white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

II, III

Site ID # _____ Site Name AMC Today's Date 6/11/97

Site Address _____

City Oakland Zip 94 Phone _____

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

Inspection Categories:

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

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

Comments:

Came out to site to witness overexcavation sampling of ~~the~~ various areas in the Phase II area of the site. When I came out to site, they were overexcavating the former gas UST area on the west side & beneath the former building to the west of the former gas USTs. Strong petroleum odors & extensive staining noted in pit. Some water noted in pit. According to David Glick, Geoplexus, the water rushed in from some utility line trenches from the north. They pumped this water into storage tanks, and the water ~~it~~ did not recharge. No perched water was encountered. The area around Former Sample 136, located to the east of former gas USTs, will not be excavated, contrary to the workplan. Excavation was ~8' bgs. In speaking to Eileen Farrelli, EBMUD, the area around Sample 136 will be addressed at a later date if the gravel backfill in former UST area is removed to drive in pilings. The bulk of the ~~the~~ benzene soil contamination was excavated, except for some smelly soil on east end of bottom of excavation. This remaining soil will be excavated out later today or tomorrow. Confirmatory soil samples collected.

II, III

Contact David Glick

Title Director Western Env. Sv.

Signature [signature]

Inspector Juliet Shin

Signature [signature]

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name AMC, Phase II Today's Date 6/12/97

Site Address _____

City Oakland Zip 94605 Phone _____

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

Inspection Categories:

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

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

Comments:

Came out to site to check & see whether area beneath former gas station / former gas tanks was adequately excavated from yesterday. It looked as though additional excavation of the bottom was conducted, however, significantly more water was noted in the pit. Considering that it didn't rain since yesterday, this water in the pit could be groundwater. There was still a moderate petroleum odor emanating from the pit. According to David Glick, Geoplexus, the water is resulting from the gravel backfill from the former gas tank pit and will be pumped out today. Seeping of oily substances, brownish in color, was observed along the ~~south~~ north & west walls, at the same elevation as was observed in the former gas UST pit. These two areas will be sampled to characterize what we have left in place. The excavation beneath the former auto shop was underway and ~~have~~ soil samples were already collected beneath a concrete vault that was removed. Another soil sample will be collected beneath former samples B-12 & 13. One hydraulic lift was located to the west end of former auto shop, and another two concrete vaults associated w/ former hydraulic lifts were alongside each other at east end. Soil samples will be collected above these locations & ~~analyzed~~ analysis in location of B-13 should include chlorinateds.

II, III

Contact David Glick

Title _____

Signature _____

Inspector Juliet Shin

Signature Juliet Shin

2 of 2

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

II, III

Site ID # _____ Site Name AMC Today's Date 6/12/97

Site Address _____

City Oakland Zip 94605 Phone _____

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

Inspection Categories:

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

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

Comments:

Both concrete vaults had a pipe draining contents (steel lines) to the north. The fate & extent of this piping is not yet known. Another hydraulic lift was identified to the north boundary of the excavation pits. A soil sample will be collected from beneath this lift. The theory is that the piping from the concrete vault lead to an aboveground reservoir.

II, III

Contact _____

Title _____

Signature _____

Inspector Juliet Shin

Signature Juliet Shin

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

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

April 25, 1997

Richard Sykes
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

Re: Addendum 2 to the Materials Management Plan for Phase II and Phase III of the EBMUD Adeline Maintenance Facility construction sites.

Dear Mr. Sykes,

This office has reviewed over GeoPlexus, Inc.'s (Geoplexus) Subsurface Investigation Report and Response to Agency Comments on Addendum No. 2 to Materials Management Plan, dated January 22, 1997, for the above site. The responses to the County's comments in this report are acceptable.

Per the report, soil excavation will be conducted in the areas of the former petroleum underground storage tanks (sample locations 114, 133, 134, 135, 136, and 138), the area around the former auto shop (samples EB-3-3, B-12, B-13), and the area around the waste oil underground storage tank (sample B-9 and B-10), where sample concentrations exceeded the agreed upon cleanup threshold values. Please be reminded that confirmatory soil samples will need to be collected subsequent to the excavation in order to assure that the bulk of concentrations exceeding these threshold values have been removed. Also, please be reminded that the waste oil underground storage tank will be removed in Phase III under permit from this office and the Oakland Fire Department.

Excavated soils will need to be properly aerated through permit or disposed of off site to a certified facility. Although Geoplexus states that the 16ppm benzene identified in soil adjacent to the former underground storage tanks is limited, additional off-site delineation work of this contaminated soil will be required during the planned groundwater monitoring well installations, scheduled to take place after the implementation of Phase II and Phase III construction activities.

Lead and chromium concentrations identified from Borings B-12 and B-13 exceeded ten times the Title 22 CCR STLC values. If metal concentrations exceeding ten times the STLCs are identified after the proposed excavation, leachability tests using Method 1312 will need to be conducted, per the County's October 10, 1996 letter.

Please submit the anticipated schedule of work for the excavation and sampling activities, waste oil tank removal, soil disposal, and groundwater well installations. If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

cc: Eileen M. Fanelli, EBMUD, P.O. Box 24055, Oakland, CA 94623-1055
David Glick, Geoplexus, Inc., 1900 Wyatt Drive, Suite 1, Santa Clara, CA 95054
Chief

EAST BAY
MUNICIPAL UTILITY DISTRICT

April 22, 1997

Ms. Juliet Shin
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Dear Ms. Shin:

Subject: Schedule for Phase 2 Construction and Site Remedial Activities, Adeline Maintenance Center (AMC)

The East Bay Municipal Utility Districts' (EBMUD) contractor on the AMC project is scheduled to begin Phase 2 construction activities in about two weeks. The work will involve demolition of the existing structures, followed by mass excavation and grading.

Soil removal activities will be conducted as outlined in the MMP and addenda addressing construction Phase 2. I will call you before actual soil removal activities begin. Please give me a call if you have any questions or concerns.

Sincerely,

EILEEN FANELLI
Senior Environmental Compliance Specialist

EF:prb

EC97218

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 835-3000

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

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

November 19, 1996

Richard Sykes
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

Re: Risk Assessment for EBMUD Adeline Maintenance Facility, Phase 2 and Phase 3 Construction sites

Dear Mr. Sykes,

This office has reviewed the September 12, 1996 Materials Management Plan for the above site which includes a human health risk assessment for soils. The following are some comments in response to our review, which Madhulla Logan of our office has already relayed to your consultant David Glick, Geoplexus, Inc., over the phone:

- On Page 5, the report states that the values from the more conservative pathway, which it states is the "leaching to groundwater" pathway, was used to evaluate the cleanup values. However, looking at the Tier 1 table of ASTM RBCA, the "indoor air" pathway is more conservative than the "leaching to groundwater" pathway. This more conservative pathway should be used in assessing any human health threats from beneath the building footprint areas. The areas outside of the building areas may be based on the "leaching to groundwater" pathway.

- The risk assessment only addresses soil contamination. Groundwater contaminant characterization has not yet been conducted at the site. Per my conversations with Eileen Fanelli, EBMUD, groundwater investigations will be initiated after the building construction is completed. As part of the groundwater investigations, an assessment of any potential human health risks from any groundwater contamination will be required. Perched water should also be assessed. If a potential human health threat is identified (e.g., vaporization into indoor air), EBMUD will be required to take corrective action measures.

Lastly, per my conversation with David Glick on November 19, 1996, a report addressing the recently conducted work at the site, as well as the County's October 10, 1996 letter and the above comments, will be submitted to this office within the next couple of weeks.

If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

cc: Eileen Fanelli
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

David Glick
GeoPlexus, Inc.
1900 Wyatt Drive, Ste 1
Santa Clara, CA 95054

Acting Chief

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: November 8, 1996

MEMO TO: Distribution *

FROM: Eileen Fanelli, Senior Environmental Compliance Specialist

SUBJECT: AMC Project - Environmental Support Meeting Minutes

Eileen

Attached for your information and files are the meeting minutes from our October 31, 1995 meeting regarding environmental oversight during AMC construction. If you have any questions or comments on the attached please contact Eileen Fanelli at (510) 287-1661.

*Distribution: Denise Tsuji/DTSC
Juliet Shin/ACHCSA ✓
Brad Oldenbrook/Walsh-Pacific
Britt Johnson/City of Oakland
Alex Coate/EBMUD
Richard Sykes/EBMUD
Karl Mayo/EBMUD
David Tsztoo/EBMUD

EMF:prb

EC95407a

MEETING MINUTES

AMC Project
Environmental Support
Meeting Minutes

Meeting Date:	Oct. 31, 1995
Time/location:	1:00 p.m. EBMUD Offices Rm. 3A/B
Attendees:	Denise Tsuji/DTSC Site Mitigation
	Juliet Shin/Alameda County Health
	Brad Oldenbrook/Walsh-Pacific
	Britt Johnson/City of Oakland Fire Department
	Eileen Fanelli/EBMUD RCO
	Alex Coate/EBMUD RCO
	Richard Sykes/EBMUD RCO
Prepared by:	Eileen Fanelli, Nov. 7, 1995

Summary:

The purpose of the meeting was to identify the lead regulatory agency for oversight of site assessment and remediation activities at the EBMUD Adeline Maintenance Center. The work would be coordinated with current site demolition and construction at the AMC. The existing site data was discussed relative to the construction project. It was agreed that Alameda County Health would be the lead agency for the project. The DTSC are available for consultation on site contamination issues but otherwise would not take a lead role except for hazardous waste contamination other than petroleum hydrocarbons. EBMUD is on point to prepare a 'material management plan' that outlines how contaminated soil will be characterized and managed during and post construction.

Topics Discussed:

The data presented in the "Preliminary Site Assessment Report for Adeline Maintenance Facility" was discussed relative to the construction project. Specifically the soil cut and fill areas where identified and the issue of characterizing site soil for either reuse or disposal discussed.

Applicable guidance for determining contaminant levels at which soil could be reused on site (clean-up) levels were discussed briefly. Juliet identified ASTM guidance (ES38) that the County uses for estimating soil clean-up levels, but stated that the method generally requires groundwater quality data. Eileen and Alex identified the Tri-County guidance for establishing clean-up levels for petroleum contaminated soil.

Action Items:

It was agreed that EBMUD would develop a "materials management plan" that outlined the process for excavating, testing and disposing of soil excavated during project construction. The plan would also set forth the criteria for reuse of the soil onsite. Any proposed post construction monitoring would also be included. The plan will be submitted to Alameda County Health prior to beginning excavation activities associated with the AMC construction.

GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

FAX TRANSMITTAL COVER SHEET

DATE: 10/11/96

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 2

VERIFICATION OF RECEIPT REQUIRED? YES ✓ NO ____

TO: MS. JULIET SHIN

COMPANY: ALAMEDA COUNTY

BUSINESS PHONE: 510 5676763

FAX PHONE: 510 3379335

SPECIAL FAX INSTRUCTIONS: ____

FROM: DAVID GLICK

PROJECT: EBMUD ADELINE MAINT. CENTER

BUSINESS PHONE: ____ FAX PHONE: ____

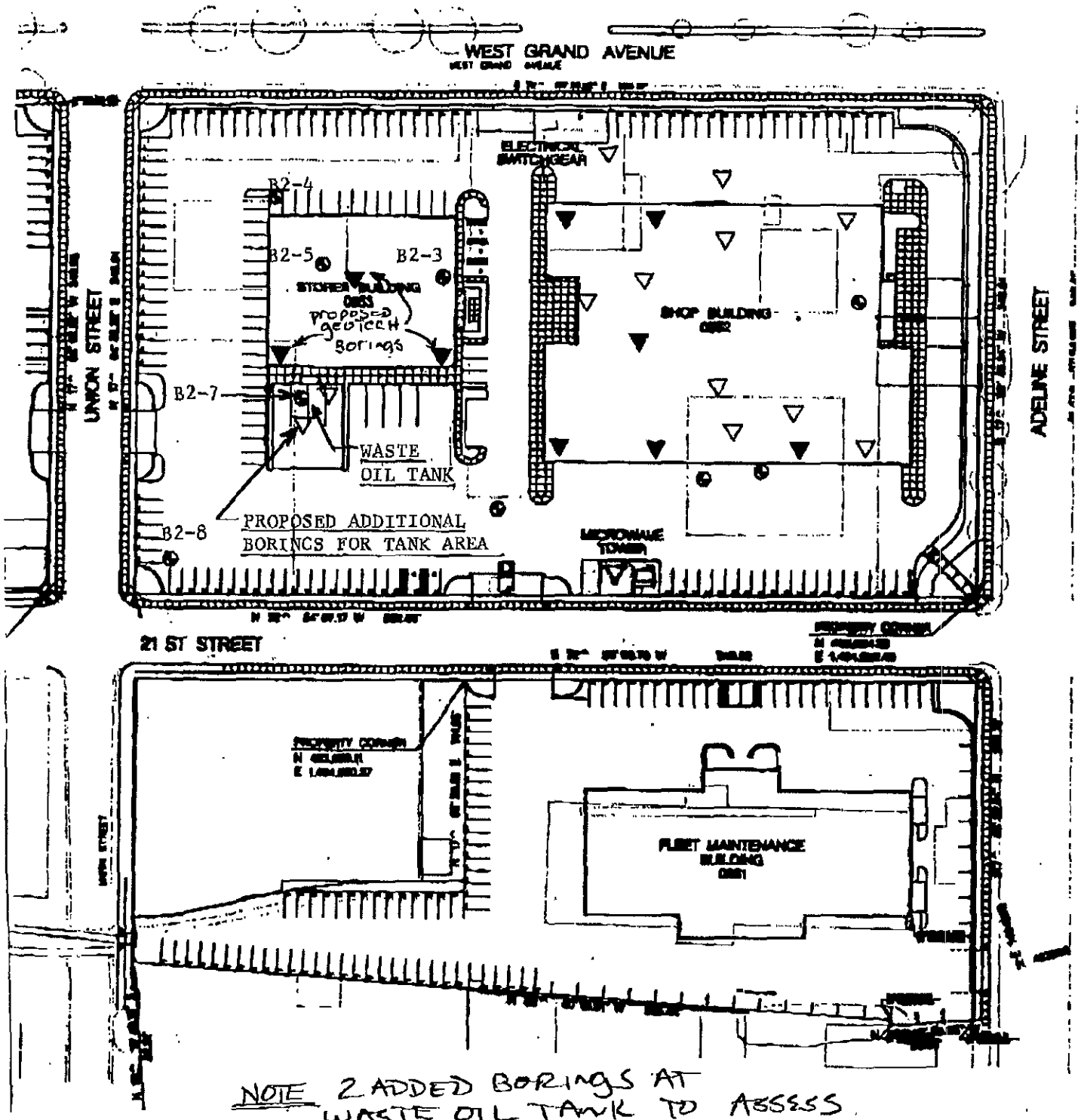
REMARKS: REVISED BORING LOCATION PLAN - NOTE 2 ADDED BORINGS COVER TANK AREA. BECAUSE IT IS AT FOOTING IT WILL BE CONSIDERED "WITHIN FOOTPRINT", THIS SHOULD HELP.

WE WILL BE ADVANCING THE "GEOTECH" BORINGS ON MON-TUES 10/21-10/22 W/ THE "ENVIRON" BORINGS (EVERYTHING ELSE) ON WED-THURSDAY 10/23-10/24

IF THERE WERE ANY PROBLEMS WITH THIS TRANSMISSION PLEASE CALL:

THANKS DAVID

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815



NOTE 2 ADDED BORINGS AT WASTE OIL TANK TO ASSESS CONDITIONS PRIOR TO REMOVAL. WILL FALL INTO "WITHIN FOOT PRINT" CRITERIA

NOTE:
- ● PREVIOUS BORING LOCATIONS
- ▽ PROPOSED BORING LOCATIONS
- ▼ PROPOSED "DEEP" GEOTECHNCIAL BORINGS PER GEO RESOURCE CONSULTANTS

PROPOSED BORING LOCATIONS

DATE	SCALE	DRAWN BY
8/3/96	1"=100'	dcg

EBMUD AMC PHASE II SITE

Figure 6

GeoPlexus, Inc.

COMMENTS
Addendum 2
Adeline Maintenance Center
Oakland

1) The waste oil tank needs to be removed under a County and Fire Dept. Permit
   A: Working on permitting. Nov/Dec timeframe item during demo work

2) If metals analysis are to be conducted, and TTLCs are to be used as threshold criteria, than leachability tests, such as an STLC analysis should also be mentioned.

3) On Page 2, the addendum states that "Based on the established threshold criteria, the remaining soil contamination beneath West Grand Avenue does not require excavation". I presume that this is using the "unlimited" definition under the RBSL column of Threshold Criteria table. Please be reminded that these concentrations may need to be addressed if extensive groundwater contamination is observed. Also, benzene levels exceeded RBSL values, at 16ppm was identified in MK143 along Grand Avenue.

4) Page 2 states that TPHg, BTEX, and low to moderate levels of TPHd and O&G were identified in Borings 2-3 and 3-4. According to my copies of analysis results, none of these contaminants were identified in soil samples collected from these boring locations. It also discusses Boring 3-3 and states that the above borings were located next to hydraulic lifts and that the contamination identified was associated with the hydraulic lifts. This is obviously not true for the TPHg, BTEX, and chlorinateds identified.

   A:Could have used waste oil as a substitute for hydraulic oil since old lifts. Two lifts currently existing and two formerly existing in auto shop (phase II).

5) Where did Geoplexus get RBSL values for ethylbenzene.
   A: This value comes from the Emergency Standard version, and not the current 1739 version.

6) Page 9-Why weren't PNAs and VOCs included in analysis?

   A: These analyses only refers to the former 4,000- and 6,000-gallon UST area, and not the waste oil UST.

7) When will monitoring wells be installed? Have not yet discussed schedule for monitoring well installations. Post-construction item. Need to begin working on well installations after Phase II work. And eventually Tier II.

A=Answer (from David Glick, GeoPlexus)

GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

FAX TRANSMITTAL COVER SHEET

DATE: 10/10/96

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 5

VERIFICATION OF RECEIPT REQUIRED? YES ✓ NO ____

TO: JULIET SHIN

COMPANY: ALAMEDA COUNTY

BUSINESS PHONE: 510 5676763

FAX PHONE: 510 337 9335

SPECIAL FAX INSTRUCTIONS: ____

FROM: DAVID GLICK

PROJECT: PBCA - ADELINE MAINT. CENTER.

BUSINESS PHONE: ____ FAX PHONE: ____

REMARKS: ATTACHED INFO RE: PBCA CALC. SOFTWARE SELECTS MOST CONSERVATIVE CALCULATION BETWEEN 2 ALGORITHMS IN ACCORDANCE WITH STANDARD. LOOK UP TABLE IN ASTM STANDARD ONLY USED ONE OF THE ALGORITHMS AND NOT BOTH. BOTH ARE DEPENDANT ON DEPTH TO WATER AS DISCUSSED.

IF THERE WERE ANY PROBLEMS WITH THIS TRANSMISSION PLEASE CALL:

I HOPE THIS HELPS

DAVID GLICK

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815

415 (408) 7483

(415) 280-5[illegible]

put into these boxes with grayed out text, they will not be used by the software.

3.3 Updating Groundwater and Air Dispersivities

An additional feature not documented in the User's Guide has been added to Input Screens 3.1 and 3.2 to facilitate use of the built-in dispersivity equations for modeling off-site receptors. On both Screen 3.1 and 3.2, a button titled "Use for GW/Air Disp." is located next to the corresponding receptor distance. Clicking on these buttons will automatically update the appropriate dispersivity values on screens 8.2 or 8.3, using the built-in default dispersivity relationships described on Screens 8.2.1 and 8.3.1. For more information see the on-line help.

4.0 Additional Troubleshooting Questions

4.1 Why can't I match the Example Tier 1 Lookup Tables in E 1739 or ES 38-94?

The RBCA Spreadsheet System is fully compatible with the ASTM RBCA Standard. However, in the RBCA software, some default parameters and calculation methods have been updated from the prior versions used in the example calculations presented in Appendix X.2 of ASTM ES 38-94 or ASTM E 1739. Consequently, for some exposure pathways, use of the default settings in the RBCA software will not replicate the example Tier 1 cleanup standard calculations published the ASTM Standards. (Please note that the values listed in Appendix X.2 of these Standards are provided as examples only and do not represent part of the actual ASTM Standards themselves.)

The updated calculation methods included in the RBCA software are itemized below.

* Subsurface Soil Volatilization Algorithm: For the "subsurface soil to enclosed space" and "subsurface soil to ambient air" pathways, the RBCA Spreadsheet System uses a slightly different algorithm from the example listed in Appendix X.2 of the ASTM RBCA Standards. To provide a more accurate estimate of long-term volatilization rates, a mass-limited volatilization factor (in addition to the rate-limited volatilization factor) has been incorporated in the subsurface volatilization algorithm, similar to that used for the surface soil pathway. This revised algorithm is described in Section A.3, pages A-8 to A-9, of the Tier 2 RBCA Guidance Manual.

If desired, the user can replicate the example calculation of the ASTM Standards by simply setting the input value for "Depth to Base of Affected Soil" on Screen 8.1.1 to a very

large value (e.g., 1000 feet). This will cause the RBCA software to default to the same rate-limited volatilization factor used in the example calculations in Appendix X.2 of E 1739. However, the user should note that, for most cases, this prior version of the algorithm results in an extreme over-estimation of actual subsurface soil volatilization rates and, consequently, provides an overly conservative estimate of applicable RBSL or SSTL values.

※ Dermal Exposure Factors: In the RBCA software, standard exposure factors for dermal exposure to soils have been updated to match the values published in the most recent U.S. EPA guidance document (i.e., 1992 Dermal Exposure Factors Handbook). Therefore, RBSL values calculated for the "surface soil ingestion/inhalation/dermal contact" pathway will not match the example calculations listed in Appendix X.2 of the ASTM Standards.

To replicate the example RBSL calculations in ASTM ES 38-94 or E 1739, simply match the dermal exposure factor values on Screens 4.1 and 4.2 to the values used in the ASTM example calculations. However, the user should note that the exposure factors used in these example calculations are not consistent with current EPA guidelines.

※ Groundwater Volatilization to Enclosed Space Algorithm: For this algorithm, the equation printed in Appendix X.2 of ASTM Standard ES 38-94 contained a typographical error involving an incorrect diffusivity factor. This error is noted in the errata sheets issued in conjunction with the ES 38-94 document. The RBCA software incorporates the corrected algorithm for this pathway. It is not possible to make the software "match" the values in the ES 38-94 document because they were based on an incorrect calculation.

- ***LDF: Leachate-Groundwater Dilution Factor (Equation CM-8)***
  The LDF factor accounts for dilution of organics as leachate from the overlying affected soil zone mixes with groundwater in the underlying water-bearing unit. As indicated on Figure A.2, the leachate dilution factor (LDF) divided by the soil-leachate partition factor (K_{sw}) represents the steady-state ratio between the concentration of an organic constituent in the groundwater zone and the source concentration on the overlying affected soil. To estimate the leachate dilution factor, a simple box model is used to estimate mass dilution within a mixing zone in the water-bearing unit directly beneath the affected soil mass (see Equation CM-8, Figure A.3 on page A-13). The leachate volume entering the water-bearing unit is represented by the deep infiltration term, I, which typically falls in the range of 0.5% - 5% of annual site precipitation. For the Tier 1 RBSL calculation, a conservative default infiltration value of 30 cm/year is used, consistent with the example provided in ASTM E-1739, Appendix X.2. For many sites, this default value (equivalent to an annual rainfall rate of over 200 in/year) may significantly overestimate actual leachate rates.

Key assumptions used in this equation and their effect on the SSTL calculation are as follows:

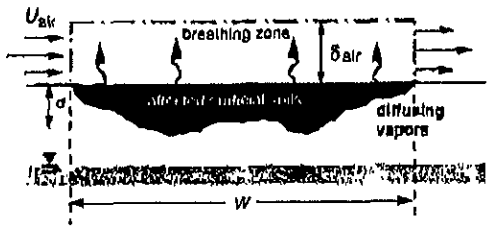
KEY ASSUMPTIONS: LDF	EFFECT ON CLEANUP STANDARD
• **Rainfall Infiltration:** Deep percolation through affected soil assumed to reach water-bearing unit regardless of soil thickness or permeability.	⇩
• **No COC Decay:** No biodegradation or other loss in mechanism groundwater zone.	⇩
• **Default Dilution Parameters:** Conservative default value for infiltration rate.	⇩

Tier 2 RBCA

A-11

EVALUATES BOTH ALGORITHMS & SELECTS MOST CONSERVATIVE

Equation CM-1: Surface Soil Volatilization Factor (VFss)



CM-1a:

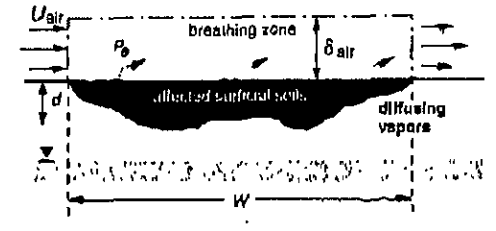
$$VF_{ss}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{2W\rho_s}{U_{air}\delta_{air}}\sqrt{\frac{D_s^{eff}H}{\pi\tau(\theta_{ws}+k_s\rho_s+H\theta_{as})}}\times 10^3$$

or CM-1b:

$$VF_{ss}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{W\rho_s d}{U_{air}\delta_{air}\tau}\times 10^3$$

whichever is less

Equation CM-2: Soil Particulate Emission Factor (PEF)

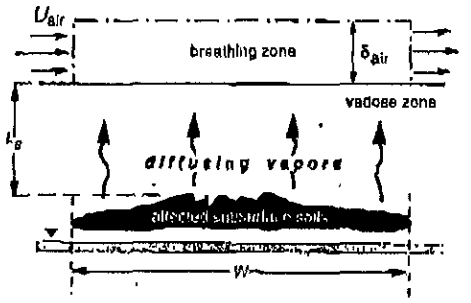


$$PEF\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{P_s W}{U_{air}\delta_{air}}\times 10^3$$

FIGURE A.3 CROSS-MEDIA PARTITIONING EQUATIONS IN THE RBCA SPREADSHEET SYSTEM *Continued*

Continued

Equation CM-3: Subsurface Soil Volatilization Factor (VFsamb)



CM-3a:

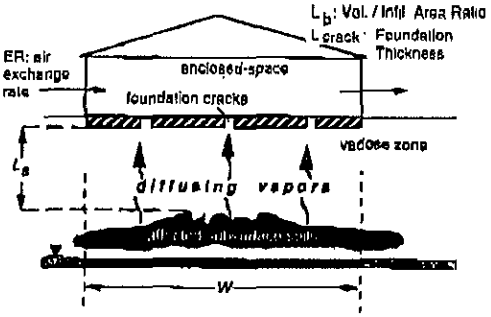
$$VF_{samb}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{H\rho_s}{\left[\theta_{ws}+k_s\rho_s+H\theta_{as}\right]\left[1+\frac{U_{air}\delta_{air}L_s}{D_s^{eff}W}\right]}\times10^3$$

or CM-3b:

$$VF_{samb}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{W\rho_s d_s}{U_{air}\delta_{air}\tau}\times10^3$$

whichever is less

Equation CM-4: Subsurface Soil to Enclosed Space Volatilization Factor (VFsesp)



CM-4a:

$$VF_{sesp}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{H\rho_s}{\left[\theta_{ws}+k_s\rho_s+H\theta_{as}\right]\left[\frac{D_s^{eff}/L_s}{ER\ L_B}\right]}\times10^3$$

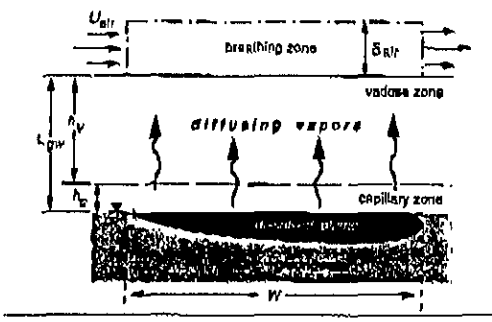
$$1+\left[\frac{D_s^{eff}/L_s}{ER\ L_B}\right]+\left[\frac{D_s^{eff}/L_s}{(D_{crack}^{eff}/L_{crack})\eta}\right]$$

or CM-4b:

$$VF_{sesp}\left[\frac{(mg/m^3-air)}{(mg/kg-soil)}\right]=\frac{\rho_s d_s}{L_B ER\tau}\times10^3$$

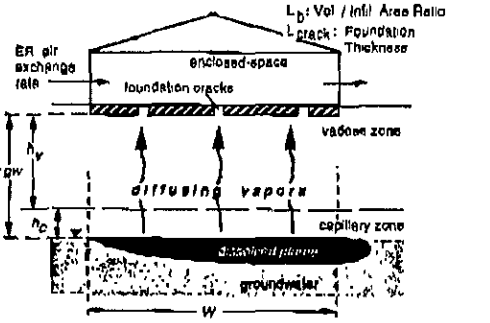
whichever is less

Equation CM-5: Groundwater Volatilization Factor (VFwamb)



$$VF_{wamb}\left[\frac{(mg/m^3-air)}{(mg/L-H_2O)}\right]=\frac{H}{1+\left[\frac{U_{air}\delta_{air}L_{GW}}{WD_{ws}^{eff}}\right]}\times10^3$$

Equation CM-6: Groundwater to Enclosed Space Volatilization Factor (VFwesp)



$$VF_{wesp}\left[\frac{(mg/m^3-air)}{(mg/L-H_2O)}\right]=\frac{H\left[\frac{D_{ws}^{eff}/L_{GW}}{ER\ L_B}\right]}{1+\left[\frac{D_{ws}^{eff}/L_{GW}}{ER\ L_B}\right]+\left[\frac{D_{ws}^{eff}/L_{GW}}{(D_{crack}^{eff}/L_{crack})\eta}\right]}\times10^3$$

FIGURE A.3 CROSS-MEDIA PARTITIONING EQUATIONS IN THE RBCA SPREADSHEET SYSTEM *Continued*

EVALUATES BOTH ALGORITHMS ASSUMES MOST CONSERVATIVE

Tier 2 RBCA

A-12

EBMUD Adeline Maintenance Center

Juliet,

I reviewed the risk assessment and also talked to David Glick of Geo Plexus.

1. I brought up one of the points that you had previously commented on because he had not given you a reply- about the soil contamination remaining beneath West Grand Avenue. The report mentions that this does not require excavation. They need to qualify this statement. David mentioned that they probably would need to give reasons or evaluate the benzene (16 ppm) found in one of the borings

2. I was confused about the table given in page 4. I wanted to find out if the RBCA evaluation for cleanup numbers were done using RBCA default values as they call it Tier 1 cleanup levels. In my discussion I found out that they had not used the default value for depth to groundwater but instead had used a value of 20 feet. So these are not really tier 1 values since some site specific information has been included. (They should make the change in the document). Also, I understand that they have perched water condition due to the fill material, gravel and the underground utilities and this water was found to be contaminated. If this condition is relevant to areas which are being investigated/constructed etc, then I think they should use the pertinent groundwater depth and not assume a constant 20 feet depth.

3. In page 5, the document mentions that the the values from the more conservative pathway i.e "leaching to groundwater" has been used to evaluate the cleanuplevels. But looking from the tier 1 tables, the indoor air pathway is the more conservative one. They need to use this values for footprint inside building. For the outside the building areas, they could base the cleaup levels on the " leaching to groundwater" pathway.

4. Since, they have not investigated groundwater and are going to construct the building before they do the groundwater investigation, they should install vapor barriers in case it turns out later that the groundwater is significantly impacted and could pose a risk to the workers.

EAST BAY
MUNICIPAL UTILITY DISTRICT

October 1, 1996

Ms. Juliet Shin
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

Dear Ms. Shin:

Subject: Transmittal of the Addendum No. 2 to the Materials Management Plan, East Bay Municipal Utility District, Adeline Maintenance Center

Enclosed is a copy of the above referenced addendum for your review and comment. The addendum documents the proposed additional investigation activities for Block 2 of the Adeline Maintenance Center (AMC) to be implemented during Phase 2 and 3 AMC construction activities.

The addendum sets forth clean up criteria for PNAs and volatile organics that were not included in the Materials Management Plan (MMP). These clean up criteria are based on RBCA guidelines and have been applied to areas both within and outside proposed building footprints. All other clean up levels are as stipulated in the approved MMP.

The addendum indicates field work will begin October 10, 1996. It also indicates that you would have the addendum by September 18. Because I am behind schedule in submitting the revised addendum to you, I understand you may need additional time to complete your review. I would appreciate, however, receiving your questions and/or comments as soon as your schedule permits in order to facilitate the start of site investigation as close to October 10 as possible.

Sincerely,

Eileen Fanelli FOR

EILEEN FANELLI
Senior Environmental Compliance Specialist

EF:prb

cc: Dave Tsztoo/EBMUD

EC96484

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 835-3000

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

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

October 10, 1996

Richard Sykes
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

Re: Addendum No. 2 to the Materials Management Plan for the Adeline Maintenance Center, Oakland, California

Dear Mr. Sykes,

This office has reviewed a portion of Geoplexus, Inc.'s Addendum No. 2 to the Materials Management Plan for the Adeline Maintenance Center, dated September 12, 1996. Per my conversation with Eileen Fanelli today, the following is a list of comments on the workplan, excluding the risk assessment portion presented in Appendix 2A. Madhulla Logan in our office will begin review of the risk assessment within the next week.

- On Page 2 of the Addendum, it states that "Based on the established threshold criteria, the remaining soil contamination beneath West Grand Avenue does not require excavation." However, according to our files, the benzene concentration in Sample MK143, located along Grand Avenue, identified 16 parts per million (ppm) benzene at 7-feet below ground surface (bgs). Therefore, this office is requesting that the Addendum address these concentrations through a risk assessment or some sort of investigation or corrective action proposal.

- Per Figure 6 of the Addendum, two borings were proposed roughly in the area of former Boring 2-7 beneath the proposed building footprints. However, at least one additional boring should be placed in closer proximity to Boring 2-7 to better delineate the elevated contaminant levels previously identified in this boring. Contaminants identified in Boring 2-7 included elevated levels of Total Petroleum Hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), TPH as diesel (TPHd), Oil & Grease, and halogenated volatile compounds. If the waste oil underground storage tank (UST) is located in the immediate vicinity, sampling associated with the removal of this UST may also assist in delineating the observed contamination.

  The location of the waste oil UST is unclear. Please submit a figure with the exact location of this UST.

- Please be reminded that the removal of the waste oil UST should include permitting through this office and the City of Oakland Fire Department. Analysis of soil samples collected from this UST removal should include TPHg, TPHd, BTEX, Oil & Grease, halogenated volatiles (VOCs), polynuclear aromatic hydrocarbons (PNAs), and metals.

- Page 5 of the Addendum mentions that the threshold criterias used for metals would be the TTLCs listed in Title 22 California Code of Regulations. However, it is unclear when soil samples collected from the Phase II and Phase III areas would be analyzed for metals. Additionally, if EBMUD is planning to use TTLCs as the threshold criteria, it should also be using some sort of leachability criteria as well. Typically, this office requests that a "WET" test be conducted when metal concentrations are identified at 10 times the STLC in soil. However, if in-situ metal concentrations are identified at the site at 10 times the STLC, this office will allow the application of Method 1312, which simulates acid rain with the use of sulfuric and nitric acid. This method is much more realistic and applicable for this site situation. However, it is the understanding of this office that off-hauled excavated soils from the site will be analyzed for STLC per the landfill disposal requirements.

- Page 9 of the Addendum does not list the PNAs and VOCs analyses. Per my conversation with David Glick, Geoplexus, on October 9, 1996, these analyses only refers to the area with the former 4,000-gallon and 6,000-gallon underground storage tanks (Phase II) and not to the waste oil UST area.

- The threshold criteria listed for ethylbenzene in Table 1, Page 4, does not match our copy of the Tier 1 Look-up Table values listed in the American Society for Testing and Materials' Risk-Based Corrective Action guidelines (ASTM RBCA, Version E-1739-95). Please clarify.

- Groundwater investigations associated with the observed soil contamination was not mentioned in the schedule provided in the Addendum. This office is requesting that groundwater investigations begin immediately after the completion of the Phase II and Phase III work. A Tier II ASTM RBCA analysis may also be needed.

Please submit a response to the above concerns for our review. If you have any questions or comments, please contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

cc: Eileen Fanelli
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

David Glick
GeoPlexus, Inc.
1900 Wyatt Drive, Ste 1
Santa Clara, CA 95054

Acting Chief

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

RAFAT A. SHAHID, DIRECTOR

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

June 7, 1996

Mr. Richard Sykes
East Bay Municipal Utility District (EBMUD)
P.O. Box 24055
Oakland, CA 94623-1055

Re: Closure of Block 4 of the Adeline Maintenance Center (AMC), located at 1200 21st St., Oakland, California

Dear Mr. Sykes,

It appears that two underground storage tanks (one 10,000-gallon diesel and one 500-gallon gasoline) were removed from the above site in 1986. Analyses of soil samples collected from surface soils, borings, and test pits placed at the site between February 1995 and January 1996 identified up to 960 parts per million (ppm) Total Petroleum Hydrocarbons as gasoline (TPHg), 11ppm benzene, 11ppm toluene, 9.9ppm ethylbenzene, 78ppm xylenes, 330ppm Total Petroleum Hydrocarbons as diesel (TPHd), 450ppm Oil & Grease (O&G), 3.9ppm phenanthrene, 2.9ppm fluoranthene, 3.3ppm pyrene, and, except for the lead concentrations, metal concentrations were fairly low.

Based on GeoPlexus, Inc.'s Closure Report, dated May 29, 1996, for the site, approximately 3,265 tons of soil was excavated from the site in February 1996 in order to remediate contaminant concentrations to below cleanup levels. The cleanup levels for the site are based on Tri-Valley Regional Guidelines, the American Society for Testing and Materials' Risk-Based Corrective Action Guidelines, and Total Threshold Limit Concentrations (TTLCs). Dermal, ingestion, and inhalation exposures were not considered based on EBMUD's statement that the site will remain paved.

Although confirmatory soil samples collected from the excavation indicate that contaminant concentrations have been remediated to below cleanup levels, the lead concentrations identified in the area of former Boring 6-1 (2,600ppm at 3-feet bgs and 440ppm and 970ppm in surface soils) have not been removed. Although one of these sample concentrations exceeds the 1,000ppm TTLC given for lead, this contamination appears to be limited in extent, and this office feels that this lead contamination, along with the surficial lead concentrations, will not pose a problem as long as the site remains paved. However, if the paving is ever removed, EBMUD will be required to notify the local implementing agency and assess the potential exposure routes and impacts to human health and the environment for these concentrations

Based on the above information, it appears that corrective action for the observed hydrocarbon and metal contamination at Block 4 of the AMC Facility has been completed.

If you have any questions or comments, please feel free to contact me at (510) 567-6763.

Sincerely,

Juliet Shin
Senior Hazardous Materials Specialist

cc: Eileen M. Fanelli
EBMUD
P.O. Box 24055
Oakland, CA 94623-1055

David Glick
GeoPlexus, Inc.
1900 Wyatt Drive, Ste 1
Santa Clara, CA 95054

Acting Chief-file

GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

FAX TRANSMITTAL COVER SHEET

DATE: 2-13-96

NUMBER OF PAGES INCLUDING THIS COVER SHEET: 34

VERIFICATION OF RECEIPT REQUIRED? YES ____ NO ✓

TO: MS. JULIET SHIN

COMPANY: ALAMEDA COUNTY DEPT OF ENV. HEALTH

BUSINESS PHONE: ____

FAX PHONE: 510-337-9335

SPECIAL FAX INSTRUCTIONS: ____

FROM: DAVID GLICK

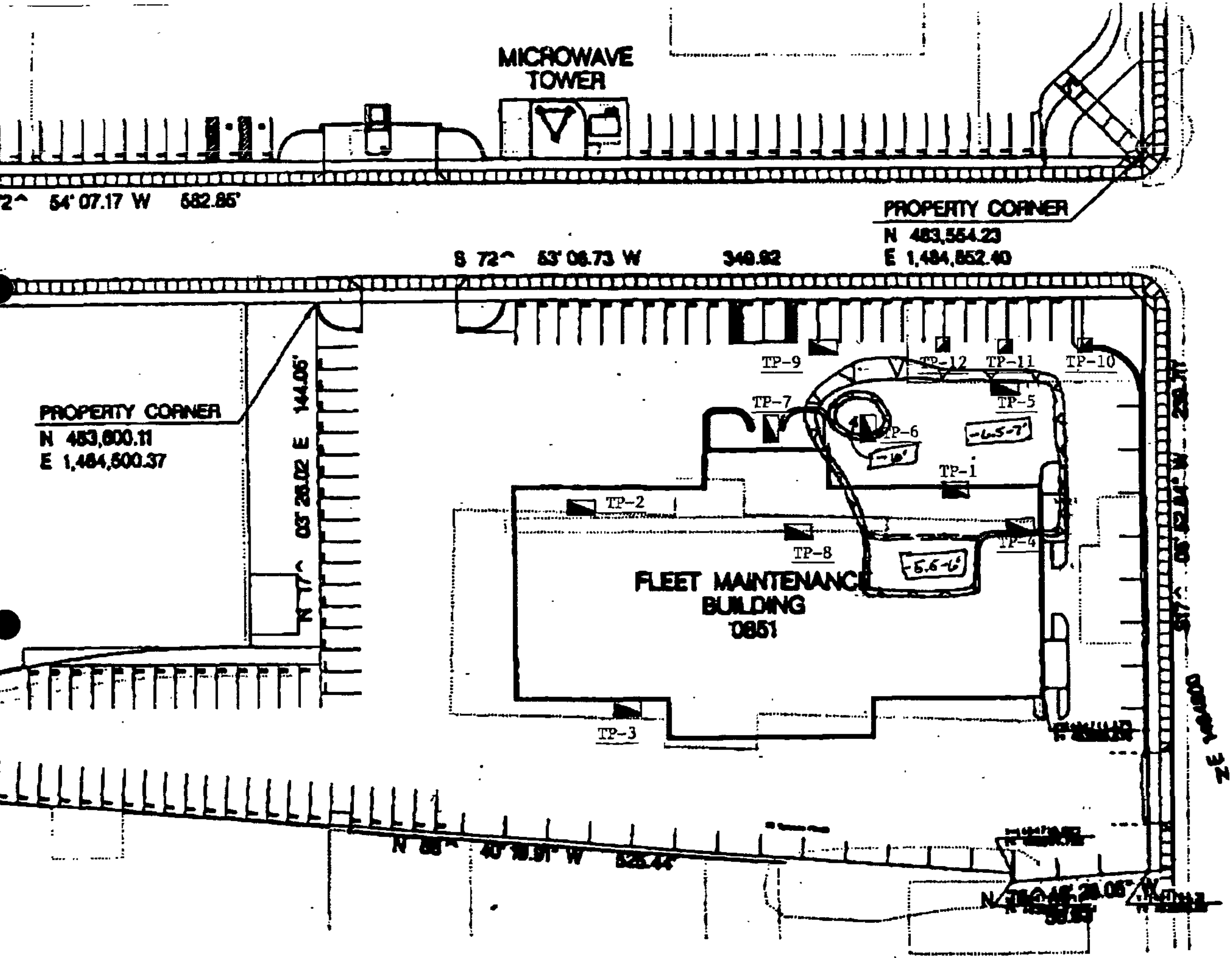
PROJECT: EBMUD - ADELINE SITE

BUSINESS PHONE: ____ FAX PHONE: ____

REMARKS: ATTACHED IS A PRELIM. SUMMARY OF TEST DATA FOR SAMPLES FROM THE EXCAVATION AND SAMPLE/EXCAVATION PLAN. I UNDERSTAND WE WILL HAVE A TELEPHONE CONF CALL AT 9:00 TOMORROW AM TO DISCUSS OVERALL ISSUES. THANKS FOR YOUR HELP.
DAVID GLICK

IF THERE WERE ANY PROBLEMS WITH THIS TRANSMISSION PLEASE CALL:

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815


MICROWAVE TOWER
72^ 54' 07.17 W 582.85'
PROPERTY CORNER
N 483,554.23
E 1,484,852.40
S 72^ 53' 06.73 W 349.82
PROPERTY CORNER
N 483,600.11
E 1,484,500.37
N 17^ 03' 26.02 E 144.05'
FLEET MAINTENANCE BUILDING
0851
TP-1
TP-2
TP-3
TP-4
TP-5
TP-6
TP-7
TP-8
TP-9
TP-10
TP-11
TP-12
-5.5-6'
-6.5-7'
-10'
N 88^ 40' 18.91" W 525.44'

FLEET MAINTENANCE
BUILDING
0861
PROPERTY CORNER
PROPERTY CORNER

EAST BAY
MUNICIPAL UTILITY DISTRICT
ENGINEERING AND CONSTRUCTION DEPARTMENT

DENNIS M. DIEMER
DIRECTOR OF ENGINEERING

November 9, 1995

Juliet Shin
Alameda Co. Health Department
1131 Harbor Bay Pkwy., 2nd Flr.
Alameda, CA 94502

Subject: Adeline Maintenance Center - Specification 1687
Partnering Workshop

Dear Juliet,

Thank you for your attendance and participation in the District's Partnering Workshop conducted on October 23, 1995. It was a pleasure to get together with you for this event. We look forward to your continued interaction for a successful project.

Enclosed for your use is your copy of the Partnering Charter and notes as prepared by Jim Eisenhart of Ventura Consulting Group. If you should have any questions regarding the partnering workshop or other project information, please direct them to David Tsztoo at (510) 287-1163.

Very truly yours,

David J. Tsztoo for

ALBERT A. SANCHEZ
Manager of Special Projects

DT:JH:mh

Enclosures

w \wp\project\amc\amc\dft138

MEETING
1200 21st Street
Oakland
January 31, 1996

Attending: Eileen M. Fanelli, EBMUD
Karl Mayo, EBMUD
David Glick, Geoplexus
Matt, Walsh Pacific
Juliet Shin, ACDEH

- The ASTM RBCA values given in the report need to be multiplied by 0.29 for soil, which would effect the proposed excavation depths in the Phase II UST area from 1-7 feet bgs to 1 to 14 feet bgs.

- Lead and PNAs will be analyzed for in soil samples collected from Trench 10 through 12, which are located near former Boring 6-1.

- Although water was observed in Trench 2 and from Boring 6-4 previously, this water appears to be perched because the water was limited and located whereever rubble was identified. Also, a water line or sewage line leak was identified upgradient of Trench 2, and when this leak was fixed, no additional water entered Trench 2. The actual aquifer appears to be deeper than 16-feet below ground surface, based on the fact that no water was observed at this depth in the former tank excavation.

- EBMUD was asked to conduct a risk assessment assessing the potential human health threat for vapor intrusion into buildings. The anticipated cleanup values can be used to conduct this assessment.

- The soil samples collected from Trench 6 contained the highest levels of TPHg and TPHd out of all the Trench samples. According to David Glick, the lab stated that the identified TPHd looked like weathered gas.

- There is no additional information on the two underground storage tanks formerly located at the Fleet Maintenance Center, other than the fact that they were removed in the early 80's.

- Due to the limited amount of groundwater anticipated during the excavation process, Geoplexus is proposing that any dewatered groundwater will be pumped to a baker tank, tested, and properly disposed, probably under a one-time discharge permit from RWQCB.

- Walsh Pacific will have a design schedule available to EBMUD for the Phase II area of the site by May 1996. EBMUD will subsequently put together a mass overexcavation schedule.

- EBMUD was reminded to submit documentation for the fate of all excavated soil to this office, which could be incorporated into the reports for the various phases of work.

- Forward a copy of the LG letter discussing hydraulic lift exemption to Eileen Fanelli.

- A letter summarizing discussions of meeting will be submitted by Geoplexus.

- A schedule for the excavation work planned at the Phase I area of the site will be submitted to the County next week.

Other comments made by the County are noted in the copy of the report in County's files.

General Services Administration, Region 9
525 Market Street
San Francisco, CA 94105-2799

December 20, 1995

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Ref: Underground Storage Tank Removal, Project RCA21602
Alameda Federal Center, Alameda, CA

Dear Ms. Shin:

This is to confirm our conversation of December 14, 1995, regarding the status of the above referenced project. The bid opening for this project was held on November 2, 1995. Ten bids were received which ranged from a low of approximately $67,000 to a high of approximately $411,000. We are currently evaluating the low bidder's alleged mistake in the bid. At the present time, we are considering converting this solicitation from sealed bidding to a negotiated procurement due to the wide range of bid prices received which varied significantly from our Government estimate. This conversion would allow us to examine the technical approaches of the bidders and the reasonableness of the prices proposed.

Although we are currently unable to provide a realistic project schedule due to the complexity of the procurement actions required, we can tell you that we do not anticipate awarding the tank removal contract prior to February 1996. Once the contract is awarded, the contractor will have fifteen (15) calendar days to submit performance and payment bonds. Notice to Proceed could not be issued prior to receipt of these bonds; consequently, work would probably not begin on the site before March 1996.

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▸ 2

To Juliet Shin	From JAMES LEW
Dept./Agency	Phone # 415 744-5895
Fax # 510 337-9335	Fax # 744-5010

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

We appreciate your understanding and patience and will keep you apprised of the status of this project. Should you require additional information, feel free to contact me at (415) 744-5995, or Norma J. Hermocillo, the Contracting Officer, at (415) 744-5117.

Sincerely,

James W. Lew
Project Manager
San Francisco Service Center
Public Buildings Service (9PEC)

EAST BAY
MUNICIPAL UTILITY DISTRICT

GARY L. HUNT
ASSISTANT GENERAL MANAGER
OPERATIONS, PLANNING, AND MAINTENANCE

FAX TRANSMITTAL SHEET

This transmittal consists of 3 **pages including cover page.**

DATE: 12/20

TO: Juliet Shin (510) 337-9335

Fax #:

Tel #:

FROM:

Tel #:

Fax #: (510) 287-1530

CONTENT: Meeting Agenda AMC

COMMENTS: Meeting tomorrow, Dec 21, at 11:00
7th floor EBMUD

[ ] Original to follow

If you have any trouble receiving the above specified pages, please call the Regulatory Compliance Office at (510) 287-1669, or call the sender at the above number.

Meeting Agenda
Project Status Report
AMC Project

Date: December 21, 1995, 11:45 am, Hillview Confr. Rm. 7th fl. EBMUD offices

Attendees: Juliet Shin/Alameda County Health Department
Eileen Fanelli/EBMUD
Alex Coate/EBMUD

1.0 Construction Status Update

2.0 Materials Management Plan Outline (MMP)

3.0 Discussion of Technical Approach

4.0 Schedule for completion of the draft MMP

Modified Outline
Materials Management Plan
Adeline Maintenance Center

1.0 Introduction

- 1.1 Purpose and Scope
- 1.2 Site History
- 1.3 Planned Improvements
  - 1.3.1 Project Elements
  - 1.3.2 Schedule and Phasing

2.0 Threshold Criteria

- 2.1 Identification of Applicable Guidelines and Evaluation of Criteria
- 2.2 Summary of Threshold Criteria

3.0 Areas of Concern (as related to threshold criteria)

- 3.1 Within construction limits
- 3.2 Outside of construction limits

4.0 Preferred Soil Management Options

- 4.1 Evaluation Criteria (cost, time, staging, grading)
- 4.2 On-site Options
- 4.3 Off-site Options
- 4.4 Preferred Option(s)

5.0 Methodology

- 5.1 Excavation Protocols (incorporates the procedures for "following" contamination outside of construction or property boundaries)
- 5.2 Excavation Characterization
- 5.3 Dewatering
- 5.4 Confirmation Sampling
- 5.5 Tank Excavation and Removal
- 5.6 Worker Health & Safety

6.0 Phase and Area Specific Implementation Plans (Plans to be developed as design/construction elements are finalized and will be included as appendices to the MMP)

7.0 Unforseen Conditions

- 7.1 Additional Tanks/Sumps
- 7.2 Free Product
- 7.3 Seepage Control/Recovery

EAST BAY
MUNICIPAL UTILITY DISTRICT

ENGINEERING AND CONSTRUCTION DEPARTMENT
DENNIS M. DIEMER
DIRECTOR OF ENGINEERING

October 17, 1995

Juliet Shin
Alameda Co. Health Dept.
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Dear Ms. Shin,

You are invited to participate in a partnering workshop for the District's Adeline Maintenance Center Design Build Project located in West Oakland. Over fifty (50) individuals representing the District, contractors, consultants, City of Oakland, and other review agencies are invited to attend (see list of participants in Attachment 1). If you cannot attend, please send a representative and confirm by October 18, 1995.

Jim Eisenhart of Ventura Consulting Group, Inc., will be the facilitator for the one-day workshop. The workshop will explore common problems which have typically led to adversarial relationships among project participants on many unsuccessful projects. More importantly, the workshop will allow all participants to develop mutually agreeable processes to deal with and resolve problems so that a successful project results for everyone.

The workshop will begin with a complimentary breakfast at 7:30 am on Monday, October 23, 1995 at the Executive Inn, 1755 Embarcadero, Oakland, CA and will end at approximately 4:30 p.m. A catered lunch and refreshments will be will also be provided by the District.

Attendance confirmations by you, or your representative, and any questions about the workshop should be directed to Eulalia Sweet or David Tsztoo at (510) 287-1163. The contact number at the Executive Inn is (510) 536-6633.

Very truly yours,

David Tsztoo for

ALBERT A. SANCHEZ
Manager of Special Projects

AAS:es
w:\wp\amc\partner\pa2ltr.frm

Attachment

cc Project file

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 835-3000
P.O. BOX 24055 . OAKLAND . CA 94623-1055

AMC PROJECT

Partnering Workshop
October 23, 1995
Executive Inn, Oakland, CA

EBMUD (OWNER)
- Albert Sanchez, Manager of Special Projects
- David Tsztoo, Project Manager
- Eva Lucia, Senior Civil Engineer
- Karl Mayo, Supervising Administrative Engineer
- Eulalia Sweet, Senior Clerk

EBMUD (CLIENT)
- John Bertorello, Manager of Plant and Equipment Maintenance
- Stuart Cannon, Manager of Purchasing
- Jonathan Spiegel, Manager of Maintenance Planning
- Dave Williamson, Mechanical Superintendent
- Carlos Cardoza, Electrical Superintendent
- John Carleton, Structures Superintendent
- Lisa Ricketts-Mann, Assistant Construction/Maintenance Superintendent
- Bill Kerr, Facility Supervisor
- Robert Sonnenfelt, Equipment Supervisor
- Chuck Evans, Equipment Supervisor
- Les Martin, Stores Supervisor
- Roger Meininger, Materials Storage Supervisor
- Carl Jackson, Principal Information System Analyst
- John Burge, Senior Telecommunications Analyst
- Richard Sykes, Regulatory Compliance Officer
- Bruce Lepore, Manager of Workplace Health and Safety
- Alex Coate, Manager of Environmental Compliance

CONSOLIDATED CM (Construction Management)
- Matt Scoble, Executive Vice President
- Jack Heffernan, Resident Engineer
- Denise East, Resident Inspector

WALSH PACIFIC CONSTRUCTION (General Contractor)
- Michael Cooper, Project Manager
- Brad Oldenbrook, Assistant Project Manager
- Fred Rust, Superintendent

MICHAEL WILLIS & ASSOCIATES (Design Architect)
Michael Willis, Principal
Rod Hemni, Project Architect

VENTURA CONSULTING GROUP
Jim Eisenhart - President/Facilitator

CITY OF OAKLAND
Brian Matsumura, Process Coordinator III, Planning and Building
Jon Ewigleben, Supervising Civil Engineer, Building Plan Check
Jerry Blueford, Fire Marshall
Joan Curtis, Senior Engineering Technician
Ray Derania, Manager, Inspection Services
Calvin Wong, Deputy Director of Planning and Building
Phil Grubstick, Manager of Engineering Services and Building Plan Check
Frank Kliewer, Manager of Operation, Planning and Building
Shirley Stubblefield, Acting Director of Planning and Building

VICKERMAN, ZACHERY, MILLER (VZM) (Production Architects)
Marian Rule Cope, Project Manager
Kit Wong, Project Architect
Michael Zachary, Principal

ENGINEERING NETWORK CONSULTING ENGINEERS (Mechanical Engineers)
Mansour Firouzian, Principal

SCE ENGINEERS (Electrical Engineers)
Albert Lee

BAY CITIES PAVING & GRADING
Steven Caudill

FREDERICK MEISWINKEL, INC. (EIFS/Drywall/Fireproofing)
Earl Thompson

LINDQUIST/VAN HOOK (Pre-Engineered Metal Bldg.)
Kurt Lindquist, Partner

SAINTS MECHANICAL COMPANY, INC. (Mechanical Sub-contractor)
David Davallou

EDWARD SCOTT ELECTRIC CO., INC. (Electrical Sub-contractor)
Bill Kay

LESCURE CO., INC. (Electrical Sub-contractor)
Norman Lescure, President

PG&E
Robert Cohen
Joe Skarr

ALAMEDA COUNTY ENVIRONMENTAL HEALTH SERVICES
Juliet Shin

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
Bill de Boisblane

REGIONAL WATER QUALITY CONTROL BOARD (RWQCB)
Bruce Wolf

PAC BELL

VENTURA CONSULTING GROUP, INC.

Adeline Maintenance Center
Partnering Workshop
October 23, 1995

AGENDA

The Executive Inn
1755 Embarcadero
Oakland, CA

Monday:

7:30 Coffee & Danish

8:00 Welcome and introductory remarks by senior management

8:30 Introductions

9:00 Paradigms -- how they can limit our performance on this project. GOAL: get out on the table the "baggage" and background assumptions we have about one another that, if allowed to surface, can lead to "business as usual" at best.

10:00 Break

10:20 Presentation of "Partnership goals" as developed in previous workshop. Discussion. What's possible acknowledging these goals? Modification if necessary.

11:00 How do we get there from here? Participants define how they we realize these goals with an emphasis on team or collaborative actions.

12:00 Lunch

1:00 How do we get there, continued.

2:00 Predictable BOMS (breakdowns, obstacles, mistakes & screwups) on

this project -- what can go wrong? How can we prevent this? If we can't prevent this how can we minimize its impact on our partnership goals?

2:30 Enrolling others in the partnership -- how do we get those not here today into this partnership?

2:45 Sustaining this partnership

3:00 Development of partnership charter

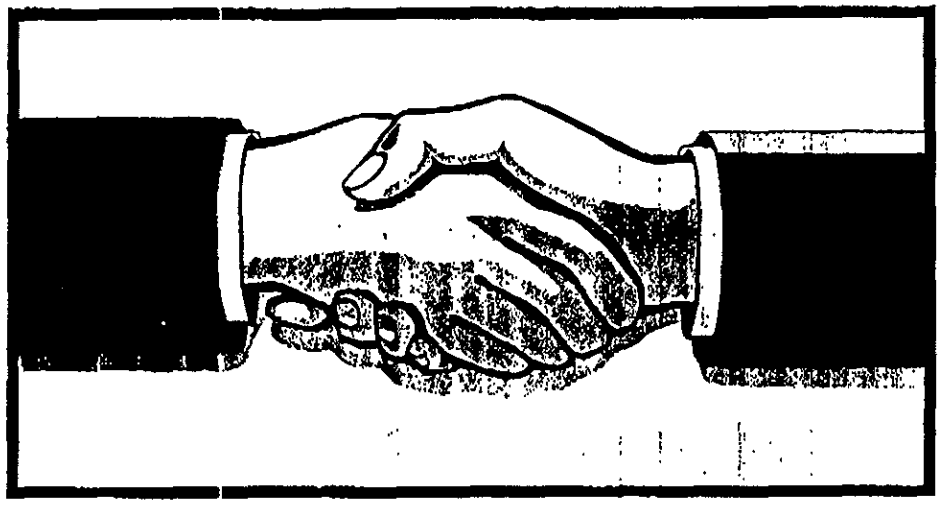
3:15 Close

For projects and programs where how the various players work together is the key determinant of success.

Ventura Consulting Group, Incorporated

PARTNERING

Rx For Project Breakthrough



Facilitated Workshops, Seminars And Project Coaching

Trust, shared vision, commitment, teamwork and breakthrough results

VERSUS

Us vs. them, conflict, overruns, claims, delays and "business as usual"

How Does Our Partnering Process Actually Work

As a third party resource skilled in group process facilitation methods, we ensure creation of a partnership which acknowledges and meets the specific needs of all project stakeholders.

Ventura Consulting Group offers 1, 2, 3 or 5 day facilitated partnering workshops. These include an initial consultation with you to assist in the specific partnering design, identification of appropriate participants, introduction and planning for necessary workshop logistics.

Workshop participants may number from 4 or 5 up to 22. Workshop duration (1, 2, 3 or 5 day) is a function of: number of participants; complexity of project; and, relations among participants. For particularly large or complex projects, we offer custom partnering processes.

In addition, we often schedule follow-up interim workshops of 1/2 to a full day and/or individual coaching sessions to assess project progress and learnings, and reinforce initial commitments.

Ventura Consulting Group, Incorporated

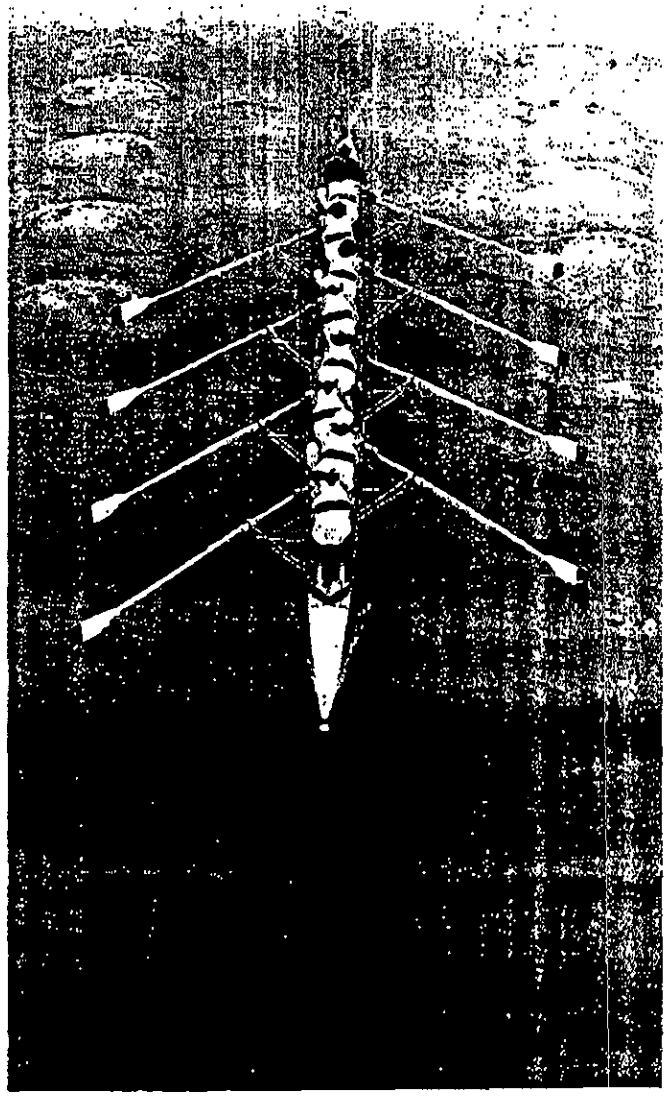
Developing management and organization performance that accelerates business growth.

For more information, please call:

(805) 650-8040

674 County Square Dr. Suite 105
Ventura, California 93003

Our Unique Approach To Partnering

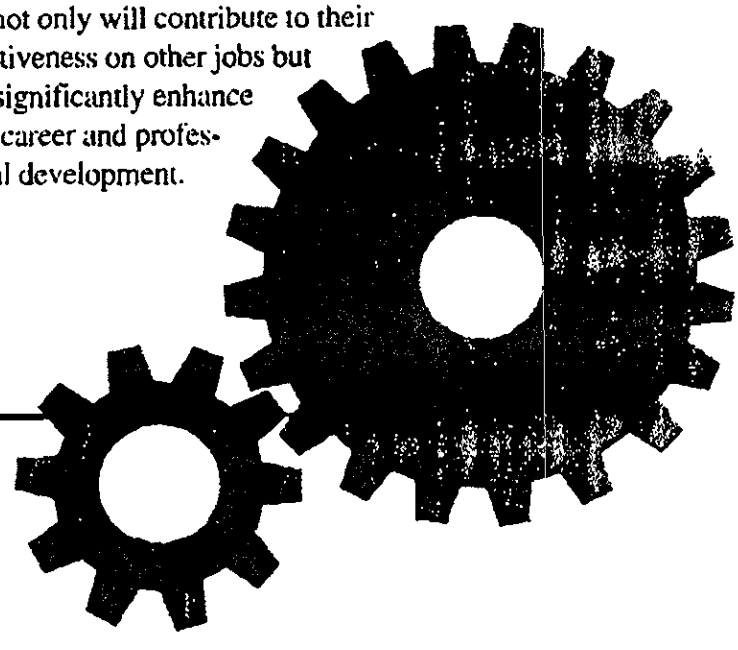


#1 **Our process can deal with highly adversarial or potentially adversarial relationships.** Our experience suggests that the background conversations (e.g. "These guys can't be trusted", etc.) that exist have to be dealt with up front. If not, you only have a pretense of trust, mutual support and understanding. Our facilitation process allows everyone to get these conversations, or paradigms, "out on the table" in such a way that is constructive and that moves things forward.

#2 **Our work is designed to produce a breakthrough in project success.** We've committed to having our clients produce a result that is not just a 'success' but rather a genuine breakthrough given what might be otherwise predictable. Our experience suggests that the vast majority of participants want to be up to something more than just 'business as usual'. Our approach gives them the opportunity to create this future as a possibility, turn it into team and individual commitments and translate those into specific actions.

#3 **We empower participants to deal with risks and breakdowns.** Perhaps the most vulnerable part of a partnering relationship is how parties deal with risk and failure. These situations surface people's true commitments. We coach participants to create a new context for risk and failure, one that recognizes that most project breakthroughs are actually generated out of breakdowns. Nor is it a question of eliminating risk or failure. Rather, it is a question of *how* a project team deals with them.

#4 **We develop transferable project management and leadership skills.** Our commitment is to leave participants with skills and abilities that not only will contribute to their effectiveness on other jobs but will significantly enhance their career and professional development.



What Partnering Is

Partnering represents a new and powerful team building process designed to ensure that projects are positive, ethical and win-win experiences for all parties involved. Partnering, in short, takes the elements of luck, hope and personality out of determining project success particularly where there's a highly diverse and potentially adversarial group of interests involved.

The partnering process itself is a facilitated workshop in which stake-holders in a specific project or program come together, prior to initiation, to create a way of working together as a team that results in breakthrough success for all parties involved.

Let's face it, contracts and legalise don't spell out—nor can they—how the various parties in a complex project will work together, plan, solve problems, or handle breakdowns.

"The best way to predict the future is to create it" –Peter Drucker

Benefits Of Partnering

- ☑ **Breakthrough results well beyond 'business as usual'.**
- ☑ **Major reductions in cost growth over project life.**
- ☑ **Time growth in schedules virtually eliminated.**
- ☑ **Completion without adversarial relationships let alone claims or costly litigation.**
- ☑ **Paperwork reduced.**
- ☑ **Fun put back into project work!**

Applications Of "Partnering"

Construction projects

Government - industry relations

Customer - vendor working relations – TQM, etc.

Interorganizational programs and projects–new product development, strategy planning, etc.

Examples:

For US Naval Postgraduate School, Monterey, CA (construction project): Created a team commitment between client, A&E and general contractor and subs to a 10 month completion schedule in face of a 12 month contractual agreement for completion.

For County of Ventura Supervisors, city managers & county business leaders (government – industry): Working to create a relationship between business and government leaders that facilitates a resolution of difficulties between the public and private sectors.

For two divisions of Penn Central Corporation (business – business): Created a strategic plan that both divisions were committed to realizing as partners.

Ventura Consulting Group, Incorporated
674 County Square Dr. Suite 105
Ventura, CA 93003
(805) 650-8040

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

II, III

Site ID # _____ Site Name EBMUD Today's Date 4/7/95

Site Address 1200 - 21ST St.

City Oakland Zip 94607 Phone _____

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

Inspection Categories:

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

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

Comments: 3:00 arrived onsite. Met with Cynthia Adkisson + Karl Mayo. Karl said they'll have to remove ~15-20' of soil in vicinity of USTs in order to construct bldg. Discussed the possibility of installing MW(s) inside new bldg while under construction. Toured the 4 blocks + discussed existing + future uses. Their consultant will be onsite during construction. Well locations will then be determined + a workplan for well placement will be submitted shortly thereafter. 4:05 left site

Contact Cynthia C. Adkisson

Title _____

Signature _____

II, III

Inspector Jennifer Eberle

Signature Jennifer Eberle

EAST BAY
MUNICIPAL UTILITY DISTRICT

GARY L. HUNT
ASSISTANT GENERAL MANAGER
OPERATIONS, PLANNING, AND MAINTENANCE

March 8, 1995

Ms. Jennifer Eberle
Alameda County Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

Dear Ms. Eberle:

RE: STID 3917, Adeline Maintenance Center, 1200 21st St., Oakland

Enclosed please find a copy of the Preliminary Site Assessment Report prepared by GeoPlexus, Inc., for the Adeline Maintenance Facility, and a construction schedule for site excavation activities.

As described in the site assessment, soil samples were taken in the areas of two existing underground storage tanks at the Central Service Area (Borings 1-1 and 1-2), and near the location of the waste oil tank (boring 2-7). These three tanks are currently in use. The results indicate hydrocarbon contamination, and this will be further investigated at the time these tanks are removed in 1997.

The schedule indicates that the demolition and construction of facilities will be in a phased approach from now through 1997. All excavated materials that are suspected of being contaminated will be sampled and properly disposed.

If you have any questions, please call Cynthia Adkisson at 287-1627.

Sincerely,

RICHARD G. SYKES
Regulatory Compliance Officer

RGS:CCA:prb

Enclosures

cc: J. Shin (w/o enclosures)

EC95098-1132.1

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 287-0444
P.O. BOX 24055 . OAKLAND . CA 94623-1055

EAST BAY
MUNICIPAL UTILITY DISTRICT

GARY L. HUNT
ASSISTANT GENERAL MANAGER
OPERATIONS, PLANNING, AND MAINTENANCE

February 24, 1995

Ms. Jennifer Eberle
Alameda County Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway, #250
Alameda, CA 94502-6577

Dear Ms. Eberle:

RE: STID 3917, Adeline Maintenance Center, 1200 21st St., Oakland

Enclosed please find Unauthorized Release Report and a completed Underground Storage Tank Permit Application Form B for each of the four underground tanks that were discovered at the referenced facility.

Per your conversation with Cynthia Adkisson, you will receive by March 17 a time schedule of anticipated demolition, construction, and site assessment investigation. Upon receipt and review of this document, please call Cynthia with your questions and concerns.

We anticipate submitting the geotechnical report to your office by mid-March.

Please note that all future correspondence on this site should be addressed to me. If you have any questions, please contact Cynthia Adkisson at 287-1627.

Sincerely,

RICHARD G. SYKES
Regulatory Compliance Officer

RGS:CCA:prb

Enclosures

cc: J. Shin (w/o enclosures)

EC95085-1132

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 287-0444
P.O. BOX 24055 . OAKLAND . CA 94623-1055

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? ☐ YES ☒ NO

REPORT DATE: 02/24/95 (M/M/D/D/Y/Y)

CASE #:

FOR LOCAL AGENCY USE ONLY

I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.

SIGNED: [signature] DATE: 2-28-95

REPORTED BY

NAME OF INDIVIDUAL FILING REPORT: Karl R. Mayo

PHONE: (510) 287-1279

SIGNATURE: Karl R. Mayo 02/24/95

REPRESENTING: ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER

COMPANY OR AGENCY NAME: East Bay Municipal Utility District

ADDRESS: 375 11th Street (STREET) Oakland (CITY) CA (STATE) 94607 (ZIP)

RESPONSIBLE PARTY

NAME: EBMUD ☐ UNKNOWN

CONTACT PERSON: Richard G. Sykes

PHONE: (510) 287-1629

ADDRESS: P.O. Box 24055, MS 704 (STREET) Oakland (CITY) CA (STATE) 94623-1055 (ZIP)

SITE LOCATION

FACILITY NAME (IF APPLICABLE): EBMUD Adeline Maintenance Center

OPERATOR:

PHONE: ( )

ADDRESS: 1200 21st Street (STREET) Oakland (CITY) Alameda (COUNTY) 94607 (ZIP)

CROSS STREET: Adeline

IMPLEMENTING AGENCIES

LOCAL AGENCY / AGENCY NAME: Alameda County Environmental Protection

CONTACT PERSON: Edgar B. Howell, III

PHONE: (510) 567-6700

REGIONAL BOARD: San Francisco Bay

CONTACT PERSON: Kevin Graves

PHONE: (510) 286-1255

SUBSTANCES INVOLVED

(1) NAME: Gasoline — QUANTITY LOST (GALLONS): ☒ UNKNOWN

(2) Diesel — ☒ UNKNOWN

DISCOVERY/ABATEMENT

DATE DISCOVERED: 11/17/94 (M/M/D/D/Y/Y)

HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☒ TANK REMOVAL ☐ OTHER

DATE DISCHARGE BEGAN: ☒ UNKNOWN

HAS DISCHARGE BEEN STOPPED? ☒ YES ☐ NO IF YES, DATE: 11/17/94

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)

☒ REMOVE CONTENTS ☐ CLOSE TANK & REMOVE ☐ REPAIR PIPING ☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE ☐ REPLACE TANK ☒ OTHER: Remove tanks

SOURCE/CAUSE

SOURCE OF DISCHARGE: ☐ TANK LEAK ☒ UNKNOWN ☐ PIPING LEAK ☐ OTHER

CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER

CASE TYPE

CHECK ONE ONLY

☒ UNDETERMINED ☐ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

CURRENT STATUS

CHECK ONE ONLY

☐ NO ACTION TAKEN ☒ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION

☐ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS

☐ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

REMEDIAL ACTION

CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)

☒ EXCAVATE & DISPOSE (ED) ☒ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)

☐ CAP SITE (CD) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS)

☐ CONTAINMENT BARRIER (CB) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)

☐ VACUUM EXTRACT (VE) ☐ OTHER (OT)

COMMENTS

6 USTs removed from the facility 11/17 thru 11/22, 1994. Four of these were 'discovered' and ranged in size from 300 to 500 gallons, and the registered tanks were 4,000 and 6,000 gallons. Tanks were removed as part of overall demolition and construction of new facilities, and soil and groundwater assessement will be conducted as part of a site wide environmental assessment.

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

RAFAT A SHAHID, ASST AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
ALAMEDA COUNTY CC4580
DEPT. OF ENVIRONMENTAL HEALTH
ENVIRONMENTAL PROTECTION DIVISION
1131 HARBOR BAY PKWY., #250
ALAMEDA CA 94502-6577

February 17, 1995
STID 3917

Attn: Karl Mayo
Mailstop 303
EBMUD
PO Box 24055
Oakland CA 94623-1055

RE: Adeline Maintenance Center, 1200-21st St., Oakland CA 94607

Dear Mr. Mayo,

I am in receipt of a transmittal document from your office, unsigned, dated 2/2/95. Attached to this transmittal are the hazardous waste manifests for the six USTs, as well as a certificate for receipt of 1,391.21 tons of "HC material," presumably hydrocarbon contaminated soils, on 11/22/94, from REMCO in Richmond.

I am also in receipt of the 12/29/94 "Interim Remedial Action Summary Report," by GEMS. This report includes a fairly good description of tank removal activities, so I'll consider this a Tank Removal Report, required as per the Underground Tank Closure Plan. The highest residual soil concentrations (upper 8') are 2,800 ppm TPHg, 16 ppm benzene, 440 ppm TPHd, and 900 ppm O&G. Water in the 6,000-gal UST excavation was sampled and found to contain 6,200 ppb TPHg, 2,400 ppb TPHd, and 340 ppb benzene. This water was presumed to be perched water by GEMS. A hydrocarbon sheen was noted on the walls of the excavation. There was a pronounced hydrocarbon odor throughout the tank removal process. Apparent free product on the groundwater was noted, and vacuumed out. GEMS does not attribute the contamination in the upper strata to the USTs.

The GEMS report recommends that the County postpone requirements for borings and/or monitoring wells until the ensuing demolition activities are completed and observed/logged/sampled by a Registered Civil/Geotechnical Engineer and/or CEG. In order to accept this scenario, further information is need. Please submit a time schedule of anticipated activities, within 30 days, or by March 17, 1995. This office should be informed as the demolition and construction proceeds, as well as if contamination is discovered during these activities. A more specific request will be made upon receipt of the anticipated time schedule.

A Health and Safety Plan should be prepared for the ensuing demolition and construction activities. This plan must include an evaluation of the risk of exposure for workers to the hydrocarbons already identified at this site.

I understand that borings were installed in January in this four square block area for geotechnical purposes, as per a telephone conversation with David Glick on 2/16/95. I also understand that samples were collected and analyzed. **Please submit a copy of this geotechnical report to this office.**

On 12/13/94, I mailed you six "B Forms" from the State's Underground Storage Tank Permit Application. I have not yet received the completed B forms. As you may recall, one B form is needed for each UST removed. I already have B forms for the 4,000-gal and 6,000-gal fiberglass USTs, removed on 11/17/94. **Please submit the B forms for the remaining four USTs within 15 days, or by March 4, 1995.**

In addition, please also submit an Unauthorized Leak Report (ULR) for this site within 15 days, or by March 4, 1995. A blank form is enclosed.

Please note that with the exception of closure reports, routine reports and documents no longer need to be copied to the Regional Water Quality Control Board. If you have any questions, please contact me at 510-567-6700, ext 6761; our fax number is 510-337-9335. **Please submit reports on double-sided paper in order to save trees.**

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: David Glick, GeoPlexus, 1900 Wyatt Dr., Suite 1, Santa Clara CA 95054
Richard Camacho, GEMS, PO Box 8282, Pittsburg CA 94565
Juliet Shin, Alameda County
EBMUD, PO Box 24055, Oakland CA 94623-1055, ATTN: Bruce Lepoure, Health and Safety, (6th Floor)
Ed Howell/file

je.3917
enclosure

Pg 1 of 3

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Division Inspection Form

I

Site ID# _____ Site Name EBMUD Today's Date 11/28/94

Site Address 1200 21st St. EPA ID# _____

City Oakland Zip 94 Phone _____

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

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

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

I.A GENERATOR (Title 22)

	1. Waste ID	* 66471
	2. EPA ID	66472
	3. > 90 days	66508
	4. Label dates	66508
	5. Biennial	66493
Manifest	6. Records	66492
Manifest	7. Correct	66484
Manifest	8. Copy sent	66492
Manifest	9. Exception	66484
Manifest	10. Copies Rec'd	66492
Misc.	11. Treatment	66371
Misc.	12. On-site Disp. (H.S.&C.)	261895
Misc.	13. Ex Haz. Waste	66570
Prevention	14. Communications	67121
Prevention	15. Aisle Space	67124
Prevention	16. Local Authority	67126
Prevention	17. Maintenance	67120
Prevention	18. Training	67105
Contin. gency	19. Prepared	67140
Contin. gency	20. Name List	67141
Contin. gency	21. Copies	67141
Contin. gency	22. Emg. Coord. Trng.	67144
Containers, Tanks	23. Condition	67241
Containers, Tanks	24. Compatibility	67242
Containers, Tanks	25. Maintenance	67243
Containers, Tanks	26. Inspection	67244
Containers, Tanks	27. Buffer Zone	67246
Containers, Tanks	28. Tank Inspection	67259
Containers, Tanks	29. Containment	67245
Containers, Tanks	30. Safe Storage	67261
Containers, Tanks	31. Freeboard	67257

I.B TRANSPORTER (Title 22)

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

Comments:

Overexcavation sampling: The sixth tank was being hauled by Cal Tec when I arrived on the site at ~4:00 p.m. This tank was discovered over Tuesday night. All excavated soil was taken to BFI or REMCO. Further excavation of pit was conducted on Friday, but no samples collected on Friday. Samples will be collected under dispenser island, wall along W. Grand, and sidewalls along corral formerly "hot" areas prior to further excavation. North wall along building still showed signs of product & staining from ~3' to 8' bgs, however overexcavation limited due to building. Product & staining still observed on east wall along W. Grand. Two soil samples collected from beneath former dispenser at ~3.5' bgs in sandy loam. Strong odor. Soil sample was collected from South wall (MK136) from ~4.5' bgs. Product still seeping from this location. Clayey silt. Samples from beneath dispenser were MK134 & 135.

Rev 6/88

Contact: KARL MAYO 287-1279

Title: SAE Inspector: Juliet Shin

Signature: Karl Mayo Signature: Juliet Shin

fig 2 of 3

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Division Inspection Form

Site ID# _____ Site Name EBMUD Today's Date 11/28/94

Site Address 1700 21st St. EPA ID# _____

City Oakland Zip 94 Phone _____

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

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

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

I.A GENERATOR (Title 22)

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

I.B TRANSPORTER (Title 22)

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

Rev 6/88

Comments:

Sample MK137 collected from horizon below the observed floating product in this area. Over Sample was also collected w/in the zone that had some seepage of product (MK138) MK139 collected from ~5'bgs in Sandy loam. Product observed in Sample - Loam / fill material observed to above sandy loam. Sample MK140 collected from north wall at ~4'bgs. Product Seepage observed in this sandy sample. Product Seepage observed immediately beneath concrete paving in this area also, down to bottom of pit, now at ~7' to 8'bgs. MK141, collected from north wall, beneath MK140 also contained product & was Silty. MK142 was collected from ~5½'bgs in clay material above the observed zone of Stained soil & product. MK143 was collected in Sandy material containing product, below MK142 at ~7'bgs. Product still seeping along south wall along fractures. Former south wall samples may not have been reflective of actual conditions because seepage in fractures limited or incorporated in clay / silt.

Contact: Karl Mayo (287-1279)

Title: SAE Inspector: Juliet Shin

Signature: Karl Mayo Signature: Juliet Shin

Pg 3 of 3

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Division Inspection Form

Site ID# ______ Site Name EBMUD Today's Date 11/28/94

Site Address 1200 21st St EPA ID# ______

City Oakland Zip 94 Phone ______

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

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

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

I.A GENERATOR (Title 22)

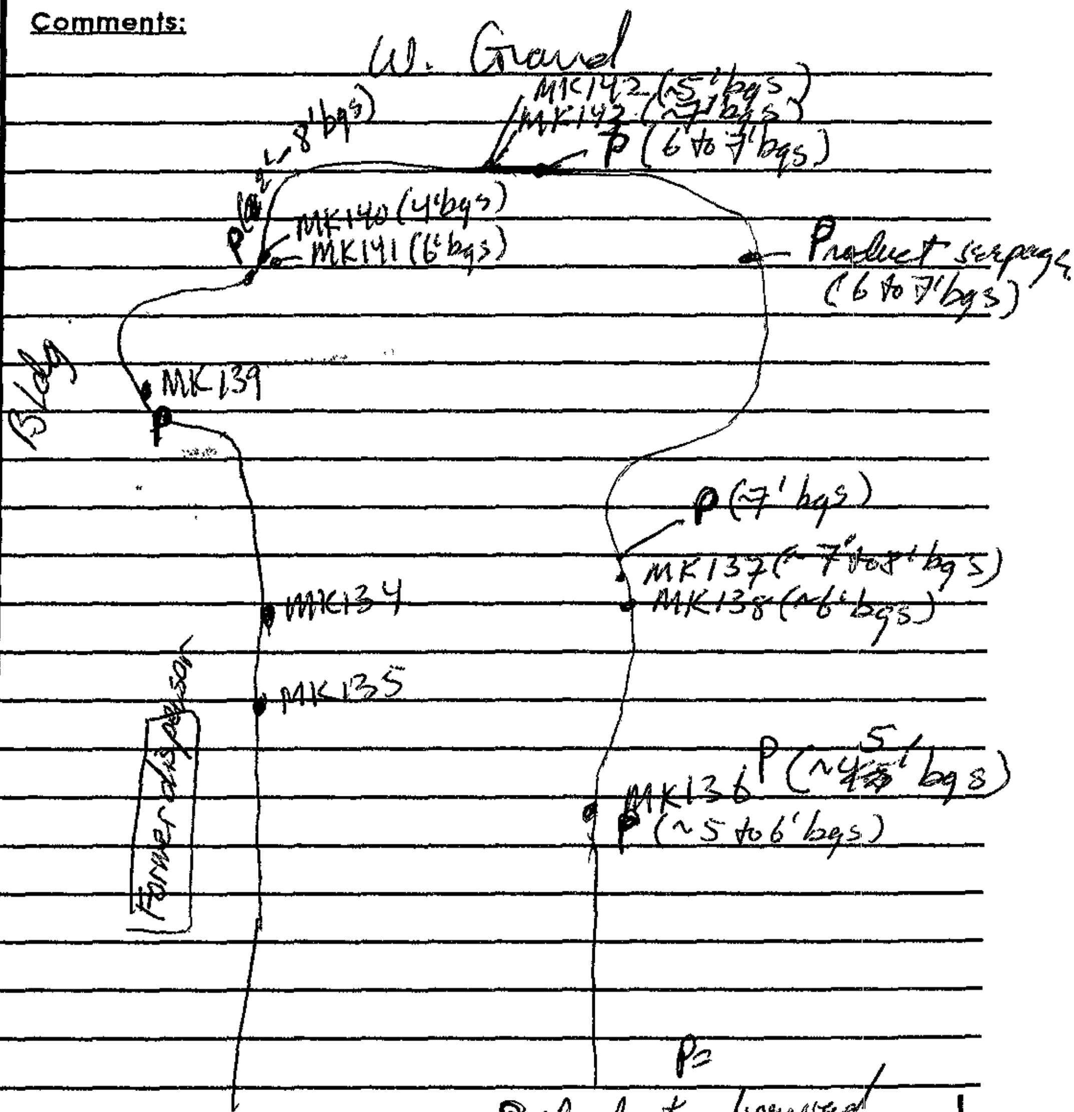
Section	Item	Code
	___ 1. Waste ID	66471
	___ 2. EPA ID	66472
	___ 3. > 90 days	66508
	___ 4. Label dates	66508
	___ 5. Biennial	66493
Manifest	___ 6. Records	66492
	___ 7. Correct	66484
	___ 8. Copy sent	66492
	___ 9. Exception	66484
	___ 10. Copies Rec'd	66492
Misc.	___ 11. Treatment	66371
	___ 12. On-site Disp. (H.S.&C.)	25189.5
	___ 13. Ex Haz. Waste	66570
Prevention	___ 14. Communications	67121
	___ 15. Aisle Space	67124
	___ 16. Local Authority	67126
	___ 17. Maintenance	67120
	___ 18. Training	67105
Contingency	___ 19. Prepared	67140
	___ 20. Name List	67141
	___ 21. Copies	67141
	___ 22. Emg. Coord. Trng.	67144
Containers, Tanks	___ 23. Condition	67241
	___ 24. Compatibility	67242
	___ 25. Maintenance	67243
	___ 26. Inspection	67244
	___ 27. Buffer Zone	67246
	___ 28. Tank Inspection	67259
	___ 29. Containment	67245
	___ 30. Safe Storage	67261
	___ 31. Freeboard	67257

I.B TRANSPORTER (Title 22)

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

Rev 6/88

Comments:



P = Product observed

Contact: KARL MAYO
Title: SAE
Signature: Karl Mayo

Inspector: Juliet Shin
Signature: Juliet Shin

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

II,III

Site ID # ____ Site Name EBMUD. Today's Date 11/23/94

Site Address 1200 - 21st St.

City Oakland Zip 94612 Phone ____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.? 350-gal UST + sampling

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

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

II.A BUSINESS PLANS (Title 19)

__	1. Immediate Reporting	2703
__	2. Bus Plan Stds.	25503(b)
__	3. RR Cars > 30 days	25503.7
__	4. Inventory Information	25504(a)
__	5. Inventory Complete	2730
__	6. Emergency Response	25504(b)
__	7. Training	25504(c)
__	8. Deficiency	25505(a)
__	9. Modification	25505(b)

II.B ACUTELY HAZ. MATLS

__	10. Registration Form Filed	25533(a)
__	11. Form Complete	25533(b)
__	12. RMPP Contents	25534(c)
__	13. Implement Sch. Req'd? (Y/N)	__
__	14. OffSite Conseq. Assess.	25524(c)
__	15 Probable Risk Assessment	25534(d)
__	16. Persons Responsible	25534(g)
__	17. Certification	25534(f)
__	18. Exemption Request? (Y/N)	25536(b)
__	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

__	1. Permit Application	25284 (H&S)
__	2. Pipeline Leak Detection	25292 (H&S)
__	3. Records Maintenance	2712
__	4. Release Report	2651
__	5. Closure Plans	2670

Monitoring for Existing Tanks

__ 6. Method
- 1) Monthly Test
- 2) Daily Vadose
  - Semi-annual gndwater
  - One time soils
- 3) Daily Vadose
  - One time soils
  - Annual tank test
- 4) Monthly Gndwater
  - One time soils
- 5) Daily Inventory
  - Annual tank testing
  - Cont pipe leak det
  - Vadose/gndwater mon.
- 6) Daily Inventory
  - Annual tank testing
  - Cont pipe leak det
- 7) Weekly Tank Gauge
  - Annual tank tstng
- 8) Annual Tank Testing
  - Daily Inventory
- 9) Other ____

__	7. Precis Tank Test Date: ____	2643
__	8. Inventory Rec.	2644
__	9. Soil Testing.	2646
__	10. Ground Water.	2647

New Tanks

__	11. Monitor Plan	2632
__	12. Access. Secure	2634
__	13. Plans Submit Date: ____	2711
__	14. As Built Date: ____	2635

Rev 6/88

3:10 arrived onsite.

Comments:

Observed the 6th UST: ~350 gal, steel, riveted full of holes (photo). The excavation is now ~15' bgs. Water is at ~14.5' bgs + has a sheen; it's being pumped out. Sheen on E+ N wall of pit. UST was not in concrete vault, said Karl. Mark said 747 tons of stockpiled soil offhauled to Remco on 11-22. Pit water being vac'd right now. They used "Fresh Aire" to control HC odor. The 6K pit is already partly backfilled. Mark gave me lab report for 11-21 samples. 3:50 Began sampling. Can't reach N corner of pit w/excavator. UST will be properly offhauled at a later date.

5:15 left site

II, III

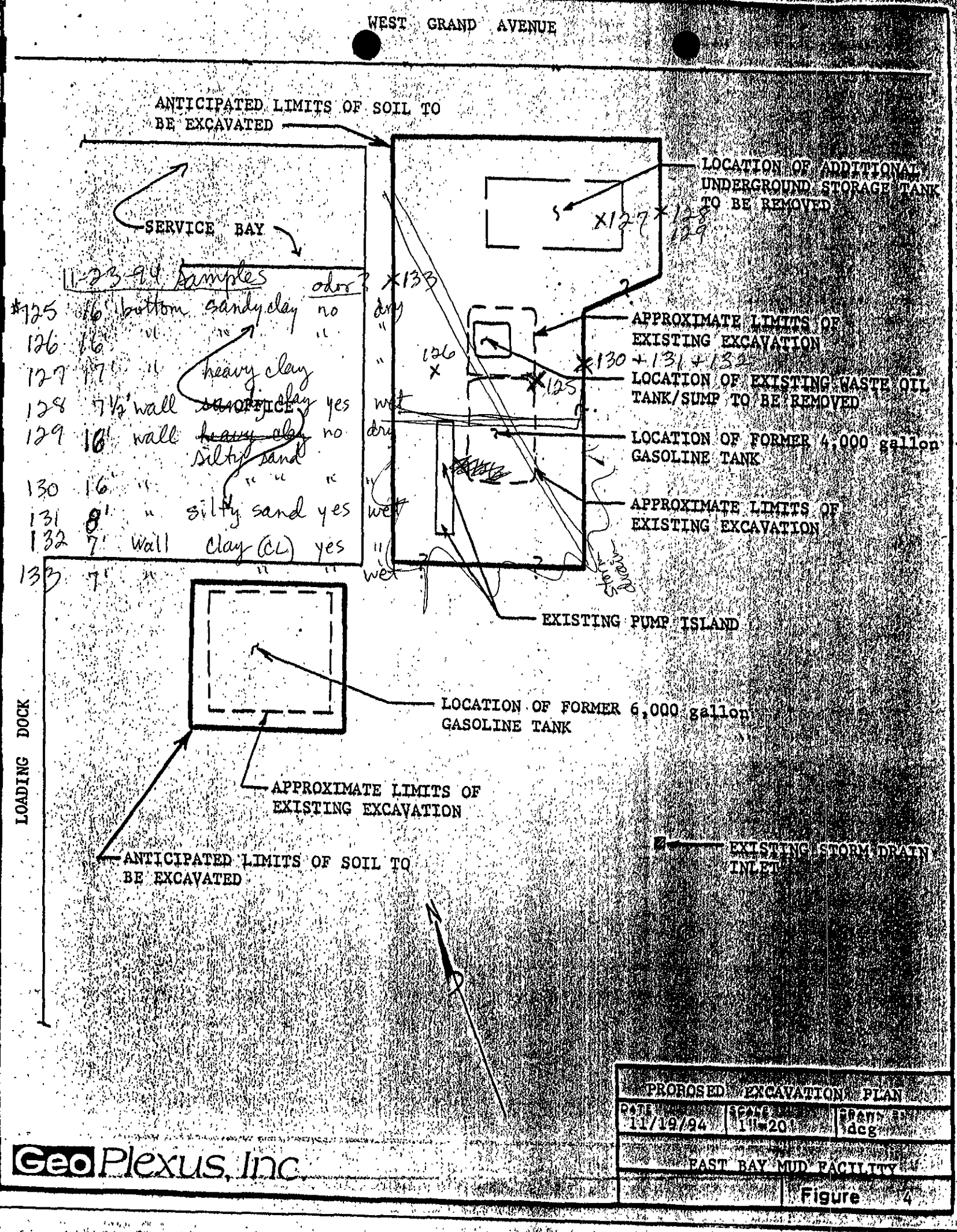
Contact: David Glick

Title: ____

Signature: (David Glick)

Inspector: ____

Signature: ____


WEST GRAND AVENUE
ANTICIPATED LIMITS OF SOIL TO BE EXCAVATED
SERVICE BAY
11-23-94 Samples
#125 16' bottom sandy clay no dry
126 16' " " "
127 17' " heavy clay "
128 7½' wall ~~clay~~ OFFICE clay yes wet
129 16' wall ~~heavy clay~~ silty sand no dry
130 16' " " " "
131 8' " silty sand yes wet
132 7' wall clay (CL) yes "
133 7' " " wet
LOCATION OF ADDITIONAL UNDERGROUND STORAGE TANK TO BE REMOVED
APPROXIMATE LIMITS OF EXISTING EXCAVATION
LOCATION OF EXISTING WASTE OIL TANK/SUMP TO BE REMOVED
LOCATION OF FORMER 4,000 gallon GASOLINE TANK
APPROXIMATE LIMITS OF EXISTING EXCAVATION
EXISTING PUMP ISLAND
LOCATION OF FORMER 6,000 gallon GASOLINE TANK
APPROXIMATE LIMITS OF EXISTING EXCAVATION
ANTICIPATED LIMITS OF SOIL TO BE EXCAVATED
EXISTING STORM DRAIN INLET
LOADING DOCK
PROPOSED EXCAVATION PLAN
DATE 11/19/94
SCALE 1"=20'
DRAWN BY dcg
EAST BAY MUD FACILITY
Figure 4
GeoPlexus, Inc.

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

II,III

Site ID # ___ Site Name EBMUD Today's Date 11/22/94

Site Address 1200-21st St.

City Oakland Zip 94607 Phone ___

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

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

Removal of 5K concrete vault w/2 500-gal USTs.

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

10:03 arrived on site

Comments:
Checked 5K gasoline concrete vault ∠2% O2 + ∠2% LEL. 10:10 Removal of vault containing two 500-gal steel USTs (may be only 350 gal). Manifest #93480863 (to Erickson). Sandy Beecher of EBMUD (IH) 287-0506
Bruce Lepore " (H+S) 287-0704
onsite W/OVM. ~~the got~~ Sandy got up to 50 ppmv in air near pit during excavation. The HC odors are elevated. We're upgrading to Level C. No obvious holes in steel USTs. Tar wrap on bottom of USTs; tar is worn off (dissolved) on top of USTs. They excavated the saturated soil + concrete chunks to a depth of 12' bgs. Took ~~soil~~ samples; see map. Also sampled 4K UST pit. These samples were taken below the liquid which had accumulated in the pit. Liquid (water or product?) is entering N wall of 5K pit at various depths of 3' to 6'.
11:53 left site

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1 Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ___

___	7. Precis Tank Test Date: ___	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing	2646
___	10. Ground Water.	2647

11:20

New Tanks

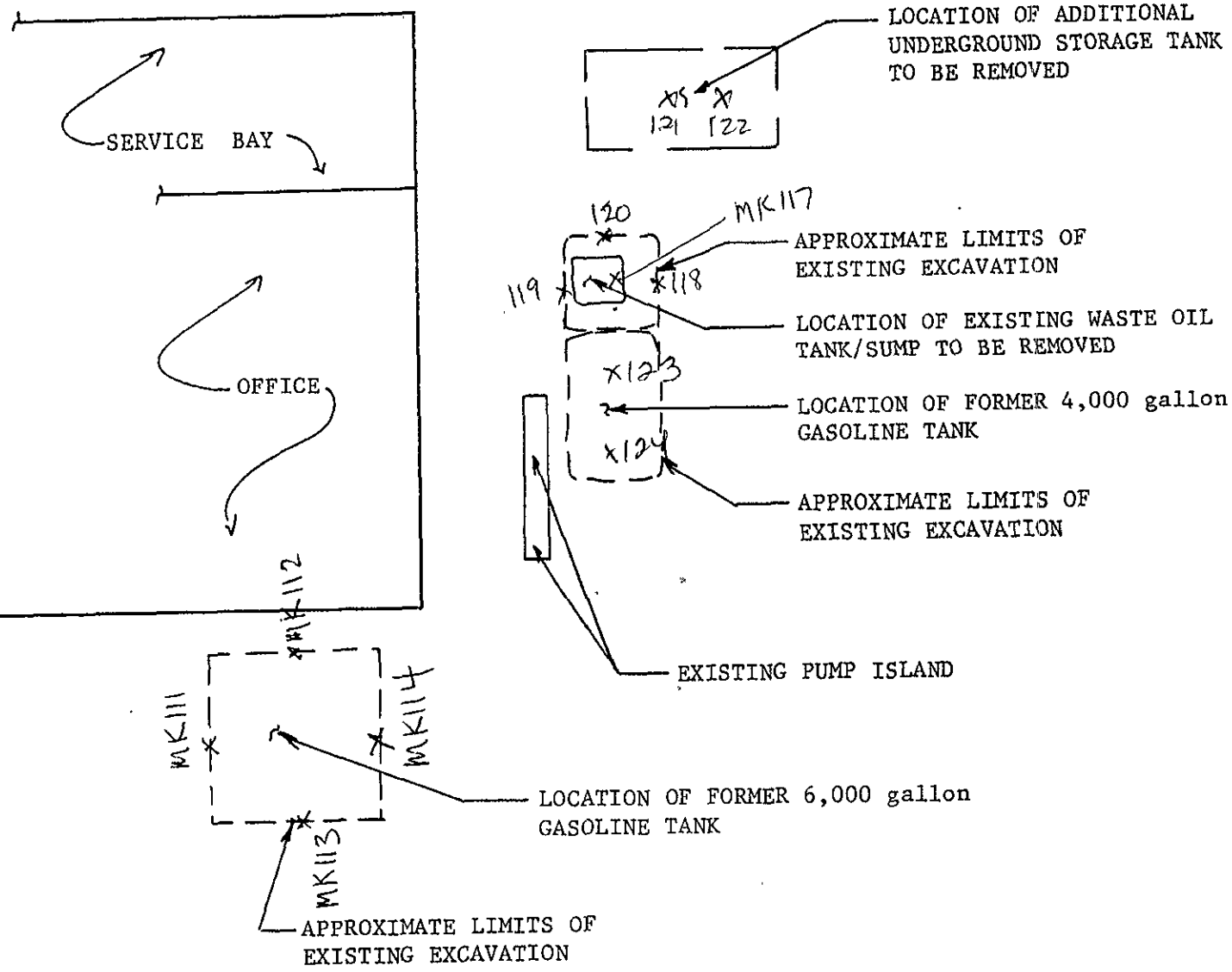
___	11. Monitor Plan	2632
___	12. Access Secure	2634
___	13. Plans Submit Date: ___	2711
___	14. As Built Date: ___	2635

Rev 6/88

Contact: Karl Mayo 287-1274
Title: SAE
Signature: Karl Mayo

II, III
Inspector: Jennifer Eberle
Signature: J Eberle

WEST GRAND AVENUE



11-21-94 samples

			odor?
MK 111	wall 10'	bay mud	organic
MK 112	wall 11.5'	"	"
MK 113	" 11.5'	"	"
MK 114	" "	"	"

Water in 6K pit { 115, 116 } not in my presence but OK'd by JE

11-22-94 samples

			odor?
121	bottom 12'	bay mud	some
122	" 12'	"	"
4K pit 123	" 13'	"	organic, dry
4K pit 124	" "	"	" , dry

GeoPlexus, Inc.

TANK LOCATION PLAN

DATE	SCALE	DRAWN BY
11/19/94	1"=20'	dcg

EAST BAY MUD FACILITY

Figure 3

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

p. 1 of 2

Hazardous Materials Inspection Form

II, III

Site ID # ____ Site Name EBMUD Today Date 11/21/94

Site Address 1200-21st St.

City Oakland Zip 94607 Phone ____

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

Removal of 500 gal waste oil

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

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

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MATLS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2642
___	12. Access. Secure	2644
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

8:30 am arrived onsite

Comments:

There are 2 "new" USTs (so far) in concrete vaults. One is 500-1000 gal waste oil, + 5000 gal RG gasoline, according to David Glick, said Mark Kemp. Vac truck is on its way. 9:00 Vac truck arrived (KVS Transportation Inc. EPA# CAD 982495608 - Benicia (800) 385-4920). Mark said the "new" 5K gas UST was spurting out liquid fm its sides during excavation. 10:15 began sampl fm 6K UST pit. See attached map. The water was vac'd out to ~11' bgs. 10:50 Lefts site 1:05 returned, but everyone is out to lunch. Saw a water sample in cooler + left site 1:12

3:32 Arrived: 500 gal w. oil UST: <5% O_2, +<5% LEL.

3:40 Removal of w. oil UST: concrete vault/sump(?) ~4 sizable holes on top of steel* UST (~500 gal), inside vault. Bottom of vault was at ~6' bgs. See map for samples. Oil (waste) is oozing from the surface of the native (possible bay mud).

* Riveted

II, III

Contact: 510-287-1279 KARL MAYO

Title: SAE

Signature: Karl Mayo

Inspector: Jennifer Eberle

Signature: Jeberle

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

p. 2 of 2

II, III

Site ID # ____ Site Name EB MUD Today's Date 11/21/94

Site Address 1200 - 21st St.

City Oakland Zip 94607 Phone ____

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

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

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

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1 Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11 Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

Comments:
Discussed Interim Remedial ~~Ac~~ Action Wp by + w/ David Glick. Since they plan to do overex w/ verification samplg, we'll put samples 118 + 119 on hold.
5:05 left site

II, III

Contact: Karl Mayo

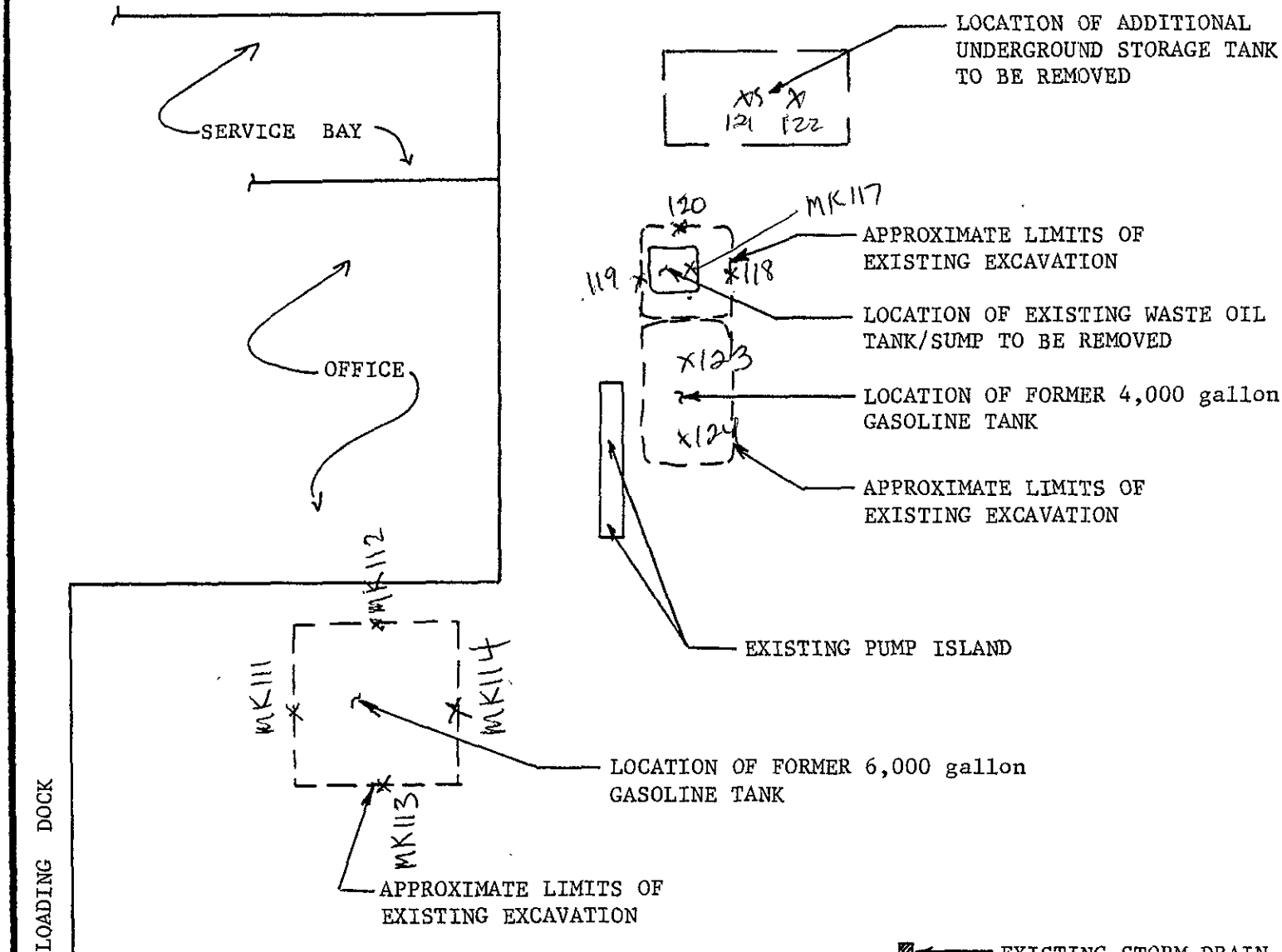
Title: SAE

Signature: Karl Mayo

Inspector: J. Eberle

Signature: J. Eberle

WEST GRAND AVENUE



11-21-94 samples

				odor?
MK111	wall	10'	bay mud	organic
MK112	wall	11.5'	"	"
MK113	"	11.5'	"	"
MK114	"	"	"	"
Water in 6K pit	115	not in my presence		
	116	but OK'd by JE		

11-22-94 samples

				odor?
	121 bottom	12'	bay mud	some
	122 "	12'	"	"
4K pit	123 "	13'	"	organic, dry
	124 "	"	"	" , dry

TANK LOCATION PLAN		
DATE 11/19/94	SCALE 1"=20'	DRAWN BY dcg
EAST BAY MUD FACILITY		
GeoPlexus, Inc.	Figure 3	

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

(Oakland Corp. Yard)

II,III

Site ID # ____ Site Name EBMUD Today's Date 11/18/94 Friday

Site Address ~~2020~~ 1200-21st St.

City Oakland Zip 94607 Phone ____

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

Inspection Categories:

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

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

Comments:

8:25 arrived onsite. They're not ready to sample. Getting Vac Truck again bec. the water in 4K UST pit has been re-contaminated by excavation activities 8:35 left site. 2:20 arrived again. Mark said they found not 1 extra UST, but maybe 3 extra USTs. Mark said Dave Glick (Geologist) came out to investigate the newly found USTs. They'll prepare new closure plan for Mon. 11-21; hope to remove them 11-21. ~8:30 am
2:42 left site

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

II, III

Contact: L

Title: V P Inspector: J. Eberle

Signature: Mark Kemp Signature: J. Eberle

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

p. 1 of 2

II, III

Site ID # ____ Site Name EBMUD Today's Date 11/17/94

Site Address 1200-21st St.

City Oakland Zip 94607 Phone ____

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

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

Removal of 6K + 4K USTs

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

II.A BUSINESS PLANS (Title 19)

____	1. Immediate Reporting	2703
____	2. Bus Plan Stds.	25503(b)
____	3. RR Cars > 30 days	25503.7
____	4. Inventory Information	25504(a)
____	5. Inventory Complete	2730
____	6. Emergency Response	25504(b)
____	7. Training	25504(c)
____	8. Deficiency	25505(a)
____	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

____	10. Registration Form Filed	25533(a)
____	11. Form Complete	25533(b)
____	12. RMPP Contents	25534(c)
____	13. Implement Sch. Req'd? (Y/N)	____
____	14. OffSite Conseq. Assess.	25524(c)
____	15. Probable Risk Assessment	25534(d)
____	16. Persons Responsible	25534(g)
____	17. Certification	25534(l)
____	18. Exemption Request? (Y/N)	25536(b)
____	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

____	1. Permit Application	25284 (H&S)
____	2. Pipeline Leak Detection	25292 (H&S)
____	3. Records Maintenance	2712
____	4. Release Report	2651
____	5. Closure Plans	2670

Monitoring for Existing Tanks

____ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

____	7. Precis Tank Test Date: ____	2643
____	8. Inventory Rec.	2644
____	9. Soil Testing.	2646
____	10. Ground Water.	2647

New Tanks

____	11. Monitor Plan	2632
____	12. Access. Secure	2634
____	13. Plans Submit Date: ____	2711
____	14. As Built Date: ____	2635

Rev 6/88

Comments:

11-05 arrived onsite. Mark Kemp of Cal Tec onsite. There are 2 vent lines of unknown origin along the side of garage next to W. Grand. 11:32 Cpl Cody of OFD arrived. Total of 4 vent pipes, +/3 dispensers. 11:55 Removal of 6K UST: gasoline, FG. The end of the UST split open during removal, + a large quantity of water w/gasoline spilled out onto the pavement. Estimate 300-1500 gal (?). Much of this liquid went into 2 storm drains onsite before we were able to dike them w/plastic + gravel. Photos taken. Cal Tec (Rich + Mark) speculated the liquid in UST came from (rain) water which found its way below the concrete, into the "spill box," + then into the hole made by one (fill?) pipe broken off during prep activities. Mark said UST had been pumped out prior to dry ice-ing it. (~225 gal gasoline).

II, III

Contact: Alexa Sloat

Title: Environmental Compliance Mgr

Signature: Alexa Sloat EBMUD

Inspector: J. Eberle

Signature: J Eberle

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

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

p. 2 of 2

II,III

Site ID # ____ Site Name EBMUD Today's Date 11/7/94

Site Address 1200-21st St.

City Oakland Zip 94607 Phone ____

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

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

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

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus Plan Stds	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1 Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

Comments:

12:45 Carl Mayo + Dave Tsztoo of EBMUD arrived. ~1:00 I phoned my office, spoke w/ T. Peacock + reported it as ER. The ER van will come out, + sniff the storm drains in the vicinity for explosive levels. 1:15 Examined UST; no obvious holes.
1:25 Loaded UST onto Erickson flatbed.
Carl Mayo notified City DPW re sniffing storm drains. EBMUD estimates ~50 gal fuel was lost (spilled); they notified OES anyway.
Water in pit must be sampled in ATCo Haz Mat's presence.
1:30 left site

II, III

Contact: ALEX R. COATE

Title: ENVIRONMENTAL COMPLIANCE MGR./EBMUD

Signature: Alex R. Coate

Inspector: J. Eberle

Signature: J. Eberle

ALEXANDER R. COATE, P.E., R.E.A.
ASSOCIATE CIVIL ENGINEER
OFFICE OF RECLAMATION

will send incident report

EAST BAY MUNICIPAL UTILITY DISTRICT
375 ELEVENTH ST. . OAKLAND, CA 94607-4240 . P.O. BOX 24055 . OAKLAND, CA 94623-1055
(510) 287-1663 . FAX: (510) 287-1530

CYNTHIA C. ADKISSON
WASTEWATER CONTROL REPRESENTATIVE

EAST BAY MUNICIPAL UTILITY DISTRICT
375 ELEVENTH ST. . OAKLAND, CA 94607 . P.O. BOX 24055, MS #702 . OAKLAND, CA 94623-1055
(510) 287-1627 . FAX: (510) 287-1530

DAVID F. TSZTOO, P.E.
SENIOR CIVIL ENGINEER

EAST BAY MUNICIPAL UTILITY DISTRICT
375 ELEVENTH ST . OAKLAND, CA 94607-4240 . P.O. BOX 24055 . OAKLAND, CA 94623-1055
(510) 287-1035 . FAX (510) 835-8729

GEMS
General Environmental Management Services

Richard Camacho

(510) 427-4616
P.O. Box 8282
Pittsburg, CA 94565

"A" License No. 543700
Hazardous Certification
Asbestos Certification

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

80 Swan Way, #200
Oakland, CA 94621
(510) 271-4320

Hazardous Materials Inspection Form

II, III

Site ID # ____ Site Name EBMUD Today's Date 11/17/94

Site Address 1200-21st St.

City Oakland Zip 94607 Phone ____

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

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

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

II.A BUSINESS PLANS (Title 19)

__	1. Immediate Reporting	2703
__	2. Bus Plan Stds	25503(b)
__	3. RR Cars > 30 days	25503.7
__	4. Inventory Information	25504(a)
__	5. Inventory Complete	2730
__	6. Emergency Response	25504(b)
__	7. Training	25504(c)
__	8. Deficiency	25505(a)
__	9. Modification	25505(b)

II.B ACUTELY HAZ. MATLS

__	10. Registration Form Filed	25533(a)
__	11. Form Complete	25533(b)
__	12. RMPP Contents	25534(c)
__	13. Implement Sch. Req'd? (Y/N)	__
__	14. OffSite Conseq. Assess.	25524(c)
__	15. Probable Risk Assessment	25534(d)
__	16. Persons Responsible	25534(g)
__	17. Certification	25534(f)
__	18. Exemption Request? (Y/N)	25536(b)
__	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

__	1. Permit Application	25284 (H&S)
__	2. Pipeline Leak Detection	25292 (H&S)
__	3. Records Maintenance	2712
__	4. Release Report	2651
__	5. Closure Plans	2670

Monitoring for Existing Tanks

__ 6. Method
1) Monthly Test
2) Daily Vadose / Semi-annual gndwater / One time soils
3) Daily Vadose / One time soils / Annual tank test
4) Monthly Gndwater / One time soils
5) Daily Inventory / Annual tank testing / Cont pipe leak det / Vadose/gndwater mon.
6) Daily Inventory / Annual tank testing / Cont pipe leak det
7) Weekly Tank Gauge / Annual tank tstng
8) Annual Tank Testing / Daily Inventory
9) Other ____

of EBMUD bet. W.

4:12

4:20

__	7. Precis Tank Test Date: ____	2643
__	8. Inventory Rec.	2644
__	9. Soil Testing.	2646
__	10. Ground Water.	2647

New Tanks

__	11. Monitor Plan	2632
__	12. Access. Secure	2634
__	13. Plans Submit Date: ____	2711
__	14. As Built Date: ____	2635

Rev 6/88

3:15 arrived onsite.

Comments:

Vac truck onsite (Erickson). Mark Kemp said they used Safe-Sorb to absorb residual liquids around both storm drains. Also vac'd the 4K UST. Then put in 100 lb dry ice at 3:25. 3:30 pumped the water in the 6K UST pit. Stan Young of EBMUD said they removed a steel UST fm Grand + garage ~10 yrs. ago (10K or 20K), + said there was "a lot of contamination." Stan will ✓ his file for any documentation. 4K UST has a strong gasoline odor in surrounding soils. 19% O_2 + 4% LEL. UST is 7' diam; 10' bgs to bottom of UST. Removal of 4K FG UST; gas, no holes. Significant gw contam. below. (photo). 6K UST manifest # 93235982. 4K UST manifest # 93480266 (#14947 tank #) 4:35 vac'd the water in 4K UST pit. 2 pipelines fm 6K UST went to 2 pumps; one lines fm 4K UST went to 1 pump. Total 3 pumps II, III.

4:50 left site.

Sample tomorrow

* NO KNOWLEDGE OF VERIFIED CONTAMINATION - KRM

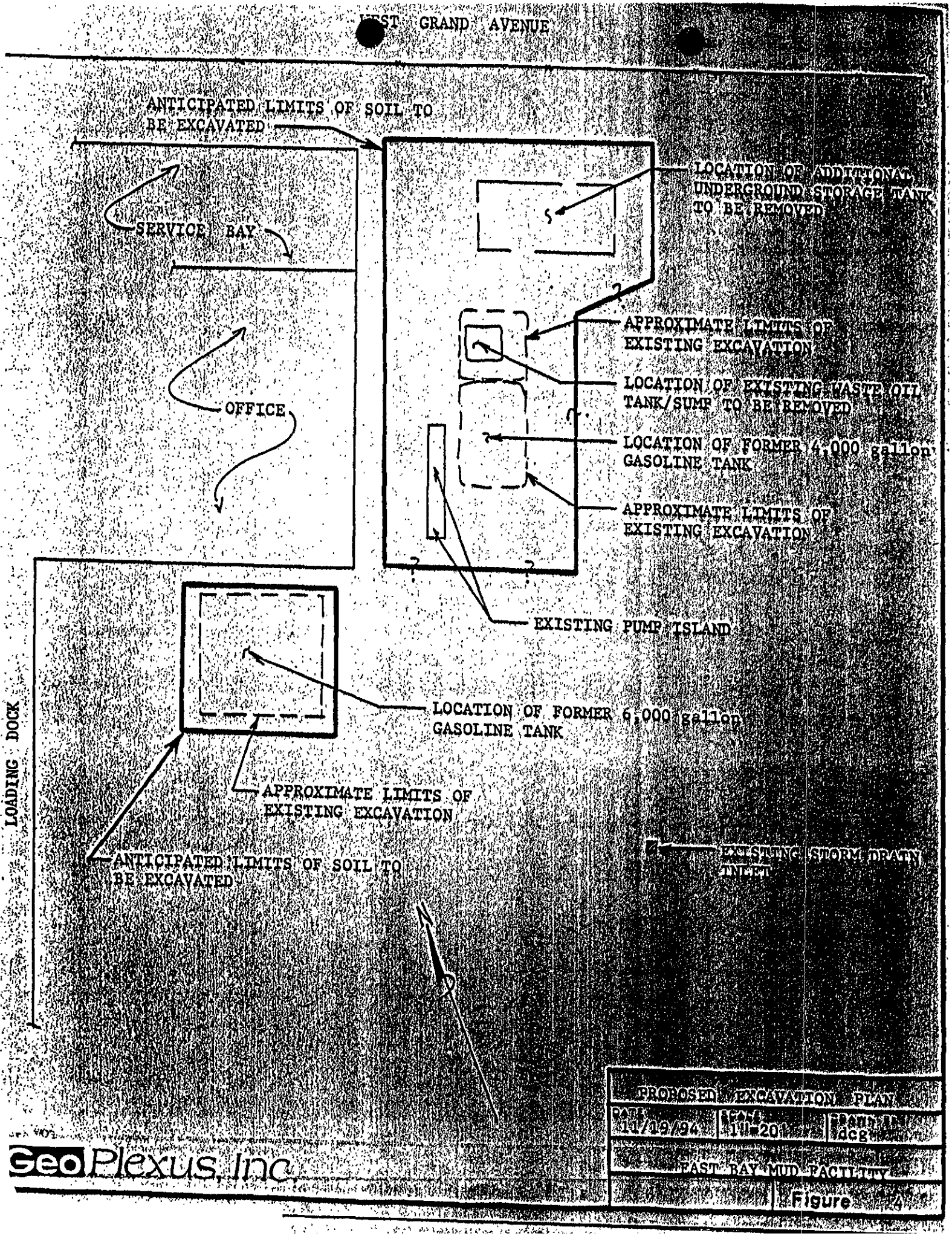
Contact: KARL MAYO

Title: SAE

Signature: Karl Mayo

Inspector: J. Eberle

Signature: J. Eberle


WEST GRAND AVENUE
ANTICIPATED LIMITS OF SOIL TO BE EXCAVATED
SERVICE BAY
OFFICE
LOCATION OF ADDITIONAL UNDERGROUND STORAGE TANK TO BE REMOVED
APPROXIMATE LIMITS OF EXISTING EXCAVATION
LOCATION OF EXISTING WASTE OIL TANK/SUMP TO BE REMOVED
LOCATION OF FORMER 4,000 gallon GASOLINE TANK
APPROXIMATE LIMITS OF EXISTING EXCAVATION
EXISTING PUMP ISLAND
LOCATION OF FORMER 6,000 gallon GASOLINE TANK
APPROXIMATE LIMITS OF EXISTING EXCAVATION
LOADING DOCK
ANTICIPATED LIMITS OF SOIL TO BE EXCAVATED
EXISTING STORM DRAIN INLET
PROPOSED EXCAVATION PLAN
DATE 11/19/94
SCALE 1"=20'
dcg
EAST BAY MUD FACILITY
Figure 4
GeoPlexus, Inc.

CALTEC ENVIRONMENTAL INC
GROUP SITE SAFETY PLAN

Original Site Safety Plan: Yes (X) No ( ) Revision No.:
Plan Prepared by: Mark Kemp Date: 10/10/94
Title: Vice President

Signature: Mark Kemp

INTRODUCTION:

This plan establishes requirements and provides guidelines for worker safety during soil trenching, excavating, and soil sampling within the CalTec Environmental Inc. (CalTec) designated work zone at the EBMUD site. The purpose of this plan is to identify procedures for avoiding hazards and for responding to injury or accident. The safety rules provided in this plan cannot cover every eventuality. However, all workers involved will be expected to exercise good judgment in safety matters, even though certain specifics may not be mentioned.

GENERAL HEALTH AND SAFETY REQUIREMENTS

Site Safety Meeting

Site safety orientation/training meetings must be convened (1) before the field team begins work at the site, (2) when there are modifications to the site safety plan that are applicable to the field personnel, (3) when additional CAlTec personnel or subcontractors begin field work, and (4) at least every seven days (Cal-OSHA). Meetings will be attended by personnel involved in carrying out the project and presided over by the Site Safety Officer (SHSO) or his designee.

The meeting agenda must include the following minimum activities:

- Review the Health and Safety Plan with the attendees

- Distribute the Health and Safety Plan modifications

- Collect the attendees' signatures, acknowledging receipt and understanding of the Site Health and Safety Plan and their agreement to comply.

The Site Health and Safety Officer

CalTec's Site superintendent has overall responsibility for site health and safety. The SHSO is responsible for assisting the Site Superintendent in carrying out the health and safety requirements detailed in this plan and notifying the Site Superintendent if personnel do not comply with the requirements of this plan. The Site Superintendent may halt work or dismiss personnel who do not adhere to this plan.

1. The SHSO will maintain a field log. Information recorded in the log will include such items as working hours, names of people entering and leaving the exclusion zone, instrument status, background readings, action levels reached or exceeded, and all other information relevant to health and safety at the site.

2. The SHSO will be qualified in first aid.

3. The SHSO will maintain a list of addresses and telephone numbers of emergency assistance units (ambulance service, police, and hospitals) and inform other members of the field team of the existence and location of this list.

Accident/Incident Reports

If an accident or incident occurs on site, the SHSO is responsible for filling out and accident/incident report (Form HS-502, Appendix B.)

1.0 FACILITY BACKGROUND

1.1 Site Description

Type: Spill ( ) Fire ( ) HW Site ( ) Industrial Facility ( )

Other (X) Removal of (1) four thousand gallon gasoline & (1) six thousand gallon gasoline tank.

Physical Description: EBMUD Maint. Yard

Location: West Oakland

Status: Active ( ) Inactive (X)

Surrounding Population: Commercial / Industrial Workers

Surrounding Structures: Commercial/Industrial

Topography: Flat to sloping

SITE PLOT PLAN

(Include protective zones, below and above ground chemical storage areas and associated piping present (past if known), above or below ground electrical power lines or any other utilities or drainage lines present.

2.0 KEY PERSONNEL AND RESPONSIBILITIES

(Include name, telephone number and health and safety responsibilities, i.e., including Project Manager responsible for supervision of all site activities.)

Project Manager Richard Davis (Owner)
responsible for: Supervision of all site activities.

Site Manager Mark Kemp
responsible for: Supervision of all on-site activities

Field Team Member Mark Kemp
responsible for: Field Technician responsible for protocol procedures.

Federal Agency Reps: N/A

State Agency Reps: N/A

Local Agency Reps: Alameda County Environmental Health Department

3.0 JOB HAZARD ANALYSIS

3.1 Overall Hazard Evaluation

Hazard Level: High ( ) Moderate ( ) Low (X) Unknown ( )

Hazard Type: Liquid ( ) Solid ( ) Sludge ( ) Gas (X) Diesel ( )

Suspected hazardous material present on- site along with their hazardous characters:

Gas petroleum hydrocarbon contaminated soil. Hazard associated with the chemical is primarily ignitability and direct contact.

3.2 Job-Specific Hazards

Besides underground fuel storage activities,, CalTec knows of no other use of the site that may have produced an environmental impairment due to hazardous materials. Therefore, it appears likely that the onsite chemical contaminants are associated with normal underground fuel storage activities. Accordingly, chemical contaminants at the site may be expected, to include fuel which was stored in the underground storage tank.

For each labor category (equipment operator, project manager, etc.) involved on the project, delineate the possible hazards referencing the information contained in Section 1.3 (i.e., task equipment operator, Hazards-trauma from equipment accidents, chemical exposure to gasoline, etc.) For each hazard, indicate steps to be taken to minimize the hazard.

All Field Personnel: Trauma from remediation equipment accidents, slip, trip and fall. Direct contact of fuel contaminated soil and when soil treatment applicable hydrogen perosxide solution may be harmful. To minimize the possibilities of hazards precautions required to avoid equipment accidents, direct contact, and fire accidents are to be taken. No smoking will be permitted within fenced working area.

Inhalation Hazard

Available information suggest that airborne contaminants at the the site will not exceed the currently recognized health limits unless intrusive work is undertaken. Site entry may be made without respiratory protection before intrusive work begins (trenching, excavating, or soil treatment).

When intrusive operations commence, vapor concentrations may occasionally exceed the currently recognized health standards. Half-face or full-face respirator protector must be available onsite. The OVA will be used to monitor the breathing zone.

In an excavation or soil treatment work area, half-face or full-face respirators with organic vapor cartridges will be worn when overall OVA readings in the breathing zone exceed 30 ppm above background. The work zone will be evacuated when OVA readings in the

breathing zone exceed 300 ppm above background.

Ingestion Hazard

Site contaminants can enter the body by ingestion. Therefore, drinking and eating will not be allowed in the work zone. Prior to eating or leaving the site, hands will be washed and outer coveralls removed.

Dermal Exposure

Repeated daily contact with fuel contaminated soil or soil treatment chemicals would be expected to irritate the skin and perhaps, over a long period of time, lead to the development of skin lesions. For this reason, direct skin contact with chemicals shall be avoided by wearing protective gloves. However, if contact does occur, the exposed areas shall be washed with soap and water and rinsed thoroughly.

Fire Hazard

The site contains a number of flammable volatile compounds (i.e. gasoline, diesel, etc.). by evaluating the current data, it seems unlikely that explosive levels of these compounds will be encountered during excavation or soil treatment operations. However, pockets of these compounds may exist in the subsurface. For this reason, smoking and open flames are not allowed within the work zone.

Buried Utilities

All efforts have been utilized to locate the buried lines near the work zone. If any additional utilities are located, the lines will be marked and emphasized in the field notes and final report.

Noise

Hearing protection will be worn by all personnel within the restricted zone when noise levels reach 85 decibels. the SHSO will decide when hearing protection will be worn.

Traffic

When a work zone encroached upon public streets, the possibility of an individual being

injured or struck by vehicular traffic must be considered. Therefore, personnel must always be alert when moving vehicles are near the work zone. Barricades and other devices must be used to warn and divert traffic. All personnel will wear personal protective clothing (safety vest and lights, if needed).

4.0 RISK ASSESSMENT SUMMARY

Using any available analytical data for the site, along with published data on the suspected contaminants and consideration of all possible exposure routes, provide a summary of the potential risks to site workers and the nearby community during the project. This information may not be available during early stages of the project. However, this section must be updated as data becomes available.

Potential risk to site activity personnel and surrounding populations is low from hazards associated with the project. The rating of low is relatively low risk in a scale ranging as low, moderate, and high.

However, volatile organic compounds are periodically monitored. If airborne VOCs are greater than 30 ppm above background level, further operations will be interrupted. Further operations will be conducted only after personnel protection equipment (Level "C") is implemented as discussed in hazard section.

Dust Mitigation Measures During Excavation and Handling of VOC-Contaminated Soil

The two mitigation measures, which will be described in this section, are applicable in two cases relating to our field activities:

1. The excavation and or handling of VOC-contaminated soil (for cases where the tanks have long been removed, as and example).

2. The excavation and/or handling of soil emitting dust

In both activities, our approach will assume the existence of VOC-contaminated and or dust emitting soil. The presence of VOC-contaminated soil is bases on information reported by our technicians and representatives, and/or documents received from the site owner or previous contractor. The soil treatment is an integrated part of the excavation, either by stockpiling for treatment at a later date, or by preparing the treatment unit for immediate after-excavation procedure.

This section deals with the mitigation measures that will be taken during the excavation stage for the purpose of soil remediation, as the most reasonable ecologically sound effective method for the proper disposal as the situation dictates. Extra precaution measures will be taken to prevent the emissions of VOC or dust. To facilitate the excavation, all exposed and any newly exposed surfaces will be monitored with an OVA meter at two inches above the surface to insure proper safety controls and procedures are followed. A log will be recorded at fifteen minute intervals for all data collected including overall OVA readings. Benzene reading, outside temperature, and wind direction readings.

The approach in this phase is to suppress the VOC's and/or dust at the emitting surface and form a blanket over the soil surface which employs the spraying of water on the soil with a water hose, which will aid in the reduction of VOC and dust emissions. This approach can be applied for local hot spots as well as large areas of dusty or VOC-contaminated soil.

An alternative AQMD approved method of spraying a diluted solution of hydrogen peroxide (1 to 2%) over the area will also reduce the VOC emissions at the surface. Hydrogen peroxide will form a very thin blanket over the contaminated soil surface, thereby suppressing the VOC at the exposed soil surface and converting it to carbon dioxide and water. By applying this solution sparingly, the chemical reaction at the soil surface will not create a significant increase of health hazards or, in the OVA reading while the process is decreasing the VOC emissions into the atmosphere.

5.0 AIR MONITORING PLAN

5.1 Action Levels and implementation of air monitoring. The following table summarizes the chemical exposure limits of known chemicals present at the site.

	EXPOSURE LIMITS		
CHEMICAL	PEL	TLV	STEL
AREA 1			
Benzene	1	1.01	25
Toluene	100	100	150
Ethylbenzene	100	100	125
Xylene	100	100	150
Gasoline Gas Condensate	---	300	500

--- not listed
PELs are permissible exposure limits established by Cal-OSHA

TLVs are exposure guidelines associated with occupational exposures to various compounds for 8-hour work day/40-hour work week situations, as adopted by the American Conference of Governmental Industrial Hygienists (ACGIH, 1985).

STELs are the concentration to which workers can be exposed continuously for a short period of time (15 minutes) without suffering from irritation, chronic or irreversible tissue damage or narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce efficiency provided that the daily TLV is not exceeded.

6.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

6.1 Rational for selection of PPE

Rationale should be based on available analytical data for, and familiarity with, the capabilities of the suggested PPE. The selection of PPE should be made by persons experienced in industrial hygiene.

Due to trauma from accidents related to remediation, toxic affects from direct contact of contaminated soil, and ignitability of hazardous materials at the site, following PPE are selected.

6.2 Equipment Site-Specific Health and Safety Requirements

Personnel Protection

During intrusive operation of investigative work (soil sampling, trenching, excavating and soil treatment) personnel within the work zone must wear boots and a hard hat. Uncoated coveralls are recommended during intrusive operations, however, are required when obviously contaminated soil is encountered and/or dusty conditions prevail. Coated coveralls are required when conditions are wet. Latex or neoprene gloves will be worn during sampling and handling of potentially contaminated materials. Eye protection will be used in dusty conditions. An orange safety vest must be worn around large earthmoving equipment such as scrapers and loaders. Ear protection must be worn when noise levels are above 85 decibels. The SHSO will monitor the work area with an OVA. If readings

exceed the action level for respirators, half-face or full-face respirators equipped with organic vapor cartridges must be worn if work continues. If readings exceed the action level for evacuation, the area must be evacuated until the vapor levels dissipate and Business Unit Health and Safety Officer notified.

Action Level for Respirators

30 ppm/workplace VOC

Action Level for Evacuation

300 ppm/workplace VOC

Be specific (i.e., hard hat, impact resistant goggles, fully encapsulating tyvek suit, inner latex gloves, outer nitrile gloves, neoprene boots with steel toe, etc.). PPE should be specified for each job classification on-site.

Level of Protection A ( ) B ( ) C ( ) D (X) and provision to go to "C" when required.

Respiratory Protection: SCBA ( ) Airline ( ) Air Purifying (X) Dust Mask ( )

If Air-Purifying: Canister ( ) Cartridge (X) Half Face (X) Full Face ( )

Canister/Cartridge Type: Acid gas/organic vapor/HEPA changed daily or more frequently as needed.

Protective Clothing:

Suit Type: Chemically resistant coveralls (Tyvek, Polyethylene coated)

Boot Type: Chemically resistent

Glove Type (s): Chemically resistant (rubber gloves)

Head Protection Type: Hard Hat

Eye Protection Type: Goggles

Hearing Protection: Ear plugs (if necessary)

Action levels for upgrade and downgrade of respiratory protection/PPE.

Levels	Action Taken
> 30 overall VOC or 1 ppm benzene VOC	Go to level "C" PPE (Tyvek and air purifying equipment)

Rational for upgrade/downgrade matrix (rationale should be based on published data for contaminates of concern and should be prepared by persons familiar with PPE).

Gas/Diesel fuel contaminated soils are expected. The time weighted average (TWA) exposure limit for kerosene constituent such as benzene is 10 ppm per American Conference of Governmental Industrial Hygienists. In the even that benzene concentration of less than 1 ppm in the air is detected, an overall 30 ppm action level will be used. An action limit of 1 ppm benzene workplace VOC will also be employed. At this time respirators will be donned.

7.0 WORK ZONES AND SECURITY MEASURES

Trenching and Excavation

Soil affected with petroleum-related compounds are expected. CalTec personnel will supervise the soil remediation activites and collect soil samples. The primary hazards associated with trenching and excavation are listed below. The SHSO will assess the hazards in the work zone and implement appropriate procedures before work commences. When excavation activities are performed, the following procedures are implemented:

The following general work zone security guidelines should be implemented:

- Work area shall be closed when work activities not actually taking place.

- Visitors will not enter the work zone unless they have attended a project safety briefing.

- Visitors who do not have business related to the project will be excluded from the site.

List the requirement for moving between different zones and general site security measures, equipment and responsible personnel (i.e., persons will not leave the work zone without first passing through the decontamination zone).

Step 1: Decontamination of earth moving tools/prior to field activities with high pressure hot water.
Step 2: Decontamination of sampling devices before, during, and after acquisition of each soil sample with DSO or TSP/Distilled water triple rinse/wash.

Step3: Decontaminate rubber boots, gloves, respirators (if used) at the end of each shift and prior to leaving the site with DSO or TSP/Distilled water triple rinse/wash. All disposable materials (i.e., tyvek gloves, etc.) will be placed in plastic bag and remain on site pending proper disposition.

8.0 DECONTAMINATION PROCEDURES

List the procedures and specific steps to be taken to decontaminated equipment and PPE. A flow chart diagram may be utilized to show a step-wise decontamination line.

At the end of each field activity, sampling equipment, earth moving equipment and PPE will be decontaminated. Decontamination will include steam cleaning for remediation equipment and triple rinsing of sampling equipment and PPE.

Decontamination Line:

Cleaning will be conducted on site according to set procedures:

PPE decontamination will include:

Rinsing in Soap Water & Rinsing in Tap Water.

The equipment which will be used in the decontamination procedure includes steam cleaner with trough, 5-gallon plastic buckets, bristle brushes, putty knife and amended water.

9.0 GENERAL SAFE WORK PRACTICES

Attach any available Standard Operating Procedures for activities that can be standardized due to their repetitive nature (i.e., instrument calibration, don and doff of PPE, etc.)

CalTec is responsible for the safety of all CalTec employees on-site. Each Contractor shall provide all the equipment necessary to meet safe operating practices and procedures for their personnel on-site (this includes respirators, cartridges, steel toed boots, eye protection, tyvek suits, hearing protectors, and neoprene latex, and viton gloves) and be

responsible for the safety of their workers. All general safety guidelines and procedures will conform to:

* 29 CFR 1910.120
* Standard Operating Safety Guides (U.S.E.P.A., Nov. 1984)

CalTec will update versions of these safety guidelines and procedures when changes in the Operations plan occur.

CalTec will utilize a "three warning" system to enforce compliance with Health and Safety procedures as follows:

- First infraction -0 violator receives a verbal warning.

- Second infraction of same rule - violator receives a written warning.

- Third infraction of same rule - violator will be requested to leave the site.

The "three warning" system applies to the following safe work practices which will be implemented at the site for worker safety:

* Eating, drinking, chewing gum or tobacco, and smoking will be allowed only in designated areas.

* Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of the toilet facilities.

* Containers will be labeled identifying them as waste, debris, or contaminated clothing.

* All excavation/drilling work will comply with Title 8, Article G of the California Administrative Code.

* Personnel at the site will use the "buddy system" when wearing any respiratory protective equipment. No one will be allowed to engage in remediation or sampling operations alone.

* No facial hair which interferes with a satisfactory fit of the mask-to-face seal will be allowed (no beards, large mustaches, or long sideburns).

* All respiratory protection selection, use, and maintenance will meet the requirements of

established procedures, recognized consensus standards (AINA, ANSI, MSHA and NIOSH), will comply in all respects to the requirements set forth in 29 CFR 1910.134

* All site personnel will be required to wear hard hats, protective glasses and adequate hand protection when in the work zone.

* Any other action which is determined to be unsafe by the Site Safety Officer.

10.0 EMERGENCY RESPONSE PLANS

Relevant Phone Numbers:

Richard Davis	Project Manager	(707) 257-3564
Mark Kemp	On Site Manger	(707) 429-2220 Home (707) 944-5256 Pager (707) 486-8573 Car Phone
Fire, Police, Ambulance		911
U.S. EPA - ERT		(201) 321-6660
Chemtrec		(800) 424-9300
Centers for Disease Control		days (404) 329-3311 nights (404) 329-2888
National Response Center		(800) 424-8802
Superfund/RCRA Hotline		(800) 424-9346
TSCA Hotline		(800) 424-9065
National Pesticide Information Services		(800) 845-7633
Bureau of Alcohol, Tobacco, and Firearms		(800) 424-9555

The locations of the following emergency response equipment will be made available at the

site:

- Fire Extinguisher (s)
- First Aid Kit
- Telephone

Emergency Signals

The following communication signals will be utilized, if necessary, in case of emergency on-site.

Gesture	Meaning
Hand clutching throat	- Out of air/can't breathe
Hands on top of head	- Need assistance
Thumbs up	- OK/I'm alright/ I understand
Thumbs down	- No/Negative
Grip partner's wrists	- Informing partner to leave area immediately

Emergency Decontamination - In an emergency, the primary concern is to prevent the loss of life or severe injury to site personnel. If immediate medical treatment is required to save a life, decontamination should be delayed until the victim is stabilized. If decontamination can be performed without interfering with essential life-saving techniques or first aid, or if a worker has been contaminated with an extremely toxic or corrosive material that could cause severe injury or loss of life, decontamination must be performed immediately. If and emergency due to heat-related illness develops, protective clothing should be removed from the victim as soon as possible to reduce heat stress. All emergency decontamination procedures must be supervised by the Site Safety Officer and the Field Team Leader.

11.0 TRAINING REQUIREMENTS

Prior to mobilization at the job site, all contractors shall submit evidence that site workers have completed a 40-hour course in hazardous waste site operations training as specified in 29 CFR part 1910.120, along with a letter from a physician stating that they have received a physical examination within one year and are physically capable of working on hazardous sites and wearing respiratory protection devices.

Prior to involvement in any field program, all personnel will attend a safety briefing. The

briefing will include the nature of the wastes at the site, donning personnel protection equipment, decontamination procedures, respirator fit testing, and emergency procedures. Included in the initial briefing will be training which will provide an understanding of:

* Use of visual emergency signals
* The limitations and capabilities of the equipment.
* Proper use and maintenance of the selected PPE.
* The nature of the hazards and the consequences of not using the PPE.
* The human factor influencing PPE performance.
* Inspection, donning, checking, fitting, and using the PPE.
* Provide individualized respirator fit testing to ensure proper fit.
* The user's responsibility for decontamination, cleaning, maintenance, and repair (if any) of PPE.
* Emergency procedures and self-rescue in the event of PPE failure
* The Site Safety Plan and the individual's responsibilities and duties in an emergency.

Daily, prior to commencement of operations, all personnel involved with the remedial investigations shall attend short "tailgate" safety briefing which will cover:

* Expected conditions at the site.
* Daily activities.
* Safety deficiencies previously observed.
* Any changes in the emergency procedure.

Record of Training -= Upon completion of the project safety briefing, all personnel will sign a statement indicating that they have read and understand that they agree to abide by this project Health and Safety Plan. A record of attendance will be kept for all safety briefings.

12.0 MEDICAL SURVEILLANCE PROGRAM

Prior to assignment to any task requiring a level of personnel protection above Level D, personnel will submit evidence that they have received a physical examination within the previous twelve months which incorporates the following:

* An occupational and general physical history.
* Complete physical examination which incorporates the head, torso, abdomen, limbs and musculo-skeletal system.
* Chest X-ray.

* Audiometic exam for persons working around drill rigs.
* Laboratory testing of blood and urine to include the following:
  C.B.C., albumin phosphates, total bilirubin, SGOT, SGPT, cholesterol, total protein, albumin, globulin, A/G ratio, BUN, and creatinine.
* Vision test.
* Electrocardiogram

To aid in the prevention of heat stress, the following will be provided for personnel working at the site:

* Potable Water
- Potable water with 1 per cent or commercial mix (such as Gatorade) will be within easy access to all workers.

* Work Schedules
- Work/rest regimens will be developed on recommendations by the Health * Safety Officer. The initial work schedule will consist of a 55-min. work regime followed by a 5-min. rest period. This work schedule will be modified as is necessary to conform with the heat stress monitoring criteria outlined below.

Personnel will be instructed to look for the following initial symptoms of heat stress:

* Heat Exhaustion:
- Pale, clammy skin
- profuse perspiration
- tiredness, weakness
- headache, perhaps cramps
- nausea, dizziness (possible vomiting)
- possible fainting

* Heat Cramps:

- cramping of muscles in legs and abdomen

* Heat Stroke:

- high body temperature
- skin is characteristically hot, red, and dry (the sweating mechanism is blocked).

Heat stress monitoring will commence when the ambient temperature reaches 70 degrees

Fahrenheit if Tyvek or Saranek (Level C) garments are in use. Otherwise, heat stress monitoring will commence at an ambient temperature of 85 degrees Fahrenheit. The monitoring will consist of the following:

* Heart rate (HR) will be measured by the radial pulse in the resting period. The heart rate at the beginning of the rest period should not exceed 110 beats per minute. If the HR is in excess of the above value the next work period will be shortened by 33% while the length of the rest period stays the same. If the pulse rate is in excess of 110 beats per minute at the beginning of the next rest period, the following work cycle will be further shortened by 33%.

* Workers will be asked to report any dizziness, faintness, cramps, or other symptoms of heat stress as discussed above.

* Workers will also be questioned about any history of asthma, or if currently taking asthma medications. Persons taking asthma medications are typically more susceptible to heat stress reactions.

First aid for heat stress will include the following:

* Heat Stress

- Exposed person will be removed from the work zone and placed in a shaded area.
- Person will be required to rest in a recumbent position.
- Fluids will be administered (Gatorade).
- Workloads will be reduced to a level which will prevent heat stress symptoms from recurring.

* Heat Cramps / Heat Exhaustion / Heat Stroke

- Same first aid procedure as described above except the exposed person will be requested to leave the site for the remainder of the day.
- Exposed person will be placed in a shaded area medical attention (Paramedics) will be sought immediately.

HEALTH AND SAFETY COMPLIANCE STATEMENT

The undersigned certify that they have received, read and understood the procedures and requirements contained in the Health and Site Safety Plan prepared for this project.

Further, the undersigned have received proper training under the Occupational Safety and Health Act (29 CFR, Part 1910.120) prior to conducting and activities at the site.

NAME / TITLE	SIGNATURE	DATE

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

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

1. Business Name EAST BAY MUNICIPAL UTILITIES DISTRICT (EBMUD)
   Business Owner EBMUD
2. Site Address 1200 21st. STREET
   City OAKLAND Zip 94607 Phone 510-287-1278
3. Mailing Address 375 11th. STREET, MAIL STOP 303
   City OAKLAND Zip 94607 Phone 510-287-1278
4. Land Owner EBMUD
   Address 375 11th. STREET, M.S. 303 City, State OAKLAND, CA Zip 94607
5. Generator name under which tank will be manifested
   EAST BAY MUNICIPAL UTILITIES DISTRICT
   EPA I.D. No. under which tank will be manifested CAC000921560

6. Contractor CALTEC ENVIRONMENTAL INC.

Address 1100 LINCOLN AVE., #108

City NAPA Phone 707-257-3564

License Type* A-HAZ ID# 540824

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

7. Consultant CALTEC ENVIRONMENTAL INC.

Address 1100 LINCOLN AVE., #108

City NAPA Phone 707-257-3564

8. Contact Person for Investigation

Name MARK KEMP Title VICE PRESIDENT

Phone 707-257-3564

9. Number of tanks being closed under this plan 2

Length of piping being removed under this plan _____

Total number of tanks at facility 2

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

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

a) Product/Residual Sludge/Rinsate Transporter

Name CALTEC ENVIRONMENTAL INC. EPA I.D. No. CAD983612276

Hauler License No. 3143 License Exp. Date 12/31/94

Address 1100 LINCOLN AVE, #108

City NAPA State CA Zip 94558

b) Product/Residual Sludge/Rinsate Disposal Site

Name GIBSON ENVIRONMENTAL EPA I.D. No. CAD043260702

Address 475 SEA PORT

City REDWOOD CITY State CA Zip 94063

rev 3/92

c) Tank and Piping Transporter

Name CALTEC ENVIRONMENTAL, INC. EPA I.D. No. CAD983612276

Hauler License No. 3141 License Exp. Date 12/31/94

Address 1100 LINCOLN AVE, #108

City NAPA State CA Zip 94558

d) Tank and Piping Disposal Site

Name ERICKSON, INC. EPA I.D. No. CAD009466392

Address 255 PARR BLVD.

City RICHMOND State CA Zip 94801

11. Experienced Sample Collector

Name RICHARD CAMACHO

Company GEMS

Address 4307 FOOTHILL WAY

City PITTSBURG State CA Zip 94565 Phone (510) 427-4616

12. Laboratory

Name McCAMPBELL ANALYTICAL

Address 1100 2ND AVE. SOUTH #D7

City PACHECO State CA Zip 94553

State Certification No. 1644

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

If yes, describe. UNKNOWN

14. Describe methods to be used for rendering tank inert

RESIDUAL PRODUCT WILL BE REMOVED WITH A VACUUM TRUCK AND TANK WILL BE INERTED WITH DRY ICE.

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

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

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
1- 2,000 GAL	FUEL	SOIL	1 FOOT BELOW TANK & NATIVE SOIL INTERFACE
1- ~~4000~~ 500 GAL	WASTE OIL	SOIL	1 SAMPLE FOR EVERY 20 FEET OF PIPING

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

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan AS REQUIRED BY THE DISPOSAL/RECYCLING FACILITY - ALL OVERBURDEN TO BE OFF HAULED

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

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

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

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH-G TPH-D BTEX O&G CL VOC SEMI VOC CAM METALS	5030 3550	GC/FID GC/FID 8020/8240 5520 8010 8270 AA	

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer State Fund

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

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

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

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

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

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

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

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

Signature of Contractor

Name (please type) MARK KEMP

Signature Mark Kemp

Date 11/21/94

Signature of Site Owner or Operator

Name (please type) KARL MAYO

Signature Karl Mayo

Date 11/21/94

General Instructions

* Three (3) copies of this plan plus attachments and deposit must be submitted to this Department.
* Any cutting into tanks requires local fire department approval.
* One complete copy of your approved plan must be at the construction site at all times; a copy of your approved plan must also be sent to the landowner.

Item Specific Instructions

2. SITE ADDRESS
Address at which closure is taking place.

5. EPA I.D. NO. under which the tanks will be manifested
EPA I.D. numbers may be obtained from the State Department of Health Services, 916/324-1781.

6. CONTRACTOR
Prime contractor for the project.

10. STATE REGISTERED HAZARDOUS WASTE TRANSPORTERS/FACILITIES

a) All residual liquids and sludges are to be removed from tanks before tanks are inerted.

c) Tanks must be hauled as hazardous waste.

d) This is the place where tanks will be taken for cleaning.

15. TANK HISTORY AND SAMPLING INFORMATION
Use History - This information is essential and must be accurate. Include tank installation date, products stored in the tank, and the date when the tank was last used.

Material to be sampled - e.g. water, oil, sludge, soil, etc.

Location and depth of samples - e.g. beneath the tank a maximum of two feet below the native soil/backfill interface, side wall at the high water mark, etc.

16. CHEMICAL METHODS AND ASSOCIATED DETECTION LIMITS
See attached Table 2.

17. SITE HEALTH AND SAFETY PLAN
A site specific Health and Safety plan must be submitted. We advocate the site health and safety plan include the following items, at a minimum:

a) The name and responsibilities of the site health and safety officer;

b) An outline of briefings to be held before work each day to appraise employees of site health and safety hazards;

c) Identification of health and safety hazards of each work task. Include potential fire, explosion, physical, and chemical hazards;

d) For each hazard, identify the action levels (contaminant concentrations in air) or physical conditions which will trigger changes in work habits to ensure workers are not exposed to unsafe chemical levels or physical conditions;

e) Description of the work habit changes triggered by the above action levels or physical conditions;

f) Frequency and types of air and personnel monitoring - along with the environmental sampling techniques and instrumentation - to be used to detect the above action levels. Include instrumentation maintenance and calibration methods and frequencies;

g) Confined space entry procedures (if applicable);

h) Decontamination procedures;

i) Measures to be taken to secure the site, excavation and stockpiled soil during and after work hours (e.g. barricades, caution tape, fencing, trench plates, plastic sheeting, security guards, etc.);

j) Spill containment/emergency/contingency plan. Be sure to include emergency phone numbers, the location of the phone nearest the site, and directions to the hospital nearest the site;

k) Documentation that all site workers have received the appropriate OSHA approved trainings and participate in appropriate medical surveillance per 29 CFR 1910.120; and

l) Page for employees to sign indicating they have read and will comply with the site health and safety plan.

The safety plan must be distributed to all employees and contractors working in hazardous waste operations on site. **A complete copy of the site health and safety plan along with any standard operating procedures shall be on site and accessible at all times.**

NOTE: These requirements are excerpts from 29 CFR Part 1910.120(b)(4), Hazardous Waste Operations and Emergency Response; Final Rule, March 6, 1989. Safety plans of certain underground tank sites may need to meet the complete requirements of this Rule.

19. PLOT PLAN
The plan should consist of a scaled view of the facility at which the tank(s) are located and should include the following information:

a) Scale;

b) North Arrow;

c) Property Lines;

d) Location of all Structures;

e) Location of all relevant existing equipment including tanks and piping to be removed and dispensers;

f) Streets;

g) Underground conduits, sewers, water lines, utilities;

h) Existing wells (drinking, monitoring, etc.);

i) Depth to ground water; and

j) All existing tanks and piping in addition to the ones being pulled.

20. DEPOSIT
A deposit, payable to Alameda County for the amount indicated on the Alameda County Underground Storage Tank Fee Schedule, must accompany the plans.

21. Blank Unauthorized Leak/Contamination Site Report forms may be obtained in limited quantities from our office and from the San Francisco Bay Regional Water Quality Control Board (415/464-1255). Larger quantities may be obtained directly from the State Water Resources Control Board at (916) 739-2421.

22. TANK CLOSURE REPORT
The tank closure report should contain the following information:

a) General description of the closure activities;

b) Description of tank, fittings and piping conditions. Indicate tank size and former contents; note any corrosion, pitting, holes, etc.;

c) Description of the excavation itself. Include the tank and excavation depth, a log of the stratigraphic units encountered within the excavation, a description of root holes or other potential contaminant pathways, the depth to any observed ground water, descriptions and locations of stained or odor-bearing soil, and descriptions of any observed free product or sheen;

d) Description of sampling methods;

e) Description of any remedial measures conducted at the time of tank removal;

f) To-scale figures showing the excavation size and depth, nearby buildings, sample locations and depths, and tank and piping locations. Include a copy of the plot plan prepared for the Tank Closure Plan under item 19;

g) Chain of custody records;

h) Copies of signed laboratory reports;

i) Copies of "TSDF to Generator" Manifests for all hazardous wastes hauled offsite (sludge, rinsate, tanks and piping, contaminated soil, etc.); and

j) Tabulation of the volume and final destination of all non-manifested contaminated soil hauled offsite.

TABLE #2
RECOMMENDED MINIMUM VERIFICATION ANALYSIS FOR UNDERGROUND TANK LEAKS

HYDROCARBON LEAK	SOIL ANALYSIS	WATER ANALYSIS
Unknown Fuel	TPH G GCFID(5030) TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) TPH D GCFID(3510) BTX&E 602, 624 or 8260
Leaded Gas	TPH G GCFID(5030) BTX&E 8020 OR 8240 TPH AND BTX&E 8260 TOTAL LEAD AA ------Optional------- TEL DHS-LUFT EDB DHS-AB1803	TPH G GCFID(5030) BTX&E 602 or 624 TOTAL LEAD AA TEL DHS-LUFT EDB DHS-AB1803
Unleaded Gas	TPH G GCFID(5030) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH G GCFID(5030) BTX&E 602, 624 or 8260
Diesel, Jet Fuel and Kerosene	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Fuel/Heating Oil	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602, 624 or 8260
Chlorinated Solvents	CL HC 8010 or 8240 BTX&E 8020 or 8240 CL HC AND BTX&E 8260	CL HC 601 or 624 BTX&E 602 or 624 CL HC AND BTX&E 8260
Non-chlorinated Solvents	TPH D GCFID(3550) BTX&E 8020 or 8240 TPH AND BTX&E 8260	TPH D GCFID(3510) BTX&E 602 or 624 TPH and BTX&E 8260
Waste and Used Oil or Unknown (All analyses must be completed and submitted)	TPH G GCFID(5030) TPH D GCFID(3550) TPH AND BTX&E 8260 O & G 5520 D & F BTX&E 8020 or 8240 CL HC 8010 or 8240 ICAP or AA TO DETECT METALS: Cd, Cr, Pb, Zn, Ni METHOD 8270 FOR SOIL OR WATER TO DETECT: PCB* PCP* PNA CREOSOTE	TPH G GCFID(5030) TPH D GCFID(3510 O & G 5520 C & F BTX&E 602, 624 or 8260 CL HC 601 or 624 PCB PCP PNA CREOSOTE

* If found, analyze for dibenzofurans (PCBs) or dioxins (PCP)

Reference: Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, 10 August 1990

EXPLANATION FOR TABLE #2: MINIMUM VERIFICATION ANALYSIS

1. OTHER METHODOLOGIES are continually being developed and as methods are accepted by EPA or DHS, they also can be used.

2. For DRINKING WATER SOURCES, EPA recommends that the 500 series for volatile organics be used in preference to the 600 series because the detection limits are lower and the QA/QC is better.

3. APPROPRIATE STANDARDS for the materials stored in the tank are to be used for all analyses on Table #2. For instance, seasonally, there may be five different jet fuel mixtures to be considered.

4. To AVOID FALSE POSITIVE detection of benzene, benzene-free solvents are to be used.

5. TOTAL PETROLEUM HYDROCARBONS (TPH) as gasoline (G) and diesel (D) ranges (volatile and extractible, respectively) are to be analyzed and characterized by GCFID with a fused capillary column and prepared by EPA method 5030 (purge and trap) for volatile hydro- carbons, or extracted by sonication using 3550 methodology for extractable hydrocarbons. Fused capillary columns are preferred to packed columns; a packed column may be used as a "first cut" with "dirty" samples or once the hydrocarbons have been characterized and proper QA/QC is followed.

6. TETRAETHYL LEAD (TEL) analysis may be required if total lead is detected unless the determination is made that the total lead concentration is geogenic (naturally occurring).

7. CHLORINATED HYDROCARBONS (CL HC) AND BENZENE, TOLUENE, XYLENE AND ETHYLBENZENE (BTX&E) are analyzed in soil by EPA methods 8010 and 8020 respectively, (or 8240) and in water, 601 and 602, respectively (or 624).

8. OIL AND GREASE (O & G) may be used when heavy, straight chain hydrocarbons may be present. Infrared analysis by method 418.1 may also be acceptable for O & G if proper standards are used. **Standard Methods" 17th Edition, 1989, has changed the 503 series to 5520.**

9. **PRACTICAL QUANTITATION REPORTING LIMITS are influenced by matrix problems and laboratory QA/QC procedures. Following are the Practical Quantitation Reporting Limits:**

	SOIL PPM	WATER PPB
TPH G	1.0	50.0
TPH D	1.0	50.0
BTX&E	0.005	0.5
O & G	50.0	5,000.0

Based upon a Regional Board survey of Department of Health Services Certified Laboratories, the Practical Quantitation Reporting Limits are attainable by a majority of laboratories with the exception of diesel fuel in soils. The Diesel Practical Quantitation Reporting Limits, shown by the survey, are:

ROUTINE	MODIFIED PROTOCOL
≤ 10 ppm (42%)	≤ 10 ppm (10%)
≤ 5 ppm (19%)	≤ 5 ppm (21%)
≤ 1 ppm (35%)	≤ 1 ppm (60%)

When the Practical Quantitation Reporting Limits are not achievable, an explanation of the problem is to be submitted on the laboratory data sheets.

10. LABORATORY DATA SHEETS are to be signed and submitted and include the laboratory's assessment of the condition of the samples on receipt including temperature, suitable container type, air bubbles present/absent in VOA bottles, proper preservation, etc. The sheets are to include the dates sampled, submitted, prepared for analysis, and analyzed.

11. IF PEAKS ARE FOUND, when running samples, that do not conform to the standard, laboratories are to report the peaks, including any unknown complex mixtures that elute at times varying from the standards. Recognizing that these mixtures may be contrary to the standard, they may not be readily identified; however, they are to be reported. At the discretion of the LIA or Regional Board the following information is to be contained in the laboratory report:

    The relative retention time for the unknown peak(s) relative to the reference peak in the standard, copies of the chroma- togram(s), the type of column used, initial temperature, temperature program is C/minute, and the final temperature.

12. REPORTING LIMITS FOR TPH are: gasoline standard ≤ 20 carbon atoms, diesel and jet fuel (kerosene) standard ≤ 50 carbon atoms. It is not necessary to continue the chromatography beyond the limit, standard, or EPA/DHS method protocol (whichever time is greater).

EPILOGUE

ADDITIVES: Major oil companies are being encouraged or required by the federal government to reformulate gasoline as cleaner burning fuels to reduce air emissions. MTBE (Methyl-tertiary butyl ether), ETHANOL (ethyl alcohol), and other chemicals may be added to reformulate gasolines to increase the oxygen content in the fuel and thereby decrease undesirable emissions (about four percent with MTBE). MTBE and ethanol are, for practical purposes, soluble in water. The removal from the water column will be difficult. Other compounds are being added by the oil companies for various purposes. The refinements for detection and analysis for all of these additives are still being worked out. If you have any questions about the methodology, please call your Regional Board representative.

EAST BAY MUNICIPAL UTILITY DISTRICT

MICHAEL J. WALLIS
DIRECTOR OF WASTEWATER

FAX TRANSMITTAL SHEET

This transmittal consists of 2 **pages including cover page.**

DATE: 11/13

TO: Juliet Shin

Alameda County Health

FAX #: (510) 337-9335

TEL #:

FROM: Eileen Fanelli

TEL #: 510 287-1661

COMMENTS: Schedule update - re end of phase I is near

[ ] Original to follow.

If you have any trouble receiving the above specified pages, please contact the facsimile operator at (510) 287-1861. (Wastewater Dept. Fax # (510) 287-1530).

SCHEDULE OF PHASE 1 SITE REMEDIAL ACTIVITIES
EAST BAY MUNICIPAL UTILITY DISTRICT
ALAMEDA AND CONTRA COSTA COUNTIES

Site	Co.	Est Vol (yd^3)	Act. Vol (yd^3)	Waste Classification	Scheduled Date	Duration	Actual Start	Actual Duration	Method	Comments
Larkey Reservoir	CC	120	45	RCRA and Cal-Haz	10/2/95	5	10/2/95	6	guzzler	Evaluating confirmation soil results
										Received neighbor complaint on noise
Grizzly Reservoir	CC	200	120+	RCRA/Cal-Haz/TSCA	10/9/95	6	10/11/95		guzzler	Evaluating potential offsite migration of SBM
Jones Hill Reservoir	CC	15	17	Cal-Haz	10/16/95	3	10/16/95	3	guzzler	Geotechnical survey completed (per ROE)
										Evaluating confirmation soil results
										CCC Health observed confirmation sampling
Rheem Reservoir	CC	10	10	Cal-Haz	10/19/95	2	10/23/95	2	guzzler	Evaluating confirmation soil results
Sunset Reservoir	CC	5	15	Cal-Haz	10/30/95	2	10/24/95	2	H.T./guz.	Analytical confirmation soil results pending
Happy Valley Reservoir	CC	2	6	TSCA	11/1/95	1	11/6/95	1	guzzler	Analytical confirmation soil results pending
Chabot Filter Plant	A	25	50	Cal-Haz	10/9/95	3	10/9/95	6	guzzler	Vacuum equipment broke down causing delays
										Some landscaping was removed (juniper hedge)
										Recieved neighbor complaint on noise
										Evaluating confirmation soil results
Derby Reservoir	CC	10	50	Non-Haz	10/12/95	3	10/17/95	4	guzzler	Delayed start due to Chabot
										Evaluating confirmation soil results
Cull Canyon Reservoir	A	20	20	Cal-Haz	10/19/95	3	10/23/95	2	guzzler	Evaluating confirmation soil results
Proctor No.2 Reservoi	A	10	26	Cal-Haz	10/24/95	3	10/25/95	3	guzzler	Analytical confirmation soil results pending
										Neighbors fence damaged by subcontractor -
										currently under repair
Hawthorne Reservoir	CC	2	1.6	Non-Haz	10/9/95	1	10/10/95	1	guzzler	Evaluating confirmation soil results
Alamo Reservoir	CC	2	1	Non-Haz	10/10/95	1	10/10/95	2	guzzler	Evaluating confirmation soil results
Grayson Reservoir	CC	7	25+	Cal Haz/TSCA	10/11/95	2	10/11/95		guzzler	Addtl SBM id'ed in field - geotech eval. prior to removal
										Recieved neighbor call regarding site closure
										Recieved neighbor call regarding plant debris
Petrero Reservoir	CC	10	20	Cal-Haz	10/16/95	3	10/16/95	2	guzzler	Evaluating confirmation soil results
Selby Reservoir	CC	4	6	Cal Haz/TSCA	10/19/95	1	10/18/95	2	guzzler	Evaluating confirmation soil results
Sky Terrace Reservoir	CC	3		Potentially Non-Haz	10/24/95	1	11/1/95	1	guzzler	Analytical confirmation soil results pending
Walnut Creek Raw Water Bypass	CC	3	25	Cal-Haz/TSCA	10/23/95	1	10/23/95	1	guzzler	Analytical confirmation soil results pending
Tewksbury Reservoir	CC	10	10	Cal -Haz	10/25/95	2	10/24/95	2	guzzler	Analytical confirmation soil results pending
										Recieved neighbor call regarding debris/water hose
Forestland Reservoir	A	1	5	Cal Haz/TSCA	10/30/95	1	11/2/95	1	guzzler	Recieved neighbor call regarding street parking
Peeri Reservoir	CC	20	30	Potentially RCRA	10/31/95	3	10/30/95		guzzler	Received neighbor call - concerned about illegal dumping
										Some damage to asphalt and valve box by contractor
Birch Reservoir	CC	12	18	Cal-Haz	10/17/95	2	10/19/95	2	H.T.	Evaluating confirmation soil results
Pleasant Hill Reservoir	CC	2		Cal-Haz	10/23/95	1	11/9/95		H.T.	
Amador Reservoir	CC	1		Potentially RCRA	10/24/95	1	11/6/95	2	H.T.	Analytical confirmation soil results pending
North Reservoir	CC	5	4	Non-Haz	10/25/95	2	10/23/95	2	H.T.	Analytical confirmation soil results pending
Carlsbrook Reservoir	A	3	9	Cal Haz/TSCA	10/30/95	1	10/31/95	2	H.T.	Received neighbor call - concerned about site security
										Contractor inappropriately cut lock-Repairs made
Shawn Reservoir	CC	25		Cal-Haz	10/31/95	2	11/3/95		H.T.	
Woods Reservoir	A	1	3	Potentially RCRA	11/2/95	1	11/6/95	1	H.T.	Analytical confirmation soil results pending

Notes:
1. The scheduled duration assumes crews work four day weeks, with the fifth day reserved for coordination/mobilization activities
2. Guzzler refers to a mechanical vacuum; H.T. refers to hand tools and small mechanical loaders
3. Volumes shown are estimated. Actual volumes/weights will be measured at the point of disposal
4. Waste classifications shown as potential will be confirmed based on the results of characterization sampling conducted after removal of the SBM

Revised 11/13/95
SBMSTST2.XLS

EAST BAY
MUNICIPAL UTILITY DISTRICT

GARY L. HUNT
ASSISTANT GENERAL MANAGER
OPERATIONS, PLANNING, AND MAINTENANCE

November 29, 1994

Office of Emergency Services
Hazardous Materials Division
2800 Meadowview Rd.
Sacramento, CA 95832

To Whom It May Concern:

RE: Notification Control No. 005258, 1200 21st Street, Oakland

On November 17, 1994, a 6,000 gallon single-walled fiberglass underground storage tank was removed from the East Bay Municipal Utility District's Oakland Corporation Yard. The tank cracked and spilled a mixture of water and gasoline to the storm drain. Based on a review of the amount of gasoline removed from the tank before the tank was excavated, District staff estimates at the most five gallons of gasoline and 300 gallons of water went down the storm drain. A description of the activities is outlined below.

Address:	1200 21st Street, Oakland
Date/Time:	November 17, 1994 at approximately 11:50 a.m. to 12:00 p.m.
Material:	Mixture of water/gasoline
Quantity:	300 gallons, of which approximately 5 gallons were gasoline
Source:	An underground storage tank that cracked upon removal
Receiving Waters/ Final Destination:	San Francisco Bay
Presumed Flow Route:	Through the Storm Drain system
Cause:	An underground storage tank was removed and cracked once it was set on the pavement. Water containing a small amount of gasoline present in the tank discharged to the storm drain in the parking lot.
Corrective Action Taken:	A vacuum truck pumped out the catch basin and approximately 40 to 50 feet downstream. The next downstream catch basin (approximately

375 ELEVENTH STREET . OAKLAND . CA 94607-4240 . (510) 287-0444
P.O BOX 24055 . OAKLAND . CA 94623-1055

bcc: R. Sykes, Regulatory Compliance Officer
A. Coate, Acting Environmental Compliance Manager
B. Lepore, Occupational Health and Safety Administrator
J. Bertorello, Manager of Plant and Equipment Maintenance
D. Tsztoo, Senior Civil Engineer, Special Projects Division
K. Mayo, Special Projects Division

CalTec
ENVIRONMENTAL INC
1100 Lincoln Ave., Ste. #108 • Napa, California 94558 • 707-257-3564 • FAX 707-226-1319 • 800-273-9992

FAX COVER SHEET

DATE
11-15-94

TOTAL PAGES (INCLUDING COVERSHEET)
2

TO
JENNIFER EBERLY

FAX NUMBER

FROM
MARK KEMP

REGARDING

RESPONSE REQUIRED YES (NO)

HARD COPY TO FOLLOW YES (NO)

COMMENTS

IF YOU DO NOT RECEIVE ALL PAGES PLEASE CONTACT US IMMEDIATELY AT (707) 257-3564, THANK YOU.

Caltec
ENVIRONMENTAL INC
1100 Lincoln Ave., Ste. #108 • Napa, California 94558 • 707-257-3564 • FAX 707-226-1319 • 800-273-9992

November 15, 1994

TO: ALL SUBCONTRACTORS

RE: TANK REMOVAL FOR EBMUD
1200 21ST. STREET
OAKLAND, CALIFORNIA

THIS IS TO ADVISE YOU THAT WE HAVE RESCHEDULED THE REMOVAL OF THE ABOVE REFERENCED TANKS TO **THURSDAY, NOVEMBER 17, 1994.**

MARK KEMP

Underground Tank Closure Report

Contractor: CalTec Environmental 1100 Lincoln Ave. # 108 Napa Ca. 94558 800-273-9992 Fax 707-226-1319 Contact: Mark Kemp/Linda Broadfoot	Job: _____ Address: _____ City/Zip: _____ Contact: _____ Phone/Fax: _____

Description of tank(s), size, contents, age, holes, corrosion, etc.:

Description of piping, fittings, connections:

Description of excavation depth, root holes & contamination pathways, types of soil encountered, stains or odor-bearing soil, groundwater level and free product or sheen:

Description of sampling methods:

Description of remedial methods for any contaminated soils:

Written by:	Title:	Date:

EAST BAY
MUNICIPAL UTILITY DISTRICT

MICHAEL J. WALLIS
DIRECTOR OF WASTEWATER

May 14, 1993

Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

CERTIFIED MAIL --
RETURN RECEIPT REQUESTED

Dear Ms. Eberle:

Re: EBMUD Site: 2130 Adeline Street
Oakland, CA 94607 (STID 3726)

This letter responds to your correspondence dated March 31, 1993 (Attachment 1) wherein you requested additional information on the status of 3 District underground storage tanks (USTs) located in the vicinity of 2130 Adeline Street in Oakland. The Alameda County Health Care Services (County) has previously referred to this site as the Linden Street site. These 3 USTs were removed in June 1987.

In the March 31 letter, you requested the District to:

A) Indicate what the 20-gallon tank was used for,

B) Submit 1 map showing the locations of all 3 USTs and the sampling locations, and

C) Summarize the status of subsurface investigation at the site.

The response to A) and B) is as follows. The 20-gallon tank was used to store diesel fuel for an emergency generator. The size, content, and location of all 3 USTs is provided in Attachment 2-Figure 1. ✓ Available analytical data, collected during tank removal and subsequent remediation activities, is provided in Attachment 2-Table 1. no lab reports

The response to C) is as follows. Since April 1988, the District has undertaken no additional subsurface investigation activities at the site for 2 reasons. First, in an August 2, 1988 letter (Attachment 3), the County clearly agreed that the District had remedied existing soil contamination at the site. Second, the County did not respond to an August 24, 1988 request (Attachment 4) for a description and citations of the County's legal authority that specifies the monitoring well requirement.

P.O. BOX 24055 . OAKLAND . CA 94623-1055 . (510) 287-1405

Please note that the regulatory/guidance documents related to UST removal referenced in your March 31, 1993 letter were all published 2 or more years after the District removed the USTs and requested the County's legal authority.

The District believes that it has complied with the intent of UST guidelines, and that the UST sites located at 2130 Adeline Street were clean in April 1988. The District requests that the County's requirement to install groundwater monitoring wells at the site be waived for the following reasons:

- The District proactively investigated the USTs at the site after acquisition of adjacent property.
- The District expended considerable funds (>$100,000) and complied with available guidance documents, to remove the 3 USTs and clean-up all identified contamination.
- The District representatives, accompanied by a County Hazardous Materials Specialist, directed the over-excavation of contaminated soils at the 2 UST sites. The success of the over-excavation was confirmed with analytical data.
- Available geotechnical data, confirmed by visual observations made by District staff in the presence of County staff, indicate that the soil beneath the site is principally silty clay. This low permeability soil would have impeded any migration prior to excavation.
- The site is located in a heavily industrialized area.
- Finally, the District does not intend to sell the property where the USTs were located.

The District supports your efforts to clean up soil and groundwater contamination in Alameda County. However, the District is concerned about the retroactive application of guidelines and regulations, particularly in light of current severe budget cutbacks. Further expenditure of public funds on this site will need to be clearly justified.

If, after review of site-specific information, the County will still require the District to install groundwater monitoring wells at the site, then the District requests confirmation of the need for future work, including legal requirement for groundwater monitoring wells at the site during 1987 (tank removal) and 1988 (soil remediation).

Upon receipt of your confirmation of the 1987 and 1988 legal requirements to install monitoring wells at the site, the District will provide you with a plan and schedule for future investigative/assessment activities at the site.

Sincerely,

JOSEPH G. DAMAS, JR.
Manager of Source Control

JGD:ARC:jrm

cc: Lester Fieldman/RWQCB
Rich Hiett/RWQCB

Attachments

AQ3.127_073

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

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

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

March 31, 1993
STID 3726

Joseph Damas
EBMUD
PO Box 24055
Oakland CA 94623-1055

RE: EBMUD site
2130 Adeline St.
Oakland CA 94607

Dear Mr. Damas,

As you may recall, three underground storage tanks (USTs) were removed from the above-referenced site in June 1987. The USTs included a 20-gallon diesel tank, a 500-gallon tank, and a 10,000-gallon tank. (Our records do not indicate what the contents of latter two tanks were.) **A) Please indicate what the 20-gallon diesel tank was used for.**

Soil sampling conducted in conjunction with tank removal indicated the presence of up to 460 ppm Total Volatile Hydrocarbons (TVH) and 15 ppm benzene. It appears that these levels were associated with the 20-gallon "diesel" tank. In addition, up to 170 ppm TVH and 3.6 ppm benzene was found during another tank removal. It is unclear which tank these levels were associated with. **B) Please submit one map showing the locations of all three USTs and the sampling locations.**

A proposal for an investigation to determine the possible impacts to groundwater was requested by this office by letters dated 2/18/88 and 8/2/88. Walter Bishop of your agency responded by letter dated 8/24/88, indicating that contractor's bids were being obtained for the installation of a groundwater monitoring well.

Please respond **within 45 days or by May 15, 1993** as to the status of the subsurface investigation, including the above-mentioned items **A) and B)**, at this site/these sites. Were groundwater monitoring wells ever installed? Have they been monitored? If not, please submit a proposal for a groundwater investigation **within 60 days or by May 31, 1993.**

All work should adhere to a) the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, dated 8/10/90; b) the State WAter Resources Control Board LUFT Field Manual; and c) Article 11 of Title 23, California Code of Regulations. Reports and proposals must be submitted **under seal** of a California-Registered Geologist, -Certified Engineering Geologist, or -Registered Civil

Engineer. All reports and documents pertaining to this investigation should also be sent to:

Rich Hiett
San Francisco Bay Region
Regional Water Quality Control Board
2101 Webster St., Ste 500
Oakland CA 94612

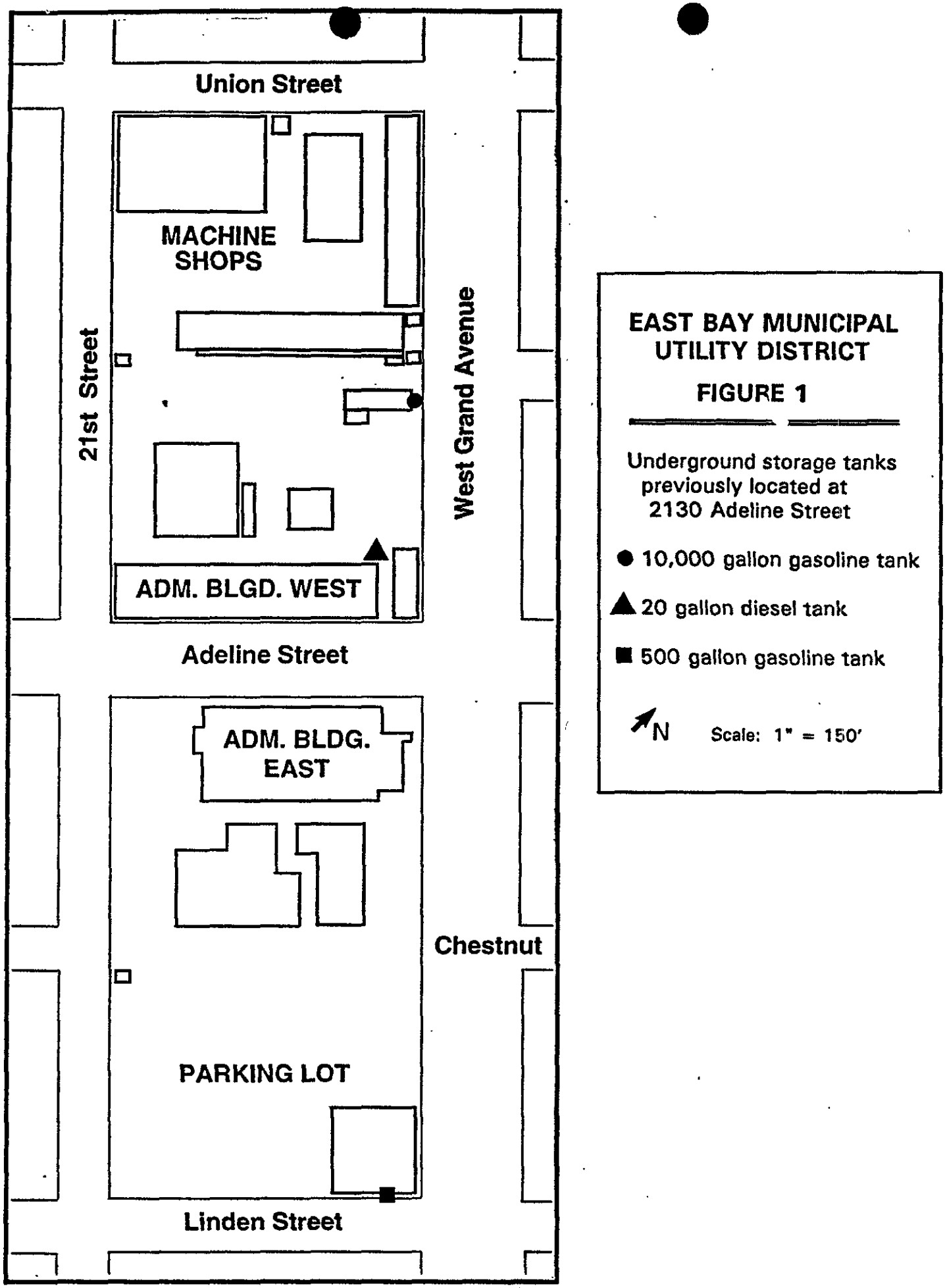
If you have any questions, please contact me at 510-271-4530.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Rich Hiett, RWQCB
Ed Howell/file

je



EAST BAY MUNICIPAL UTILITY DISTRICT

FIGURE 1

Underground storage tanks previously located at 2130 Adeline Street

- ● 10,000 gallon gasoline tank
- ▲ 20 gallon diesel tank
- ■ 500 gallon gasoline tank

N Scale: 1" = 150'

Attachment 2-Figure 1

TABLE 1
EBMUD ADELINE UNDERGROUND STORAGE TANK DATA

UNDERGROUND STORAGE TANK				SOIL SAMPLING				
TANK NAME/LOCATION	SIZE (gal)	TYPE	REMOVAL DATE	SAMPLING DATE	TVH \a (ppm)	TFH \b (ppm)	BENZENE (ppm)	SAMPLING LOCATION
ADMIN. BUILDING WEST: West Grand between Union and Adeline	10,000	Gasoline	6/30/87	7/7/87 7/7/87		<10 96	0.6 4.3	Tank excavation Tank excavation
WEST GRAND: Corner of West Grand and Adeline	20	Diesel	6/15/87	6/11/87 4/18/88	460	<10	15 <0.5	Tank excavation 2' below bottom of removed tank
LINDEN STREET: Corner of West Grand and Linden	500	Gasoline	6/15/87	6/15/87 6/15/87 7/7/87 4/25/88	<3 170	140 <10	<0.08 3.6 1.2	Tank excavation Tank excavation Tank excavation 12' deep re-excavated hole

\a Total Volatile Hydrocarbons
\b Total Fuel Hydrocarbons

FILE: C:\123\ UST.WK3
05-May-93

Attachment 2-Table 1

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

Telephone Number:(415) 271-4320

RECEIVED
AUG 5 1988
WASTEWATER DEPARTMENT

August 2, 1988

East Bay Municipal Utility District
P. O. Box 24055
Oakland, CA 94623
Attn: Joseph Domas

SUBJECT: LINDEN STREET SITE, OAKLAND, CA 94607

Dear Mr. Domas:

We have reviewed the data developed for the subject site, including your letter dated July 7, 1988. We are satisfied that the existing soil contamination has been remedied. The data submitted reveals that there was either a tank leak or historic spillage at the subject tanks. Therefore, it will be necessary to ascertain whether the groundwater at this specific site has been affected. The groundwater is quite high in this area (about 15-25 feet). And, the solvents contained within the gasoline prism can be easily percolated. Sometimes this percolation cannot be detected by discrete soil sampling.

You are formally requested to (1) install a groundwater monitoring well in conformance with the Regional Board's guidelines including bore hole sampling, and (2) monitor the groundwater, from a properly developed well, for TPH (gasoline) and BTXE. The well should be installed within ten (10) feet and downgradient of the tank. Soil samples should be collected at five-foot intervals and at the groundwater interface.

Should you have any questions regarding this matter, please contact Mr. Storm Goranson, Hazardous Materials Specialist at 271-4320.

Sincerely,

Rafat A. Shahid, Chief
Hazardous Materials Division

RAS:SG:mam

Attachment 3

EBMUD

EAST BAY MUNICIPAL UTILITY DISTRICT

August 24, 1988

Mr. Rafat Shahid, Chief
Hazardous Materials Division
Alameda County Health Care Services
80 Swan Way, Suite 200
Oakland, CA 94621

Dear Mr. Shahid:

Re: Linden Street Site, Oakland, CA 94607

The District has received your letter dated August 2, 1988, requiring that a groundwater monitoring well be installed at the Linden Street tank removal site.

The District is obtaining proposals from contractors to perform the well installation. The District requests, however, that the County provide a description, including citations, of the legal authority that specifies the well requirement.

If you have any questions on this request, please contact Joseph G. Damas at 465-3700, extension 120.

Sincerely,

Walter J. Bishop

WALTER J. BISHOP

WJB:BBH:dn SC8.322/118

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

ACCEPTED
Underground Storage Tank Closure Permit Application
[illegible]
80 Swan Way, Room 200
Oakland, CA [illegible]
Telephone (510) [illegible]

These closure/removal plans have been received and found to be acceptable and essentially meet the requirements of State and Local Health Laws. Changes to your closure plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction/closure.

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

Any changes or alterations of these plans and specifications must be submitted to this Department and to the [illegible] Inspections Department to determine if such changes meet the requirements of State and local laws.

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

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

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

[illegible]

Contact Specialist:

10-24-94

UNDERGROUND TANK CLOSURE PLAN

*** * * Complete according to attached instructions * * ***

1. Business Name East Bay Municipal Utilities District (EBMUD)

   Business Owner EBMUD

2. Site Address 1200 21st. Street

   City Oakland Zip 94607 Phone (510) 287-1279

3. Mailing Address 375 11th St., Mail Stop 303

   City Oakland Zip 94607 Phone 510-287-1279

4. Land Owner EBMUD

   Address 375 11th St. MS#303 City, State Oakland, CA Zip 94607

5. Generator name under which tank will be manifested
   East Bay Municipal Utilities District

   EPA I.D. No. under which tank will be manifested CAC000921560

rev 3/92

6. Contractor CalTec Environmental Inc.

Address 1100 Lincoln Ave., #108

City Napa Phone 707-257-3564

License Type* A - Haz ID# 540824

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

7. Consultant CalTec Environmental Inc.

Address 1100 Lincoln Ave., #108

City Napa Phone 707-257-3564

8. Contact Person for Investigation

Name Mark Kemp Title Vice President

Phone 707-257-3564

9. Number of tanks being closed under this plan 2

Length of piping being removed under this plan

Total number of tanks at facility 2

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

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

a) Product/Residual Sludge/Rinsate Transporter

Name CalTec Environmental Inc. EPA I.D. No. CAD983612276

Hauler License No. 3143 License Exp. Date 12/31/94

Address 1100 Lincoln Ave. #108

City Napa State CA Zip 94558

b) Product/Residual Sludge/Rinsate Disposal Site

Name Gibson Environmental EPA I.D. No. CAD043260702

Address 475 Sea Port

City Redwood City State CA Zip 94063

c) Tank and Piping Transporter

Name CalTec Environmental Inc. EPA I.D. No. CAD983612276

Hauler License No. 3143 License Exp. Date 12/31/94

Address 1100 Lincoln Ave., #108

City Napa State CA Zip 94558

d) Tank and Piping Disposal Site

Name Erickson, Inc. EPA I.D. No. CAD009466392

Address 255 Parr Blvd.

City Richmond State CA Zip 94801

11. Experienced Sample Collector

Name Lee Ann Davis

Company On Site Analytical

Address 3534 Kimberly Road

City Cameron Park State CA Zip 95682 Phone 915-677-8648

12. Laboratory

Name McCampbell Analytical

Address 1100 2nd Ave., South #D7

City Pacheco State CA Zip 94553

State Certification No. 1644

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

If yes, describe. unknown

14. Describe methods to be used for rendering tank inert

Waste fuel to be vacuum. Defume tank with dry ice.

15 lb / 1000 gal UST

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

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

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, groundwater, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
1-4,000	unk date inst. (10+yrs). Fuel	soil	1 ft. under each end of tank
1-6,000	Fuel	soil	
	unk date inst - (20+yrs) per B forms		1 sample for every 20 feet of piping

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

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated)	Sampling Plan 1 per 20 yd3 for reuse onsite
none yet	2 samples shall be taken with test being BTXE, TPH, CAM 17 metals

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

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

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

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH-G	~~3550~~ 5030	GCFID	
BTEX		8020 or 8240	
TPH-d	3550	GCFID	

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

18. Submit Worker's Compensation Certificate copy

Name of Insurer State Fund

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

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

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

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

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

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

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

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

Signature of Contractor

Name (please type) Mark KEmp

Signature Mark Kemp

Date 10/19/94

Signature of Site Owner or Operator

Name (please type) KARL MAYO

Signature Karl Mayo

Date 10/19/94