ 87-5.) In both cases, the Regional Water Board had decided to place the petitioner in a position of secondary responsibility and we concurred.

We first applied this principle over the wishes of the Regional Water Board in another 1987 order. (See Petition of Prudential Insurance Company of America, Order No. WQ 87-6.) There we found that the unique facts of that case (a long-term lease with little actual access along with a cleanup that was well under way) justified putting the landowner in a position where it would have no obligations under the order unless and

until the other parties defaulted on their's. In 1989, we again affirmed a Regional Water Board order which utilized the secondary liability approach. (See Petition of William R. Schmidl, Order No. WQ 89-1.) We have also required a Regional Water Board to include a previously unnamed party and to give that person secondary liability status in circumstances similar to the Prudential petition. (See Petition of Arthur Spitzer, Order No. WQ 89-8.)

Based on our earlier decisions and the information in the record, we find it appropriate that Susan Rose be listed in the cleanup and abatement order as secondarily responsible party. While she is the current landowner, it is clear that she neither caused nor permitted the activity which led to the discharge. The order will be redrafted to reflect that change.

4. Wenwest, Inc.

The situation with regard to Wenwest is a little bit more complicated. Because Wenwest had nothing to do with the activity which caused the discharge and is, like Wendy's International, a former owner of the land, it could be argued that it does not belong in the order at all. However, we find that the controlling interest which Wenwest has in the property, springing as it does from a sale/lease back arrangement with an absentee landowner, places it in a position of some responsibility. Wenwest exercises all the normal attributes of day-to-day ownership of the property. We see no reason to treat Wenwest any differently from Susan Rose. Wenwest should be named as a secondarily responsible party.

III. CONCLUSION

The cleanup and abatement order issued by the RWQCB must be modified to remove one party and change the status of two others. The RWQCB properly included Phillips Petroleum whose predecessor owned the property and leased it to a service station operator during a time when leaks from the underground storage tanks were clearly taking place. Wendy's International has no present interest in the property and never owned it during the time the tanks were actually leaking. There is no basis to include Wendy's International in the order. Wenwest, the operator of the restaurant on the site, and Susan Rose, the owner of the property at present, both belong on the order as responsible parties. However, because they had nothing to do with the actual discharge and because the two primarily responsible parties are capable of and willing to undertake the cleanup, Wenwest and Ms. Rose should be required to perform the cleanup only in the event of default by Redding and Phillips.

IV. ORDER

It is hereby ordered that Cleanup and Abatement Order No. 92-041 be amended to remove Wendy's International, Inc. from the list of dischargers and to state that Wenwest, Inc. and

///

///

///

///

///

Susan Rose are only to be held responsible for the performance of the listed tasks in the event that Redding and Phillips fail to fulfill their obligations.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 22, 1992.

AYE: W. Don Maughan
John Caffrey
Marc Del Piero
James M. Stubchaer

NO: None

ABSENT: Eliseo M. Samaniego

ABSTAIN: None

Maureen Marché
Administrative Assistant to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of PRUDENTIAL INSURANCE COMPANY OF AMERICA For Review of Order No. 86-90 of the California Regional Water Quality Control Board, San Francisco Bay Region. Our File No. A-460.	ORDER NO. WQ 87-6

BY THE BOARD:

On November 19, 1986, the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board) issued waste discharge requirements to Micro Power Systems, Inc., Fairchild Semiconductor Corporation, and Prudential Realty Group.[1] At issue was the cleanup of volatile organic chemicals found in the soil and ground water under a site used to manufacture, test, and assemble semiconductors. The site, located in the City of Santa Clara, is owned by Prudential and leased to Micro Power. Fairchild was the tenant immediately before Micro Power. All three businesses were named as dischargers in the Regional Board order and were required to perform various tasks according to a time schedule.

On December 12, 1986, Prudential filed a timely petition asking that its duties under the waste discharge requirements be distinguished from those of the other two dischargers.

[1] The name "Prudential Realty Group" appears in the Regional Board order and was used in the original petition. However, a request to correct the name to Prudential Insurance Company of America was received on January 21, 1987 and that name has been used in all matters concerning the petition since that date.

I. BACKGROUND

Prudential leased the site to Fairchild Semiconductor for ten years beginning in 1975. In March 1982, subsurface investigations detected low levels of volatile organic compounds in the soil and ground water beneath the site. A 1983 study concluded that the source of the contamination was off-site and upgradient. Other evidence places the source on-site. In December 1983, Prudential and Fairchild cancelled the remaining portion of the lease but Fairchild agreed to continue to be responsible for conducting the investigation on the site and to accept full liability for any cleanup. Prudential agreed to guarantee Fairchild full access to the property so that it could do what was necessary to handle the investigation and cleanup.

The following February, Prudential leased the property to Micro Power (which already held the lease on the adjoining parcel) for five years. The lease places the burden on Micro Power to comply with all hazardous waste and other laws and very specifically requires Micro Power to cooperate with Fairchild in Fairchild's effort to clean up the existing problem. So far as we can determine, that cooperative effort has worked well for the last three years.

Prudential is included in the Regional Board order merely because of its ownership of the property. There is no evidence that Prudential has ever contributed directly to the discharge.

II. CONTENTION AND FINDINGS

1. Contention: The petitioner raises only one issue. Although the petitioner conceded that it is proper to name a landowner as a discharger in a

cleanup and abatement order,[2] it argues that it is an abuse of the Regional Board's discretion and beyond its jurisdiction to require the landowner to meet the same deadlines as the other dischargers in conducting monitoring and completing investigative reports.

Based on the specific and unique facts of this case, we agree with petitioner's argument that it should only bear secondary responsibility for the cleanup. Those facts include: (a) the petitioner did not in any way initiate or contribute to the actual discharge of waste, (b) the petitioner does not have the legal right to carry out the cleanup unless its tenant fails to do so, (c) the lease is for a long term, and (d) the site investigation and cleanup are proceeding well.

The Regional Board order contains a time schedule for the submission of a number of technical reports. The first report was due on March 1, 1987 and the last is due on April 4, 1989. Remedial measures implementing recommendations contained in those reports are also contemplated in the time schedule.[3] There is nothing improper about making the petitioner responsible for doing anything in the time schedule which the other responsible dischargers fail to do. But the logical fallacy in the Regional Board order has been identified by the petitioner. If Micro Power and Fairchild are to turn in a report on June 1, 1987, Prudential will not necessarily know until June 2 that

---

[2] Although the Regional Board order is entitled "waste discharge requirements", we will treat it as a cleanup and abatement order in this discussion and will modify its designation in our order.

[3] We do not address the merits of the Regional Board order. Both Micro Power and Fairchild have filed petitions with us seeking review of the order. Both petitions are currently being held in abeyance at the request of the petitioners.

tney have not done so. By then it will be too late for the petitioner to comply with the time schedule. Thus, in orde for the petitioner to ensure that it does not violate the order, it will have to assume that there will be non-compliance on the part of both the other parties and comply independently. In view of its somewhat limited access to property, it will be very difficult for the petitioner to conduct the on-site tests needed to comply. Indeed, only if Micro Power breaches its lease by failing to cooperate with Fairchild or the Regional Board may Prudential reenter to make tests.

The difficult position into which the petitioner has been placed does not further any legitimate public purpose. The petitioner is named in the order and bears ultimate responsibility for everything in it. A more careful crafting of the Regional Board order would satisfy all concerned while protecting the public's interest in seeing that the pollution is cleaned up.[4]

The petitioner has asked that three references in the Regional Board order to "dischargers" be changed to refer only to Micro Power and Fairchild. One of those references is to the time schedule discussed above. By deleting the word "dischargers" and substituting the names of the other two parties, the petitioner would no longer be responsible for meeting the deadlines in the order. This will be done. However, it should be clear in the order that the petitioner must immediately step into the shoes of the other dischargers and fulfill the requirements of the order as soon as it is known that a deadline will not be met. Language will be added to the order giving the petitioner

---

[4] This discussion responds to the petitioner's allegation that the Regional Board abused its discretion. We do not address the contention that the order was in excess of the Regional Board's jurisdiction.

sufficient time from the date of any non-compliance to carry out the order with regard to that task.

III. CONCLUSION

For the reasons discussed above, we conclude that the order of the Regional Board assigning exactly the same duties to all three dischargers is, under these limited circumstances, unfair. The Regional Board can, without undue difficulty or expense, set a slightly different standard of performance for a landowner where, as here, the tenants are primarily responsible for complying with the order and the landlord is restricted by lease conditions from overseeing the work until violations of the order have occurred. The order will be modified to reflect that distinction.

IV. ORDER

IT IS HEREBY ORDERED THAT:

The waste discharge requirements issued by the Regional Board in Order No. 86-90 are hereby amended as follows:

1. In paragraphs B.2., C.1, and C.2, the word "discharger" is deleted and the phrase "Micro Power Systems, Inc. and Fairchild Semiconductor Corporation" is inserted in its place.

2. In paragraphs B.2, C.1, and C.2, the following sentence is inserted:

"Within 60 days of the Executive Officer's determination and actual notice to Prudential Insurance Company that Micro Power Systems, Inc. or Fairchild Semiconductor Corporation has failed to comply with this paragraph, Prudential Insurance Company of America, as landowner, shall comply with this provision."

3. The Regional Board's order is hereby retitled "Cleanup and Abatement Order."

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 18, 1987.

AYE: W.Don Maughan
D.E. Ruiz
D. Walsh
E.H. Finster
E.M. Samaniego

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marche
Maureen Marche
Administrative Assistant to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of the Petition of MR. AND MRS. WILLIAM R. SCHMIDL AND MR. AND MRS. RUSSELL P. SCHMIDL For Review of Cleanup and Abatement Order No. 88-701 of the California Regional Water Quality Control Board, Central Valley Region. Our File No. A-532.	ORDER NO. 89-1

BY THE BOARD:

On February 5, 1988, the California Regional Water Quality Control Board, Central Valley Region (Regional Board) issued a Cleanup and Abatement Order (No. 88-701) naming Tom De Kellis, d.b.a. Bowles Flying Service as the primarily responsible party and the two Schmidl coupies -- who own the land -- as secondarily responsible parties. On March 1, 1988, the Schmidls filed a timely but incomplete petition for review of the Regional Board Order. The Petition was later supplemented and thereafter found to be complete on July 28, 1988.

I. BACKGROUND

De Kellis operates Bowles Flying Service, an aerial pesticide spraying business in Live Oak. The facility consists of crop dusters, an airstrip and maintenance buildings that are located on land owned by Mr. and Mrs. William R. Schmidl and Mr. and Mrs. Russell P. Schmidl. It has been owned and run by De Kellis, since 1977, when be bought the business from Thomas R.

Bowles. The Schmidls bought the land from Thomas R. Bowles ten years after transfer of the business to De Kellis, in March 1987.

As part of the crop-dusting operation, before 1987, De Kellis washed the aircraft exteriors and pesticide tanks on an asphalt and gravel wash area on the property. Before 1981, the rinse water, which contains pesticide residue, was allowed to flow from the wash pad through a ditch tributary to Morrison Slough and on to the Sutter Bypass. In 1981, De Kellis constructed an impoundment to contain the rinse water. Based on analysis of samples from the impoundment, the Regional Board notified De Kellis by letter of December 3, 1985 that the surface impoundment is subject to the Toxic Pits Cleanup Act (TPCA).[1] The Regional Board's initial determinations showed 25,800 ppm copper in the soil beneath the impoundment.

On June 4, 1987, De Kellis informed the Regional Board that he had bulldozed over the impoundment and that while aircraft exteriors were still being washed at the facility, tanks were not. Also, a berm had been constructed to direct rinse water back to the wash area. Further Regional Board sampling and analysis in September, 1987, revealed the presence of the

---

1. The Cleanup and Abatement Order addresses pesticides found in a well at the facility. It does not address the TPCA issues. The Petition itself challenges only the Cleanup and Abatement Order and does not raise the TPCA issues. Accordingly, this Order is limited to issues raise in the Cleanup and Abatement Order.

pesticides thiobencarb, simazine, molinate, and diuron in a commercial-use well on the property. The area nas a high water table and the well may be acting as a conduit for pesticide movement to deeper groundwater, thus creating or threatening a condition of nuisance and pollution. Residences within one-quarter mile of the facility are served by the ground water. In this regard the Regional Board's basin plan provides that "facilities developed for handling pesticide reuse waters shall not allow percolation to underlying soils or ground waters". Pesticide handling practices at Bowles Flying Service may also have affected the beneficial uses of Morrison Slough, which include irrigation, stock watering, and industrial and domestic supply. The beneficial uses of the Sutter Bypass include agricultural supply, recreation, and fish and wildlife habitat.

The Executive Officer issued Cleanup and Abatement Order No. 88-701 on February 5, 1988 requiring De Kellis to: (1) provide information regarding its business ownership history; (2) provide a sampling and analysis work plan; (3) implement the approved work plan; (4) provide a site mitigation plan; and (5) implement the approved mitigation plan. Deadlines were imposed for each required task.

In addition to the tasks required of De Kellis, the Regional Board ordered that within 60 days of notice to the Schmidls that De Kellis has failed to perform under the Order,

the Schmidls shall commence performance of all tasks. It is this part of the Order to which the Schmidls object.

II. CONTENTIONS AND FINDINGS

Contention: Petitioner's sole contention is that, as the landowner, it had no involvement with causing the pollution on the land, and, therefore, should not be held responsible. In support, Petitioner cites Assembly Bill 924 and Senate Bill 245.

Finding: The Board has in the past upheld Regional Board findings of responsibility on the part of landowners. In Vallco Park, Ltd, Order No. WQ 86-18, the Board pointed out that "[t]he ultimate responsibility for the condition of the land is with its owner". The initial responsibility for cleanup is with the operator, but according to Vallco, it is appropriate to look to the owner to assure cleanup in the event the operator fails in its obligations. See also, Stinris-Western Chemical Corp. (1986) Order No. WQ 86-16; J.N.J. Sales and Services, Inc. (1988) Order No. WQ 88-8. Similarly, the Board has found it appropriate to name landowners as responsible parties -- subject to the lessee/discharger's primary duty -- to comply with waste discharge requirements. Southern California Edison Co (1986) Order No. WQ 86-11; U.S. Forest Service (1987) Order No. WQ 87-5. Again, in the latter two cases, the Board pointed out that while the user/discharger bears primary responsibility for compliance with the Regional Board orders, the landowner must assume ultimate responsibility. These recent orders are consistent with

longstanding interpretations as to who is a discharger under the Porter-Cologne Water Quality Control Act and its predecessors. 26 Ops. Cal. Atty. Gen. 88.

In the instant case, the Regional Board's order places primary cleanup and abatement responsibility on De Kellis's shoulders and specifically requires the Schmidls to assume the burden only upon his failure to perform. This is in accord with the State Board's prior decisions.

In this Petition, the Schmidls assert that AB-924 and SB-245 support its position. Assembly Bill 924 was enacted as an urgency statute on February 18, 1988 (Chapter 12, Statutes of 1988) and made part of the State Hazardous Substance Account provisions known as the "State Superfund" statute which is contained in Chapter 6.8 of the Health and Safety Code. It establishes a presumption under Health and Safety Code Section 25360.2 that the owner of a single-family residence is not liable under the Superfund law for recovery of expenditures from the account. Among other things, the amended language provides:

> "(b) Notwithstanding any other provision of this chapter, an owner of property which is the site of a hazardous substance release is presumed to have no liability pursuant to this chapter. The presumption may be rebutted as provided in subdivision (d).
>
> "(c) An action for recovery of costs or expenditures incurred from the state account or the Hazardous Substance Cleanup Fund pursuant to this chapter in response to a hazardous substance release shall not be brought against an owner of property unless

the department first certifies that, in the opinion of the department, one of the following applies:

"(1) The hazardous substance release occurred after the owner acquired the property.

"(2) The hazardous substance release occurred before the owner acquired the property and at the time of acquisition the owner knew or had reason to know of the hazardous substance release.

"(d) In an action brought against an owner of property to recover costs or expenditures incurred from the state account or the hazardous Substance Cleanup Fund pursuant to this chapter in response to a hazardous substance release, the presumption established in subdivision (b) may be rebutted if it is established by a preponderance of the evidence that the facts upon which the department made the certification pursuant to paragraph (1) or paragraph (2) of subdivision (c) are true.

"(e) Notwithstanding any other provision of this chapter, this section governs liability pursuant to this chapter for an owner of property, as defined in subdivision (a)."

(Health and Safety Code Section 25360.2(b). Emphasis supplied)

Petitioner fails to state specifically how the AB-924 amendments support its position. By its own terms, the amended provision is restricted in its application to recoveries from owners of single-family residences under the Hazardous Substance Account and the Hazardous Substance Cleanup Fund provisions. AB-924 does not support Petitioner's position because the site which is the subject of this petition is not a single-family

residential property and because the amendment has no discernible effect on our interpretation of the Porter-Cologne Act.

Senate Bill 245 was approved by the Governor on September 28, 1987, and became effective January 1, 1988. (Chapter 1302, statutes of 1988.) It also amends portions of the State Superfund law, and similarly does not appear to have relevance to the Regional Board's order. Again, Petitioner has failed to make specific its argument as to how SB-245 supports its position. Among other things, the SB-245 amendments provide that no punitive damages can be imposed upon the landowner by the Department of Health Services. In part, the amended section provides that:

> "No punitive damages shall be imposed under this section against an owner of real property who did not generate, treat, transport, store, or dispose of any hazardous substances on, in, or at the facility located on that real property . . . ."
>
> (Emphasis supplied. Health and Safety Code Section 25359(b).)

The SB-245 amendments do not affect the Regional Board's determination for two reasons. First, this matter does not involve punitive damages. Second, the SB-245 amendments are specifically limited in their application to Health and Safety Code Section 25359.

III. CONCLUSIONS

The Regional Board appropriately named the Schmidls as secondarily responsible parties in the Cleanup and Abatement Order.

IV. ORDER

The Petition is hereby dismissed.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on January 19, 1989.

AYE: W. Don Maughan, Darlene E. Ruiz, Eliseo M. Samaniego, Danny Walsh

NO: None

ABSENT: Edwin H. Finster

ABSTAIN: None

Maureen Marche
Administrative Assistant
to the Board

PURCHASE AND SALE AGREEMENT

By and Between

EASTSHORE PARTNERS,
as Seller,

and

AETNA REAL ESTATE ASSOCIATES, L.P.,
as Buyer

TABLE OF CONTENTS

"Headlines" means Gensto, a California corporation, d/b/a Headlines.

"Holdbacks" shall have the meaning provided in Section 3.02(a) of this Agreement.

"Improvements" means buildings, structures and improvements erected on the Land as more fully described in Section 2.01(c) of this Agreement.

"Indemnitees" shall have the meaning set forth in Section 14.02 of this Agreement.

"Indemnitors" shall mean the following persons: J. David Martin, Thomas J. Gram, Walter Kaczmarek, Edmund B. Taylor, Jr., Barry Culbertson and Merrit Sher.

"Land" means certain real property situated in the City of Emeryville, County of Alameda, and State of California, as more particularly described in Section 2.01(a) of this Agreement and Exhibit A attached hereto.

"Leased" means that, with respect to any tenant space in the Property, such space is subject to a lease agreement executed by the landlord and a tenant that is not an Affiliate of Seller or Buyer (except as described in the attached Schedule 4 or otherwise expressly approved by Buyer in writing), for occupancy purposes only, in form and content approved by Buyer. Without limiting the foregoing, none of the space in the Property shall be considered Leased for purposes hereof unless (1) the tenant thereof is responsible for its pro rata share of all Additional Charges relating to the Property or Buyer has expressly approved any lease specifying tenant's lack of responsibility therefor,

"Personal Property" shall have the meaning provided in Section 2.01(d) of this Agreement.

"Prior Harmful Use" shall have the meaning provided in Section 14.01(s)(i) of this Agreement.

"Property" means the Land and the Improvements, together with all of the Appurtenances, the Personal Property, if any, and the Intangible Property, as more fully described in Section 2.01 of this Agreement.

"Real Property" means the Land, the Appurtenances and the Improvements.

"related documents" shall have the meaning provided in Section 14.01(a)(iii) of this Agreement.

"Re-leasing Costs" means any and all costs incurred by Buyer in its sole discretion for tenant improvements, leasing commissions and other costs necessary to re-lease tenant space in the Property, together with any costs incurred by or on behalf of Buyer in its sole discretion in the event of a Tenant Default in connection with legal or other proceedings to collect Rent or Additional Charges or to obtain possession of the leased premises.

"Rent" means all base or minimum rent and percentage rent, if any, payable under a lease of space in the Property.

"Rent Roll" means a list of all Leases including for each tenant, a description of: (i) the premises (including suite numbers), (ii) the rentable square feet leased, (iii) the name of the tenant, (iv) the base or minimum rent, (v) amount of deposit and prepaid rent, if any, (vi) lease commencement date and lease expiration date, and

(s) Environmental.

(i) The Property and its existing and to the best knowledge of the warranting parties its prior uses, except solely for that certain use prior to ownership by Seller or its Affiliates of the Property as identified on Schedule 4 attached hereto (the "Prior Harmful Use"), comply with, and Seller is not in violation of, and has not violated in connection with the ownership, use, maintenance or operation of the Property and the conduct of the business related thereto, any applicable federal, state, county or local statutes, laws, regulations, rules, ordinances, codes, standards, orders, licenses and permits of any governmental authorities relating to environmental matters, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resources Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.), the Clean Water Act (33 U.S.C. Section 1251 et seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401-1450), the Hazardous Materials Transportation Act (49 U.S.C. Section 1801 et seq.), the Toxic Substance Control Act (15 U.S.C. Sections 2601-2629), the California Hazardous Waste Control Law (California Water Code Sections 25100-25600), the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.) together with any amendments or extensions thereof and any rules, regulations, standards or guidelines issued pursuant thereto, and all other applicable environmental standards or requirements (all the foregoing being hereinafter

collectively referred to as the "Environmental Laws"), in effect as of the Closing Date. Any and all contamination of the Property relating to the Prior Harmful Use has been or is being cleaned up in compliance with all Environmental Laws as required by governmental authorities with jurisdiction. No contamination relating to the Prior Harmful Use that either (i) is in violation of any Environmental Law or (ii) does not conform to any remedial or clean-up measures required at any time and from time to time by any governmental agency or authority with jurisdiction, will remain on, under or about the Property (including, without limitation, the soil and ground water) or any other property in the vicinity of the Property (where the source of contamination on the other property is attributable to contamination of the Property) following completion of the activities and services described in the contract between P.I.E. Nationwide, Inc. and CytoCulture International/Sybron Chemicals Inc. in Joint Venture, dated March 24, 1988 (the "Clean-up Contract"). The intent of the foregoing representation is that Seller and the Indemnitors shall indemnify and hold Buyer harmless from and against any and all loss, cost, damage, liability and expense (including without limitation attorneys' fees and costs) arising from or in connection with the performance or failure of performance of the Clean-up Contract by either party thereto, or by the failure, for any reason, of the Property and any other property in the vicinity of the Property (where the source of the contamination on the other property is attributable to contamination of the Property) to be cleaned up or remediation measures to be completed in relation to the Prior Harmful Use in accordance with the Clean-up Contract and in

compliance with all Environmental Laws in effect as of the Closing Date and the requirements from time to time of any governmental authority with jurisdiction.

(ii) Without limiting the generality of Section 14.01(s)(i) above, Seller, its agents, employees and independent contractors, (A) have operated the Property and constructed the Improvements, and have at all times received, handled, used, stored, treated, transported and disposed of all petroleum products and all other toxic, dangerous or hazardous chemicals, materials, substances, pollutants and wastes, and any chemical, material or substances exposure to which is prohibited, limited or regulated by any federal, state, county, regional or local authority (all the foregoing being hereinafter collectively referred to as "Hazardous Materials") in compliance with all Environmental Laws in effect as of the Closing Date and (B) have removed or caused to be removed from the Property all Hazardous Materials (including, without limitation, any and all Hazardous Materials relating to the Prior Harmful Use, to the extent required by any Environmental Law or from time to time by any governmental agency or authority with jurisdiction), except for small quantities of Hazardous Materials commonly found in offices or retail stores (such as white out and copy toner) and except to the extent of the remaining clean-up activities described on Schedule 4, which activities will be completed in accordance with the terms of the Clean-up Contract on or before December 31, 1992, subject to extension upon Buyer's written approval, which will not be unreasonably withheld if the clean-up is still continuing pursuant to

the Clean-up Contract and pursuant to the requirements of any governmental authority with jurisdiction.

(iii) Except as disclosed by the reports listed in Schedule 4 attached hereto, the Property has not been used during the period of ownership of the Property by Seller or its Affiliates or, to the best knowledge of the warranting parties, at any other time, by any person as a landfill or a disposal site for Hazardous Materials or for garbage, waste or refuse of any kind. The parties understand and acknowledge that the Property consists of landfill and that the original fill may have contained some traces of Hazardous Materials but to the best knowledge of the warranting parties there were no Hazardous Materials in the original fill, it being understood that for purposes of this sentence only, the warranting parties' knowledge is limited to the environmental reports delivered to Buyer. The warranting parties represent and warrant that they have no knowledge other than the environmental reports referred to above with regard to any Hazardous Materials in the original fill.

(iv) There are no electrical transformers or other equipment containing dielectric fluid containing polychlorinated biphenyls in excess of fifty (50) parts per million located in, on or under the Property, nor is there any asbestos which is or could become friable contained in, on or under the Property, provided that the foregoing representation is made to the best knowledge of the warranting parties as to any activities that may have occurred other than during the period of ownership or control of the Property by Seller or its Affiliates.

(v) No Hazardous Materials have been released into the environment on or near the Property by Seller or its Affiliates or, to the best knowledge of the warranting parties, by any other Person, except solely those released prior to Seller's ownership of the Property as the result of the Prior Harmful Use, and there are no locations off the Property where Hazardous Materials generated by or on the Property have been treated, stored, deposited or disposed of by Seller or its Affiliates or, to the best knowledge of the warranting parties, by any other Person except for those Hazardous Materials disposed of at permitted facilities in compliance with all Environmental Laws in connection with the clean-up of the contamination of the Property relating to the Prior Harmful Use.

(vi) (A) Except as disclosed in Schedule 4 attached hereto, no notices of any violation of any Environmental Laws in effect as of the Closing Date have been received by Seller or any of the Indemnitors, (B) as of the date hereof, to the best knowledge of the warranting parties there are no remedial actions, repairs or construction required to be done, or any capital expenditures required to be made, pursuant to any of the Environmental Laws in effect as of the Closing Date or otherwise required in order to protect the health or safety of any of the occupants or users of the Property except pursuant to the Clean-up Contract, and (C) there are no writs, injunctions, decrees, orders or judgments outstanding, no lawsuits, claims, proceedings or investigations pending or threatened affecting the Property and relating to Hazardous Materials or Environmental Laws in effect as of the Closing Date, nor to the actual knowledge of the

warranting parties is there any basis for any such lawsuit, claim, proceeding or investigation being instituted or filed other than as disclosed in Schedule 4.

(vii) To the best knowledge of the warranting parties, there are no federal, state, county or local statutes, laws, regulations, rules, ordinances or codes, including but not limited to the Environmental Laws in effect as of the Closing Date, which require prior notice to or the prior consent of any governmental agency to the transaction contemplated by this Agreement, and to the best knowledge of the warranting parties any disclosure of information required by any statute, law, regulation, rule, ordinance or code has been made in accordance with such statute, law, regulation, rule, ordinance or code.

(viii) Prior to the Closing, Seller shall, at no cost to Buyer, remove or cause to be removed from the Property, the drums marked as containing hazardous substances located on or about the area subject to the Prior Harmful use. The transportation and disposal of such drums shall be performed in compliance with all Environmental Laws and the requirements of any governmental authority.

(ix) Nothing in this Section 14.01(s) shall in any way limit or otherwise affect the representations and warranties contained in any other provision of this Agreement.

(t) Air Navigation. The location of the Land is not such that the Improvements will have a substantial adverse effect on air navigation within the meaning of the regulations of the Federal Aviation Authority.

(u) True and Correct Documents. All copies of documents furnished to Buyer in connection with this transaction are true, correct and complete copies of the originals.

(v) Full Disclosure. Neither this Agreement nor any other written communication by or on behalf of Seller with Buyer in connection with this transaction contains, as of the time made, an untrue statement of a fact or omits a fact necessary to make the statements contained therein or herein not materially misleading. There is no other fact which Seller has not disclosed to Buyer in writing (and which is identified in Schedule 4 attached hereto) which materially adversely affects, nor to the best knowledge of the warranting parties will materially and adversely affect the Property or the use or enjoyment or the value thereof, or the ability of Seller, the Indemnitors, the Guarantors, The Martin Group or Terranomics Leasing to perform the transactions contemplated by this Agreement. Nothing in this Section 14.01(v) shall in any way limit the representations and warranties contained in other provisions of this Article XIV.

(w) Financial Statements. The audited financial statements for the Property for the 1988 calendar year which Seller furnished to Buyer for inclusion in Buyer's prospectus are in accordance with the books and records relating to the Property, are complete and correct, and fairly present the income and expenses of the Property for the year ended December 31, 1988 in conformity with any applicable rules of the Securities and Exchange Commission.

(x) Survival. These representations and warranties in this Section 14.01 shall survive the Closing. The representations and

warranties set forth in this Section 14.01 shall not be assignable to any successor in interest to Buyer, except solely a successor by operation of law.

14.02 Indemnification. Seller and the Indemnitors agree to indemnify, defend and hold harmless Buyer, its partners, directors, officers, shareholders, representatives, and, subject to Section 14.01(x) above, its successors and assigns (collectively, the "Indemnitees") from and against any and all liabilities, losses, claims, damages, judgments, costs and expenses (including, without limitation, reasonable attorneys' fees) incurred by any Indemnitees as a result of any inaccuracy in any of the representations and warranties contained in Section 14.01. The obligations of Seller and the Indemnitors under this Section 14.02 shall be joint and several obligations (except as set forth above in Section 14.01) and shall survive the Closing, except as set forth in Section 14.01(x).

ARTICLE XV

GENERAL PROVISIONS

15.01 Governing Law. This Agreement is entered into in the State of California and shall be governed by the laws thereof.

15.02 Amendments. This Agreement may be amended only by an instrument in writing signed by Buyer and Seller.

15.03 Severability. If any term or provision of this Agreement is for any reason deemed illegal or invalid, such illegality or invalidity shall not affect the validity of the remainder of this Agreement, and

construed to be in Buyer's sole discretion, whether or not the words "sole discretion", "sole judgment" or words of similar import are used in connection therewith.

15.15 Use of Billboard. Seller will grant to East Bay and Martin a nonexclusive easement to use the land underlying the Billboard, pursuant to the Nonexclusive Easement Agreement for Billboard Use in the form attached hereto as Exhibit T (the "Billboard Easement Agreement").

15.16 No Partnership. Nothing contained in this Agreement shall be construed to create a partnership or joint venture between the parties or their successors in interest.

15.17 Brokers. Neither Buyer nor Seller has had any contact or dealings regarding the Property, or any communication in connection with the subject matter of this transaction, through any licensed real estate broker or other Person who can claim a right to a commission or finder's fee as a procuring cause of the sale contemplated herein, except for Pacific Eastern Real Estate Group whose commission, if any is due, will be paid by Seller pursuant to a separate written agreement between Seller and such broker. In the event that any other broker or finder perfects a claim for a commission or finder's fee based on any such contact, dealings, or communications, the party through whom the broker or finder makes his claim shall be responsible for said commission or fee and all costs and expenses (including but not limited to reasonable attorneys' fees) incurred by the other party in defending against the same. The provisions of this Section shall survive the Closing.

15.18 Representation and Warranty by Buyer. Buyer hereby represents and warrants to Seller as follows: Buyer is a limited partnership duly

organized and validly existing under the laws of Delaware and is in good standing under the laws of the State of California; this Agreement and all documents executed by Buyer which are to be delivered to Seller at the Closing are and at the time of Closing will be duly authorized, executed and delivered by Buyer, and are or at the Closing will be legal, valid and binding obligations of Buyer, and do not and at the time of Closing will not violate any provisions of any agreement or judicial order to which Buyer is a party or to which it is subject.

15.19 Agreement by Seller Not to Compete. Without first obtaining Buyer's prior written consent, neither Seller nor any of its Constituent General Partners or Affiliates shall for a period of fifteen (15) years after the Closing become engaged or have any interest in any "promotional" or "power" retail center, including any development thereof, located within four (4) miles of the Property, which center includes or would include as a tenant thereof (i) any then current tenant of the Property, (ii) any Person who had been a tenant of the Property within two (2) years of the date such Person became a tenant of the other center, or (iii) any Person with whom Buyer or any of its agents are actively negotiating to lease space in the Property at the time Seller or its Constituent General Partners or Affiliates become engaged in or acquire any interest in such center.

15.20 Attorneys' Fees. If any dispute arises under this Agreement, the prevailing party shall be entitled to recover court costs incurred and reasonable attorneys' fees from the nonprevailing party or parties.

15.21 Indemnification. Seller and the Indemnitors hereby, jointly and severally, agree to indemnify and hold Buyer harmless from and

against contractual obligations and any and all liability or loss, including reasonable attorneys' fees and costs, arising out of or in connection with the Property before the Closing Date. The foregoing indemnity shall survive the Closing.

15.22 Repair Work. Seller agrees to complete the repair work described in the attached Schedule 5 (the "Repair Work") or cause the same to be completed, in a good and workmanlike manner and in compliance with all applicable laws and regulations, as soon as possible after the Closing and in no event later than February 28, 1990. Seller shall, at its expense, obtain and comply with any and all Permits and approvals required by any governmental authority and any tenants in connection with the Repair Work. Buyer shall withhold the sum specified on the attached Schedule 5 (the "Repair Work Holdback") with respect to the Repair Work. Upon the satisfaction of the following conditions, in addition to any other conditions contained in this Section, Buyer shall pay the Repair Work Holdback to Seller: (i) the completed Repair Work must be approved by Buyer and its engineers; (ii) there must be no stop notices or lien or other claims for payment in connection with the Repair Work that would require Buyer to withhold any payment to Seller under applicable law; (iii) Seller must have delivered to Buyer full lien releases from all persons or entities that may have a claim to a mechanics' lien arising out of or in any way connected with the Repair Work; and (iv) Seller shall have assigned to Buyer any and all warranties or guaranties Seller shall have received in connection with the Repair Work pursuant to a written assignment reasonably acceptable to Buyer and Seller. Seller shall cause said conditions to be satisfied

States registered or certified mail, postage prepaid, (ii) hand delivery, receipt requested, (iii) an acceptable overnight delivery company (Federal Express, Emery Worldwide, Purolator Courier, DHL Worldwide Express, Airborne Express, United Parcel Service, and Express Mail (United States Postal Service) being deemed acceptable) or (iv) facsimile transmission promptly followed by a copy sent by first class mail, to the respective addresses set forth below:

Buyer: c/o Ætna Realty Investors, Inc.
242 Trumbull Street
Hartford, Connecticut 06156
Attention: Equities Management
Fax: (203) 275-2654
Confirmation: (203) 275-2358

with copies to:

Ætna Life Insurance Company
Law Department
City Place - YFF1
185 Asylum Street
Hartford, Connecticut 06156
Attention: Thomas G. Dudeck, Counsel
Fax: (203) 275-3536
Confirmation: (203) 275-3439

and

Ætna Realty Investors, Inc.
1740 Technology Drive, Suite 600
San Jose, California 95110
Attention: William M. Harris,
Re: Powell Street Plaza
Fax: (408) 437-5494
Confirmation: (408) 437-5451

and

Morrison & Foerster
345 California Street
San Francisco, California 94104
Attention: Caryl B. Welborn
Fax: (415) 677-6182
Confirmation: (415) 677-7147

Seller c/o The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, California 94608
Attention: J. David Martin
Fax: (415) 652-1967
Confirmation: (415) 652-5852

with a copy to:

East Bay Park Company
c/o The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, California 94608
Attention: Thomas J. Gram
Fax: (415) 652-1967
Confirmation: (415) 652-5852

and a copy to:

Emeryville Terranomics Associates
455 Northpoint
San Francisco, California 94133
Attention: Barry Culbertson
Fax: (415) 474-6100
Confirmation: (415) 771-1115

16.02 Effective Date. All notices sent by overnight courier shall be effective on the date the courier service certifies delivery. Facsimile notices shall be effective on the date of transmission. Notices sent by mail shall be effective three (3) business days after they have been deposited in the United States mail as required above. Notices sent by personal delivery shall be effective on the date the messenger certifies delivery.

THE MARTIN GROUP

February 5, 1990

Tom Barreira
Aetna Property Services
1740 Technology Drive Suite 600
San Jose, CA 95110

Dear Tom,

Enclosed is the P.I.E."Clean up Contract".

Sincerely,

Patt Sullivan
Property Manager
Powell Street Plaza

cc: Tom Gram - With enclosures

cc: Caryl Welborn - With enclosures
Morrison & Foerster
345 California Street
San Francisco, CA 94104

6475 Christie Avenue, Suite 500, Emeryville, California 94608 (415) 652-5852 FAX (415) 652-1967

BLYMYER
ENGINEERS, INC.

February 1, 1990
BEI Job No. 8648

Mr. Tom Gram
EASTSHORE PARTNERS
6475 Christe Avenue
Emeryville, CA 94608

RECEIVED
FEB - 1990
THE MARTIN CO.

SUBJECT: SITE REMEDIATION
POWELL STREET PLAZA
5500 EASTSHORE HIGHWAY
EMERYVILLE, CALIFORNIA

Dear Tom:

As you have requested, please find enclosed a copy of the expired contract between P.I.E. Nationwide and CytoCulture International/Sybron Chemicals, Inc., a joint venture. As indicated by P.I.E., BEI is currently negotiating an extension to this contract.

If you have questions, please call.

Cordially,

BLYMYER ENGINEERS, INC.

James C. Falbo
Manager, Environmental Planning
& Assessment

JCF/ds

Attachment

cc: Mr. John Ster

(415) 521-3773 • 1829 Clement Avenue, Alameda, California 94501-1395 • FAX (415) 865-2594

60457L

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A117

Abbreviated Form of Agreement Between Owner and Contractor

for CONSTRUCTION PROJECTS OF LIMITED SCOPE where the Basis of Payment is the COST OF THE WORK PLUS A FEE

1979 EDITION

THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES: CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION

This document includes abbreviated General Conditions and should not be used with other General Conditions. It has been approved and endorsed by The Associated General Contractors of America.

AGREEMENT

made as of the 24th day of March in the year of Nineteen Hundred and Eighty-Eight

BETWEEN the Owner: PIE NATIONWIDE
2050 Kings Road
Jacksonville, FL. 32203

and the Contractor: CytoCulture International/Sybron Chemicals Inc.
In Joint Venture

the Project: Emeryville, California
In Situ Site Remediation of
Soil & Groundwater

the Architect: BLYMYER & SONS ENGINEERS, INC.
1829 Clement Avenue
Alameda, CA. 94501

The Owner and the Contractor agree as set forth below.

ARTICLE 1
THE WORK

1.1 The Contractor shall perform all the Work required by the Contract Documents for xxxxxxxxxxxxxxxxxxx Exhibit "A". *(Here insert the caption descriptive of the Work as used on other Contract Documents.)*
Request for Proposals dated 7/8/87; Exhibit "B" Itemized Schedule of Payments and Description of Tasks, Exhibit "C" CytoCulture Systems' Proposal dated 7/29/87 (revised 10/1/87). Exhibit "G" CytoCulture letter dated 2/16/88.

ARTICLE 2
THE CONTRACTOR'S DUTIES AND STATUS

2.1 The Contractor accepts the relationship of trust and confidence established between the Owner and the Contractor by this Agreement. The Contractor covenants with the Owner to furnish the Contractor's best skill and judgment and to cooperate with the Architect in furthering the interests of the Owner. The Contractor agrees to furnish efficient business administration and superintendence and to use the Contractor's best efforts to furnish at all times an adequate supply of workers and materials, and to perform the Work in the best way and in the most expeditious and economical manner consistent with the interests of the Owner.

ARTICLE 3
TIME OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

3.1 The Work to be performed under this Contract shall be commenced 9/18/87

and, subject to authorized adjustments, Substantial Completion shall be achieved not later than 4/8/89

(Here insert any special provisions for liquidated damages relating to failure to complete on time.)

Substantial Completion is defined in Exhibit "G", CytoCulture letter dated 2/16/88.

ARTICLE 4
COST OF THE WORK AND GUARANTEED MAXIMUM COST

4.1 The Owner agrees to reimburse the Contractor for the Cost of the Work as defined in Article 6. Such reimbursement shall be in addition to the Contractor's Fee stipulated in Article 5.

4.2 The Contractor shall be reimbursed for Changes in the Work on the basis of the Cost of the Work as defined in Article 6.

4.3 The maximum cost to the Owner, including the Cost of the Work and the Contractor's Fee, is guaranteed not to exceed the sum of TWO HUNDRED & FIFTY EIGHT THOUSAND dollars ($ 258,000.00); such Guaranteed Maximum Cost shall be increased or decreased for Changes in the Work as provided in Article 5 and Article 6.
(Here insert any provision for distribution of any savings. Delete Paragraph 4.3 if there is no Guaranteed Maximum Cost.)

ARTICLE 5
CONTRACTOR'S FEE

5.1 In consideration of the performance of the Contract, the Owner agrees to pay the Contractor in current funds as compensation for the Contractor's services, a Contractor's Fee ~~as follows~~: in accordance with Exhibit "B".

5.2 For Changes in the Work, the Contractor's Fee shall be adjusted as follows:
In accordance with written Change Order to contract.

or, in the absence of specific provisions herein, it shall be adjusted by negotiation on the basis of the fee established for the original Work.

5.3 The Contractor shall be paid ONE HUNDRED percent (100%) of the proportional amount of the Contractor's Fee with each progress payment, and the balance of the Contractor's Fee shall be paid at the time of final payment.

ARTICLE 6
COSTS TO BE REIMBURSED

6.1 The term Cost of the Work shall include costs set forth below incurred in the proper performance of the Work and paid by the Contractor.

6.1.1 ~~Wages paid for labor in the direct employ of the Contractor in the performance of the Work including welfare, unemployment compensation, social security and other benefits.~~

6.1.2 Cost of all materials, supplies and equipment incorporated in the Work, including costs of transportation thereof. All discounts for cash or prompt payment shall accrue to the Contractor.

6.1.3 Payments made by the Contractor to Subcontractors for Work performed pursuant to subcontracts under this Agreement.

6.1.4 Cost of all materials, supplies, equipment, temporary facilities and hand tools not owned by the workers, which are consumed in the performance of the Work.

6.1.5 Reasonable rental costs of all necessary machinery and equipment, exclusive of hand tools, used at the site of the Work, whether rented from the Contractor or others.

6.1.6 Cost of ~~premiums for all bonds and insurance~~, permit fees, and sales, use or similar taxes related to the Work.

6.1.7 Losses and expenses, not compensated by insurance or otherwise, sustained by the Contractor in connection with the Work, provided they have resulted from causes other than the fault or neglect of the Contractor.

6.1.8 Cost of removal of all debris.

6.1.9 Costs incurred due to an emergency affecting the safety of persons and property.

6.1.10 Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by the Owner.

(Here insert modifications or limitations to any of the above Subparagraphs.)

ARTICLE 7
COSTS NOT TO BE REIMBURSED

7.1 The term Cost of the Work shall not include any of the items set forth below.

7.1.1 Salaries or other compensation of the Contractor's personnel at the Contractor's offices other than a field office.

7.1.2 Expenses of the Contractor's offices other than a field office.

7.1.3 Any part of the Contractor's capital expenses, including interest on the Contractor's capital.

7.1.4 Costs due to the negligence of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or for whose acts any of them may be liable, including, but not limited to, the correction of defective or nonconforming Work, disposal of materials and equipment wrongly supplied, or making good any damage to property.

7.1.5 Overhead, general expense, and the cost of any item not specifically or reasonably inferable as included in the items described in Article 6.

7.1.6 Costs in excess of the Guaranteed Maximum Cost, if any, set forth in Article 4 and adjusted as provided therein.

ARTICLE 8
ACCOUNTING RECORDS

8.1 The Contractor shall check all materials, equipment and labor entering into the Work and shall keep such full and detailed accounts as may be necessary for proper financial management under this Agreement. The Owner shall be afforded access to all the Contractor's records relating to this Contract.

ARTICLE 9
PAYMENTS TO THE CONTRACTOR

9.1 Based on Applications for Payment submitted to the Architect by the Contractor, and on the Architect's recommendations, the Owner shall make progress payments to the Contractor as follows: MONTHLY, for the cost of services which have been performed as defined in Exhibit "B". Payment for services rendered is due in 30 days from receipt of invoice by P.I.E. Nationwide. Failure to make timely payments will result in suspension of service.

9.2 Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate entered below, or in the absence thereof, at the legal rate prevailing at the place of the Project.

(Here insert any rate of interest agreed upon.)

12 PERCENT PER ANNUM

(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Specific legal advice should be obtained with respect to deletion, modification, or other requirements such as written disclosures or waivers.)

9.3 Final payment, constituting the entire unpaid balance of the Cost of the Work and of the Contractor's Fee, shall be paid by the Owner to the Contractor 30 days after Substantial Completion of the Work unless otherwise stipulated in the Certificate of Substantial Completion, provided the Work has been completed, the Contract fully performed, and final payment has been recommended by the Architect.

9.4 If the Owner terminates the Contract as provided in the Contract Documents, the Owner shall reimburse the Contractor for any unpaid Cost of the Work due the Contractor under Article 4, plus (1) the unpaid balance of the Fee computed upon the Cost of the Work to the date of termination at the rate of the percentage specified in Article 5, or (2) if the Contractor's Fee is stated as a fixed sum, such an amount as will increase the payments on account of the Contractor's Fee to a sum which bears the same ratio to the said fixed sum as the Cost of the Work at the time of termination bears to the adjusted Guaranteed Maximum Cost, if any, otherwise to a reasonable estimated Cost of the Work when completed. The Owner shall also pay to the Contractor fair compensation, either by purchase or rental at the election of the Owner, for any equipment retained. In case of such termination of the Contract, the Owner shall further assume and become liable for obligations, commitments and unsettled claims that the Contractor has previously undertaken or incurred in good faith in connection with said Work. The Contractor shall, as a condition of receiving the payments referred to in this Article 9, execute and deliver all such papers and take all such steps, including the legal assignment of the Contractor's contractual rights, as may be required for the purpose of fully vesting in the Owner the rights and benefits of the Contractor under such obligations or commitments.

ARTICLE 10
OTHER CONDITIONS AND PROVISIONS

10.1 Terms used in this Agreement which are defined in the Contract Documents shall have the meanings designated in those Contract Documents.

10.2 The Contract Documents, which constitute the entire agreement between the Owner and the Contractor, are listed in Article 11 and, except for Modifications issued after execution of this Agreement, are enumerated as follows:

(List below the Agreement, the Conditions of the Contract [General, Supplementary, and other Conditions], the Drawings, the Specifications, and any Addenda and accepted alternates, showing page or sheet numbers in all cases and dates where applicable.)

Exhibit "A" - Blymyer & Sons' Request for Proposals letter dated 7/8/87
Exhibit "B" - CytoCulture/Sybron Itemized Schedule of Payments (with partial task description) dated 10/6/87
Exhibit "C" - CytoCulture/Sybron Proposal dated 7/29/87 (revised 10/1/87).
Exhibit "D" - Alton Geoscience Time & Materials Schedule dated 5/1/87.
Exhibit "E" - CytoCulture/Sybron Proposal Work Schedule
Exhibit "F" - Alton Geoscience Work Description & Costs dated 9/25/87
Exhibit "G" - CytoCulture letter to Blymyer & Sons Engineers dated 2/16/88.

ARTICLE 11
CONTRACT DOCUMENTS

11.1 The Contract Documents consist of this Agreement with General Conditions, Supplementary and other Conditions, the Drawings, the Specifications, accepted alternates, all Addenda issued prior to the execution of this Agreement, and all Modifications issued by the Architect after execution of the Contract such as Change Orders, written interpretations and written orders for minor changes in the Work. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work. The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all. Work not covered in the Contract Documents will not be required unless it is consistent therewith and reasonably inferable therefrom as being necessary to produce the intended results.

11.2 Nothing contained in the Contract Documents shall create any contractual relationship between the Owner or the Architect and any Subcontractor or Sub-subcontractor.

11.3 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site and is familiar with the local conditions under which the Work is to be performed.

11.4 The Work comprises the completed construction required by the Contract Documents and includes all labor necessary to produce such construction, and all materials and equipment incorporated or to be incorporated in such construction.

ARTICLE 12
ARCHITECT

12.1 The Architect will provide administration of the Contract and will be the Owner's representative during construction and until final payment is due.

12.2 The Architect shall at all times have access to the Work wherever it is in preparation and progress.

12.3 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work and to determine in general if the Work is proceeding in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of the Architect's on-site observations as an architect, the Architect will keep the Owner informed of the progress of the Work, and will endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor. The Architect will not have control or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

12.4 Based on the Architect's observations and an evaluation of the Contractor's Applications for Payment, the Architect will make recommendations as to payment owed the Contractor.

12.5 The Architect will be the interpreter of the requirements of the Contract Documents. The Architect will make decisions on all claims, disputes or other matters in question between the Contractor and the Owner, but will not be liable for the results of any interpretation or decision rendered in good faith. The Architect's decisions in matters relating to artistic effect will be final if consistent with the intent of the Contract Documents. All other decisions of the Architect, except those which have been waived by making or acceptance of final payment, shall be subject to arbitration upon the written demand of either party.

12.6 The Architect will have authority to reject Work which does not conform to the Contract Documents.

12.7 The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents.

ARTICLE 13
OWNER

13.1 The Owner shall furnish all surveys and a legal description of the site.

13.2 Except as provided in Paragraph 14.5, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for the construction, use or occupancy of permanent structures or permanent changes in existing facilities.

13.3 The Owner shall forward all instructions to the Contractor through the Architect.

13.4 If the Contractor fails to correct defective Work or persistently fails to carry out the Work in accordance with the Contract Documents, the Owner, by a written order, may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

ARTICLE 14
CONTRACTOR

14.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention, and the Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures

and for coordinating all portions of the Work under the Contract.

14.2 Unless otherwise specifically provided in the Contract Documents, the Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

14.3 The Contractor shall at all times enforce strict discipline and good order among the Contractor's employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to them.

14.4 The Contractor warrants to the Owner and the Architect that all materials and equipment incorporated in the Work will be new unless otherwise specified, and that all Work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All Work not conforming to these requirements may be considered defective.

14.5 Unless otherwise provided in the Contract Documents, the Contractor shall pay all sales, consumer, use, and other similar taxes which are legally in force at the time bids are received, and shall secure and pay for the building permit and for all other permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work.

14.6 The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and lawful orders of any public authority bearing on the performance of the Work, and shall promptly notify the Architect if the Drawings and Specifications are at variance therewith.

14.7 The Contractor shall be responsible to the Owner for the acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the Contractor.

14.8 The Contractor shall review, approve and submit all Shop Drawings, Product Data and Samples required by the Contract Documents. The Work shall be in accordance with approved submittals.

14.9 The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by the Contractor's operations. At the completion of the Work the Contractor shall remove all such waste materials and rubbish from and about the Project as well as the Contractor's tools, construction equipment, machinery and surplus materials.

14.10 The Contractor shall pay all royalties and license fees; shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof.

14.11 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner and the Architect and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph 14.11. In any and all claims against the Owner or the Architect or any of their agents or employees by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Paragraph 14.11 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under Workers' or Workmen's Compensation Acts, disability benefit acts or other employee benefit acts. The obligations of the Contractor under this Paragraph 14.11 shall not extend to the liability of the Architect, the Architect's agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications, or (2) the giving of or the failure to give directions or instructions by the Architect, the Architect's agents or employees provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 15
SUBCONTRACTS

15.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform any of the Work at the site.

15.2 Unless otherwise required by the Contract Documents or in the Bidding Documents, the Contractor, as soon as practicable after the award of the Contract, shall furnish to the Architect in writing the names of Subcontractors for each of the principal portions of the Work. The Contractor shall not employ any Subcontractor to whom the Architect or the Owner may have a reasonable objection. The Contractor shall not be required to contract with anyone to whom the Contractor has a reasonable objection. Contracts between the Contractor and the Subcontractors shall (1) require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner and the Architect, and (2) allow to the Subcontractor the benefit of all rights, remedies and redress afforded to the Contractor by these Contract Documents.

ARTICLE 16
WORK BY OWNER OR BY SEPARATE CONTRACTORS

16.1 The Owner reserves the right to perform work related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other work on the site under these or similar Conditions of the Contract. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

16.2 The Contractor shall afford the Owner and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall connect and coordinate the Contractor's Work under this Contract with theirs as required by the Contract Documents.

16.3 Any costs caused by defective or ill-timed work shall be borne by the party responsible therefor.

ARTICLE 17
MISCELLANEOUS PROVISIONS

17.1 The Contract shall be governed by the law of the place where the Project is located.

17.2 All claims or disputes between the Contractor and the Owner arising out of, or relating to, the Contract Documents or the breach thereof shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then obtaining unless the parties mutually agree otherwise. Notice of the demand for arbitration shall be filed in writing with the other party to the Owner-Contractor Agreement and with the American Arbitration Association and shall be made within a reasonable time after the dispute has arisen. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof. Except by written consent of the person or entity sought to be joined, no arbitration arising out of or relating to the Contract Documents shall include, by consolidation, joinder or in any other manner, any person or entity not a party to the Agreement under which such arbitration arises, unless it is shown at the time the demand for arbitration is filed that (1) such person or entity is substantially involved in a common question of fact or law, (2) the presence of such person or entity is required if complete relief is to be accorded in the arbitration, (3) the interest or responsibility of such person or entity in the matter is not insubstantial, and (4) such person or entity is not the Architect or any of the Architect's employees or consultants. The agreement herein among the parties to the Agreement and any other written agreement to arbitrate referred to herein shall be specifically enforceable under the prevailing arbitration law.

ARTICLE 18
TIME

18.1 All time limits stated in the Contract Documents are of the essence of the Contract. The Contractor shall expedite the Work and achieve Substantial Completion within the Contract Time.

18.2 The Date of Substantial Completion of the Work is the Date certified by the Architect when construction is sufficiently complete so that the Owner can occupy or utilize the Work for the use for which it is intended.

18.3 If the Contractor is delayed at any time in the progress of the Work by changes ordered in the Work, by labor disputes, fire, unusual delay in transportation, adverse weather conditions not reasonably anticipatable, unavoidable casualties, or any causes beyond the Contractor's control, or by any other cause which the Architect determines may justify the delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

ARTICLE 19
PAYMENTS AND COMPLETION

19.1 Payments shall be made as provided in Article 9 of the Agreement.

19.2 Payments may be withheld on account of (1) defective Work not remedied, (2) claims filed, (3) failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment, (4) damage to the Owner or another contractor, or (5) persistent failure to carry out the Work in accordance with the Contract Documents.

19.3 When the Architect agrees that the Work is substantially complete, the Architect will issue a Certificate of Substantial Completion.

19.4 Final payment shall not be due until the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner indemnifying the Owner against any lien. If any lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

19.5 The making of final payment shall constitute a waiver of all claims by the Owner except those arising from (1) unsettled liens, (2) faulty or defective Work appearing after Substantial Completion, (3) failure of the Work to comply with the requirements of the Contract Documents, or (4) terms of any special warranties required by the Contract Documents. The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and identified by the Contractor as unsettled at the time of the final Application for Payment.

ARTICLE 20
PROTECTION OF PERSONS AND PROPERTY

20.1 The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to (1) all employees on the Work and other persons who may be affected thereby, (2) all the

acceptable on page 9 of AIE/Sykora agreement 4-28-88 RJE 4.29.88 RWD

Work and all materials and equipment to be incorporated therein, and (3) other property at the site or adjacent thereto. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and orders of any public authority bearing on the safety of persons and property and their protection from damage, injury or loss. The Contractor shall promptly remedy all damage or loss to any property caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, except damage or loss attributable to the acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Paragraph 14.11.

ARTICLE 21
INSURANCE

RJE 4-28-88 RWD 4-29-88

21.1 General ~~Contractor's~~ liability insurance shall be purchased and maintained by the Contractor for protection from claims under Workers' or Workmen's Compensation Acts and other employee benefit acts, claims for damages because of bodily injury, including death, and from claims for damages, other than to the Work itself, to property which may arise out of or result from the Contractor's operations under this Contract, whether such operations be by the Contractor or by any Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than any limits of liability specified in the Contract Documents, or required by law, whichever is the greater, and shall include contractual liability insurance applicable to the Contractor's obligations under Paragraph 14.11. Certificates of such insurance shall be filed with the Owner prior to the commencement of the Work.

21.2 The Owner shall be responsible for purchasing and maintaining Owner's liability insurance and, as an option, may maintain such insurance as will protect the Owner against claims which may arise from operations under the Contract.

21.3 Unless otherwise provided, the Owner shall purchase and maintain property insurance upon the entire Work at the site to the full insurable value thereof. This insurance shall include the interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work and shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss or damage including, without duplication of coverage, theft, vandalism, and malicious mischief.

21.4 Any loss insured under Paragraph 21.3 is to be adjusted with the Owner and made payable to the Owner as trustee for the insureds, as their interests may appear, subject to the requirements of any mortgagee clause.

21.5 The Owner shall file a copy of all policies with the Contractor before an exposure to loss may occur.

21.6 The Owner and the Contractor waive all rights against each other for damages caused by fire or other perils to the extent covered by insurance obtained pursuant to this Article 21 or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by the Owner as trustee. The Contractor shall require similar waivers in favor of the Owner and the Contractor by Subcontractors and Sub-subcontractors.

ARTICLE 22
CHANGES IN THE WORK

22.1 The Owner, without invalidating the Contract, may order changes in the Work consisting of additions, deletions, or modifications, the Guaranteed Maximum Cost, if any, and the Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by written Change Order signed by the Owner and the Architect.

22.2 The Guaranteed Maximum Cost, if any, and the Contract Time may be changed only by Change Order.

22.3 The cost or credit to the Owner from a change in the Work shall be determined by mutual agreement.

ARTICLE 23
CORRECTION OF WORK

23.1 The Contractor shall promptly correct any Work rejected by the Architect as defective or as failing to conform to the Contract Documents whether observed before or after Substantial Completion and whether or not fabricated, installed or completed, and shall correct any Work found to be defective or nonconforming within a period of one year from the Date of Substantial Completion of the Contract or within such longer period of time as may be prescribed by law or by the terms of any applicable special warranty required by the Contract Documents. The provisions of this Article 23 apply to Work done by Subcontractors as well as to Work done by direct employees of the Contractor.

ARTICLE 24
TERMINATION OF THE CONTRACT

24.1 If the Architect fails to recommend payment for a period of thirty days through no fault of the Contractor, or if the Owner fails to make payment thereon for a period of thirty days, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for all Work executed and for any proven loss sustained upon any materials, equipment, tools, and construction equipment and machinery, including reasonable profit and damages applicable to the Project.

24.2 If the Contractor defaults or persistently fails or neglects to carry out the Work in accordance with the Contract Documents or fails to perform any provision of the Contract, the Owner may, after seven days' written notice to the Contractor and without prejudice to any other remedy the Owner may have, make good such deficiencies and may deduct the cost thereof, including compensation for the Architect's additional services made necessary thereby, from the payment then or thereafter due the Contractor or, at the Owner's option, and upon certification by the Architect that sufficient cause exists to justify such action, may terminate the Contract and take possession of the site and of all materials, equip-

ment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever method the Owner may deem expedient: and if the unpaid balance of the Guaranteed Maximum Cost, if any, exceeds the expense of finishing the Work, such excess shall be paid to the Contractor, but if such expense exceeds such unpaid balance, the Contractor shall pay the difference to the Owner.

ARTICLE 25
OTHER CONDITIONS OR PROVISIONS

1. All invoices from CytoCulture/Sybron shall be accompanied by a completed Standard Lien Release form for the portion of work currently invoiced.
2. All purchased and invoiced equipment shall be the property of P.I.E. Nationwide.
3. Funds will be paid by P.I.E. Nationwide to CytoCulture/Sybron, C/O Wells Fargo Bank.
4. Substantial completion will be as defined in Exhibit "G" CytoCulture's letter dated 2/16/88.
5. Notwithstanding any provisions to the contrary herein, with respect to all claims, damages, losses and expenses which are related to hazardous waste disposal or clean up or environmental liability, Owner shall defend, indemnify and hold harmless Contractor from and against all such claims, damages, losses and expenses arising out of or relating to performance of services under this agreement and/or arising out of or relating to the Project except to the extent that such claims, damages, losses and expenses arise from the negligence of Contractor in performing its services hereunder.
6. Notwithstanding any provision to the contrary herein, Contractor's liability to the Owner for any loss or damage including but not limited to any special or consequential damages arising out of or in connection with this agreement or the Project, shall not exceed total compensation received by Contractor hereunder and Owner hereby releases contractor from any liability above such amount.
7. The term "environmental liability" in number 5 of Article 25 shall be interpreted to include subsidence, and any damages caused by settling or shifting of the ground.

RLC 4-28-88
Rvcd 4-29-88

This Agreement entered into as of the day and year first written above.

OWNER	CONTRACTOR
P.I.E. NATIONWIDE	SYBRON / CytoCulture
[signature]	[signature] V.P. Sybron
	[signature] - President 4-29-88 CytoCulture International Inc.

CytoCulture/Sybron Remediation Project: Schedule of Payments

Task	Description of Services	Estimated Billing Amt.	Estimated Billing Date
5	Construct concrete pads, fence for 3 bioreactor systems	$10,000	within 1 month of NTP
	Arrow: $ 8,800 Cyto: $ 1,200		
6	Excavate trenches for french drains and reinjection pipe; Provide gravel bedding Remove fill from site Connect plumbing to existing subsurface PVC	$10,000	within 1 month of NTP
	Hatton: $ 6,000 Cyto: $ 4,000		
7	Design and fabricate pumps, controls, micro-circuitry, plastic tanks (two/system) and ancillary equipment	$43,000	within 1 month of NTP
	Alton: $37,000 Cyto: $ 6,000		
	Install and start up mechanical equipment, tests	$12,000	within 1 month of NTP
	Alton: $10,000 Cyto: $ 2,000		
8	Start up bacterial cultures 5 day site visit by Sybron Testing of indigenous strains Nutrients, supplies	$28,000	within 1 month of NTP
	Sybron: $22,000 Cyto: $ 6,000		

CytoCulture/Sybron Remediation Project: Schedule of Payments

Task	Description of Services	Estimated Billing Amt.	Estimated Billing Date
9	Comprehensive Maintenance: Monthly Sybron visits Monthly supply of cultures, nutrients, testing Sybron: $3,700 Monthly Alton visits and equipment tune up & repair Alton: $1,800 Weekly/semi-weekly CytoCulture maintenance and testing with reports on system operation Cyto: $2,500	$ 8,000	within 5 days after each month of service
	ASSUME 10 MONTHS OF OPERATION:	$80,000 total	
10	Test total hydrocarbon and polyaromatic hydrocarbons of discharge water:		
	Start up Phase Analysis with Reports to Regional WQCB Tech.Anal.: $3,000 Cyto: $1,000	$ 4,000	within 2 months of NTP
	Monthly analysis of weekly samples Monthly Reports to Regional WQCB (Costs subject to increase with number of samples required for Regional WQCB)	$ 1,000	within 5 days after each month
	Cyto/Tech.Anal.: $1,000/mo. ASSUME 10 MONTHS OF OPERATION:	$14,000 total	
11	Prepare and submit final reports to P.I.E. and agencies Cyto: $5,000	$ 5,000	within 5 days of completion circa 1 yr after NTP
	Total Estimated Billing:	**$258,000**	

EXHIBIT C

CytoCulture INTERNATIONAL INC.

Biotechnology Research, Scale-Up and Marketing

Proposal for

IN SITU SITE REMEDIATION OF SOIL AND GROUNDWATER HYDROCARBON CONTAMINATION BY AUGMENTED BIORECLAMATION USING LABORATORY SELECTED BACTERIAL CULTURES

submitted to

P.I.E. Nationwide, Inc. and Blymyer & Sons Engineers, Inc.

by

CytoCulture International, Inc.

as a Joint Venture with

Sybron Chemicals, Inc.

in Collaboration with

Alton Geoscience, Inc.

July 29, 1987
(Revised October 1, 1987)

1208 Fourth Avenue San Francisco CA 94122 USA 415/564-1516

MCI Mail ID: 308-4597 Telex (via WUI): 6503084597

TABLE OF CONTENTS

EXECUTIVE SUMMARY

CytoCulture International, Inc., a local environmental biotechnology company, and Sybron Chemicals, Inc. have formed a joint venture to develop an in situ site remediation program for soil and groundwater contaminated with diesel fuel hydrocarbons at the former P.I.E. Nationwide trucking facility in Emeryville, CA. The remediation program is based on the use of individually selected strains of aerobic bacteria which biodegrade specific classes of hydrocarbons at much higher rates than naturally occuring microbes. A blend of seven pseudomonas strains has been formulated at Sybron Chemicals, Inc. to optimize the "Augmented Bioreclamation" of diesel and gasoline contaminated groundwater. The bacterial cultures will be used to treat contaminated brackish water which will be continuously drawn up from french drains placed in the tidal groundwater downstream of the contaminated areas. The water will be retained in a series of stainless steel chemostat bioreactor vessels above ground until the biodegradation has lowered the concentration of contaminants to an acceptable level. The treated water will then be aerated and mixed with fresh cultures of bacteria before being injected back into the ground upstream of the contamination areas. This continuous addition of high concentrations of enriched bacterial cultures should allow for extensive biodegradation of the hydrocarbon product remaining in the soil and at the moving soil/tide water interface. At least two, and possibly three, separate bacterial bioreactor treatment and delivery systems of this type are planned for the site.

In collaboration with Alton Geoscience, Inc., CytoCulture International will conduct further soils and groundwater investigations to maximize the effectiveness of the planned bioreclamation systems behind Buildings A and B and to determine whether a separate system will be needed in the Pad K area. Eleven monitoring wells will be drilled by Alton Geosceinces in consultation with Blymyer & Sons Engineers; several of these wells will later be integrated with the bioreactor systems to continuously monitor the impact of the remediation program. CytoCulture International, Alton Geoscience and Sybron will be responsible for the design and operation of the bacterial bioreactor treatment and delivery systems. The bioreactor systems will be equipped with automated process controls for continuous delivery of bacteria to designated groundwater injection sites and occasional batch delivery to the subsurface PVC perforated pipe system beneath Buildings A, B and C. Although the Augmented Bioreclamation program is designed for nearly a year of site remediation, prior success and early closures at two similar hydrocarbon groundwater decontamination projects in California strongly suggest this site could be closed much earlier.

PROPOSED BUDGET

Task #	Task Description	Allocation
1.	Start up studies, assessment of prior data site visits by hydrogeologists and reports	4,000
2.	Applications for required permits; presentations to local regulatory agencies	6,000
3.	Installation of eleven groundwater monitoring wells in keeping with scope of work	36,000
4.	Additional soil and water investigations of Pad K area, and areas east of Buildings A & B (assume 6 borings) with tests and reports	10,000
5.	Construction of concrete pads with enclosed fence for each of three bioreactor systems	10,000
6.	Excavation, placement and gravel bedding of french drains (assume 3) with plumbing to groundwater pumps	4,000
	Excavation, plumbing and gravel bedding of piping for 3 infiltration trenches and manifolds for connecting to existing subsurface PVC perforated pipe (Bldgs A-C)	6,000
7.	Design, construction and installation of steel tankage, pipes, pumps, monitors, and controls for three complete bioreactor systems	43,000
	Installation of pumps and start up of bioreactors	12,000
8.	Start up costs for bacteria, materials and labor, including preliminary testing for RWQC Board	28,000
9.	Monthly operational costs ($8,000) over 10 months including bacteria, supplements, labor, equipment parts & service, water testing services and reports	80,000
10.	Sample analyses: Total Hydrocarbon, phenol and polyaromatic hydrocarbons as required by RWQC Board	14,000
11.	Final report, presentation of results to regulatory agencies, evaluations, and technical recommendations	5,000
	Total Projected Budget:	**$258,000**

PROPOSED WORK SCHEDULE

TASK	FIRMS *	MONTH											
		1	2	3	4	5	6	7	8	9	10	11	12
1	ALT	X											
2	ALT	X											
3	ALT	X											
4	ALT	X											
5	ARC		X										
6	HAT		X										
7	ALT SYB	X	X										
8	SYB		X										
9	SYB ALT			X	X	X	X	X	X	X	X	X	X
10	SYB												X

* Participating subcontracting firms:

SYB = Sybron Chemicals
ALT = Alton Geoscience
ARC = Arrow Construction Co.
HAT = Hatton Construction Co.

PURPOSE AND OBJECTIVES

The purpose of the proposed site remediation project is to render the P.I.E. trucking site to levels of contamination acceptable to the State of California Department of Health Services, the San Francisco Bay Regional Water Quality Control Board, and Alameda County Department of Health. The contamination on site consists of petroleum hydrocarbons, primarily diesel fuel, from leaking underground storage tanks, above-ground storage tanks, and product delivery lines. The leaking equipment has since been removed from the site prior to the commencement of the current construction of a new shopping center.

Contamination exists as free-product on the groundwater and is adsorbed in the soil. The soil in the most heavily contaminated areas has been scraped down to six feet below the surface and is currently being treated on site by another contractor with enhanced bioreclamation techniques (spraying nutrients to enhance the growth of indigenous bacteria in the soil). The scraped soil has been replaced with engineered fill but the mud beneath the fill is still heavily contaminated in several areas. Saturation of the soil with diesel fuel at the level of the groundwater has been observed.

The primary objective of the proposed site remediation project is to design, construct and operate an Augmented Bioreclamation system using Sybron bacterial cultures to biodegrade the diesel fuel contaminating both the soil and the groundwater so as to bring the site into compliance with current regional water quality regulations. Treatment will involve both above ground bacterial bioreclamation of water extracted from the contaminated water table and subterranean bioreclamation of the contaminated soil with aerated bacterial cultures injected back into the ground with the treated water.

A second, and equally important, objective is to achieve compliance with regional water quality regulations in as short a time and as cost-effectively as possible. Therefore the project has been designed to optimize the application of bacterial Augmented Bioreclamation technology to this particular site by employing three individual bioreactor systems at the three most heavily contaminated areas on the site. If reasonably high flow rates (> 5 gal/min) of contaminated water through the system can be maintained, the site could potentially reach compliance levels of contamination in less than one year. Sybron Chemicals and Alton Geoscience are already setting precedents in California by applying to state regulatory agencies for early closures at two similar Augmented Bioreclamation sites involving polyaromatic hydrocarbon contamination of soil and groundwater.

CYTOCULTURE PROJECT LEADERSHIP

Project Director: Randall J. von Wedel, Ph.D.

Dr. von Wedel is President and Director of Research for CytoCulture International, Inc., San Francisco, CA. He is a biochemist with extensive experience in project management ranging from biomedical research programs in both industrial and university laboratories to environmental biotechnology projects in the field. Besides establishing CytoCulture as a R & D and consulting firm in biotechnology, he has also set up a consulting firm, AmbienTech, in San Juan, Puerto Rico to deal directly with the application of bioaugmentation technologies to local municipal and industrial wastewater or groundwater contamination needs. Dr. von Wedel will oversee the construction, testing and operation of the bioreactor treatment and delivery systems on site. He will be coordinating the various sub-contractors participating in all phases of the project from the site evaluations through the construction of the bioreactors. He will then be responsible for submitting all reports to Blymyer & Sons Engineers, P.I.E. Nationwide and the various construction and water quality control regulatory agencies.

Project Manager: Jose F. Mosquera, M.S.

Mr. Mosquera, a Research Engineer in Sanitary/Environmental Engineering at the University of California, Berkeley, will work for CytoCulture International as the Project Manager for the proposed Augmented Bioreclamation program at the P.I.E. trucking site. He will be responsible for overseeing the day to day operations of this project at the site. He will be there to monitor, adjust and maintain the three proposed bioreactor systems described in this proposal. His extensive experience in designing and maintaining bacterial bioreclamation systems will be essential for his key role in this project.

The Curricula Vitae for Dr. von Wedel and Mr. Mosquera are enclosed in Appendix 1.

Dr. von Wedel and Mr. Mosquera have also submitted a Step I (Feasibility Study) Grant Application to the California Hazardous Waste Reduction Grant Program sponsored by the Office of Alternative Technologies, Toxic Substances Division of the State Department of Health Services. The title of the grant proposal is:

Bacterial Biodegradation of Hazardous Wastewater: Phase I Study

A copy of this proposal is available for background reading.

THE JOINT VENTURE WITH SYBRON CHEMICALS

For over a year, CytoCulture International, Inc. has been the Northern California representative and contracted distributor for the Sybron Biochemical Division of Sybron Chemicals, Inc.. involved with the production of novel bacterial cultures sold for municipal and industrial wastewater treatment. Sybron Chemicals has been a world leader in this field for nearly forty years. An arrangement has been made between the companies whereby Dr. von Wedel, as Project Director and Mr. Jose Mosquera, as the CytoCulture Project Manager, will work closely with Mr. Gary Hater, Manager of soil and groundwater treatment technology for Sybron. The Joint Venture will become a formal, binding agreement when CytoCulture is awarded the contract for this project. See the Letter of Collaboration from Mr. Hater, the C.V.'s for Mr. Hater and Dr. Goldsmith and additional technical literature from Sybron in Appendix 2.

THE COLLABORATION WITH ALTON GEOSCIENCE

Alton Geoscience, Inc. has been working on two similar Augmented Bioreclamation projects with Sybron Chemicals as their contracted representative for soil and groundwater applications in southern California. Alton Geoscience is a recognized leader and pioneer in the development of alternative remediation technologies for contaminated soil and groundwater, including air stripping of hydrocarbons, high efficiency incineration and Augmented Bioreclamation (in collaboration with Sybron). Alton, Sybron and CytoCulture are working to establish a closer business relationship for future Augmented Bioreclamation projects in Northern California. Please refer to the Letter of Collaboration from Mr. Jeff Wiegand and technical literature from Alton Geoscience in Appendix 3.

PROJECT DESCRIPTION BY TASKS

The following Task Descriptions summarize the scope of work, estimated costs and projected schedule for the implementation for the proposed Augmented Bioreclemation project at the P.I.E. trucking site in Emeryville. The proposed costs and scheduling have been summarized on pages 4 and 5 respectively.

1. Start Up Studies, Evaluations and Assessment of Prior Data

CytoCulture and Alton Geoscience will review data from previous consultants regarding prior site investigations and activities. This will involve inspections on site, assessment of the data and an evaluation of the validity if the conclusions of the previous reports. A brief report will be filed. The net cost is estimated to be $4,000. Work would begin within 1 month of receiving a contract from P.I.E./Blymyer.

2. Applications for Required Permits

CytoCulture and Alton Geoscience will be submitting applications for permits pertaining to drilling, construction and treatment operations on the site. These permit applications will be filed within the first month of the contract period. This work is roughly estimated to cost $6,000.

3. Installation of Eleven Groundwater Monitoring Wells

Alton Geoscience will be subcontracted to perform the drilling, installation, testing and operation of the eleven monitoring wells specified in the original scope of work. The sites for these wells will be selected in consultation with CytoCulture, Sybron and Blymyer & Sons Engineers with the intention of making as much use of these wells as possible in the normal operation of the bioreactor treatment and delivery systems. The drilling would begin within 10 days of receiving approval from the regulatory agencies and would be completed within 2 weeks. The maximal cost estimated for this phase of the project is $36,000, but it is likely to be considerably less given the accessibility and geological nature of the site.

4. Additional Soil and Groundwater Investigations

Alton Geoscience will be subcontracted to carry out additional site borings (at least six) to characterize the soil and groundwater contamination in the Pad K area and along the access road to the east of buildings A and B. This phase of the project has been advanced to first priority to accomodate construction plans on site. The costs for the boring, sampling, laboratory analysis and report is expected to be around $10,000.

5. Construction of Concrete Pads and Fencing for Bioreactors

Arrow Construction Company (Novato, CA; California General Building Contractor License Number 420628) will be sub-contracted to design and build the concrete pads (10 ft x 16 ft) which will support the bioreactor systems. Each 5 inch slab will be reinforced with # 4 reinforcing rods spaced 1 ft on centers. The cost for building three concrete pads at the site is $6,500.

Chain link fencing (6 ft) with redwood slats will be built around each pad and equipped with a 10 ft swinging gate at one end to allow complete access to the pad for installing or maintaining the equipment. The cost of fencing all three bioreactor pads will be approximately $3,500, so the combined costs of construction for three pads is $10,000. Construction would begin by the end of the first month of the contract period.

6. Excavation and Installation of French Drains and Injection Trenches

Hatton Construction Company (San Bruno, CA; California Excavation Contractor's License # 319158) is one probable backhoe service which would be sub-contracted to dig trenches for the installation of the french drains, injection pipes and the subsurface PVC pipe manifolds (Buildings A, B and C).

Three french drains are planned at this time, to be located, for example, between buildings B and C, west of building A and west of the Pad K area. These locations are fairly speculative and would be determined for certain after consultations with Blymyer & Sons Engineers and Alton Geoscience, following their borings, monitoring well installations and site characterization. The french drains, from which contaminated water would be drawn for treatment in the bioreactor systems, will be bedded in pea gravel at about 15 feet below the surface or well below the low mark for the rising tidal groundwater. The piping will consist of 6 inch well casing pipe with 0.2 inch cuts. Connections to the bioreactor will be made at both ends or in the center. The trenches will be on the order of 50 feet in length, oriented parallel to the nearest building wall. The cost of digging the trenches, laying the pipe, bedding with pea gravel and plumbing the pipes to the bioreactors will be approximately $4,000 for 3 bioreactors.

The injection trenches will be designed to maximize the surface area for returning treated water to the soil with fresh cultures of bacteria. One likely possibility, to save cost and effort, would be to dig a six foot trench parallel to the south sides of buildings B and C, and the east sides of buildings A and B, just beyond the ends of the subsurface PVC pipes pro-

truding from the buildings (3 ft below the surface). In this way, the manifold can be connected to each pipe in the same trench where a perforated PVC pipe can be installed six feet from the surface. This greatly cuts the cost of labor and materials (pea gravel) and minimizes the disturbance to the existing site. The injection piping could be on the order of 50 to 75 feet in length, providing a large surface area for infusing fresh bacteria. The entire trench would be filled with gravel to maximize diffusion.

The PVC manifold for the subsurface PVC piping would be equipped with a manual valve to allow periodic (e.g., once a month) batch infusion of bacterial cultures under the buildings. The continuous infusion of bacteria into the soil will otherwise only occur by way of the injection trenches, the exact location and specifications for which will be determined jointly with Alton Geoscience, Sybron and Blymyer & Sons Engineers.

The cost for building these injection trenches, gaining access to the subsurface PVC piping (as described) and plumbing the effluent system to the bioreactors is estimated to be around $6,000. This work would take place in the beginning of the second month of the contract period.

7. Design, Construction and Installation of Bioreactor Systems

Alton Geoscience has also been selected to contract with CytoCulture in the design, fabrication and installation of the bioreactor systems, complete with microcircuitry logic controls, groundwater pumps and process controls. As indicated before, Alton has worked closely with Sybron on similar Augmented Bioreclamation projects in California for which they also supplied the bioreactor hardware. CytoCulture will assist in the design and operation phases of the bioreactor development. Alton Geoscience and CytoCulture have estimated the cost of design and fabrication of three complete bioreactor systems to be approximately $43,000. Delivery, installation and start up costs will run up to $12,000 including the acquisition of permits. See Appendix 3 for more details on the quotations from Alton Geoscience (subject still to CytoCulture's contribution to this phase of the project and a mark up of approximately 15%).

8. Start Up Costs for Initiating Treatment

Sybron and CytoCulture would work together to test the bioreactor systems and initiate the Augmented Bioreclamation project with Sybron bacteria. This would involve at least two people from Sybron (see Appendix 2 for details) and two people from CytoCulture over a period of nearly a week. The cost of bacteria, supplements, testing equipment and labor for this phase

of the work for the combined parties is estimated not to exceed $28,000 (down from the original $32,000). This work would begin in the second month of the contract period if there are no major delays in the installation of the drains, pumps, plumbing and bioreactors.

9. Monthly Operation of Bioreactors

CytoCulture would assume the primary responsibility for the day to day monitoring and maintenance of the three bioreactor systems once the systems were up and running. At this time, we are projecting a running period of 10 months, with an overall contract period of just one year. Sybron will make a monthly visit for mechanical and biological maintenance (see Letter from Mr. Hater in Appendix 2) for under $4,500 per month.

Alton Geoscience will charge an additional $1,800 for their monthly mechanical maintenance and rental charges on their equipment. CytoCulture will have the Project Manager on site almost daily and will perform weekly chemistry tests on the cultures as well as to take weekly samples for total hydrocarbon and polyaromatic hydrocarbon analyses.

The combined cost of monthly maintenance for the system is therefore projected to be around $8,000 per month including bacteria, supplements, replacement parts, rentals and labor.

10. Routine Analysis for Monitoring Hydrocarbon Levels

CytoCulture will collect samples of treated and untreated ground water at the site for routine analysis (probably at Technical Analytical Laboratory, Hayward) according to the guidelines specified by the Regional Water Quality Control Board in authorization #2198.11 (see Blymyer's call for proposals). The sampling and analytical testing costs will be charged as time and materials and is not expected to exceed $4,000 during the start up phase and $1,000 per month over the following ten months.

11. Final Report and Presentation of Results

At the conclusion of the 10 month treatment period, a report will be submitted to P.I.E./Blymyer & Sons Engineers detailing the progress of the Augmented Bioreclamation project. The report will emphasize the communication which will be maintained with the state and regional water quality control boards as a demonstration of our "best efforts" policy to maximize the efficiency of the bioreclamation project. This report will include our evaluation of the various phases of the project and our technical recommendations how to proceed with or

close down the bioreclamation project at that time. Out of that report will come a formal report to be submitted to the state and regional water qualtiy control boards and Departments of Health.

The cost of preparing these reports with their recommendations and test results on water quality improvement is not expected to exceed $5,000.

The total estimated budget for the proposed Augmented Bioreclamation project over the course of one year is **$258,500.**

Several factors could reduce this budget total substantially, such as the decision to only install <u>two</u> bioreactor systems (e.g., delete the Pad K area) or reduce the projected length of the project or simplify the construction scheme presented in this proposal. These are issues which will be discussed at upcoming meetings with Blymyer & Sons Engineers.

BLYMYER & SONS engineers, inc.

July 8, 1987
BSE Job No. 8648

CYTOCULTURE
1208 Fourth Avenue
San Francisco, CA. 94122

Attn: Dr. Randall von Wedel

SUBJECT: REQUEST FOR PROPOSALS
IN-SITU SITE REMEDIATION
5500 EASTSHORE HIGHWAY
EMERYVILLE, CALIFORNIA

Dear Dr. von Wedel:

This letter constitutes a formal request for proposal for the subject work. The purpose of the site remediation is to render the site to levels of contamination acceptable to State of California Department of Health Services, San Francisco Bay Regional Water Quality Control Board, and Alameda County Department of Health. The contamination on site consists of petroleum hydrocarbons, primarily diesel fuel, from leaking underground storage tanks, above-ground storage tanks, and product delivery lines. Contamination exists as free-product on the groundwater and is adsorbed in the soil. Both phases of contamination require treatment.

The scope of work is as follows:

1. Conduct any necessary feasibility treatability, or start-up studies as required by the proposed treatment system or systems;

2. Conduct further soils and water investigation to determine the extent of contamination on the east side of the property, most specifically in the area of Pad K on the enclosed drawing;

3. Install no less than eleven (11) groundwater monitoring wells on site to monitor groundwater quality; locations for wells shall be chosen in consultation with Blymyer & Sons Engineers and should have a minimum depth of 20 feet, or as required by the proposed treatment system;

4. Design a remediation system, based upon the above work and work done previously at the site, to remove the hydrocarbon contamination both in the soil and on the groundwater.

5. Purchase all necessary equipment for full implementation of the designed system, including any necessary tanks, pumps, piping, bacteria, nutrients, and any accessories.

6. Obtain all necessary permits from and make any required demonstrations to San Francisco Bay Regional Water Quality Control Board or any other agencies required by Federal, state or local regulation;

1829 Clement Avenue, Alameda, California 94501-1396 • Phone (415) 521-3773 • TLX 364412 INTR

7. Install the remediation system as approved by San Francisco Bay Regional Water Quality Control Board, any other requisite Federal, state, or local agency, and P.I.E. Nationwide, including all necessary components, lines, and discharges; included in this phase is all drilling, excavation, trenching and resurfacing necessary for installing the system.

8. Start-up and test the system to insure proper operation and compliance with San Francisco Bay Regional Water Quality Control Board authorization #2198.11 (enclosed).

9. Maintain and monitor the system on a monthly basis to insure proper operation and compliance, including all necessary foreseeable servicing of equipment and reports to the RWQCB.

Based upon the above scope of work please provide a cost and schedule for each work step. The scope of work may be reorganized or phased for bid purposes, as long as each work step is clearly indicated in the bid. Any work conditional on a previous work step should be indicated in the proposal with possible contingencies. If precise costs cannot be specified because of a lack of data for any work step, ranges of costs should be given with applicable assumptions stated.

All bidders should have previously received copies of the following documents for use in making bids:

1) Groundwater Technology Assessment dated September 5, 1986.
2) Peter Kaldveer and Associates Assessment dated August 15, 1986.
3) Geotechnical bore logs from Geomatrix Consultants, dated October 9, 1986.
4) Laboratory analyses of soil samples analyzed for hydrocarbons, dated April 23, 1987.
5) Laboratory analyses of soil samples, analyzed for pesticides, PCB's, and metals, dated January 13, 1987.
6) Laboratory analyses of soil samples, analyzed for total petroleum hydrocarbons as diesel, dated April 27, 1987.
7) Bore logs for Wells GT-9 through GT-13, dated October 1, 1986 through December 15, 1986.
8) Laboratory analyses of soil samples, analyzed for priority pollutants, dated October 15, 1986.

July 8, 1987

In addition, the following documents are included with this request for proposal:

1) Site plans for the development currently taking place on site, including the location of PVC perforated pipe buried under buildings A, B, and part of C, for use in any soil venting or nutrient introduction system.

2) Geotechnical soils bores done in the area of Pad K, in which hydrocarbon odors were noted, by Laver R. Loper and Associates.

P.I.E. Nationwide has purchased some equipment for groundwater remediation. To save costs, this equipment may be incorporated into any designed treatment system. However, using the equipment is not mandatory for the treatment system to be considered. The purchased equipment includes one probe scavenger, one water table depression pump, and the accessories for each.

Please send a proposal by July 29, 1987, covering all above-referenced points, addressed in the following manner:

P.I.E. NATIONWIDE
C/O BLYMYER & SONS ENGINEERS, INC.
1829 CLEMENT AVENUE
ALAMEDA, CALIFORNIA 94501

If there are any questions, please call my office at: (415) 521-3773. Also, if CYTOCULTURE declines to bid on the project, please inform Blymyer & Sons of that fact as soon as possible.

Cordially yours,

BLYMYER & SONS ENGINEERS, INC.

Chris Falbo

CF/ds

Attachments

cc: Mr. John Ster-P.I.E. NATIONWIDE, JACKSONVILLE, FL.

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
111 JACKSON STREET, ROOM 6040
OAKLAND 94607

Phone: Area Code 415
464-1255

November 25, 1986
File No. 2198.11

Mr. Jim Skelton
P.I.E. Nationwide
P.O. Box 2408
Jacksonville, Florida 32203

Subject: NPDES Permit for Diesel Leak Cleanup, P.I.E. Nationwide, 5500 Eastshore Highway, Emeryville

Dear Mr. Skelton,

Under State and Federal law, discharges of polluted water to surface waters require an NPDES permit. We acknowledge receipt of the EPA forms 1 and 2C NPDES applications and the application fee. I cannot at this time provide you with an estimated date for the Regional Board to consider your NPDES permit application at the required public hearing. However, I believe it is in the public interest to have the discharge of hydrocarbon contaminated groundwater proceed in this specific instance, without my recommendation to the Regional Board for enforcement action, provided the following requirements are met:

1. At no time shall the total dissolved hydrocarbon content of the discharge exceed 100 ug/l. Total phenol shall be analyzed specifically and will contribute to the hydrocarbon total. At no time shall poly-aromatic hydrocarbons detected by EPA method 610 exceed 15 ug/l. If these limits are exceeded, the discharge will cease immediately and the Regional Board shall be notified at the earliest opportunity at 415-464-1255.

2. Discharge shall not occur until at least a 24 hour pilot operation of the treatment system meets the standards listed in item 1..

3. Sampling shall occur daily for the first three days of discharge. These samples shall be analyzed on the most rapid basis practically available.

4. Following this start-up phase, sampling shall occur weekly, and analysis can occur on a more normal basis.

5. Reports shall be submitted on a weekly basis for the first three weeks of operation, and on a monthly basis thereafter, detailing the results of effluent analysis, flow rate of effluent, and general description of the operation and maintenance of the recovery system.

6. After this four week start up phase, general reports shall be submitted quarterly, describing the overall status of the investigation and recovery operation, including precise water and product levels in

groundwater monitor wells.

A detailed technical review of the investigation and remedial action proposed for this site has not been undertaken by our staff, and due to the large number of cases of this type and limited staff availability, a review of this type is not anticipated in the near future.

We appreciate your cleanup activities. Any questions on this matter should be directed to Dale Bowyer at 415-464-0846.

Sincerely,

Roger B. James
Executive Officer

cc: Mr. Chris Falbo
Blymyer and Sons
1829 Clement Ave.
Alameda, CA 94501

Mr. T. M. Gerow
Alameda County Div. of Environmental Health
470 27th St., Rm. 324
Oakland, CA 94612

CytoCulture/Sybron Bioreclamation Proposal

Appendix 1

CytoCulture International

Personnel

and

Technical Consultants

APPENDIX 1

Resumes and Roles in Project for Key Personnel at CytoCulture

Project Director: Randall J. von Wedel, Ph.D.

Dr. von Wedel will be the Project Director and Principal Scientist for the multifaceted Augmented Bioreclamation site remediation program described herein. Dr. von Wedel will coordinate the various subcontracting firms in their respective tasks and will be the principal contact between them and Blymyer & Sons Engineers, Inc./P.I.E. Nationwide, Inc.

Dr. von Wedel is a biochemist originally trainied at the University of California, San Francisco Medical Center in biomedical research. His post-doctoral research in cell culture and immunology led him to consulting work for the then embryonic biotechnology industry. After two years as Research Scientist for a Bay Area biotechnology firm (large scale mammalian cell culture facility), Dr. von Wedel established an independent consulting business in 1985 which evolved into his current biotechnology research and development company, CytoCulture International, Inc. Soon after he began consulting, he became interested in bacterial biodegradation as an alternative technology suitable for hazardous wastewater treatment, an area he had been following for years.

Dr. von Wedel became acquainted with Sybron Biochemical in late 1985 and in February 1986 he completed a training course at the Sybron facility in Virginia for technical representatives and distributors. Since then, CytoCulture has assisted in making west coast contacts in industry for Sybron and exploring new sites for treatability studies. The most recent new project involves the use of bacterial cultures for the nitrification of ammonia contaminated wastewater at a major refinery in the Bay Area. Dr. von Wedel has also been involved in Sybron wastewater treatment studies in Puerto Rico through his affiliated company there, AmbienTech. Dr. von Wedel's curriculum vitae is attached.

CURRICULUM VITAE

Randall J. von Wedel, Ph.D.

Personal Data

Date of birth: September 11, 1952 Place: New York, New York
Marital status: Single Soc. Sec. No.: 584-52-7179
Home/work address: 1208 Fourth Avenue, San Francisco, CA 94122
Home/work telephone: (415) 564-1516

Education

Dartmouth College, Hanover, N.H.; B.A., Biology/Chemistry, 6/74
University of California, San Francisco; Ph.D., Biochemistry, 9/81

Professional Record

Senior Consultant, CytoCulture International, Inc. - present
Independent Consultant in cell culture research, 10/85-10/86
Staff Research Scientist, Bio-Response, Inc., Hayward, CA 1/84-10/85
Consultant to Bio-Response, Inc., San Francisco, CA; 3/83-12/83
Postdoctoral Research Fellow, Department of Pathology,
University of California, San Diego; 10/81-8/83
Postdoctoral Research Fellow, Department of Immunopathology,
Scripps Clinic & Research Foundation, La Jolla, CA; 10/81-12/82
Research Assistant, Department of Biochemistry,
University of California, San Francisco; 9/75-9/81
Postgraduate Research Biochemist, Department of Biochemistry,
University of California, San Francisco; 9/74-9/75
Undergraduate Research Assistant, Department of Biochemistry,
Dartmouth Medical School, Hanover, N.H.; 1/73-8/74
Environmental Biologist, Environmental Quality Board,
Commonwealth of Puerto Rico; 6/72-8/72

Awards

National Research Service Training Grant Recipient, 10/81-12/82
National Research Service Award Graduate Student Stipend,10/77-10/79

Professional Organizations

Tissue Culture Association
American Society for Microbiology
N.Calif. Assoc. Professional Consultants (Co-founder, Dir. Programs)

Foreign Languages

Spanish (bilingual); German (working knowledge)

Randall J. von Wedel, Ph.D.

Postdoctoral Research Areas

Characterization of antibodies and immune effector cells directed to host antigens; experimental models of auto-immune disease;
Role of persistent virus infections in triggering auto-immune disease in the CNS; experimental models of multiple sclerosis.
In vitro models of inflammation; role of anaphylatoxins
Purification, characterization of the C5a receptor from a human monocyte cell line; biological response modifiers in culture.

Current Research Emphasis

Development of practical laboratory and pilot scale mammalian cell culture systems utilizing continuous perfusion methods for the production of vaccines, enzymes, recombinant proteins and other biologicals from high density adherent cell lines;
Automated process control, biosensors, integration of cell culture with downstream processing to achieve one continuous operation
Preparative HPLC and large scale protein purification technology
Immunoconjugation and protein derivatization methods
Diagnostic assays, vaccine development for infectious diseases
Specialized bacterial cultures for toxic wastes biodegradation

Major Responsibilities as Staff Scientist at Bio-Response:

Project Director for only research contract at Bio-Response: 2 year contract, U.S. Army: $367,000; 2-4 people under my supervision to characterize cell lines secreting acetylcholinesterase, isolate high secreting variants, mass culture the cells and purify the secreted enzyme. Developed new solid phase assay for AChE. (see annual report, poster session presentations)
Project Director for human-human hybridoma collaboration for the mass culture, purification and characterization of human monoclonal antibodies to human tumor antigens. (see poster session material, SBIR proposal)
Research Proposal Writer: two proposals (pending) as Principal Investigator, one to the U.S. Army for mass culturing 16 cell lines ($689,800 over 3 years) and the other to the NIH (SBIR; Phase I, $39,764) for human hybridomas secreting antibodies to cancer antigens (scored 182 - see enclosed NIH response and critique)
Patent Officer for Bio-Response, culminating with a personal interview in Washington with 3 patent examiners to defend 3 pending patent applications (one since issued)

Alton Geoscience will perform this work in a manner that will represent the best interests of the client; that is, we will do all we can to seek closure of this site as quickly and economically as possible.

Please call if you have any questions.

Respectfully submitted,

Jeffery Wiegand

Jeffery Wiegand, Ph.D. CEG 331
Vice President.

ALTON GEOSCIENCE

ALTON GEOSCIENCE--STATEMENT OF QUALIFICATIONS

Alton Geoscience provides assessment and mitigation of subsurface contamination. The firm has enjoyed very rapid growth based on the ability to perform BOTH the assessment as well as the clean-up phases, and based also on its cost-effective mitigation alternatives. Alton Geoscience also provides technical investigations in the geologic disciplines. The offices of the firm are located in Irvine, California.

Specifically, the company performs the necessary functions to characterize a contamination incident, then carries out the mitigation through final regulatory closure approval. These functions include the following disciplines:

1. Hydrogeology - assess the underground contamination of soil and ground water and relate it to the hydrogeological system in order to develop the most cost-effective remedial measures.

2. Mechanical engineering - design, fabricate, install and operate customized mitigation systems including automated pumps, and effluent separation and water treatment facilities.

3. Biotechnology - perform clean up of contaminated soil and ground water utilizing specially adapted bacteria from Sybron Chemicals Incorporated. This cost-competitive technology is already operational. Alton has the capability to biodegrade contaminated soil and ground water in place as well as decontaminate soil above ground that has been excavated.

4. Field technology - perform reading of monitoring wells, pump out contaminated wells with two 600 gallon licensed trailers, and install and operate alternative mitigation systems.

5. Mobile laboratory - analyze soil and ground water samples in the field to greatly reduce the time of site clean up.

The company does NOT own its own drill rigs, nor does it haul contaminated soil. Alton does not benefit by hauling and

disposing of contaminated soil.

A typical contamination assessment and remediation project includes four phases:

Phase I: Background Review

Perform a background review of the site, including determining the local soils and hydrogeology, and nature of the incident, for a proposed site characterization plan. This plan is suitable for submission to the appropriate regulatory agency for approval. This plan is developed by acquisition and analysis of published and unpublished reports, well logs, maps, aerial imagery, and other data sources, as well as interviews with knowledgeable individuals. This phase also proposes a site investigation plan with details regarding the purpose, rationale, method and approved procedures to be followed.

Phase II: Site Characterization

This phase includes subsurface data acquisition by excavation of borings, sampling, and associated laboratory tests and analyses. Included in this phase are:

1. Perform underground utility survey as necessary to avoid encountering underground structures.

2. Acquire permits such as for drilling, as required, and drill borings and install monitoring wells. All wells are useable for extraction or recovery as well as monitoring.

3. Steam clean augers before drilling first hole and between holes. Wash sampler in trisodium polyphosphate before taking each sample. Utilize Chain of Custody protocols.

4. The day after drilling, visit site with a truck and tank trailer and pump out four to ten volumes of water from the wells to properly develop them, then take a sample; requires a geologist on site.

5. Allow at least one day more for wells to equilibrate; visit site again and survey wells and depth to water table with a surveyor's level; tie the survey into an established bench mark. Verify all data by closing the survey. Reduce data in the office; have this part of the work confirmed and signed by a professional engineer.

6. Lockable caps and locks are installed on each monitoring well to prevent tampering.

The outcome of Phase II is a comprehensive report of findings including a preferred remedial action plan. The size of this report is kept to a minimum consistent with achieving the overall goal of regulatory closure of the incident. The report includes an index map, a site plan showing location of facilities, borings, and monitoring wells and their relation to the adjacent streets. Also included are a detailed text, boring logs and well completion schematics, cross sections, contour maps showing the extent of contamination plumes and the flow direction of the ground water, laboratory results, and Chain of Custody documents.

Phase III: Remedial Action Plan

Mitigation of the contamination is performed during Phase III. Alton has a strong commitment to utilizing alternative mitigation technologies which are most cost-effective. This commitment comes from having performed over three hundred such projects. Specifically, the alternative mitigation technologies include:

Landfarming

We have pioneered in acquiring needed permits for landfarming (aeration) of contaminated soils either on-site, or at a separate site. The latter option requires a much more lengthy permitting procedure but can be utilized for treatment of contaminated soils from several sites. Landfarming technology can be augmented or accelerated by utilizing bioreclamation at the same time. Final disposal of the soil can be at a municipal site or at an engineered landfill. The costs for this alternative will be on the order of 60-70 percent less than disposal at a Class I site.

Incineration

Alton Geoscience has performed the first test incineration of contaminated soil at an asphalt concrete batching plant. The test was successful and should soon lead to making this alternative available elsewhere. We are in the process of performing a second test incineration in the Los Angeles area. This alternative has merit when the site does not lend itself to land farming. Air quality permit acquisition is the pre-eminent issue with this alternative. The costs for this alternative will be approximately 60-70 percent less than disposal at a Class I site.

Bioreclamation

Alton Geoscience is the sole distributor in California of the augmented bioreclamation products and services of Sybron Chemicals Incorporated, a Fortune 500 firm which has been at the forefront of the biochemical waste treatment industry for over forty years. The first on-site bioreclamation project in Orange County for reclaiming contaminated soils is currently operational in Buena Park, California, by Alton Geoscience and Sybron. The process includes taking samples of indigenous bacteria, then culturing a population specific for metabolizing the contaminant. These bacteria are reactivated in a water medium with nutrients, and applied to the contaminated soils and ground water through pipes, or above ground by direct application. This alternative has immense potential for the very cost-effective mitigation of organic compounds. Bioreclamation can also be used to help clean up contaminated water for either recharge into the subsurface or discharge to the sewer.

Alton Geoscience has developed a proprietary air sparging system for volatilization of hydrocarbons in the dissolved phase from ground water. This process alone is sufficient in some cases to clean up the water to standards for discharge. There have been no problems with the permitting of this option with the air quality regulators.

We are currently performing remediation at approximately 50 sites in California; the recovery systems at several of these are unique and innovative to the industry. Several of them are automated.

Alton Geoscience has its own pump out trailers; and designs fabricates, installs and operates its own recovery/mitigation systems.

Phase IV: Monitoring and Closure

The final phase involves monitoring and regulatory approval of closure of an incident. This includes determining, with the regulatory authorities, the level of clean up that is most practical, equitable, and cost-effective.

In this regard, we believe our success rate in achieving closures is the best available in keeping with the spirit of the environmental quality regulations.

OTHER CAPABILITIES

In addition to performing assessment and mitigation of hazardous wastes, the firm performs a large number of site acquisition and site divestment studies for sellers and buyers of commercial and industrial real estate. The purpose of these studies is to establish that the pertinent property is free from contamination at the time of purchase.

Alton Geoscience also performs other earth sciences-related studies, including: engineering geology, ground water heat pump applications, geothermal exploration and development, and due diligence investigations.

MANAGEMENT AND PROFESSIONAL PERSONNEL

Trueman W. Hiller, President

Industrial engineer. Mr. Hiller is experienced in all phases of assessment and mitigation of leakage from underground storage tanks. He previously was involved in the design of service station pumping and leak control equipment.

Formerly Operations Manager for the Marley Company, Red Jacket Pumps Division, Irvine, California. Mr. Hiller was also Product Development Manager and Industrial Engineering Manager of the Red Jacket Pumps, Davenport, Iowa, Division.

Mr. Hiller is a holder of 6 patents on deep well pump and vapor control technology. Member, American Institute of Industrial Engineers (AIIE).

Jeffery W. Wiegand, Ph.D., Vice President

Engineering geologist. Formerly Vice President of Leighton & Associates, Irvine, California. Previously was Project Supervisor for D'Appolonia Consulting Engineers, Irvine, California.

Dr. Wiegand has managed the assessment and cleanup of over three hundred incidents of soil and ground water contamination by petroleum products for major oil companies. He has practiced engineering geology since 1960 in a variety of projects, including six major dams in North and South America; the national highway development program for Bolivia; harbors; military installations; and residential and commercial development. He has authored 17 published technical papers; the most recent was in May, 1987, on natural radioactivity in ground waters in Southern California.

Dr. Wiegand directs the firm's geological operations and business development program. He is a California Registered Geologist and a California Certified Engineering Geologist, and is a Registered Geologist in Arizona.

Joe M. Quiros, P.E., Vice President

Mechanical Engineer. Mr. Quiros has a comprehensive background in the design and installation of service station equipment. He is equally competent in the assessment and mitigation of leakage from underground tanks.

Formerly Engineering Manager for the Marley Company, Red Jacket Pumps Division, Irvine, California. Mr. Quiros was responsible for the West Coast engineering functions, including directing the installation of vapor control systems.

Mr. Quiros directs the design and implementation of pumping and treatment systems for underground hydrocarbon extraction and separation.

Mr. Quiros is a Registered Professional Mechanical Engineer in California and Arizona. He is also a licensed general contractor in the State of California.

He received his M.S. in Mechanical Engineering from the University of Arizona.

The following professionals are all currently working on several projects each:

1. William Hunt, Manager of Geological Services; geologist; graduated in 1985 in geology from California State University at Long Beach; has developed innovative systems for recovering free product; has performed approximately fifty investigations related to contamination from underground tanks; worked for four years as a senior technician at the Orange County Water District.

2. Michael Paules, hydrogeologist and geochemist; graduated in 1985 with an M.S. in geology from West Virginia University; worked for Murphy Petroleum for two years, and for Global Geochemistry; experienced in gas chromatography and mass spectroscopy.

3. Robert Logan, geologist; graduated in 1986 with an M.S. in geology from San Diego State University. Published technical papers on the geology of Western Arizona. Has performed approximately forty contamination investigations.

4. Erik Block, geologist, formerly with Chevron, USA, for two years; he has a Master's Degree in geology from California State University, Los Angeles.

5. Wilbert Gaston, hydrogeologist, was formerly with Gulf Oil Corporation for six years, and a petroleum engineering consulting firm. He has a Master's Degree in geology from the University of Houston (1979) and a Bachelor's in geology from Lamar University, Beaumont, Texas (1975).

6. Terrence Fox, geologist, graduated from Long Beach State University with a Master's Degree in geology in 1984, and a Bachelor's Degree in earth science from Fullerton State University in 1980. He worked for the U.S. Army Corps of Engineers for two years performing engineering geology studies.

7. Stephan Rosen, geologist, graduated from Hobart College in geology in 1982. He worked for Lamont-Doherty Geophysical institute for 4 1/2 years performing oceanologic geology studies.

8. Jeffrey Maxwell, geologist, graduated from the University of California at Santa Barbara in 1985, and did graduate work in hydrogeology at San Diego State University in 1986.

9. Eric Mears, geologist, graduated from Eastern Illinois University in 1986. Has worked for the U.S. Geological Survey for one year including performing investigations at Superfund sites for the U.S. Environmental Protection Agency.

10. Daniel Ramsay, geologist assistant, graduated from Long Beach State University in 1985 in geology. He worked for one year for a consulting geotechnical company in Orange County.

11. John Nordenstam, geologic intern, in senior year at California State University, Long Beach.

12. Marlaigne Hudnall, chemist/biologist, graduated in 1985 from the University Of California at Riverside with a B.S degree in chemistry. She was employed as an environmental chemist at Edwards S. Babcock and Sons in Riverside, California, for three years; she is experienced in gas chromatography applications and maintenance.

Project Experience

Alton Geoscience has performed the following site assessments and clean ups:

1. Major Oil Companies - 300 plus projects
2. Industrial Companies - 83 plus projects

The firm has also performed the following related work:

1. Investigation of the technical aspects of permitting a Class I disposal site; performed for Imperial County Planning Department.
2. Engineering geology investigations for private developers.
3. Geothermal energy and ground water heat pump investigations.
4. Research on a high temperature hazardous waste treatment technology.

Client List

The following are representative clients:

1. Mobil Oil Corporation
2. The Southland Corporation, 7-Eleven Division
3. General Dynamics - Convair Division
4. Cargill Corporation
5. Case Swayne
6. Warner Lambert
7. Hormel Corporation
8. Union Oil of California

BUSINESS REFERENCES

Mobil Oil Corporation
3800 West Alameda Avenue
Suite 700
Los Angeles, California 91505

ENVIRONMENTAL:

Mr. Ralph Edwards
Western Regional Manager
(818) 953-2517

ENGINEERING

Mr. Harry Ericson
Los Angeles County
(818) 953-2602

Mr. Glenn Nakano
Los Angeles County
(818) 953-2608

The Southland Corporation
7-Eleven Division
1240 South State College Boulevard
Anaheim, California 92806

ENVIRONMENTAL & ENGINEERING

Mr. Larry Morris
(714) 635-7711

EXHIBIT D

ALTON GEOSCIENCE

TIME & MATERIAL SCHEDULE

May 1, 1987

Professional Fees per hour:

Licensed Geologist	$95.00
Project Hydrogeologist	80.00
Project Geologist	70.00
Licensed Professional Engineer	85.00
Project Engineer	70.00
Technician	45.00
Draftsperson	35.00
Typist	25.00

The above rates do not apply for the preparation and presentation of expert testimony.

Travel:

Auto or pickup truck. $.50 per mile beyond a 20 mile radius from Irvine, CA, plus the appropriate rate per hr. over the first hour of travel.

The Following Rates Include Vehicles:

Pump-out Technician	$100.00
Construction Superintendent	55.00
Permit Runner	30.00

Add $10.00 per hour to the above rates for nighttime or weekends.

Airline fares. Actual cost plus 15% overhead and profit.

Overnight stay. $30.00 per day plus lodging. $80.00 minimum.

Materials: List price, or cost plus 15% overhead and profit, whichever is highest.

Trucking, dump fees, permits, outside laboratory tests, and subcontractors: Actual cost plus 15% overhead and profit.

Pumpout Services: Site specific. Typical range is from $550 to $750 per trip, depending upon the number of wells and distance to the disposal site. Dispcsal fees are additional and will be billed at cost plus 15% overhead and profit.

16510 Aston Street • Irvine, CA 92714 • (714) 261-0674

EXHIBIT E

PROPOSED WORK SCHEDULE

TASK	FIRMS *	MONTH											
		1	2	3	4	5	6	7	8	9	10	11	12
1	ALT	X											
2	ALT	X											
3	ALT	X											
4	ALT	X											
5	ARC		X										
6	HAT		X										
7	ALT SYB	X	X										
8	SYB		X										
9	SYB ALT			X	X	X	X	X	X	X	X	X	X
10	SYB												X

* Participating subcontracting firms:

SYB = Sybron Chemicals
ALT = Alton Geoscience
ARC = Arrow Construction Co.
HAT = Hatton Construction Co.

EXHIBIT F

ALTON GEOSCIENCE

FOR CYTO CULTURE

TASK #	WORK DESCRIPTION	BILLING AMT	BILLING DATE
Task 1	Review of Literature	Bill $3,000	1 month after NTP.*
Task 2	Acquire permits; plan site characterization	Bill $4,000	1 month after NTP.
TASK 5	Drill 11 MW's; perform sampling and analysis.	Bill $19,000	2 months after NTP.
TASK 3	Survey, purge, & sample wells, & submit final report.	Bill $6,000	3 months after NTP.
Task 4 7	Design and acquire permits for system.	Bill $5,000	3 months after NTP.
TASK 7	Fabricate pumps, controls, micro-circuitry logic, tanks, & ancillary systems.	Bill $15,000	4 months after NTP.
TASK —	Install and start up system. (No Sybron costs included)	Bill $10,000	5 months after NTP.
N/A	~~Tune up system; adjust & prepare quarterly report.~~	~~Bill $3,600/ Qtr.~~	~~30 days after Qtr. ends.~~
TASK 9	Maintenance - (INCLUDES MONTHLY ALTON VISIT)	Bill $1,800/ Mo.	within 30 days after the month during which service was performed.

*NTP Notice to Proceed

EXHIBIT G

CF

CytoCulture INTERNATIONAL INC.

Biotechnology Research, Scale-Up and Marketing

February 16, 1988

Chris Falbo/Mike Randtz
Blymyer & Sons Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501

Gentlemen:

In accordance with our discussions by telephone last week, the following text from CytoCulture/Sybron Chemicals may be inserted as an additional provision to Article 3.1 (Time of Commencement and Substantial Completion) of our pending contract for the clean up of the P.I.E. Emeryville site in order to better define the goals of our in-situ augmented bioreclamation program:

Progress in groundwater bioreclamation at this site will be documented by the decrease in levels of total petroleum hydrocarbons in the effluents of three bioreactors compared to their respective influents of contaminated water. Hydrocarbon levels for these effluents must meet RWQCB discharge standards assigned to this site in effect at the time of permitting for groundwater treatment. In situ reinfiltration for soil remediation will be monitored by the appearance of added tracers and/or bacteria in samples taken from observation wells downfield of the leachfields. It is expected, but not guaranteed, that these reinfiltration indicators will be followed by an overall drop in the levels of petroleum hydrocarbons detected in downfield wells.

Substantial completion of each phase of this bioreclamation program will be determined by the submission of a progress report for each phase to the client, the Department of Health Services (local office and Section on Alternative Technologies) and the RWQCB as follows:

Phase I - Report on Site Characterization Study (COMPLETED)

1208 Fourth Avenue San Francisco CA 94122 USA 415/564-1516

Phase II - Report on Hydrogeology and Contamination from 18 Monitoring Wells On and Off Site

Phase II will be complete when a report has been submitted describing the petroleum hydrocarbon levels, groundwater gradient data and other relevant hydrogeology information pertaining to the bioremediation of the former P.I.E. property. This report will better define the extent of contamination in the property under discussion and provide hydrogeology parameters required for the final design, installation and permitting of the bioreactor and reinfiltration systems. All products and services provided by the contractor and subcontractors will be due within 30 days of their invoices.

Phase III - Report on the Treatment of Contaminated Groundwater with Three Bioreactor Systems

Phase III will be complete when a report has been submitted documenting the bioreclamation of contaminated groundwater drawn up from trench drains installed downfield of major contamination zones on the property under discussion. Discharge levels for dissolved phase total petroleum hydrocarbons in the bioreactor effluent will be reduced more than 95% from levels in the bioreactor influents found at the commencement of treatment. As indicated in the proposal, the three bioreactors will be kept in operation for a period of ten months from the commencement of groundwater treatment. During this ten month operation, each system is expected to treat approximately 1 million gallons each of contaminated groundwater, assuming a flow rate of at least 2 gallons per minute can be maintained. Treated water will be discharged to a storm sewer or sanitary sewer until permission has been received to reinfiltrate the water with bacteria into the leachfield system. All payments for products and services provided by the contractor and subcontractor for this phase of the project will be due within 30 days of their invoices.

Phase IV - Final Report on In Situ Bioreclamation of Soil and Groundwater

Pending approval by the RWQCB and the Department of Health Services, the discharged treated water will be augmented with bacteria and nutrients for reinfiltration to the contaminated soils on the property under discussion until the ten month period of bioreactor

operation (Phase III) has concluded. Phase IV will be complete when the Final Report has been submitted to document the bioreactor treatment of contaminated groundwater (for ten months) and the reinfiltration of nutrients and bacteria into the contaminated soil. The Final Report will summarize results of total petroleum hydrocarbon levels in the bioreactor effluents and monitoring wells downfield of the contamination zones on the property.

The overall project, as currently budgeted, will be complete upon the submission of this Final Report. All final payments for the products and services provided by the contractor and subcontractors will be due within 30 days of the submission of their invoices.

Please contact us if you have any questions regarding the proposed wording for this added provision in the contract. We look forward to signing the contract in the very near future and commencing the monitoring well drilling shortly thereafter.

Thank you.

Sincerely,

Randall J. von Wedel

Randall J. von Wedel, Ph.D.
Project Director

cc: Gary Hater, Sybron Chemicals, Inc.
Robert Copeland, Sybron Chemicals, Inc.

MORRISON & FOERSTER

LOS ANGELES
SACRAMENTO
ORANGE COUNTY
WALNUT CREEK
PALO ALTO
DENVER

ATTORNEYS AT LAW

345 CALIFORNIA STREET
SAN FRANCISCO, CA 94104-2675
TELEPHONE (415) 677-7000
TELEFACSIMILE (415) 677-7522
TELEX 34-0154 MRSN FOERS SFO

NEW YORK
WASHINGTON, D.C.
LONDON
BRUSSELS
HONG KONG
TOKYO

DIRECT DIAL NUMBER

(415) 677-7117

October 7, 1992

BY HAND DELIVERY

David D. Cooke, Esq.
Beveridge & Diamond
Suite 3400
One Sansome Street
San Francisco, CA 94104-4438

Re: Powell Street Plaza, Emeryville

Dear David:

We represent Aetna Real Estate Associates ("Aetna") with respect to environmental issues at the Powell Street Plaza in Emeryville (the "Plaza") and are writing today concerning the Purchase and Sale Agreement for the Plaza between Aetna as purchaser and Eastshore Partners ("Eastshore") as seller dated February 14, 1990 (the "Agreement"). We understand that Eastshore is a limited partnership, and that you represent its general partner Martin-Eastshore, which is itself a general partnership. You are hereby notified that Aetna considers Eastshore to be in material breach of Section 14.01(s) of the Agreement.

In 1986, Eastshore acquired the Plaza property from P.I.E. Nationwide, Inc. ("P.I.E."), which had operated it as a trucking terminal, utilizing certain underground storage tanks. As you know, these tanks leaked substantial quantities of petroleum hydrocarbons into the soil and groundwater at the property.

Environmental contamination was a significant concern to Aetna at the time of its purchase of the Plaza property from Eastshore; as a consequence, six full pages of environmental representations, warranties, covenants and indemnities were negotiated. These provisions recognized that P.I.E. was already conducting a cleanup, but required that Eastshore guarantee the successful completion of the

project. As you know, P.I.E. is bankrupt and the cleanup project has been terminated well short of completion. Under the Agreement, Eastshore is obligated to assume direct responsibility for the cleanup or to reimburse any and all expenditures that Aetna may incur in doing so itself.

In paragraph 14.01(s)(1) of the Agreement, Eastshore warrants that:

> No contamination . . . that either (i) is in violation of any Environmental Law or (ii) does not conform to any remedial or clean-up measures required at any time and from time to time by any governmental agency or authority with jurisdiction, will remain on, under or about the Property (including, without limitation, the soil and ground water) or any other property in the vicinity of the Property (where the source of contamination on the other property is attributable to contamination of the Property) following completion of the activities and services described in the contract between P.I.E. Nationwide, Inc. and CytoCulture International/Sybron Chemicals Inc. in Joint Venture, dated March 24, 1988 (the "Clean-up Contract").

Paragraph 14.01(s)(1) then provides that, if the contamination is not remediated to regulatory action levels pursuant to the Clean-up Contract, then Eastshore and its principals, including J. David Martin and Thomas J. Gram:

> shall indemnify and hold [Aetna] harmless from and against any and all loss, cost, damage, liability and expense (including without limitation attorneys' fees and costs) arising from or in connection with the performance or failure of performance of the Clean-up Contract by either party thereto, or by the failure, for any reason, of the Property and any other property in the vicinity of the Property (where the source of the contamination on the other property is attributable to

> contamination of the Property) to be cleaned up or remediation measures to be completed . . . in accordance with the Clean-up Contract and in compliance with all Environmental Laws in effect as of the Closing Date and the requirements from time to time of any governmental authority with jurisdiction.

Paragraph 14.01(s)(2) of the Agreement then requires that the cleanup be completed by December 31, 1992.

It is Aetna's understanding that substantial soil contamination, floating product and dissolved hydrocarbon constituents in groundwater remain at the Plaza property, and that the contamination has migrated off site to the south and probably to the west. Specifically, 1.32 feet of floating product was measured in one monitoring well in 1988; moreover, when CytoCulture, P.I.E.'s cleanup contractor, excavated interception trenches on the south and west property lines in late 1988, substantial amounts of floating product were encountered. Hydrocarbon soil contamination has been measured as high as 17,000 ppm, and BTXE recordings in groundwater have also been high. For example, it is Aetna's understanding that the groundwater influent treated by CytoCulture contained benzene up to 630 ppb.

As far as Aetna is aware, there are no government cleanup or investigation orders or directives outstanding. However, the environmental conditions at the Plaza property (and in property in its vicinity to the south and west) in all three media (floating product, soil, and groundwater) are clearly well over levels that will concern the responsible agencies. To take just one example, the benzene readings that have been recorded in groundwater exceed the maximum contaminant level of 5 ppb by up to a factor of over one hundred twenty.

Even if Eastshore were to assume direct responsiblity for completion of the cleanup today, it would certainly not be possible to achieve completion by the December 31, 1992 deadline set by the Agreement. However, if Eastshore provides a written commitment to Aetna by October 16, 1992 that it will take immediate steps to resume and complete the cleanup and will permit Aetna to provide

appropriate input into the cleanup design, schedule and implementation, then Aetna will consider an extension of the contract deadline. (Aetna will also expect Eastshore and its principals to toll applicable statutes of limitations as of today's date.) However, Aetna will not waive any consequential damages that may result from Aetna's inability to market the property after December 31, 1992 due to the contamination, or from its inability to realize full market value if a sale is negotiated.

If Eastshore fails to provide this written commitment by October 16, 1992, Aetna intends to avail itself of any and all legal and equitable remedies available to it, including rescission and restitution, specific performance, an assumption of the cleanup itself, and/or any combination thereof. If Aetna elects to assume responsibility for the cleanup, Aetna will look to Eastshore for full reimbursement under the indemnity provision of the Agreement, including attorney fees.

Aetna understands that The Martin Group owns the property directly to the south of the Plaza property and is engaged in environmental investigations and perhaps remediation there. If this is so, it seems to us that Eastshore could realize significant cost savings by coordinating those efforts with activities at the Plaza property by assuming cleanup responsibilities there rather than paying for two sets of contractors. That cost inefficiency would result if Eastshore forces Aetna to engage separate contractors for which Eastshore would be required to indemnify Aetna under the Agreement.

We look forward to your prompt response to this letter.

Very truly yours,

Barry S. Sandals

Barry S. Sandals

BSS:beh

cc: The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, CA 94608
Attn: J. David Martin

East Bay Park Company
c/o The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, CA 94608
Attn: Thomas J. Gram

Emery Terranomics Associates
455 Northpoint
San Francisco, CA 94133
Attn: Barry Culbertson

MORRISON & FOERSTER

LOS ANGELES
SACRAMENTO
ORANGE COUNTY
PALO ALTO
WALNUT CREEK
SEATTLE

ATTORNEYS AT LAW

345 CALIFORNIA STREET
SAN FRANCISCO, CA 94104-2675
TELEPHONE (415) 677-7000
TELEFACSIMILE (415) 677-7522
TELEX 34-0154 MRSN FOERS SFO

NEW YORK
WASHINGTON, D.C.
DENVER
LONDON
BRUSSELS
HONG KONG
TOKYO

December 1, 1992

DIRECT DIAL NUMBER
(415) 677-7117

BY HAND DELIVERY

David D. Cooke, Esq.
Beveridge & Diamond
Suite 3400
One Sansome Street
San Francisco, CA 94104-4438

Re: Powell Street Plaza, Emeryville

Dear David:

Thank you for your letter dated November 12, 1992, enclosing the November 9, 1992 proposal by PES Environmental, Inc. ("PES") for free product removal at the Powell Street Plaza site. In my letter to you dated October 29, 1992, I indicated that Ætna Real Estate Associates L.P. ("Ætna") expected Eastshore Partners ("Eastshore") to evaluate the PES proposal promptly and advise Ætna whether Eastshore were willing to implement it. Your November 12 letter did not speak to that point, and I am writing today to inquire, among other things, if Eastshore has made a decision.

Ætna representatives have reviewed the PES proposal, and believe that free product removal should be implemented, although the specific proposal in question is at best a beginning and will require prompt follow-through to insure adequate cleanup. Ætna wants your client to proceed with free product removal, and is prepared to speak with you about arrangements for PES access to the Plaza property that will avoid interference with Ætna's tenants. Nevertheless, while free product removal would be a step in the right direction, it falls well short of Eastshore's contractual commitment to Ætna under the Purchase and Sale Agreement ("Agreement"), as outlined in my October 7, 1992 letter to you.

You have several times expressed the view that Eastshore has no contractual cleanup obligations other than

to respond to government cleanup directives. This is clearly wrong both as a textual matter and as a matter of contractual intent; Ætna bargained for the completion of a cleanup that was already in process when the contract was signed, and Eastshore's breach leaves Ætna in the position of holding title to property that will be difficult to market because of the environmental contamination that Eastshore has failed to clean up. Specifically and to begin with, in Section 14.01(s)(ii) of the Agreement, Eastshore warranted and covenanted that the cleanup described in the contract between P.I.E. Nationwide, Inc. and CytoCulture International/Sybron Chemicals Inc. (the "Clean-up Contract") "will be completed in accordance with the terms of the Clean-up Contract on or before December 31, 1992, subject to extension upon [Ætna's] written approval, which will not be unreasonably withheld if the clean-up is still continuing pursuant to the Clean-up Contract. . . ." You have suggested that this sentence merely expressed the "expectation" of the parties, rather than creating an enforceable contractual obligation. But as we have pointed out, if the December 31, 1992 completion date were merely hortatory, the parties would hardly have provided a mechanism to extend the deadline, with Ætna's approval, if cleanup progress were still being made.

As you know, CytoCulture abandoned the Clean-up Contract in approximately May, 1990, and no work has proceeded since that time. Moreover, Eastshore has never asked Ætna for approval of an extension of the December 31, 1992 deadline. Finally, because the cleanup is not "still continuing pursuant to the Clean-up Contract," Ætna would have been fully justified in withholding such approval even if Eastshore had made such a request. Eastshore has therefore breached the Agreement. At a minimum, if Eastshore wishes to avoid a suit for rescission and/or other appropriate relief (including attorney fees pursuant to Section 15.20 of the Agreement), Ætna will require Eastshore to assume and complete the Clean-up Contract at its own cost and expense on as expedited a schedule as possible.

Moreover, Eastshore has self-effectuating, positive cleanup obligations under the Agreement beyond the Clean-up Contract. This is because, in Section 14.01(s) of the Agreement, Eastshore also warranted and covenanted that contamination at the Plaza property did not violate any "Environmental Law" as defined. In fact, however, the

remaining contamination violates Environmental Law in at least the following material respects:

1. There is petroleum hydrocarbon contamination at the Plaza property caused by leaks in underground storage tanks owned by Eastshore and Eastshore, as owner of the tanks, has violated, and is continuing to violate, regulations promulgated pursuant to the Resource Conservation and Recovery Act Section 9003, 42 U.S.C. § 6991b, at 40 CFR Part 280, by, inter alia: (i) failing to respond, as required by subpart F, to the confirmed release of Hazardous Waste, in violation of 40 CFR § 280.60; (ii) failing to measure for the presence of a release where contamination is most likely to be present at the Property, in violation of § 280.62(a)(5); (iii) failing to submit a report to the implementing agency summarizing the initial abatement steps taken under § 280.62(a), in violation of § 280.62(b); (iv) failing to assemble adequate information relating to surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, climatological conditions and land use, in violation of § 280.63(a); (v) failing to assemble information relating to the results of free product investigation and failing to begin free product removal as soon as practicable, in violation of § 280.62(a)(6); (vi) failing to conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated areas, in violation of § 280.64; and (vii) failing to determine the full extent and location of soils contaminated by the release and contamination of dissolved product contamination in the groundwater, in violation of § 280.65(a);

2. Eastshore is in violation of the California Health and Safety Code, as amended, in that: (i) Eastshore has disposed and continues to dispose of hazardous wastes at the Plaza property despite the fact that Eastshore does not hold a valid hazardous waste facilities permit or other grant of authorization to use the Plaza property for such disposal, in violation of Health and Safety Code §§ 25203, 25189 and 25189.2, and (ii) Eastshore has not taken adequate corrective action in response to the unauthorized release of petroleum at the Plaza property to ensure protection of human health,

safety, and the environment, in violation of Health and Safety Code § 25299.37;

3. Eastshore is not in compliance with the California Water Code, as amended, in that: (i) Eastshore has caused or permitted, and continues to cause or permit, oil and residuary products of petroleum to be deposited in or on waters of the state without compliance with waste discharge requirements, in violation of Water Code § 13350(a)(3); (ii) Eastshore has caused or permitted, and continues to cause or permit, hazardous substances to be discharged in or on waters of the state where they have created a condition of pollution or nuisance without compliance with waste discharge requirements, in violation of Water Code § 13350(b); and

4. Eastshore is in violation of the California Code of Regulations in that: (i) Eastshore has failed to take adequate interim remedial actions to abate or correct the effects of the continued release of Hazardous Waste at the Plaza property in violation of 23 Cal. Code Regs. § 2722(b); (ii) Eastshore has failed to submit an adequate corrective action work plan to the responsible regulatory agency in violation of 23 Cal. Code Regs. § 2722(c); (iii) Eastshore has failed to conduct an adequate Preliminary Site Assessment in violation of 23 Cal. Code Regs. § 2722(a) and § 2723; (iv) Eastshore has failed to conduct adequate investigations of the unauthorized release of Hazardous Waste at the Plaza property and surrounding area possibly affected by the release in violation of 23 Cal. Code Regs. §§ 2722(a), 2724 and 2725; and (v) Eastshore has failed to carry out an adequate and cost-effective alternative for remediation or mitigation of the actual or potential adverse effects of the unauthorized release of Hazardous Waste at the Plaza property in violation of 23 Cal. Code Regs. § 2726.

Please let me know promptly what Eastshore intends to do to cure these violations of law.

In a letter to me dated November 11, 1992, you asked for information regarding the "possibility that Building D was constructed over highly contaminated soil." Among others things, we relied for the quoted statement (from my earlier letter to you) on several personal

communications between Ætna representatives and representatives of various contractors who have performed investigative and cleanup work at the Plaza property in the past. If we obtain more particulars, we will advise you. However, the fact that highly contaminated soil is left at the site is also documented in reports that we assume are already in your possession. One is the "Report on Additional Site Characterization Studies" prepared by Alton Geoscience for CytoCulture and dated April 28, 1988. Figure 6 to that report provides readings for total petroleum hydrocarbon ("TPH") contamination in soils that was apparently measured between October 1987 and March 1988, well after the completion of the soil remediation that we understand to have been performed at the site earlier in 1987. TPH measurements in borings B-7, B-11, and B-18, all surrounding Building D, ranged from 10,000-17,000 ppm. If you do not have a copy of this report, please let me know and I will supply one.

We await your response.

Very truly yours,

Barry S. Sandals

cc: The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, CA 94608
Attn: J. David Martin

East Bay Park Company
c/o The Martin Group
6475 Christie Avenue, Suite 500
Emeryville, CA 94608
Attn: Thomas J. Gram

Emery Terranomics Associates
455 Northpoint
San Francisco, CA 94133
Attn: Barry Culbertson

LAW OFFICES
BEVERIDGE & DIAMOND
A PARTNERSHIP INCLUDING A PROFESSIONAL CORPORATION
SUITE 3400
ONE SANSOME STREET
SAN FRANCISCO, CA 94104-4438
(415) 397-0100
TELECOPIER (415) 397-4238

DAVID D. COOKE

BEVERIDGE & DIAMOND, P. C.
SUITE 700
1350 I STREET, N. W.
WASHINGTON, D. C. 20005-3311
(202) 789-6000

40TH FLOOR
437 MADISON AVENUE
NEW YORK, N. Y. 10022-7380
(212) 702-5400

BEVERIDGE & DIAMOND
ONE BRIDGE PLAZA
FORT LEE, N. J. 07024-7502
(201) 585-8162

December 18, 1992

Barry S. Sandals, Esq.
Morrison & Foerster
345 California Street
San Francisco, CA 94104-2675

Re: Powell Street Plaza, Emeryville

Dear Barry:

This responds to your letters written on behalf of Aetna Real Estate Associates L.P. ("Aetna"), dated October 7, 1992 and December 1, 1992, regarding the Purchase and Sale Agreement dated February 14, 1990 ("Agreement") by and between Eastshore Partners ("Eastshore")[1/], as seller, and Aetna, as buyer, of the Powell Street Plaza Property ("the Property"); the clean-up of the Property; and PES Environmental, Inc.'s ("PES") recently proposed work at the Property and the adjacent Shellmound III site. In sum, Eastshore denies Aetna's assertion that Eastshore is in breach of the Agreement, and rejects Aetna's analysis of the Agreement whereby Aetna concludes that Eastshore has an affirmative or enforceable obligation under the Agreement to clean up, or pay for the clean-up, of the Property.

Cleanup Duties and Indemnity. As you know, the parties contemplated, and the Agreement reflects, that P.I.E. Nationwide, Inc. ("P.I.E.") would be responsible for the cleanup of the property pursuant to the clean-up contract ("Clean-up Contract") between P.I.E. and Cytoculture International/Sybron Chemicals Inc., dated March 24, 1988. Eastshore understands Aetna's position to be that Eastshore is the guarantor of P.I.E.'s performance, and that, in light of P.I.E.'s default, Eastshore must conduct the clean-up in accordance with the Clean-up Contract. Eastshore disagrees, and contends that Aetna confuses the representations in the Agreement with its covenants, and misapprehends or disregards the remedies specified in the Agreement.

1/ For ease of reference, all references in this letter to Eastshore shall include Eastshore Partners and its individual guarantors.

Section 14 of the Agreement contains the relevant provisions. In section 14.01(s)(i), Eastshore represented that following the completion of the activities and services under the Clean-up Contract, no contamination relating to the Prior Harmful Use[2/] that either is a violation of an environmental law, or which does not conform to a requirement of a governmental agency, will remain on the property. (Agreement, §14.01(s)(i), p. 63.) In that same section, the parties spelled out their intent with respect to this representation:

> The intent of the foregoing representation is that [Eastshore] shall indemnify and hold [Aetna] harmless from and against any and all loss, cost, damage, liability and expense (including without limitation attorneys' fees and costs) arising from or in connection with the performance or failure of performance of the Clean-up Contract by either party thereto, or by the failure, for any reason, of the Property and any other property in the vicinity of the Property (where the source of the contamination in the other property is attributable to contamination of the Property) to be cleaned up or remediation measures to be completed in relation to the Prior Harmful Use in accordance with the Clean-up Contract and in compliance with all Environmental Laws in effect as of the Closing Date and the requirements from time to time of any governmental authority with jurisdiction.

(Id., §14.01(s)(i), pp. 63-64.) Notwithstanding Aetna's characterization of the foregoing as establishing a guaranty or suretyship arrangement, the Agreement unambiguously limits Eastshore's obligation with respect to the clean-up of the Property to indemnification.

Had the parties intended a different type of obligation, such as a guarantee to complete the clean-up in the event of a default of the Clean-up Contract, they were capable of expressing it clearly. For example, in an unrelated provision the parties agreed that Eastshore would (1) complete certain tenant improvements, and (2) indemnify and hold harmless Aetna from losses, costs, damages, liens, and expenses arising out of or in connection with such improvements. (Agreement, §14.01(j), pp. 55-56.) The specific language of section 14.01(j) establishing both Eastshore's affirmative obligation to perform certain work and to indemnify Aetna stands in contrast to the limited indemnity provision adopted by the parties in section 14.01(s).

2/ The "Prior Harmful Use" was defined in Schedule 4 of the Agreement in the following terms: "Prior use of most of the Property as a truck terminal (including maintenance facilities) by PIE Trucking and East Texas Motor Freight caused hydrocarbon contamination to be released into the soil and water." (Agreement, Schedule 4, ¶8, p. 3).

For its theory that Eastshore is responsible to Aetna to perform the Clean-up Contract in P.I.E.'s place, Aetna also relies on section 14.01(s)(ii). Section 14.01(s)(ii) contains representations, not covenants. It states, in pertinent part:

> Seller ... (A) ha[s] operated the Property and constructed the improvements, and ha[s] at all times received, handled, used, stored, treated, transported and disposed of all petroleum products [and other toxic, dangerous and hazardous chemicals] in compliance with all Environmental Laws in effect as of the Closing Date and (B) ha[s] removed or caused to be removed from the Property all Hazardous Materials . . . except for small quantities of Hazardous Materials commonly found in offices or retail stores (such as white out and copy toner) and except to the extent of the remaining clean-up activities described on Schedule 4, which activities will be completed in accordance with the terms of the Clean-up Contract on or before December 31, 1992, subject to extension upon Buyer's written approval, which will not be unreasonably withheld if the clean-up is still continuing pursuant to the Clean-up Contract and pursuant to the requirements of any governmental authority with jurisdiction.

(Agreement, §14.01(s)(ii), pp. 64-65.) You argue that the parties' adoption of a mechanism for the extension of the clean-up period after December 31, 1992, means that Eastshore has a "self-effectuating, positive cleanup obligation" to perform the clean-up in the event of a default by P.I.E. Once again, Eastshore disagrees. That is certainly not what the Agreement says, and the parties were more than capable of expressing directly what Aetna now claims that they inferred in a most oblique manner. In fact, as in Section 14.01(s)(i), the parties specifically set forth their rights and duties in the event of an inaccuracy in the representations contained in section 14.01(s)(ii). Section 14.02 provides:

> [Eastshore] . . . agree[s] to indemnify, defend and hold harmless [Aetna] . . . from and against any and all liabilities, losses, claims, damages, judgments, costs and expenses (including, without limitation, reasonable attorney's fees) incurred by [Aetna] as a result of any inaccuracy in any of the representations and warranties contained in Section 14.01. ...

Agreement, §14.02, p. 69.

To sum up: Aetna claims that Eastshore covenanted to perform the clean-up if P.I.E. defaulted, that Eastshore is in breach of this covenant, and that on this basis a court would

issue an order compelling Eastshore to perform this work. Because the Agreement does not contain such a covenant and in fact twice sets forth different, more limited remedies, Eastshore rejects Aetna's demand.

Although your letters do not specifically charge Eastshore with a breach of its indemnity obligations under the Agreement, we take this opportunity to point out that no such breach has occurred. First, no potential for any indemnity obligation could arise in any event until 1993. Second, we are not aware of any governmental or third party requiring Aetna to clean up the property. Aetna's assertion that the environmental conditions at the Property are at levels that "will concern responsible agencies" is speculation. The possibility that a regulatory agency might be concerned about the clean-up of the Property would not transform the expenses you have suggested that Aetna may incur into costs and expenses that are recoverable under the indemnity provision. Aetna may choose to pay for a clean-up of the Property in the absence of any claim or legal obligation compelling Aetna to make such payments, but if it does so Aetna would be acting as a volunteer. Such voluntary payments are not recoverable under the Agreement or under the California law of indemnity.

Nor has Aetna established the existence of any "loss" that might fall within the scope of the indemnity provisions. You have suggested that environmental conditions at the property affect its market value, but you have also indicated that the property is not on the market. If Aetna adopts a bona fide plan to market the property, please let us know. Meanwhile, there is no reason whatsoever to believe that the value of the property to Aetna -- as an income-generating commercial development -- has been affected in any way by P.I.E.'s default of the Cleanup Contract.

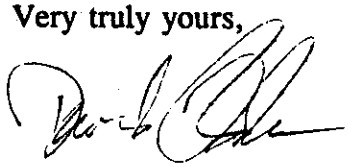
"Violations of Law." Your December 1st letter suggests that the representations contained in section 14.01(s)(ii) apply to currently existing conditions at the Property. Eastshore disagrees. The representations plainly concerned the use of the Property and its status at the time the parties entered into the Agreement; it did not address any future use of the Property by Eastshore, much less suggest that Eastshore had any obligation to insure the Property's continued compliance with environmental laws, or to correct any alleged non-compliance which could arise at the Property in the future. Thus, the violations of law which you allege in pages three and four of your December 1st letter are irrelevant in a discussion of Eastshore's representations and obligations under the Agreement.[3/]

3/ In light of this conclusion, we do not address specifically the various supposed "violations" of law detailed in your letter. We do note, however, that most of the violations you have alleged are violations that only a current owner can commit.

Free Product Removal. As we have advised, Eastshore has engaged PES Environmental, Inc. ("PES") to conduct the free product removal project outlined in PES's letter to Thomas Gram of November 9, 1992, and forwarded to you on that date for you review. The only prerequisite to the commencement of this work is the execution of a mutually acceptable site access agreement, which you stated that you would prepare and send to us. We await receipt of your draft, and will respond promptly.

Eastshore looks forward to an amicable resolution of this matter with Aetna. If you have any questions, or would like to discuss these issues further, please contact me at (415) 983-7710.

Very truly yours,



David D.Cooke

cc: Thomas J. Gram, Esq.

N:\cli\10\37\2418\ltr\2418ddc.002

MORRISON & FOERSTER

LOS ANGELES
SACRAMENTO
ORANGE COUNTY
PALO ALTO
WALNUT CREEK
SEATTLE

ATTORNEYS AT LAW

345 CALIFORNIA STREET
SAN FRANCISCO, CA 94104-2675
TELEPHONE (415) 677-7000
TELEFACSIMILE (415) 677-7522
TELEX 34-0154 MRSN FOERS SFO

NEW YORK
WASHINGTON, D.C.
DENVER
LONDON
BRUSSELS
HONG KONG
TOKYO

DIRECT DIAL NUMBER

(415) 677-7117

January 11, 1993

BY CERTIFIED MAIL --
RETURN RECEIPT REQUESTED

William Reilly, Administrator
United States Environmental
Protection Agency
401 M Street S.W.
Washington, D.C. 20460

James Strock, Secretary
California Environmental
Protection Agency
555 Capitol Mall, Suite 235
Sacramento, CA 95814

Eastshore Partners
c/o The Martin Group
6475 Christie Ave., Suite 500
Emeryville, CA 94608
Attn: J. David Martin

Eastshore Partners
c/o East Bay Park Company
c/o The Martin Group
6475 Christie Ave., Suite 500
Emeryville, CA 94608
Attn: Thomas J. Gram

Eastshore Partners
c/o Emeryville Terranomics Assoc.
455 Northpoint
San Francisco, CA 94133
Attn: Barry Culbertson

Re: Notice of Intent to File a Citizen Suit Pursuant to RCRA Section 7002(a)(1)(A), 42 U.S.C. § 6972(a)(1)(A); and Notice of Endangerment Under RCRA Section 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B)

Dear Sirs:

This letter constitutes a notice of violations of the Resource Conservation and Recovery Act ("RCRA") and of conditions that may present an imminent and substantial endangerment to health or the environment, pursuant to RCRA Sections 7002(b)(1)(A) and 7002(b)(2), 42 U.S.C. §§ 6972(b)(1)(A) and 6972(b)(2). Please take notice that our client, Ætna Real Estate Associates, L.P. ("Ætna"), may

file a civil action against Eastshore Partners ("Eastshore") and its individual general partners, or any of them, in the United States District Court for the Northern District of California, pursuant to RCRA Sections 7002(a)(1)(A) and 7002(a)(1)(B), 42 U.S.C. §§ 6972(a)(1)(A) and 6972(a)(1)(B), with respect to the property in Emeryville, California commonly known as the Powell Street Plaza (sometimes referred to herein as the "Property"), if alternative means of resolving the claims identified herein are unsuccessful.

FACTS

Ætna is the present owner of the Powell Street Plaza, having acquired it from Eastshore pursuant to a Purchase and Sale Agreement dated February 14, 1990 (the "Agreement"). Eastshore or its predecessor, East Bay Park Company (collectively "Eastshore"), acquired the Property in 1986 or 1987. During its ownership of the Property, Eastshore owned and operated a number of underground storage tanks (the "Tanks") which had leaked and which continued to leak various petroleum hydrocarbon wastes. Eastshore was aware of these conditions, and in the Agreement, promised Ætna that the conditions would be abated. Some remediation work was performed, but the effort has been abandoned. Ætna understands that various state regulatory agencies have been involved with investigatory activities at the Property, and that the lead agency is presently the Alameda County Department of Environmental Health ("DEH"), pursuant to the UST Local Oversight Program. The Property is apparently listed in DEH records as the "P.I.E. Nationwide" Site at 5500 Eastshore Highway in Emeryville, in reference to the now bankrupt owner of the Property prior to Eastshore.

Eastshore and its general partners are all "persons," as that term is defined in RCRA Section 9001(6), 42 U.S.C. § 6991(6), who are in violation of the standards, regulations, conditions, requirements or prohibitions that have been promulgated pursuant to RCRA Section 9003(a), 42 U.S.C. § 6991b(a).

Eastshore and its general partners are all "owners" and "operators" of the Tanks as those terms are defined in RCRA, Sections 9001(3) and 9001(4), 42 U.S.C. §§ 6991(3) and 6991(4).

Eastshore and its general partners are all persons who were owners and operators of the Property and the Tanks

and who have contributed to the past handling, storage, transportation, or disposal of hazardous waste, as defined in Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), or solid waste, as defined in Section 1004(27) of RCRA, 42 U.S.C. § 6903(27), including, but not limited to, petroleum fuel-related contaminants (i.e., total petroleum hydrocarbons (gas), total petroleum hydrocarbons (diesel), oil and grease, benzene, toluene, ethylbenzene and total xylenes), tetra-ethyl lead, and chloroform and other volatile organic compounds (collectively the "Contaminants"). The above-identified Contaminants may present an imminent and substantial endangerment to health or the environment at the Property and the surrounding environment, including underground aquifers.

The Tanks are "underground storage tanks" ("USTs") as that term is defined in RCRA Section 9001(1), 42 U.S.C. § 6991(1), and 40 CFR § 280.12, and are "petroleum UST systems" as defined in 40 CFR 280.12.

The Contaminants contained in the Tanks and released into the environment are each "regulated substances," as that term is defined in RCRA Section 9001(2), 42 U.S.C. § 6991(2), and 40 CFR § 280.12. The Tanks contained "petroleum" as that term is defined in RCRA Section 9001(8), 42 U.S.C. § 6991(8).

There have been "releases," as that term is defined in RCRA Section 9001(5), 42 U.S.C. § 6991(5), and 40 CFR § 280.12, of the Contaminants from the Tanks into the environment at the Property.

Eastshore and its general partners are all persons who have contributed to the past handling, storage, or disposal of the Contaminants, which may present an imminent and substantial endangerment to health and the environment at the Property. The Contaminants are currently migrating through the soil and into the groundwater beneath and adjacent to the Property thereby further contaminating, or threatening further to contaminate, the waters of the State of California.

THE VIOLATIONS OF RCRA SUBTITLE I

Eastshore and its general partners are obligated to comply with Subtitle I of RCRA and the regulations promulgated pursuant to RCRA Section 9003, 42 U.S.C.

§ 6991b, at 40 CFR Part 280. Eastshore and its general partners have failed to comply with the standards and requirements of Subtitle I of RCRA and the regulations promulgated pursuant thereto. Such violations include, but are not limited to, the following:

1. Eastshore and its general partners have violated and are in violation of 40 CFR § 280.60 in that they have failed and refused and continue to fail and refuse to comply with the requirements of 40 CFR § 280.65, which was promulgated to assure prompt and effective response to the release of regulated substances that may endanger the public health, safety and welfare and the environment. In response to confirmed releases from the Tanks, Eastshore and its general partners have failed and refused and continue to fail and refuse to timely investigate and continuously pursue to completion corrective action regarding the release of the Contaminants, the release site and the surrounding area possibly affected by the release of the Contaminants, as required by 40 CFR Part 280, Subpart F, notwithstanding the evidence that groundwater has been affected by the release and that contaminated soils are in contact with groundwater.

2. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.62(a)(5) in that they have failed to measure for the presence of a release where contamination is most likely to be present at the Property.

3. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.62(a)(6) in that they have failed to begin free product removal as soon as practicable and in accordance with 40 C.F.R. § 280.64.

4. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.62(b) in that they have failed to submit reports to the implementing agency summarizing the initial abatement steps taken under 40 C.F.R. § 280.62(4) - (6).

5. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.63(a) in that they have failed to assemble adequate information relating to surrounding populations, water quality, use and approximate locations of wells potentially affected by the release, climatological conditions, and land use. Eastshore

and its general partners have also failed to assemble information relating to the results of free product investigation required under 40 C.F.R. § 280.62(a)(6).

6. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.63(b) in that they have failed to submit the information collected in compliance with Section 280.63(a) in a manner that demonstrates its applicability and technical adequacy.

7. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.64 in that they have failed to conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones and that properly treats, discharges or disposes of recovery by-products in compliance with local, state and federal regulations. Eastshore and its general partners have also failed to submit to the implementing agency free product removal reports.

8. Eastshore and its general partners have violated and are in violation of 40 C.F.R. § 280.65(a) in that they have failed to determine the full extent and location of soils contaminated by the release and the presence and concentrations of dissolved product contamination in the groundwater by investigating the release site and the surrounding area possibly affected by the release.

The full name, address and telephone number of the person on whose behalf this Notice is being given is:

Ætna Real Estate Associates, L.P.
c/o Ætna Insurance Company
CityPlace
Hartford, CT 06156

The full name, address and telephone number of legal counsel representing Ætna is:

Morrison & Foerster
345 California Street
San Francisco, CA 94104
Tel. (415) 677-7000
Attn: Barry S. Sandals

This notice is given pursuant to RCRA Section 7002(b)(1)(A), 42 U.S.C. § 6972(b)(1)(A) and RCRA Section 7002(b)(2), 42 U.S.C. § 6972(b)(2).

Very truly yours,

Barry S. Sandals

cc: Jeffery R. Berry, Esq.
Ætna Insurance Company, Law Department YFF1
CityPlace
Hartford, CT 06156

David D. Cooke, Esq. (counsel for Eastshore)
Beveridge & Diamond
One Sansome Street, Suite 3400
San Francisco, CA 94104

Daniel McGovern, Regional Administrator
Region IX, United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

William F. Soo Hoo, Director
California Department of Toxic Substances Control
400 P Street, 4th Floor
P.O. Box 806
Sacramento, CA 95812-0806

Walter Pettit, Executive Director
California Water Resources Control Board
901 P Street
P.O. Box 100
Sacramento, CA 95812-0100

Steven R. Ritchie, Executive Officer
California Regional Water Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

LAW OFFICES
BEVERIDGE & DIAMOND
A PARTNERSHIP INCLUDING A PROFESSIONAL CORPORATION
SUITE 3400
ONE SANSOME STREET
SAN FRANCISCO, CA 94104-4438
(415) 397-0100
TELECOPIER (415) 397-4339

DAVID D. COOKE

BEVERIDGE & DIAMOND, P.C.
SUITE 700
1350 I STREET, N.W.
WASHINGTON, D.C. 20005-3311
(202) 789-6000

40TH FLOOR
437 MADISON AVENUE
NEW YORK, N.Y. 10022-7380
(212) 702-5400

BEVERIDGE & DIAMOND
ONE BRIDGE PLAZA
FORT LEE, N.J. 07024-7502
(201) 585-8168

November 12, 1992

By hand

Barry S. Sandals, Esq.
Morrison & Foerster
345 California Street
San Francisco, CA 94111

Re: Powell Street Plaza

Dear Barry:

Enclosed as you have requested is a copy of PES Environmental, Inc.'s proposal to conduct a free-phase hydrocarbon product removal program and water-level investigation at the Powell Street Plaza site in Emeryville.

Very truly yours,

David D. Cooke

Enclosure

cc (w/o encl.):

Thomas J. Gram
Robert S. Creps

PES Environmental, Inc.
Engineering & Environmental Services

November 9, 1992

F241.01

Mr. Thomas Gram
5800 Shellmound, Suite 210
Emeryville, California 94608

**PROPOSED SCOPE OF WORK AND FEE ESTIMATE
PRODUCT REMOVAL AND WATER-LEVEL INVESTIGATION
POWELL STREET PLAZA AND SHELLMOUND III SITES
EMERYVILLE, CALIFORNIA**

Dear Tom:

This letter presents PES Environmental Inc.'s (PES) proposal to conduct a free-phase hydrocarbon product removal program and water-level investigation at the Powell Street Plaza site (formerly the Pacific Intermountain Express [P.I.E.] Trucking facility) and the Shellmound III site located on Shellmound Street in Emeryville, California. This proposal has been prepared in response to our telephone conversation of October 20, 1992. PES understands that wish to initiate a program to remove accessible product from monitoring wells at the two sites. PES also understands that you have requested a review of the site history related to remedial activities.

BACKGROUND

Monitoring Wells MW-1 through MW-18 were installed by Alton Geoscience, Inc. in 1988 for the P.I.E. parties for investigation of groundwater conditions related to the P.I.E. site. Monitoring Wells MW-8, MW-9, and MW-10 are located in the Shellmound Street right-of-way and Monitoring Wells MW-16, MW-17, and MW-18 are located on the Shellmound III site. The remaining P.I.E. monitoring wells are located within the P.I.E. site boundary. Monitoring Well MW-17 is no longer accessible. Monitoring Wells MG-1, MG-2, MG-3, MG-4 and MG-7 and piezometer PZ-1 are located on the Shellmound III site and were installed by Tenera in 1989 (Wells MG-1, MG-2, MG-3, MG-4) and PES in 1991 (Wells MG-7 and PZ-1) to investigate groundwater conditions at that site.

Water-level and product thickness measurements have been collected sporadically since April 1988 and June 1989 for the P.I.E. and Shellmound III sites, respectively. However, there has been no regular monitoring of product at the two sites; P.I.E. was last checked in May, 1990 and Shellmound III was last monitored in July, 1992.

Water-level elevations for the two sites have ranged from approximately 0.5 to 2.9 feet above mean sea level (MSL) and the groundwater flow directions have generally been toward the south. Product has been measured in Wells MW-7, MW-3, MG-1 and MG-3. Product thickness in these wells have ranged from approximately 0.2 to 1.4 feet. Product has also been reported in Well MW-1 (no measurement reported) and a hydrocarbon sheen has been reported in Well MW-2 and piezometer PZ-1. Water-level and product thickness fluctuation related to tidal cycle has been suggested by Alton Geoscience; however, this has not yet been properly documented.

Because: (1) no current information exists on the amount, if any, of recoverable product in the wells; and (2) capital costs for obtaining product recovery equipment and electrical power to operate the equipment can be significant, PES recommends a phased approach to accomplishing the objective. During the initial phase, product will be recovered manually from the wells. Information will be collected during the Phase I period to evaluate the cost-effectiveness of obtaining and operating automated product recovery equipment. PES therefore recommends that the project proceed by: (1) conducting initial product removal by manual bailing in conjunction with water-level and product thickness measurements for a period of four weeks; and (2) evaluate the results of Phase I to assess the effects of tidal cycle on product thickness and recovery, to estimate the potential volume of recoverable product, and to design an semi-automated product recovery program. The semi-automated program would likely involve the lease or purchase of a product recovery pump and product storage system that could be periodically moved from well to well.

SCOPE OF WORK

PES proposes to conduct the following tasks as part of Phase I.

Task 1 - Site History Review

To address questions about past soil remediation activities at the site, PES will review reports and documents which you will provide. The history of site activities will be summarized in a letter report with the results of Tasks 2 and 3.

Task 2 - Water-Level and Product Measurements

Water-levels and product thickness measurements will be collected over several tidal cycles to assess whether the tidal fluctuation has an effect on water-level elevations and/or product thickness in monitoring wells. Measurements will be collected twice a week for four weeks.

Water-levels and product thickness will be measured in wells on the two sites. An interface probe will be used to measure depth to the water/air interface in wells with no product, and the water/product and product/air interfaces in wells with product. Water-level elevations will be referenced to mean sea level and tied to an existing benchmark for comparison with previous data. If product is present, the corrected water-level elevations will be determined in the field using a capped piezometer which will be lowered into wells containing product. Once the bottom of the piezometer extends below the water/product interface, the bottom cap will be dislodged allowing only water to enter the piezometer. The water/air interface within the piezometer will then be measured using an electrical sounder and will reflect the water-level elevation without the effect of the product.

Task 3 - Manual Product Removal by Bailing

Product will be removed from monitoring wells where product is present by manual bailing during each site visit once water levels and product thickness measurements have been collected. Using a stainless steel bailer, the product will be carefully bailed to minimize disturbance of the product and minimize the removal of water. The product will be contained in a 55-gallon drum stored at the bermed former biotreatment compound on the P.I.E. sits. A section of temporary fencing will be chained and padlocked across the compound entrance to reduce the likelihood of access by the public. Product will be recycled at an appropriate oil recycling facility once an adequate volume of product (approximately 500 gallons) has been collected to make transportation to the recycling facility cost effective. PES estimates that approximately 100 gallons of product may be recovered during this initial task and therefore the cost for product recycling will be included in the full scale product recovery program (Phase II).

Task 4 - Data Evaluation and Product Recovery Program Design

The results of the Phase I investigation will be interpreted and presented in a letter report. The report will include site history, a site map, tabulation of water-level and product thickness measurements and product volumes removed per well, assessment of local

groundwater flow and tidal influence, and an evaluation of product recovery program options. Recommendations will be provided including the advisability of implementing a full-scale recovery program and a cost estimate for the program including our best estimate of the time necessary to complete such a program. The advisability of the program will depend on the amount of accessible product along with a cost estimate for implementing a full-scale product recovery program.

FEE ESTIMATE

PES will perform its service on a time and expense basis according to the attached Service Agreement, General Conditions and Schedule of Charges. Our estimated fee for conducting the Phase I of the Scope of Work is provided below on a task-by-task basis.

PHASE I

Task 1	Site History Review	$ 600
Task 2	Water-Level and Product Thickness Measurement	3,050
Task 3	Manual Product Removal by Bailing	2,800
Task 4	Data Evaluation and Product Recovery Program Design	500
	Total	$ 6,950

A budgetary cost estimate for a hypothetical Phase II program is provided here for planning purposes using the assumption that a mobile product recovery pump is purchased and operated on a rotating basis with a weekly interval in monitoring wells with product present.

PHASE II (Budgetary Estimate Only)

System Design and Permitting	$ 2,000
Capital Costs for Product Recovery Equipment	7,000
System Installation and Startup *	2,500
Monthly Operation, Maintenance, and Reporting	4,000/month
Product Recycling (500 gallons)	800

* Does not include electrical hookup

SCHEDULE

PES will initiate the Phase I scope of work within two weeks after receiving written authorization to proceed. Tasks 1, 2, and 3 will be completed in four weeks. PES will prepare a draft report for your review and comments within the fifth week. PES will then finalize the report within two days after receiving your comments. Therefore, Phase I of the project will take 5 to 6 weeks to complete. Upon your concurrence with an appropriate Phase II program, it can be initiated within two weeks of authorization. If this schedule is not acceptable, please let us know so that we can accommodate your needs.

We appreciate the opportunity to assist you on this project and we trust that this is the information you need at this time. If you wish to have us proceed with the work, please call and we will prepare a Service Agreement for the project. Please do not hesitate to call should you have any questions or require additional information.

Yours very truly,

PES ENVIRONMENTAL, INC.

John D. Skalbeck, C.E.G.
Senior Hydrogeologist

Robert S. Creps, P.E.
Associate Engineer

24191001.ws1

MORRISON & FOERSTER

LOS ANGELES
SACRAMENTO
ORANGE COUNTY
PALO ALTO
WALNUT CREEK
SEATTLE

ATTORNEYS AT LAW

345 CALIFORNIA STREET
SAN FRANCISCO, CA 94104-2675
TELEPHONE (415) 677-7000
TELEFACSIMILE (415) 677-7522
TELEX 34-0154 MRSN FOERS SFO

NEW YORK
WASHINGTON, D.C.
DENVER
LONDON
BRUSSELS
HONG KONG
TOKYO

June 15, 1993

DIRECT DIAL NUMBER
(415) 677-7117

BY FEDERAL EXPRESS

Mr. Thomas J. Gram
c/o East Bay Park Company
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

BY CERTIFIED MAIL -- RETURN RECEIPT REQUESTED

Martin-Eastshore
c/o The Martin Group
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

Emeryville Terranomics
455 Northpoint
San Francisco, CA 94133

Mr. Edmund B. Taylor, Jr.
c/o Mr. Thomas J. Gram
c/o East Bay Park Company
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

Mr. Merrit Sher
529 P.O. Box 529
Ross, CA 94957

East Bay Park Company
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

Mr. J. David Martin
c/o Mr. Thomas J. Gram
c/o East Bay Park Company
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

Mr. Walter Kaczmarek
c/o Mr. Thomas J. Gram
c/o East Bay Park Company
5800 Shellmond St., Suite 210
Emeryville, CA 94608-1962

Mr. Barry Culbertson
455 Northpoint
San Francisco, CA 94133

Re: Emeryville Powell Street Plaza;
Demand by Ætna Real Estate
Associates, L.P. for Indemnification
With Respect to Requirements Imposed
by Alameda County Department of
Environmental Health

Dear Sirs:

Pursuant to Sections 14.01, 14.02 and 15.21 of the Purchase and Sale Agreement for the Powell Street Plaza between Eastshore Partners ("Eastshore") and Ætna Real

Estate Associates, L.P. ("Ætna") (the "Agreement"), which was guaranteed by certain individuals (the "Individual Indemnitors") pursuant to Sections 1.01, 14.02, and 15.21 of the Agreement, Ætna hereby tenders to Eastshore's general partners and the Individual Indemnitors a letter dated June 4, 1993 sent to Aetna by the Alameda County Department of Environmental Health, Hazardous Materials Division ("DEH"), requiring Ætna to investigate and clean up environmental contamination at and in the vicinity of the Powell Street Plaza property. The DEH letter is enclosed herewith as Exhibit 1. (Although the letter is dated June 4, 1993, it was not postmarked until June 10, 1993. A copy of the envelope is also enclosed.)

Under Section 14.02 of the Agreement, Eastshore's general partners and the Individual Indemnitors are obligated to "indemnify, defend and hold [Ætna] harmless . . . from and against any and all liabilities, losses, claims, damages, costs and expenses (including, without limitation, reasonable attorneys' fees) incurred . . . as a result of any inaccuracy in any of the representations and warranties contained in Section 14.01."

In Section 14.01(s)(i), Eastshore and the Individual Indemnitors warranted that:

> No contamination relating to the Prior Harmful Use that . . . is in violation of any Environmental Law . . . will remain on, under or about the Property (including, without limitation, the soil and ground water) or any other property in the vicinity of the Property (where the source of contamination on the other property is attributable to contamination of the Property) . . .
>
> . . .
>
> . . . Seller and the Indemnitors shall indemnify and hold Buyer harmless from and against any and all loss, cost, damage, liability and expense (including without limitation attorneys' fees and costs) arising from. . . . the failure, for any reason, of the Property and any other property in the vicinity of the Property (where the source of the contamination on the other property is attributable to contamination of the Property) to be cleaned up or remediation

> measures to be completed in relation to the Prior Harmful Use in accordance with the Clean-up Contract and in compliance with all Environmental Laws . . . .

Under these provisions, Eastshore's general partners and the Individual Indemnitors are obligated to indemnify Ætna for any damages arising out the failure, for any reason, of the Powell Street Plaza to be cleaned up, including any liability arising from contamination that has allegedly migrated from the Powell Street Plaza onto other property in the vicinity of the Powell Street Plaza.

In addition to the indemnity provisions found in Sections 14.01 and 14.02, Eastshore's general partners and the Individual Indemnitors are obligated under Section 15.21 to "indemnify and hold [Ætna] harmless from . . . any and all liability or loss, including reasonable attorney's fees and costs, arising out of or in connection with the Property before the Closing Date." Because any alleged contamination existed before the Closing Date, Eastshore's general partners and the Individual Indemnitors are also obligated under Section 15.21 to indemnify Ætna from any and all liability or loss arising therefrom.

Under these provisions, Eastshore's general partners and the Individual Indemnitors are obligated to respond to the demands contained in the DEH letter by undertaking any and all actions necessary to decontaminate the "Property and any other property in the vicinity of the Property." Agreement Section 14.01(s)(i). Failure by Eastshore's general partners and/or the Individual Indemnitors to take appropriate action and to respond to the conditions alleged in the DEH letter will be considered by Ætna as a material breach of the Agreement. Ætna expects Eastshore's general partners and the Individual Indemnitors to fulfill their contractual indemnification obligations and to attend to this matter without delay.

Specifically, and without limitation, Ætna hereby demands that Eastshore's general partners and the Individual Indemnitors supply DEH, by no later than July 19, 1993 as required by the DEH letter, with a workplan to delineate the vertical and lateral extent of the contamination plume. The DEH letter also requires a response by that same date to a number of questions posed by the agency regarding the history and status of prior cleanup efforts at the site. Because those efforts were under Eastshore's control, and not Ætna's, Ætna expects you to supply DEH with the requested information.

In addition, DEH has demanded that Ætna institute quarterly monitoring of groundwater wells; recover free product; submit quarterly reports to DEH; and submit a remedial plan, including a time schedule for implementation. Ætna expects you to supply DEH by July 19, 1993 with a statement of your proposals to comply with these requirements.

Because DEH is looking to Ætna in the first instance, Ætna hereby demands that you supply it with a draft of your response to DEH by no later than July 2, 1993, so that Ætna may review it for adequacy. Please also be advised that Ætna may be at risk for civil and criminal penalties for any failure to comply with the DEH demand. See, e.g., Water Code Section 13268. Accordingly, Ætna requires your immediate confirmation that you accept responsibility for compliance with the DEH demand. More specifically, Ætna expects to receive your written, unequivocal acceptance of this tender by no later than June 21, 1993. If Ætna does not receive an acceptance by that date, Ætna will retain the necessary consultants itself and submit the requested reports and plans to DEH directly. In that event, Ætna will hold you responsible for its costs pursuant to the Agreement.

As you know, Ætna has executed a tolling agreement precluding litigation that may be terminated on fifteen days notice. Unless you can satisfy Ætna that you will take all necessary steps to satisfy the DEH demand and hold Ætna harmless from any and all liability, Ætna intends to terminate the tolling agreement and file suit.

Very truly yours,

Barry S. Sandals

Barry S. Sandals
bsh

Enclosures
cc: David Cooke, Esq. (by hand delivery) (w/encls.)
Susan Hugo, Alameda County Health Agency (w/encls.)
Richard C. Hiett, Regional Water Quality Control Board (w/encls.)
Rafat A. Shahid, Asst. Agency Director, Environmental Health (w/encls.)
Gil Jensen, Alameda County District Attorney's Office (w/encls.)
Edgar B. Howell, Chief, Hazardous Materials Division (w/encls.)

bcc: Jeffery Berry
Maria Burgi
Tom Bloomfield

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY

Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621

Barry Sandals
Morrison & Foerster
345 California Street
San Francisco, CA 94104-2675

Exhibit 1

June 4, 1993
STID# 1184

Ms. Maria Burgi
Investment Officer
Aetna Realty Investors, Inc.
1740 Technology Drive, Suite 600
San Jose, California 95110

RE: Status of the Soil and Groundwater Investigation/Remediation at Former P.I.E. Freight Terminal Site 5500 Eastshore Highway, Emeryville, California 94608

Dear Ms. Burgi:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the files concerning the soil and groundwater investigation/remediation at the referenced site. Eight underground storage tanks were removed at the site between July, 1986 thru November, 1986 (2 - 10,000 gallons diesel tanks; 1 - 10,000 gallons gasoline tank; 1 - unknown capacity waste oil tank; 1 unknown capacity motor oil tank; 3 unknown capacity waste oil/grease tanks). We are in receipt of the following reports:

* Results of Soil Sample Analyses During UGTs Removal dated 8/11/86 and submitted by Blymer Engineers, Inc.
* Soil and Groundwater Testing dated 8/15/86 and prepared by Peter Kaldveer and Asso.
* P.I.E. Soil Remediation prepared by Groundwater Technology and submitted under Blymyer Engineers' cover letter dated 9/16/86
* Subsurface Assessment Report (9/5/86) prepared by Groundwater Technology and submitted under Blymer Engineers' cover letter dated 9/16/86
* Soil Quality Assessment (1/28/87) prepared by Geomatrix and submitted under The Martin Company's cover letter 2/3/87
* Analytical Results (Stockpiled Soil Sampling) submitted by Blymer Engineers
* Proposal for In-Situ Site Remediation of Soil and Groundwater Hydrocarbon Contamination by Augmented Bioreclamation Using Laboratory Selected Bacterial Culture (July 29, 1987) prepared by Cyto Culture
* Report on Additional Site Characterization Studies at P.I.E. Nationwide Property (April 28, 1988) prepared by Alton Geoscience and submitted under Cyto Culture's cover letter 6/15/88
* Phase II Report on Hydrogeology and Site Characterization Studies (6/3/88) submitted under Cyto Culture's cover letter 8/3/88

* Waste Discharge Permit (Groundwater Treatment), Second Monthly Report of Treatment & Discharge Operation for May 1989 prepared by Cyto Culture and dated June 13, 1989
* Fourth Monthly Report of Treatment & Discharge Operation for June 1989 prepared by Cyto Culture and dated July 17, 1989
* Additional Subsurface Investigative Work (July 7, 1989) prepared by Blymer Engineers, Inc.
* Fifth Monthly Report of Treatment & Discharge Operations for July 1989 prepared by Cyto Culture and dated August 1989
* Sixth Monthly Report of Treatment & Discharge Operations for August 1989 prepared by Cyto Culture & dated September 1989
* Seventh Monthly Report of Treatment and Discharge Operations for September 1989 prepared by Cyto Culture and dated October 1989
* Ninth Monthly Report of Treatment & Discharge Operations for November 1989 prepared by Cyto Culture & dated December 15, 1989
* Tenth Monthly Report of Treatment & Discharge Operations for December 1989 prepared by Cyto Culture & dated January 15, 1990
* Correspondence dated March 22, 1990 from Cyto Culture regarding Site Plan of P.I.E.'s present and proposed reinfiltration plan

Based upon the review process of all the reports submitted to this office for the referenced site, the following issues needed clarification and must be addressed:

1) Please clarify the status of the **in-situ remediation of soil and groundwater contamination by Augmented Bioreclamation** as proposed by Cyto Culture (July 29, 1987) for the referenced site. Has the proposed **reinfiltration plan** been implemented ? Is the remediation system currently running ? If not, what is the rationale behind the **termination** of the remediation treatment system ?

2) It appears that the extent of the soil and groundwater contamination at the site remains **undefined.** A workplan to delineate the vertical and lateral extent of the plume must be submitted to this office **no later than July 19, 1993.**

3) Free floating product had been detected in MW-3, MW-4, MW-7, and MW-15. Please clarify the total volume of free floating product recovered from the extraction trenches located south and west of the referenced site to date. Free Floating product must be measured in all the wells using an optical probe or a comparable instrument capable of

measuring free product to 0.01 foot. These data must be incorporated in your quarterly report. Free product must be recovered in all the wells on a regular basis. Free product removal must comply with the California Code of Regulations, Title 23, Section 2655.

4) A total of 18 monitoring wells (12 on-site and 6 off-site) had been installed since 1986. It appears that **monitoring of the wells has not been conducted since their installation in 1988. Quarterly monitoring is the maximum sampling interval** typically allowed when groundwater contamination is present as per Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites (August 10, 1990). **Quarterly sampling of all the monitoring wells must be implemented in a timely fashion** because of the extent of groundwater contamination at the site. Groundwater samples must be analyzed for target (TPH as gasoline, TPH as diesel, oil & grease, BTEX, lead, chromium, nickel, zinc, cadmium, chlorinated hydrocarbons and semivolatile organics, etc.). Groundwater elevation readings must be incorporated in the quarterly monitoring program and verified groundwater flow direction must be established at the site.

5) Please clarify the stockpiled soil disposition. Documentation of the stockpiled soil disposal must be submitted to this office.

6) Please provide this office with copies of the tank disposal records (manifests).

7) Permits from other regulatory agencies which are applicable to the investigation/remediation activities at the site must be followed.

8) With regards to the groundwater extraction system installed at the site, please provide this office with the following items:
   - detailed systems engineering drawings
   - equipment cut sheets
   - operational flow diagrams
   - rationales to substantiate the selection of the location of the extraction wells
   - monitoring plan to determine the effectiveness of the treatment system
   - contingency plan for system breakdown
   - estimate duration of the pump and treat operation

9) A remedial plan must be implemented and a time schedule for plan implementation must be submitted to this office. In addition, please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

Response to the items mentioned above must be provided to this office **no later than July 19, 1993.**

Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or work plan:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or work plan
- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels
- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports and proposals must also be submitted to :

Rich Hiett
RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, California 94612

Because we are overseeing this site under the designated authority of the Regional Water Quality Control Board, this letter constitutes a formal requests for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the work plan must be confirmed in writing and approved by this agency or RWQCB.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rafat A. Shahid, Asst. Agency Director, Environmental Health
Rich Hiett, San Francisco Bay RWQCB
Gil Jensen, Alameda County District Attorney's Office
Edgar B. Howell, Chief, Hazardous Materials Division - files
[redacted] Morrison & Foerster - 345 California St.
San Francisco, CA 94104-2675
David Martin, The Martin Group - 6475 Christie Ave., Suite 500
Emeryville, CA 94608