

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



0570-02

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

May 9, 2002

Mr. Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

Re: Fuel Leak Case RO0000056, 3810 Broadway, Oakland CA 94607

Dear Ms. Petryna:

This letter formally approves the scope of work described in the August 8, 2001 Toxichem Quarterly Monitoring Report- Second Quarter 2001. This work includes the proper closure of MW-5 and the replacement of this well in the same general location and the installation of a replacement well for MW-3 and MW-8 within the former excavation pit. Since the replacement well for MW-5 will be located next to the former well, no vadose soil samples need to be analyzed unless field screen results indicate significant contamination.

Please notify our office prior to performing this work. You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. T. Del Frate, Delta Environmental Consultants, 3164 Gold Camp Drive, Suite
200, Rancho Cordova, CA 95670

Mr. Joe Zadik, 8255 San Leandro St., Oakland CA 94621

Wpap3810Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



03-30-07

2056

March 29, 2001
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 7869
Burbank, CA 91510-7869

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
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Re: Former Texaco Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

This letter serves to comment on the January 29, 2001 Quarterly Monitoring Report for the above referenced site. Our office has the following comments and concerns:

- Because of the damage/blockage experienced in monitoring well MW-5, you should properly close this well since it appears that it can not be rehabilitated. Please comment on whether you believe a replacement well is needed.
- Past reports have also mentioned the installation of replacement wells for MW-3 and MW-8. Please comment on status of these wells. As mentioned in my December 13, 2000 letter, there is a need to determine groundwater concentrations within the former excavation area. This is necessary to estimate health risk and determine if a contaminant source remains. Either replacement well(s) or a rehabilitated piping system can be used for this purpose.
- Please clarify whether any sampling can be done from the piping array installed in the tank excavation pit. Please illustrate the nature of the damage or impairment to the piping array.
- Please prepare a groundwater contour map for the site. This should not be eliminated even when a flat gradient is observed as was the case this monitoring event.

In regards to the recommendations in this report, resumption of MTBE analysis will allow the detection of new releases as opposed to the old releases where MTBE is absent. The removal of groundwater from MW-6 may be an interim measure if the majority of the contamination remains within the excavation pit. It is important to know the mass of the release to estimate the effectiveness of this remediation. However, our office has no objections to these recommendations.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxicchem Management Systems, Inc., 1562 44th Ave., San Francisco,
CA 94122

Mr. Joe Zadik, 8255 San Leandro St., Oakland CA 94621

com3810Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



12-14-00

R056

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

December 13, 2000
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 7869
Burbank, CA 91510-7869

Re: Former Texaco Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

This letter serves to comment on the November 20, 2000 Toxichem Third Quarter 2000 monitoring report for the above referenced site. As you are aware, much of the site was affected by the recent construction activities by the current property owner at this site. A number of wells were damaged and the footing for the new canopy has impaired the use of the remediation piping installed within the former excavated pit. The three damaged wells were scheduled for repair and will be resurveyed, however, the use of the piping array for treatment or sampling is in question.

The piping was installed with the purpose of adding supplements, extracting groundwater and sampling. Horizontal and vertical slotted piping was placed in the area of the former dispenser islands, within the most impacted area. Although the affect of the removal of soil and groundwater contamination and the addition of oxygen releasing compound can be observed in down-gradient wells, no information of groundwater concentration within the heart of the plume is now available. Therefore, prior to site closure, you will be required to verify groundwater conditions within the excavation pit area. If concentrations in the down-gradient wells remain high, you may decide to either repair or replace the treatment piping, since additional remediation may be necessary.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxichem Management Systems, 152 44th Ave., San Francisco, CA 94122

2-3810Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



SENT 6-15-2000

R056

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

June 15, 2000
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 7869
Burbank, CA 91510-7869

Re: Soil Excavation Report for Former Texaco Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

Our office has received and reviewed the June 5, 2000 Soil Excavation Report for the above referenced site as prepared by Toxichem Management Systems, Inc. (Toxichem). As you are aware, this report details the performance of your previously approved work plan, which included significant soil excavation, the installation of vertical and horizontal piping, the removal of contaminated groundwater and the addition of oxygen releasing compound (ORC) into the excavation pit.

A significant amount of soil was excavated to extent possible given the need to install shoring. Additional contaminated soil was excavated when the property owner installed their new tanks. Our office, therefore, concurs with your consultant's conclusion that no further soil excavation is necessary.

I have also discussed with Mr. Keith Winemiller Toxichem's request regarding the replacement wells of MW3 and MW8, destroyed during the excavation and their desire not to replace MW-2, destroyed during the installation of the new tanks. Our office agrees that there is no need to replace MW-2. In addition, there is no need to replace MW3 and MW8 since replacement wells would be located near the former excavated pit and not provide any additional information. However, our office does believe that another monitoring well is necessary to delineate the contaminant plume south of MW-6, which continues to have elevated TPH and BTEX levels. Therefore, please have your consultant provide a figure indicating the location of this well and a description of the soil and groundwater sampling, which will be performed. As recommended by Toxichem, our office agrees, a new work plan is not necessary. Please also sample groundwater from the vertical piping installed within the excavation pit after purging. This sample will give useful information regarding groundwater quality and the potential need to add supplements to enhance bio-remediation.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxichem Management Systems, 1562 44th Ave. San Francisco, CA 94122

3810 Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



SENT 9-29-99
K. PETRYNA
K. WINEMILLER

ROSb

ENVIRONMENTAL HEALTH SERVICES

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

September 27, 1999
StID # 435

Mr. Karen Petryna
Equiva Sevices LLC
P.O. Box 6249
Carson, CA 90749-6249

Re: Former Texaco Service Station, 3810 Broadway, Oakland, CA 94611

Dear Ms. Petryna:

Our office has received and reviewed the August 30, 1999 Second Quarter 1999 monitoring report for the above site as prepared by Toxichem, your consultant. Groundwater concentrations appear consistent with prior results, with separate phase hydrocarbons being detected in MW-3 and MW-8. Our office concurs with your consultant's recommendations:

- Implement a free product removal program from wells MW-3 and MW-8. This may be done by a regular bailing program or the installation of an automated skimmer.
- Begin measuring natural bio-degradation parameters including dissolved oxygen, oxidation-reduction potential, nitrate, sulfates and ferrous iron. Please include an interpretation of these parameters in your monitoring report.
- Implement the previously approved soil excavation program at the site. The monitoring report states that this will occur in either October or November of this year. Please be reminded that the work plan also called for the addition of oxygen-releasing compound into the capillary zone, the installation of piping for potential extraction purposes and the removal of groundwater, if present. Please notify our office prior to this work so we can be present for any confirmation soil sampling.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxichem Management Systems, Inc., 1562 44th Ave., San Francisco,
CA 94122

2-3810 Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARS, Agency Director

RO 56

August 17, 1999
StID # 435

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

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

**Re: Work Plan Addendum for Soil Excavation at Former Texaco Service Station, 3810
Broadway, Oakland CA 94611**

Dear Ms. Petryna:

Our office has received and reviewed the August 10, 1999 letter work plan addendum for the above site as prepared by Toxicchem Management Systems, Inc. (Toxicchem). This work plan responds to items in my June 17, 1999 letter. Specifically, the following items are clarified:

- Toxicchem will install two additional wells to replace wells MW-3 and MW-8, which will be destroyed or properly decommissioned during the proposed soil excavation. Please confirm the location of the replacement wells after the excavation and backfilling activities.
- The presumed "clean" excavated soil, those soils between ground surface and 8' bgs, will be analyzed as a four point composite from four cells made from approximately 100 cubic yards of soil. The soil will be deemed re-useable if the composite sample does not exceed the proposed reuse numbers generated from Toxicchem's discussion with Mr. Chuck Headlee of the Water Board. The following soil reuse concentrations for this site are acceptable:

TPPH	100 mg/kg
TEPH	100 mg/kg
BTEX(total)	1 mg/kg
Benzene	0.3 mg/kg
MtBE	<0.01 mg/kg

Please observe the additional requests within my June 17, 1999 letter and contact our office to observe the confirmation soil sampling.

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

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxicchem, 1562 44th Ave., San Francisco, CA 94122
Mr. J. Zadik, 8255 San Leandro St., Oakland CA 94621
Wpadd3810

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



Rosb

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

June 17, 1999
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 6249
Carson, CA 90749-6249

**Re: Work Plan for Soil Excavation at Former Texaco Service Station, 3810 Broadway,
Oakland, CA 94611**

Dear Ms. Petryna:

Our office has received and reviewed the **May 20, 1999 Work Plan for Soil Excavation** for the above referenced site as prepared by your consultant, Toxicchem Management Systems, Inc. (Toxicchem). This work plan follows up the **November 1998 Corrective Action Plan** from Toxicchem, which evaluated other remediation approaches and decided on the excavation approach. The work plan gives further details of the proposed excavation and responds to comments in my February 4, 1999 letter wherein I approved the CAP with a few conditions.

The soil excavation work plan includes the following elements:

- Monitoring wells MW-3 and MW-8 will be properly abandoned since they are located within the excavation limits;
- Excavation of soils to the revised risk based concentrations (RBCs) mentioned in Toxicchem's April 29, 1999 letter will be performed. The anticipated shallow clean material, from surface to approximately 8'bgs, will be segregated for possible reuse while the deeper impacted soils will be profiled for off-site disposal.
- After excavation, confirmation soil samples will be taken every 20 linear feet along the base wall of the excavation. These samples will be analyzed for Total Purgeable and Total Extractable Hydrocarbons, BTEX and MTBE. These same sample locations will also be tested in the field using a PID instrument.
- If groundwater is encountered during the excavation, particularly in the area of MW-3, it will be removed as much as possible and an estimate made of the amount of petroleum removed.
- Vertical PVC casing and horizontal slotted piping will be installed within the excavation for the possible future injection of supplements for enhanced bio-remediation or for the extraction of groundwater.
- Oxygen releasing compound (ORC) will be added as a powder in the saturated zone along with the backfill to increase dissolved oxygen content in groundwater.

Ms. K. Petryna
StID # 435
3810 Broadway, Oakland
June 17, 1999
Page 2.

Our office approves this work plan with following conditions:

- Please provide a work plan to compensate for the destruction of monitoring wells 3 & 8.
- Please clarify how the assumed "clean" excavated soil will be tested to justify its reuse onsite. How many samples will be collected and from what locations and depths?
- The soil RBC values for cleanup should not be used for soil reuse values since you have not evaluated the exposure pathway, soil-leachate to protect groundwater ingestion. As a "rule of thumb", a total BTEX concentration of less than 1ppm in soil has informally been used as protective of groundwater. The disturbance of the subsurface from this excavation would likely increase the permeability of the soil and the risk of soil leachate migration. The RBC values do not consider TPPH or TEPH, which is not protective of potentially potable water. Lastly, the elevated soil RBC for MTBE would likely result in a groundwater concentration in excess of the MCLs being considered for this compound. For these reasons, please provide alternative soil reuse concentrations and a justification for them.
- Please confirm the highest soil sample MTBE reading using an GC/MS method, modified 8240 or 8260.
- Upon completion of activities, please provide our office with a copy of the diagram for the final piping configuration.
- Please incorporate the analysis of the natural bio-degradation parameters; dissolved oxygen, oxidation-reduction potential, nitrates, sulfates and ferrous iron in your future monitoring events. Your evaluation of these parameters should be reflected in a proposal to add any deficient supplements.
- Please contact our office prior to this proposed work so someone from our office may be present to witness the confirmation samples.

It was noticed that your first quarter 1999 groundwater monitoring report was missing an interpretation of the results and a recommendation and schedule for future actions. Please insure that your future monitoring reports include such components.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. K. Winemiller, Toxicchem Management Systems, Inc., 1562 44th Ave., San Francisco,
CA, 94122

Mr. J. Zadik, 8255 San Leandro St., Oakland CA 94621
Wpap3810

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



Rosb

May 26, 1999

STID #435

Ms. Karen Petryna
Equiva Services LLC
P.O. 6249
Carson, CA 90749-6249

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

RE: Former Texaco Service Station, 3810 Broadway, Oakland CA 94611

LANDOWNER NOTIFICATION AND PARTICIPATION REQUIREMENTS

Dear Ms. Petryna:

This letter is to inform you of new legislative requirements pertaining to cleanup and closure of sites where an unauthorized release of hazardous substance, including petroleum, has occurred from an underground storage tank (UST). Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code requires the primary or active responsible party to notify all current record owners of fee title to the site of: 1) a site cleanup proposal, 2) a site closure proposal, 3) a local agency intention to make a determination that no further action is required, and 4) a local agency intention to issue a closure letter. Section 25297.15(b) requires the local agency to take all reasonable steps to accommodate responsible landowners' participation in the cleanup or site closure process and to consider their input and recommendations.

Please comply with these requirements so our office may proceed in evaluating your proposal for site remediation ie soil excavation.

For purposes of implementing these sections, you have been identified as the primary or active responsible party. Please provide to this agency, within twenty (20) calendar days of receipt of this notice, a complete mailing list of all current record owners of fee title to the site. You may use the enclosed "list of landowners" form (sample letter 2) as a template to comply with this requirement. If the list of current record owners of fee title to the site changes, you must notify the local agency of the change within 20 calendar days from when you are notified of the change.

If you are the sole landowner, please indicate that on the landowner list form. The following notice requirements do not apply to responsible parties who are the sole landowner for the site.

LANDOWNER NOTIFICATION

Re: 3810 Broadway, Oakland CA 94611

May 26, 1999

Page 2 of 2

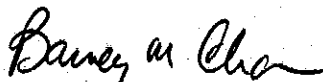
In accordance with Section 25297.15(a) of Ch. 6.7 of the Health & Safety Code, you must certify to the local agency that all current record owners of fee title to the site have been informed of the proposed action before the local agency may do any of the following:

- 1) consider a cleanup proposal (corrective action plan)
- 2) consider a site closure proposal
- 3) make a determination that no further action is required
- 4) issue a closure letter

You may use the enclosed "notice of proposed action" form (sample letter 3) as a template to comply with this requirement. Before approving a cleanup proposal or site closure proposal, determining that no further action is required, or issuing a closure letter, the local agency will take all reasonable steps necessary to accommodate responsible landowner participation in the cleanup and site closure process and will consider all input and recommendations from any responsible landowner.

Please call me at (510) 567-6765 should you have any questions about the content of this letter.

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Attachments

cc: Chuck Headlee, RWQCB

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO# 56

February 4, 1999
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O.Box 8080
Martinez, CA 94553

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

Re: Former Texaco Service Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

This letter is to inform you that our office has received and reviewed the documents previously requested in my January 5, 1999 letter. During the transfer of this site from Mr. Peacock of this office to myself, the reports; monitoring and Corrective Action Plan (CAP), were sent to Mr. Peacock's attention. Since then, I have been given the reports and have spoken with Mr. Dan Hernandez of Toxichem Management Systems about their contents.

As you are aware, the CAP report also included the results of six borings advanced at the site during July 1998, the sampling of borings for specific parameters for the ASTM risk assessment, and an evaluation of a number of remedial alternatives. These values were used to come up with risk based clean-up levels (RBC) for soil, groundwater and vapor for the constituents of concern (benzene, toluene, ethyl benzene, xylenes and MTBE). Both soil and groundwater RBC were exceeded. Currently, the risk assessment and the RBC is being evaluated by our risk assessor. Although there may be some change in the final RBC, the CAP is still valid and necessary.

The CAP evaluated four remedial alternatives; excavation and aeration/disposal, soil vapor extraction, bio-venting/air injection and intrinsic remediation. Please note the other technologies mentioned; thermal oxidation, carbon/resin adsorption, remediation monitoring and institutional control are not independent remedial approaches. They supplement and may be an essential part of the remedial alternatives. Remediation monitoring and institutional control will be required for this site, regardless of the remedial alternative selected. Bioventing/air injection can be eliminated because this alternative does not treat soils in the capillary fringe and the saturated zone, where the majority of the contamination exists at this site. Intrinsic (natural) remediation has not been shown to be effective since existing contaminant levels continue to exceed the RBC. The efficacy of soil vapor extraction is expected to be less as the amount of fine-grained sediment increases. In addition, there is a limited amount of porous soils at this site which would impair this remedial approach. This remedial process would be anticipated to take several years, after which, groundwater monitoring would be required. Based on economic and time constraint reasons, excavation was recommended by your consultant.

Our office recognizes the immediate effectiveness of soil removal, however, we feel that soil excavation alone may not be sufficient to remediate the site. Because of the non-uniform nature of soil and contamination distribution, it is not possible to remove all contaminated soils. We are aware of the desire to install new underground tanks at the site where excavation will be required for the tank pit. This excavation of soil would facilitate future tank installation.

Ms. K. Petryna
StID # 435
3810 Broadway , Oakland CA 94611
February 2, 1999
Page 2.

Under these conditions, our office approves the proposed CAP with the following additional requirements:

- During the excavation it is assumed that groundwater removal will be required to allow the excavation of saturated contaminated soils. Please consider the removal of as much groundwater as possible to remove additional dissolved contamination.
- While the excavation pits are open, please consider the addition of supplements to enhance natural bio-degradation. These supplements may include oxygen releasing compounds and nutrients.
- You are also encouraged to install any piping or casings for future addition of supplements or removal of contaminants.

Please submit a specific work plan describing the expected limits of your excavation. The work plan should include a confirmation soil and groundwater sampling plan, a stockpile sampling plan, a groundwater disposal plan, a work plan schedule and a section to address the above items.

Please submit your work plan to our office **within 45 days or by March 19, 1999.**

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. D. Hernandez, Toxicchem Management Systems, Inc., 1461 Newport Ave.,
San Jose, CA 95125

CAPap3810

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



Ro# 56

February 4, 1999
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O.Box 6249
Carson CA 90749-6249

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

Re: Former Texaco Service Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

This letter is to inform you that our office has received and reviewed the documents previously requested in my January 5, 1999 letter. During the transfer of this site from Mr. Peacock of this office to myself, the reports; monitoring and Corrective Action Plan (CAP), were sent to Mr. Peacock's attention. Since then, I have been given the reports and have spoken with Mr. Dan Hernandez of Toxichem Management Systems about their contents.

As you are aware, the CAP report also included the results of six borings advanced at the site during July 1998, the sampling of borings for specific parameters for the ASTM risk assessment, and an evaluation of a number of remedial alternatives. These values were used to come up with risk based clean-up levels (RBC) for soil, groundwater and vapor for the constituents of concern (benzene, toluene, ethyl benzene, xylenes and MTBE). Both soil and groundwater RBC were exceeded. Currently, the risk assessment and the RBC is being evaluated by our risk assessor. Although there may be some change in the final RBC, the CAP is still valid and necessary.

The CAP evaluated four remedial alternatives; excavation and aeration/disposal, soil vapor extraction, bio-venting/air injection and intrinsic remediation. Please note the other technologies mentioned; thermal oxidation, carbon/resin adsorption, remediation monitoring and institutional control are not independent remedial approaches. They supplement and may be an essential part of the remedial alternatives. Remediation monitoring and institutional control will be required for this site, regardless of the remedial alternative selected. Bioventing/air injection can be eliminated because this alternative does not treat soils in the capillary fringe and the saturated zone, where the majority of the contamination exists at this site. Intrinsic (natural) remediation has not been shown to be effective since existing contaminant levels continue to exceed the RBC. The efficacy of soil vapor extraction is expected to be less as the amount of fine-grained sediment increases. In addition, there is a limited amount of porous soils at this site which would impair this remedial approach. This remedial process would be anticipated to take several years, after which, groundwater monitoring would be required. Based on economic and time constraint reasons, excavation was recommended by your consultant.

Our office recognizes the immediate effectiveness of soil removal, however, we feel that soil excavation alone may not be sufficient to remediate the site. Because of the non-uniform nature of soil and contamination distribution, it is not possible to remove all contaminated soils. We are aware of the desire to install new underground tanks at the site where excavation will be required for the tank pit. This excavation of soil would facilitate future tank installation.

Ms. K. Petryna
StID # 435
3810 Broadway , Oakland CA 94611
February 4, 1999
Page 2.

Under these conditions, our office approves the proposed CAP with the following additional requirements:

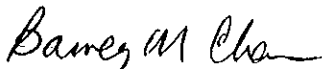
- During the excavation it is assumed that groundwater removal will be required to allow the excavation of saturated contaminated soils. Please consider the removal of as much groundwater as possible to remove additional dissolved contamination.
- While the excavation pits are open, please consider the addition of supplements to enhance natural bio-degradation. These supplements may include oxygen releasing compounds and nutrients.
- You are also encouraged to install any piping or casings for future addition of supplements or removal of contaminants.

Please submit a specific work plan describing the expected limits of your excavation. The work plan should include a confirmation soil and groundwater sampling plan, a stockpile sampling plan, a groundwater disposal plan, a work plan schedule and a section to address the above items.

Please submit your work plan to our office **within 45 days or by March 19, 1999.**

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files

Mr. D. Hernandez, Toxicchem Management Systems, Inc., 1461 Newport Ave.,
San Jose, CA 95125

CAPap3810

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RO#56

January 5, 1999
StID # 435

Ms. Karen Petryna
Equiva Services LLC
P.O. Box 8080
Martinez, CA 94553

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

Re: Former Texaco Service Station, 3810 Broadway, Oakland CA 94611

Dear Ms. Petryna:

This letter serves to inform you that the oversight of the above referenced site has been transferred from Mr. Thomas Peacock to myself. Further conversations and correspondence should be directed to me.

I have briefly reviewed the case history and files for the site in an attempt to update the case files and expedite the next steps of investigation and remediation. I would like to bring the following items to you attention for response and reply:

- It appears that the most recent quarterly monitoring report received by our office is the Second Quarter 1998 report performed by Blaine Tech Services and submitted with a cover letter from Toxichem Management Systems, Inc. Please submit all quarterly reports since this referenced report.
- The last correspondence from our office was the May 20, 1998 letter to Mr. Marvin Katz of Texaco from Mr. Thomas Peacock. This letter responded to the April 20, 1998 work plan from Toxichem Management Systems. The work plan proposed to advance six additional borings near the former pump islands and around the former underground tank pit. Additionally, other soil parameters including total porosity, moisture content, air filled porosity and total organic carbon were to be collected. The soil analytical results would supplement existing data and used to calculate site specific cleanup levels. Mr. Peacock's letter mentioned the items of concern of Ms. Madhulla Logan, the County risk assessor. The letter was meant to imply that the work plan was otherwise accepted by our office. I have included a copy of this letter. Upon review of the work plan, please add the analytes; TPHd and MTBE. In addition, the sample with the highest TPHd concentration should also be analyzed for naphthalene. You are reminded that the samples being run for total organic carbon should be from a "clean" sample. Please schedule this investigation within the next 60 days and notify our office 72 working hours prior to this field work.
- You should consider, at a minimum, the addition of a device for free product removal into MW-3.

After this investigation is completed, you should provide a brief work plan for your site specific risk assessment. The work plan should include what samples will be used for the assessment and other site specific variables. At that time please contact Ms. Madhulla Logan at (510) 567-6764.

Ms. Karen Petryna
StID # 435
3810 Broadway, Oakland CA 94611
January 5, 1999
Page 2.

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

Sincerely,



Barney M. Chan
Hazardous Materials Specialist

Enclosure

C: B. Chan, files

Mr. G. Friedkin, Friedkin-Becker, 300 Grand Ave., Oakland CA 94610

Mr. D. Hernandez, Toxicchem Management Systems, Inc., 1461 Newport Ave., San Jose,
CA, 95125

Wp/rep3810Broadway

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY
DAVID J. KEARIS, Agency Director

R0#56

May 20, 1998
STID 435

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

Texaco Environmental Svc.
ATTN: Marvin Katz
100 Cutting Blvd.
Richmond, CA 94804

RE: 3810 Broadway, Oakland, CA 94611

Dear Mr. Katz:

This office has received and reviewed a Groundwater Monitoring and Sampling Report by Blaine Tech Services dated January 26, 1998 for the above site. It is good to see that you have monitored the wells again, since the previous report was over a year ago. MW-6, MW-8, and MW-10 showed increases in contamination. MW-10 is key here because it is a downgradient well, although the levels are not really high. The benzene in MW-2, MW-3, MW-6, and MW-8 is still significant.

You did not specify any conclusions or recommendations in this report. Also, there is not a frequency for future sampling agreed to.

You submitted a workplan dated April 24, 1998 wherein you specified a method of doing a risk assessment with the data from the several soil borings. Madhulla Logan of this office reviewed the proposal and had these comments. The following comments need to be addressed in the risk assessment:

1. You need to use the Cal-EPA slope factor of .0 rather than the federal value.
2. Risk need only be calculated for a 10⁻⁵ risk value (1 in 100,000).
3. You need to look at exposure pathways in relationship to the new proposed retail station. Of concern would be indoor exposure and where the building would be in relationship to remaining contamination.
4. If you use site specific parameters you need to also include background samples or from a non-contaminated area.

May 20, 1998

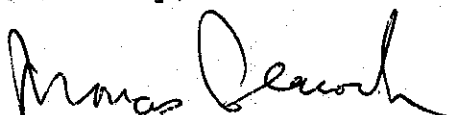
STID 435

3810 Broadway, Oakland, CA 94611

Page 2 of 2

If you have any questions, please contact this office at (510) 567-6782.

Sincerely,



Thomas Peacock, Manager
Division of Environmental Protection

c: Bob Robles, Texaco, 10 Universal City Plaza, Universal
City, CA 91608
Dick Pantages, Chief - files
Gerald Friedkin, Freidkin-Becker, 300 Grand Ave., Oakland,
CA 94611
Kent Brown, Blaine Tech Services, 1680 Rogers Ave., San

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



RO # 56

January 8, 1998
STID 435

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

Texaco Environmental Svc.
ATTN: Karen E. Petryna
100 Cutting Blvd.
Richmond, CA 94804

RE: 3810 Broadway, Oakland, CA 94611

Dear Ms. Petryna:

This office has received and reviewed an letter from Mary Haber and records of ownership of the above site. Robert Robles of your company was sent the Notice of Responsibility. The last monitoring report was submitted to this office over 1 year ago. This site is one that has a free product problem and needs attention soon. Monitoring had been suspended pending a decision concerning your company's participation.

You are directed to implement a groundwater monitoring program within 30 days. Please contact this office as soon as possible concerning when continued field monitoring will be accomplished.

If you have any questions, please contact this office at (510) 567-6782.

Sincerely,

Thomas Peacock, Manager
Division of Environmental Protection

c: Bob Robles, Texaco, 10 Universal City Plaza, Universal
City, CA 91608
Dick Pantages, Chief - files
Gerald Friedkin, Freidkin-Becker, 300 Grand Ave., Oakland,
CA 94611

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

RO#56

June 21, 1996
STID# 435

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

Mr. Gerald Friedkin
300 Grand Avenue
Oakland, California 94610

**RE: Work Plan for Groundwater Monitoring Well Installation
Former Texaco Facility - 3810 Broadway, Oakland, CA 94611**

Dear Mr. Friedkin:

The Alameda County Department of Environmental Health, Environmental Protection Division has completed review of the work plan dated June 13, 1996, prepared and submitted by Fluor Daniel GTI for the above referenced site. Six additional groundwater monitoring wells will be installed to assess the lateral extent of the separate phase and dissolved petroleum hydrocarbon found at the site.

The work plan is acceptable to this office provided the following items are addressed:

- 1) During borehole advancement, soil samples must be collected at a minimum of every five feet in the unsaturated zone, significant changes in lithology and where field screening identifies the presence of contaminants. The selection of samples chosen for laboratory analysis should be based primarily on field evidence. A minimum of one sample submitted for analysis from the boring must be from the saturated/unsaturated zone interface.
- 2) Wells should be surveyed to an accuracy of 0.01 foot and referenced to mean sea level (MSL). Groundwater flow direction must be established for the site.
- 3) Groundwater monitoring wells must be sampled at a minimum of every quarter and analyzed for TPH gasoline, TPH diesel, TPH motor oil and BTEX (benzene, toluene, ethyl benzene, xylene).
- 4) Soil and groundwater samples must be analyzed for target analytes listed in item #3.
- 5) Placement of monitoring wells MW-9 and MW-10 along Broadway should be strategically located to provide plume definition.
- 6) Please notify this office at least 72 hours in advance for the start up of the work plan implementation so a site visit can be arranged by a representative from this office.

A report must be submitted to this agency within 60 days after completion of the work performed at the site.

Mr. Gerald Friedkin
RE: 3810 Broadway, Oakland, CA 94611
June 21, 1996
Page 2 of 2

Until cleanup is complete, you will need to submit quarterly reports to this office and the following items must be incorporated in your future reports or workplans:

- 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 workplan
- 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 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.

If you have any questions concerning this letter, please call me at (510) 567-6780.

Sincerely,



Susan L. Hugo
Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Gordon Coleman, Acting Chief, Environmental Protection / files
Kevin Graves, San Francisco Bay RWQCB
Brian Garber, Fluor Daniel GTI, 1401 Halyard Drive, Suite 140
West Sacramento, CA 95691

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R056

RAFAT A. SHAHID, DIRECTOR

September 14, 1995
STID# 435

Mr. Gerald Friedkin
300 Grand Avenue
Oakland, California 94610

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

RE: Work Plan for Supplemental Site Investigation
3810 Broadway, Oakland, California 94611

Dear Mr. Friedkin:

The Alameda County Department of Environmental Health, Environmental Protection Division has completed review of the Work Plan for Supplemental Site Investigation (August 16, 1995), prepared and submitted by McLaren Hart for the referenced site.

Based on this review, the workplan is acceptable to this office provided the following items are addressed:

- 1) During borehole advancement, soil samples must be collected at a minimum of every five feet in the unsaturated zone, significant changes in lithology and where field screening identifies the presence of contaminants. The selection of samples chosen for laboratory analysis should be based primarily on field evidence. A minimum of one sample submitted for analysis from the boring must be from the saturated/unsaturated zone interface.
- 2) Wells should be surveyed to an accuracy of 0.01 foot and referenced to mean sea level (MSL).
- 3) Groundwater monitoring wells must be sampled at a minimum of every quarter and groundwater elevation readings must be incorporated in the monitoring program. Groundwater flow direction shall be established at the site.
- 4) TPH diesel, TPH motor oil and chlorinated solvents must be analyzed on selective soil and groundwater samples in addition to the proposed TPH gasoline and BTEX analyses.
- 5) Any waste (hazardous or non-hazardous) generated at the site must be characterized and disposed appropriately. Documents of all waste disposal must be provided to this office.
- 6) Please notify this office at least 72 hours in advance for the start up of the work plan implementation so a site visit can be arranged by a representative from this office.
- 7) Please submit the data collected during the installation of the groundwater monitoring well MW-2 including the well construction diagram.

Mr. Gerald Friedkin
RE: 3810 Broadway, Oakland, CA 94611
September 14, 1995
Page 2 of 2

A report must be submitted to this agency within 60 days after completion of the work performed at the site.

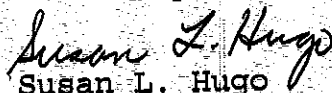
Until cleanup is complete, you will need to submit quarterly reports to this office and the following items must be incorporated in your future reports or workplans:

- 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 workplan
- 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 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 professional involved with the project.

If you have any questions concerning this letter, please call me at (510) 567-6780.

Sincerely,



Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Jun Makishima, Interim Director, Environmental Health
George Young, Acting Chief, Environmental Protection / files
Kevin Graves, San Francisco Bay RWQCB
Saul Germanas, McLaren Hart - 1135 Atlantic, Alameda, CA 94501

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY

DAVID J. KEARS, Agency Director



R056

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

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

November 18, 1993
STID# 435

Mr. Gerald Friedkin
Friedkin - Becker
300 Grand Avenue, Oakland, CA 94610

**RE: Status of the Soil and Groundwater Investigation/Remediation
Former Precision Tune - 3810 Broadway St., Oakland, CA 94611**

Dear Mr. Friedkin:

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. One waste oil underground storage tank was removed in May 5, 1991 at the site. We are in receipt of the following reports:

- * Analytical results of soil samples collected during the tank removal; analyzed by Superior Laboratory and reported in June 19, 1991.
- * Limited Soil and Groundwater Quality Investigation Report dated November 15, 1991 and prepared by Kaldveer Associates
- * Work Plan for additional Monitoring Well dated January 21, 1992 and prepared by Kaldveer Associates

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) The work plan for additional monitoring well installation was approved by this agency. A correspondence dated January 21, 1992 from this office approved the work plan for implementation. To date, no report has been submitted documenting that the additional monitoring well was installed. Please clarify if the approved work plan was implemented and submit all the data gathered during this phase of the investigation including the analytical results, boring logs and the monitoring well construction diagram.
- 2) It appears that the extent of groundwater contamination at the site remains undefined. Monitoring well MW-1 exhibited elevated levels of the following target compounds: TOG (1,000 ppb), TPH gasoline (300 ppb), TPH diesel (1700 ppb), benzene (4,100 ppb) and xylene (20 ppb). In addition, significant levels of halogenated volatile organic compounds were detected. Please submit a work plan to delineate the vertical and lateral extent of the hydrocarbon plume.

Mr. Gerald Friedkin
RE: 3810 Broadway, Oakland, CA 94611
November 18, 1993
Page 2 of 3

- 3) Verified downgradient direction must be established at the site. One monitoring well must be installed within ten feet downgradient of the former tank location. Groundwater elevation readings must be performed every quarter and all monitoring wells must be surveyed to an accuracy of 0.01 foot and referenced to mean sea level (MSL).
- 4) Monitoring well **sampling frequency must occur every quarter**, the maximum sampling interval allowed when ground water contamination is present. Only one sampling event was performed in the well (MW-1) which occurred in October 19, 1991. All monitoring wells must be sampled and analyzed for target compounds and groundwater elevation measurements must be conducted. After four consecutive quarters of non-detectable levels have been achieved, the frequency of sampling events will be evaluated and/or a recommendation for signoff/case closure will be determined.
- 5) Please submit a time schedule for all phases of the investigation and remediation activities at the site.
- 6) Please submit a copy of the tank disposal manifest.

Response to all the items mentioned above must be provided to this office no later than **January 18, 1994**.

An underground storage tank unauthorized leak report (ULR) has not been submitted to this office. Enclosed is a blank copy of the ULR which must be completed and submitted to this office **within five working days upon receipt of this letter**.

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

- 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 workplan
- 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

Mr. Gerald Friedkin
RE: 3810 Broadway St., Oakland, CA 94611
November 18, 1993
Page 3 of 3

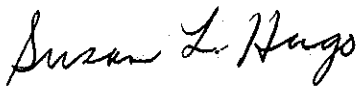
- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department of the responsible party or tank owner's intention
- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained
- 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.

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 workplan must be confirmed in writing and approved by this agency.

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

Sincerely,



Susan L. Hugo
Senior Hazardous Materials Specialist

enclosure

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

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



RAFAT A. SHAHID, Assistant Agency Director

R056

DEPARTMENT OF ENVIRONMENTAL HEALTH
80 Swan Way, Rm. 210
Oakland, CA 94621
(415) 271-4300

January 21, 1992

Mr. Gerald S. Friedkin, President
Friedkin-Becker
300 Grand Avenue
Oakland, CA 94610

RE: Former Precision Tune, 3810 Broadway, Oakland, CA

Dear Mr. Friedkin:

I have reviewed your Workplan for Monitoring Well Construction and Sampling dated January, 1992 that was prepared by Kaldveer Associates. It is acceptable.

If you have any questions, please contact me at 271-4320.

Sincerely,


Larry Seto,
Sr. Hazardous Materials Specialist

cc: Gil Jensen, Alameda County District Attorneys' Office
John Sutton, Kaldveer Associates
RWQCB
Charlene Williams, DTSC
Rafat Shahid, Assistant Agency Director, Environmental Health
Files

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



R056

November 26, 1991

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

Mr. Gerald S. Friedkin, President
Friedkin -Becker
300 Grand Avenue
Oakland, CA 94610

RE: Former Precision Tune, 3810 Broadway , Oakland, CA

Dear Mr. Friedkin:

I received your letter dated November 18, 1991, and the Limited Soil and Groundwater Quality Investigation Report dated November 15, 1991 that was prepared by Kaldveer Associates. This report, as identified by its title contains only a limited soil and groundwater quality investigation in the area of the former waste oil tank. A more thorough investigation is needed to determine the lateral and vertical extent of contamination, and to verify that the contamination is coming from off-site. All work must be done in accordance to the Tri-Regional Board Recommendations For Preliminary Evaluation and Investigation of Underground Tank Sites, dated 10 August 1990.

This office does not concur with the recommendations of your consultant that the on-site monitoring well be abandoned, and this case file closed. The on-site monitoring well in the area of the former waste oil tank must be monitored on a Quarterly basis for a minimum of one year. The samples must be tested for all of the contaminants that have been identified. Additional monitoring wells maybe required to define the extent of contamination.

If you have any questions, please contact me at 271-4320.

Sincerely,


Larry Seto
Sr. Hazardous Materials Specialist

cc: Gil Jensen, Alameda County District Attorney's Office
Consumer and Environmental Protection
John Sutton, Kaldveer Associates
RWQCB
Charlene Williams, DTSC
Rafat Shahid, Assistant Agency Director, Environmental Health