

HA Pabco/Market Place GT. 251
Pa Emeryville 6th + Lacoste
E 24608

Name	Affiliation	Phone
KJ Howell	Ala Co	271-4320
Walter Kaczmarek	The Martin Group	652-5852
David Cook	Brook Thayer Harrison	442-0800
Julie Menack	McLaren Environmental	521-5000
MICHAEL COVARRUBIAS	THE MARTIN GROUP	652-5852
Patrick Sheehan	ChemRisk/McLaren	
MARTHA JEUNG	CADHS - TOXICS - REG. 2	540-3806
Don Cox	DHS " "	540-3804
Lester Feldman	RW QCB - #2	464-1332
RAFAT & SHAHED	ALCO - ENV. HEALTH	271-4300
GIL JENSEN	ALAMEDA CO. D.A. ENV. PRO. DIV	670-5150
Lowell J Miller	Alameda Co Health Dept	271-4320
Alexis McKay	THE MARTIN GROUP	652-5852
Claudia Attano	Supervisor Perata	568-7721
MARC PAPINEAU	EARTH METRICS	578-9900
Carry Seto	Alameda County	271-4320

Name	Agency	Phone #
Mark Thomson	D.A.	670-5150
GIL JENSEN	DA	" "
Kathleen Gillmore	Shell	(713) 241-569
JUDITH MOORAD	SHELL-MMC	(415) 228-6161
Elizabeth Rose	Alameda Co - ^{Envir. - Haz} Health - Mat	(415) 271-4326
ED Howell	" "	"

Name	Agency	Phone #
Mark Thomsen	P.A.	670-5150
GIL JENSEN	DA	" "
Kathleen Gillmore	Shell	(713) 241-569
JUDITH MOORAD	SNELL - MMC	(415) 228-6161
Elizabeth Rose	Alameda Co - ^{Envir. - Haz} Health Dept	(415) 271-4326
ED Howell	" "	"



ChemRisk™

A McLaren Company

980 Atlantic Avenue, Suite 100
Alameda, CA 94501
(415) 521-5200
FAX (415)521-1547

November 15, 1989

Mr. Lowell Miller
Senior Hazardous Materials Specialist
Alameda County Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Rm 200
Oakland, CA 94821

SUBJECT: THE MARKETPLACE SITE

Dear Mr. Miller:

In anticipation of our scheduled meeting, of November 20, 1989 at 2 pm, to discuss the Marketplace site, we have prepared the attached agenda of topics that we hope to address. These topics are focused on the concerns you and Rafat Shahid expressed to The Martin Group regarding the Marketplace site, in your letters of April 5, 1989 and June 20, 1989. In addition, we have prepared an information package that may help to summarize previous agreements and clarify any misunderstandings that may exist.

We look forward to meeting with you on November 20, 1989. If you have any questions, do not hesitate to call me at (415) 521-5200.

Sincerely,

Patrick Sheehan Ph.D.
Supervising Toxicologist
ChemRisk Division
McLaren

Attachments

1115CMV1

AGENDA
Marketplace Site
Monday, November 20, 1989

I. Heavy Metals in Soils

1. Metals in soils exceeding TTLC values.
2. Containment of low level metal contamination in soil.

II. Health and Safety

1. Deed restriction for below grade activities

III. Alleged Violations 1-6

1. Petroleum hydrocarbon characterization
2. Transport of wastes
3. Manifests for waste transport
4. Manifest procedures
5. Record keeping procedures
6. Accumulation time

VI. Asphaltic Material

1. Asphaltic material versus free product
2. Non-hazardous classification
3. Applicability of the self-classification
4. Health and Environmental Risk Assessment

V. Free Product

1. Free product characterization
2. Free product removal

VI. Groundwater Quality

1. Heavy metals
2. TPH
3. Monitoring

**POINTS OF CONCERN REGARDING THE MARKETPLACE SITE
EMERYVILLE, CALIFORNIA**

HEAVY METALS

ISSUE No. 1

Metal concentrations (copper, lead and mercury) in subsurface soils at the Marketplace site were reported to exceed California DHS TTLCs by Earth Metrics (1988).

The original characterization of the site was done prior to the acquisition of the site by the developer. Prior to acquisition and subsequent to characterization, during the city approval process the site was subdivided. A property line was established approximately 20 feet south of Well W-10, running east-west, which denotes the southern boundary of the Marketplace (see attached parcel maps). The portion of the original site south of the new property line is referred to as the hotel pad site and has been owned by another party since early 1988. In addition when the subdivision was made the City of Emeryville required that the portion of the original site bordering the Southern Pacific Railroad right-of-way be deeded to the city for a roadway. This portion of the site contains Wells W-4, W-5, W-8, W-15 and W-16. Characterization of the original site plan was continued up to the Earth Metrics investigations of 1988 as the Marketplace and hotel pad sites have common parking.

RESPONSE:

- Contamination greater than the TTLCs for metals was limited to an area surrounding soil boring EM-8,
- Soil boring EM-8 is located south of the Marketplace site property line (off-site) at the proposed hotel site,
- There is no evidence to indicate that these metal concentrations are related to asphaltic material.

ISSUE No. 2

Low levels of metal contamination may exist in the Marketplace soils.

RESPONSE:

- The Martin Group proposed (letter to Rafat Shahid, Alameda County Department of Environmental Health, dated August 1, 1989) and implemented containment measures identical to those approved by Alameda County Department of Environmental Health for the Bay Center located immediately north of the Marketplace site. The Bay Center has lead contamination in the soil at levels that exceed those measured at the Marketplace. The approved

management strategy was to leave the metals in place provided the following containment measures were implemented:

- All surface areas must be covered with asphalt or concrete,
- All landscaped areas must be covered with 16"-18" clean fill.

CONCLUSION

The metal levels in and around soil boring EM-8 are not on the Marketplace site. In addition, the containment measures noted in Issue No. 2 have been implemented at the Marketplace site, and therefore, no potential for human exposure to metals in soils exists. The metals management strategy is prudent and consistent with precedent.

HEALTH AND SAFETY

ISSUE No. 1

Potentially hazardous materials may exist below grade at the Marketplace site.

RESPONSE:

- The Martin Group has agreed to place a deed restriction on the site (letter from The Martin Group to Alameda County Department of Environmental Health, Rafat Shahid, dated August 1, 1989) which will :
 - Regulate all construction activities below grade,
 - Require the implementation of a health and safety plan for any below grade construction activities that may take place on the site.

?

low level activities?

CONCLUSION

The health and safety of on-site workers, present and future, as well as the immediate local population are protected from any potential health hazards associated with low level contamination that may exist below grade at the Marketplace site.

ALLEGED VIOLATIONS

ISSUE No. 1

Sec. 66471 - The nature of the "asphaltic or oily " materials found at the site have not been characterized.

RESPONSE:

- Consult the following documents:
 - Woodward Clyde Consultants (1987). Environmental Assessment, Former Nielsen Freight Line Site and Adjacent Parcel, Emeryville, California, August 12, 1987.
 - Aqua Terra Technologies (1988). Classification of an Asphalt-Like Waste Material found in the Marketplace and Nielsen site in Emeryville, California. Letter to The Martin Group, July 11, 1988.
 - McLaren (1989). Results of the Hydrogeologic Investigation Conducted at the Marketplace/Nielsen properties, The Martin Group, September 11, 1989. pp 43-48.
 - McLaren (1989). Subsurface Free Product Investigation, Marketplace site, Emeryville, California, October 13, 1989. pp 4-1 to 4-11.
- See Discussion of Asphaltic Material and Free Product.

CONCLUSION

The asphaltic material and free product have been sufficiently characterized to determine that they are distinctly different and should be managed as such.

ISSUE No. 2

Section 66480 - Hazardous waste was transported from the Marketplace site to the Judson Steel site without a manifest. Other hazardous wastes were taken to Anderson Landfill without a manifest.

RESPONSE:

- No hazardous or extremely hazardous wastes from the Marketplace site were discharged or disposed,
- The specific surplus material transported from the Marketplace to the north of Judson Steel (a.k.a. Chiron) site was clean (i.e., non-hazardous) soil, used as storm sewer backfill,
- The specific surplus material transported to Richmond Sanitary Service's West Contra Costa Sanitary Landfill was non-hazardous bioremediated soil and bioremediated fuel manifold backfill,

- The specific surplus material transported to Forward Inc.'s Anderson Sanitary Landfill was non-hazardous surplus soil, excavation of which was incidental to construction of Marketplace foundation footings and new utility laterals,
- The non-hazardous status of all surplus and bioremediated backfill and soil was evaluated by the Environmental Site Assessor (Earth Metrics Inc.). The Regional Water Quality Control Board (Ken Thiesen) and the Alameda County Department of Environmental Health were consulted and notified of all chemical profile, transport and disposal activities.

CONCLUSION

As previously agreed, this is no longer an issue. No hazardous or extremely hazardous wastes have been transported from the Marketplace site, therefore, the alleged violation has not occurred.

ISSUE No. 3

Section 66481 - A manifest was not completed for the transport listed in item 2.

RESPONSE:

- The manifest requirements of Title 22 CCR Chapter 30, are applicable to materials that conform to the definition of hazardous waste (Section 66300, referenced from Title 22 CCR Article 24). None of the materials transported from the Marketplace site as described in Item 2 (letter from Alameda County Department of Environmental Health to The Martin Group, dated April 5, 1989) were hazardous or extremely hazardous wastes.

CONCLUSION

As previously agreed, this is no longer an issue. The manifest requirements for hazardous wastes required under Title 22 CCR, Chapter 30 are not applicable to the materials transported from the Marketplace.

ISSUE No. 4

Section 66484 - Manifest procedures were not followed.

RESPONSE:

- See response to Issue No. 3.

CONCLUSION

Refer to Conclusion to Issue No. 3.

ISSUE No. 5

Section 66492 - Record keeping procedures regarding the manifest were not followed.

RESPONSE:

- See responses to Issues No. 2, 3 and 4.
- All analytical results generated for the chemical profiles of the transported materials have been presented to the Alameda County Department of Environmental Health and have been retained in the files of the appropriate consultants and The Martin Group.

CONCLUSION

As previously agreed, this is no longer an issue. No hazardous wastes were transported from the Marketplace site, therefore, hazardous waste transport manifest and record keeping requirements of Title 22 CCR Section 66492 are not applicable. The Regional Water Quality Control Board and the Alameda County Department of Environmental Health have been provided copies of all pertinent and appropriate documentation. Appropriate records have been maintained for the purposes of The Martin Group and their consultants.

ISSUE No. 6

Section 66508 - An accumulation time for the transport of hazardous waste was not provided.

RESPONSE:

- No hazardous or extremely hazardous wastes have been accumulated on the Marketplace site,
- As noted on Title 22 CCR Chapter 30, Article 2, Section 66300 (referenced from Article 24, and Section 66508) the provisions of this chapter are applicable to materials that conform to the definition of hazardous waste.
 - None of the materials transported from the site were hazardous wastes,
 - None of the materials accumulated on the Marketplace site are hazardous wastes,
 - The asphaltic material currently stored on site at the hotel pad in preparation for transport has been self-classified as non-hazardous in accordance with Title 22 Article 11 Section 66305.

CONCLUSION

As previously agreed, this is no longer an issue, and the requirements of Section 66508 are not applicable to the materials accumulated on and transported from the Marketplace site.

ASPHALTIC MATERIAL

ISSUE No. 1

Petroleum hydrocarbon products exist in the soil at the Marketplace Site.

RESPONSE:

- Two types of petroleum hydrocarbon products exist in the soil at the Marketplace site,
 - An asphalt-like material has been reported in the soils of the Marketplace site,
 - A Floating oil product has been reported in Well W-5.
- There is substantial and persuasive evidence to indicate that these two petroleum hydrocarbon materials are physically and chemically different and should not be addressed as a single issue.
 - These materials as reported by McLaren (Subsurface Free Product Investigation, 1989) exhibit different physical and chemical characteristics.
 - The locations at which these materials have been found are not directly related. The free product is centered around Well W-5 on the upgradient border of the Marketplace site and the downgradient extent has not reached Well W-18. The asphaltic material is located in the soil at points described by Earth Metrics (1988) where the free product has not been detected.

ISSUE No. 2

Alameda County Department of Environmental Health contends the asphaltic material is a hazardous waste.

RESPONSE:

- The asphaltic material has been self-classified in accordance with the self-classification protocol of Title 22 CCR Article 11 Section 66305 (a) (Aqua Terra Technologies, 1988). All appropriate and applicable analytical tests were conducted and the asphaltic material was determined to be non-hazardous. There is no rational basis to characterize the material as hazardous waste.

ISSUE No. 3

The Alameda County Department of Environmental Health has indicated the self-classification of the asphaltic material was improperly conducted with regards to the following points:

- Failure to consider all of the criteria required for a hazardous waste classification under Title 22 CCR Section 66696,
- The pH test was not appropriate,
- PNAs measured in previous sampling efforts were not included in the LD₅₀ calculations,
- The fish toxicity test is suspect because the asphalt is not sufficiently soluble in water.

RESPONSE:

- All of the appropriate test methods for the determination of the characteristic of toxicity as required under the self-classification protocol of Title 22 CCR, Article 11, Section 66305 (a) were performed.
- The pH test was appropriately conducted as required by Title 22 CCR Article 11 for the asphaltic material from EM-1 and EM-4. In addition, this pH test was conducted on the oil product from Well W-5 and the material was not found to be acidic (pH = 7.0). Alameda County reports that the oil was acidic, based on its KOH equivalent (3.8 meq). It should be noted that the asphalt and the free product are separate substances and the KOH equivalent should not be attributed to the asphalt-like material. Alameda County Health theorized that the mortalities exhibited in the fish toxicity test of the free product were due to its supposed acidity. However, this contention is not supported by the pH data collected during the 96-hour test. The pH during the entire test was never less than 7.0.
- Methylene chloride and acetone were detected in the asphaltic sample EM-4. These chemicals were evaluated for their potential toxicity as required (Title 22 CCR Section 66696 (c)). A single PNA was detected in the free product only (2-methynaphthalene) which is not listed as hazardous waste in Title 22 CCR Section 66680 or 40 CFR 261.31-33.
- The fish toxicity test was conducted in accordance with Title 22 CCR Section 66696 (a) (4) and Section 66700 (for tarry materials) and within the guidance provided by DHS and the California Department of Fish and Game as laboratory certifying agent for DHS. The test guidelines specify that the sample not be amended for the aquatic toxicity test (hazardous waste bioassay protocol and personal communication Mr. Jim Polisini, State Department of Fish and Game Water Pollution Control Laboratory). The bioassay results meet proper quality assurance criteria and do not meet the criteria for toxicity under Title 22 CCR Section 66696 (a) (4).

ISSUE No. 3

Does the asphaltic material represent a health threat to humans or a potential contamination source to the groundwater ?

RESPONSE:

- The asphaltic material poses no human health hazard unless direct and prolonged skin contact or ingestion were to occur. This is highly unlikely as the Marketplace site has been covered with asphalt and/or concrete and all landscaping areas have been covered with 18 inches of clean soil.
- The California DHS has no current regulatory criteria for PNAs in asphalt and does not expect significant migration of PNAs from asphalt to the groundwater due to their insolubility in water (letter from Norman Riley of CDHS to Dr. Patrick Sheehan, dated August 22, 1989).
- The asphaltic material was tested under the "worst case" leaching conditions of the USEPA Toxicity Characterization Leachability Procedure (TCLP) in accordance with 40 CFR Section 261 Hazardous Waste Characterization (free product investigation, McLaren, 1989). The results demonstrate that the asphaltic material does not leach hazardous chemicals at concentrations exceeding Federal toxicity criteria, and therefore, the characteristic of toxicity is not applicable to the asphaltic material.
- Groundwater data indicate that elevated levels of PNAs are not present in the groundwater and further support the results of the TCLP analysis and the interpretation of PNA water solubility provided by the California DHS.

CONCLUSION

The asphaltic material is distinctly different and unrelated to the free product present in Well W-5. The asphaltic material was self-classified as non-hazardous in full accordance with California State Law (Title 22 GCR, Article 11, Section 66305). In addition, the asphalt material does not represent a human health hazard nor a threat to the groundwater as the material is contained, immobile and does not leach hazardous chemicals at concentrations exceeding EPA (McLaren, 1989) or California DHS criteria for the characteristic of toxicity (Aqua Terra Technologies, 1988).

FREE PRODUCT

ISSUE No. 1

Floating free product is present above the groundwater table in the northeast corner of the Marketplace site.

RESPONSE:

- Past industrial activities at the Marketplace site may have contributed to the presence of the free product,
 - Floating free product is centered around Well W-5 and has been found in trace amounts in Well W-16,
 - Wells W-5 and W-16 are located in the parcel deeded to the City of Emeryville (see attached parcel map)
 - The down gradient extent of the free product does not extend to Well W-18,
 - The up gradient extent of the free product has not been determined, and an off-site contributor should not be ruled out at this time.
- The free product has been physically (McLaren, 1989) and chemically characterized (Woodward and Clyde, 1982, 1987; Earth Metrics, 1988; Aqua Terra Technologies, 1988; McLaren 1989) and has been classified as a heavy fuel oil or heavy crude oil.

ISSUE No. 2

Guidelines established by the RWQCB consider free product in contact with the groundwater to pose a threat to water quality and recommend the removal of free product (RWQCB Tri-Regional Guidelines, June 2, 1988).

RESPONSE:

- The Martin Group recognizes that the RWQCB guidelines consider the free product a potential threat to groundwater quality and have initiated free product removal as part of the subsurface free product investigation (September, 1989).
- Further characterization of the free product is unnecessary as all waste oils are treated as hazardous materials by waste oil management companies in California, and therefore, the appropriate precautions will be taken during free product removal and handling. California DHS and RWQCB guidelines will be followed for the management and disposal of the free product.

GROUNDWATER QUALITY

ISSUE No. 1

Groundwater data reported by Earth Metrics and noted by the Alameda County Department of Environmental Health (letter of April 5, 1989 to The Martin Group) indicated that the groundwater had been impacted by heavy metals and that a hydrogeological investigation was required.

RESPONSE:

- Recent groundwater data reported in the hydrogeological investigation of the Marketplace site conducted by McLaren (1989) indicate that no heavy metal concentrations exceeding Federal and State drinking water standards are present, with the following exceptions:
 - Arsenic was measured at concentrations slightly above the State MCL for drinking water. However, the data indicate that arsenic in the groundwater may be migrating to the Marketplace site from an upgradient location.
 - A single sample from Well W-7 contained a lead concentration of 80 ppb, which slightly exceeds the State MCL of 50 ppb.
- It should be noted that the shallow groundwater beneath the Marketplace site does not meet the RWQCB requirements for potable water resources on the basis of total dissolved solids and specific conductance. The groundwater of this area has no known beneficial use.

ISSUE No. 2

Recent groundwater data indicate the presence of TPH/D in the groundwater up to 20 ppm.

RESPONSE:

- The highest concentration of the TPH/D was measured in Well W-5 along the upgradient boundary of the Marketplace site on the parcel currently under the jurisdiction of the City of Emeryville,
- The TPH/D may be related to the free product, but at this time an off-site source should not be ruled out.
 - Continued removal of the free product, quarterly sampling and the installation of an upgradient well are considered an appropriate approach for further investigation of the groundwater,

ISSUE No. 3

Following the removal of subsurface free product quarterly monitoring of the groundwater is typically required (RWQCB, Tri-Regional Guidelines, June 2, 1988).

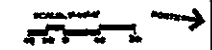
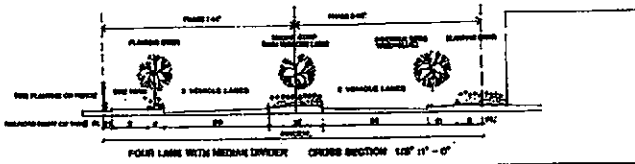
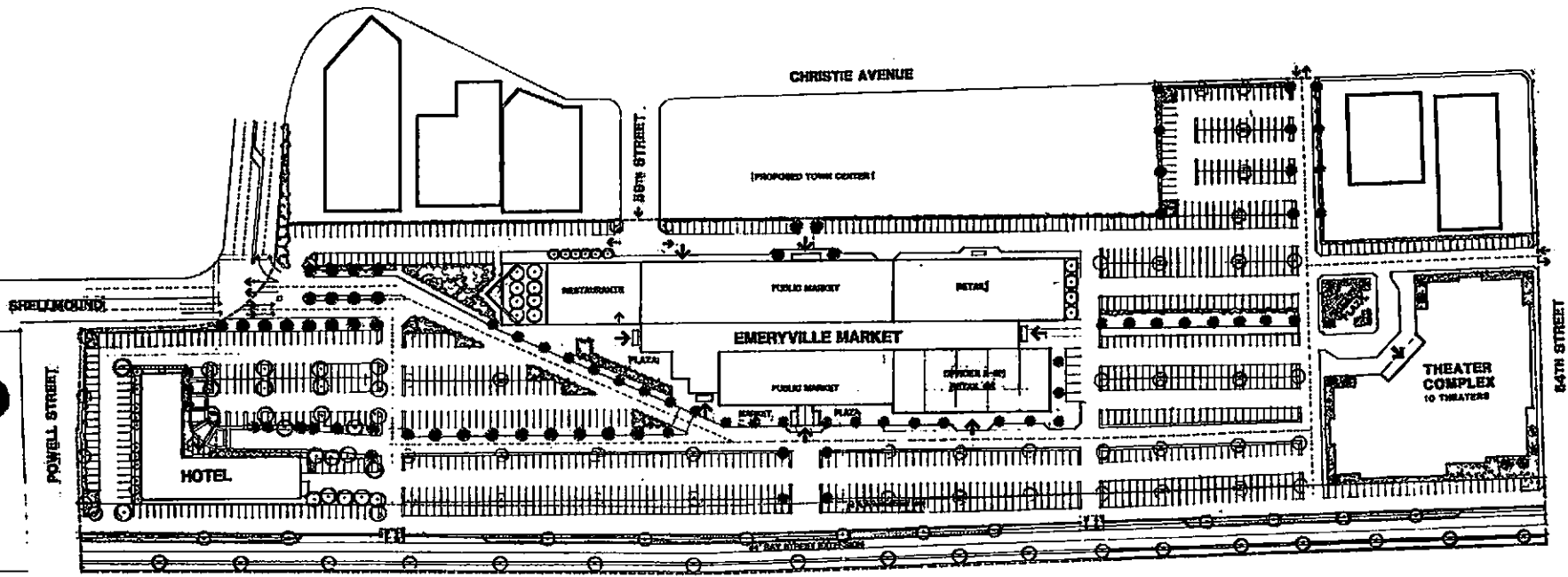
RESPONSE:

- The need for further monitoring of the Marketplace groundwater is recognized for the following purposes:
 - It is recommended by the RWQCB in the Tri-Regional Guidelines to evaluate the potential impact of dissolved constituents on the groundwater,
 - Possible upgradient, off-site sources for arsenic, free product and TPH/D need to be evaluated.

CONCLUSION

The groundwater underlying the Marketplace requires monitoring for TPH/D and arsenic following the removal of the free product and in the evaluation of the off-site contributors cited above.

1110SMF1



B
BROCCHINI
ARCHITECTS
 1000 BAY STREET, SUITE 100
 OAKLAND, CALIF. 94612

EMERYVILLE MARKET
 FOR THE MARTIN COMPANY

SITE PLAN

DATE	NO.	BY	CHKD.

SCALE: 1/4" = 1' - 0"
 SHEET NO. 1 OF 2

88-051904

PARCEL MAP NO. 5303

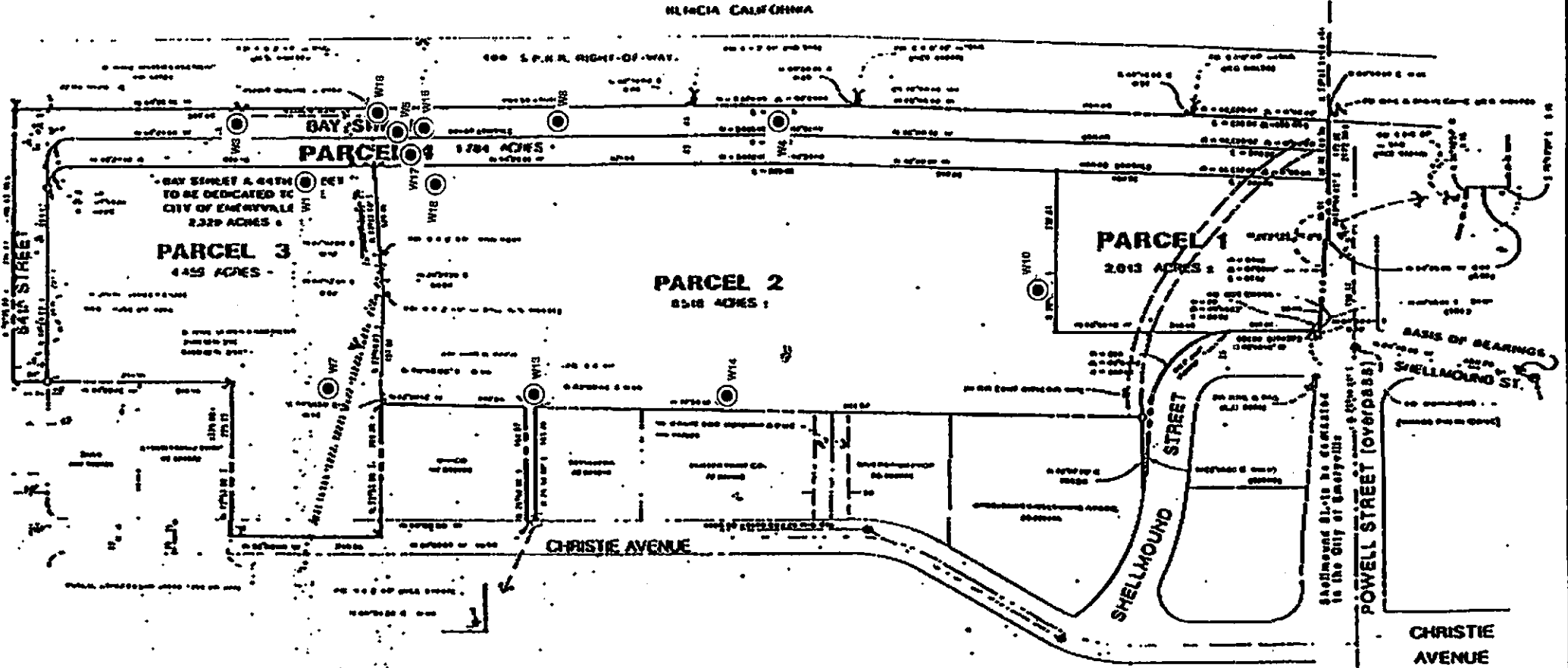
PORTIONS OF BOOK 5 OF SURVEYS, PAGE 43 AND SECTION 15, T 1 S, R 4 W, M.D.B & M.

CITY OF EMERYVILLE,

COUNTY OF ALAMEDA, STATE OF CALIFORNIA

L.L.L.A. ENGINEERING ASSOCIATES, INC
HUNTERVILLE, CALIFORNIA

SCALE 1" = 100'



LEGEND

● EXISTING WELLS

--- BOUNDARY OF THE MAP

--- EXISTING EASEMENTS

--- 100' WIDE STRIP TO ADJACENT PARCELS

--- 50' WIDE STRIP TO ADJACENT PARCELS

--- 25' WIDE STRIP TO ADJACENT PARCELS

--- 12.5' WIDE STRIP TO ADJACENT PARCELS

NOTE: THE BOUNDARY BETWEEN PARCELS 1 AND 2 IS SHOWN AS A DASHED LINE BETWEEN THE 100' WIDE STRIP TO ADJACENT PARCELS AND THE 50' WIDE STRIP TO ADJACENT PARCELS.

Exhibit A

AGENDA
Marketplace Site
Monday, November 20, 1989

I. Heavy Metals in Soils

1. Metals in soils exceeding TTLC values.
2. Containment of low level metal contamination in soil.

II. Health and Safety

1. Deed restriction for below grade activities

III. Alleged Violations 1-6

1. Petroleum hydrocarbon characterization
2. Transport of wastes
3. Manifests for waste transport
4. Manifest procedures
5. Record keeping procedures
6. Accumulation time

VI. Asphaltic Material

1. Asphaltic material versus free product
2. Non-hazardous classification
3. Applicability of the self-classification
4. Health and Environmental Risk Assessment

V. Free Product

1. Free product characterization
2. Free product removal

VI. Groundwater Quality

1. Heavy metals
2. TPH
3. Monitoring

**POINTS OF CONCERN REGARDING THE MARKETPLACE SITE
EMERYVILLE, CALIFORNIA**

HEAVY METALS

ISSUE No. 1

Metal concentrations (copper, lead and mercury) in subsurface soils at the Marketplace site were reported to exceed California DHS TTLCs by Earth Metrics (1988).

The original characterization of the site was done prior to the acquisition of the site by the developer. Prior to acquisition and subsequent to characterization, during the city approval process the site was subdivided. A property line was established approximately 20 feet south of Well W-10, running east-west, which denotes the southern boundary of the Marketplace (see attached parcel maps). The portion of the original site south of the new property line is referred to as the hotel pad site and has been owned by another party since early 1988. In addition when the subdivision was made the City of Emeryville required that the portion of the original site bordering the Southern Pacific Railroad right-of-way be deeded to the city for a roadway. This portion of the site contains Wells W-4, W-5, W-8, W-15 and W-16. Characterization of the original site plan was continued up to the Earth Metrics investigations of 1988 as the Marketplace and hotel pad sites have common parking.

RESPONSE:

- Contamination greater than the TTLCs for metals was limited to an area surrounding soil boring EM-8,
- Soil boring EM-8 is located south of the Marketplace site property line (off-site) at the proposed hotel site,
- There is no evidence to indicate that these metal concentrations are related to asphaltic material.

ISSUE No. 2

Low levels of metal contamination may exist in the Marketplace soils.

RESPONSE:

- The Martin Group proposed (letter to Rafat Shahid, Alameda County Department of Environmental Health, dated August 1, 1989) and implemented containment measures identical to those approved by Alameda County Department of Environmental Health for the Bay Center located immediately north of the Marketplace site. The Bay Center has lead contamination in the soil at levels that exceed those measured at the Marketplace. The approved

management strategy was to leave the metals in place provided the following containment measures were implemented:

- All surface areas must be covered with asphalt or concrete,
- All landscaped areas must be covered with 16"-18" clean fill.

CONCLUSION

The metal levels in and around soil boring EM-8 are not on the Marketplace site. In addition, the containment measures noted in Issue No. 2 have been implemented at the Marketplace site, and therefore, no potential for human exposure to metals in soils exists. The metals management strategy is prudent and consistent with precedent.

HEALTH AND SAFETY

ISSUE No. 1

Potentially hazardous materials may exist below grade at the Marketplace site.

RESPONSE:

- The Martin Group has agreed to place a deed restriction on the site (letter from The Martin Group to Alameda County Department of Environmental Health, Rafat Shahid, dated August 1, 1989) which will :
 - Regulate all construction activities below grade,
 - Require the implementation of a health and safety plan for any below grade construction activities that may take place on the site.

CONCLUSION

The health and safety of on-site workers, present and future, as well as the immediate local population are protected from any potential health hazards associated with low level contamination that may exist below grade at the Marketplace site.

ALLEGED VIOLATIONS

ISSUE No. 1

Sec. 66471 - The nature of the "asphaltic or oily " materials found at the site have not been characterized.

RESPONSE:

- Consult the following documents:
 - Woodward Clyde Consultants (1987). Environmental Assessment, Former Nielsen Freight Line Site and Adjacent Parcel, Emeryville, California, August 12, 1987.
 - Aqua Terra Technologies (1988). Classification of an Asphalt-Like Waste Material found in the Marketplace and Nielsen site in Emeryville, California. Letter to The Martin Group, July 11, 1988.
 - McLaren (1989). Results of the Hydrogeologic Investigation Conducted at the Marketplace/Nielsen properties, The Martin Group, September 11, 1989. pp 43-48.
 - McLaren (1989). Subsurface Free Product Investigation, Marketplace site, Emeryville, California, October 13, 1989. pp 4-1 to 4-11.
- See Discussion of Asphaltic Material and Free Product.

CONCLUSION

The asphaltic material and free product have been sufficiently characterized to determine that they are distinctly different and should be managed as such.

ISSUE No. 2

Section 66480 - Hazardous waste was transported from the Marketplace site to the Judson Steel site without a manifest. Other hazardous wastes were taken to Anderson Landfill without a manifest.

RESPONSE:

- No hazardous or extremely hazardous wastes from the Marketplace site were discharged or disposed,
- The specific surplus material transported from the Marketplace to the north of Judson Steel (a.k.a. Chiron) site was clean (i.e., non-hazardous) soil, used as storm sewer backfill,
- The specific surplus material transported to Richmond Sanitary Service's West Contra Costa Sanitary Landfill was non-hazardous bioremediated soil and bioremediated fuel manifold backfill,

- The specific surplus material transported to Forward Inc.'s Anderson Sanitary Landfill was non-hazardous surplus soil, excavation of which was incidental to construction of Marketplace foundation footings and new utility laterals,
- The non-hazardous status of all surplus and bioremediated backfill and soil was evaluated by the Environmental Site Assessor (Earth Metrics Inc.). The Regional Water Quality Control Board (Ken Thiesen) and the Alameda County Department of Environmental Health were consulted and notified of all chemical profile, transport and disposal activities.

CONCLUSION

As previously agreed, this is no longer an issue. No hazardous or extremely hazardous wastes have been transported from the Marketplace site, therefore, the alleged violation has not occurred.

ISSUE No. 3

Section 66481 - A manifest was not completed for the transport listed in item 2.

RESPONSE:

- The manifest requirements of Title 22 CCR Chapter 30, are applicable to materials that conform to the definition of hazardous waste (Section 66300, referenced from Title 22 CCR Article 24). None of the materials transported from the Marketplace site as described in Item 2 (letter from Alameda County Department of Environmental Health to The Martin Group, dated April 5, 1989) were hazardous or extremely hazardous wastes.

CONCLUSION

As previously agreed, this is no longer an issue. The manifest requirements for hazardous wastes required under Title 22 CCR, Chapter 30 are not applicable to the materials transported from the Marketplace.

ISSUE No. 4

Section 66484 - Manifest procedures were not followed.

RESPONSE:

- See response to Issue No. 3.

CONCLUSION

Refer to Conclusion to Issue No. 3.

ISSUE No. 5

Section 66492 - Record keeping procedures regarding the manifest were not followed.

RESPONSE:

- See responses to Issues No. 2, 3 and 4.
- All analytical results generated for the chemical profiles of the transported materials have been presented to the Alameda County Department of Environmental Health and have been retained in the files of the appropriate consultants and The Martin Group.

CONCLUSION

As previously agreed, this is no longer an issue. No hazardous wastes were transported from the Marketplace site, therefore, hazardous waste transport manifest and record keeping requirements of Title 22 CCR Section 66492 are not applicable. The Regional Water Quality Control Board and the Alameda County Department of Environmental Health have been provided copies of all pertinent and appropriate documentation. Appropriate records have been maintained for the purposes of The Martin Group and their consultants.

ISSUE No. 6

Section 66508 - An accumulation time for the transport of hazardous waste was not provided.

RESPONSE:

- No hazardous or extremely hazardous wastes have been accumulated on the Marketplace site,
- As noted on Title 22 CCR Chapter 30, Article 2, Section 66300 (referenced from Article 24, and Section 66508) the provisions of this chapter are applicable to materials that conform to the definition of hazardous waste.
 - None of the materials transported from the site were hazardous wastes,
 - None of the materials accumulated on the Marketplace site are hazardous wastes,
 - The asphaltic material currently stored on site at the hotel pad in preparation for transport has been self-classified as non-hazardous in accordance with Title 22 Article 11 Section 66305.

CONCLUSION

As previously agreed, this is no longer an issue, and the requirements of Section 66508 are not applicable to the materials accumulated on and transported from the Marketplace site.

ASPHALTIC MATERIAL

ISSUE No. 1

Petroleum hydrocarbon products exist in the soil at the Marketplace Site.

RESPONSE:

- Two types of petroleum hydrocarbon products exist in the soil at the Marketplace site,
 - An asphalt-like material has been reported in the soils of the Marketplace site,
 - A floating oil product has been reported in Well W-5.
- There is substantial and persuasive evidence to indicate that these two petroleum hydrocarbon materials are physically and chemically different and should not be addressed as a single issue.
 - These materials as reported by McLaren (Subsurface Free Product Investigation, 1989) exhibit different physical and chemical characteristics.
 - The locations at which these materials have been found are not directly related. The free product is centered around Well W-5 on the upgradient border of the Marketplace site and the downgradient extent has not reached Well W-18. The asphaltic material is located in the soil at points described by Earth Metrics (1988) where the free product has not been detected.

ISSUE No. 2

Alameda County Department of Environmental Health contends the asphaltic material is a hazardous waste.

RESPONSE:

- The asphaltic material has been self-classified in accordance with the self-classification protocol of Title 22 CCR Article 11 Section 66305 (a) (Aqua Terra Technologies, 1988). All appropriate and applicable analytical tests were conducted and the asphaltic material was determined to be non-hazardous. There is no rational basis to characterize the material as hazardous waste.

ISSUE No. 3

The Alameda County Department of Environmental Health has indicated the self-classification of the asphaltic material was improperly conducted with regards to the following points:

- Failure to consider all of the criteria required for a hazardous waste classification under Title 22 CCR Section 66696,
- The pH test was not appropriate,
- PNAs measured in previous sampling efforts were not included in the LD₅₀ calculations,
- The fish toxicity test is suspect because the asphalt is not sufficiently soluble in water.

RESPONSE:

- All of the appropriate test methods for the determination of the characteristic of toxicity as required under the self-classification protocol of Title 22 CCR, Article 11, Section 66305 (a) were performed.
- The pH test was appropriately conducted as required by Title 22 CCR Article 11 for the asphaltic material from EM-1 and EM-4. In addition, this pH test was conducted on the oil product from Well W-5 and the material was not found to be acidic (pH = 7.0). Alameda County reports that the oil was acidic, based on its KOH equivalent (3.8 meq). It should be noted that the asphalt and the free product are separate substances and the KOH equivalent should not be attributed to the asphalt-like material. Alameda County Health theorized that the mortalities exhibited in the fish toxicity test of the free product were due to its supposed acidity. However, this contention is not supported by the pH data collected during the 96-hour test. The pH during the entire test was never less than 7.0.
- Methylene chloride and acetone were detected in the asphaltic sample EM-4. These chemicals were evaluated for their potential toxicity as required (Title 22 CCR Section 66696 (c)). A single PNA was detected in the free product only (2-methynaphthalene) which is not listed as hazardous waste in Title 22 CCR Section 66680 or 40 CFR 261.31-33.
- The fish toxicity test was conducted in accordance with Title 22 CCR Section 66696 (a) (4) and Section 66700 (for tarry materials) and within the guidance provided by DHS and the California Department of Fish and Game as laboratory certifying agent for DHS. The test guidelines specify that the sample not be amended for the aquatic toxicity test (hazardous waste bioassay protocol and personal communication Mr. Jim Polisini, State Department of Fish and Game Water Pollution Control Laboratory). The bioassay results meet proper quality assurance criteria and do not meet the criteria for toxicity under Title 22 CCR Section 66696 (a) (4).

ISSUE No. 3

Does the asphaltic material represent a health threat to humans or a potential contamination source to the groundwater ?

RESPONSE:

- The asphaltic material poses no human health hazard unless direct and prolonged skin contact or ingestion were to occur. This is highly unlikely as the Marketplace site has been covered with asphalt and/or concrete and all landscaping areas have been covered with 18 inches of clean soil.
- The California DHS has no current regulatory criteria for PNAs in asphalt and does not expect significant migration of PNAs from asphalt to the groundwater due to their insolubility in water (letter from Norman Riley of CDHS to Dr. Patrick Sheehan, dated August 22, 1989).
- The asphaltic material was tested under the "worst case" leaching conditions of the USEPA Toxicity Characterization Leachability Procedure (TCLP) in accordance with 40 CFR Section 261 Hazardous Waste Characterization (free product investigation, McLaren, 1989). The results demonstrate that the asphaltic material does not leach hazardous chemicals at concentrations exceeding Federal toxicity criteria, and therefore, the characteristic of toxicity is not applicable to the asphaltic material.
- Groundwater data indicate that elevated levels of PNAs are not present in the groundwater and further support the results of the TCLP analysis and the interpretation of PNA water solubility provided by the California DHS.

CONCLUSION

The asphaltic material is distinctly different and unrelated to the free product present in Well W-5. The asphaltic material was self-classified as non-hazardous in full accordance with California State Law (Title 22 CCR, Article 11, Section 66305). In addition, the asphalt material does not represent a human health hazard nor a threat to the groundwater as the material is contained, immobile and does not leach hazardous chemicals at concentrations exceeding EPA (McLaren, 1989) or California DHS criteria for the characteristic of toxicity (Aqua Terra Technologies, 1988).

FREE PRODUCT

ISSUE No. 1

Floating free product is present above the groundwater table in the northeast corner of the Marketplace site.

RESPONSE:

- Past industrial activities at the Marketplace site may have contributed to the presence of the free product,
 - Floating free product is centered around Well W-5 and has been found in trace amounts in Well W-16,
 - Wells W-5 and W-16 are located in the parcel deeded to the City of Emeryville (see attached parcel map)
 - The down gradient extent of the free product does not extend to Well W-18,
 - The up gradient extent of the free product has not been determined, and an off-site contributor should not be ruled out at this time.
- The free product has been physically (McLaren, 1989) and chemically characterized (Woodward and Clyde, 1982, 1987; Earth Metrics, 1988; Aqua Terra Technologies, 1988; McLaren 1989) and has been classified as a heavy fuel oil or heavy crude oil.

ISSUE No. 2

Guidelines established by the RWQCB consider free product in contact with the groundwater to pose a threat to water quality and recommend the removal of free product (RWQCB Tri-Regional Guidelines, June 2, 1988).

RESPONSE:

- The Martin Group recognizes that the RWQCB guidelines consider the free product a potential threat to groundwater quality and have initiated free product removal as part of the subsurface free product investigation (September, 1989).
- Further characterization of the free product is unnecessary as all waste oils are treated as hazardous materials by waste oil management companies in California, and therefore, the appropriate precautions will be taken during free product removal and handling. California DHS and RWQCB guidelines will be followed for the management and disposal of the free product.

GROUNDWATER QUALITY

ISSUE No. 1

Groundwater data reported by Earth Metrics and noted by the Alameda County Department of Environmental Health (letter of April 5, 1989 to The Martin Group) indicated that the groundwater had been impacted by heavy metals and that a hydrogeological investigation was required.

RESPONSE:

- Recent groundwater data reported in the hydrogeological investigation of the Marketplace site conducted by McLaren (1989) indicate that no heavy metal concentrations exceeding Federal and State drinking water standards are present, with the following exceptions:
 - Arsenic was measured at concentrations slightly above the State MCL for drinking water. However, the data indicate that arsenic in the groundwater may be migrating to the Marketplace site from an upgradient location.
 - A single sample from Well W-7 contained a lead concentration of 80 ppb, which slightly exceeds the State MCL of 50 ppb.
- It should be noted that the shallow groundwater beneath the Marketplace site does not meet the RWQCB requirements for potable water resources on the basis of total dissolved solids and specific conductance. The groundwater of this area has no known beneficial use.

ISSUE No. 2

Recent groundwater data indicate the presence of TPH/D in the groundwater up to 20 ppm.

RESPONSE:

- The highest concentration of the TPH/D was measured in Well W-5 along the upgradient boundary of the Marketplace site on the parcel currently under the jurisdiction of the City of Emeryville,
- The TPH/D may be related to the free product, but at this time an off-site source should not be ruled out.
 - Continued removal of the free product, quarterly sampling and the installation of an upgradient well are considered an appropriate approach for further investigation of the groundwater,

ISSUE No. 3

Following the removal of subsurface free product quarterly monitoring of the groundwater is typically required (RWQCB, Tri-Regional Guidelines, June 2, 1988).

RESPONSE:

- The need for further monitoring of the Marketplace groundwater is recognized for the following purposes:
 - It is recommended by the RWQCB in the Tri-Regional Guidelines to evaluate the potential impact of dissolved constituents on the groundwater,
 - Possible upgradient, off-site sources for arsenic, free product and TPH/D need to be evaluated.

CONCLUSION

The groundwater underlying the Marketplace requires monitoring for TPH/D and arsenic following the removal of the free product and in the evaluation of the off-site contributors cited above.

1110SMF1

Exhibit A

88-05 1904

PARCEL MAP NO. 5303

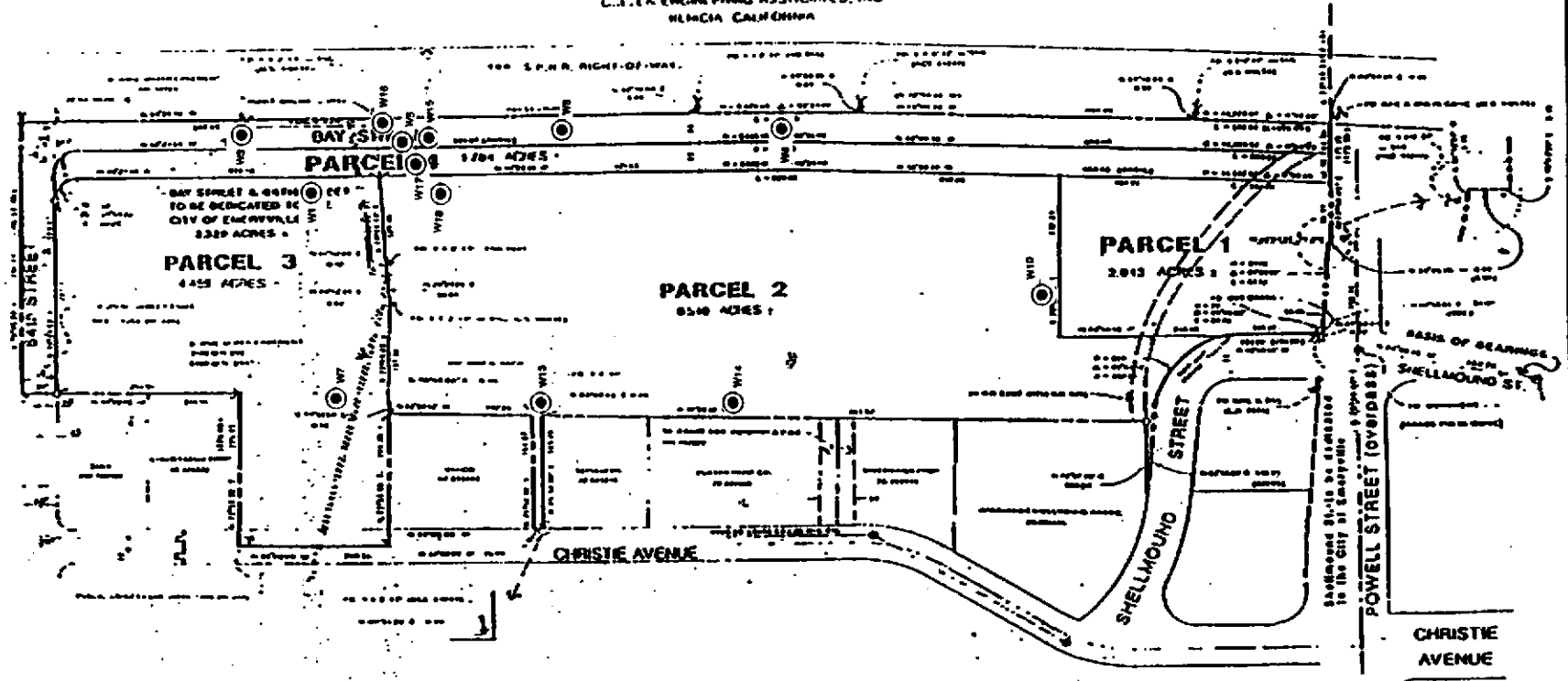
PORTIONS OF BOOK 5 OF SURVEYS, PAGE 43 AND SECTION 15, T 1 S, R 4 W, M.D.U 6 M.

CITY OF EMERYVILLE,

COUNTY OF ALAMEDA, STATE OF CALIFORNIA

L.L. EA ENGINEERING ASSOCIATES, INC
HEMENIA, CALIFORNIA

SCALE: 1" = 100'



LEGEND

- EXISTING WELLS
- RIGHT-OF-WAY
- BASE OF SEWERAGE
- SHELLMOUND ST. TO BE DEDICATED TO THE CITY OF EMERYVILLE
- POWELL STREET (OVERPASS)

THIS MAP WAS PREPARED BY L.L. EA ENGINEERING ASSOCIATES, INC. ON BEHALF OF THE CITY OF EMERYVILLE. THE CITY OF EMERYVILLE HAS REVIEWED THIS PARCEL MAP AND HAS APPROVED IT FOR RECORDATION. THIS MAP IS SUBJECT TO PARCEL MAP NO. 5303.



ChemRisk™

A McLaren Company

980 Atlantic Avenue, Suite 100
Alameda, CA 94501
(415) 521-5200
FAX (415)521-1547

November 22, 1989

Mr. Lowell Miller
Senior Hazardous Material Specialist
Alameda County Department of
Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94821

SUBJECT: SUMMARY OF NOVEMBER 20, 1989 MEETING ON THE MARKETPLACE SITE.

Dear Mr. Miller:

As suggested at the conclusion of our recent meeting, I have summarized our discussions on the Marketplace Site. The November 20, 1989 meeting was attended by Walt Kaczmarek of the Martin Group (Christie Avenue Partners-JS is an affiliate of the Martin Group and owner of the property), Patrick Sheehan, Susan Gahry and James Tull of McLaren and Lowell Miller of Alameda County Department of Environmental Health. The purpose of the meeting was to review the Christie Avenue Partners-JS management of contaminant issues for the Marketplace site and to discuss the need for specific remedial measures.

The discussions generally followed the agenda and issue summaries provided for the meeting (see attached materials).

HEAVY METALS

Metals concentrations above TTLG criteria are limited to a single soil boring EM-8 and were not related to the asphaltic material. Boring EM-8 is located off the Marketplace property (parcels two and three) and on the proposed hotel site (parcel one). At your request a summary table of chemicals measured in soil in each parcel has been prepared and is attached to this letter. It was further noted that the Christie Avenue Partners-JS has implemented containment measures to minimize the potential for human exposures to the low levels of metals that may exist in Marketplace soils. In addition, it was noted that the Marketplace Site (parcels 2 and 3) are owned and managed by the Christie Avenue Partners-JS and that parcels 1 and 4 are owned by other parties.

Mr. Lowell Miller
November 22, 1989
Page 2

HEALTH AND SAFETY

To address potentially hazardous material that may exist below grade at the Marketplace site, the Christie Avenue Partners-JS has agreed to place a deed restriction on the site which will require the implementation of a health and safety plan and will regulate construction activities on site. A copy of the Martin Group letter (dated August 1, 1989) to Alameda County on the deed restriction has been sent to you as requested.

There was agreement that this management approach has been successfully implemented on Alameda County sites.

ALLEGED VIOLATIONS

The six alleged violations reviewed had been previously discussed with Alameda County Department of Environmental Health. It was agreed that the additional materials provided to the County by the Christie Avenue Partners-JS support the conclusion that the alleged violations are no longer issues requiring action.

ASPHALTIC MATERIAL

Two types of petroleum products have been found in soils at the Marketplace site: 1) an asphalt-like material and 2) a floating oil product. These substances are physically and chemically different and are not necessarily co-located on the Marketplace site. The extent of asphaltic-material contamination was partially defined by EarthMetrics. The asphaltic material has been self-classified as non-hazardous in accordance with Title 22 CCR Section 66305. It was agreed that the State Department of Health Services would be the Agency reviewing the non-hazardous classification if it were to be questioned.

FREE PRODUCT

Floating free product is present above the ground water table in an isolated area around Well W-5. The down gradient extent of the free product plume has been defined, but the upgradient extent has not. Most of the free product plume is located in parcel 4 off the Marketplace site on City of Emeryville property. The free product has been classified as a heavy fuel oil or heavy crude oil product.

It was agreed that the Christie Avenue Partners-JS would provide Alameda County Department of Environmental Health with a proposal to remediate the free product. As requested, this proposal is attached to this letter.



Mr. Lowell Miller
November 22, 1989
Page 3

GROUNDWATER QUALITY

Arsenic and lead have been found in a small number of samples at concentrations slightly above their respective MGLs. TPH/D has been measured in groundwater and may be associated with the free product plume.

It was agreed that the Christie Avenue Partners-JS would provide Alameda County Department of Environmental Health with a groundwater monitoring plan. A proposed groundwater monitoring plan is incorporated into the free product remediation plan attached to this letter.

I hope the above meeting summary will assist you in drafting your response to the Christie Avenue Partners-JS on their management of contaminant issues for the Marketplace site.

If you have any questions or comments, do not hesitate to call.

Sincerely,

James D. Tull for:

Patrick Sheehan, Ph.D
Supervising Toxicologist
ChemRisk Division
McLaren

Enclosure

1121LCD2

