AC-68

DELETE

ADJUST CASE NAME

R02721

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

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

14 September 1990

Ty Campbell
Clarke & Cramer, Incorporated
401 Roland Way
Oakland, CA 94621

Subject: Assessment Report of 2500 Kirkham Street, Oakland.

Dear Mr. Campbell:

Thank you for the report, dated 7 August 1990, prepared by Earth Metrics Incorporated for the site listed above. A review of this report has been completed. The Earth Metrics report states that Total Oil and Grease contamination of up to 170 parts per million * was measured in composite samples obtained from borings drilled on your property. Based upon this information, some follow-up action is required.

Guidelines established by the San Francisco Bay Regional Water Quality Control Board require that a ground water investigation be conducted on a property whenever soil contamination is detected indicating that an impact on ground water quality may have occurred. Such an investigation needs to be conducted at 2500 Kirkham Street. To fulfill all of the requirements of the Regional Board, this investigation should include defining the ground water gradient at the site and analyzing the water for the presence of Total Petroleum Hydrocarbons-Diesel (EPA Method GCFID 3510), Benzene, Toluene, Xylene and Ethylbenzene (EPA Method 602, 624 or 8260) and Total Oil and Grease (EPA Method 5520 C&F). During well installation soil samples should be collected for analysis at five foot depth intervals until ground water is reached. A copy of all data and boring logs should be submitted to this office for review and inclusion into our records.

The contents of this letter have been discussed with Chris Zouboulakis of Earth Metrics. If you have any question concerning this matter, pleases contact me at (415) 271-4320.

Sincerely,

Dennis J. Byrne

Dennis J. Byrne
Hazardous Materials Specialist

cc: Lester Feldman, SFBRWQCB
Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Chris Zouboulakis, Earth Metrics Inc.

"9/18/90"
Leak Discovery date
for TD600100187.

AC-68

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

RO#2721

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

October 8, 1996
SLIC STID 250

Attn: Richard Cameron
Asbury Graphite Inc. Of California
2855 Franklin Canyon Rd.
Rodeo CA 94572-2116

RE: **CASE CLOSURE LETTER**
former Graphite Mill, 2500 Kirkham St., Oakland CA 94607

Dear Mr. Cameron,

On 10/7/96, I conducted an inspection of the above referenced site. It has been confirmed that the stockpiled soil has been backfilled in the excavation on the northern side of the building, and this area has been paved over. In addition, the remainder of your materials will be removed from the premises. This fulfills the remaining requirements for closure.

Based on the available information and with the provision that the information provided to this agency was accurate and representative of site conditions, **no further action related to the asphaltic fill material is required.** Please be aware that this does not free present or future landowners or operators from cleanup responsibilities in the event that new information indicates a pollutant problem on the site or originating from the site. If a change in land use (currently industrial/commercial) is proposed, the owner must promptly notify this agency as well as the City of Oakland Dept. Of Public Works.

As stated in my last letter, dated 9/19/96, the 1996 subsurface investigation concluded that the Total Recoverable Petroleum Oil (SM 503) discovered in 1990 from borings emplaced in the north property area is likely a result of asphaltic material within fill material. A waste extraction test performed on this (fill) material indicates that it does not appear to pose a threat to groundwater. Although low concentrations of TPH-diesel are present in groundwater, the absence of BTEX in all of the samples and the lack of potable uses of groundwater in the area indicate **that there is no significant threat to human health or the environment.**

I guess this is why the LUST case may have been opened initially, then a SLIC.

Joinery Structures will be sent a summary of charges, or how their oversight dollars were spent. If you have any questions, please contact me at 510-567-6761.

AC-68

ENVIRONMENTAL PROTECTION

96 JUL 18 AM 9:41

ENGEO
INCORPORATED
2401 Crow Canyon Road
Suite 200
San Ramon, CA 94583
(510) 838-1600
Fax (510) 838-7425

LETTER OF TRANSMITTAL

DATE: *July 15, 1996*

ENGEO PROJECT NO.:*4139-F1*

TO: *Alameda County Department of Environmental Health*
1131 Harbor Bay Parkway
Alameda, CA 94502

ATTENTION:*Jennifer Eberle*

SUBJECT:*Asbury Graphite - 2500 Kirkham Street, Oakland, California*

TRANSMITTED HEREWITH: *1. Earth Metircs report dated 8/7/90; 2. Earth Metrics report dated 12/17/90; 3. ACDEH letter dated 9/14/90.*

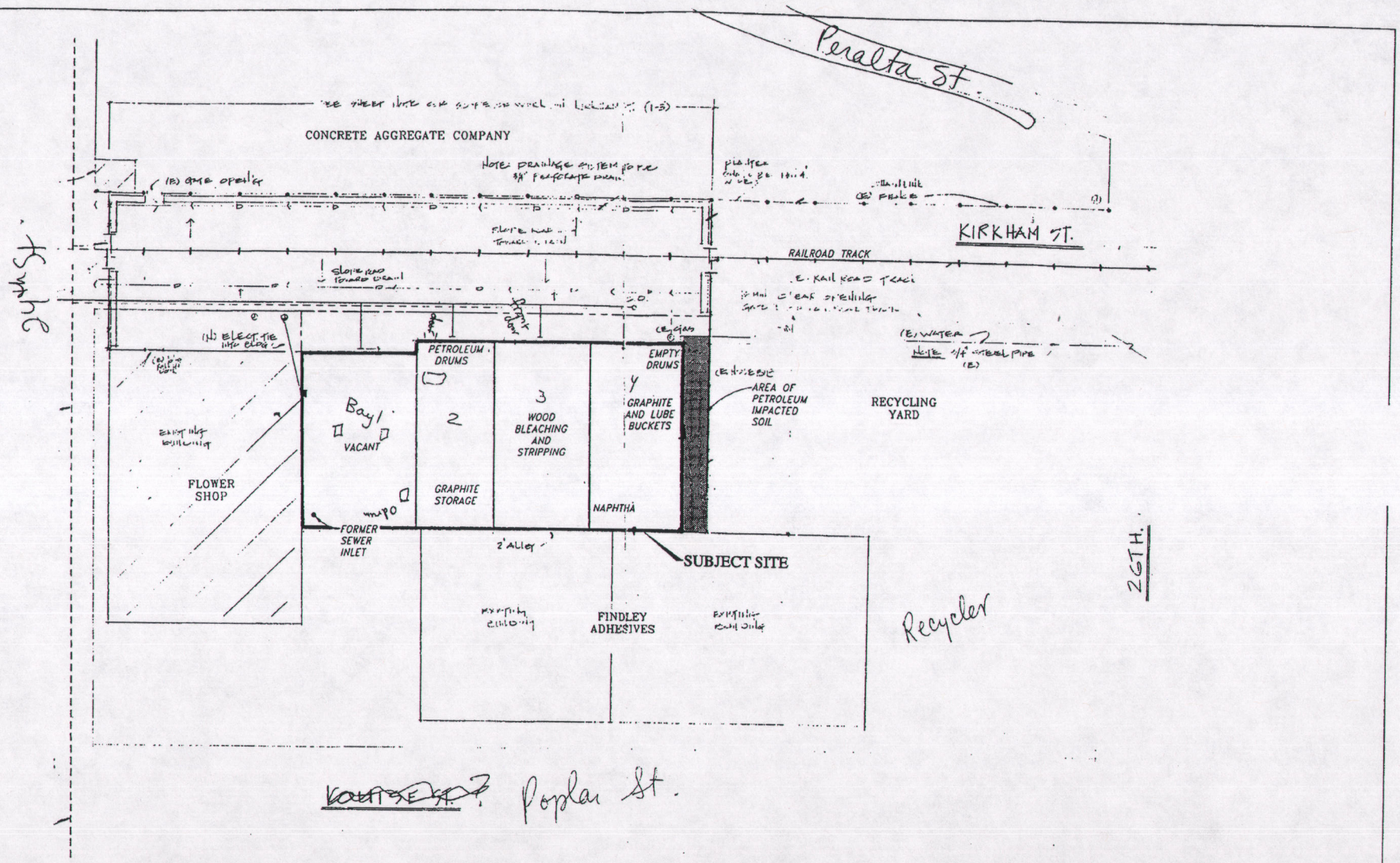
REMARKS:*Real Estate transaction pending. Need to determine necessary steps to achieve site closure. Would like to set-up meeting with you and purchaser to discuss additional characterization/remediation.*

ENGEO INCORPORATED
BY: *Shawn Munger CHG 413*
COPIES:

x FOR YOUR INFORMATION
x FOR YOUR REVIEW
☐ RETURNING
x COPIES AT YOUR REQUEST

RWQCB listed as LUST.
No gw invest.
Never an UST.
Adj to Findley Adhesive
He reviewed " file.
Will excavate hot spots.
We may req Geoprobe.

7hr x 94 = $658
drum storage
graphite Mfg - lube oil
∴ SLIC site
Seller is Asbury Graphite
His Phase I is in Draft.
It will be here by Mon.



N.T.S.

ENGEO INCORPORATED	SITE PLAN 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F1 DATE: JUNE 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 2

AC-68

PER NO. J M | ENVELOPE No. ____ of ____

☐ OWNER Former Graphite Mill
Address 2500 Kirkham St.
Oakland Phone 94607

☐ Contractor
Address
Phone

☐ OTHER (Specify)
Address
Phone

☒ CONTACT FOR INVESTIGATION

XR Shawn Munger 697-1192
Discoes 451-6345

PLAN REVIEW	By	Date
$ 500.00 Rec'd.	mac	10/30
No. Plans Rec'd.		
Plans Approved		
Layout Made		
Rejected		
Applicant Notified		
Plans Returned		
Permit Issued		

Closed Case
10-8-96

CONSTRUCTION PROGRESS ACCEPTANCE

		By	Date
FOOD	Pre-Plaster/drywall		
	Pre-Final		
	Final		
POOL	Pre-Concrete/Gunite		
	Pre-Plaster		
	Final		
EXCAVATION	Septic Tank		
	Absorption Field		
	Absorption Bed		
	House Sewer		
FINAL	Septic Tank		
	Absorption Field		
	Absorption Bed		
OTHER			

Site Mit #25

U.G. TANKS	By	Date
Pre-Covering		
Final		

REMARKS				Date	By
Date	By				

LOCATION

Vicinity Map

STID #250

577104
500.00
10/30/96

STID:#250
FORMER GRAPHITE MILL
2500 KIRKHAM STREET
OAKLAND, CA 94607

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 former Asbury Graphite Today's Date 8/2/96

Site Address 2500 Kirkham 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: 10:00 arrived onsite - Met Mrs. Disco. She said the City is proposing to block off 24th St. bec it's a public hazard (dumping & police activity). Saw 2 boreholes on N side of site, outside, probably F+H. Could not find the 4 boreholes from the Level Two, due to all the garbage dumped there. 10:30 John Swickard (realtor) arrived. He said there was reportedly dumping of waste oil on the ground on N side of prop, & that's why they did SBs there. Walked thru the bldg. 4 Bays.

11:00 left site.

JOHN R. SWICKARD
INDUSTRIAL PROPERTIES

111 San Leandro Blvd. / San Leandro, CA 94577 / (510) 569-0386

II, III

Contact _____

Title _____

Signature _____

Inspector _____

Signature _____

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

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11:00 left site.

II, III

Contact _____

Title _____ Inspector _____

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

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Walked thru the bldg. 4 Bay.

11:00 left site.

II, III

Contact ________
Title ________
Signature ________

Inspector ________
Signature [signature]

ENVIRONMENTAL
PROTECTION

96 JUL 18 AM 9:41

ENGEO
INCORPORATED
2401 Crow Canyon Road
Suite 200
San Ramon, CA 94583
(510) 838-1600
Fax (510) 838-7425

LETTER OF TRANSMITTAL

DATE: *July 15, 1996*

ENGEO PROJECT NO.:*4139-F1*

TO: *Alameda County Department of Environmental Health*
1131 Harbor Bay Parkway
Alameda, CA 94502

ATTENTION:*Jennifer Eberle*

SUBJECT:*Asbury Graphite - 2500 Kirkham Street, Oakland, California*

TRANSMITTED HEREWITH: *1. Earth Metircs report dated 8/7/90; 2. Earth Metrics report dated 12/17/90; 3. ACDEH letter dated 9/14/90.*

REMARKS:*Real Estate transaction pending. Need to determine necessary steps to achieve site closure. Would like to set-up meeting with you and purchaser to discuss additional characterization/remediation.*

ENGEO INCORPORATED
BY: *Shawn Munger CHG 413*
COPIES:

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x FOR YOUR REVIEW
☐ RETURNING
x COPIES AT YOUR REQUEST

RWQCB listed as LUST.
No gw invest.
Never an UST.
Adj to Findley Adhesive
He reviewed " file.
Will excavate hot spots.
We may req Geoprobe.

7hr x 94 = $658
drum storage
graphite Mfg - lube oil
∴ SLIC site
Seller is Asbury Graphite
His Phase I is in Draft.
It will be here by Mon.

Peralta St.

CONCRETE AGGREGATE COMPANY

(E) GATE OPENING

NOTE: DRAINAGE SYSTEM TO BE 3/4" PERFORATE DRAIN

(E) FENCE

KIRKHAM ST.

RAILROAD TRACK

(E) RAILROAD TRACK

(E) WATER

NOTE 1/4" STEEL PIPE (E)

(N) ELECTRIC LINE ELEC

(E) GAS

PETROLEUM DRUMS

EMPTY DRUMS

(E) FENCE

AREA OF PETROLEUM IMPACTED SOIL

RECYCLING YARD

Bay 1

VACANT

2

3

WOOD BLEACHING AND STRIPPING

GRAPHITE AND LUBE BUCKETS

EXISTING BUILDING

FLOWER SHOP

GRAPHITE STORAGE

NAPHTHA

FORMER SEWER INLET

2' Alley

SUBJECT SITE

EXISTING BUILDING

FINDLEY ADHESIVES

EXISTING BUILDING

Recycler

26TH.

~~Louise St.~~ Poplar St.

N

N.T.S.

ENGEO INCORPORATED	SITE PLAN 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F1 DATE: JUNE 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 2

SOIL AND GROUND-WATER SAMPLING

2426 - 2500 KIRKHAM STREET

OAKLAND, CALIFORNIA

SUBMITTED

TO

ASBURY GRAPHITE INC. OF CALIFORNIA

RODEO, CALIFORNIA

PREPARED BY

ENGEO INCORPORATED

PROJECT NO. 4139-F2

SEPTEMBER 9, 1996

ENGEO
INCORPORATED

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
MATERIALS TESTING

Project No.
4139-F2

September 9, 1996

Mr. Richard Cameron
Asbury Graphite Inc. of California
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: 2426 - 2500 Kirkham Street
Oakland, California

SOIL AND GROUND-WATER SAMPLING

Reference:
1. ENGEO Inc.; Phase One Environmental Site Assessment, 2426 - 2500 Kirkham Street, Oakland, California; June 20, 1996; File 4139-F1.
2. ENGEO Inc.; Proposal for Ground-Water Exploration and Soil Mitigation, 2426 - 2500 Kirkham Street, Oakland, California; August 7, 1996.

Dear Mr. Cameron:

ENGEO Incorporated is pleased to provide this soil and ground-water sampling report prepared for the subject property located in Oakland, California (Figure 1). The purpose of the exploration was to address the documented petroleum hydrocarbon contamination along the north side of the existing structure (Figure 2). The exploration was undertaken in accordance with the scope of services outlined in the referenced work plan. The attached report includes a description of field and laboratory findings, along with our conclusions and recommendations.

If you have any questions regarding the plan, please do not hesitate to contact our office. As requested by your office, this report has been provided to Ms. Jennifer Eberle with the Alameda County Department of Environmental Health.

Very truly yours,

ENGEO INCORPORATED

Shawn Munger
CHG 413

Reviewed by:

Brian Flaherty
Vice President
CEG 1256

2401 Crow Canyon Road • Suite 200 • San Ramon, CA 94583-1545 • (510) 838-1600 • Fax (510) 838-7425
E-mail: engstaff@engeo.com • WWW: http://www.hooked.net/engeo

TABLE OF CONTENTS

INTRODUCTION

Site Identification

Site Address:

2426 - 2500 Kirkham Street
Oakland, California 94601

Property Owner:

Asbury Graphite Inc. of California
2855 Franklin Canyon Road
Rodeo, CA 94572

Responsible Parties:

Asbury Graphite Inc. of California
2855 Franklin Canyon Road
Rodeo, CA 94572

Site Description

The subject site is located along the east side of Kirkham Street, between 24th Street and 26th Street, in Oakland, California (Figure 1). The property is ± 20,000 ft2 in area and includes Assessor Parcel Numbers 5-440-2-3 and 5-440-3, and 5-440-4. Adjacent properties include commercial and industrial use. The existing property development consists of an industrial facility which is currently unoccupied. The site structures consist of three steel and wood framed buildings with one adjoining concrete structure (Figure 2). The concrete structure shares a common wall with the adjacent flower warehouse to the south.

Background

Two previous environmental explorations were undertaken for the property in 1990 by Earth Metrics, Inc. for Asbury Graphite:

- *Level One Environmental Site Assessment and Limited Soil Chemistry (August 7, 1990)*

The report included a limited site history review along with the drilling of three exploratory soil borings on the property (Figure 3). Three soil samples, recovered from the borings at a depth of six feet, were tested for total petroleum hydrocarbons, BTEX, and metals. No petroleum hydrocarbons as gasoline or diesel were reported for the soil samples. Trace BTEX concentrations were reported for the samples. The reported metal concentrations were within expected background ranges. The Alameda County Department of Environmental Health (ACDEH) issued a September 1990 letter addressing the noted petroleum hydrocarbon contamination on the property. The letter requested additional follow-up action, specifically, a soil and ground-water exploration.

- *Level Two Environmental Site Assessment/Limited Soil Chemistry (December 17, 1996)*

The report included four exploratory borings drilled along the north side of the building. The borings were drilled through the concrete pad to sample the underlying soils. Twelve soil samples were submitted for petroleum hydrocarbon analyses. Total recoverable hydrocarbons were detected for samples at three to four feet in depth at concentrations to 11,000 ppm. Based on the findings of the report, Earth Metrics recommended the over excavation of the affected soils to a depth of four feet. The estimated volume of the contaminated material was 300 cubic yards.

No further information regarding the subject property was found in the ACDEH files.

- *Draft Phase One Environmental Site Assessment (June 1996)*

A draft phase one environmental site assessment was prepared for the property by ENGEO Inc. in June 1996. The assessment included a site reconnaissance, a review of available historical records regarding the property, a review of previous environmental reports for the site, and preparation of an assessment report.

The site reconnaissance did not find documentation or physical evidence of the disposal of hazardous materials on the property was observed. The report documented the noted petroleum contamination reported by Earth Metrics in the north property area. No other documentation of hazardous materials use or soil/ground-water contamination at the site was found from the records review.

The phase one assessment report recommended that a soil remediation and ground-water exploration work plan be prepared to address the noted petroleum hydrocarbon impacts on the property. In August 1996, ENGEO prepared a work plan for an additional exploration to address the noted soil contamination along the north property line (Reference 2).

Site Geology and Hydrogeology

The property is situated within an industrial area in the western section of Oakland. The site is relatively level at an elevation of seven feet above mean sea level. There are no existing drainage courses on the property. The soil deposits underlying the site are described as artificial fill (Radbruch, 1957). Exploratory soil borings and excavation work conducted on the property in association with the current study and past environmental explorations found four to six feet of fill material consisting of gravelly silty clay and clayey sand with brick and asphalt fragments.

Static water levels measured within the two *Geoprobe* borings found ground-water at depths of 7½ to 8½ feet below the ground surface. The specific direction of ground-water flow was not determined as part of this phase one assessment. A subsurface exploration conducted on the adjacent Findley Adhesives property (Figure 2) found ground-water flow to the east/southeast.

Exposure Concerns

ENGEO is unaware of domestic supply wells within 250 feet of the subject site. Given the depth to ground water, ground water and man-made conduit migration would be considered the most significant exposure pathways.

Purpose and Scope of Work

The purpose of the exploration was to address the documented petroleum hydrocarbon contamination along the north side of the existing structure. The scope of ENGEO's services included the following:

- *Two Geoprobe borings, ±20 feet in depth with the recovery of soil and ground-water samples*
- *Excavation and stockpiling of ±80 cubic yards of fill material from the north property area*
- *Recovery of soil samples from the base and sidewalls of the exploration*
- *Laboratory analysis of the Geoprobe, excavation and stockpile samples*
- *Preparation of this report summarizing field and laboratory work*

Field Exploration

Subsurface Exploration. The two exploratory *Geoprobe* borings were drilled on August 12, 1996 to a depth of 20 feet below the ground surface. The location of the boreholes is shown on Figure 2.

The soil samples were retrieved using the *Geoprobe* direct push hydraulic soil coring system[1]. The hydraulic hammer was used to drive a 2-inch-diameter sampling rod to collect a continuous sampling core. The samples were recovered in six inch long 1¾-inch-diameter acetate sample tubes. Samples were retrieved at depths of 4, 8 and 12 feet for laboratory analyses.

Drilling was performed under the direction of an ENGEO Environmental Geologist who logged the borings in accordance with the Unified Soil Classification System. Following recovery, the selected soil samples were sealed with *Teflon* sheets, plastic end caps, and tape. Sampling equipment was cleaned with Alquinox and rinsed with distilled water between each sampling event. Following recovery, the samples were labeled and preserved in a cooled ice chest for transportation to American

[1]Soil coring services provided by Kvilhaug Well Drilling.

Environmental Testing under documented chain-of-custody. Following the completion of drilling, the boreholes were grouted in accordance with Alameda County Zone Seven Flood Control District requirements.

Soil samples were screened in the field using a Thermo Electron 580A photoionization detector (PID), to measure detectable levels of volatile organic compounds relative to the calibration standard. Subsurface information including soil descriptions, depth to ground water, and field PID screenings were recorded on the exploratory boring logs (Appendix B).

Ground-Water Sampling. Once the base of each *Geoprobe* location was reached, a temporary 1-inch-diameter PVC casing/screen was placed within the boreholes. The casings were left open for a period of approximately two hours to allow for the infiltration of ground water. Static ground water within borings B1 and B2 was measured at 7½ and 8 feet below the ground surface. Ground-water samples were recovered using a stainless steel bailer and then transferred to clean laboratory glassware.

Soil Excavation Soil excavation work was undertaken on August 16, 1996. Initially, the four inch concrete slab overlying the excavation area was removed for off-site disposal. Excavation work was conducted using a rubber tire Case Loader. Figure 3 shows the extent of the excavation area. The excavation was extended from the building foundation to approximately three feet of the north property line and deepened to four feet below the ground surface. The excavation exposed fill material consisting of gravelly silty clay and clayey sand, overlying a very dark gray clayey silt. Brick and asphalt fragments, up to eight inches in diameter, were observed within the fill. No stained or odorous soils indicative of a petroleum release were evident within the excavation. The excavated fill material was stockpiled within the adjacent building.

An initial baseline soil sample was recovered at the time of the excavation work. Sample S1 was recovered at a depth of four feet at the location of former Earth Metrics soil boring SB4. No

significant petroleum odor was exhibited by sample S1. A summary of the laboratory analyses performed for sample S1 is provided in a subsequent section of this report.

The remainder of the confirmation sampling was conducted on August 28, 1996. Soil samples were recovered by an ENGEO Environmental Geologist under the observation of Ms. Jennifer Eberle with ACDEH. Seven soil samples were recovered from the excavation base and sidewalls as shown on Figure 3. The samples were retrieved using a stainless steel slide hammer equipped with 2-inch-diameter, 6-inch-long stainless steel tubes. Following recovery, the samples were sealed with *Teflon* sheets, plastic end caps and tape. Sampling equipment was cleaned with Alquinox and rinsed with distilled water between each sampling event. Following recovery, the samples were labeled and preserved in a cooled ice chest for transportation to American Environmental Testing under documented chain-of-custody.

LABORATORY ANALYSES

Based on the results of the previous Earth Metrics explorations, the soil and ground-water samples were submitted for the following analyses:

- *Total Extractable Hydrocarbons (mod EPA 8015)*
- *BTEX (EPA 8020)*
- *Total Oil and Grease - SMWW 5520 (non-polar)*

The initial baseline sample S1 was found to contain 1,000 parts per million (ppm) extractable hydrocarbons and 420 ppm as total oil & grease. These results conflict with physical observations made during excavation work, when no physical indication of a hazardous material release was noted. Discussions with Stephen Walker with American Environmental Network found that samples S1 contained long chain hydrocarbons in the asphalt range. Based on this observation it was theorized that the reported hydrocarbon contamination was a "false positive" resulting from asphalt fragments in the soil matrix. In order to substantiate this assumption, a sample of the asphaltic material from the excavated fill was submitted for hydrocarbon analysis. In addition, sample S1 was also analyzed for soluble petroleum hydrocarbons using the Waste Extraction test (WET) modified using deionized water as the extractant.

Laboratory analyses of the asphalt sample AS-1 found 42,000 ppm asphaltic range oils. According to AEN personnel, the chromatogram "fingerprint" for sample AS-1 was similar to the chromatogram for sample S1. No soluble hydrocarbons were reported above the laboratory reporting limits of 0.2 to 0.8 ppm. Based on the results of the laboratory analyses and observations provided by laboratory chemists, it was concluded that the reported hydrocarbons in the previous. Earth Metrics samples and ENGEO Sample S1 are a result of asphalt fragments in the fill material.

Tables I and II provide a summary of the *Geoprobe* and excavation sample analyses:

TABLE I

Geoprobe Laboratory Analysis Summary

(Concentrations Reported in Parts Per Million)

Sample	TEPH	TOG	Benz	Tol.	E.Benz.	Xyl.
B1-4 (4 ft.)*	<1.0	**250**	<.005	<.005	<.005	<.005
B1-8 (8 ft.)	<1.0	**40**	<.005	<.005	<.005	<.005
B1-12 (12 ft.)	<1.0	<30	<.005	<.005	<.005	<.005
B2-4 (4 ft.)*	<1.0	**2,400**	<.005	<.005	<.005	<.005
B2-8 (8 ft.)	<1.0	<30	<.005	<.005	<.005	<.005
B2-12 (12 ft.)	<1.0	<30	<.005	<.005	<.005	<.005
B1-W (water)	**0.34**	<.50	<.0005	<.0005	<.0005	<.002
B2-W (water)	**0.56**	<.50	<.0005	<.0005	<.0005	<.002
* Sample chromatograms show asphalt range hydrocarbons						

TABLE II

Excavation/Soil Stockpile Laboratory Analysis Summary

(Concentrations Reported in Parts Per Million)

Sample	Location	TEPH	TOG	Benz.	Tol.	E.Benz.	Xyl.
X-1	East Base	<50	**530**	<.0050	<.0050	<.0050	<.0050
X-2*	Center Base	<50	**270**	<.0050	<.0050	<.0050	<.0050
X-3*	West Base	<50	**2,000**	<.0050	<.0050	<.0050	<.0050
X-4*	NW Wall	<50	**480**	<.0050	<.0050	<.0050	<.0050
X-5	North Wall	<50	**10**	<.0050	<.0050	<.0050	<.0050
X-6*	SW Wall	<50	**1,200**	<.0050	<.0050	<.0050	<.0050
X-7*	SW Wall	<50	**80**	<.0050	<.0050	<.0050	<.0050
SP-1*	Stockpile	<50	**240**	<.0050	<.0050	<.0050	<.0050
SP-2*	Stockpile	<50	**730**	<.0050	<.0050	<.0050	<.0050
* Sample chromatograms show asphalt range hydrocarbons							

Geoprobe Sample Analyses

No diesel range hydrocarbons were detected from the *Geoprobe* soil sample analyses. Hydrocarbons outside the diesel motor oil range, indicative of asphaltics, were evident from a review of sample chromatograms. Review of the *Geoprobe* sample test data indicates the fill material within the borings contains the same asphaltic material as exposed within the excavation at the north side of the building. Total oil and grease concentrations of 250 and 2,400 ppm were reported for samples B1-4 and B2-4,

respectively. The TOG levels can be attributed to asphaltic range hydrocarbons. Low level extractable hydrocarbons from 340 to 560 parts per billion (ppb) as diesel were reported for the ground-water samples recovered from the two Geoprobe borings. No BTEX was reported for the Geoprobe soil or water samples.

Excavation Sample Analyses

No diesel range hydrocarbons were detected for the excavation soil samples or the stockpile composites. Hydrocarbons outside the diesel motor oil range, indicative of asphaltics, were evident from sample chromatograms. Review of the excavation sample test data indicates that fill material containing asphaltics remains within the excavation area. Review of chromatogram signatures for five of the seven samples found fingerprints to be similar to the asphaltic material sample AS-1. Chromatogram signatures for samples X-1 and X-7 exhibited a somewhat more typical motor oil finger print. Total oil and grease levels ranging from 10 to 2,000 ppm were reported for the seven excavation samples and the two stockpile samples. The reported TOG levels can also be attributed to asphaltic range hydrocarbons.

DISCUSSION

Subsurface Conditions

Subsurface materials collected from the excavation work and the *Geoprobe* borings found four to five feet of gravelly silty clay fill with brick and asphalt, overlying dark gray organic silty clay. Observation of the sidewall areas of the excavation suggests the fill material extends both beneath the site structure and off-site. This fill was likely placed in association with one of the past developments in the site vicinity, possibly the government housing project constructed in the late 1940s.

Soil and Ground-Water Contamination

Review of the field and laboratory test data from the current exploration, along with the previous Earth Metrics work, indicates that the soil contamination on the north side of the property is not attributable to a hazardous material release on the property, or underground storage tanks. No physical evidence of a release was observed within the excavation. Review of laboratory test data indicates the petroleum hydrocarbons within the excavation area are attributable to asphaltics in the existing fill. This asphaltic material has resulted in "false positives" reported for the soil samples. Comparison of soil sample chromatograms with a sample of the asphaltic material shows similarity in the hydrocarbon "fingerprints". Analysis of a soil sample from the excavation for soluble hydrocarbons found no detectable soluble concentrations.

CONCLUSIONS AND RECOMMENDATIONS

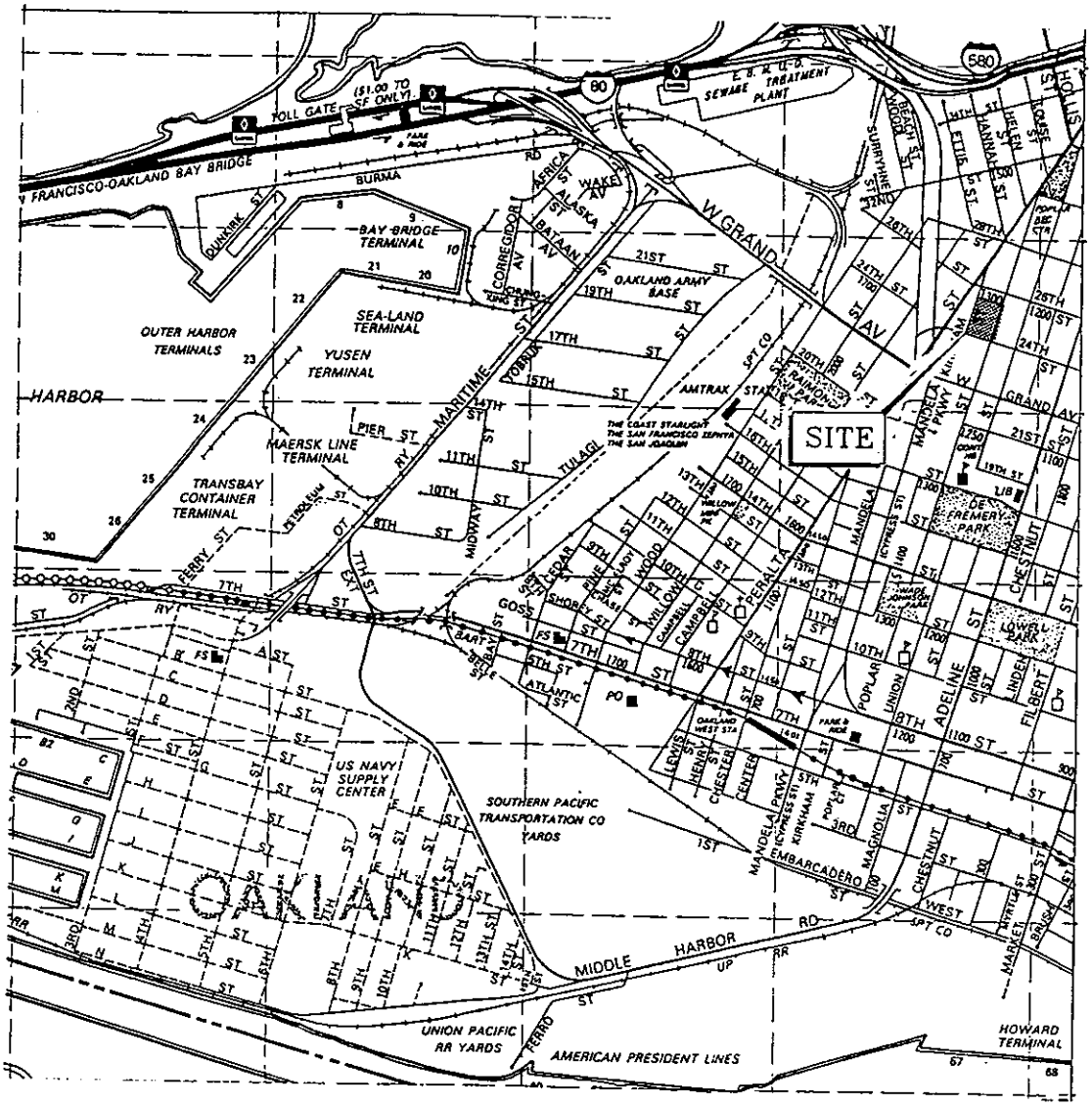
Based on a review of the available field data, laboratory analysis and historical information for the site and vicinity, it is ENGEO's opinion that the previously reported petroleum hydrocarbon contamination is a result of asphaltic material within fill material beneath the site. Excavation observations indicate the is fill may be laterally extensive, both on and off site. The referenced ENGEO phase one site assessment suggests the fill could be greater that 50 years in age. Solubility analysis for the fill material indicates the fill would not present a significant threat to site ground-water.

Low-level diesel range hydrocarbons were reported for the two ground-water samples. It is conceivable that the noted hydrocarbons are a result of leaching from the fill material; however, it is possible the ground-water impact is a regional condition, given the nature of commercial/industrial use in the site vicinity. With the lack of BTEX in the water samples and absence of potable uses for ground-water in the area, the ground-water impact does not in our opinion represent a significant environmental condition.

Given the available data, ENGEO recommends that site closure be requested from Alameda County. ENGEO recommends that the stockpiled material is be replaced within the excavation, compacted and covered with asphalt or concrete paving. The pavement cover will reduce the likelihood of ground-water infiltration through the fill material.

APPENDIX A

Figure 1	Site Location
Figure 2	Site Plan
Figure 3	Soil Excavation



ENGEO INCORPORATED

SITE LOCATION MAP

2426-2500 KIRKHAM STREET

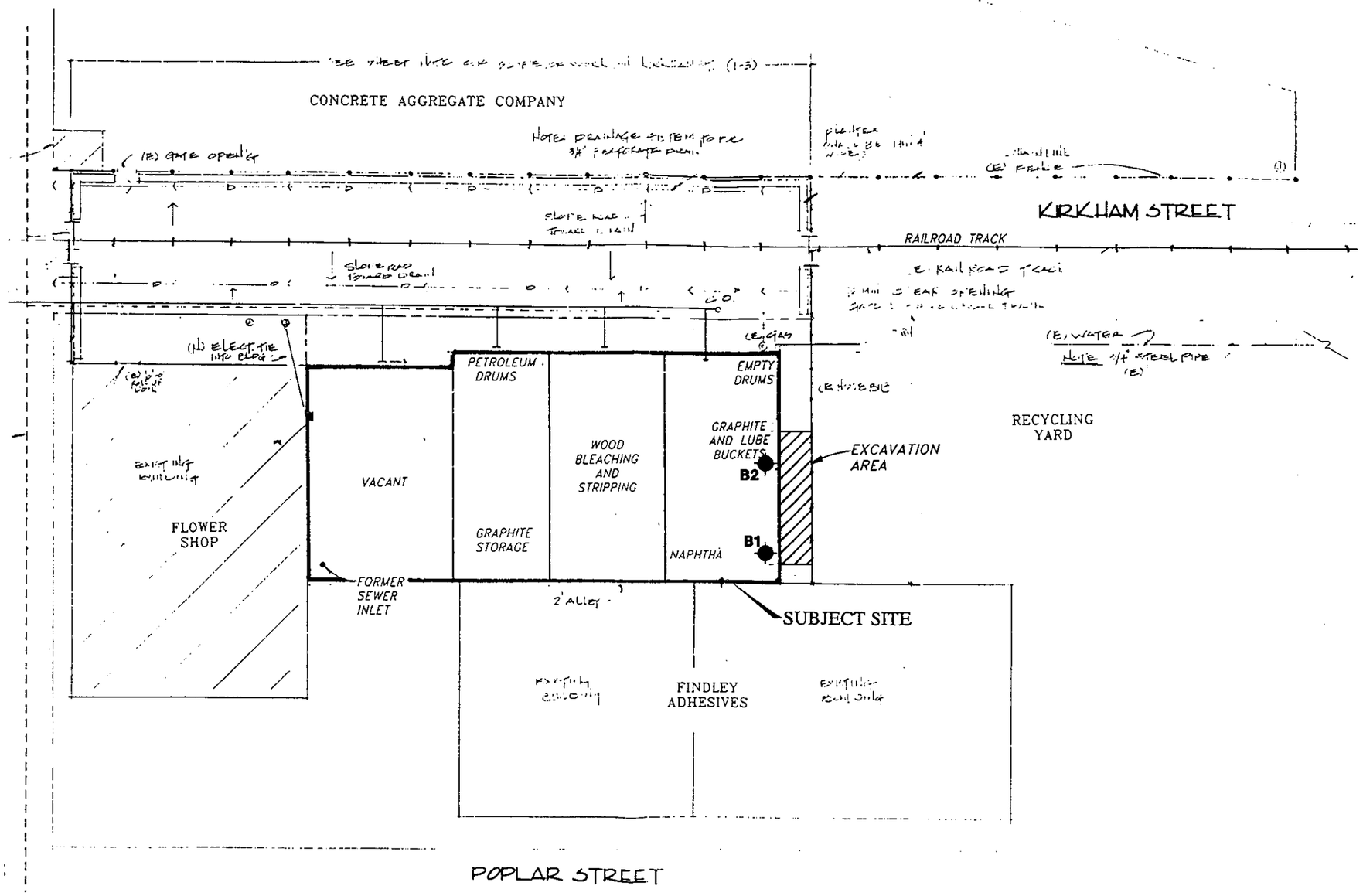
OAKLAND, CALIFORNIA

JOB NO.: 4139-F2

DATE: SEPTEMBER 1996

DRAWN BY: CB CHECKED BY: SM

FIGURE NO. 1



EXPLANATION

B2 ● APPROXIMATE LOCATION OF GEOPROBE

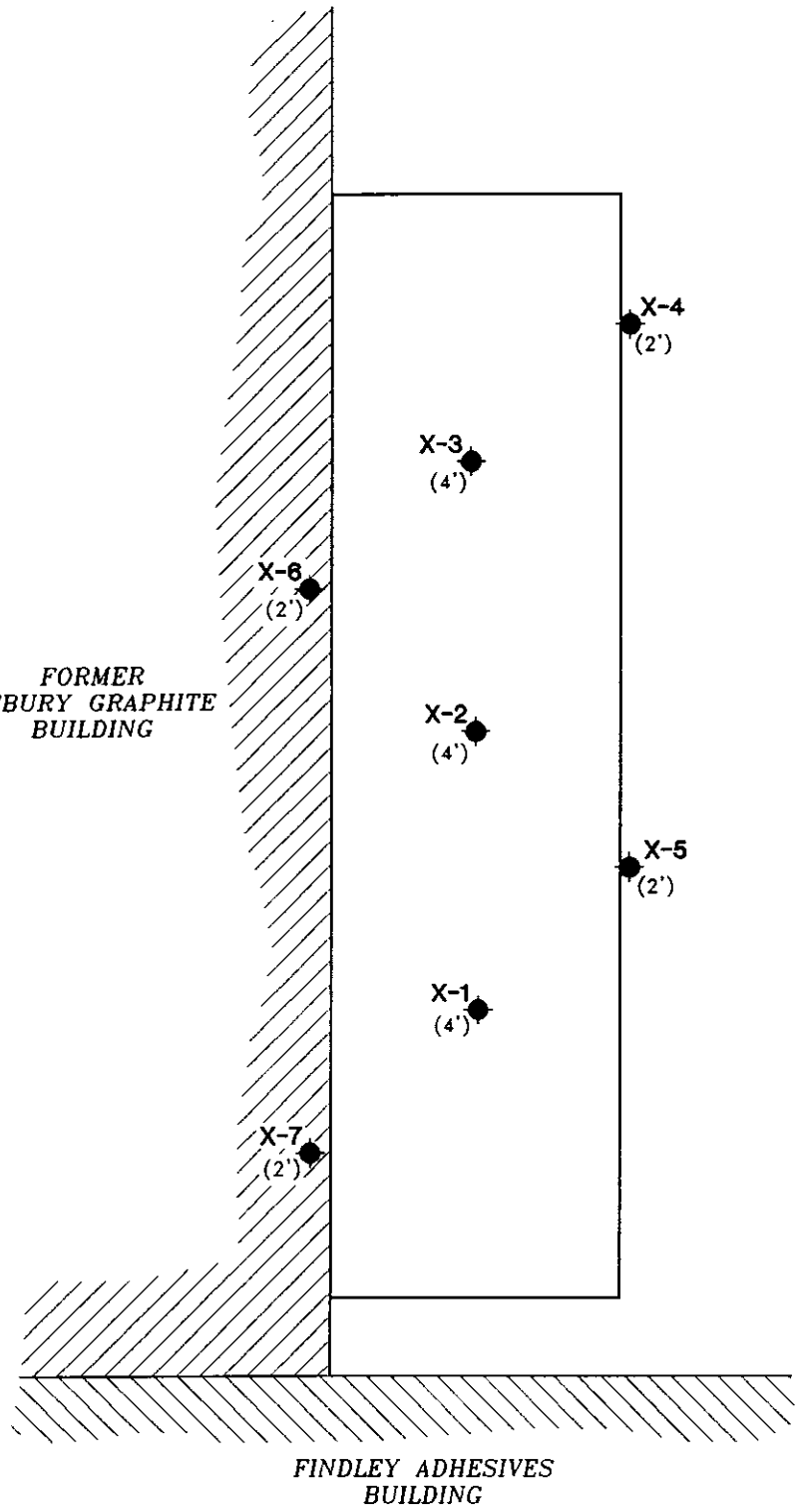
N

0 FEET 50
0 METERS 25

ENGEO INCORPORATED

SITE PLAN
2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

JOB NO.: 4139-F2	FIGURE NO. 2
DATE: SEPTEMBER 1996	
DRAWN BY: CHECKED BY:	



EXPLANATION

X-7 APPROXIMATE LOCATION OF SOIL SAMPLE

N

0 FEET 10

0 METERS 5

ENGEO INCORPORATED	SOIL EXCAVATION AREA 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F2 DATE: SEPTEMBER 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 3

DATE OF BORING: August 12, 1996

SURFACE ELEVATION: Approx. 7.0 feet msl (2.1 meters msl)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	N S.P.T. BLOWS/FT *MODIFIED FOR 3" O.D. SAMPLER	OVM READING P.I.D. (10.0eV) (parts per million)	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				Concrete.				
				Mottled brown sandy gravelly FILL, with brick fragments, slightly moist, loose.				
	1	B1-4				2.5		
5				Dark grayish brown clayey SILT with some gravel, moist, medium stiff. (ML)				
	2			Increased moisture				
		B1-8		Very dark gray clayey SILT with minor fine gravel, saturated, firm. (ML)		2.9		
				▽ Water level at time of drilling.				
				Dark gray silty CLAY with minor fine gravel, very moist, stiff. (CL)				
10	3			Mottled gray-brown silty CLAY with some oxidation, very moist, stiff. (CL)				
		B1-12				1.8		
	4							
15				Increased moisture.				
	5			Yellow-brown silty fine SAND with minor clay and oxidation, wet, medium dense. (SM)		2.5		
				Mottled gray-reddish brown silty gravelly fine SAND, wet, loose. (SP-SM)				
20	6			Light brown sandy clayey SILT with some fine gravel, wet, stiff. (ML)		1.1		
				Bottom of boring at approximately 20.0 feet.				
25	7							
	8							
30	9							

OVMMET 4139 9/10/96

ENGEO INCORPORATED

ASBURY GRAPHITE
2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

BORING NO.: B1

DATE: September 1996

JOB NO.: 4139-F2

FIGURE NO.

DATE OF BORING: August 12, 1996

SURFACE ELEVATION: Approx. 7.0 feet msl (2.1 meters msl)

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DESCRIPTION	N S.P.T. BLOWS/FT *MODIFIED FOR 3" O.D. SAMPLER	OVM READING P.I.D. (10.0eV) (parts per million)	IN PLACE DRY UNIT WEIGHT (PCF)	IN PLACE MOIST. CONTENT % DRY WEIGHT
0				Concrete.				
				Mottled yellow-brown clayey SILT (fill), moist, stiff.				
	1	B2-4		Mottled yellow-brown and dark gray silty fine SAND with gravel (fill), moist, loose.		4		
5				Mottled grayish brown clayey SILT with fine sand, very moist, medium stiff. (ML)				
	2			Increased moisture.				
		B2-8		Dark gray clayey SILT with minor fine gravel, very moist, firm. (ML) ▽ Water level at time of drilling.		4		
10	3			Mottled grayish-reddish brown clayey SILT with some fine sand and gravel, very moist, stiff. (ML)				
		B2-12		Mottled gray-reddish brown sandy clayey SILT, moist, stiff. (ML)		4		
	4			Gray silty gravelly fine SAND, saturated, medium dense. (SP-SM)				
15				Grayish brown clayey silty fine SAND, saturated, medium dense. (SM)				
	5			Mottled reddish brown clayey silty fine GRAVEL, saturated, medium dense. (GM-GL)		2.2		
				Increasing sands.				
20	6			Grayish brown silty fine SAND with clay and some fine gravel, wet, medium dense. (SM)		2.2		
				Bottom of boring at approximately 20.0 feet.				
25	7							
	8							
30	9							

OVMMET 4139 9/10/96

ENGEO INCORPORATED

ASBURY GRAPHITE
2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

BORING NO.: B2

DATE: September 1996

JOB NO.: 4139-F2

FIGURE NO.

9608385

CHAIN OF CUSTODY RECORD

ENGEO INCORPORATED
2401 CROW CANYON ROAD, SUITE 200
SAN RAMON, CALIFORNIA 94583
PHONE (510) 838-1600

PROJECT NUMBER: 4139-F2
PROJECT NAME: 2500 Kirkham
SAMPLED BY: (SIGNATURE) Keith Nowell

SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH - GASOLINE (EPA 8015/5030)	TPH - DIESEL (EPA 8015/3550/3510)	PURGEABLE AROMATICS BTEX (EPA 602/8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 625/8270)	TOTAL OIL & GREASE (SMW 5520(F))	OC PESTICIDES/PCB (EPA 608, 8080)	OP PESTICIDES (EPA 614/8140)	TITLE 26 METALS (17)	PRIORITY METALS (13)	REMARKS REQUIRED DETECTION LIMITS
X-1	8/28/96	10:10	Soil	1	2x6"	Ice		X	X				X					
X-2	8/28/96	10:15	Soil	1	2x6"	Ice		X	X				X					
X-3	8/28/96	10:25	Soil	1	2x6"	Ice		X	X				X					
X-4	8/28/96	10:30	Soil	1	2x6"	Ice		X	X				X					
X-5	8/28/96	10:35	Soil	1	2x6"	Ice		X	X				X					
X-6	8/28/96	10:40	Soil	1	2x6"	Ice		X	X				X					
X-7	8/28/96	10:50	Soil	1	2x6"	Ice		X	X				X					
SP-1	8/28/96	11:10	Soil	3	2x6"	Ice		X	X				X					Composite A, BCC.
SP-2	8/28/96	11:25	Soil	3	2x6"	Ice		X	X				X					Composite M, BCC.

Send Results to Shawn Monger

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Keith E Nowell	8/28/96 1615	Ronald C. Johnson			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME		

REMARKS: RUSH -- Need results by 10 AM, 9/03/96

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

ENGEO INCORPORATED

SAMPLE ID: X-1
AEN LAB NO: 9608385-01
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	530 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-2
AEN LAB NO: 9608385-02
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/29/96
Toluene	108-88-3	ND	5	ug/kg	08/29/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/29/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/29/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**			Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	270 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-3
AEN LAB NO: 9608385-03
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	2,000 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-4
AEN LAB NO: 9608385-04
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/29/96
Toluene	108-88-3	ND	5	ug/kg	08/29/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/29/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/29/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	480 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-5
AEN LAB NO: 9608385-05
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139.F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	1	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	10 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-6
AEN LAB NO: 9608385-06
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	1,200 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-7
AEN LAB NO: 9608385-07
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	5	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	80 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: SP-1
AEN LAB NO: 9608385-08
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	50	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	240 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: SP-2
AEN LAB NO: 9608385-09
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/03/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	**EPA 8020**				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	**EPA 3550**	-		Extrn Date	08/29/96
TPH as Diesel	**GC-FID**	ND	20	mg/kg	08/31/96
#Soil Extrn for HCs	**IR**	-		Extrn Date	08/31/96
Hydrocarbons (IR)	**SM 5520F**	730 *	10	mg/kg	09/02/96

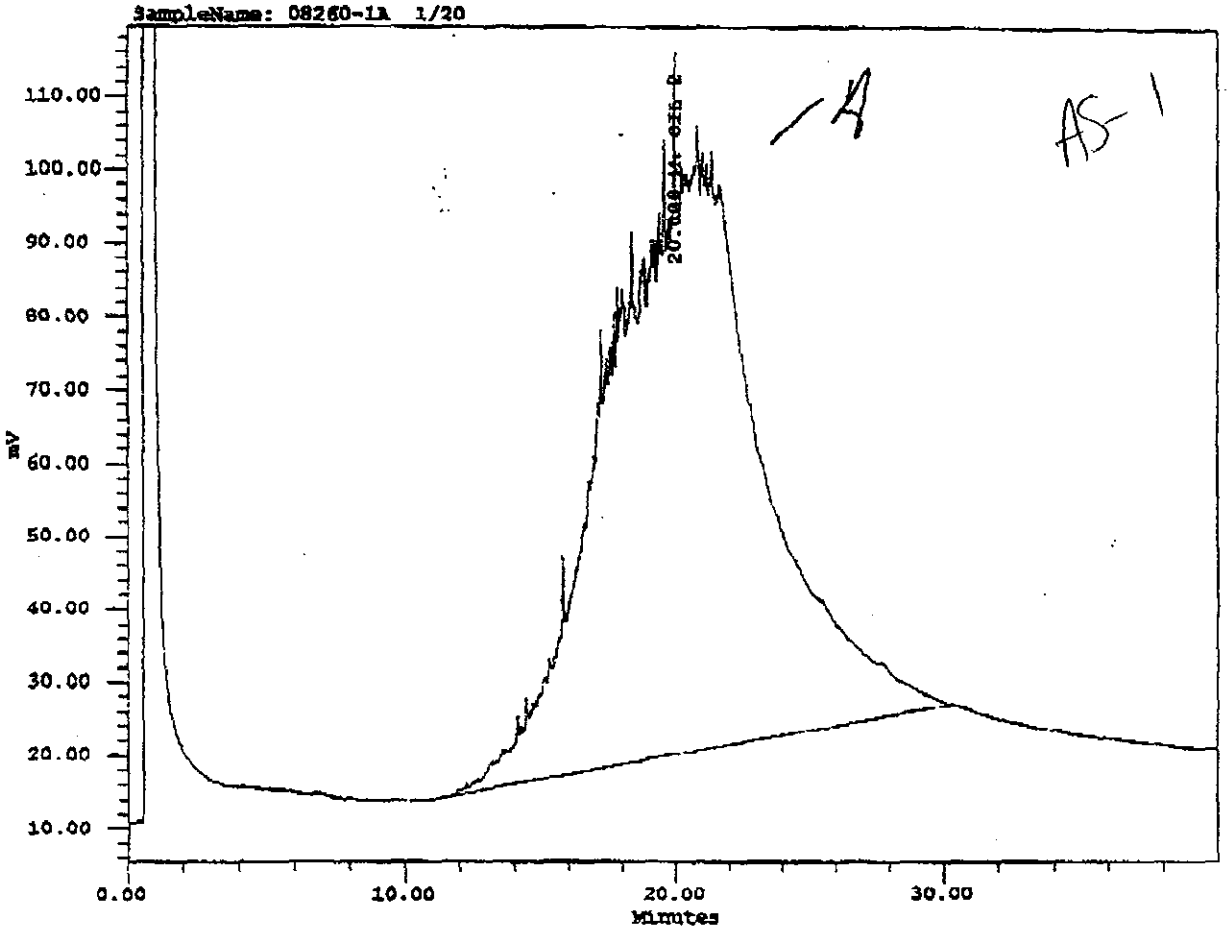
ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08260-1A 1/20
Date Acquired: 08/23/96 01:04:14 PM
Date Processed: 08/23/96 02:03:50 PM
Date Printed: August 23, 1996
Column: DB-5,15M,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0822
Dilution: 200.00000
SampleWeight: 5.00000
Vial: 11



Quant Report

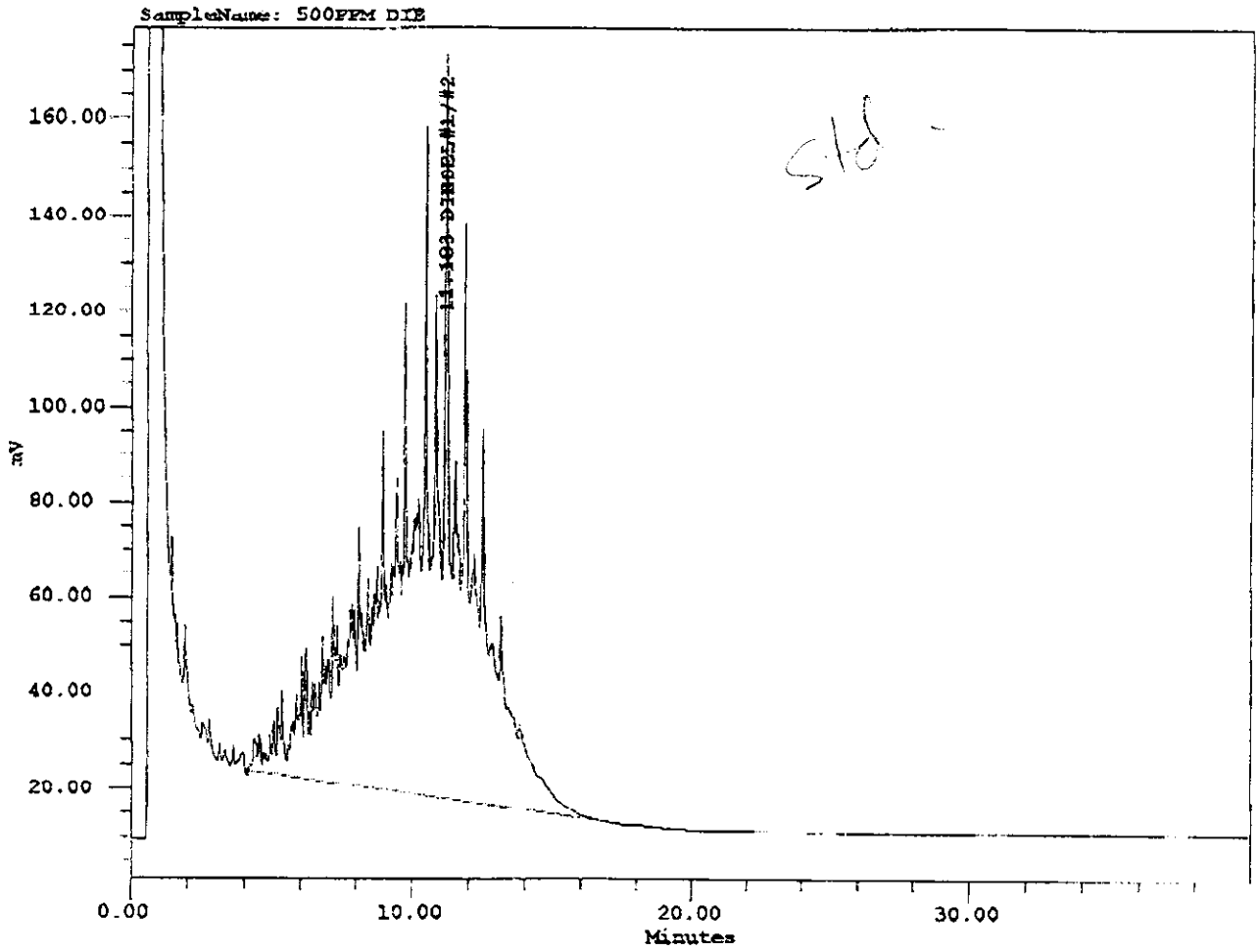
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	20.000	33598045	0.000	1054.172	42166.890

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/30/96 06:13:11 PM
Date Processed: 09/01/96 05:12:33 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 2



Quant Report

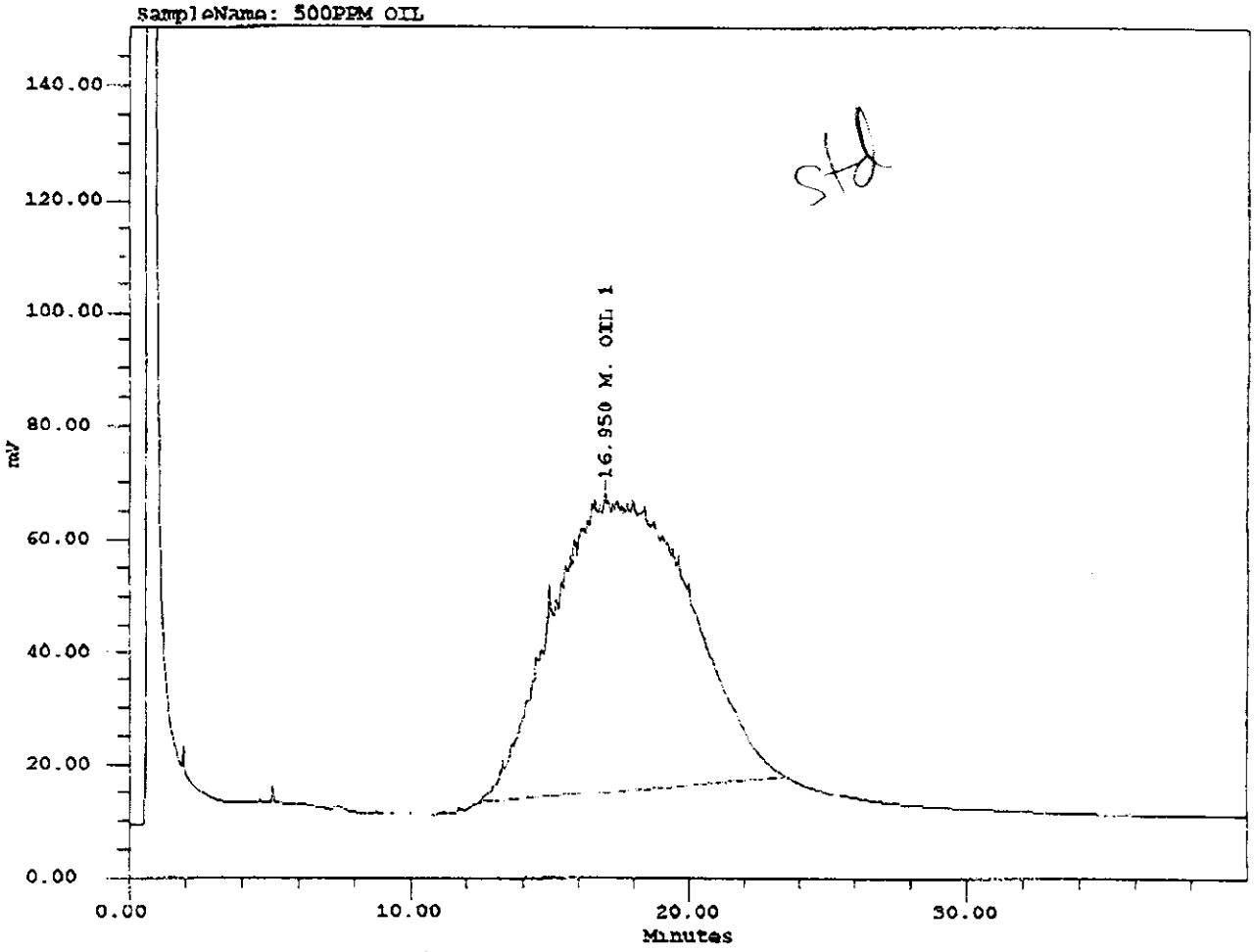
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con (ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.180	20500109	0.000	534.310	106.864

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/30/96 07:13:16 PM
Date Processed: 09/01/96 05:13:12 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 3



std

Quant Report

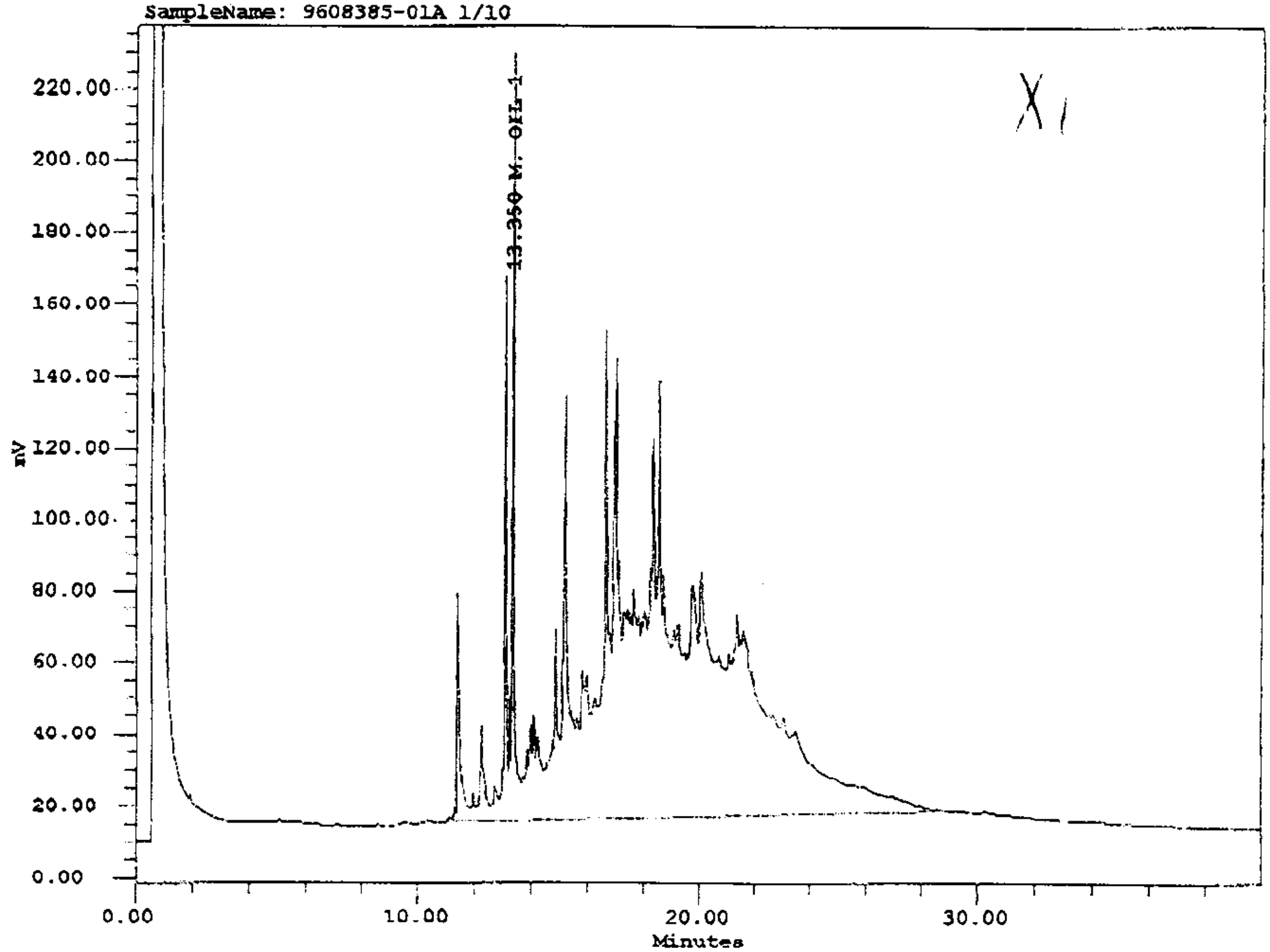
*	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	16.950	18169978	0.000	570.101	114.020

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-01A 1/10
Date Acquired: 08/31/96 12:02:18 AM
Date Processed: 09/01/96 05:15:58 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 8



Quant Report

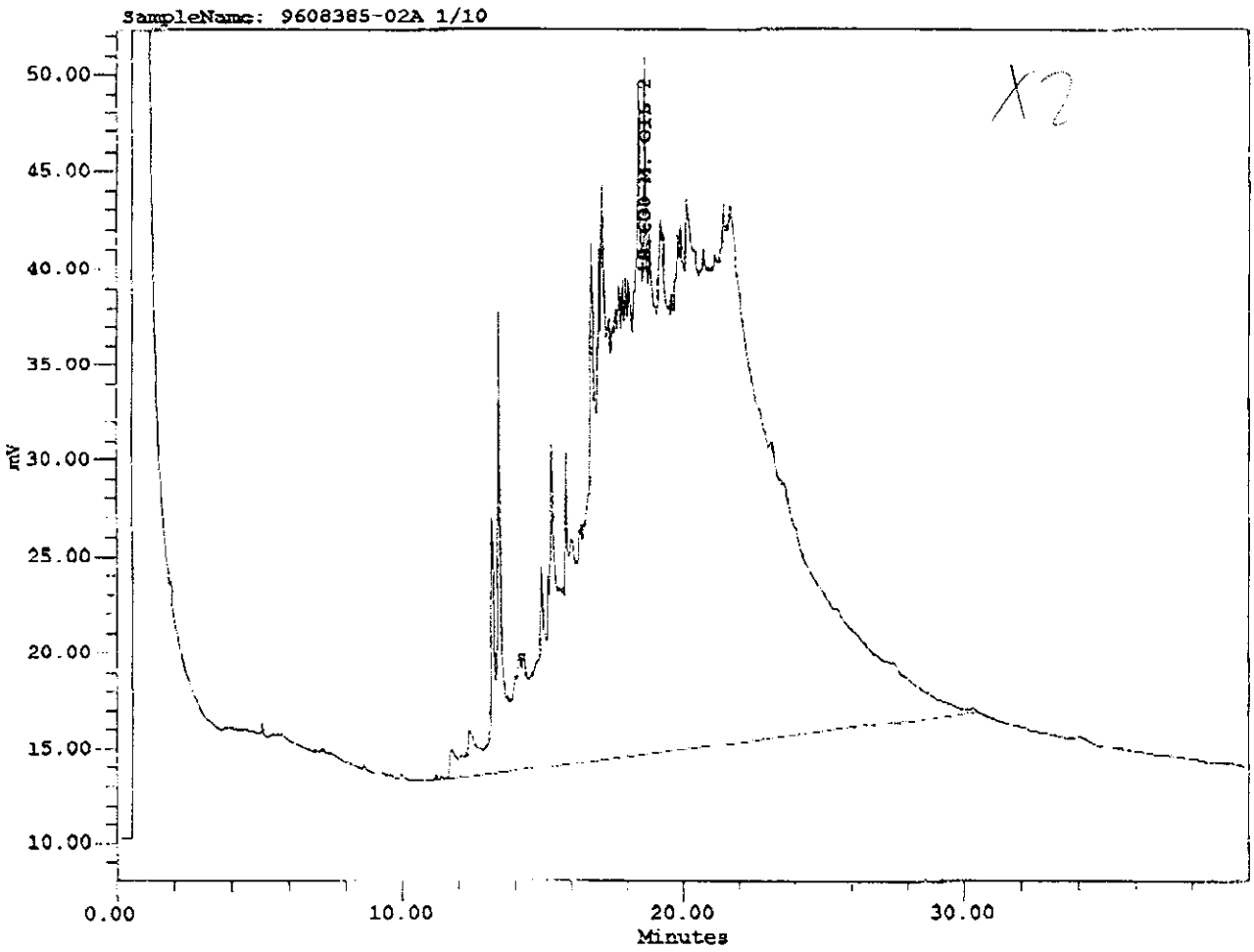
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con (ppm)	Spl Con (ppm)
1	M. OIL 1	13.350	30085105	0.000	943.950	1887.900

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-02A 1/10
Date Acquired: 08/31/96 12:58:57 AM
Date Processed: 09/01/96 05:16:14 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 9



Quant Report

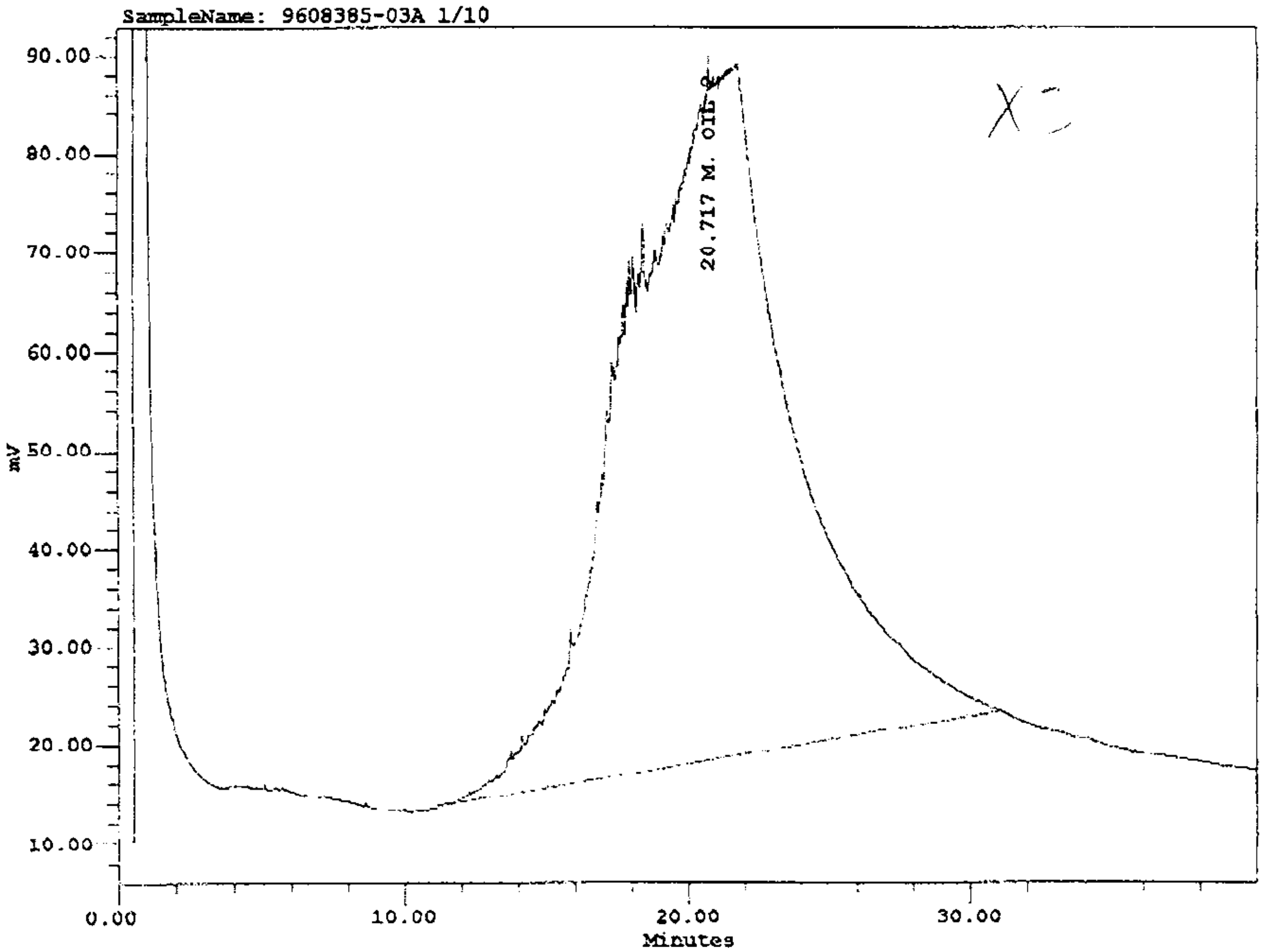
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con (ppm)	Spl Con (ppm)
1	M. OIL 2	18.600	13274433	0.000	416.499	832.997

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-03A 1/10
Date Acquired: 08/31/96 01:55:24 AM
Date Processed: 09/01/96 05:16:32 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 10



Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	20.717	29060357	0.000	911.798	1823.596

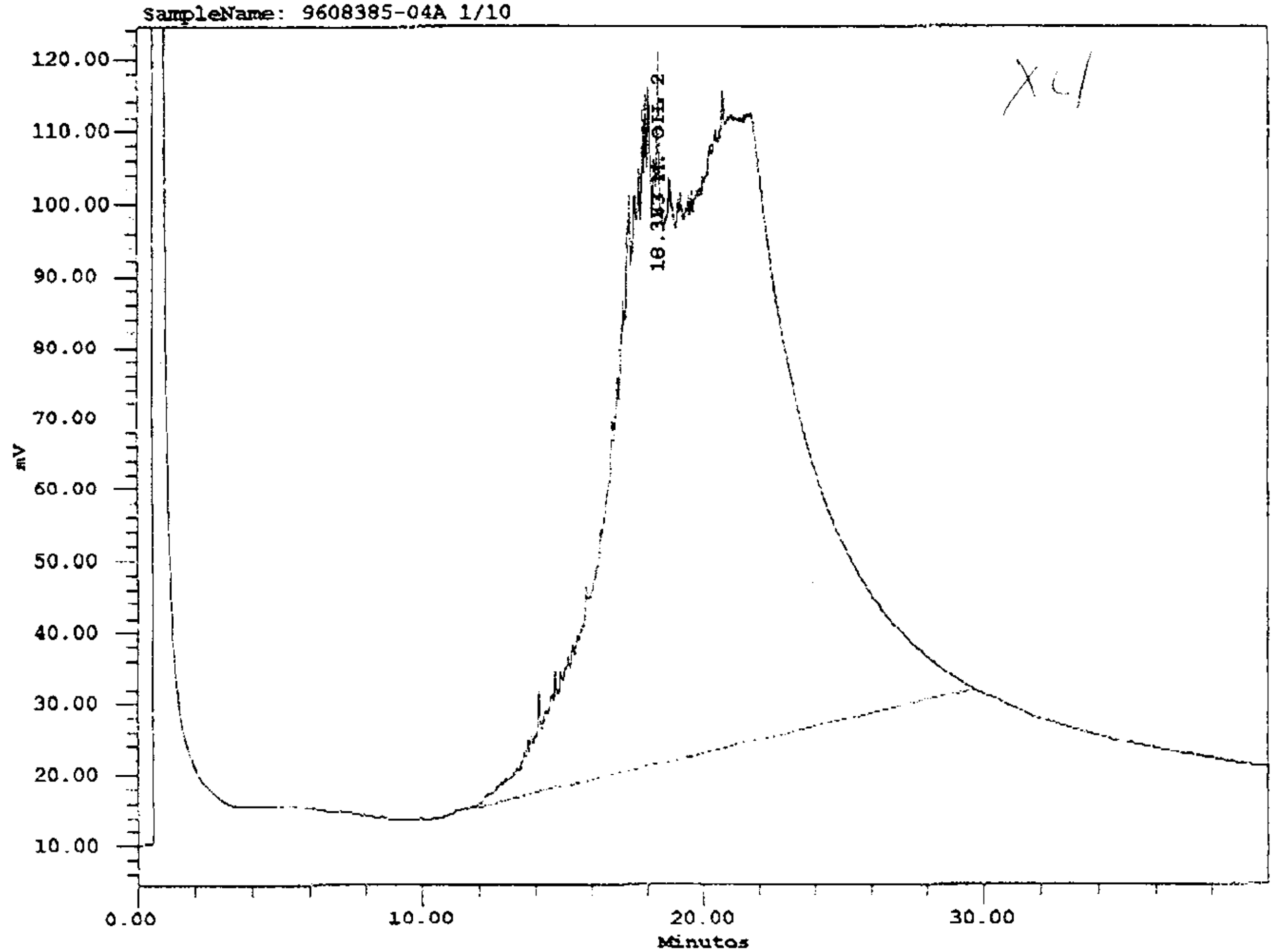
American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-04A 1/10
Date Acquired: 08/31/96 02:51:40 AM
Date Processed: 09/01/96 05:16:46 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 11

SampleName: 9608385-04A 1/10



Quant Report

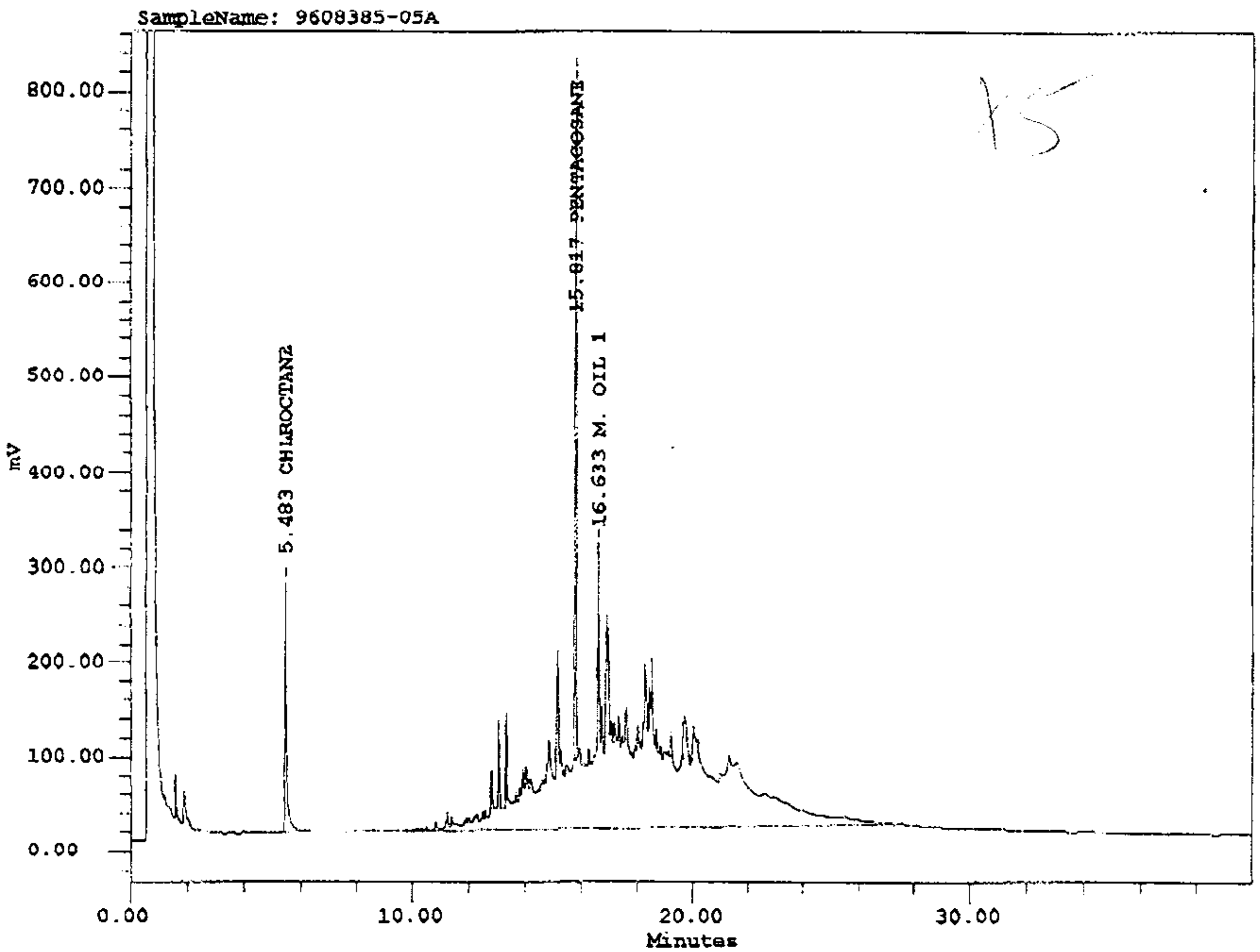
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	18.383	40104828	0.000	1258.329	2516.658

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-05A
Date Acquired: 08/31/96 03:47:51 AM
Date Processed: 09/01/96 05:17:14 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 12



Quant Report

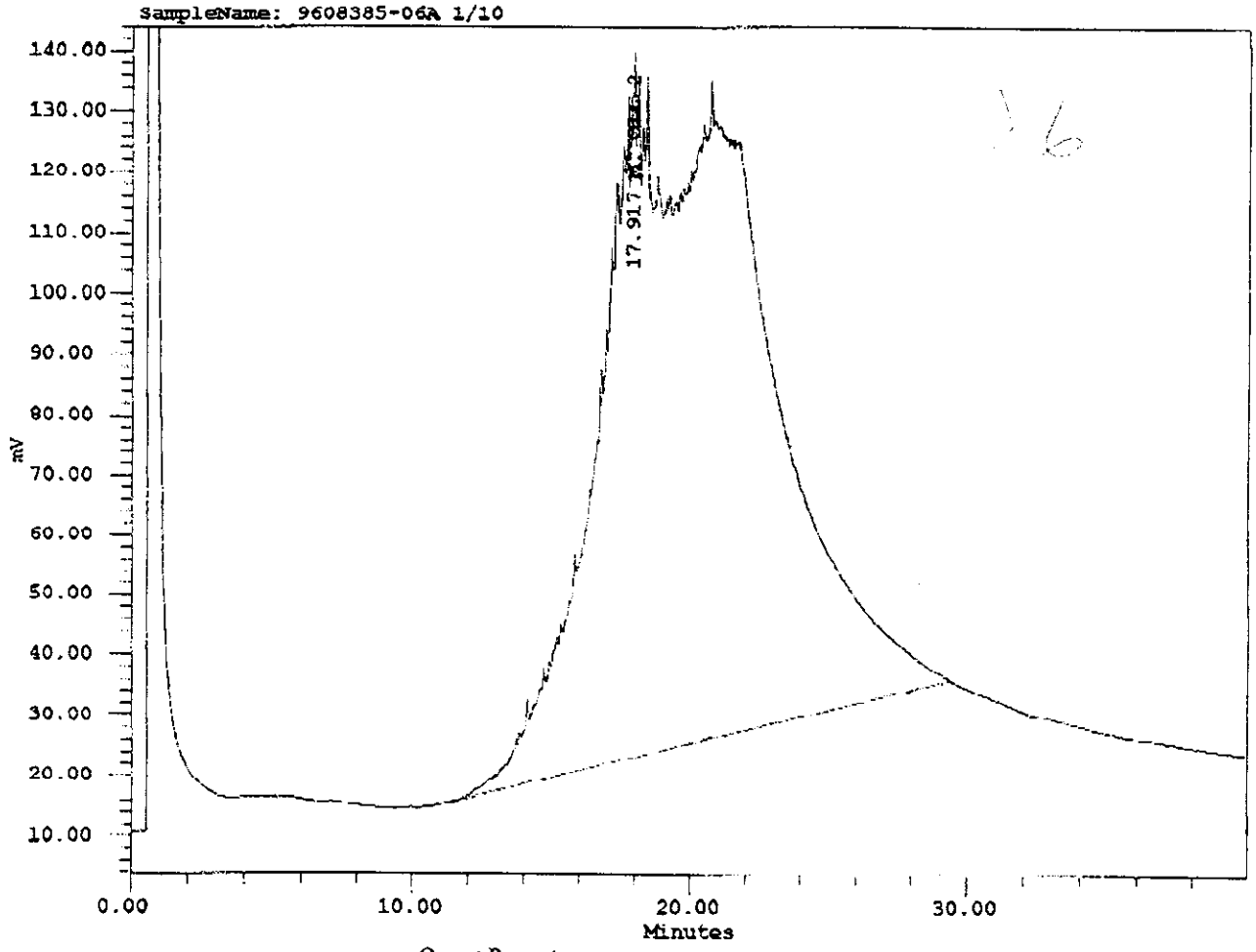
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1030641	0.000	71.365	2.855
2	PENTACOSANE	15.817	2122561	110.602	110.602	4.424
3	M. OIL 1	16.633	45731994	0.000	1434.887	57.395

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-06A 1/10
Date Acquired: 08/31/96 04:43:41 AM
Date Processed: 09/01/96 05:17:28 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 13



Quant Report

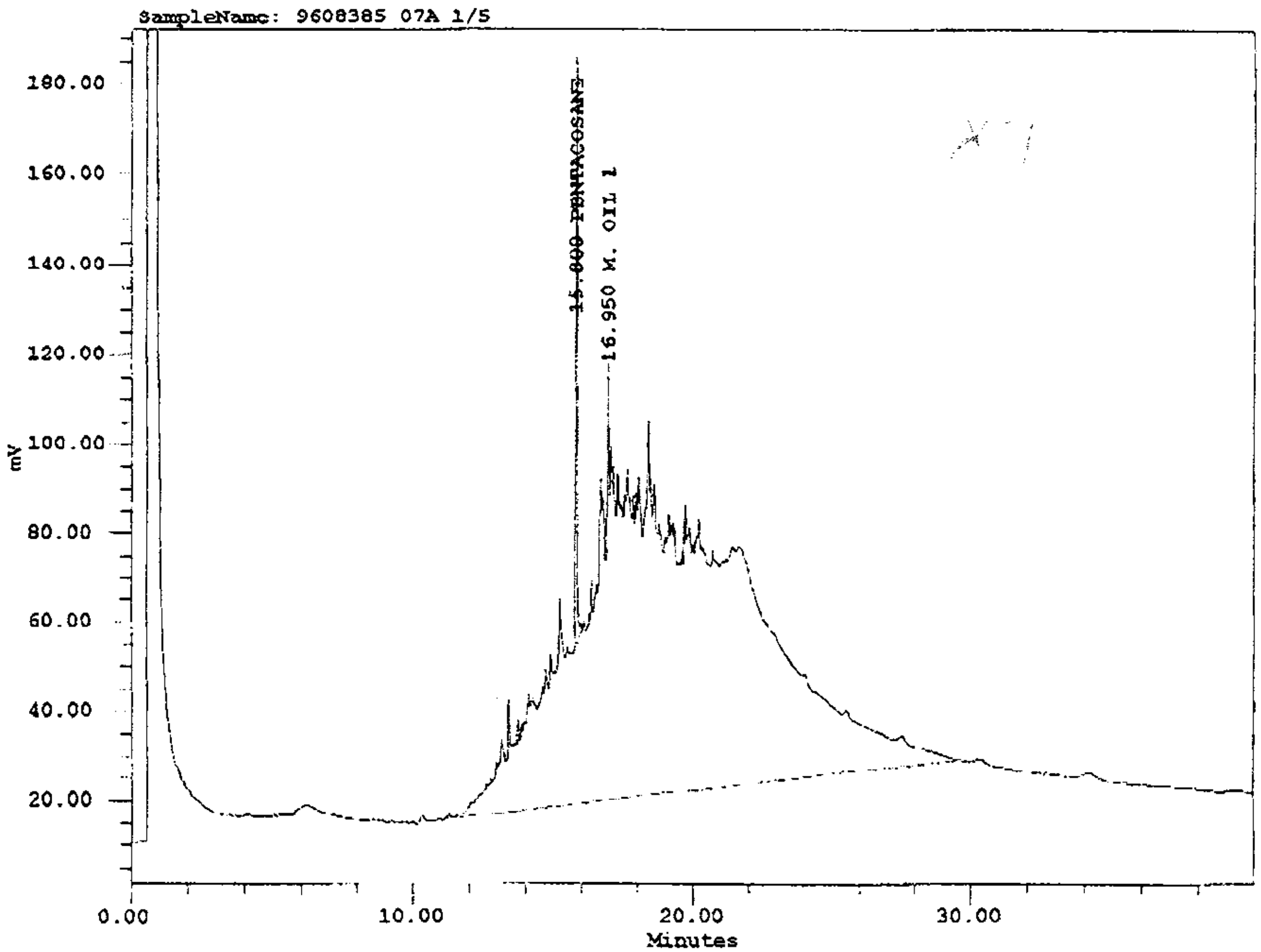
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con (ppm)	Cpl Con (ppm)
1	M. OIL 2	17.917	46339190	0.000	1453.938	2907.876

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-07A 1/5
Date Acquired: 08/31/96 05:39:32 AM
Date Processed: 09/01/96 05:17:56 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6059 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 10.00000
SampleWeight: 50.00000
Vial: 14



Quant Report

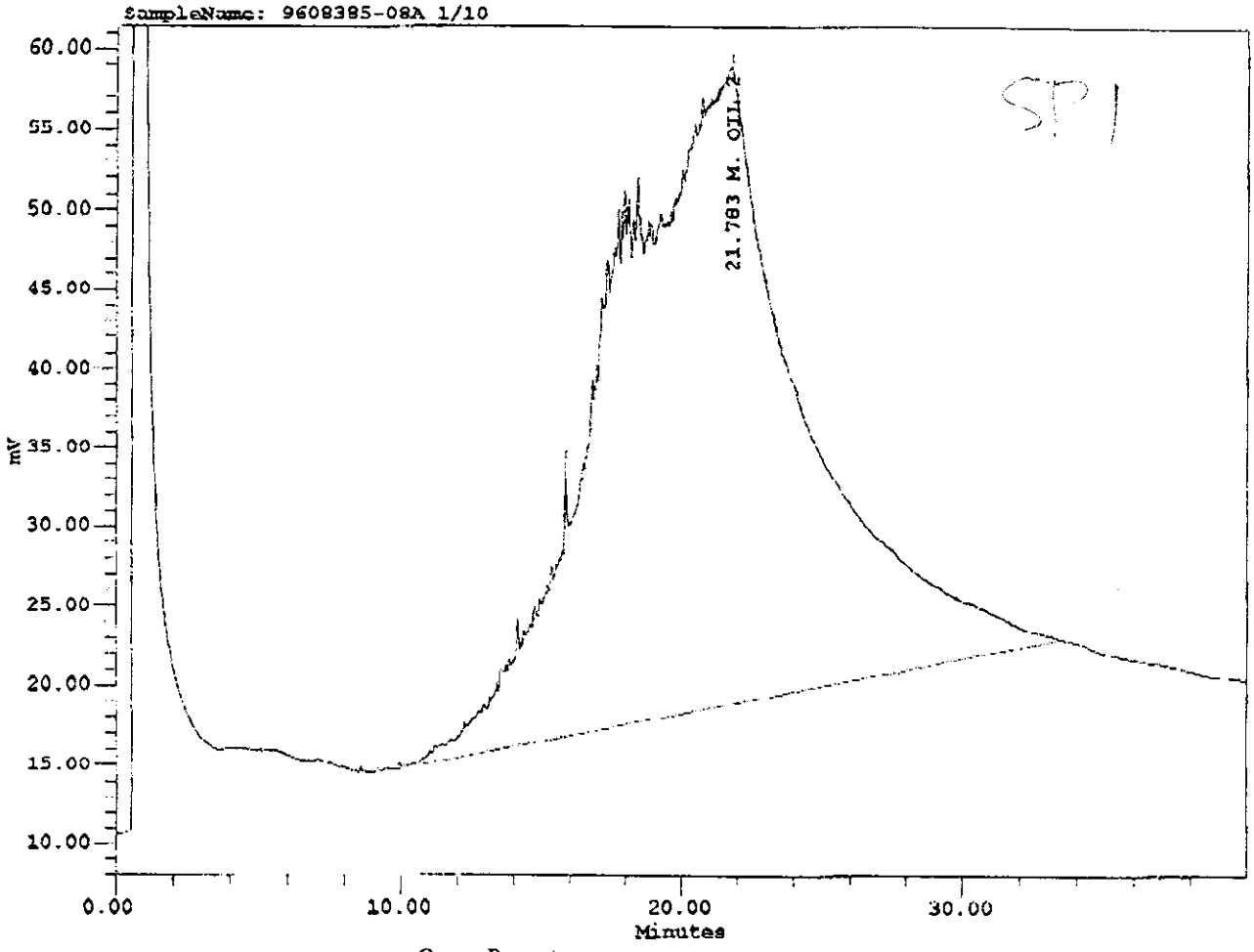
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con (ppm)	Spl Con (ppm)
1	PENTACOSANE	15.800	430675	114.553	22.911	4.582
2	M. OIL 1	16.950	52243809	0.000	1011.682	202.336

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-08A 1/10
Date Acquired: 08/31/96 06:35:29 AM
Date Processed: 09/01/96 05:18:17 PM
Date Printed: September 3, 1996
Column: RTX 1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 15



Quant Report

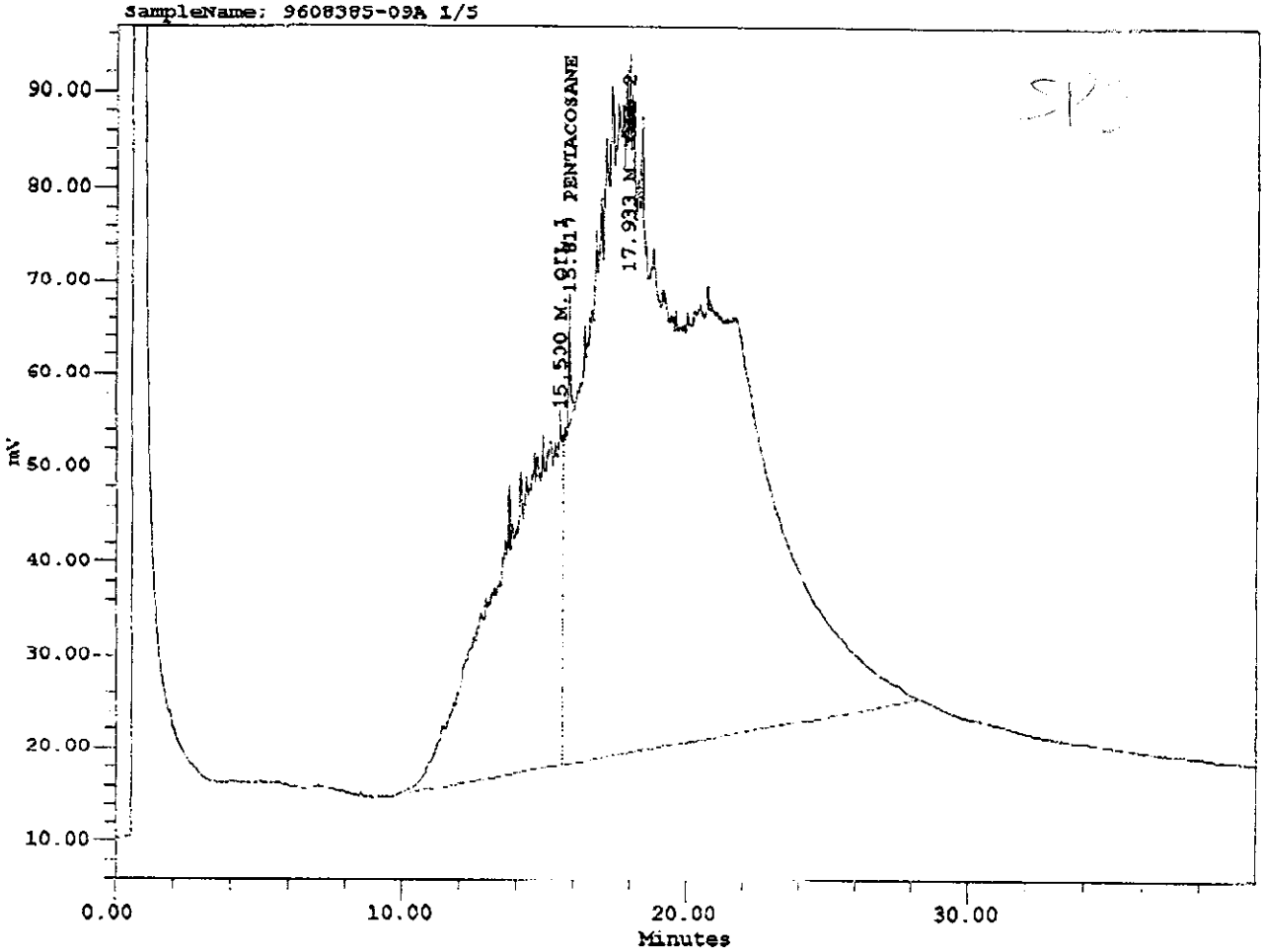
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	21.783	19687895	0.000	614.590	1229.180

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385 09A 1/5
Date Acquired: 08/31/96 10:19:29 AM
Date Processed: 09/01/96 05:34:13 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 50.00000
SampleWeight: 50.00000
Vial: 19



Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	CURR_REC	Inst Con (ppm)	Spl Con (ppm)
1	M. OIL 1	15.500	5785558	0.000	181.528	181.528
2	PENTACOSANE	15.817	58863	76.681	3.067	3.067
3	M. OIL 2	17.933	23646568	0.000	748.210	748.210

Reporting Information:

1. Client: EMBED Inspection
Address: 2401 Crow Canyon Rd
Suite 200
Contact: Shawn Munger
Alt. Contact: None

American Environmental Network
3440 Vincent Road, Pleasant Hill, CA 94523
Phone (510) 930-9090
FAX (510) 930-0256

AEN

Page 1 of 1

REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Lab Job Number: 9608143
Lab Destination:
Date Samples Shipped:
Lab Contact:
Date Results Required: STANDARD TAT
Date Report Required:
Client Phone No.:
Client FAX No.:

Address Report To:

2. Same

Send Invoice To:

3. Same

Send Report To: (1) or 2 (Circle one)

Client P.O. No.: 4139-F2 Client Project I.D. No.: 4139-F2

Sample Team Member (s) Shawn Munger

Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	ANALYSIS: DIESEL/OIL	ANALYSIS: 5280 F (GRAV)	ANALYSIS: BTEX	Comments / Hazards
01A	B1-4		8/12 11:20	Soil	ICE			X	X	X	
02A	B1-8		11:30					X	X	X	
03A	B1-12		11:41					X	X	X	
04A	B2-4		13:00					X	X	X	
05A	B2-8		13:20					X	X	X	
06A	B2-12		8/12 13:30	Soil	ICE			X	X	X	
07AB	B2-W		8/12 14:30	Water	ICE	2	1L	X			
CD					HCL	2	40ml	X			
08AB	B1-W		8/12 15:20	Water	ICE	2	1L	X			HCl ADDED TO OCC BOTTLES UPON ARRIVAL AT LAB. RGF 8/12/96
CD					HCL	2	40ml	X			

		DATE	TIME		DATE	TIME
Relinquished by: (Signature)		8-12	16:30	Received by: (Signature)	Ronald C. Jansen	8/12/96 16:30
Relinquished by: (Signature)				Received by: (Signature)		
Relinquished by: (Signature)				Received by: (Signature)		
Method of Shipment				Lab Comments		

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter
4) PVC filter, diam. ____ pore size ____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ____ 11) Other ____

COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

ENGEO INCORPORATED

SAMPLE ID: B1-4
AEN LAB NO: 9608143 01
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/16/96
Toluene	108-88-3	ND	5	ug/kg	08/16/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/16/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/16/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/24/96
TPH as Oil	GC-FID	120 *	5	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	250 *	30	mg/kg	08/20/96

See page 10 for comments pertaining to this sample.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-8
AEN LAB NO: 9608143 02
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/16/96
Toluene	108-88-3	ND	5	ug/kg	08/16/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/16/96
Xylenes, Total	1330-20-/	ND	5	ug/kg	08/16/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	6 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	40 *	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-12
AEN LAB NO: 9608143-03
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	7 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-4
AEN LAB NO: 9608143-04
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/17/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-	-	Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	10	mg/kg	08/24/96
TPH as Oil	GC-FID	890 *	50	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	2.400 *	30	mg/kg	08/20/96

Reporting limits elevated for diesel/oil due to high levels of non-target compounds. Sample run at dilution. See page 10 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: 82-8
AEN LAB NO: 9608143-05
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	6 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-12
AEN LAB NO: 9608143-06
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/24/96
TPH as Oil	GC-FID	ND	5	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* - Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-W
AEN LAB NO: 9608143-07
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/16/96
Toluene	108-88 3	ND	0.5	ug/L	08/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/16/96
#Extraction for TPH	EPA 3510	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	0.56 *	0.05	mg/L	08/23/96
TPH as Oil	GC-FID	ND	0.2	mg/L	08/23/96
#Water Extrn for HCs		-		Extrn Date	08/20/96
Hydrocarbons (IR)	SM 5520F	ND	0.5	mg/L	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-W
AEN LAB NO: 9608143-08
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/16/96
Toluene	108-88-3	ND	0.5	ug/L	08/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/16/96
#Extraction for TPH	EPA 3510	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	0.34 *	0.05	mg/L	08/23/96
TPH as Oil	GC-FID	ND	0.2	mg/L	08/23/96
#Water Extrn for HCs		-		Extrn Date	08/20/96
Hydrocarbons (IR)	SM 5520F	ND	0.5	mg/L	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9608143

CLIENT PROJECT ID: 4139-F2

Quality Control Summary

Samples B1-4 and B2-4: Samples appear to contain asphalt, as evidenced by their chromatographic patterns, hydrocarbon range (extending past the motor oil range), and their content of black solids that dissolve and produce a yellow color in methylene chloride. Additionally, their chromatograms are very similar to that of a bulk sample of asphalt (sample AS-1) also submitted for analysis (AEN project 9608260), apparently from the same site. It is quite possible that the source of the hydrocarbon contamination being reported for these samples is entirely from asphalt.

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: LCS
INSTRUMENT: IR
MATRIX: WATER

Laboratory Control Sample

Analyte	Spike Added (mg/L)	Percent Recovery	QC Limits Percent Recovery
Oil	6.91	101	73-112

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608143
DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: LCS
INSTRUMENT: GRAVIMETRIC
MATRIX: SOIL

Laboratory Control Sample

Analyte	Spike Added (mg/kg)	Average Percent Recovery	QC Limits Percent Recovery
Oil	100	86	70-105

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9608143
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/16/96	B2-W	07	99
08/16/96	B1-W	08	99
QC Limits:			70-130

DATE ANALYZED: 08/16/96
SAMPLE SPIKED: 9608056-04
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	22.2	103	11	85-109	17
Toluene	74.9	95	10	87-111	16
Hydrocarbons as Gasoline	500	109	14	66-117	19

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
INSTRUMENT: C
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/24/96	B1-4	01	83
08/23/96	B1-8	02	67
08/23/96	B1-12	03	104
08/24/96	B2-4	04	93
08/23/96	B2-8	05	82
08/24/96	B2-12	06	90
QC Limits:			55-115

DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/21/96
SAMPLE SPIKED: 9608136-10
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	40.0	86	1	50-115	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
INSTRUMENT: A
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/23/96	B2-W	07	85
08/23/96	B1-W	08	86
QC Limits:			65-125

DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: 9607347-08
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	85	4	60-110	15

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9608143
INSTRUMENT: E
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/16/96	B1-4	01	130
08/16/96	B1-8	02	108
08/19/96	B1-12	03	103
08/19/96	B2-4	04	117
08/19/96	B2-8	05	105
08/19/96	B2-12	06	104
QC Limits:			70-130

DATE ANALYZED: 08/19/96
SAMPLE SPIKED: 9608234-07
INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	34.0	98	6	79-113	26
Toluene	108	97	4	84-110	20
Hydrocarbons as Gasoline	1000	112	4	60-126	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

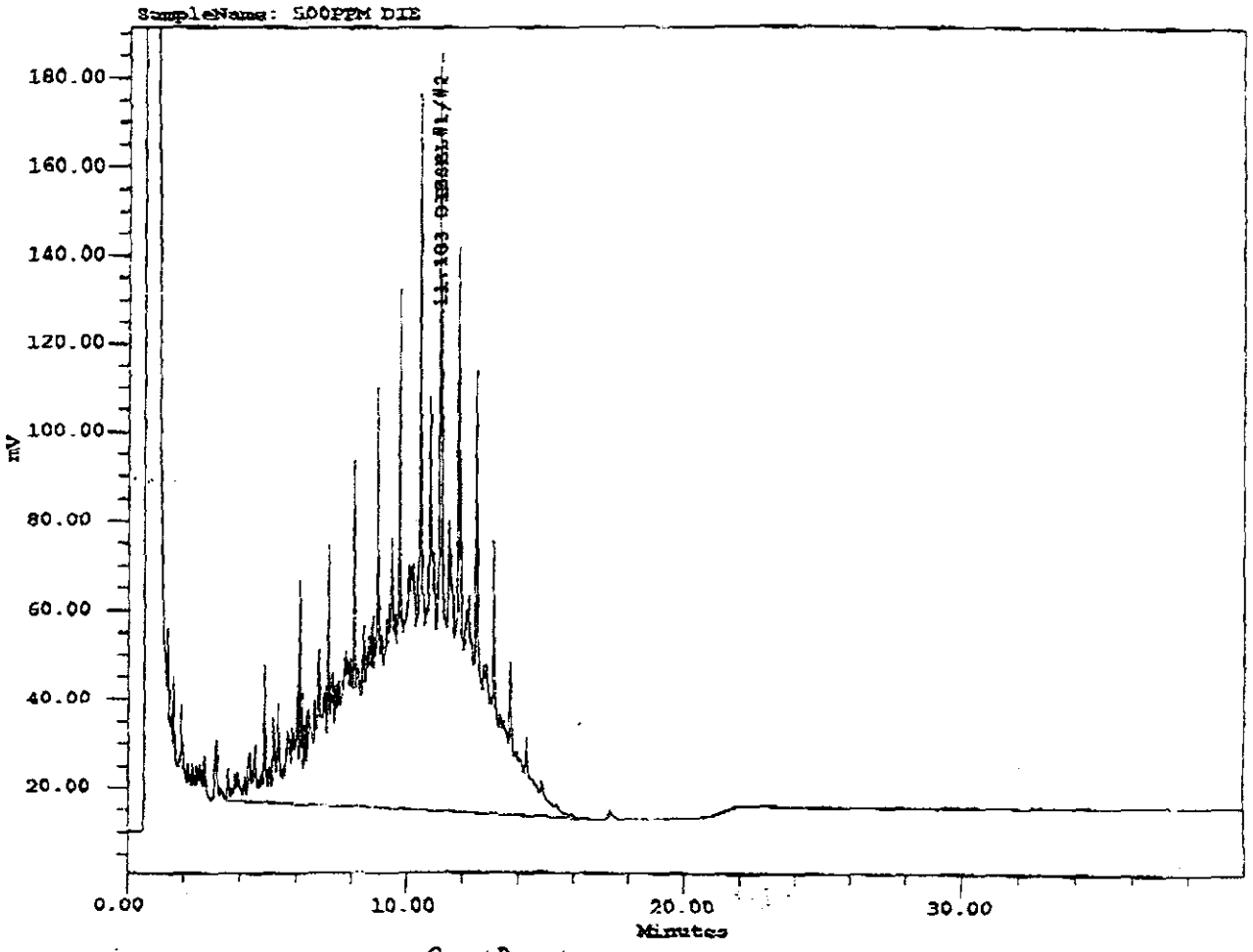
*** END OF REPORT ***

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/24/96 02:07:40 PM
Date Processed: 08/27/96 09:58:25 AM
Date Printed: August 27, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 23



Quant Report

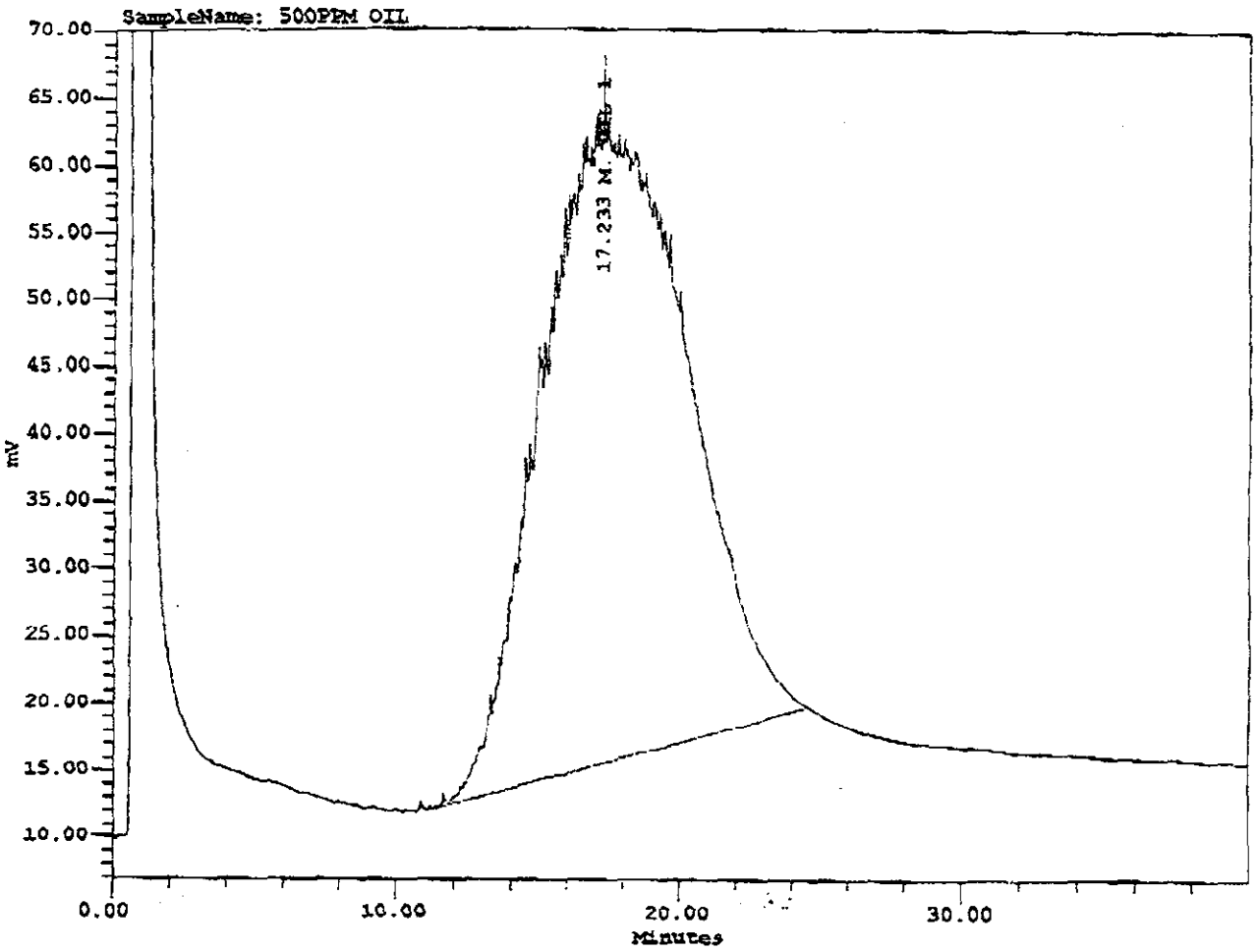
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.183	19910485	0.000	518.748	103.750

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/24/96 03:06:01 PM
Date Processed: 08/27/96 09:58:44 AM
Date Printed: August 27, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 24



Quant Report

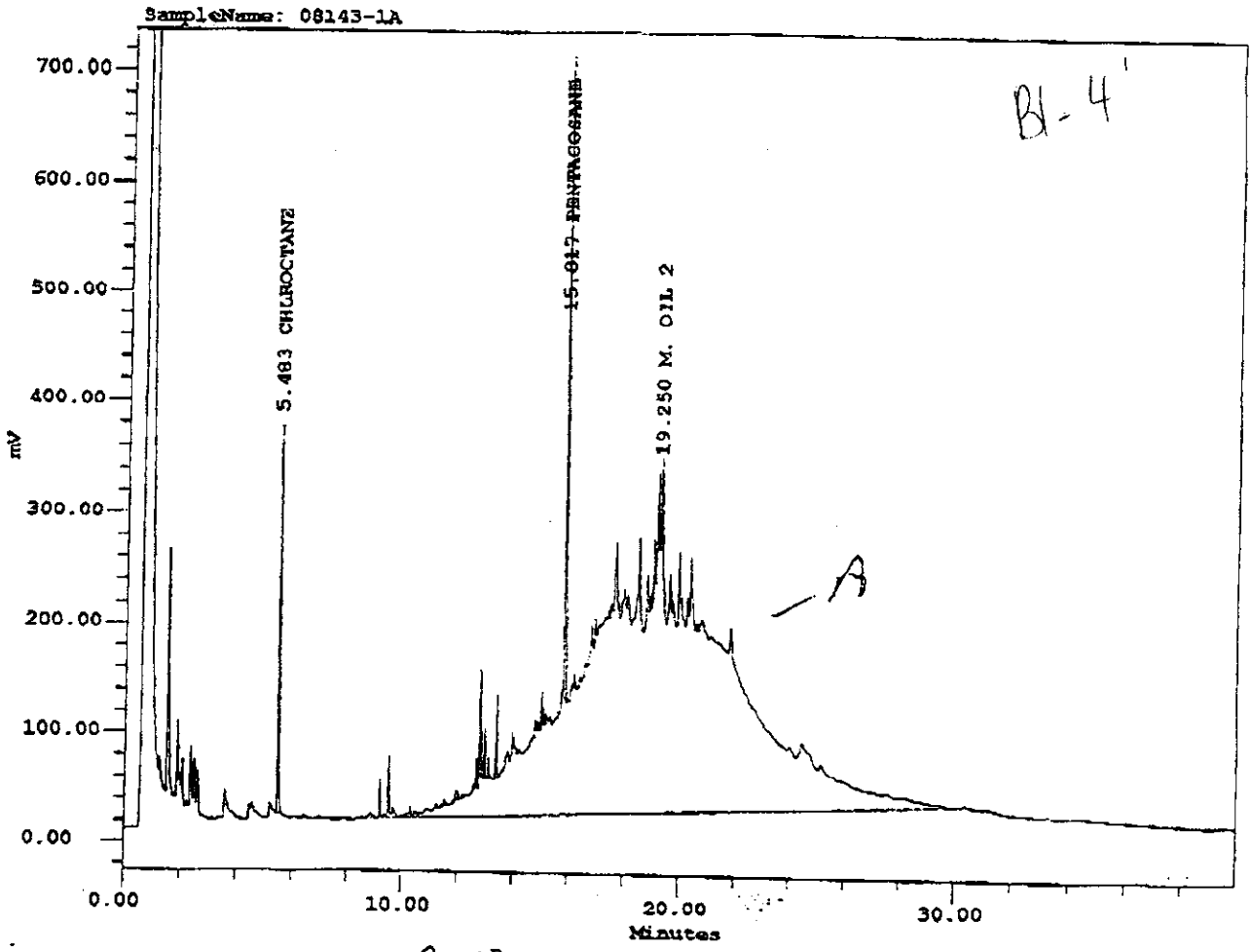
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	17.233	17254304	0.000	541.371	108.274

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-1A
Date Acquired: 08/24/96 01:47:46 AM
Date Processed: 08/26/96 04:45:41 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 10



Quant Report

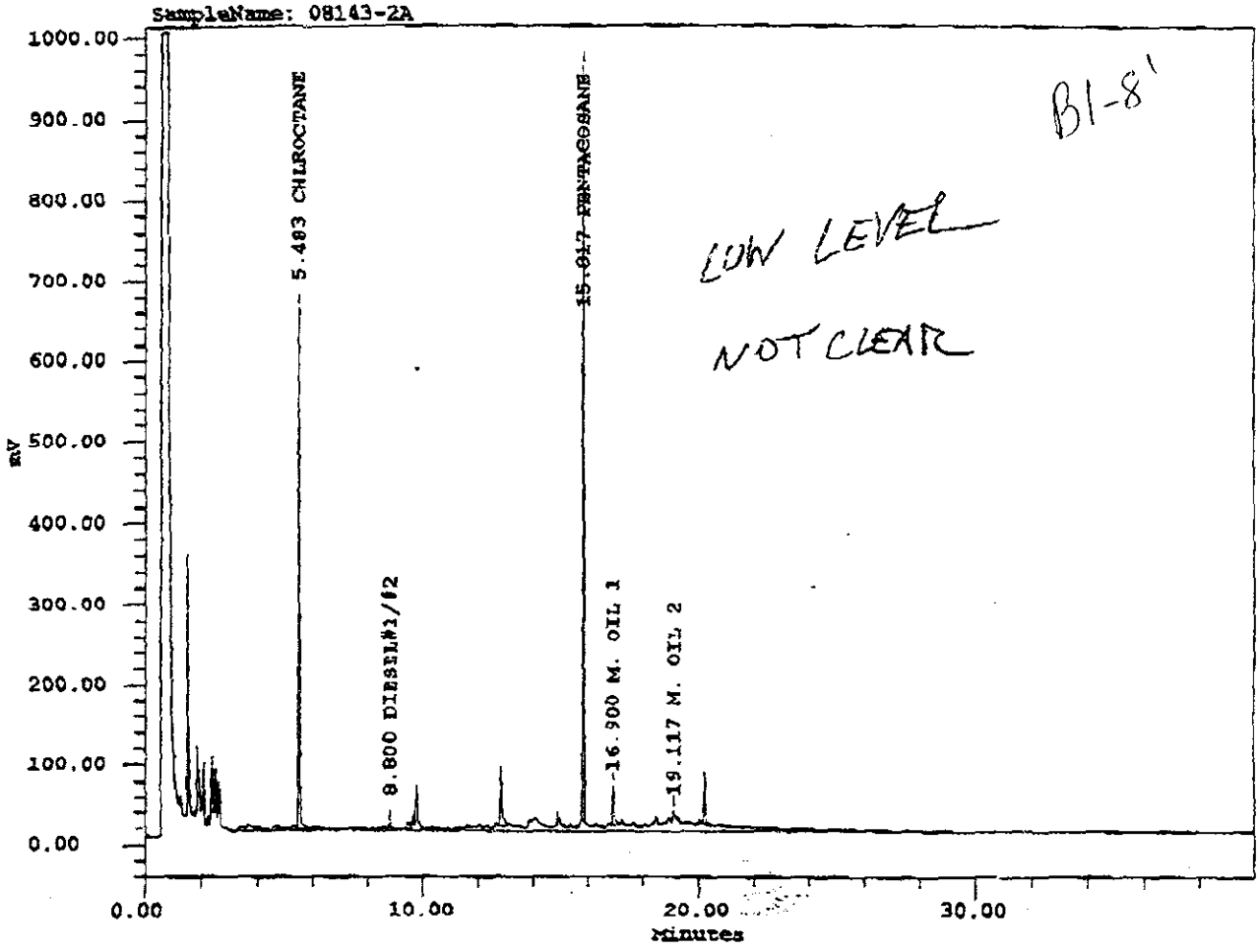
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1009808	0.000	69.929	2.797
2	PENTACOSANE	15.617	1588678	82.783	82.783	3.311
3	M. OIL 2	19.250	94711300	0.000	2971.662	118.866

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-2A
Date Acquired: 08/23/96 09:59:06 PM
Date Processed: 08/26/96 04:16:06 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0623
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 6



Quant Report

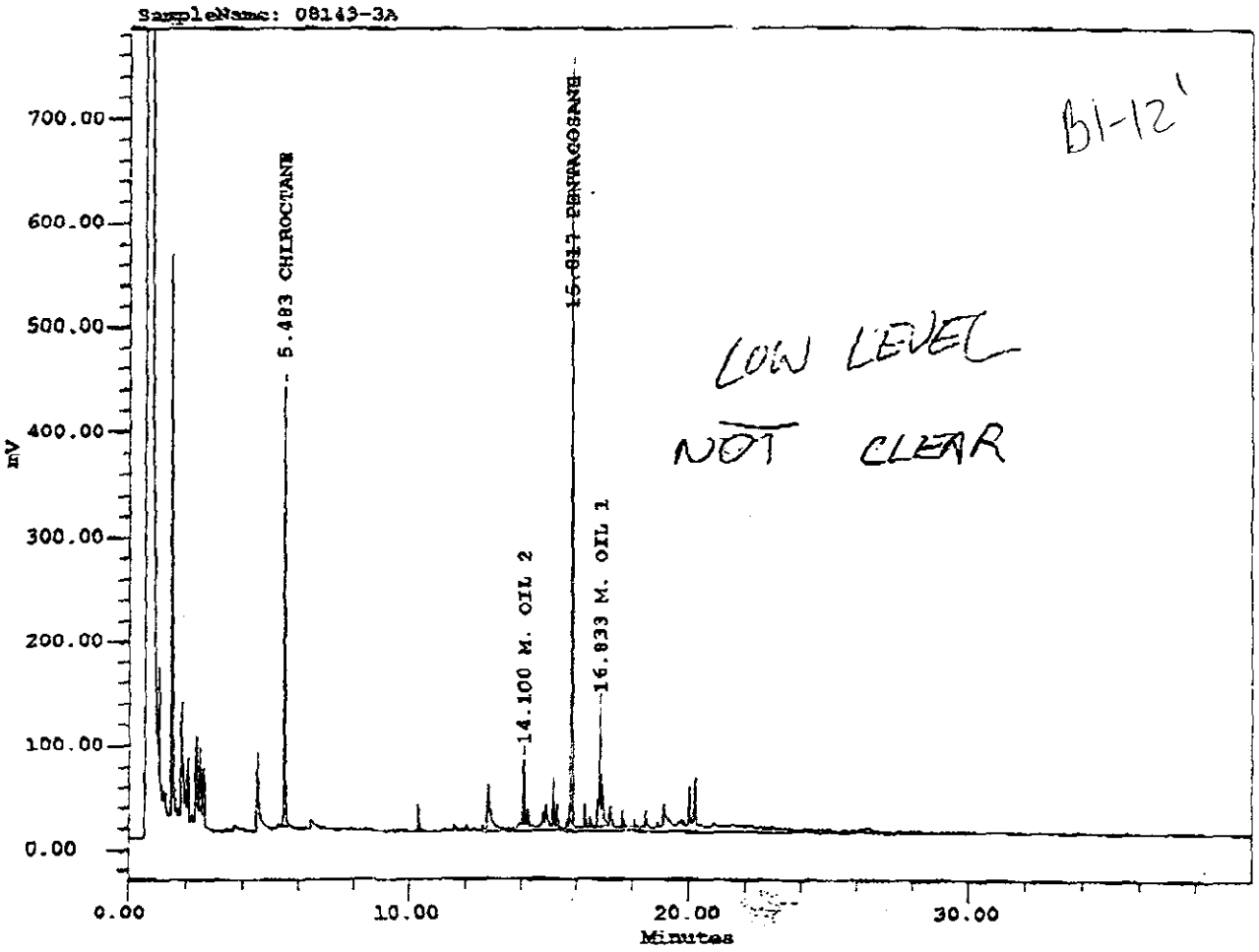
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1840568	0.000	127.459	5.098
2	DIESEL#1/#2	8.800	967094	0.000	25.197	1.008
3		9.750	473120			
4		12.817	354961			
5	PENTACOSANE	15.817	2580890	134.485	134.485	5.379
6	M. OIL 1	16.900	227508	0.000	7.138	0.286
7	M. OIL 2	19.117	5170787	0.000	162.239	6.490
8		20.217	206614			

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-3A
Date Acquired: 08/23/96 10:56:45 PM
Date Processed: 08/26/96 04:19:35 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 7



B1-12'

LOW LEVEL

NOT CLEAR

Quant Report

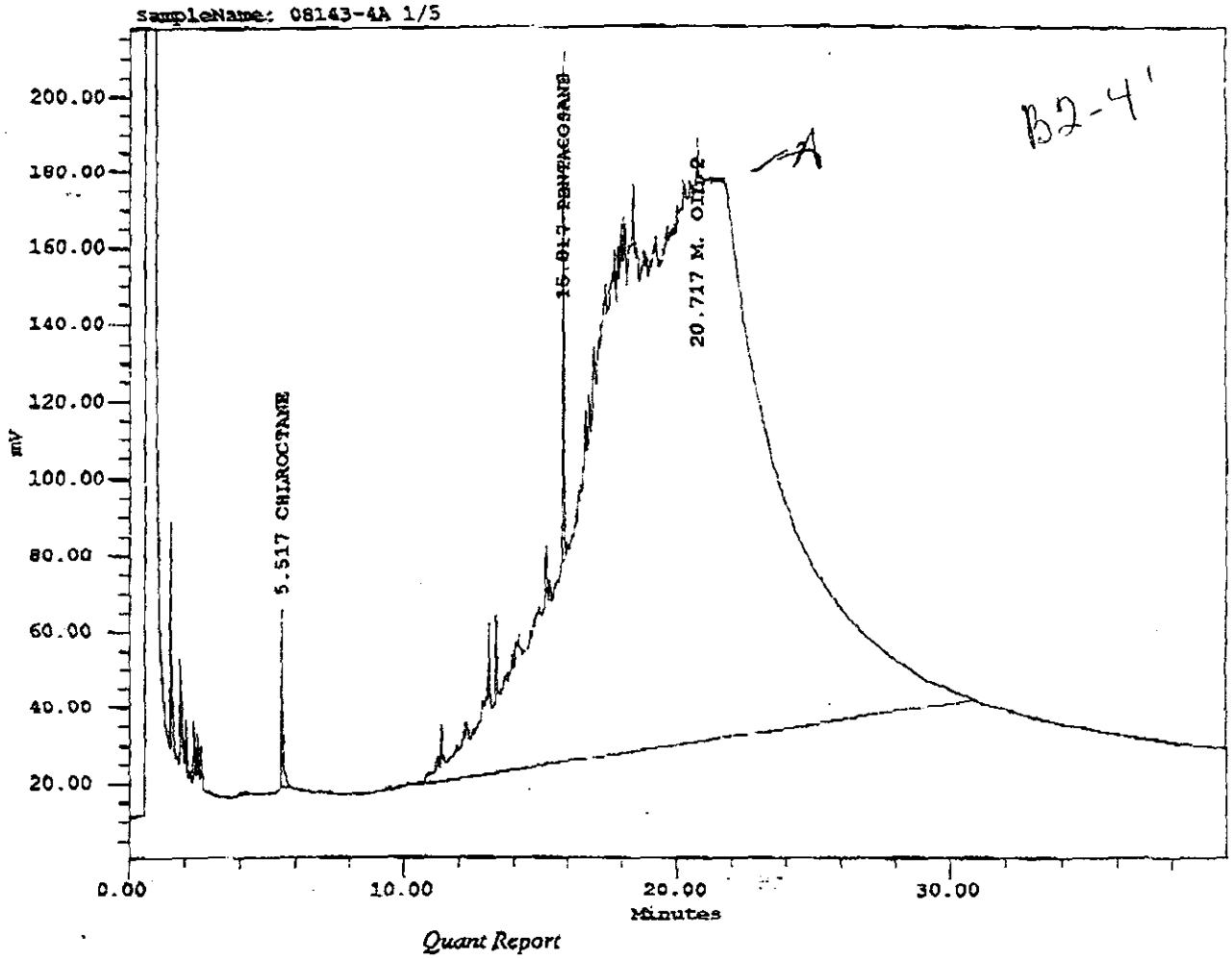
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1176641	0.000	81.482	3.259
2	M. OIL 2	14.100	3377707	0.000	168.731	6.749
3	PENTACOSANE	15.817	1986576	103.517	103.517	4.141
4	M. OIL 1	16.833	591823	0.000	18.569	0.743

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-4A 1/5
Date Acquired: 08/24/96 02:44:25 AM
Date Processed: 08/26/96 04:49:00 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 10.00000
SampleWeight: 25.00000
Vial: 11



Quant Report

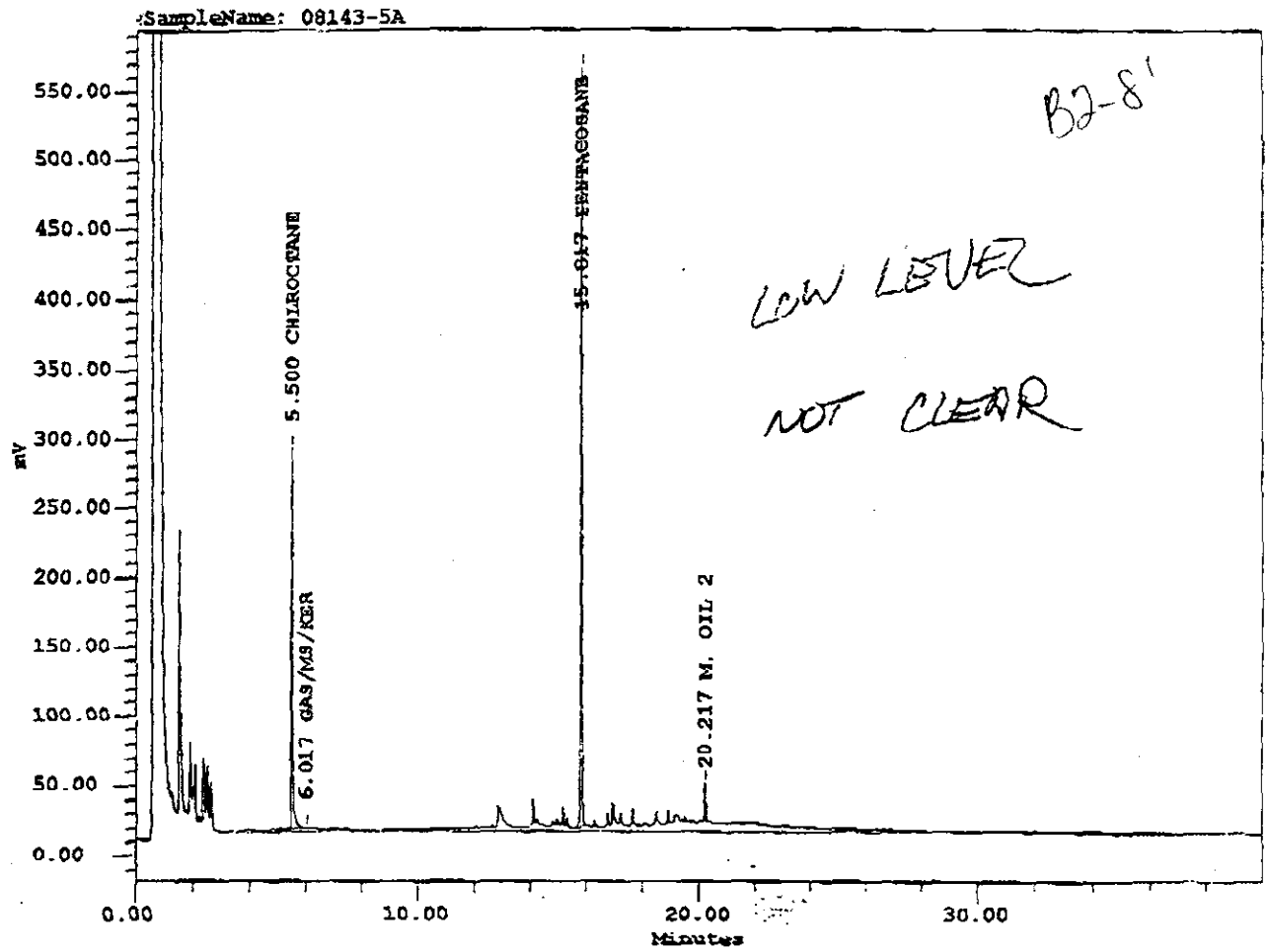
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.517	170986	0.000	11.841	4.736
2	PENTACOSANE	15.817	357685	93.191	18.638	7.455
3	M. OIL 2	20.717	71196660	0.000	2233.866	893.547

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-5A
Date Acquired: 08/23/96 11:53:59 PM
Date Processed: 08/26/96 04:44:17 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 8



Quant Report

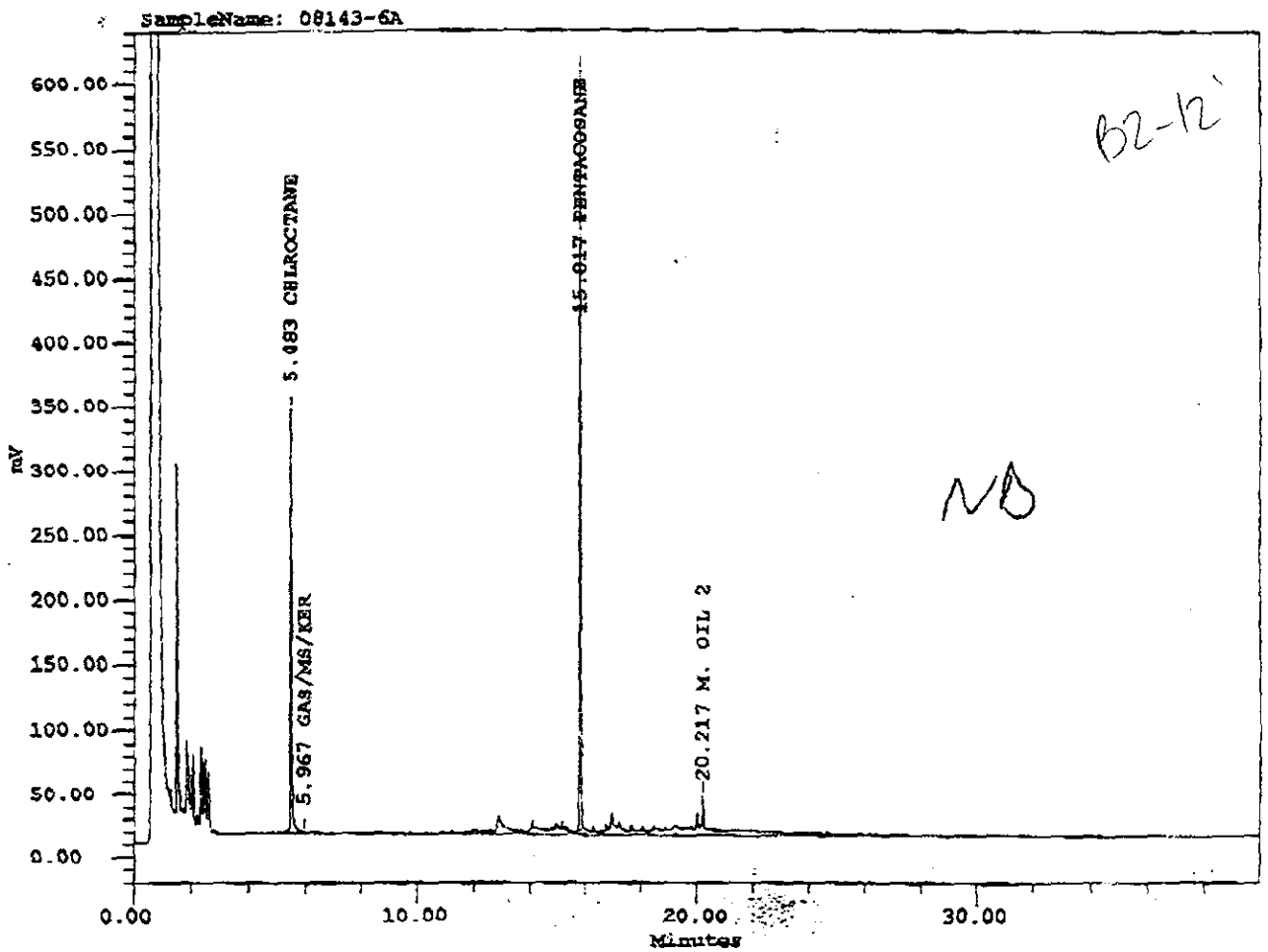
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLOROCTANE	5.500	954441	0.000	66.095	2.644
2	GAS/MS/KER	6.017	763797	0.000	19.900	0.796
3	PENTACOSANE	15.817	1578744	82.265	82.265	3.291
4	M. OIL 2	20.217	4516595	0.000	141.713	5.669

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-6A
Date Acquired: 08/24/96 12:51:00 AM
Date Processed: 08/26/96 04:45:02 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 9



B2-12

ND

Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLOCTANE	5.483	1114028	0.000	77.146	3.086
2	GAS/MS/KER	5.967	506112	0.000	13.186	0.527
3	PENTACOSANE	15.817	1735532	90.435	90.435	3.617
4	M. OIL 2	20.217	2810111	0.000	88.170	3.527

R-7,5-L

American Environmental Network
3440 Vincent Road, Pleasant Hill, CA 94523
Phone (510) 930-9090
FAX (510) 930-0256

AEN

REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Reporting Information:

1. Client: ENGEO INC.
   Address: 2401 Crow Canyon Rd. #210, San Ramon, CA 94583
   Contact: Shawn Mewzel
   Alt. Contact:

Lab Job Number: 9608260
Lab Destination:
Date Samples Shipped:
Lab Contact: Robin
Date Results Required: 3 day
Date Report Required:
Client Phone No.:
Client FAX No.:

Address Report To:
2. Same

Send Invoice To:
3. Same

Send Report To: (1) or 2 (Circle one)

Client P.O. No.: 4139-F2 Client Project I.D. No.: 4139-F2

Sample Team Member (s) Shawn Mewzel

Lab Number	Client Sample Identification	Air Volume	Date/Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	ANALYSIS: Diesel/Oil 8015									Comments / Hazards
AS-1	AS-1 01A		8/20 / 9:30	Rock	None	1	BAG	X									72 hr TAT

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
[signature]	8/20/96	11:42			
			Ronald C. Jansen	8/20/96	11:42

Method of Shipment

Lab Comments

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter
4) PVC filter, diam ____ pore size ____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ____ 11) Other ____

COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

ENGEO INCORPORATED

SAMPLE ID: AS-1
AEN LAB NO: 9608260-01
AEN WORK ORDER: 9608260
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/20/96
DATE RECEIVED: 08/20/96
REPORT DATE: 08/23/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3550	-		Extrn Date	08/22/96
TPH as Diesel	GC-FID	ND	1,000	mg/kg	08/23/96
TPH as Oil	GC-FID	42,000 *	5,000	mg/kg	08/23/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN Job No: 9608260 Client Project ID: ________________

Project Footnotes

The following footnotes apply to the indicated project samples and will appear on the final report (except as noted):

Client IDs	AEN IDs	Test	Footnotes
	1	3550 GC-FID	04

Footnotes

01: Reporting limits (RLs) elevated due to matrix interference.

02: RL(s) elevated for ____________ due to hydrocarbon interference.

03: RL(s) elevated for ____________ due to hydrocarbon interference in the ____________ range.

04: RL(s) elevated due to high levels of target compounds. Sample(s) run at dilution.

05: RL(s) elevated due to high levels of non-target compounds. Sample(s) run at dilution.

06: RL(s) elevated for ____________ due to background contamination.

07: Duplicate analysis showed surrogate recoveries outside of QC limits. Results are estimated concentrations.

08: Due to an apparent matrix effect, it was necessary to dilute sample(s) to achieve adequate surrogate recoveries. RL(s) have been adjusted accordingly.

09: Sample showed non-target compounds. (Will not appear on report unless requested by client).

10: Non-typical OIL pattern observed. (Will not appear on report unless requested by client).
(ASPHALT RANGE)

* : ____________

**: ____________

The following information will not appear on the final report unless requested:

If you have any questions, please contact Client Services at (510) 930-9090. *Thank you!*

Revision: July 18, 1995

Reporting Information:

1. Client: ENGEO Incorporated
Address: 2401 Crow Canyon Road Suite 200 San Ramon CA 94583
Contact: Shawn Munger
Alt. Contact:

American Environmental Network

AEN

3440 Vincent Road, Pleasant Hill, CA 94523
Phone (510) 930-9090
FAX (510) 930-0256

REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Lab Job Number: 9608232
Lab Destination:
Date Samples Shipped:
Lab Contact:
Date Results Required:
Date Report Required:
Client Phone No.:
Client FAX No.:

Address Report To:
2. Same

Send Invoice To:
3. Same

Send Report To: (1) or 2 (Circle one) Fax to 838-7125 + 427-7745 *

Client P.O. No.: 4139-F2 Client Project I.D. No.: 4139-F2

Sample Team Member (s) Shawn Munger

Part II
72 hr TAT
DF WET
DSL/OIL
Chromatograms

Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	5520F (Gravimetric)	Diesel/Oil (8015)	CAL-WET	8015 Diesel/Oil (Deionized Water)	Gas	8260	Comments / Hazards
01A	S1		1410 8/16	S		1	BAG	X	X	X				24 hr TAT
														Fax results * MONDAY 8/19 A.M.

Relinquished by: (Signature) [signature]	DATE 8-16-96	TIME 15:58	Received by: (Signature) [signature]	DATE 8-16-96	TIME 1558
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
Method of Shipment			Lab Comments		

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter
4) PVC filter, diam ____ pore size ____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ____________ 11) Other ____________

COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

ENGEO INCORPORATED

SAMPLE ID: S1
AEN LAB NO: 9608232-01
AEN WORK ORDER: 9608232
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/16/96
DATE RECEIVED: 08/16/96
REPORT DATE: 08/23/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#CA WET w/Deionized Water	CA Title 22	-		Extrn Date	08/20/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/16/96
TPH as Diesel	GC-FID	ND	20	mg/kg	08/19/96
TPH as Oil	GC-FID	1,000 *	100	mg/kg	08/19/96
#Extraction for TPH DI H20	EPA 3510	-		Extrn Date	08/23/96
TPH as Oil in DI/WET Ext	GC-FID	ND	0.8	mg/L	08/23/96
TPH Diesel in DI/WET Ext	GC-FID	ND	0.2	mg/L	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/17/96
Hydrocarbons (Gravimetric)	SM 5520F	420 *	30	mg/kg	08/18/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

To: Stephen S. Walker
From: Stephen S. Walker
Subject: ASPHALT
Date: 9/03/96 Time: 12:38p

Samples S1 project 9608232; X-2,X-3,X-4,X-6,X-7,SP-1,SP-2 Project 9608385, appear to contain asphalt as evidenced by their chromatographic patterns, hydrocarbon range(extending past the motor oil range), and their content of black solids that dissolve and produce a yellow color in methylene chloride. Additionally, their chromatograms are very similiar to that of a bulk sample of Asphalt(AS-1 project 9608260) also submitted for analysis, apparently from the same site.

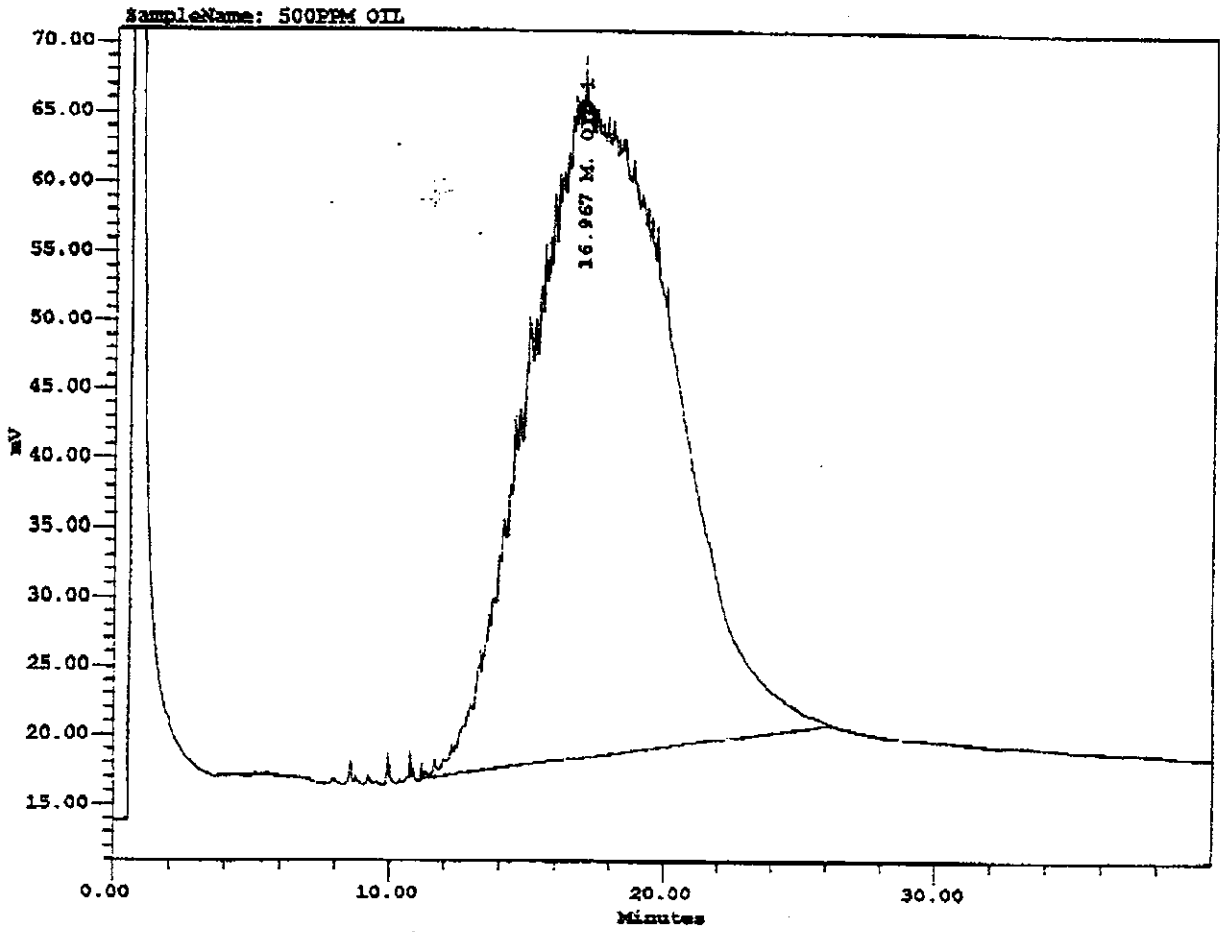
It is quite possible that the source of the hydrocarbon contamination being reported for these samples is entirely from Asphalt.

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/19/96 01:19:35 PM
Date Processed: 08/19/96 03:14:37 PM
Date Printed: August 19, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 3



Quant Report

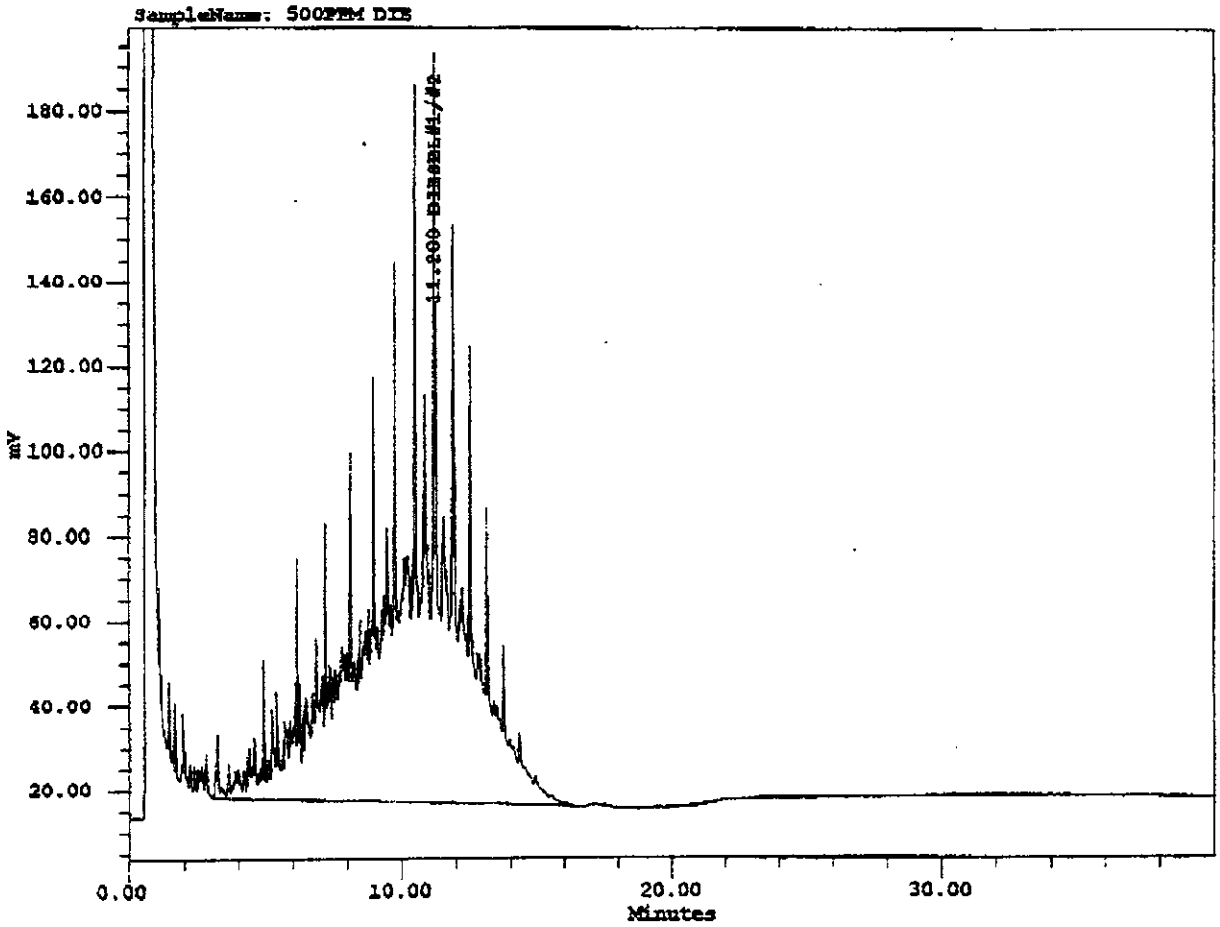
#	Name	Retention Time (min)	Area (uV*sec)	SURR REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	16.967	17639374	0.000	553.453	110.691

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/19/96 11:52:04 AM
Date Processed: 08/19/96 03:14:22 PM
Date Printed: August 19, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 2



Quant Report

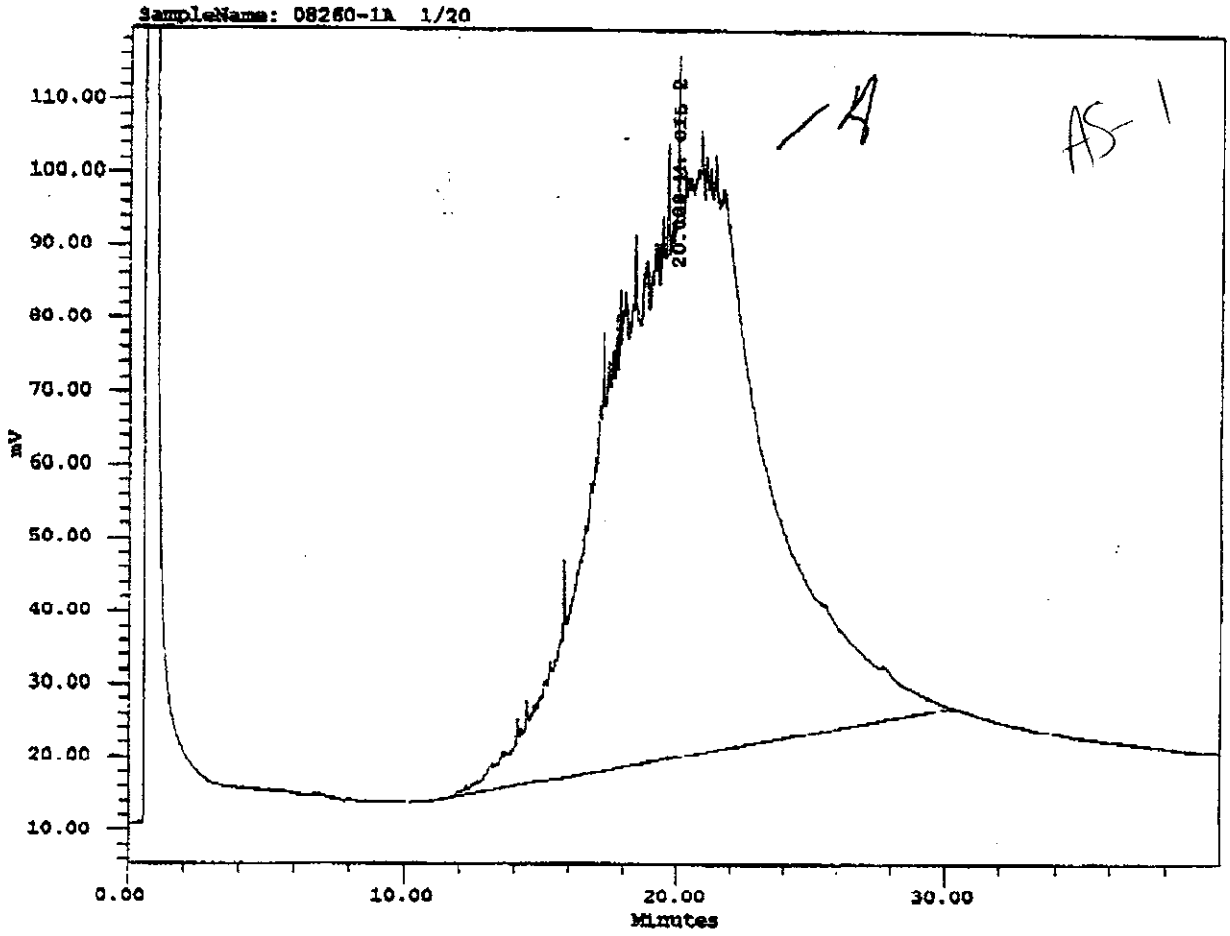
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.200	21353405	0.000	556.344	111.269

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08260-1A 1/20
Date Acquired: 08/23/96 01:04:14 PM
Date Processed: 08/23/96 02:03:50 PM
Date Printed: August 23, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0822
Dilution: 200.00000
SampleWeight: 5.00000
Vial: 11



Quant Report

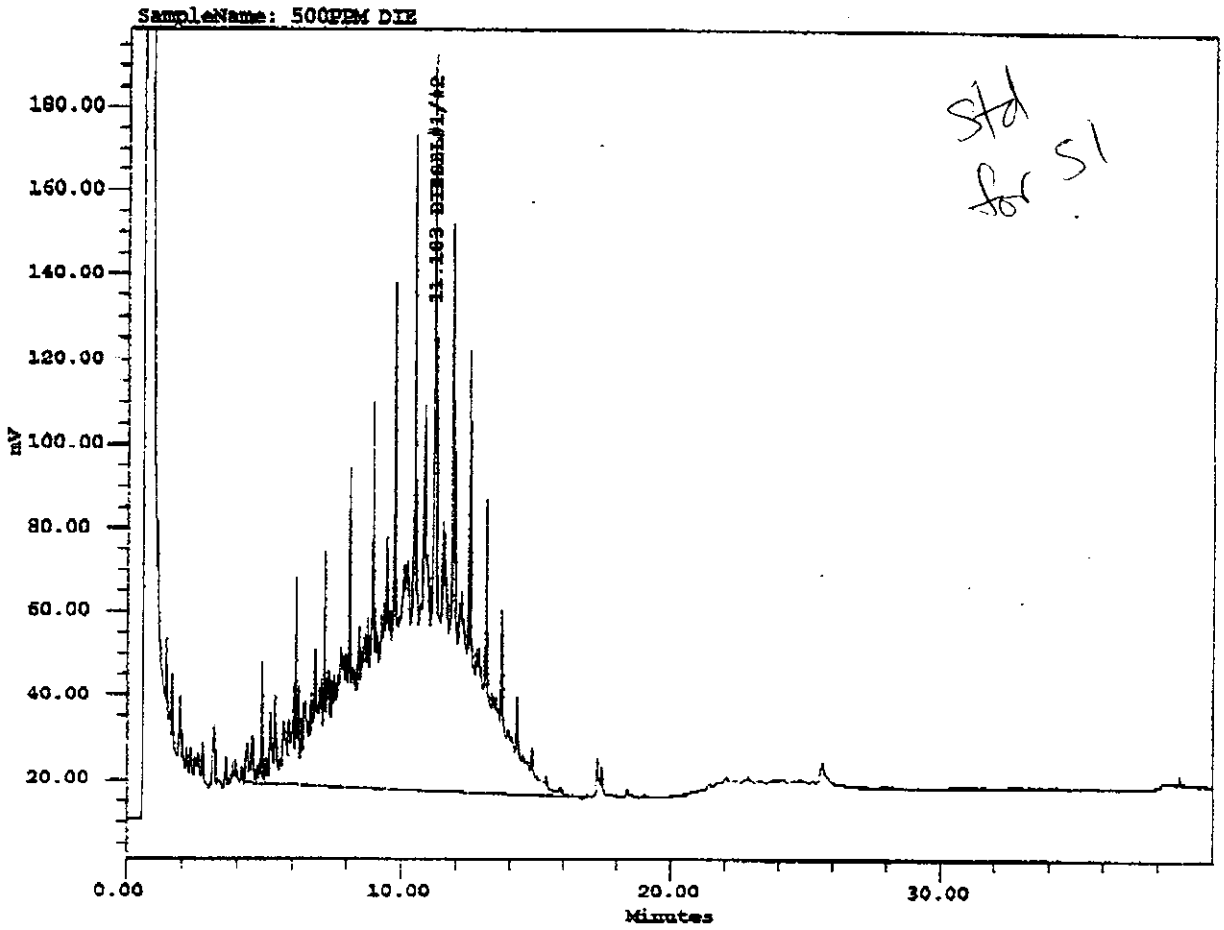
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	20.000	33598045	0.000	1054.172	42166.890

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/22/96 04:07:00 PM
Date Processed: 08/23/96 01:23:42 PM
Date Printed: August 23, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0822
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 2



Quant Report

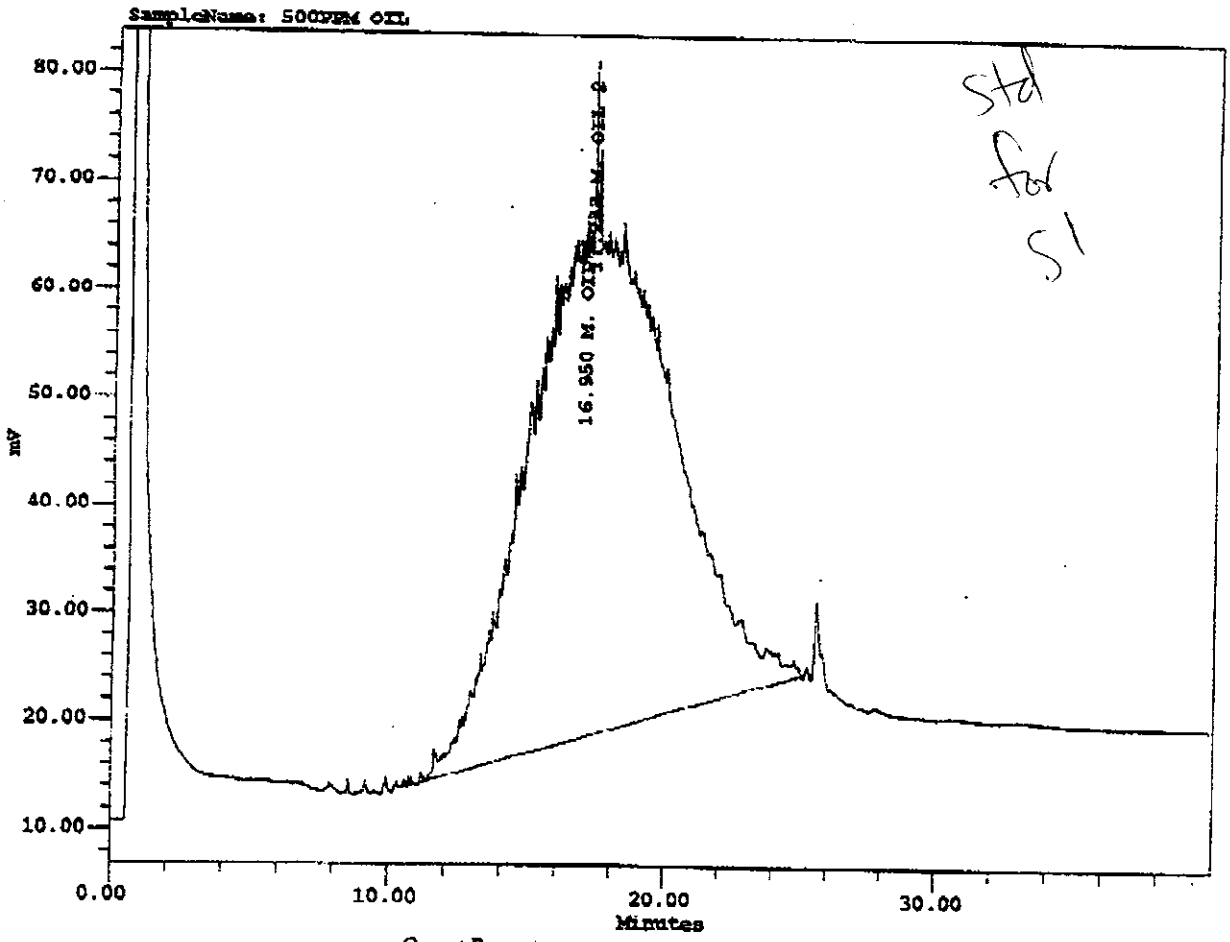
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.183	19132412	0.000	498.476	99.695

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/22/96 05:19:35 PM
Date Processed: 08/23/96 01:24:25 PM
Date Printed: August 23, 1996
Column: DB-5.15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0822
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 3



Quant Report

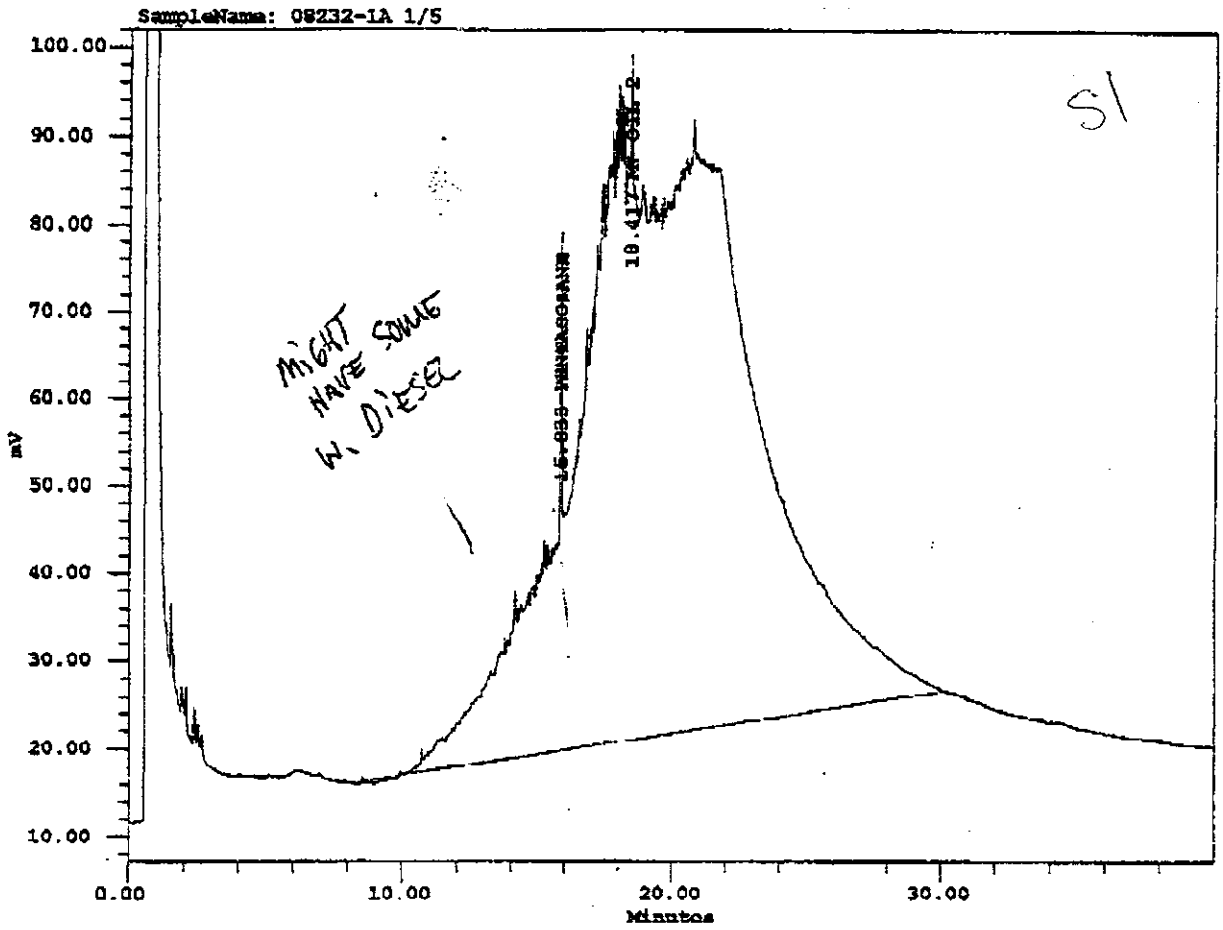
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	16.950	17589557	0.000	551.890	110.378
2	M. OIL 2	17.233	103317	0.000	3.242	0.648

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08232-1A 1/5
Date Acquired: 08/19/96 02:16:54 PM
Date Processed: 08/19/96 03:16:39 PM
Date Printed: August 19, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 50.00000
SampleWeight: 50.00000
Vial: 4



Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	PENTACOSANE	15.833	86567	112.771	4.511	4.511
2	M. OIL 2	18.417	32673630	0.000	1025.168	1025.168

APPENDIX D

Well Permit
Site Health and Safety Plan
ACDEH Inspection Report

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2500 Kirkham Street
Oakland, California

CLIENT
Name Asbury Graphite
Address 2855 Franklin Canyon Phone 510-799-3636
City Rodeo, Ca Zip 94572

APPLICANT
Name Shawn Munger - ENGEO INC. for Kvilhaug Well Drilling
Address 2401 Crow Canyon Rd #200 Phone 510-838-1600
City San Ramon Zip 94583

TYPE OF PROJECT
Well Construction
Cathodic Protection ___
Water Supply ___
Monitoring ___
Geotechnical Investigation
General ___
Contamination X
Well Destruction ___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other Geoprobe

DRILLER'S LICENSE NO. Kvilhaug - 482390

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 2½ in. Depth 25 ft.

ESTIMATED STARTING DATE 8/12/96
ESTIMATED COMPLETION DATE 8/12/96

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 8-7-96

FOR OFFICE USE

PERMIT NUMBER 96594
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 13 Aug 96
Wyman Hong

31992

SITE HEALTH AND SAFETY PLAN

I. PROJECT INFORMATION

Project Number: 4139-F02	**Date:** 8-8-96
Project Name: 2426 - 2500 Kirkham Street	**Client:** Asbury Graphite
Contact: Richard Cameron	**Phone:** 799-6936
Site Location: 2426 - 2500 Kirkham Street - Oakland, California	
Site Description: Former Graphite production facility	

Type of Work:

- ☐ **Soil Borings (geotechnical)**
- ☒ **Soil Borings (environmental)**
- ☐ **Piezometer Installation**
- ☒ **Other**: Soil excavation work and sampling
- ☐ **Monitoring Well Installation**
- ☐ **Domestic/Irrigation Well Installation**
- ☐ **Inclinometer Installation**

Work Activities: Two Geoprobe borings with soil/water sampling; soil excvation; soil sampling

Site Personnel:

Company:	**Responsibility:**
Kvilhaug Well Drilling	Geoprobe drilling
Warren Gomes Excavating	Concrete removal, soil excavation
ENGEO Inc.	Soil/water sampling; excavation observation/sampling

Project Health and Safety Officer:	**Site Health and Safety Officer:**
Shawn Munger	Shawn Munger/Keith Nowell

II. HAZARD EVALUATION

Physical Hazards

- ☐ **Heat**
- ☐ **Oxygen**
- ☒ **Noise**
- ☐ **Traffic**
- ☐ **Explosion/Fire Hazards**
- ☒ **Excavations/Trenches**
- ☒ **Slip, Trip, Fall**
- ☐ **Underground Hazards**

☒ Equipment ☐ Overhead Hazards

Expected Chemical Hazards

☐ Not Applicable

Chemical Name (CAS)	PEL/TLV (ppm)	IDLH (ppm)	LEL %	Field Criteria
Diesel/Motor Oil	N/A	N/A	N/A	See attached

III. PERSONAL PROTECTIVE EQUIPMENT

Level of Protection Equipment

A ☐ **B** ☐ **C** ☐ **D** ☐ **Mod. D** ☒

Personal Protective Equipment

R = Required	*A = As Needed*
A Hard Hat	A Safety Glasses
R Safety Boots	A Respirator (Type) ½ mask
__ Safety Vest	A Filter (Type) GMA
R Hearing Protection	R Gloves (Type) Nitrile
A Tyvek Coveralls	__ Other

Field Monitoring Equipment:

TEM 580A PID (10.0ev)

Site Control Measures/Exclusion Zones:

None Necessary

IV. EMERGENCY RESPONSE

Emergency Response Plans:

Stop operations; evaluate conditions, administer first aid; call for emergency personnel; transport injured

Hospital: Meritt Hospital	**Phone:** 655-4000
Address: Hawthorne and Webster St. - Oakland	
Fire Department: 911	**Police:** 911

Site Resources:

Water Supply	**Yes**	☒	**No**	☐
Telephone	**Yes**	☒	**No**	☐
Radio	**Yes**	☒	**No**	☐
Other:				

Emergency Contact:

Name: Shawn Munger	**Phone:** 697-1192
Company: ENGEO Incorporated	

Comments:

Preparer Signatures/Company:	**Date**
Shawn Munger ENGEO Inc.	8-8-96

TABLE I

HYDROCARBON VAPOR CRITERIA AND RESPONSES

Hydrocarbon Concentrations	Response
<30 ppmv	No special action.
30 ppmv - 300 ppmv	Half-mask Organic Vapor (OV) respirators worn by all in work area.
>300 ppmv	Discontinue work activities and evacuate area. Evaluate measures to subdue excessive vapor levels.

* in parts-per-million by volume within breathing zone, measured by photoionization detector equipped with 10.04 eV bulb.

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 # 750 Site Name Asbury Graphite Today's Date 8/28/96

Site Address 2500 Kirkham St.

City Oakland Zip 94607 Phone

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

Site Visit File: sample the excavation

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: 10:00 arrived onsite.
Met Keith Nowell of Enace. Excavation is 8' x 58' long x 4' deep. 10:00-10:55 Sampled excavation
11:00-11:25 Sampled stockpile (inside bldg). It's ~50 yd³
Did two 3-pt composite samples. SP1 A-C + SP2 A-C.
Analyze samples as per Enace workplan: BTEX, TPH-d + O+G (5520).

11:35

X1 bottom ~4' bgs
X2
X3
X4 wall ~2' bgs
10:40 X5
10:45 X6
10:50 X7

Contact Keith Nowell
Title
Signature Keith C. Nowell

Inspector Jennifer Eberle
Signature [illegible]

II, III

12, F2

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 8, 1996
SLIC STID 250

Attn: Richard Cameron
Asbury Graphite Inc. Of California
2855 Franklin Canyon Rd.
Rodeo CA 94572-2116

RE: **CASE CLOSURE LETTER**
former Graphite Mill, 2500 Kirkham St., Oakland CA 94607

Dear Mr. Cameron,

On 10/7/96, I conducted an inspection of the above referenced site. It has been confirmed that the stockpiled soil has been backfilled in the excavation on the northern side of the building, and this area has been paved over. In addition, the remainder of your materials will be removed from the premises. This fulfills the remaining requirements for closure.

Based on the available information and with the provision that the information provided to this agency was accurate and representative of site conditions, **no further action related to the asphaltic fill material is required.** Please be aware that this does not free present or future landowners or operators from cleanup responsibilities in the event that new information indicates a pollutant problem on the site or originating from the site. If a change in land use (currently industrial/commercial) is proposed, the owner must promptly notify this agency as well as the City of Oakland Dept. Of Public Works.

As stated in my last letter, dated 9/19/96, the 1996 subsurface investigation concluded that the Total Recoverable Petroleum Oil (SM 503) discovered in 1990 from borings emplaced in the north property area is likely a result of asphaltic material within fill material. A waste extraction test performed on this (fill) material indicates that it does not appear to pose a threat to groundwater. Although low concentrations of TPH-diesel are present in groundwater, the absence of BTEX in all of the samples and the lack of potable uses of groundwater in the area indicate **that there is no significant threat to human health or the environment.**

Joinery Structures will be sent a summary of charges, or how their oversight dollars were spent. If you have any questions, please contact me at 510-567-6761.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Kevin Graves, RWQCB
Gloria and Paul Discoe, Joinery Structures, 2653 Willow St., Oakland CA 94607
Shawn Munger, Engeo Inc., 2401 Crow Canyon Rd., Suite 200, San Ramon CA 94583-1545
John Swickard, Industrial Properties, 111 San Leandro Blvd., San Leandro CA 94577
Jennifer Eberle/file

je.slic.250clos.ltr

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

RECEIVED

ENGEO

96 SEP 17 ... 09

ENGEO INCORPORATED
2401 CROW CANYON RD #200
SAN RAMON, CA 94583

REPORT DATE: 09/10/96

DATE(S) SAMPLED: 08/28/96

DATE RECEIVED: 08/28/96

AEN WORK ORDER: 9608385

ATTN: SHAWN MUNGER
CLIENT PROJ. ID: 4139-F2
CLIENT PROJ. NAME: 2500 KIRKHAM

PROJECT SUMMARY:

On August 28, 1996, this laboratory received 13 soil sample(s).

Client requested 6 sample(s) be composited and analyzed with 7 discrete samples for chemical parameters. Results of analysis are summarized on the following page(s). Chromatograms are included. Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

ENGEO INCORPORATED

SAMPLE ID: X-1
AEN LAB NO: 9608385-01
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	1,900 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	530 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-2
AEN LAB NO: 9608385-02
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/29/96
Toluene	108-88-3	ND	5	ug/kg	08/29/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/29/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/29/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	830 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	270 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-3
AEN LAB NO: 9608385-03
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	1,800 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	2,000 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-4
AEN LAB NO: 9608385-04
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/29/96
Toluene	108-88-3	ND	5	ug/kg	08/29/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/29/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/29/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	2,500 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	480 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-5
AEN LAB NO: 9608385-05
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/31/96
TPH as Oil	GC-FID	57 *	5	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	10 *	10	mg/kg	09/02/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-6
AEN LAB NO: 9608385-06
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	2,900 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	1,200 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: X-7
AEN LAB NO: 9608385-07
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	5	mg/kg	08/31/96
TPH as Oil	GC-FID	200 *	20	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	80 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: SP-1(ABC)
AEN LAB NO: 9608385-08
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	50	mg/kg	08/31/96
TPH as Oil	GC-FID	1,200 *	200	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	240 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: SP-2(ABC)
AEN LAB NO: 9608385-09
AEN WORK ORDER: 9608385
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/28/96
DATE RECEIVED: 08/28/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/30/96
Toluene	108-88-3	ND	5	ug/kg	08/30/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/30/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/30/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/29/96
TPH as Diesel	GC-FID	ND	20	mg/kg	08/31/96
TPH as Oil	GC-FID	930 *	100	mg/kg	08/31/96
#Soil Extrn for HCs	IR	-		Extrn Date	08/31/96
Hydrocarbons (IR)	SM 5520F	730 *	10	mg/kg	09/02/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 11 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9608385

CLIENT PROJECT ID: 4139-F2

Quality Control Summary

Samples X-2, X-3, X-4, X-6, X-7, SP-1(ABC), and SP-2(ABC): Samples appear to contain asphalt, as evidenced by their chromatographic patterns, hydrocarbon range (extending past the motor oil range), and their content of black solids that dissolve and produce a yellow color in methylene chloride. Additionally, their chromatograms are very similar to that of a bulk sample of asphalt (sample AS-1) also submitted for analysis (AEN project 9608260), apparently from the same site. It is quite possible that the source of the hydrocarbon contamination being reported for these samples is entirely from asphalt.

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608385
DATE EXTRACTED: 08/31/96
DATE ANALYZED: 09/02/96
SAMPLE SPIKED: LCS
INSTRUMENT: IR
MATRIX: SOIL

Laboratory Control Sample

Analyte	Spike Added (mg/kg)	Average Percent Recovery	QC Limits Percent Recovery
Oil	230	103	74-115

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3550 GCFID

AEN JOB NO: 9608385
DATE EXTRACTED: 08/29/96
INSTRUMENT: C
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/31/96	X-1	01	D
08/31/96	X-2	02	D
08/31/96	X-3	03	D
08/31/96	X-4	04	D
08/31/96	X-5	05	111
08/31/96	X-6	06	D
08/31/96	X-7	07	115
08/31/96	SP-1(ABC)	08	D
08/31/96	SP-2(ABC)	09	77
QC Limits:			55-115

D: Surrogates diluted out.

DATE EXTRACTED: 08/29/96
DATE ANALYZED: 09/02/96
SAMPLE SPIKED: 9608293-02
INSTRUMENT: A

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	40.0	96	4	50-115	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9608385
INSTRUMENT: E
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/30/96	X-1	01	106
08/29/96	X-2	02	125
08/30/96	X-3	03	106
08/29/96	X-4	04	107
08/30/96	X-5	05	107
08/30/96	X-6	06	114
08/30/96	X-7	07	107
08/30/96	SP-1(ABC)	08	115
08/30/96	SP-2(ABC)	09	106
QC Limits:			70-130

DATE ANALYZED: 08/30/96
SAMPLE SPIKED: 9608344-09
INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	34.0	93	4	79-113	26
Toluene	108	96	2	84-110	20
Hydrocarbons as Gasoline	1000	110	4	60-126	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

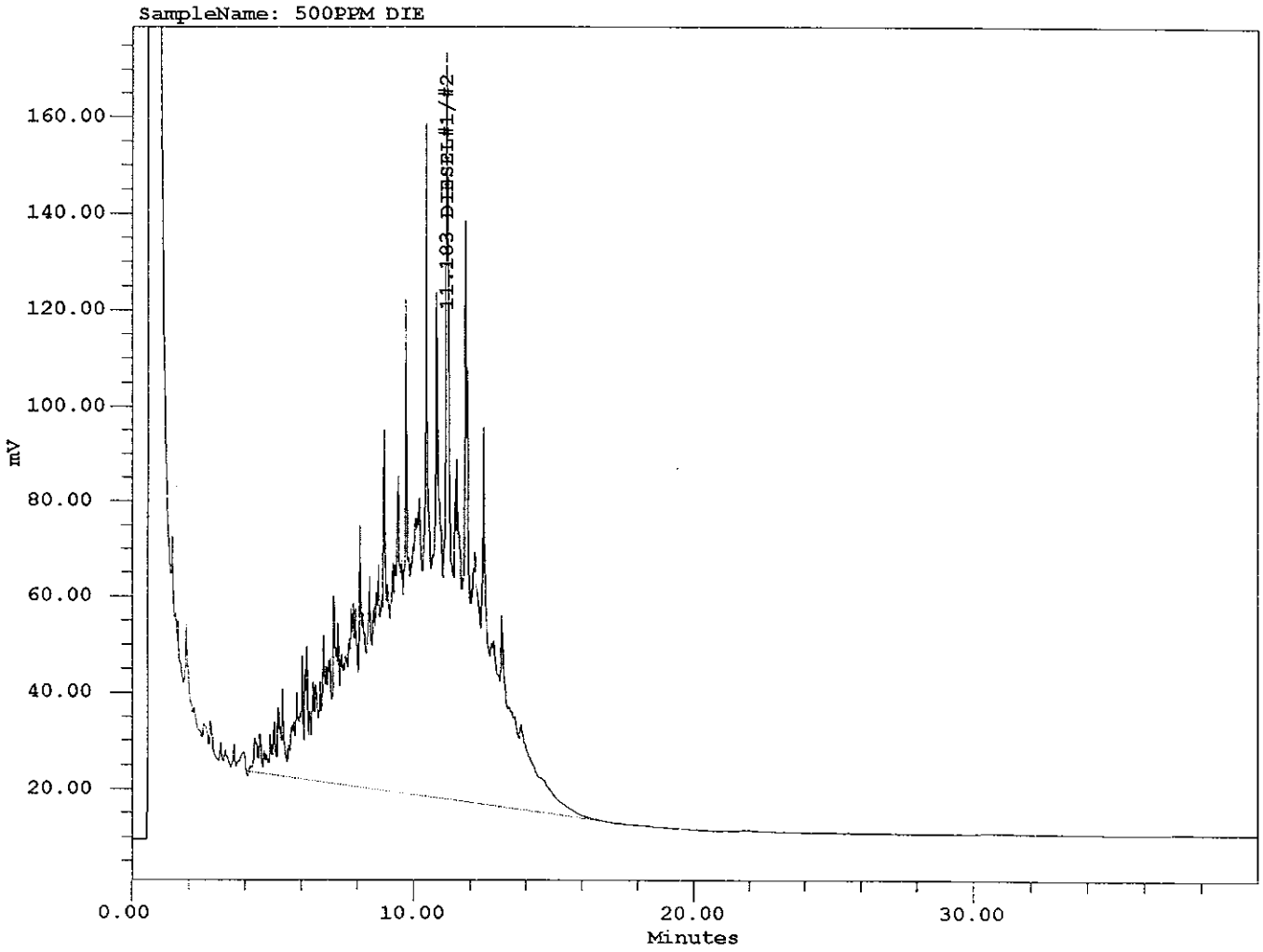
*** END OF REPORT ***

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/30/96 06:13:11 PM
Date Processed: 09/01/96 05:12:33 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 2



Quant Report

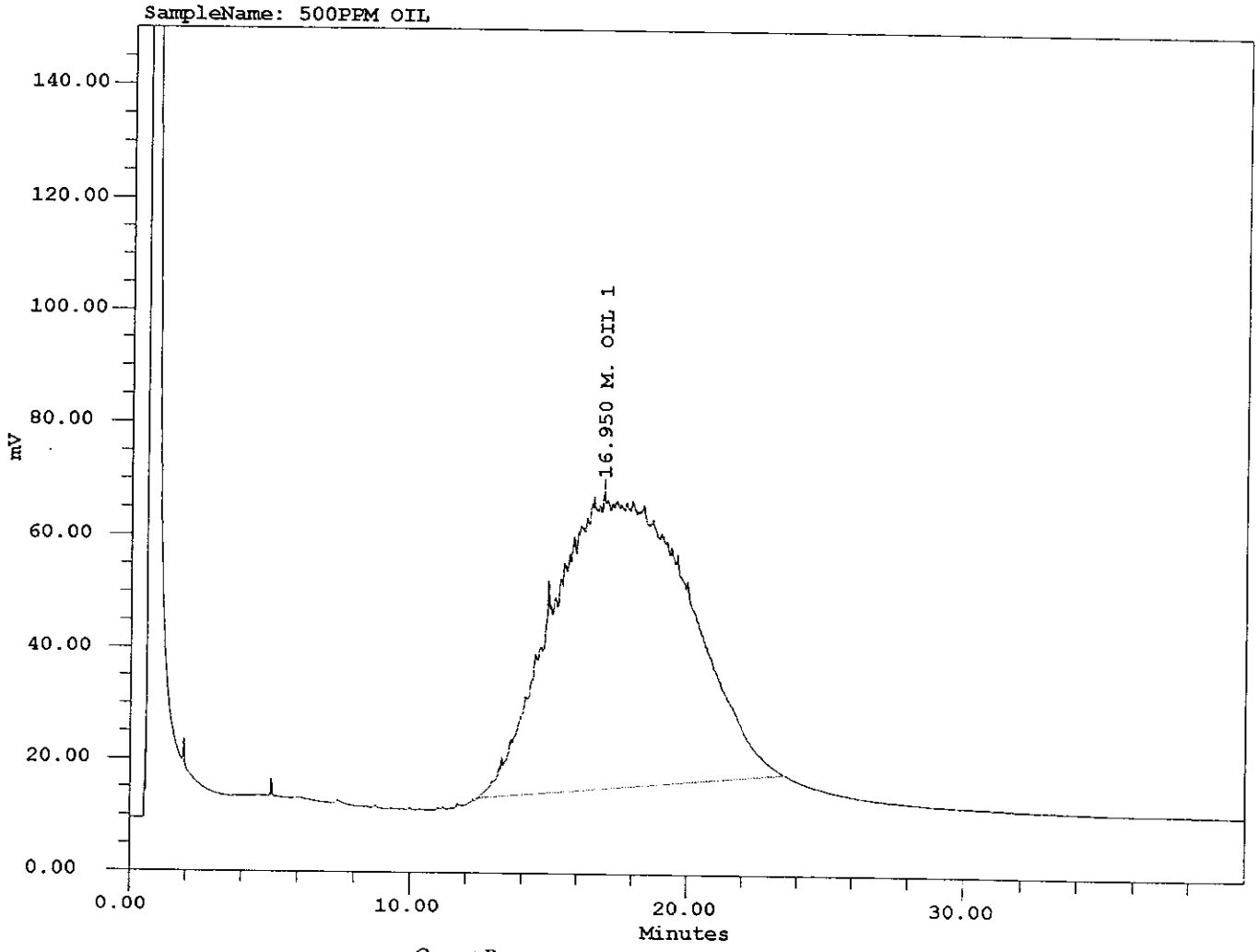
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.183	20508109	0.000	534.318	106.864

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/30/96 07:13:16 PM
Date Processed: 09/01/96 05:13:12 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 3



Quant Report

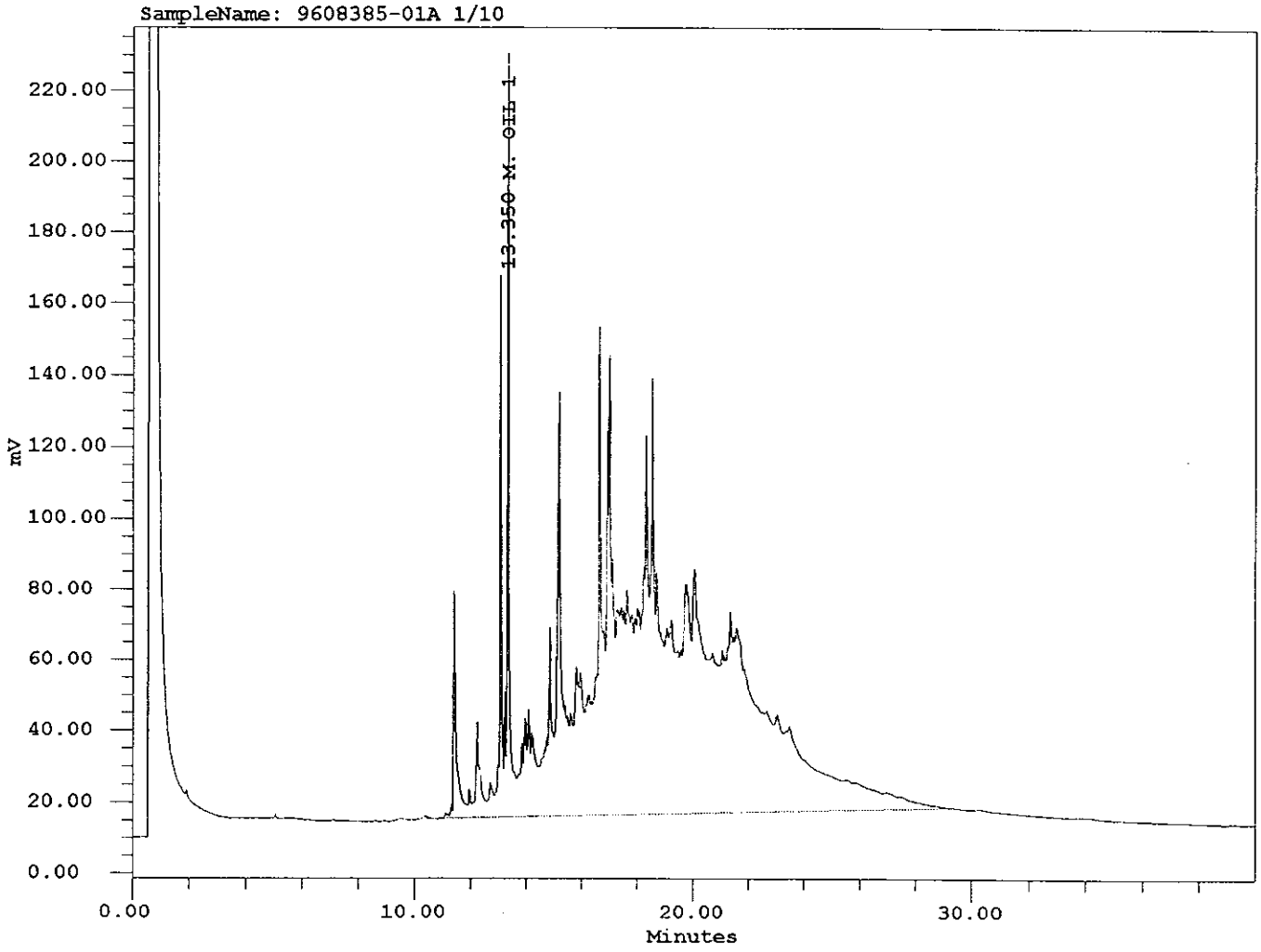
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	16.950	18169978	0.000	570.101	114.020

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-01A 1/10
Date Acquired: 08/31/96 12:02:18 AM
Date Processed: 09/01/96 05:15:58 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 8



Quant Report

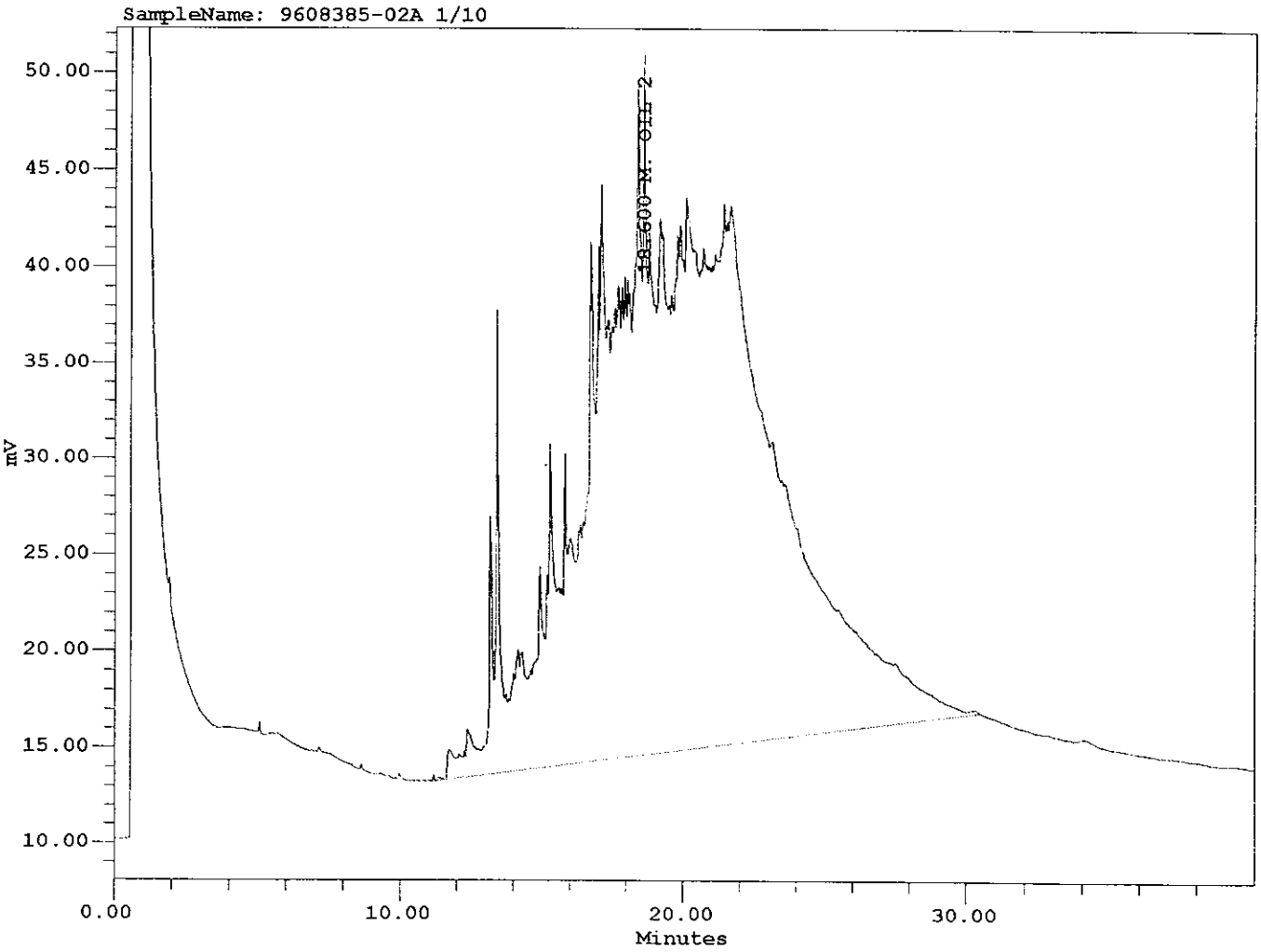
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	13.350	30085105	0.000	943.950	1887.900

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-02A 1/10
Date Acquired: 08/31/96 12:58:57 AM
Date Processed: 09/01/96 05:16:14 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 9



Quant Report

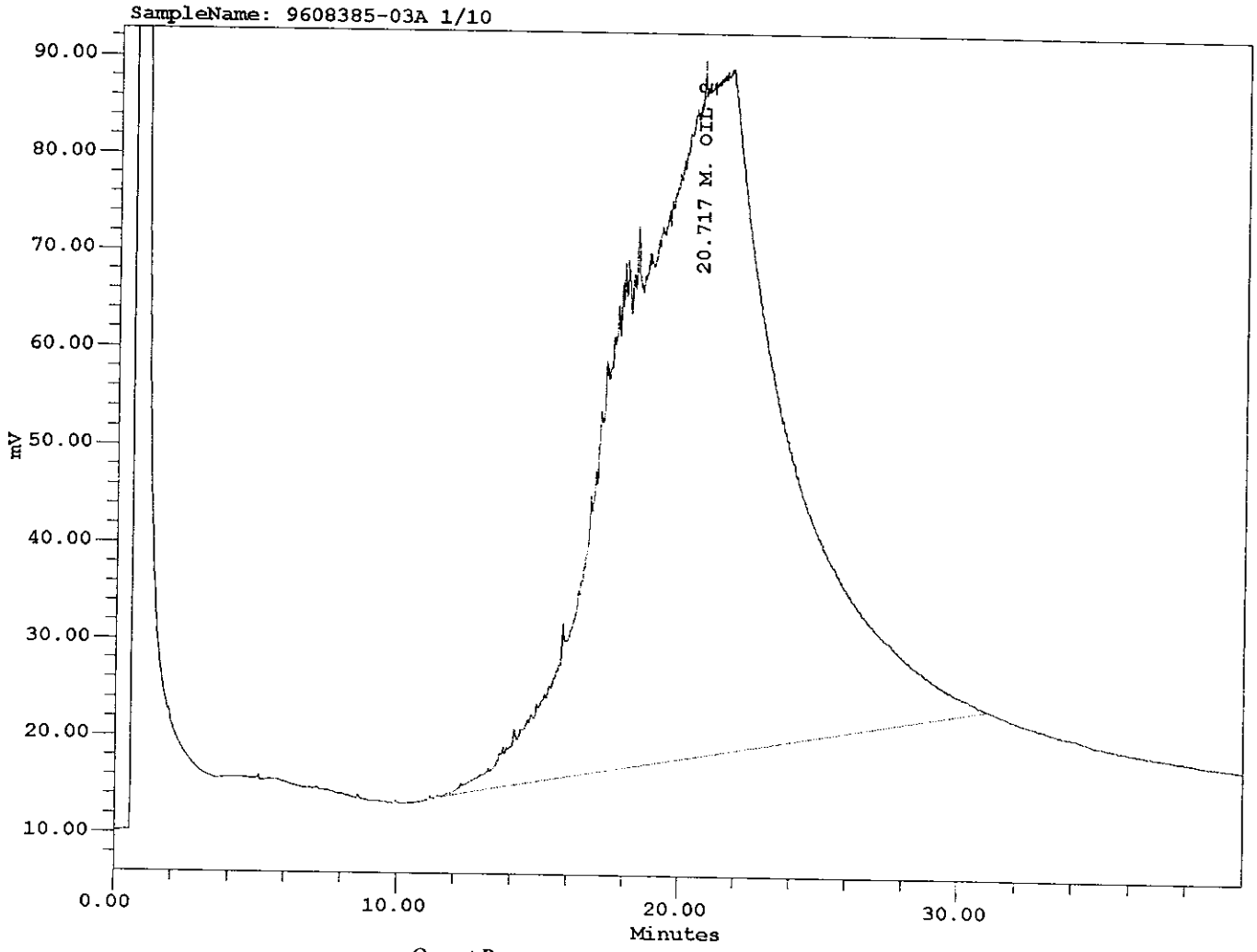
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	18.600	13274433	0.000	416.499	832.997

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-03A 1/10
Date Acquired: 08/31/96 01:55:24 AM
Date Processed: 09/01/96 05:16:32 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 10



Quant Report

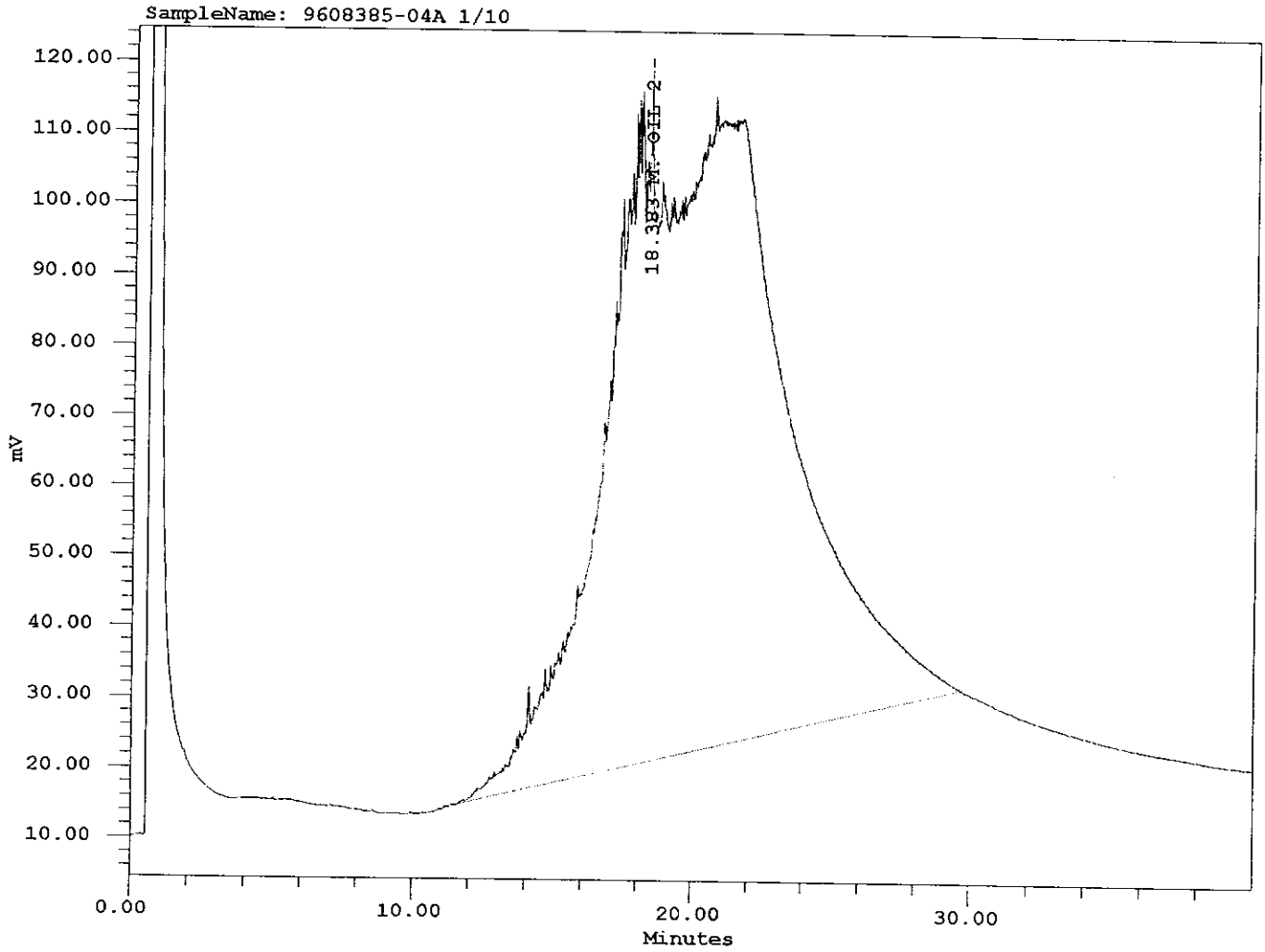
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	20.717	29060357	0.000	911.798	1823.596

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-04A 1/10
Date Acquired: 08/31/96 02:51:40 AM
Date Processed: 09/01/96 05:16:46 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 11



Quant Report

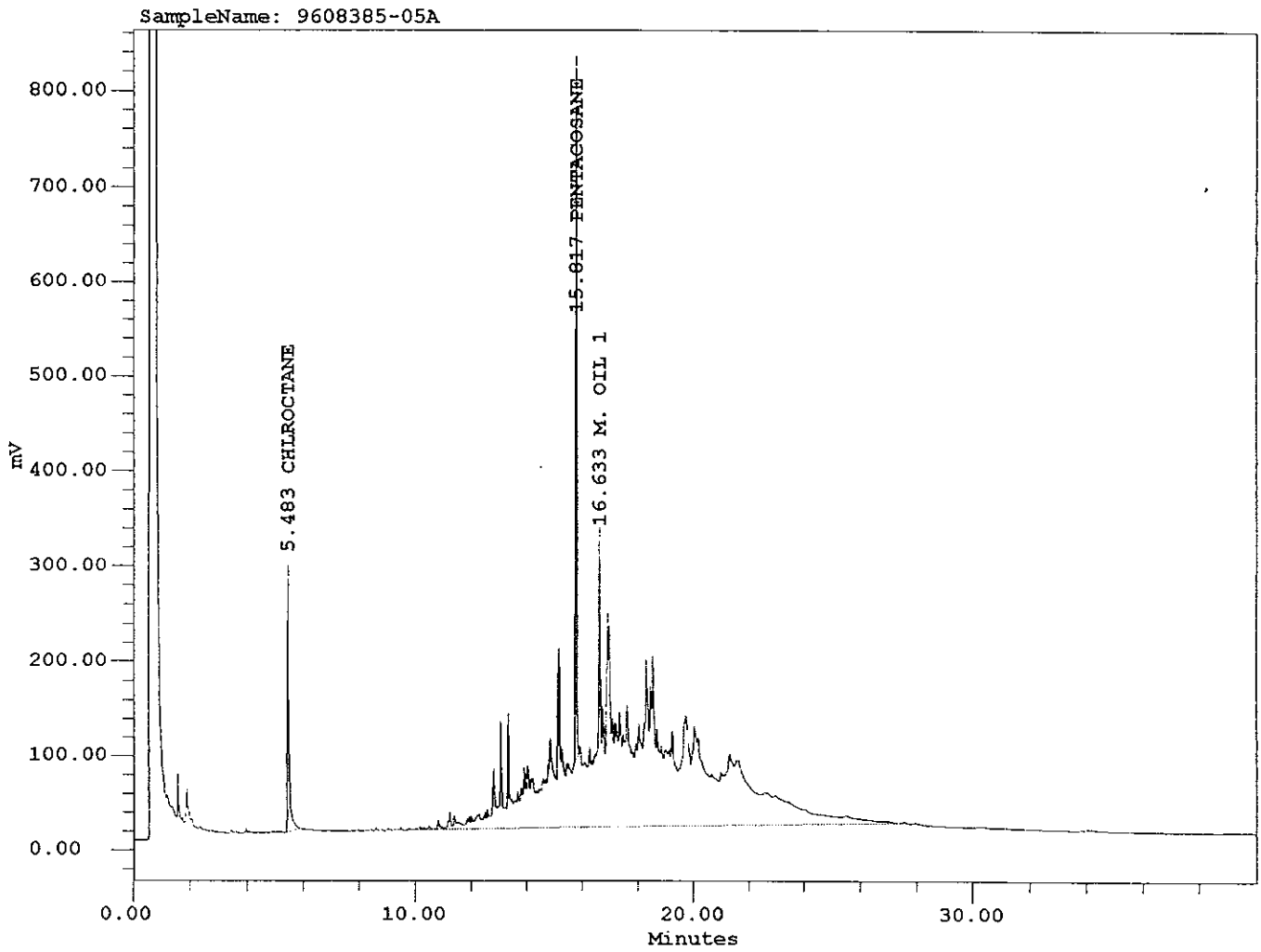
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	18.383	40104828	0.000	1258.329	2516.658

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-05A
Date Acquired: 08/31/96 03:47:51 AM
Date Processed: 09/01/96 05:17:14 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 12



Quant Report

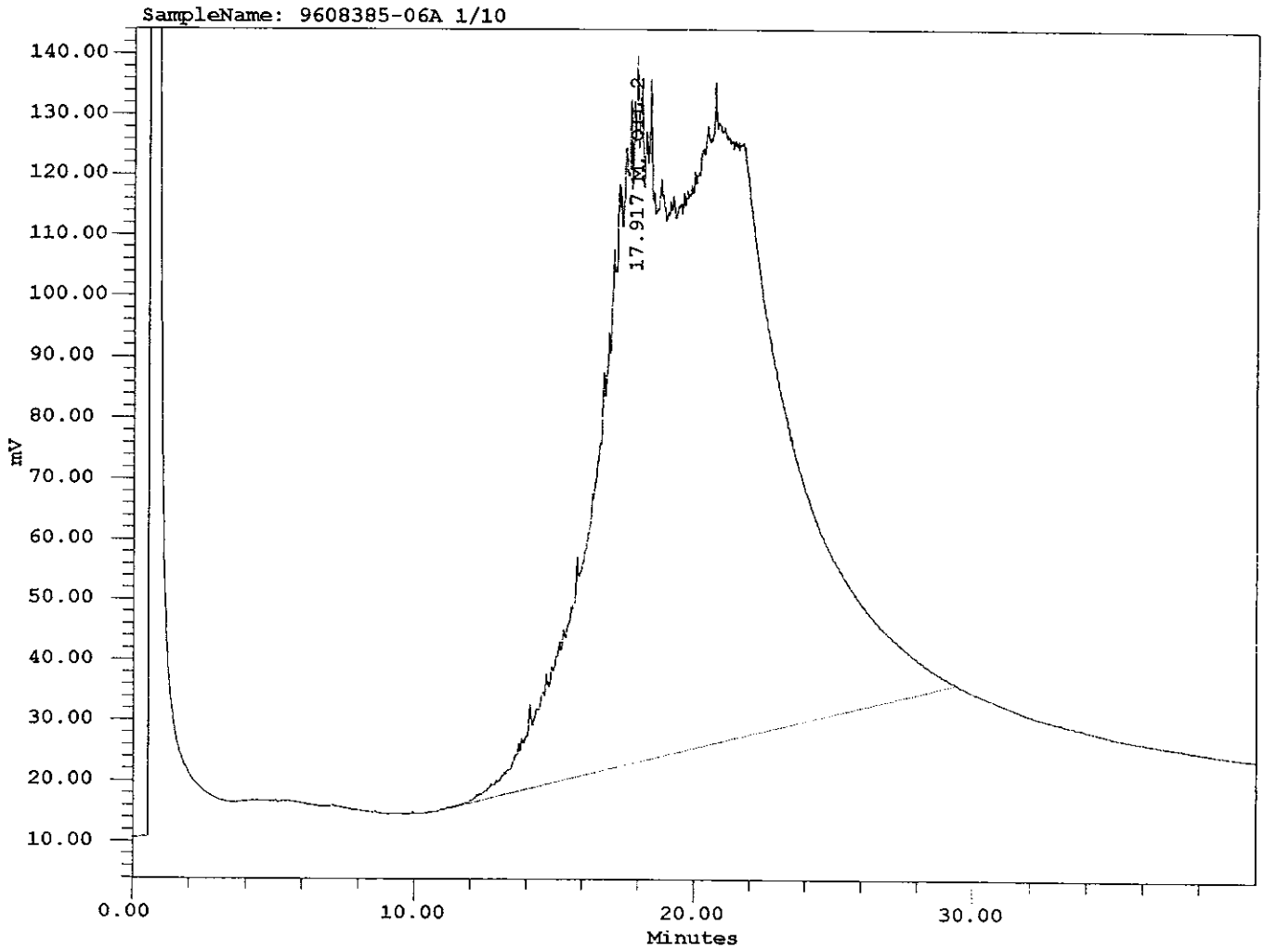
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1030541	0.000	71.365	2.855
2	PENTACOSANE	15.817	2122561	110.602	110.602	4.424
3	M. OIL 1	16.633	45731994	0.000	1434.887	57.395

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-06A 1/10
Date Acquired: 08/31/96 04:43:41 AM
Date Processed: 09/01/96 05:17:28 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 13



Quant Report

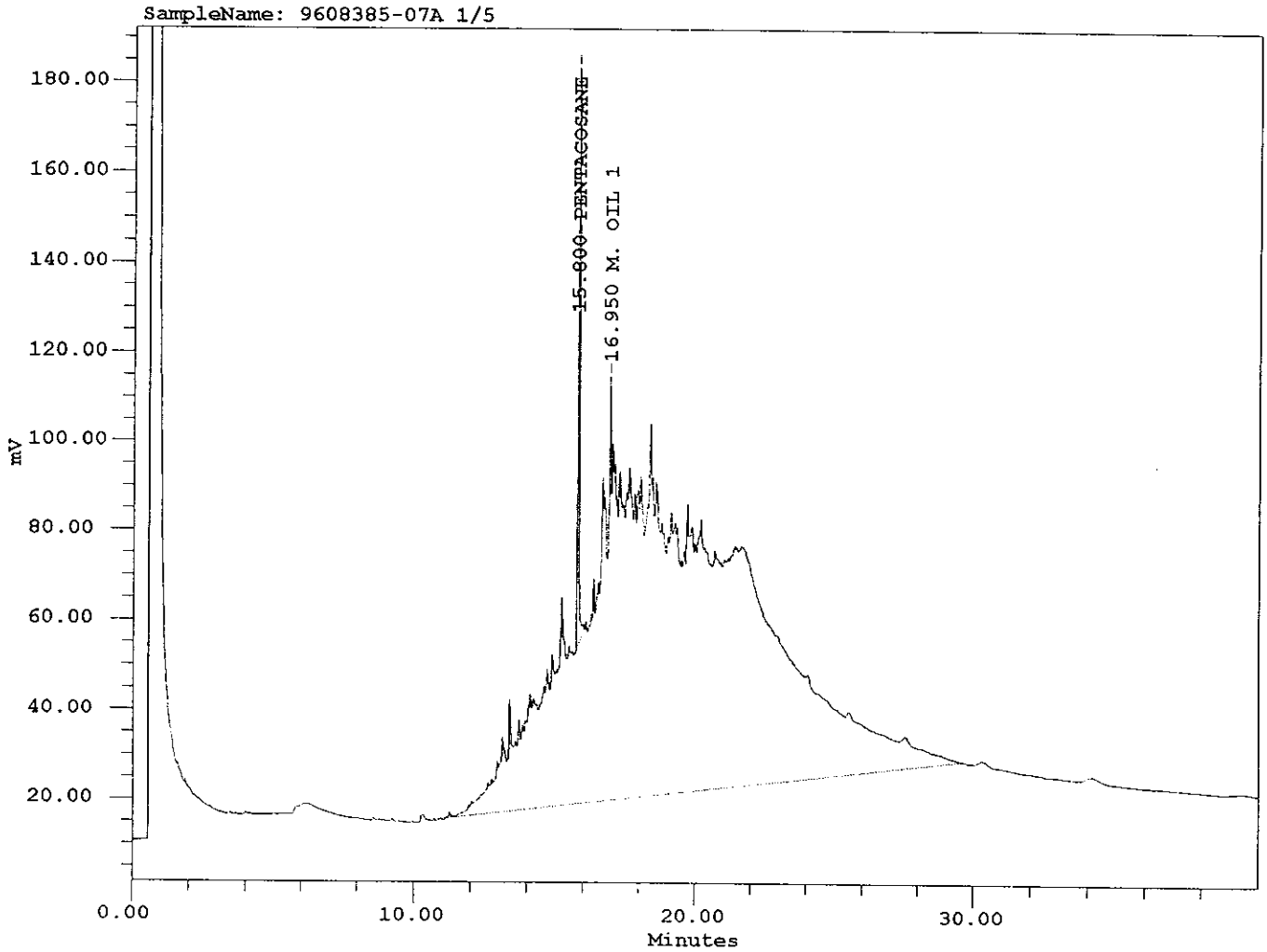
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	17.917	46339180	0.000	1453.938	2907.876

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-07A 1/5
Date Acquired: 08/31/96 05:39:32 AM
Date Processed: 09/01/96 05:17:56 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 10.00000
SampleWeight: 50.00000
Vial: 14



Quant Report

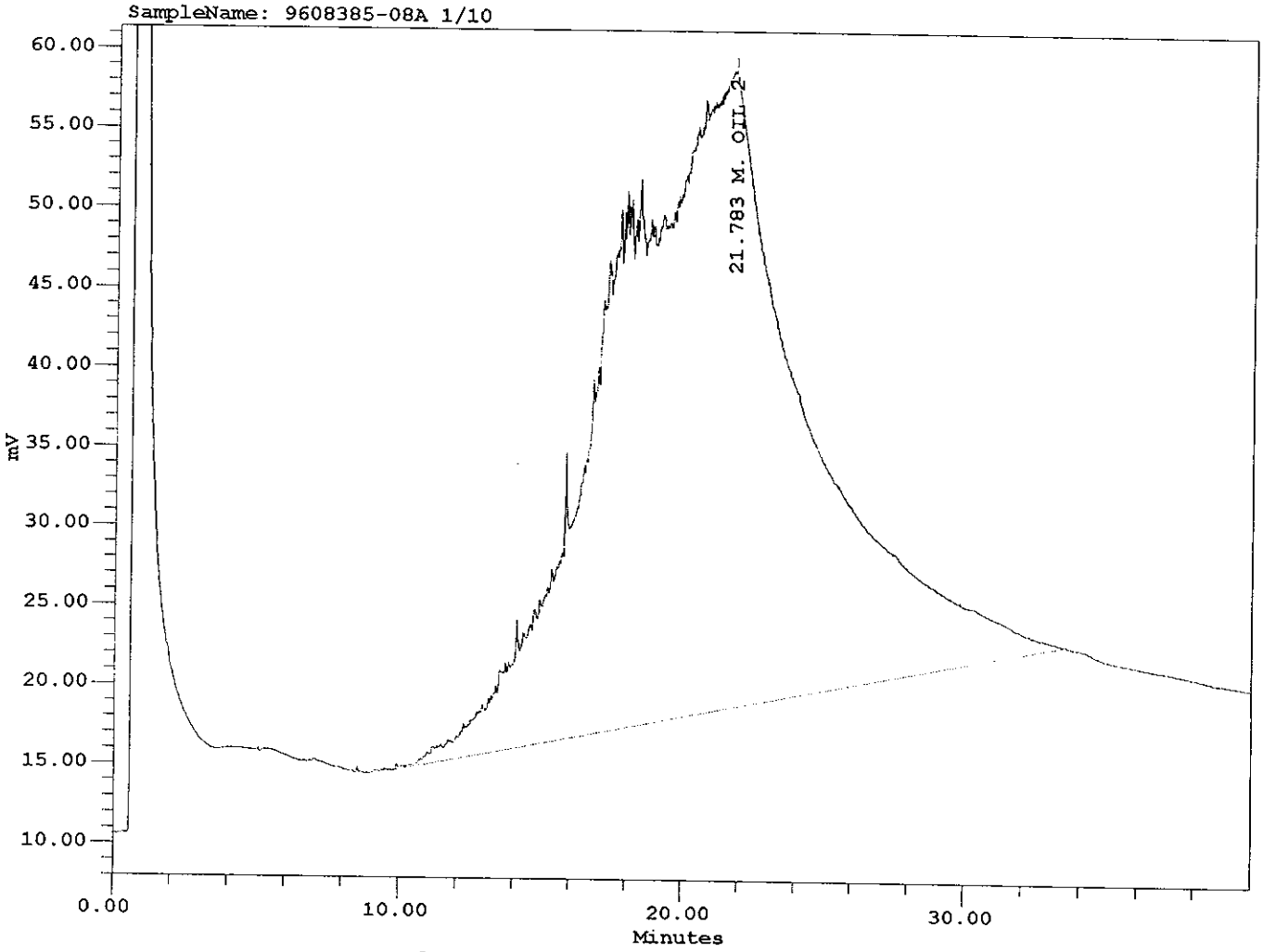
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	PENTACOSANE	15.800	439675	114.553	22.911	4.582
2	M. OIL 1	16.950	32243809	0.000	1011.682	202.336

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-08A 1/10
Date Acquired: 08/31/96 06:35:29 AM
Date Processed: 09/01/96 05:18:17 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 100.00000
SampleWeight: 50.00000
Vial: 15



Quant Report

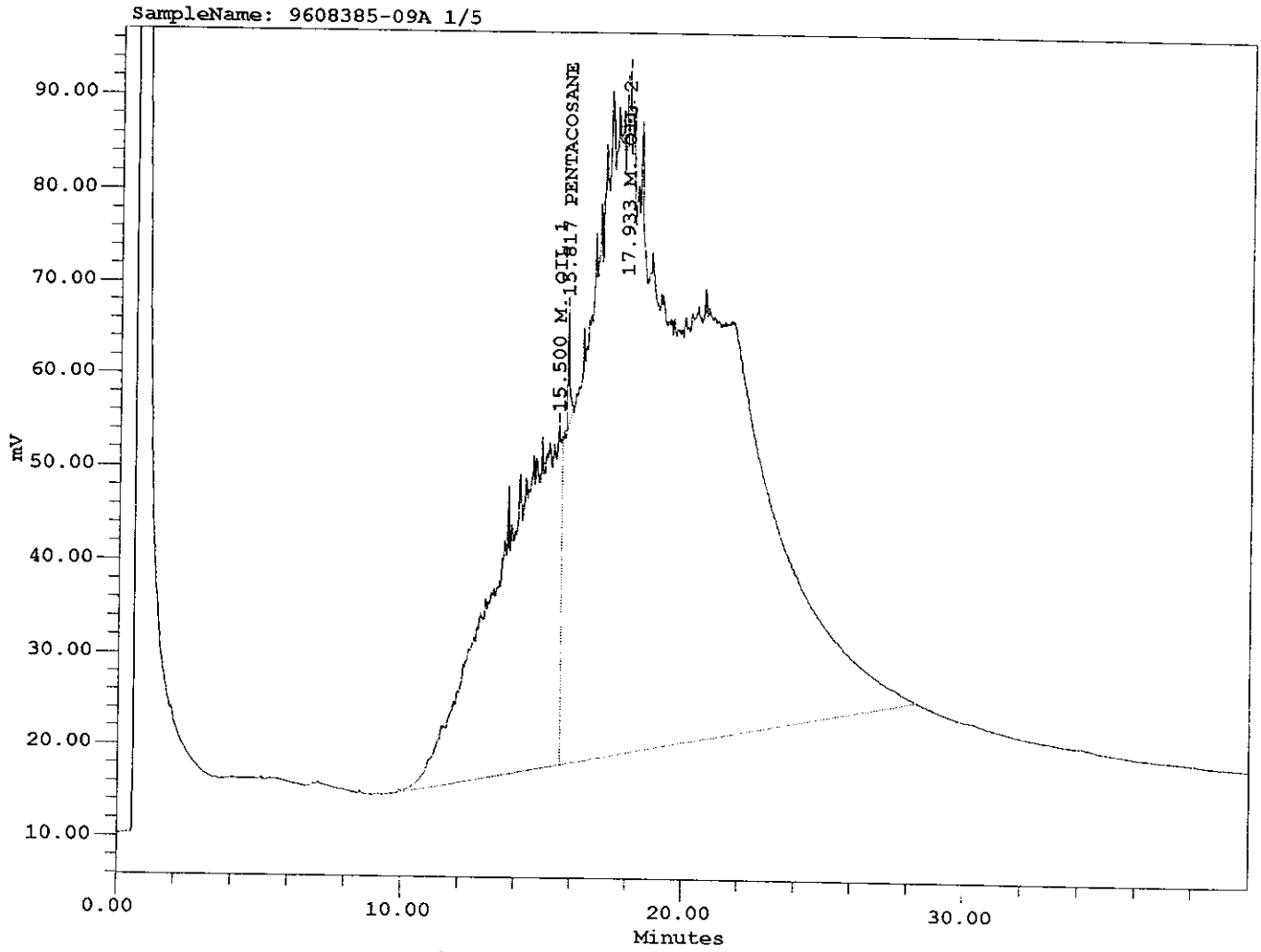
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	21.783	19587895	0.000	614.590	1229.180

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 9608385-09A 1/5
Date Acquired: 08/31/96 10:19:29 AM
Date Processed: 09/01/96 05:34:13 PM
Date Printed: September 3, 1996
Column: RTX-1,15m,0.53mm ID,0.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0830
Dilution: 50.00000
SampleWeight: 50.00000
Vial: 19



Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	15.500	5785558	0.000	181.528	181.528
2	PENTACOSANE	15.817	58863	76.681	3.067	3.067
3	M. OIL 2	17.933	23846568	0.000	748.210	748.210

9608385

ENGEO
INCORPORATED
2401 CROW CANYON ROAD, SUITE 200
SAN RAMON, CALIFORNIA 94583
PHONE (510) 838-1600

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: 4139-F2
PROJECT NAME: 2500 Kirkham
SAMPLED BY: (SIGNATURE) Keith Nowell

	SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	TPH – GASOLINE (EPA 8015/5030)	TPH – DIESEL (EPA 8015/3550/3510)	PURGEABLE AROMATICS BTEX (EPA 602/8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 625.8270)	TOTAL OIL & GREASE (SMWW 5520(F).)	OC PESTICIDES/PCB (EPA 608, 8080)	OP PESTICIDES (EPA 614/8140)	TITLE 26 METALS (17)	PRIORITY METALS (13)	REMARKS REQUIRED DETECTION LIMITS
01A	X-1	8/28/96	10:10	Soil	1	2x6"	Ice		X	X				X					
02A	X-2	8/28/96	10:15	Soil	1	2x6"	Ice		X	X				X					
03A	X-3	8/28/96	10:25	Soil	1	2x6"	Ice		X	X				X					
04A	X-4	8/28/96	10:30	Soil	1	2x6"	Ice		X	X				X					
05A	X-5	8/28/96	10:35	Soil	1	2x6"	Ice		X	X				X					
06A	X-6	8/28/96	10:40	Soil	1	2x6"	Ice		X	X				X					
07A	X-7	8/28/96	10:50	Soil	1	2x6"	Ice		X	X				X					
08A	SP-1	8/28/96	11:10	Soil	3	2x6"	Ice		X	X				X					Composite A, B, C.
09A	SP-2	8/28/96	11:25	Soil	3	2x6"	Ice		X	X				X					Composite A, B, C.

Send Results to Shawn Monger

RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
Keith E. Nowell	8/29/96 1615	Ronald C. Johnson			
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)
RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE/TIME	REMARKS	
				RUSH -- Need results by 10AM, 9/03/96	

DISTRIBUTION: ORIGINAL ACCOMPANIES SHIPMENT; COPY TO PROJECT FIELD FILES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

ENGEO INCORPORATED
2401 CROW CANYON RD #200
SAN RAMON, CA 94583

ATTN: SHAWN MUNGER
CLIENT PROJ. ID: 4139-F2

P.O. NUMBER: 4139-F2

REPORT DATE: 09/10/96

DATE(S) SAMPLED: 08/16/96

DATE RECEIVED: 08/16/96

AEN WORK ORDER: 9608232

PROJECT SUMMARY:

On August 16, 1996, this laboratory received 1 soil sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

ENGEO INCORPORATED

SAMPLE ID: S1
AEN LAB NO: 9608232-01A
AEN WORK ORDER: 9608232
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/16/96
DATE RECEIVED: 08/16/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#CA WET w/Deionized Water	CA Title 22	-		Extrn Date	08/20/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/16/96
TPH as Diesel	GC-FID	ND	20	mg/kg	08/19/96
TPH as Oil	GC-FID	1,000 *	100	mg/kg	08/19/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/17/96
Hydrocarbons (Gravimetric)	SM 5520F	420 *	30	mg/kg	08/18/96

RLs elevated for diesel/oil due to high levels of target compounds. Sample run at dilution. See page 4 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: S1
AEN LAB NO: 9608232-01B
AEN WORK ORDER: 9608232
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/16/96
DATE RECEIVED: 08/16/96
REPORT DATE: 09/10/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH DI H2O	EPA 3510	-		Extrn Date	08/23/96
TPH as Oil in DI/WET Ext	GC-FID	ND	0.8	mg/L	08/23/96
TPH Diesel in DI/WET Ext	GC-FID	ND	0.2	mg/L	08/23/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9608232

CLIENT PROJECT ID: 4139-F2

Quality Control Summary

Sample S-1: Sample appears to contain asphalt, as evidenced by its chromatographic pattern, hydrocarbon range (extending past the motor oil range), and its content of black solids that dissolve and produce a yellow color in methylene chloride. Additionally, sample chromatogram is very similar to that of a bulk sample of asphalt (sample AS-1) also submitted for analysis (AEN project 9608260), apparently from the same site. It is quite possible that the source of the hydrocarbon contamination being reported for this sample is entirely from asphalt.

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608232
DATE EXTRACTED: 08/17/96
DATE ANALYZED: 08/18/96
SAMPLE SPIKED: LCS
INSTRUMENT: GRAVIMETRIC
MATRIX: SOIL

Laboratory Control Sample

Analyte	Spike Added (mg/kg)	Average Percent Recovery	QC Limits Percent Recovery
Oil	100	93	70-105

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3550 GCFID

AEN JOB NO: 9608232
DATE EXTRACTED: 08/16/96
INSTRUMENT: C
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/19/96	S-1	01	113
QC Limits:			55-115

DATE EXTRACTED: 08/15/96
DATE ANALYZED: 08/16/96
SAMPLE SPIKED: 9608195-04
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	40.0	100	2	50-115	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9608232
DATE DI WET EXTRACTED: 08/20/96
DATE EXTRACTED: 08/23/96
INSTRUMENT: A
MATRIX: DI WET

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/23/96	S1	01	82
QC Limits:			65-125

DATE EXTRACTED: 08/20/96
DATE ANALYZED: 08/21/96
SAMPLE SPIKED: 9607419-02
INSTRUMENT: A

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	66	11	60-110	15

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

*** END OF REPORT ***

Reporting Information:

1. Client: ENGEO Incorporated
Address: 2401 Crow Canyon Road, Suite 200 San Ramon CA 94583
Contact: Shawn Munger
Alt. Contact:

American Environmental Network

3440 Vincent Road, Pleasant Hill, CA 94523
Phone (510) 930-9090
FAX (510) 930-0256

AEN

REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Lab Job Number: 4608232
Lab Destination:
Date Samples Shipped:
Lab Contact:
Date Results Required:
Date Report Required:
Client Phone No.:
Client FAX No.:

Address Report To:
2. Same

Send Invoice To:
3. Same

Send Report To: (1) or 2 (Circle one) Fax to 838-7425 + 427-7745 *

Client P.O. No.: 4139-F2 Client Project I.D. No.: 4139-F2

Sample Team Member (s) Shawn Munger

72 hr TAT [illegible]

Lab Number	Client Sample Identification	Air Volume	Date/Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	5520F	(Gravimetric)	Diesel/Oil	(8015)	CAL-WET	8015 Diesel/Oil	(Deionized water)	[illegible]	[illegible]		Comments / Hazards
01A	S1		14:10 8/16	S		1	BAG	X		X		X						
																		24 hr TAT
																		Fax results *
																		MONDAY 8/19 A.M.

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
[signature]	8-16-96	15:58	[signature]	8-16-96	1558

Method of Shipment

Lab Comments

*Sample type (Specify): 1) 37mm 0.8 μm MCEF 2) 25mm 0.8 μm MCEF 3) 25mm 0.4 μm polycarb. filter
4) PVC filter, diam. _____ pore size _____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other ____________ 11) Other ____________

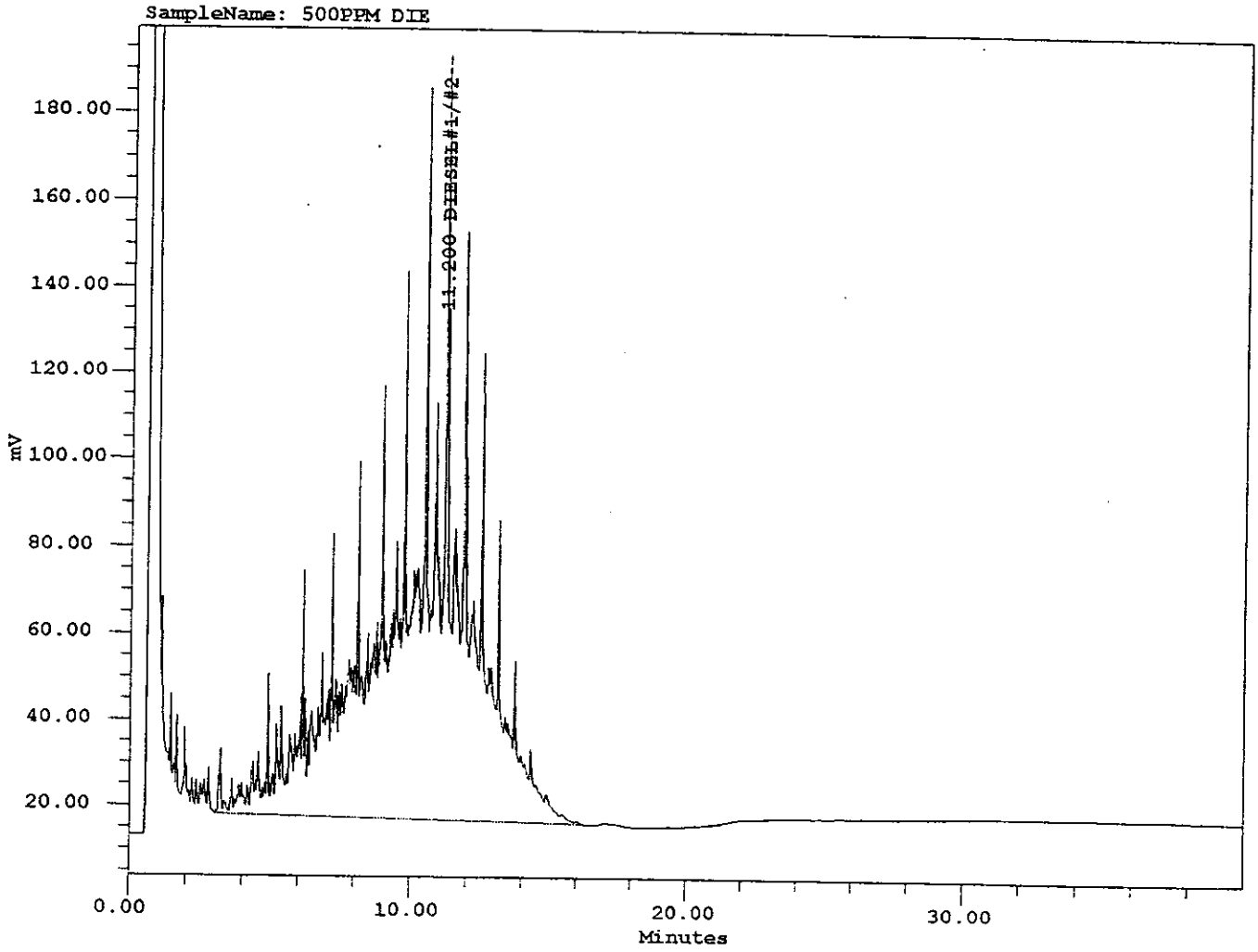
COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/19/96 11:52:04 AM
Date Processed: 08/19/96 03:14:22 PM
Date Printed: August 19, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 2



Quant Report

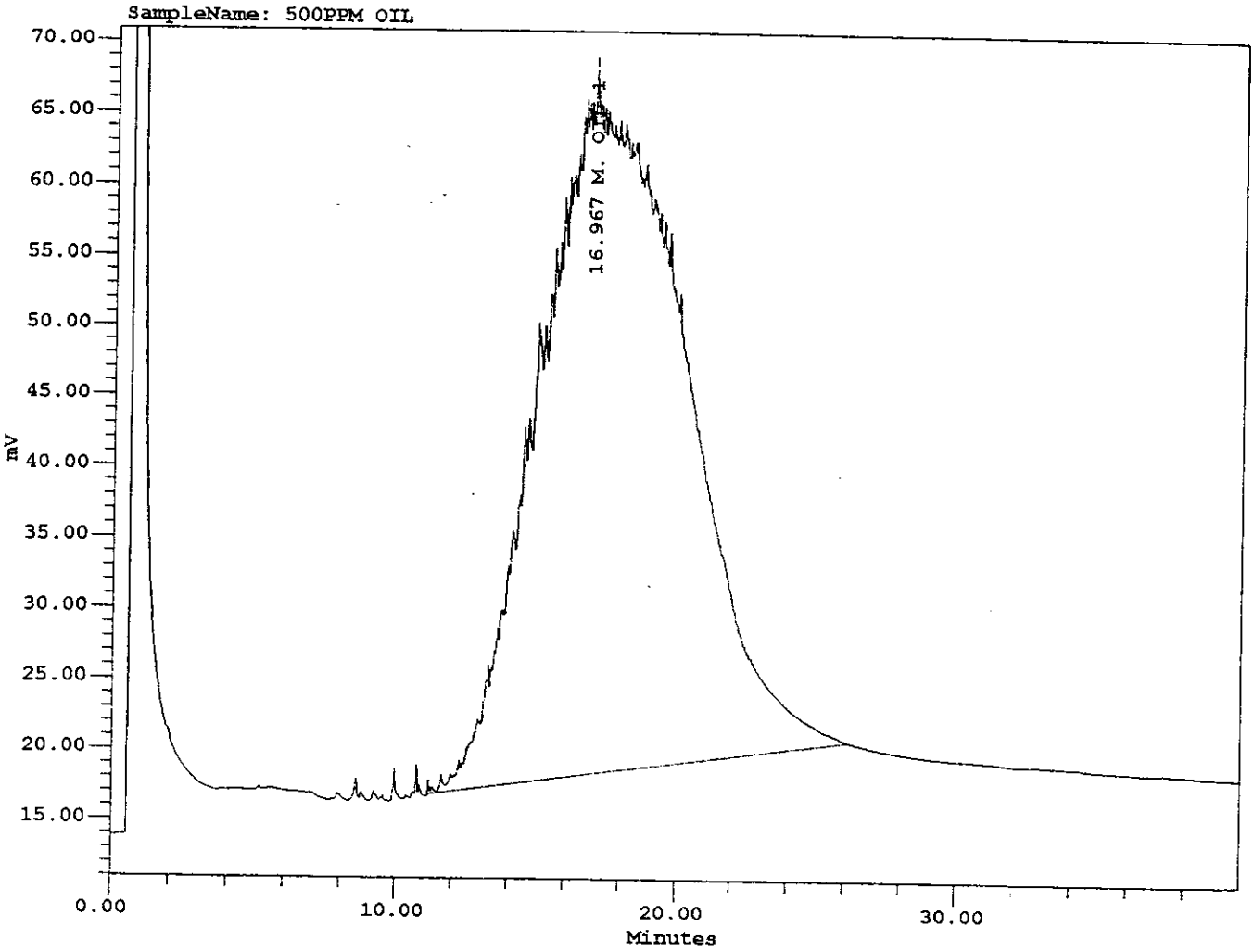
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.200	21353495	0.000	556.344	111.269

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/19/96 01:19:35 PM
Date Processed: 08/19/96 03:14:37 PM
Date Printed: August 19, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 3



Quant Report

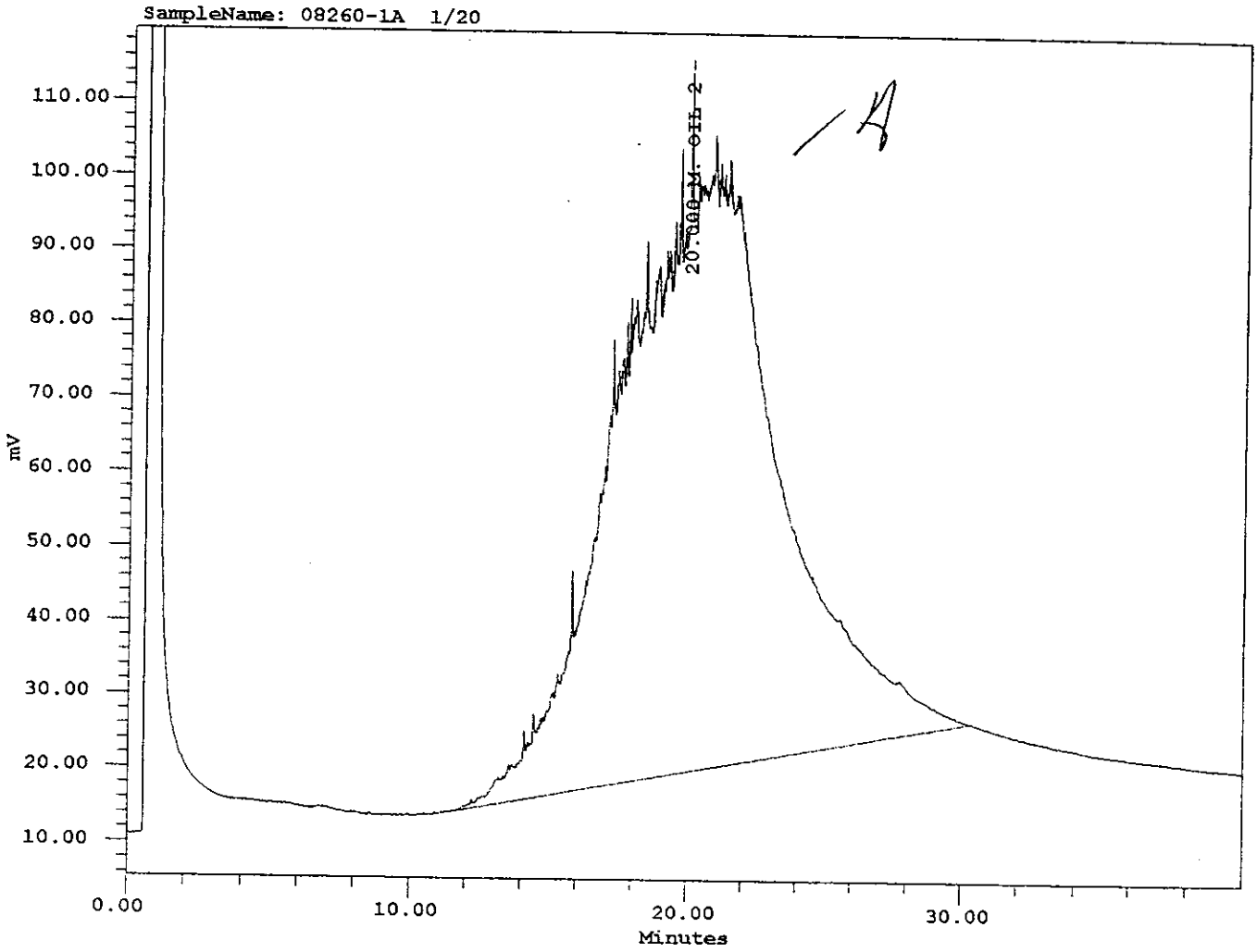
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	16.967	17639374	0.000	553.453	110.691

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08260-1A 1/20
Date Acquired: 08/23/96 01:04:14 PM
Date Processed: 08/23/96 02:03:50 PM
Date Printed: August 23, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0822
Dilution: 200.00000
SampleWeight: 5.00000
Vial: 11



1A

Quant Report

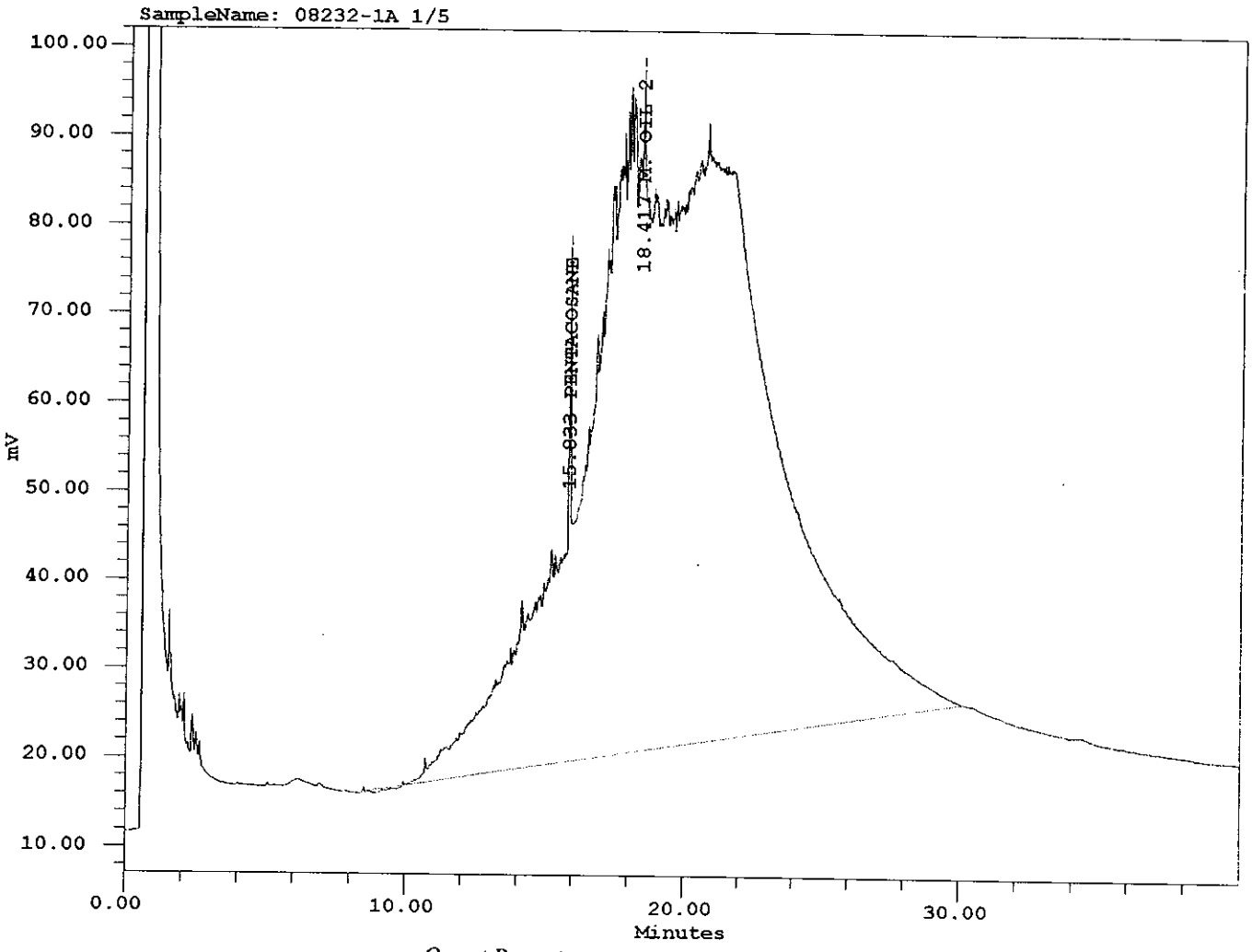
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 2	20.000	33598045	0.000	1054.172	42166.890

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08232-1A 1/5
Date Acquired: 08/19/96 02:16:54 PM
Date Processed: 08/19/96 03:16:39 PM
Date Printed: August 29, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0819
Dilution: 50.00000
SampleWeight: 50.00000
Vial: 4



Quant Report

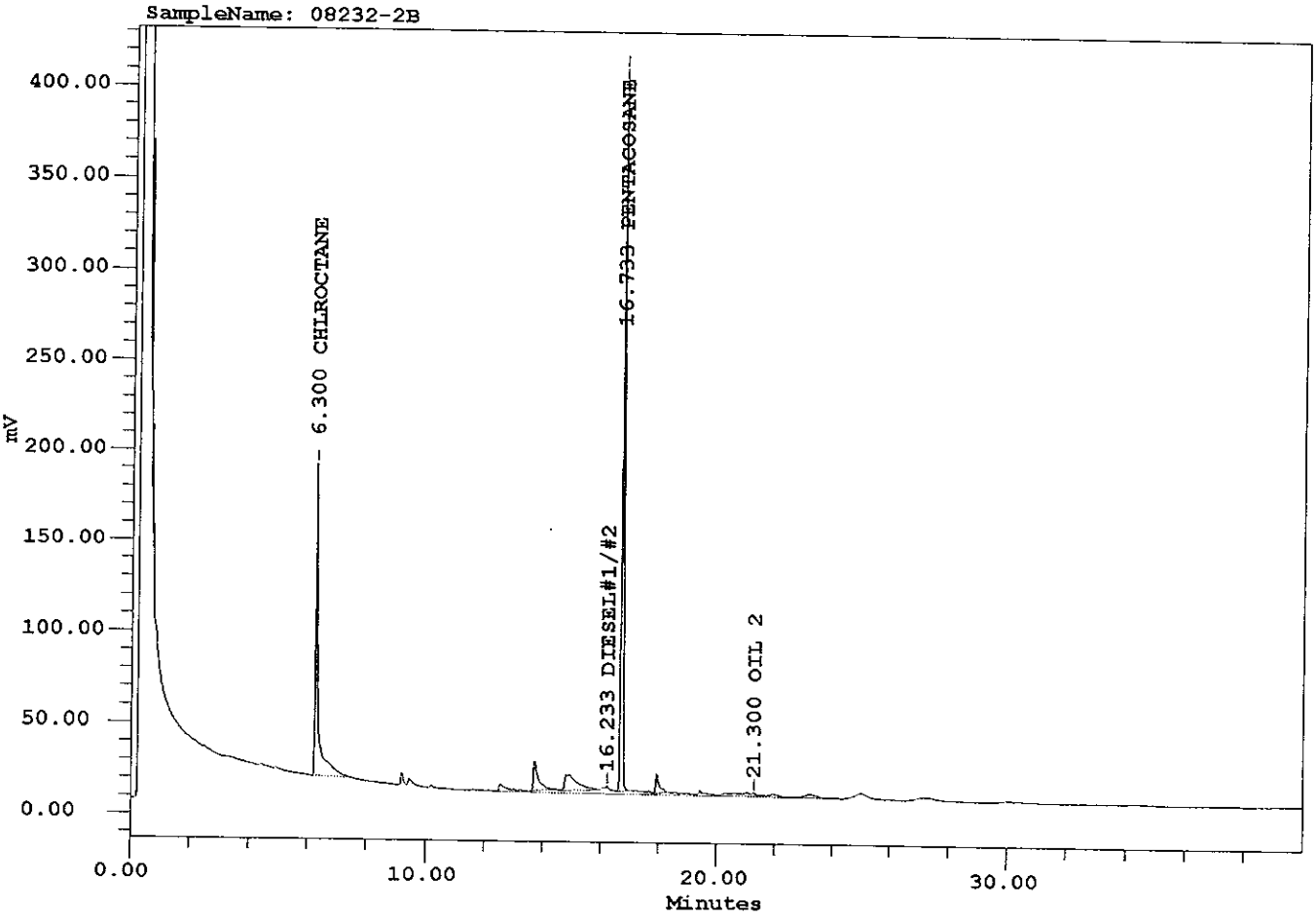
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	PENTACOSANE	15.833	86567	112.771	4.511	4.511
2	M. OIL 2	18.417	32673630	0.000	1025.168	1025.168

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08232-2B
Date Acquired: 08/23/96 02:40:21 PM
Date Processed: 08/23/96 03:33:08 PM
Date Printed: August 23, 1996
Column: RTX-2887,10m,0.53mm ID,2.65um FT
DIESEL CAL: 04/03/96, 2.318 E-5
OIL CAL: 04/04/96, 3.1783 E-5

System: GC_A
Processing Method: GC_A_DIESEL
Set Name: A0822
Dilution: 2.00000
SampleWeight: 250.00000
Vial: 28



Quant Report

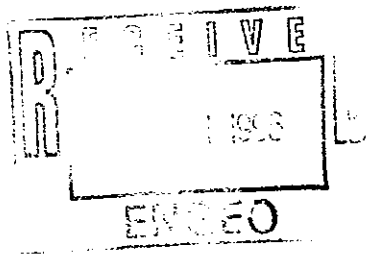
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	6.300	1071808	0.000	69.668	0.557
2		13.750	192783			
3		14.817	264389			
4	DIESEL#1/#2	16.233	633607	0.000	14.688	0.118
5	PENTACOSANE	16.733	1769703	82.047	82.047	0.656
6		17.967	102448			
7	OIL 2	21.300	188903	0.000	6.004	0.048

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134



ENGEO INCORPORATED
2401 CROW CANYON RD #200
SAN RAMON, CA 94583

ATTN: SHAWN MUNGER
CLIENT PROJ. ID: 4139-F2

REPORT DATE: 09/09/96

DATE(S) SAMPLED: 08/12/96

DATE RECEIVED: 08/12/96

AEN WORK ORDER: 9608143

P.O. NUMBER: 4139-F2

PROJECT SUMMARY:

On August 12, 1996, this laboratory received 8 (6 soil & 2 water) sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Chromatograms are included. Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

Revision of report dated 08/30/96

ENGEO INCORPORATED

SAMPLE ID: B1-4
AEN LAB NO: 9608143-01
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/16/96
Toluene	108-88-3	ND	5	ug/kg	08/16/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/16/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/16/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/24/96
TPH as Oil	GC-FID	120 *	5	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	250 *	30	mg/kg	08/20/96

See page 10 for comments pertaining to this sample.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-8
AEN LAB NO: 9608143-02
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/16/96
Toluene	108-88-3	ND	5	ug/kg	08/16/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/16/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/16/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	6 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	40 *	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-12
AEN LAB NO: 9608143-03
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	7 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-4
AEN LAB NO: 9608143-04
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-	-	Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	10	mg/kg	08/24/96
TPH as Oil	GC-FID	890 *	50	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	2,400 *	30	mg/kg	08/20/96

Reporting limits elevated for diesel/oil due to high levels of non-target compounds. Sample run at dilution. See page 10 for further comments.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-8
AEN LAB NO: 9608143-05
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/23/96
TPH as Oil	GC-FID	6 *	5	mg/kg	08/23/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-12
AEN LAB NO: 9608143-06
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	5	ug/kg	08/19/96
Toluene	108-88-3	ND	5	ug/kg	08/19/96
Ethylbenzene	100-41-4	ND	5	ug/kg	08/19/96
Xylenes, Total	1330-20-7	ND	5	ug/kg	08/19/96
#Extraction for TPH	EPA 3550	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	ND	1	mg/kg	08/24/96
TPH as Oil	GC-FID	ND	5	mg/kg	08/24/96
#Soil Extrn for HCs (GR)		-		Extrn Date	08/19/96
Hydrocarbons (Gravimetric)	SM 5520F	ND	30	mg/kg	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B2-W
AEN LAB NO: 9608143-07
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/16/96
Toluene	108-88-3	ND	0.5	ug/L	08/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/16/96
#Extraction for TPH	EPA 3510	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	0.56 *	0.05	mg/L	08/23/96
TPH as Oil	GC-FID	ND	0.2	mg/L	08/23/96
#Water Extrn for HCs		-		Extrn Date	08/20/96
Hydrocarbons (IR)	SM 5520F	ND	0.5	mg/L	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

ENGEO INCORPORATED

SAMPLE ID: B1-W
AEN LAB NO: 9608143-08
AEN WORK ORDER: 9608143
CLIENT PROJ. ID: 4139-F2

DATE SAMPLED: 08/12/96
DATE RECEIVED: 08/12/96
REPORT DATE: 09/09/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
EPA 8020 for BTEX	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	08/16/96
Toluene	108-88-3	ND	0.5	ug/L	08/16/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	08/16/96
Xylenes, Total	1330-20-7	ND	2	ug/L	08/16/96
#Extraction for TPH	EPA 3510	-		Extrn Date	08/20/96
TPH as Diesel	GC-FID	0.34 *	0.05	mg/L	08/23/96
TPH as Oil	GC-FID	ND	0.2	mg/L	08/23/96
#Water Extrn for HCs		-		Extrn Date	08/20/96
Hydrocarbons (IR)	SM 5520F	ND	0.5	mg/L	08/20/96

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9608143

CLIENT PROJECT ID: 4139-F2

Quality Control Summary

Samples B1-4 and B2-4: Samples appear to contain asphalt, as evidenced by their chromatographic patterns, hydrocarbon range (extending past the motor oil range), and their content of black solids that dissolve and produce a yellow color in methylene chloride. Additionally, their chromatograms are very similar to that of a bulk sample of asphalt (sample AS-1) also submitted for analysis (AEN project 9608260), apparently from the same site. It is quite possible that the source of the hydrocarbon contamination being reported for these samples is entirely from asphalt.

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: LCS
INSTRUMENT: IR
MATRIX: WATER

Laboratory Control Sample

Analyte	Spike Added (mg/L)	Percent Recovery	QC Limits Percent Recovery
Oil	6.91	101	73-112

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 5520

AEN JOB NO: 9608143
DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: LCS
INSTRUMENT: GRAVIMETRIC
MATRIX: SOIL

Laboratory Control Sample

Analyte	Spike Added (mg/kg)	Average Percent Recovery	QC Limits Percent Recovery
Oil	100	86	70-105

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
INSTRUMENT: A
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/23/96	B2-W	07	85
08/23/96	B1-W	08	86
QC Limits:			65-125

DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/20/96
SAMPLE SPIKED: 9607347-08
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	85	4	60-110	15

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9608143
DATE EXTRACTED: 08/20/96
INSTRUMENT: C
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
08/24/96	B1-4	01	83
08/23/96	B1-8	02	67
08/23/96	B1-12	03	104
08/24/96	B2-4	04	93
08/23/96	B2-8	05	82
08/24/96	B2-12	06	90
QC Limits:			55-115

DATE EXTRACTED: 08/19/96
DATE ANALYZED: 08/21/96
SAMPLE SPIKED: 9608136-10
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	40.0	86	1	50-115	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9608143
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/16/96	B2-W	07	99
08/16/96	B1-W	08	99
QC Limits:			70-130

DATE ANALYZED: 08/16/96
SAMPLE SPIKED: 9608056-04
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	22.2	103	11	85-109	17
Toluene	74.9	95	10	87-111	16
Hydrocarbons as Gasoline	500	109	14	66-117	19

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9608143
INSTRUMENT: E
MATRIX: SOIL

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
08/16/96	B1-4	01	130
08/16/96	B1-8	02	108
08/19/96	B1-12	03	103
08/19/96	B2-4	04	117
08/19/96	B2-8	05	105
08/19/96	B2-12	06	104
QC Limits:			70-130

DATE ANALYZED: 08/19/96
SAMPLE SPIKED: 9608234-07
INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/kg)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	34.0	98	6	79-113	26
Toluene	108	97	4	84-110	20
Hydrocarbons as Gasoline	1000	112	4	60-126	20

Daily method blanks for all associated analytical runs showed no contamination at or above the reporting limit.

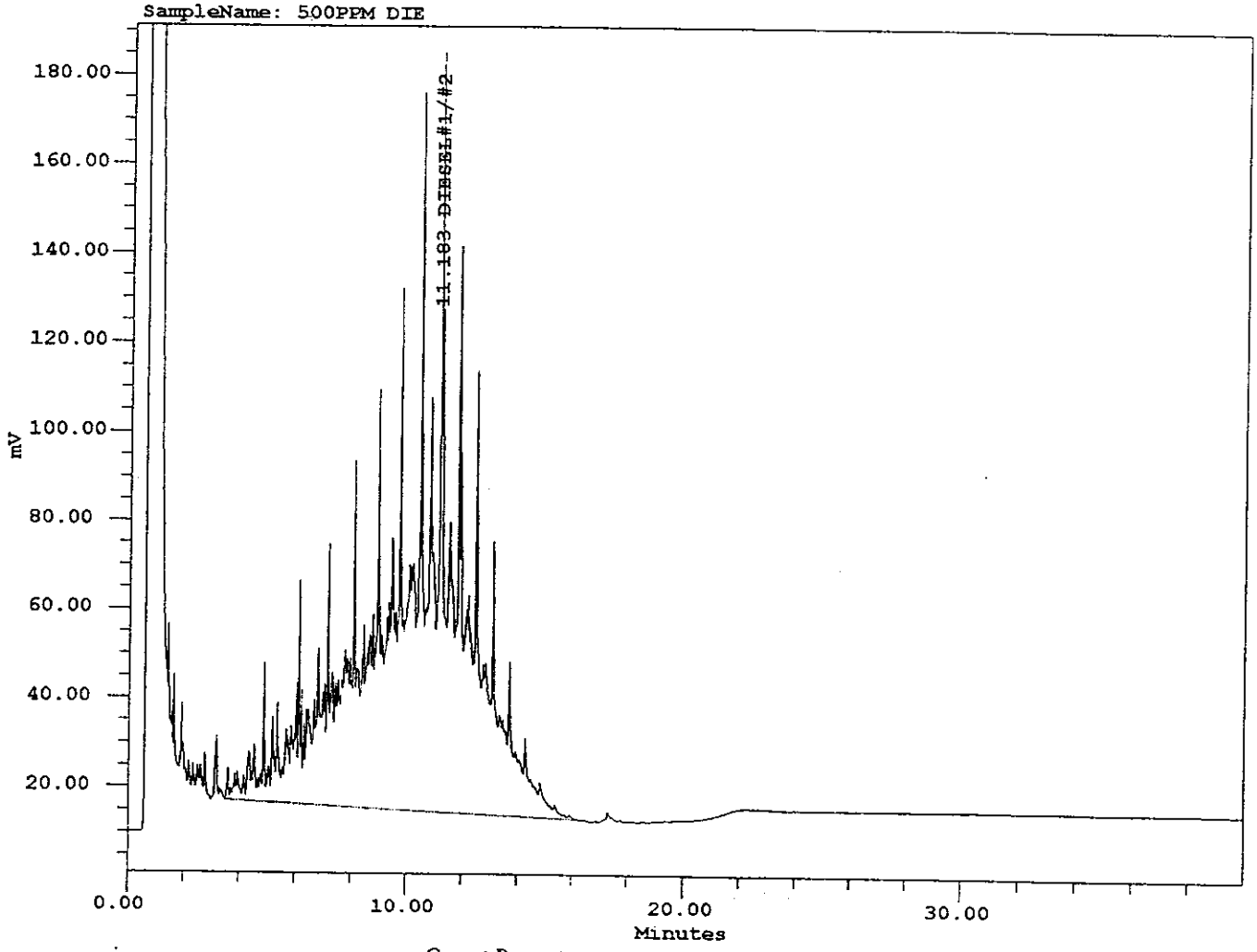
*** END OF REPORT ***

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM DIE
Date Acquired: 08/24/96 02:07:40 PM
Date Processed: 08/27/96 09:58:25 AM
Date Printed: August 27, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 23



Quant Report

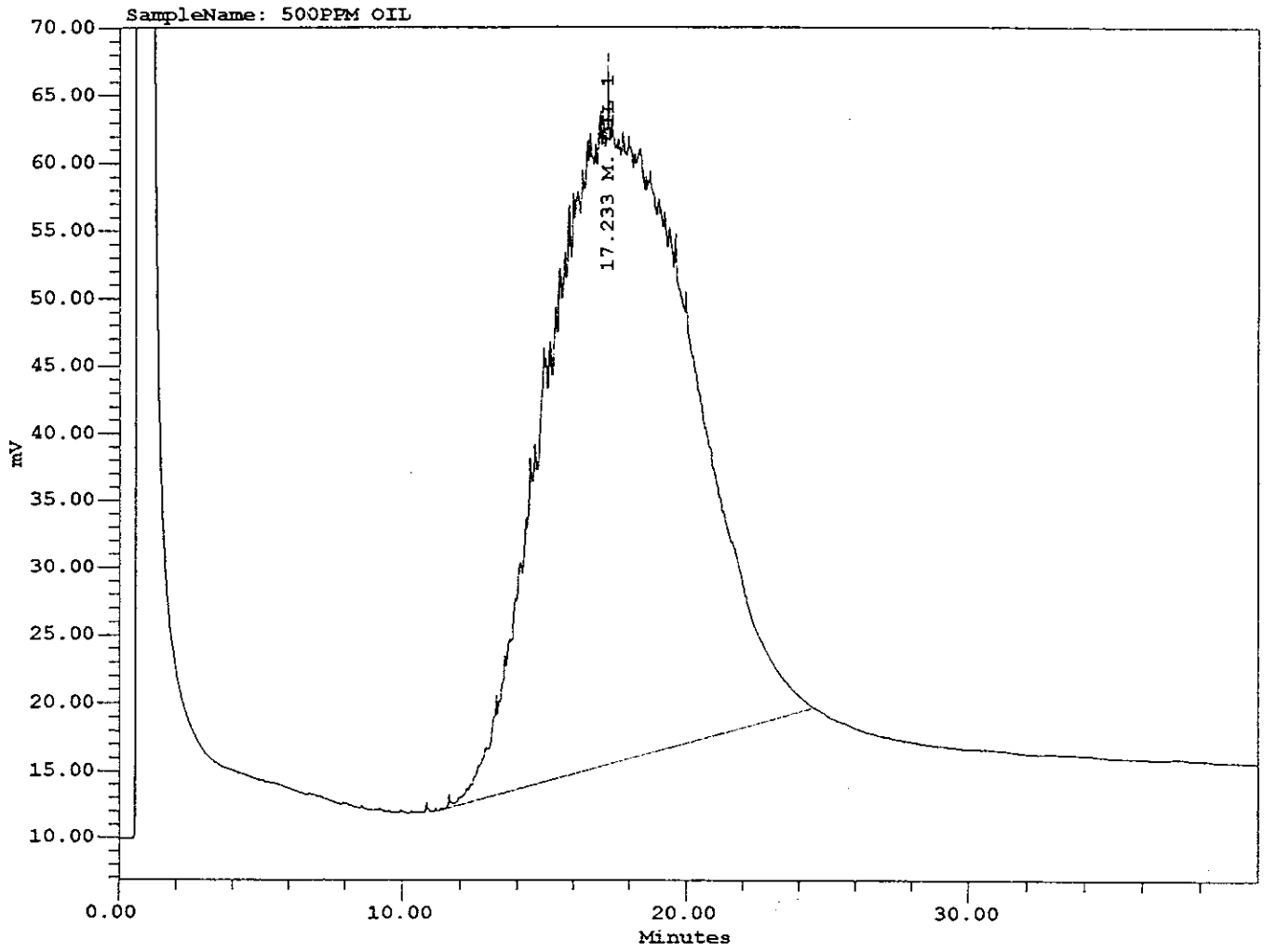
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	DIESEL#1/#2	11.183	19910485	0.000	518.748	103.750

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 500PPM OIL
Date Acquired: 08/24/96 03:06:01 PM
Date Processed: 08/27/96 09:58:44 AM
Date Printed: August 27, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 100.00000
SampleWeight: 500.00000
Vial: 24



Quant Report

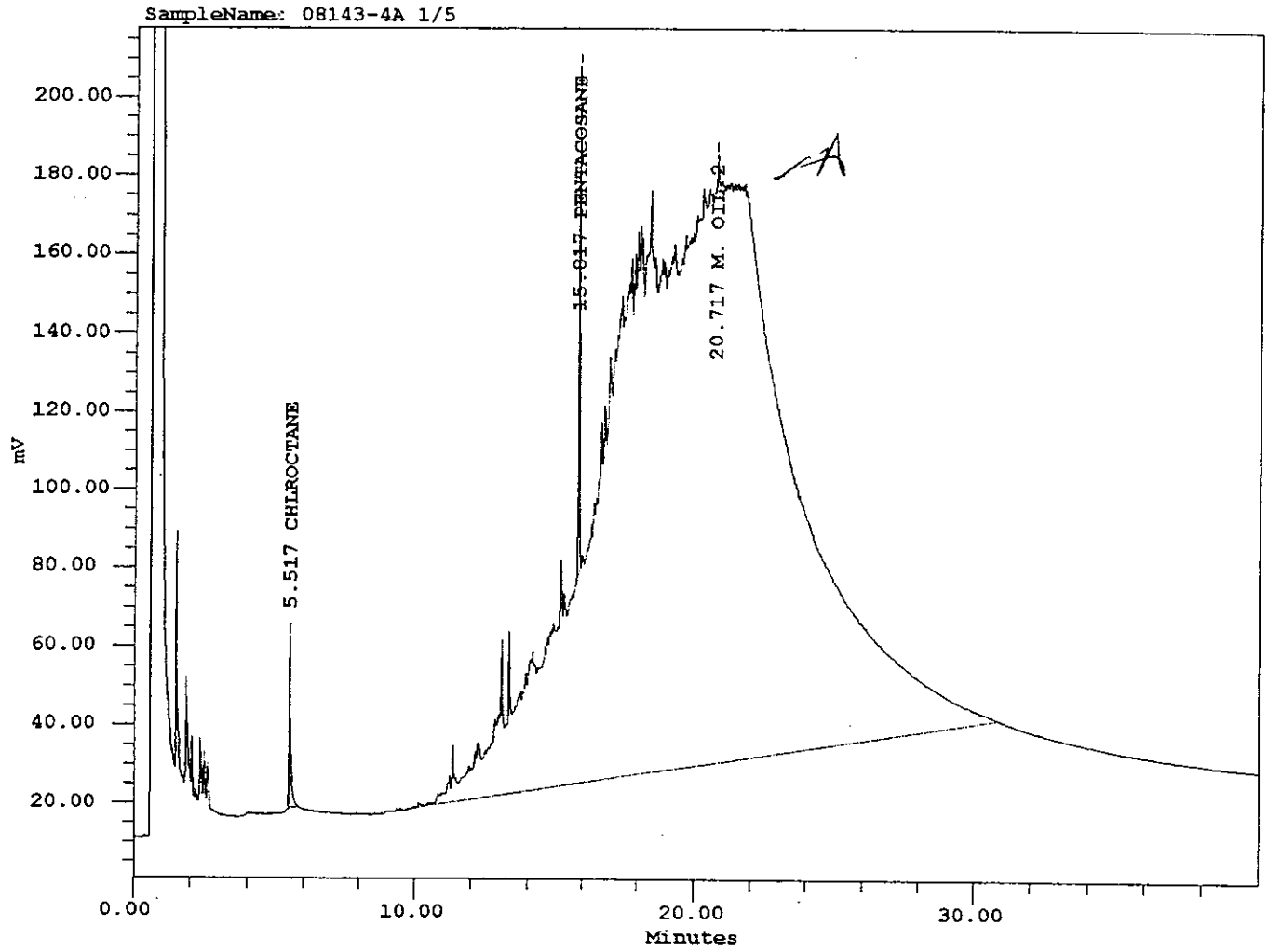
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	M. OIL 1	17.233	17254304	0.000	541.371	108.274

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-4A 1/5
Date Acquired: 08/24/96 02:44:25 AM
Date Processed: 08/26/96 04:49:00 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 10.00000
SampleWeight: 25.00000
Vial: 11



Quant Report

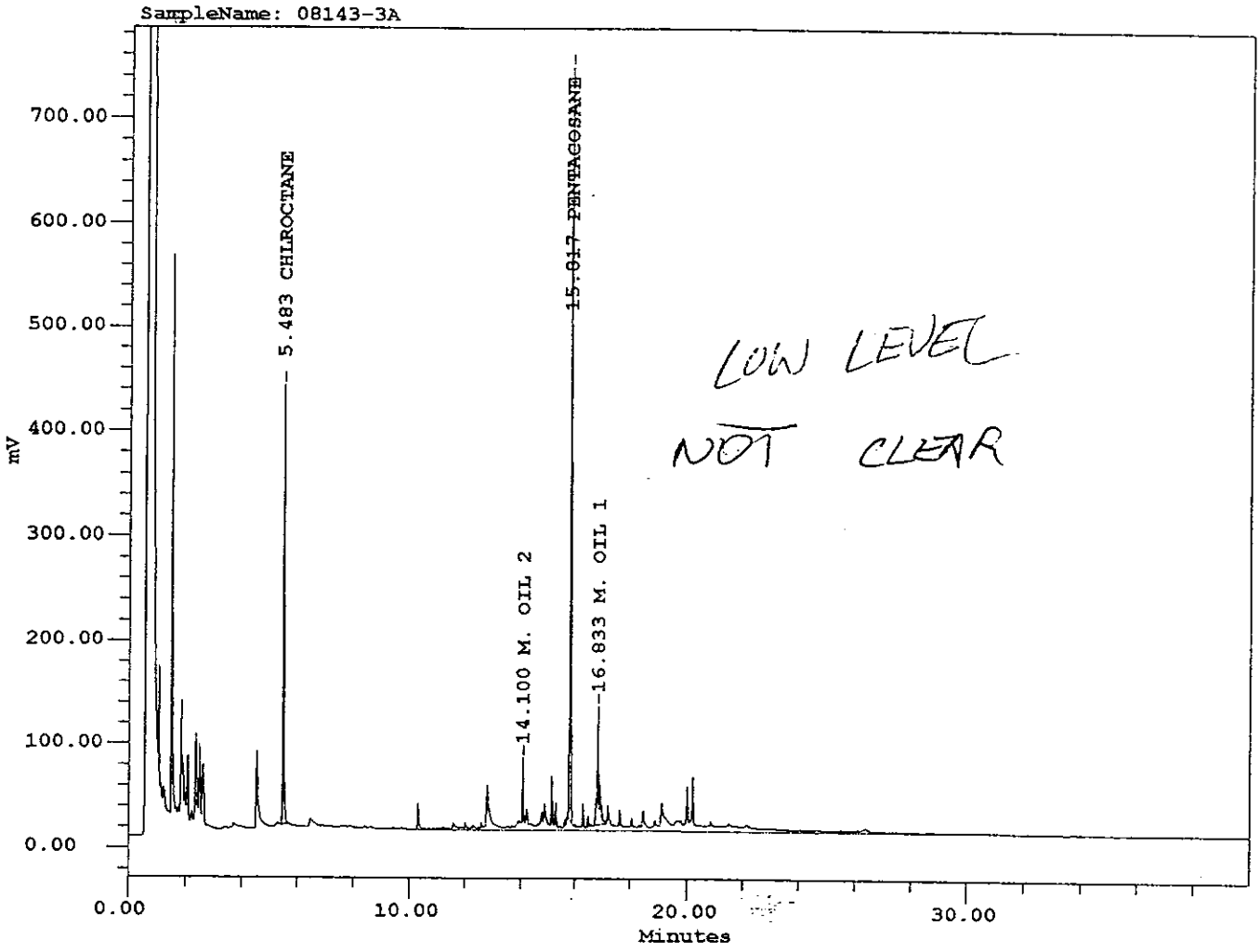
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.517	170986	0.000	11.841	4.736
2	PENTACOSANE	15.817	357685	93.191	18.638	7.455
3	M. OIL 2	20.717	71196660	0.000	2233.866	893.547

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-3A
Date Acquired: 08/23/96 10:56:45 PM
Date Processed: 08/26/96 04:19:35 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 7



Quant Report

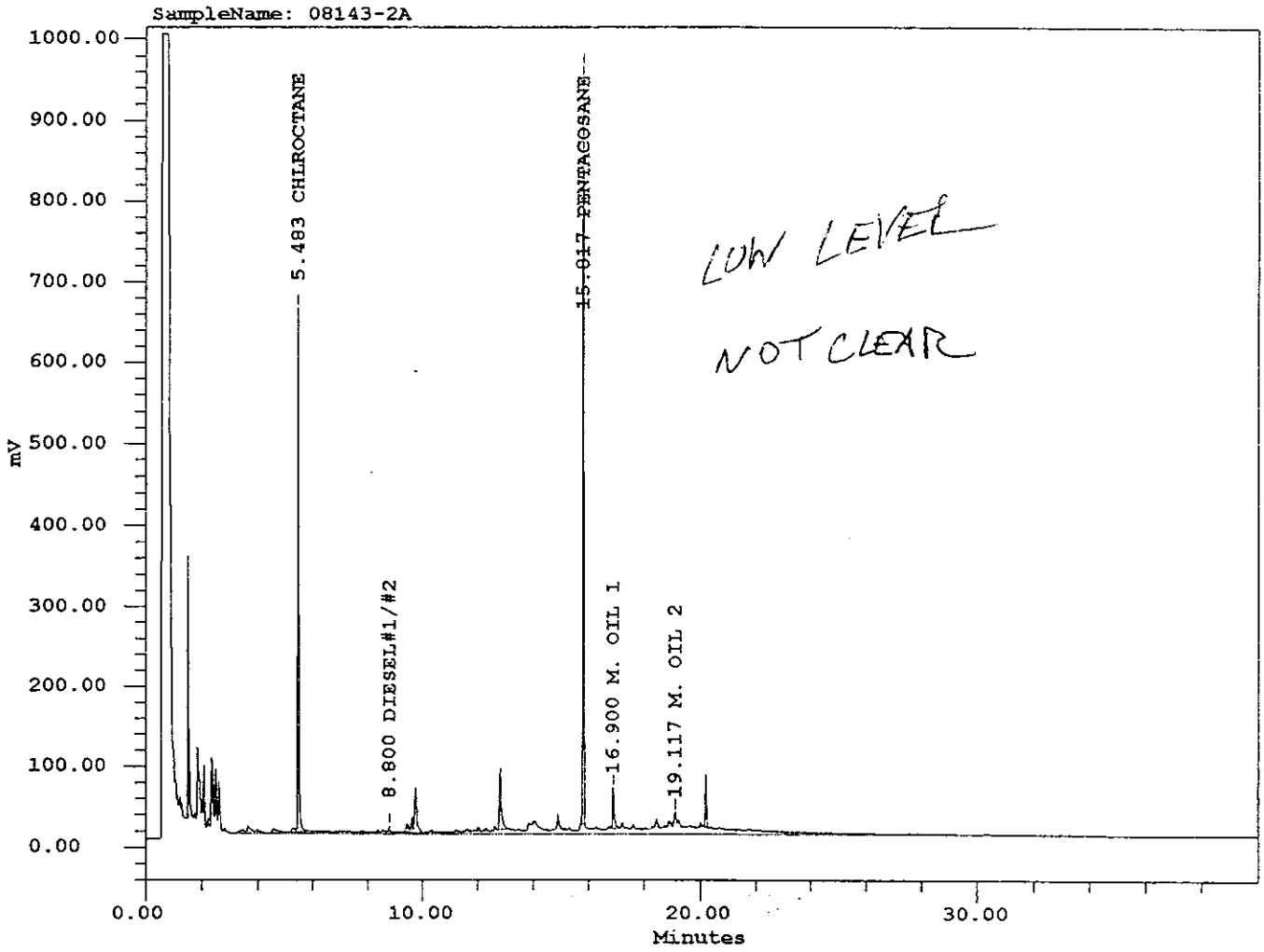
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1176641	0.000	81.482	3.259
2	M. OIL 2	14.100	5377707	0.000	168.731	6.749
3	PENTACOSANE	15.817	1986576	103.517	103.517	4.141
4	M. OIL 1	16.833	591823	0.000	18.569	0.743

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-2A
Date Acquired: 08/23/96 09:59:06 PM
Date Processed: 08/26/96 04:16:06 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 6



Quant Report

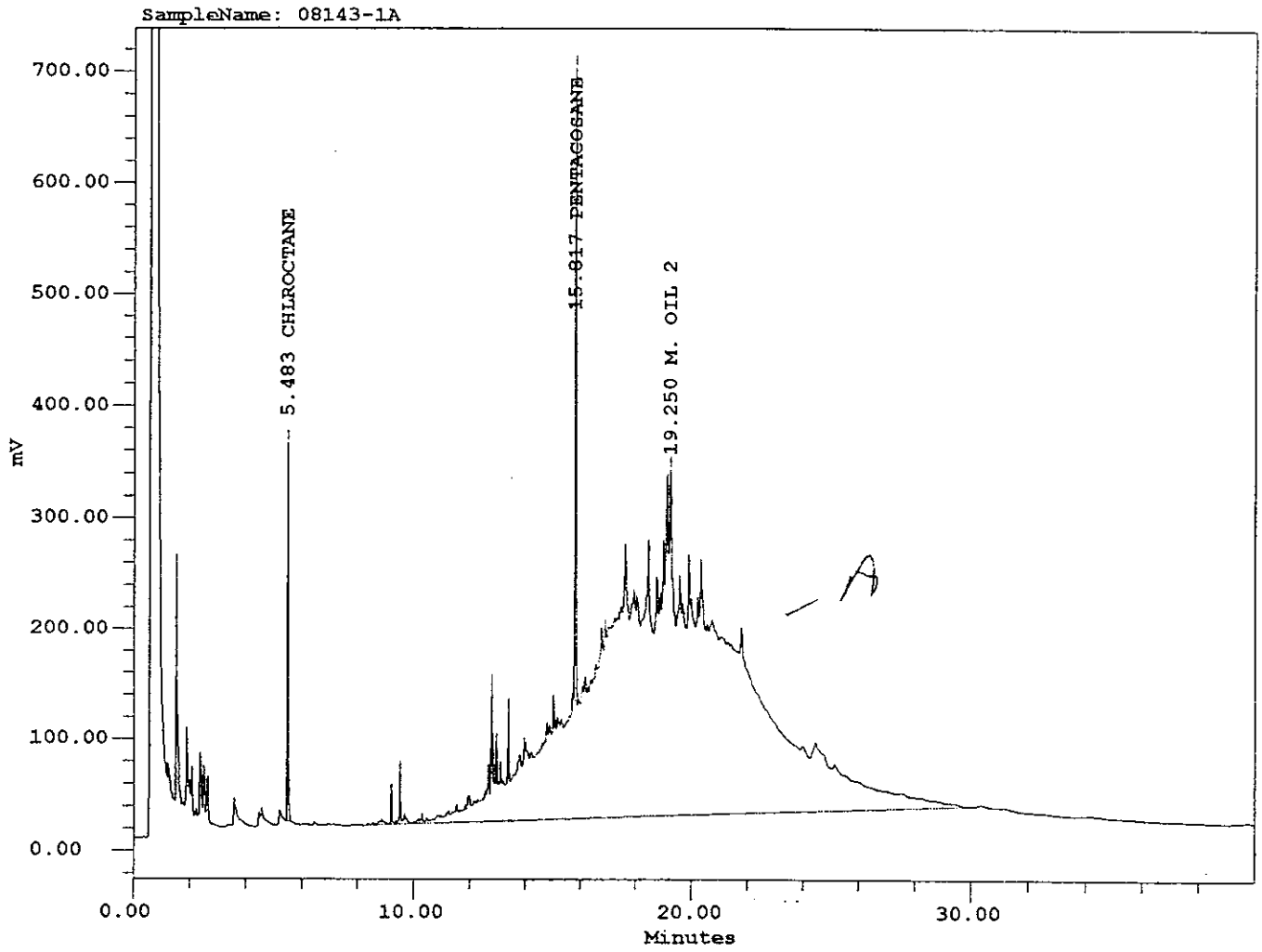
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1840568	0.000	127.459	5.098
2	DIESEL#1/#2	8.800	967094	0.000	25.197	1.008
3		9.750	473120			
4		12.817	354961			
5	PENTACOSANE	15.817	2580890	134.485	134.485	5.379
6	M. OIL 1	16.900	227508	0.000	7.138	0.286
7	M. OIL 2	19.117	5170787	0.000	162.239	6.490
8		20.217	206614			

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-1A
Date Acquired: 08/24/96 01:47:46 AM
Date Processed: 08/26/96 04:45:41 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 10



Quant Report

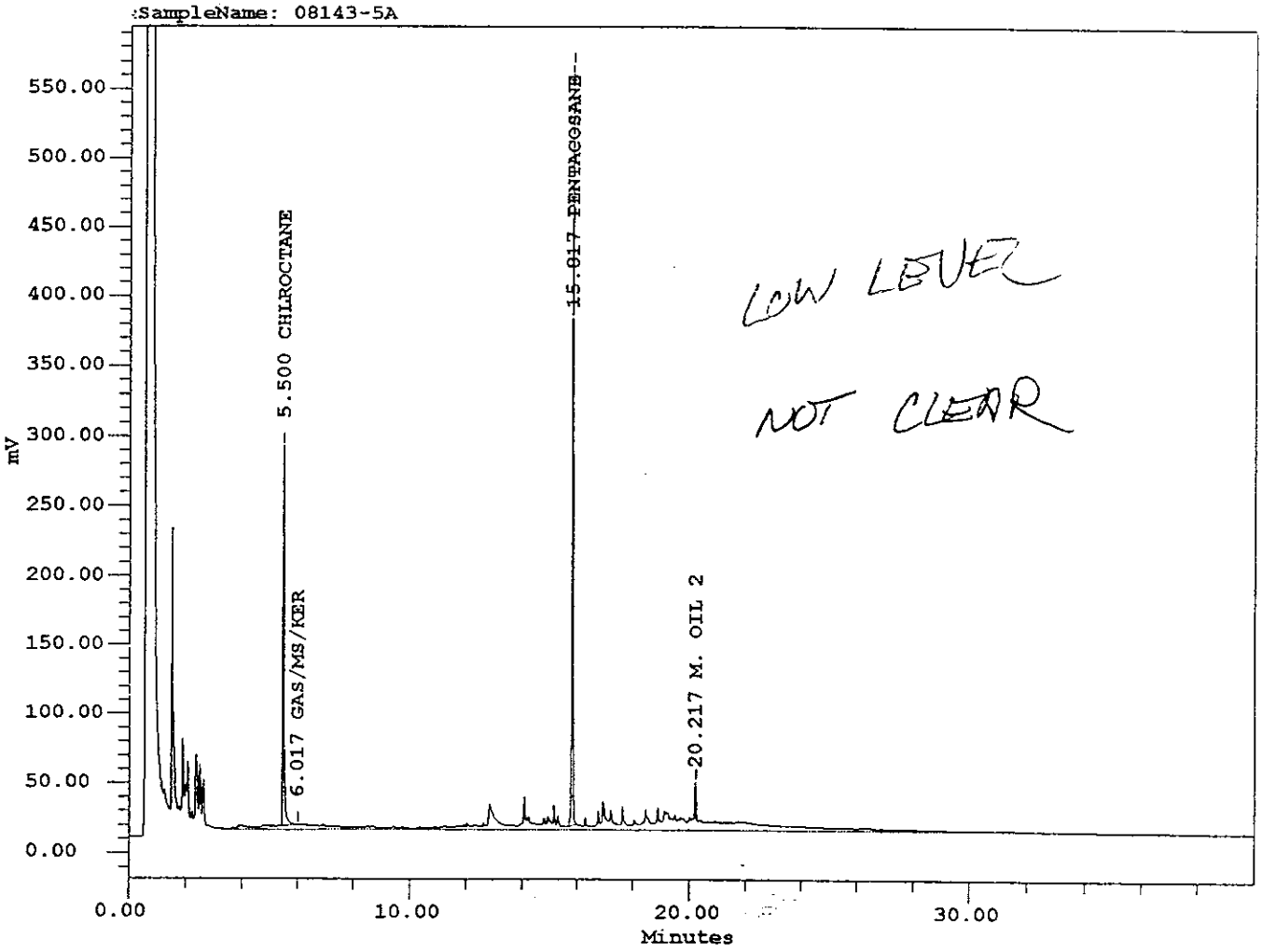
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1009808	0.000	69.929	2.797
2	PENTACOSANE	15.817	1588678	82.783	82.783	3.311
3	M. OIL 2	19.250	94711300	0.000	2971.662	118.866

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-5A
Date Acquired: 08/23/96 11:53:59 PM
Date Processed: 08/26/96 04:44:17 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 8



Quant Report

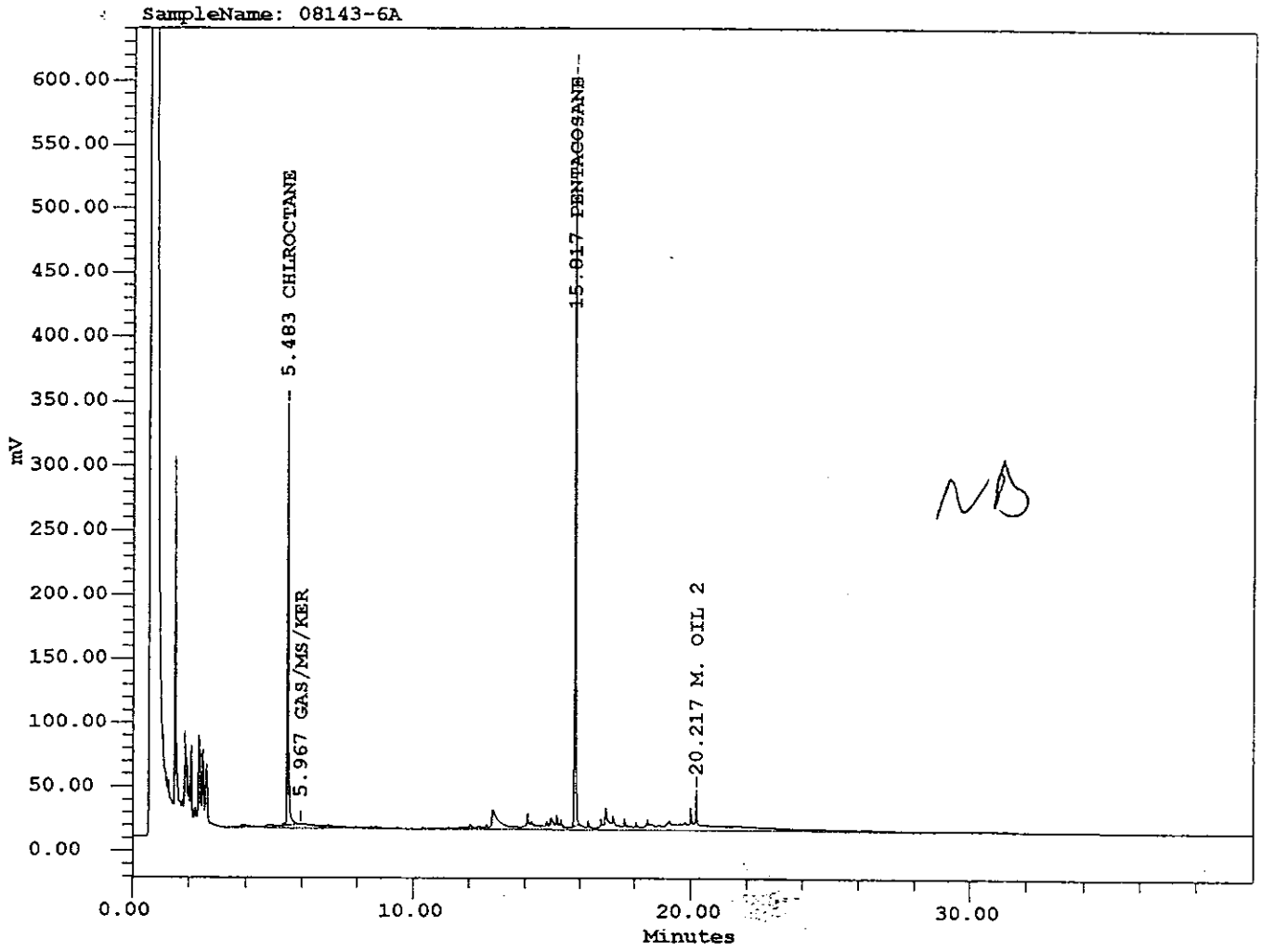
#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.500	954441	0.000	66.095	2.644
2	GAS/MS/KER	6.017	763797	0.000	19.900	0.796
3	PENTACOSANE	15.817	1578744	82.265	82.265	3.291
4	M. OIL 2	20.217	4516595	0.000	141.713	5.669

American Environmental Network

EXTRACTABLE HYDROCARBONS

SampleName: 08143-6A
Date Acquired: 08/24/96 12:51:00 AM
Date Processed: 08/26/96 04:45:02 PM
Date Printed: August 26, 1996
Column: DB-5,15m,0.53mm ID,1.5mm FT
DIESEL CAL: 07/23/96 , 2.6054 E-5
OIL CAL: 07/23/96, 3.1376 E-5

System: GC_CA
Processing Method: GC_CA_DIESEL
Set Name: CA0823
Dilution: 2.00000
SampleWeight: 50.00000
Vial: 9



NB

Quant Report

#	Name	Retention Time (min)	Area (uV*sec)	SURR_REC	Inst Con(ppm)	Spl Con (ppm)
1	CHLROCTANE	5.483	1114028	0.000	77.146	3.086
2	GAS/MS/KER	5.967	506112	0.000	13.186	0.527
3	PENTACOSANE	15.817	1735532	90.435	90.435	3.617
4	M. OIL 2	20.217	2810111	0.000	88.170	3.527

Reporting Information:

1. Client: ENGEO Incorporated
Address: 2401 Crow Canyon Rd
Suite 200
Contact: Shawn Munger
Alt. Contact: None

American Environmental Network
3440 Vincent Road, Pleasant Hill, CA 94523
Phone (510) 930-9090
FAX (510) 930-0256

AEN

Page 1 of 1

REQUEST FOR ANALYSIS / CHAIN OF CUSTODY

Lab Job Number: 9608143
Lab Destination:
Date Samples Shipped:
Lab Contact:
Date Results Required: STANDARD TAT
Date Report Required:
Client Phone No.:
Client FAX No.:

Address Report To:

2. Same

Send Invoice To:

3. Same

Send Report To: (1) or 2 (Circle one)

Client P.O. No.: 4139-F2 Client Project I.D. No.: 4139-F2

Sample Team Member (s) Shawn Munger

Lab Number	Client Sample Identification	Air Volume	Date/ Time Collected	Sample Type*	Pres.	No. of Cont.	Type of Cont.	ANALYSIS: DIESEL/OIL	ANALYSIS: 5520 F (GRAV)	ANALYSIS: BTEX	Comments / Hazards
01A	B1-4		8/12 11:20	SOIL	ICE			X	X	X	
02A	B1-8		11:30					X	X	X	
03A	B1-12		11:41					X	X	X	
04A	B2-4		13:10					X	X	X	
05A	B2-8		13:20					X	X	X	
06A	B2-12		8/12 13:30	SOIL	ICE			X	X	X	
07AB	B2-W		8/12 14:30	WATER	ICE	2	1 L	X	X	X	
CD					HCL	2	40ML	X	X	X	
08AB	B1-W		8/12 15:20	WATER	ICE	2	1 L	X	X	X	HCL ADDED TO O&G BOTTLES UPON ARRIVAL AT LAB. KM 8/12/96
CD					HCL	2	40ML	X	X	X	

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature) Kenneth C. Johnson
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)
Method of Shipment			Lab Comments

DATE	TIME
8-12	16:30
8/12/96	16:30

*Sample type (Specify): 1) 37mm 0.8 µm MCEF 2) 25mm 0.8 µm MCEF 3) 25mm 0.4 µm polycarb. filter
4) PVC filter, diam. _____ pore size _____ 5) Charcoal tube 6) Silica gel tube 7) Water 8) Soil 9) Bulk Sample
10) Other _____ 11) Other _____

COPIES: WHITE - JOB FILE YELLOW - PROJECT FILE PINK - CLIENT

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 # 250 Site Name Asbury Graphite Today's Date 8/28/96

Site Address 2500 Kirkham 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

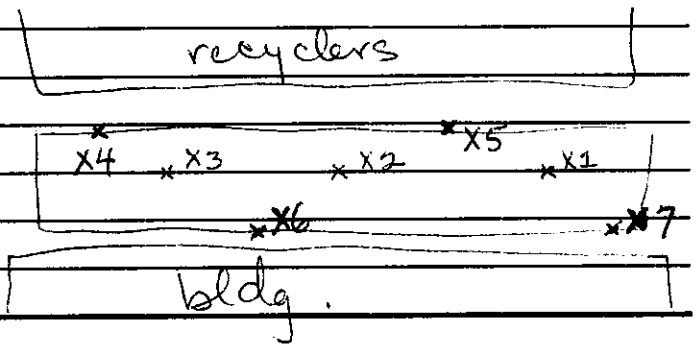
Site Mit File: sampl g the excavation

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

Comments: 10:00 arrived onsite. Met Keith Nowell of Engeo. Excavation is 8' x 58' long x 4' deep. 10:00-10:55 Sampled excavation 11:00-11:25 Sampled stockpile (inside bldg). It's ~80yd3. Did two 3-pt composite samples. SP1 A-C + SP2 A-C.
Analyze samples as per Engeo workplan: BTEX, TPH-d, + O+G (5520).

left site 11:35

10:18 X1 bottom ~ 4' bgs
10:25 X2 " "
10:28 X3 " "
10:33 X4 wall ~ 2' bgs
10:40 X5 " "
10:45 X6 " "
10:50 X7 " "



Contact Keith Nowell
Title
Signature Keith E. Nowell

Inspector Jennifer Eberle
Signature J Eberle

II, III

FAX

Date: Monday, August 26, 1996 **Time:** 3:52:59 PM 2 **Pages**

To: Jennifer Eberle
Alameda County Dept. of Environmental Health

Fax: 337-9335
Voice:

From: Shawn Munger
ENGEO Incorporated

Fax: 510-427-7745
Voice: 510-427-2017

Comments:

ENGEO
INCORPORATED
2401 Crow Canyon Road
Suite 200
San Ramon, CA 94583
(510) 838-1600
Fax (510) 838-7425

MEMORANDUM

TO: Jennifer Eberle

JOB NO.: 4139-F1

FROM: Shawn Munger

DATE: August 26, 1996

SUBJECT: Asbury Graphite - 2500 Kirkham Street

The grab sample recovered from the excavation was analyzed for soluble extractable hydrocarbons using the Cal Waste Extraction Test with deionized water as the extractant. No hydrocarbons were reported above the reporting limit of 0.8 mg/l. Based on this result, it is our opinion that the asphaltic hydrocarbons within the fill material are non-soluble and do not pose a threat to ground water. In addition, a review of the chromatograms of the soil sample and a sample of the asphaltic material, found the "fingerprints" to be similar. As previously discussed during our site meeting, it is our opinion the reported hydrocarbons in the soil samples are a result of asphaltic material in the fill and not soil contamination due to a product release.

Keith Nowell will be on site at 10:00 on Wednesday August 28 to recover the excavation samples under your observation. If you have any questions please contact me at 697-1192.

Thanks for your help.

Shawn Munger

ENGEO
INCORPORATED

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
MATERIALS TESTING

Project No.
4139-F2

August 7, 1996

Mr. Richard Cameron
Asbury Graphite Inc. of California
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: 2426 - 2500 Kirkham Street
Oakland, California

PROPOSAL FOR GROUND-WATER INVESTIGATION AND SOIL MITIGATION

Reference: ENGEO Inc.; Phase One Environmental Site Assessment, 2426 - 2500 Kirkham Street, Oakland, California; June 20, 1996; File 4139-F1.

Dear Mr. Cameron:

ENGEO is pleased to provide this proposal for the removal of petroleum contaminated soil with a limited ground-water investigation at the subject property located in Oakland, California. The additional study was recommended in the referenced phase one environmental site assessment. The purpose of the proposed field and laboratory work is to address the documented petroleum hydrocarbon contamination along the north side of the existing structure (Figure 1).

The proposed scope of work includes the following:

- *Two Geoprobe borings, ±20 feet in depth with the recovery of soil and ground-water samples.*
- *Excavation and stockpiling of significantly impacted soils along the north property line as identified in the referenced reports.*
- *Recovery of confirmation soil samples from the base and side walls of the excavation.*
- *Laboratory analysis of the Geoprobe, excavation, and stockpile samples.*
- *Off-site disposal or recycling of the stockpiled soil.*
- *Preparation of a final report documenting field and laboratory activities with conclusions and recommendations.*

Subsurface Investigation

ENGEO proposes to advance two exploratory borings to a depth of ±20 feet below the existing ground surface. The approximate location of the proposed borings is shown on Figure 1. The soil samples will be recovered using the *Geoprobe* direct push hydraulic soil coring system. A hydraulic hammer will be used to drive a 2-inch-diameter sampling rod to collect a continuous sampling core. The samples will be recovered in four-foot-long 1 3/4-inch-diameter acetate sample tubes.

Drilling will be performed under the direction of an ENGEO Environmental Geologist who will log the borings in accordance with the Unified Soil Classification System. Following recovery, samples retained for laboratory testing will be sealed with Teflon, plastic end caps and tape. Soil samples will be placed in an ice chest cooled with crushed or dry ice and transported under documented chain-of-custody to American Environmental Network in Pleasant Hill, California.

Sampling equipment will be washed with a detergent solution and rinsed with clean water between each sampling event. Clean sampling rods and bits will be utilized at each exploratory boring location. Following the completion of drilling, the borings will be grouted in accordance with Alameda County Zone Seven Flood Control District regulations.

Soil samples and auger cuttings will be screened in the field using a Thermo Electron 580A photoionization detector (PID) to measure detectable volatile compounds, relative to the calibration standard (Isobutylene 100 ppm). Subsurface information including soil descriptions, depth to ground water, and field PID screenings will be recorded on the exploratory boring logs.

Ground-Water Sampling

Once the bottom of each boring is reached, the sampling rod will be extracted approximately five feet to expose a .010 inch slotted stainless steel screen for sampling. A peristaltic pump will then be utilized to extract the ground-water samples into clean laboratory glassware.

Soil Excavation

Initially, the concrete and/or asphalt cover which extends across the impacted area will be removed for subsequent disposal. Following the removal of the overlying pavement cover, near-surface soils to an estimated depth of four feet will be excavated across a linear area of ±75 feet and stockpiled. Figure 1 shows the estimated limits of the proposed excavation area. The specific extent of the excavation will be determined from field observations.

Following visual confirmation of the removal of affected soils, confirmation soil samples will be recovered from the base and side walls on a 1 sample per 20 lineal foot basis. ENGEO estimates 11 confirmation samples will be recovered in association with the soil excavation work.

Laboratory Analysis

We anticipate that soil samples from depths of 5, 10 and 15 feet will be submitted from the southwestern *Geoprobe* boring for laboratory testing. Based on a review of previous data, no soil samples will be collected from the northeastern boring. The specific number of excavation soil samples will be based on field observations. An estimated 11 samples will be recovered from the proposed excavation.

The selection of the laboratory analyses is based on the findings of the previous investigations conducted for the property. The geoprobe samples and excavation soil samples will be analyzed for the following:

- *Total Extractable Hydrocarbons (mod EPA 8015)*
- *BTEX (EPA 8020)*
- *Total Oil and Grease SMWW 5520 (non-polar)*

Report Preparation

Following completion of the laboratory testing, ENGEO will prepare a letter report summarizing the field and laboratory findings. The report will also include conclusions and recommendations for further site investigation and mitigation, if necessary.

We are pleased to have the opportunity to provide this proposal and look forward to working with your office regarding this project. As requested, this work plan has been provided to Ms. Jennifer Eberle with the Alameda County Department of Environmental Health for review and approval. Please free to contact our office if you have any questions regarding the proposed scope of work or anticipated fees.

Very truly yours,

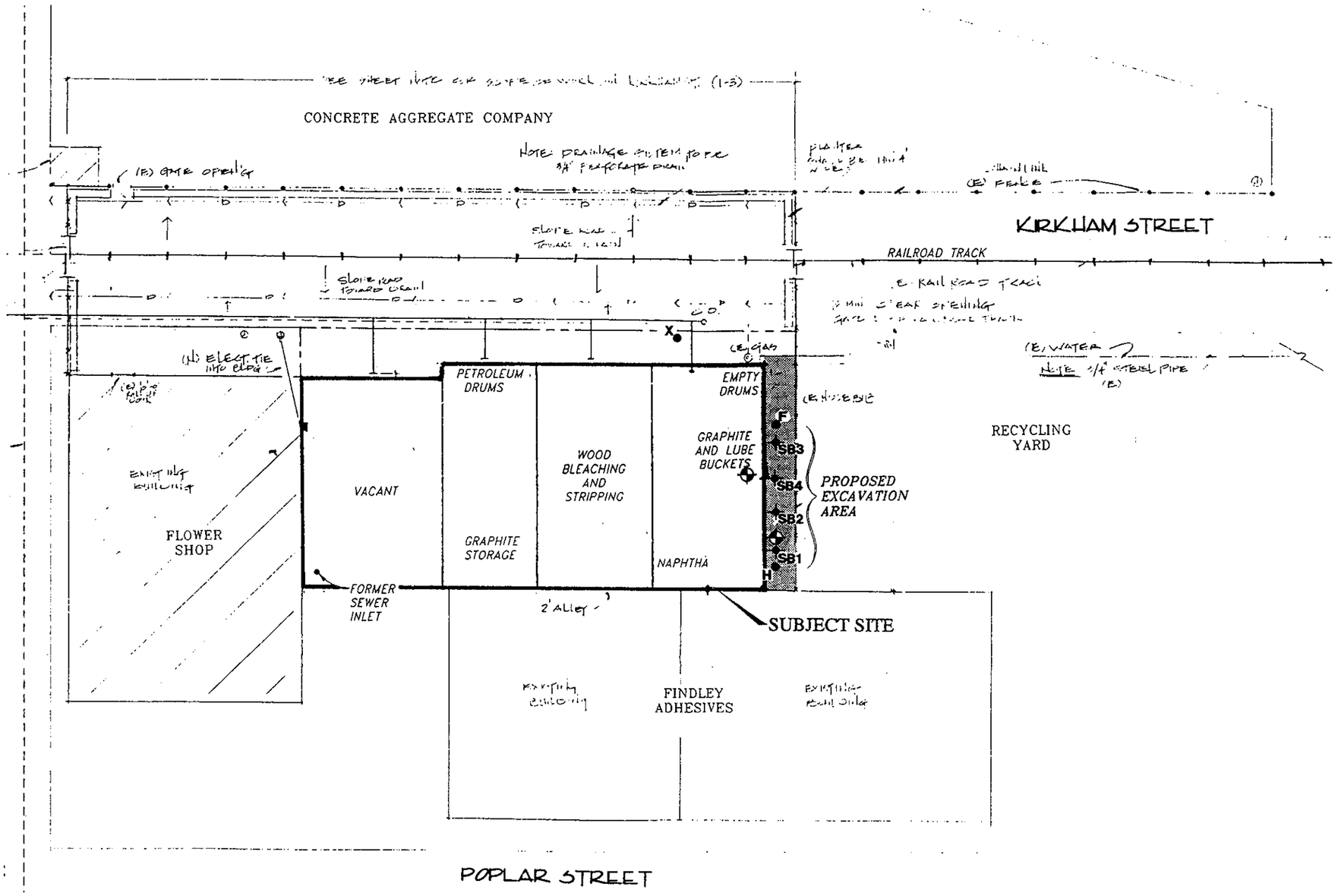
ENGEO INCORPORATED

Shawn Munger
Environmental Services Manager
CHG 413

Brian Flaherty
Vice President
CEG 1256

sm/ree:pro

cc: 1 - Alameda County Dept. of Environmental Health, Ms. Jennifer Eberle



EXPLANATION

- X● SOIL BORING, EARTH METRICS 7/90
- SB4 SOIL BORING, EARTH METRICS 11/90
- PROPOSED GEOPROBE LOCATION

N.T.S.

ENGEO INCORPORATED

SITE PLAN
2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

JOB NO.: 4139-F2
DATE: AUGUST 1996
DRAWN BY: CHECKED BY: SM

FIGURE NO. 1

ENVIRONMENTAL
PROTECTION

96 JUL 26 AM 10: 32

ENGEO
INCORPORATED
2401 Crow Canyon Road
Suite 200
San Ramon, CA 94583
(510) 838-1600
Fax (510) 838-7425

LETTER OF TRANSMITTAL

DATE: *July 25, 1996*

ENGEO PROJECT NO.: *4139-F1*

TO: *Alameda County Department of Environmental Health*
1131 Harbor Bay Parkway
Alameda, CA 94502

ATTENTION: *Jennifer Eberle*

SUBJECT: *Asbury Graphite - 2500 Kirkham Street, Oakland, California*

TRANSMITTED HEREWITH: *Copy of draft Phase I Environmental Site Assessment*

REMARKS: *Please call if you have any questions. Would like to set-up meeting next week if possible.*

ENGEO INCORPORATED
BY: *Shawn Munger* SM
COPIES:

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- ☒ FOR YOUR REVIEW
- ☐ RETURNING
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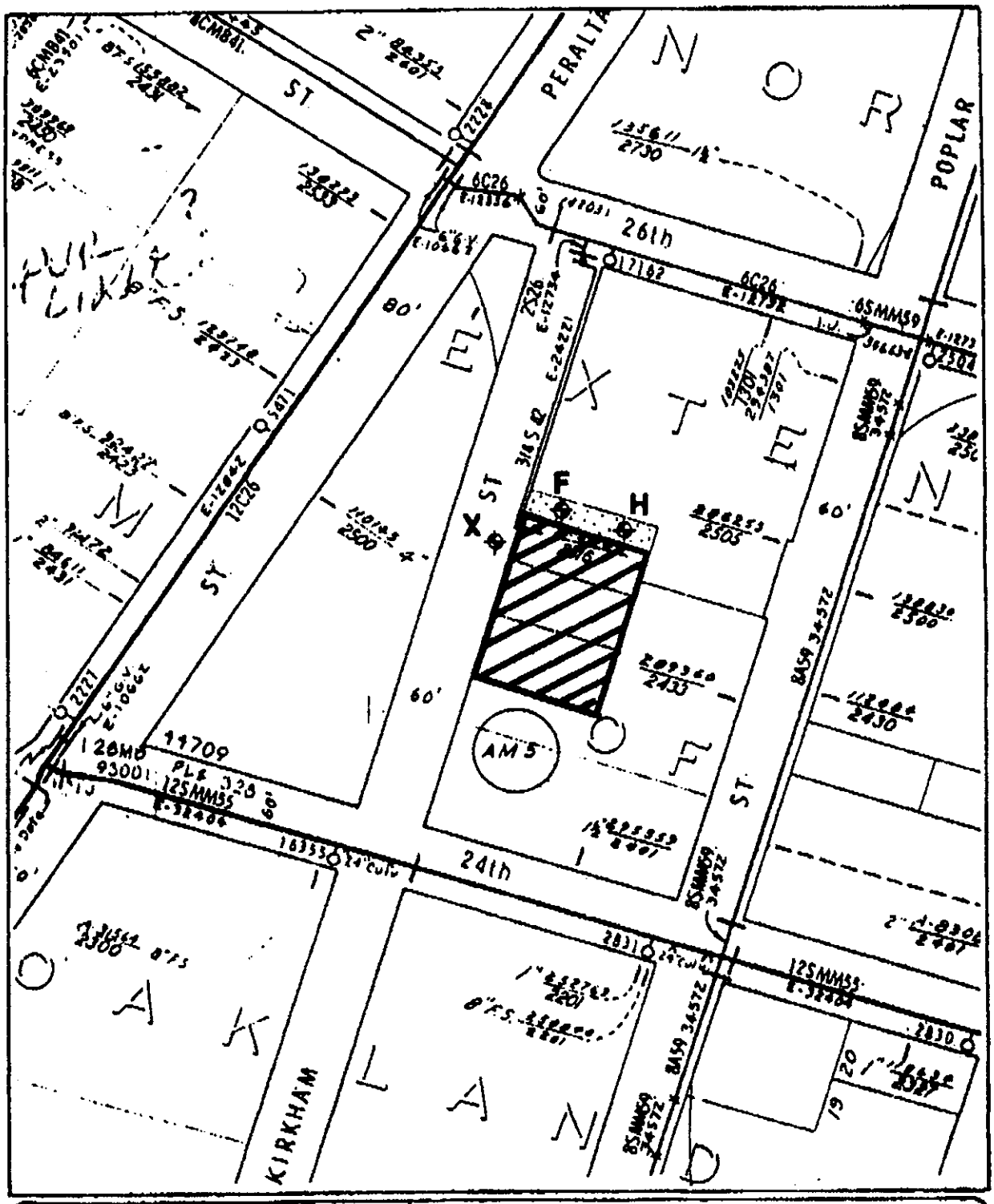

FIGURE 3. BORING LOCATION MAP

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

2426 - 2500 KIRKHAM STREET

OAKLAND, CALIFORNIA

DRAFT

SUBMITTED

TO

JOINERY STRUCTURES

OAKLAND, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 4139-F1

JUNE 20, 1996

ENGEO
INCORPORATED

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
MATERIALS TESTING

Project No.
4139-F1

June 20, 1996

DRAFT

Mr. Paul Discoe
Joinery Structures
2653 Willow Street
Oakland, CA 94607

Subject: 2426 - 2500 Kirkham Street
Oakland, California

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Discoe:

ENGEO Incorporated is pleased to present a phase one environmental site assessment of the subject property, located along the west side of Kirkham Street, between 24th and 26th Street, in Oakland, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings regarding the property.

We are pleased to be of service to you on this project. If you have any questions concerning the contents of our report, please contact our office.

Very truly yours,

ENGEO INCORPORATED

Reviewed by:

Shawn Munger
Environmental Services Manager
CHG 413
REA 2070

Brian Flaherty
Vice President
CEG 1256

sm/lb:esa

2401 Crow Canyon Road • Suite 200 • San Ramon, CA 94583-1545 • (510) 838-1600 • Fax (510) 838-7425
E-mail: engstaff@engeo.com • WWW: http://www.hooked.net/engeo

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APPENDIX B - EDR Radius Report

APPENDIX C - Fire Insurance Maps and City Directory Abstract

APPENDIX D - Sanborn Fire Insurance Maps

APPENDIX E - Earth Metrics, Inc. - Phase One and Two Site Assessment Reports

1.0 SUMMARY

The subject site is located along the east side of Kirkham Street, between 24th Street and 26th Street in Oakland, California (Figure 1). The property is ±20,000 ft.^{2} in area and includes Assessors Parcel Numbers 5-440-2-3, 5-440-2, and 5-440-4.

The existing property development consists of a 20,000 ft.^{2} industrial facility which is currently unoccupied. The site structures consists of three steel and wood framed buildings with one adjoining concrete structure (Figure 2). The concrete structure shares a common wall with the adjacent flower warehouse to the south. The structures have concrete slab-on-grade foundations.

The site reconnaissance did not find documentation or physical evidence of soil or ground-water impairments associated with the use of the property. No evidence of the disposal of hazardous materials on the property was observed. A review of regulatory data bases maintained by county, state and federal agencies found documentation of petroleum hydrocarbon contamination at the north side of the property. It has been proposed to excavate approximately 300 cubic yards of soil from this area. A ground-water investigation has been requested by Alameda County to address potential ground-water impacts from the petroleum release. No other documentation of hazardous materials use or soil/ground-water contamination at the site was found from the records review.

The prospective property owner, Mr. Paul Discoe, was not aware of existing or preexisting environmental conditions associated with the property, other than the documented petroleum hydrocarbon impacts in the north property area. Mr. Discoe was also not aware of environmentally related permits, or liens for the property.

A review of regulatory agency records and available data bases identified 26 leaking underground storage tank sites and two toxic pit sites within ½ mile of the property (Appendix B). Given the distances to these facilities, these sites would not be expected to affect the subject property.

ENGEO has performed a Phase One Environmental Site Assessment of the subject property following the guidelines of ASTM Practice E-1527-94. This assessment has revealed recognized environmental conditions in connection with the property, which will require further investigation and mitigation.

ENGEO recommends that a soil remediation and ground-water investigation work plan be prepared to address the recognized petroleum hydrocarbon impacts on the property. This work plan should be submitted to the ACDEH and the RWQCB for their review and approval.

2.0 INTRODUCTION

2.1 Purpose and Scope

The purpose of the Phase One Environmental Assessment is to identify, to the extent feasible pursuant to ASTM E-1527-94[1], recognized environmental conditions associated with the property. This assessment is intended to allow the client to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability; that is the practices that constitute "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice" as defined in 42 USC sec 9601(35)(B). The scope of services included the following:

- A review of publicly available and practically reviewable standard local, state and federal environmental record sources.
- A review of several publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps, and physical setting sources.
- A reconnaissance of the property.
- Preparation of this report with our findings and conclusions.

[1]American Society For Testing and Materials; Standard Practice for Environmental Site Assessments: Phase One Environmental Site Assessment Process.

2.2 Limitations and Exceptions Of Assessment

The professional staff at ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but are not infallible. The recommendations and conclusions presented in this report were based on the findings of our study which were developed solely from the contracted services. The findings of the report are based in part on contracted data base research, out-of-house reports and personal communications. ENGEO Incorporated assumes no liability for the validity of the materials relied upon in the preparation of this report.

This document must not be subject to unauthorized reuse, that is reuse without written authorization of ENGEO. Such authorization is essential because it requires ENGEO to evaluate the document's applicability given new circumstances, not the least of which is passage of time. The findings from a phase one environmental site assessment are typically valid for 180 days after completion of the report, particularly with regard to the regulatory data base files. In some instances the shelf life of the report can be less.

This phase one environmental site assessment is not intended to represent a complete soil or ground-water characterization. This assessment does not define the depth or areal extent of soil or ground-water contamination. It is intended to provide an evaluation of potential environmental concerns associated with the use of the property. A more extensive assessment that would include a subsurface exploration with laboratory testing of soil and ground-water samples could provide more definitive information concerning site-specific conditions. Based on the findings of this assessment, a subsurface investigation is not recommended. If a subsurface investigation is considered for the property and if other entities are retained to provide such services, ENGEO cannot be held responsible for any and all claims arising from or resulting from the performance of such services by other persons or entities, and from any and all claims arising or resulting from clarifications, adjustments, modifications, discrepancies or other changes necessary to reflect changed field or other conditions.

ENGEO Incorporated has prepared this report for the exclusive use of our client, Joinery Structures. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action, shall be solely that of the Client. ENGEO agrees not to provide a report to any third party not legally required, unless authorized by the Client.

2.3 Limiting Conditions and Methodology Used

Laboratory testing of soil or ground-water samples was not within the scope of the contracted services. The assessment did not include an asbestos survey, an evaluation of lead based paint, or PCBs in light ballasts.

This report is based upon field and other conditions discovered at the time of preparation of ENGEO's work. Visual observations referenced in this report are intended only to represent site conditions at the time of the site visit. ENGEO would not be aware of site contamination, such as dumping and/or accidental spillage which occurred subsequent to the site reconnaissance conducted by ENGEO personnel.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The subject site is located along the east side of Kirkham Street, between 24th Street and 26th Street, in Oakland, California (Figure 1). The property is ± 20,000 ft.^{2} in area and includes Assessor Parcel Numbers 5-440-2-3 and 5-440-3, and 5-440-4.

3.2 Site and Vicinity Characteristics

The property is situated within an industrial area in the western section of Oakland. The site is relatively level at an elevation of seven feet above mean sea level. There are no existing drainage courses on the property. The soil deposits underlying the site are described as artificial fill (Radbruch, 1957). Exploratory soil borings drilled on the property in association with past environmental investigations found silty clay to a depth of eight feet, overlying clayey sand and sandy clay with gravel (Figure 2). Soil staining and organic vapors were recorded on the exploratory boring logs (Appendix E).

The specific depth to ground water and direction of ground-water flow was not determined as part of this phase one assessment. A subsurface investigation conducted at the adjacent Findley Adhesives property (Figure 2) found ground water at depths of three to four feet below the ground surface, with ground-water flow to the east/southeast.

The property to the north consists of a recycling business. The Findley Adhesives facility is located to the east. A commercial dry flower shop is located to the south. A former railroad siding and a

concrete batch plant are located to the west. Surrounding areas consist of commercial and industrial properties.

3.3 Description of Site Improvements

The existing property development consists of a 20,000 ft.^{2} industrial facility which is currently unoccupied. The site structures consist of three steel and wood framed buildings with one adjoining concrete structure (Figure 2 and 4). The concrete structure shares a common wall with the adjacent flower warehouse to the south. The structures have concrete slab-on-grade foundations. The property is serviced by municipal utilities. The prospective property owner, Mr. Paul Discoe was unaware of existing water supply wells on the property.

3.4 Environmental Liens/Specialized Knowledge

The prospective property owner, has no knowledge of environmental liens associated with the property. Previous phase I/II environmental site assessments performed at the site identified petroleum hydrocarbon contamination of site soils. These previous investigations are discussed in Section 4.0 of this report.

3.5 Current and Past Property Use

The existing site development consists of a 20,000 ft.^{2} industrial facility which is currently unoccupied. The site was operated by Asbury Graphite between the 1960s and the 1990s for the manufacturing, processing, and storage of graphite products for use in oil drilling, foundry molds and the steel industry. During the 1940s and 1950s, the site was a government residential housing site, with a bungalow structure extending across the property. A portion of the site in the northwest property area was occupied by a storage compound during the 1940s and 1950s. This storage area appears to have been

used by a soap manufacturing plant which operated on the parcel north of the site during this period. Review of a 1912 Sanborn Map found the property was undeveloped at that time.

3.6 Current and Past Use of Adjoining Properties

The concrete plant located to the west of the site has been in operation since at least the mid 1930s. Based on a review of Sanborn Fire Insurance Maps, some current and past use of hazardous or potentially hazardous materials at the plant is likely. A railroad siding apparently existed between the concrete plant and the subject property during the 1960s and 1970s.

The property to the north of the site is currently operated as a recycling facility. Based on historical information, this site was a cold storage facility in the 1960s and 1970s. Prior to the cold storage site, this property was operated by the West Coast Soap Company. A portion of the soap manufacturing facility extended onto the northwest corner of the subject site (Appendix C). Sanborn Maps indicate this area was used as a storage compound.

The property to the northeast and east of the site consisted of a bread depot, a tire recapping business, and an electric sign company, prior to the existing developments. The residential housing development described for the subject site during the 1940s and 1950s included the properties to the east.

The adjacent building south of the site was formerly operated as a foundry supply and graphite warehouse. This area was also residential housing in the 1940s and 1950s and undeveloped prior to that time.

4.0 PREVIOUS INVESTIGATIONS

Two previous environmental investigations were undertaken for the property in 1990 by Earth Metrics, Inc. for Asbury Graphite:

- *Level One Environmental Site Assessment and Limited Soil Chemistry (August 7, 1990)*

The report included a limited site history review along with the drilling of three exploratory soil borings on the property (Figure 3). Three soil samples, recovered from the borings at a depth of six feet, were tested for total petroleum hydrocarbons, BTEX, and metals. No petroleum hydrocarbons as gasoline or diesel were reported for the soil samples. Trace BTEX concentrations were reported for the samples. The reported metal concentrations were within expected background ranges. The report also indicated that volatile vapors were reported from the soil borings.

- *Level Two Environmental Site Assessment/Limited Soil Chemistry (December 17, 1996)*

The report included four exploratory borings drilled along the north side of the building. This area consists of a concrete pad which adjoins the building (Figure 2 and 4). The borings were drilled through the concrete pad to sample the underlying soils. Twelve soil samples were submitted for petroleum hydrocarbon analyses. Total recoverable hydrocarbons were detected for samples at three to four feet in depth at concentrations to 11,000 ppm. Based on the findings of the report, Earth Metrics recommended the over excavation of the affected soils to a depth of four feet. The estimated volume of the contaminated material was 300 cubic yards. The report also indicated that volatile vapors were recorded from the soil borings.

5.0 RECORDS REVIEW

5.1 Environmental Record Sources

Local, state and federal agencies were contacted to obtain available environmental information regarding the subject parcel and known contaminated sites in the immediate vicinity. Agencies contacted included:

- *City of Oakland Fire Department*
- *Alameda County Department of Environmental Health (ACDEH)*
- *California Environmental Protection Agency (CAL-EPA) Department of Toxic Substances Control (DTSC)*
- *State Water Resources Control Board (SWRCB)*
- *California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB)*
- *Environmental Protection Agency (Region IX)*

In addition to a review of ENGEO in-house regulatory information and staff research, Environmental Data Resources, Inc. (EDR) was contracted to perform a supplemental data base review. A list of regulatory agency data bases and informational sources is provided in Appendix B.

5.1.1 Subject Site Records Research Summary

The subject site is documented by ACDEH and the RWQCB as a contaminated property as a result of a petroleum hydrocarbon release. The site is listed by the state *as Clarke & Cramer - 2500 Kirkham Street.* The property is listed by the RWQCB as a leaking underground storage tanks site; however; no evidence of existing or preexisting USTs at the site is documented. The property also appears on the Cortese List as a result of the RWQCB listing. The property is not listed as a hazardous waste generator.

Facility information was requested from ACDEH; however, no files pertaining to the subject site were located (Rick Lindsay, personal communication 1996). Review of RWQCB file information found a letter from ACDEH addressing oil and grease contamination documented at the site. The letter referred to a reported TOG concentration of 170 parts per million (ppm) in site soils. Based on this information, ACDEH requested follow-up action, specifically, a ground-water investigation to determine if ground-water quality had been impacted as a result of the petroleum release. No other information was found in the RWQCB facility file.

5.1.2 Off-Site Property Records Research Summary

- Review of county, state and federal records and data bases did not identify Federal National Priority List (NPL) sites, Resource Conservation and Recovery Act (RCRA) treatment/storage/disposal facilities, or federal/state equivalent CERCLIS site requiring further investigation within one mile of the site:

- No state landfill or solid waste disposal sites are identified within ½ mile of the subject property.

- A review of regulatory agency records and available data bases identified 26 leaking underground storage tank sites and two toxic pit locations within ½ mile of the site (Appendix B). Given the distances to these facilities and the reported direction of ground-water flow, the toxic pit and LUST sites would not be expected to affect the subject property.

- Twenty one CHMRIS sites (accidental spills or releases) have been reported within one mile of the site. Given the distances to these CHMRIS facilities, the releases would not be expected to impact the subject site.

- Three registered hazardous waste generators (HWG) and three registered underground storage tank facilities (UST) are documented within 1/8 mile of the property.

5.2 Physical Setting Sources

The following sources were reviewed to obtain information regarding the geologic, hydrogeologic, hydrologic, and topographic characteristics of the site:

- *USGS, 1973, Oakland West Quadrangle-7.5' Topographic Map.*

- *Radbruch, Dorothy, 1957; Areal and Engineering Geology of the Oakland West Quadrangle; Oakland California; USGS Map I - 239.*

- *California Division of Mines and Geology; 1982; Special Studies Zone Map; Oakland West Quadrangle.*

A description of the physical setting of the subject property is provided in Section 3.2.

5.3 Historical Use Information

The purpose of the historical record review is to develop a history of the previous uses or occupancies of the property and surrounding area in order to identify those uses or occupancies that are likely to have led to recognized environmental conditions on the property.

5.3.1 Municipal Agencies

The following state/local agencies and private firms were contacted for information regarding past land use, development and operations on the property:

- *City of Oakland Building and Planning Department*
- *City of Oakland Fire Department*
- *City of Oakland Library*

The city building and planning files document the following permits for the subject property:

1966 - New construction permit

1967 - New construction permit

1968 - Building addition plans

1980 - Permit for a dust collector

No references to hazardous materials use, storage or generation was noted in the city files. No references to underground storage tanks were found in the city files. Fire District personnel were unaware of existing files for subject parcel (Vibhor Jain, personal communication 1996).

5.3.2 Aerial Photographs

The following aerial photographs, provided by Pacific Aerial Surveys (Oakland, California), were reviewed for information regarding past conditions and land use at the subject site and in the immediate vicinity:

PHOTO NUMBER	DATE
AV-3845-07-23/24	06-12-90
AV-2640-05-16/17	05-05-85
AV-2040-05-13/14	06-22-81
AV-1377-05-21/22	07-19-77
AV-1100-05-15/16	04-24-73
AV-902-05-14/15	05-02-69
AV-550-08-20	07-25-63
AV-337-06-27	07-03-59
AV-119-09-30	08-14-53
AV-28-12-35/36	09-16-49
AV-11-06-02	03-24-47

5.3.2.1 Subject Property

Review of the photographs found that property has been operated as a graphite production facility since the early 1960s. The existing structures are observed on the photographs dated 1969 - 1990. The northernmost structure is not visible on the 1963 photograph. The existing buildings are not evident on the 1959 photograph. Remnants of older foundations were observed at the site of the existing industrial structures on the 1959 photograph. A storage compound was noted at the northwest corner of the property on the 1947 - 1959 photographs. This compound appeared to be associated with the cold storage facility and soap manufacturing operation which existed to the north of the site. A residential structure appears on the property on the 1947 - 1953 photographs. This structure was part of a larger residential housing area which extended to the east and south of the site.

5.3.2.2 Adjacent Properties

The concrete plant west of the site appears on all of the photographs reviewed. An active railroad siding appears along Kirkham Street on the 1963 - 1990 photographs. Commercial facilities appear to the north of the site on all of the photographs reviewed. Some alterations in structure configuration are noted through the years The abutting building to the south of the site does not appear prior to the 1963 photograph. The area south of the site appears as residential housing on the 1947 - 1953 photographs. Remnants of the residential foundations are visible on the 1959 photograph.

The commercial sites east of the property were occupied by residential structures/foundations prior to the 1963 photograph.

5.3.3 Fire Insurance Maps and City Directories

Environmental Data Resources, Inc. (EDR) prepared a fire insurance map and city directory abstract for the subject site and surrounding properties (Appendix C). The EDR abstract was supplemented with information obtained from the City of Oakland Library. Copies of Sanborn Fire Insurance Maps are provided in Appendix D. The following provides a summary of the historical abstract for the subject site:

1912 - 1943	No listings
1951 - 1959	Bay Villa Housing Project
1962 - 1970	Foundry Supplies and Graphite Warehouse

No references to hazardous materials at the subject site was noted in the abstract.

The Pacific Cement & Aggregates plant is documented to the west of the site from 1935 through 1970. Additional facilities shown to the west include a U. S. Post Office operation (1954 - 1967) and the California Metals Company (1951 - 1952). References to a truck repair shop, an auto shop, and an oil house are denoted on the Sanborn Map for the cement company

Past facilities to the east of the site include the Bay Villa Housing Project (1951 - 1954), an electric sign company and bread depot (1959 - 1970), and a tire recapping shop (1970). References to paint spraying are denoted for the electric sign factory.

The property to the south included the Bay Villa Housing Project (1951 - 1954) and the Emporium Capwell Company (1959 - 1970).

The site north of the property is listed as the West Coast Soap factory (1935 - 1954) and as a cold storage facility (1962 - 1970). References to a gas powered steam engine are noted on the Sanborn Maps for the soap manufacturing site.

6.0 SITE RECONNAISSANCE

6.1 Site Reconnaissance

A site reconnaissance was conducted by a State of California Registered Environmental Assessor (REA) on June 10, 1996. The property was viewed for hazardous materials storage, surficial staining or discoloration, debris, stressed vegetation, or other conditions which may be indicative of potential sources of soil or ground-water contamination. The site was also inspected for fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. The property is currently used by Asbury Graphite for equipment and graphite product storage. Joinery Structures occupies one of the buildings for the stripping and bleaching of lumber.

6.1.1 Hazardous Substances in Connection with Identified Uses

Materials storage observed at the time of the site visit included the following:

- *Several hundred bags of carbon product and graphite on pallets.*
- *Twenty 55-gallon drums - some with residual petroleum product.*
- *Ten drums 30 - 55-gallons labeled as graphite and sodium silicate.*
- *Seven 5-gallon buckets of graphite coating.*
- *One 5-gallon bucket of lube oil.*
- *Two 55-gallon drums of naptha.*

These materials were observed within the interior of the facility, stored on concrete (Figure 2). No indication of significant spillage of the materials was noted, other than graphite dust which covers the floor areas. No floor drains were noted within these areas.

6.1.2 Hazardous Substance Containers

Thirty six drums were observed within the facility located at the northwest corner of the northern building (Figure 2). Several drums were noted which were used for reuse disposal and graphite sweepings. Hazardous materials containers with residual products are detailed in Section 5.1.1.

6.1.3 Storage Tanks

No physical evidence of existing/preexisting underground or above ground storage tanks was noted on the property. The prospective owner was unaware of underground storage tanks on the property.

6.1.4 PCBs and Radon

No electrical transformers were observed on the property.

CAL - EPA has conducted preliminary studies of radon risks throughout the state. Results of the initial studies indicate that average statistical radon concentrations in Alameda County are less than the current EPA action level.

6.1.5 Asbestos Containing Materials

An asbestos survey was not conducted as part of the site assessment. No suspect friable asbestos bearing materials were noted within the structures during the site reconnaissance

6.1.6 Solid Waste Disposal

No evidence of hazardous waste disposal was viewed on the property at the time of the site reconnaissance.

7.0 INTERVIEWS WITH OWNERS/OCCUPANTS

The prospective purchaser of the property, Mr. Paul Discoe, completed an environmental questionnaire for the property. Mr. Discoe was also interviewed on the property during the site reconnaissance. Mr. Discoe was not aware of existing or preexisting environmental conditions associated with the property, other than the soil impairments documented at the north side of the property. Mr. Discoe was also not aware of previous environmental site assessments, audits or environmentally related permits for the property. Mr. Discoe had no recollection of underground storage tanks/sumps or waste disposal on the property.

How would he even know? Talk to the seller.

8.0 FINDINGS AND CONCLUSIONS

The site reconnaissance did not find documentation or physical evidence of soil or ground-water impairments associated with the use of the property. No evidence of the disposal of hazardous materials on the property was observed. A review of regulatory data bases maintained by county, state and federal agencies found documentation of petroleum hydrocarbon contamination at the north side of the property. It has been proposed to excavate approximately 300 cubic yards of soil from this area. A ground-water investigation has been requested by Alameda County to address potential ground-water impacts from the petroleum release. No other documentation of hazardous materials use or soil/ground-water contamination at the site was found from the records review.

A review of aerial photographs, city directories, Sanborn Maps, and other available historical records found the property was used for residential purposes prior to the construction of the existing buildings. Some past use of the northwestern area of the property for storage was found from the photograph and map reviews.

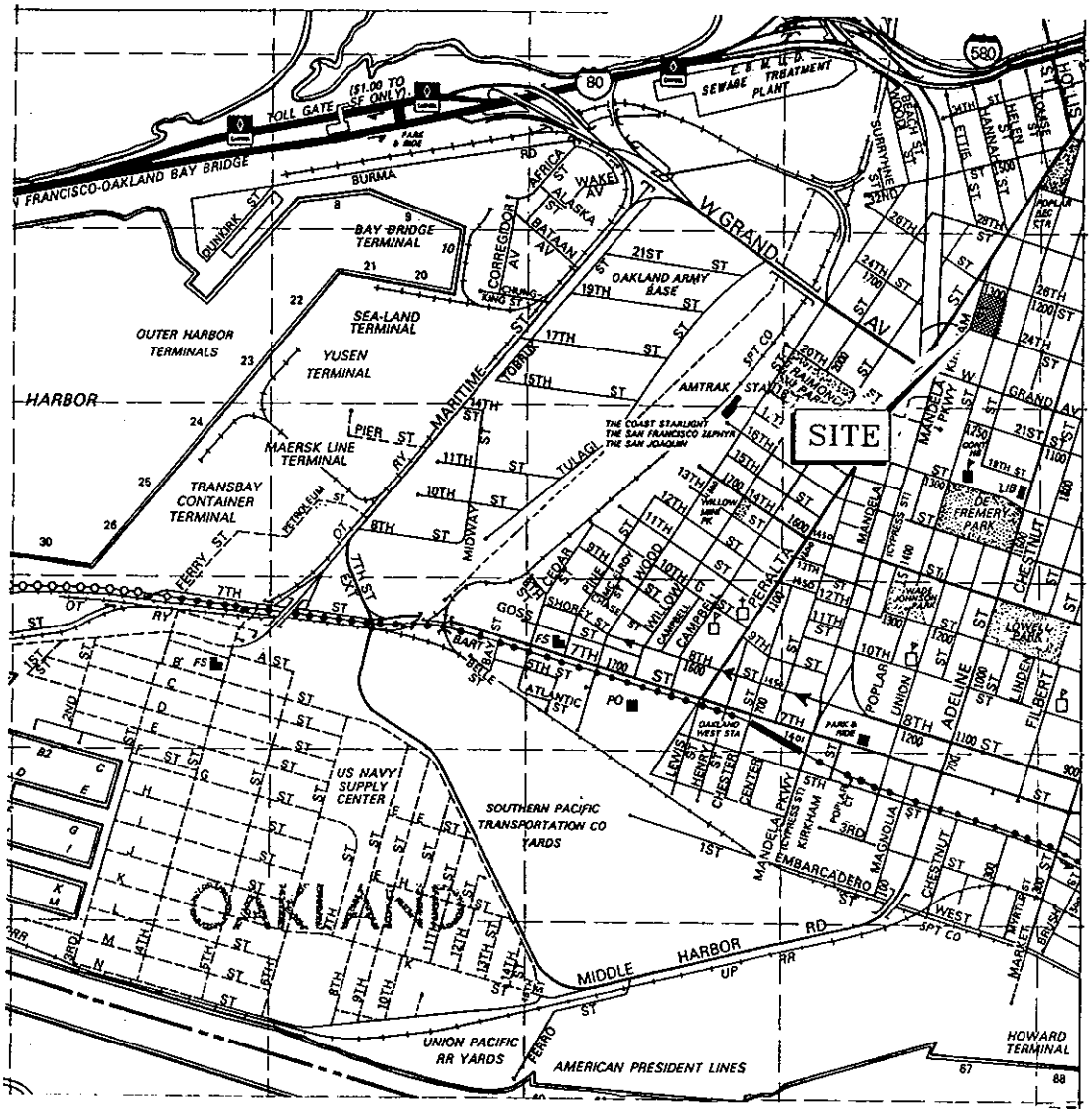
A review of regulatory agency records and available data bases identified 26 leaking underground storage tank sites and two toxic pit sites within ½ mile of the property (Appendix B). Given the distances to these facilities and the reported direction of ground-water flow, these facilities would not be expected to affect the subject property.

ENGEO has performed a Phase One Environmental Site Assessment of the subject property following the guidelines of ASTM Practice E-1527-94. This assessment has revealed recognized environmental conditions in connection with the property, which will require further investigation and mitigation.

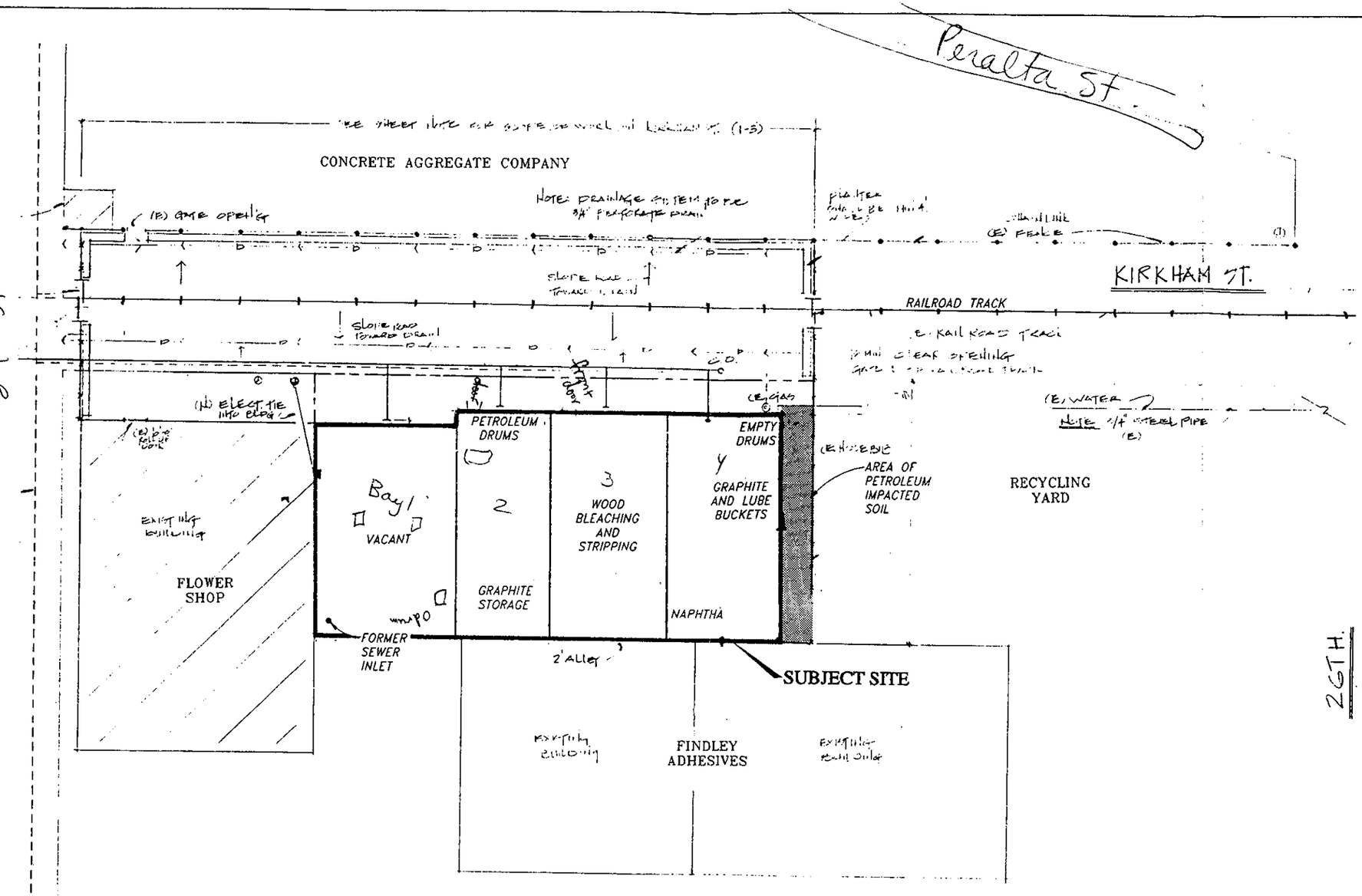
ENGEO recommends that a soil remediation and ground-water investigation work plan be prepared to address the noted petroleum hydrocarbon impacts on the property. This work plan should be submitted to the ACDEH and the RWQCB for their review and approval.

APPENDIX A

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Site Plan Showing Soil Boring Locations
Figure 4	Exterior Photographs

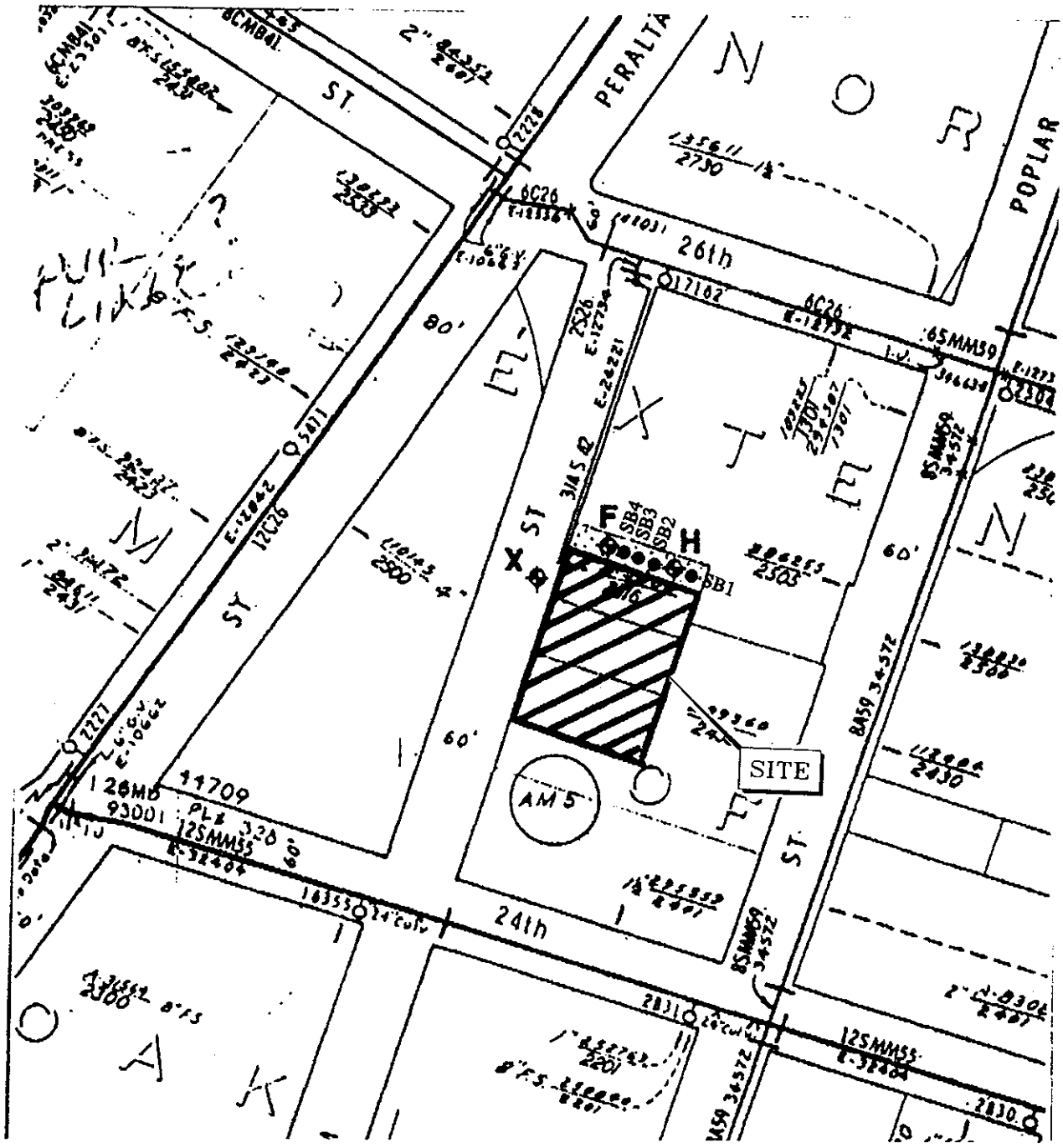


ENGEO INCORPORATED	**SITE LOCATION MAP** 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F1 DATE: JUNE 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 1



N.T.S.

ENGEO INCORPORATED	SITE PLAN 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F1 DATE: JUNE 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 2



SB1
● SOIL BORING
11/90 (EARTH METRICS)

H
⊕ SOIL BORING
7/90 (EARTH METRICS)

N

N.T.S.

ENGEO INCORPORATED

SITE PLAN WITH SOIL BORING LOCATIONS

2426-2500 KIRKHAM STREET

OAKLAND, CALIFORNIA

JOB NO.: 4139-F1

DATE: JUNE 1996

DRAWN BY: CHECKED BY:

FIGURE NO. 3

KIRKHAM STREET FRONTAGE

NORTH SIDE – SOIL EXPLORATION AREA

N.T.S.

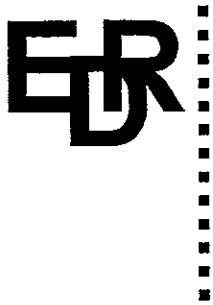
ENGEO INCORPORATED	EXTERIOR PHOTOGRAPHS 2426-2500 KIRKHAM STREET OAKLAND, CALIFORNIA	JOB NO.: 4139-F1 DATE: JUNE 1996 DRAWN BY: CHECKED BY:	FIGURE NO. 4

The EDR-Radius Map
with GeoCheck™

Asbury Graphite
2426-2500 Kirkham Street
Oakland, CA 94601

Inquiry Number: 0122037.5r

June 14, 1996



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Telephone: 1-800-352-0050
Fax: 1-800-231-6802

TABLE OF CONTENTS

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search met the specific requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-94, or custom distances requested by the user.

The address of the subject property for which the search was intended is:

2426-2500 KIRKHAM STREET
OAKLAND, CA 94601

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the subject property or within the ASTM E 1527-94 search radius around the subject property for the following Databases:

NPL:	National Priority List
Delisted NPL:	NPL Deletions
RCRIS-TSD:	Resource Conservation and Recovery Information System
AWP:	Annual Workplan
Delisted Cal-Sites:	Not reported
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS:	Corrective Action Report
SWF/LF (SWIS):	Solid Waste Information System
AST:	Aboveground Petroleum Storage Tank Facilities
RAATS:	RCRA Administrative Action Tracking System
WMUDS/SWAT:	Waste Management Unit Database
HMIRS:	Hazardous Materials Information Reporting System
PADS:	PCB Activity Database System
ERNS:	Emergency Response Notification System
FINDS:	Facility Index System
TRIS:	Toxic Chemical Release Inventory System
TSCA:	Toxic Substances Control Act
MLTS:	Material Licensing Tracking System
RODS:	Records Of Decision
CONSENT:	Superfund (CERCLA) Consent Decrees
NPL Liens:	Federal Superfund Liens
Site Mitigation:	Site Mitigation Complaint Control Log
Industrial Sites:	List of Industrial Site Cleanups
HMMD:	Hazardous Materials Management Division Databse
SLIC Region:	CA SLIC regions.
CA HW Generator:	Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Waste Discharge System:	Waste Discharge System
Coal Gas:	Former Manufactured gas (Coal Gas) Sites.

Unmapped (orphan) sites are not considered in the foregoing analysis.

Search Results:

Search results for the subject property and the search radius, are listed below:

Subject Property:

The subject property was identified in the following government records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
CLARKE & CRAMER, INC 2500 KIRKHAM ST OAKLAND, CA 94607	LUST	N/A

EXECUTIVE SUMMARY

CLARKE & CRAMER, INC
KIRKHAM ST (2500)
OAKLAND, CA

CORTESE N/A

EXECUTIVE SUMMARY

Surrounding Properties:

Sites with an elevation equal to or higher than the subject property are in the left hand column; those with a lower elevation are in the right hand column. Page numbers refer to the EDR Radius Map report where detailed data on individual sites may be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control.

A review of the Cal-Sites list, as provided by EDR, and dated 04/12/1996 has revealed that there are 14 Cal-Sites sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
LAHER SPRING AND ELECTRIC CAR	15/F24	B & P DISMANTLERS	28/P69
ALAMEDA CHEMICAL AND SCIENTIFI	16/28	LDS TRUCKING	29/Q74
GENERAL TRANSPORTATION INC.	***30/R76***	SOUTHERN PACIFIC OAKLAND	37/X98
ZERO WASTE SYSTEMS INC	32/S80	NEW OAKLAND FIRE STATION #3	41/108
SUTTA RECYCLING	35/U88		
THOMAS A. SHORT COMPANY	36/W94		
OAKLAND LAUNDRY COMPANY	43/120		
RANSOME CO	***43/122***		
ELECTRO-COATINGS	***45/Z123***		
CHROMEX DIV OF CHARLES LOWE CO	***46/Z125***		

NOTIFY 65: Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data comes from the State Water Resources Control Board's Proposition 65 database.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there are 2 Notify 65 sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
LINDFORD AIR & REFRIGERATION	21/M47		
LINDFORD AIR & REFRIGERATION	21/M49		

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/1991 has revealed that there are 21 CHMIRS sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
2600 UNION	13/14	2526 WOOD STREET	27/P67
2600 CAMPBELL	13/E17	2001 WOOD ST.	34/84
2600 CAMPBELL	14/E18	1655 17TH STREET	35/V90
2221 UNION STREET	14/20	1706 WOOD STREET	37/X100

Equal/Higher Elevation	Page/Map ID
2319 MAGNOLIA STREET	16/G25
1420 32 ST.	34/86
3265 LOUISE STREET	35/87
3455 ETTIE STREET	37/101
30TH STREET / SAN PABLO AVENUE	41/110
850 ATHENS STREET	41/111
3265 SAN PABLO AVENUE	42/114
4000 SAN PABLO AVENUE	47/131

Lower Elevation	Page/Map ID
1400 POPLER ST	39/Y103
1340 MONDELLA PARKWAY	41/109
1420 12TH ST.	43/117
925 WILLOW COURT	46/127
1830 10TH STREET	47/AA130

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information.

A review of the Cortese list, as provided by EDR, and dated 12/31/1994 has revealed that there are 35 Cortese sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID
C.E. TOLAND & SON	13/C13
E Z REST PRODUCTS	19/K41
LINFORD AIR & REFRIGERATION	21/M48
GENERAL TRANSPORTATION	31/R77
AIRBORNE EXPRESS	31/78
ZERO WASTE SYSTEMS INC	32/S81
CALIFORNIA ELECTRIC CO	32/T82
SUTTA RECYCLING	35/U89
THOMAS A. SHORT COMPANY	36/W95
BELOUS PROPERTY	42/112
THRIFTY OIL	42/116
CALIFORNIA HOTEL	43/118
ELECTRO-COATINGS	46/124
DEL MONTE PLANT #35	46/126
SHELL	46/128
CITY OF EMERYVILLE/FORMER SHEL	47/132

Lower Elevation	Page/Map ID
PG&E	18/J35
ZELLERBACH OAKLAND FACILITY	24/O59
ROBIDEAUX PROPERTY	25/O61
JORGENSEN STEEL & ALUMINUM	26/O64
B & P DISMANTLERS	27/P68
LDS TRUCKING	29/Q73
DON'S PLUMBING	36/V91
PENNZOIL GAS STATION	36/92
CARNATION DIARIES	***38/Y102***
NABISCO BRANDS, INC	40/104
BASF CORPORATION	***40/105***
SABEK VACANT LOT	41/106
DALVIN PAINT	41/107
GRAND MARINA INC	42/113
SOUTHERN PACIFIC	42/115
FYNE PROPERTY	43/119
SAFETY KLEEN	43/121
ARCO	46/AA129
ALL MERCEDES DISMANTLERS	47/133

TOXIC PITS: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data comes from the State Water Resources Control Board.

A review of the Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there are 2 Toxic Pits sites within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID

Lower Elevation	Page/Map ID
SP, W.OAKLAND YD.-(OILY WASTE)	36/X96
SP, W.OAKLAND YARD-(WASHWATER)	37/X97

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data comes from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 01/31/1996 has revealed that there are 22 LUST sites within approximately 0.5 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
OAKLAND SCAVENGER COMPANY#	***10/C7***	***PG&E GEN CONSTRUCTION OAKLAND***	***18/J34***
COLLINS PROPERTY	15/F23	***PACIFIC SUPPLY OAKLAND***	***23/57***
E Z REST PRODUCTS	20/K43	ZELLERBACH OAKLAND FACILITY	24/O58
LINFORD AIR & REFRIGERATION C	***21/M51***	JORGENSEN STEEL & ALUMINUM	25/O62
NED CLYDE CONSTRUCTION	22/L52	WILL'S FREIGHT LINES	25/O63
JT TRUCKING	25/60	***JORGENSEN STEEL & ALUMINUM***	***26/O65***
J.H. FITZMAURICE	27/66	***PACIFIC PIPE CO***	***30/75***
GARDINER PROPERTY	28/70	***CADEMARTORI TRUCKING, INC.***	***31/79***
EBMUD	28/71		
WAREHAM PROPERTY	29/72		
GENERAL TRANSPORTATION INC.	***30/R76***		
CALIFORNIA ELECTRIC CO	***33/T83***		
CAL-WEST PERIODICALS	34/85		
ROMAK IRON WORKS	***36/93***		

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data comes from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 12 UST sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
OAKLAND YARD	8/B3	GENERAL CONSTRUCTION OAKLAND S	18/J37
MAIN OFFICE	11/C9	***PACIFIC SUPPLY OAKLAND***	***23/57***
WESTERN SEAFARE COMPANY	12/D11		
BLOUNT INTERNATIONAL, LTD.	15/F22		
CERESKE ELECTRIC CABLE COMPANY	16/H30		
CENTRAL AREA SERVICE CENTER	17/I32		
E-Z-EST PRODUCTS CO., INC.	***20/K44***		
LEON HOMMEL MACHINE WORKS, INC	20/L46		
LINFORD AIR & REFRIGERATION C	***21/M51***		
MODERN MAIL SERVICE, INC.	23/N55		

CA FID: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID list, as provided by EDR, and dated 10/31/1994 has revealed that there are 12 CA FID sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
OAKLAND YARD	10/B4	C.I.D. SERVICES	16/29

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
WALKERS CONCRETE INC	10/6	GENERAL CONSTRUCTION OAKLAND S	17/J33
MAIN OFFICE	11/C8		
WESTERN SEAFARE COMPANY	13/D12		
BLOUNT INTERNATIONAL, LTD.	15/F21		
CENTRAL AREA SERVICE CENTER	17/I31		
BUS STORAGE YARD EASTSHORE	19/39		
E-Z-EST PRODUCTS CO., INC.	20/K45		
LINFORD AIR & REFRIGERATION	21/M50		
MODERN MAIL SERVICE, INC.	23/N56		

HWIS: The Hazardous Waste Information System database identifies hazardous waste generators and hazardous waste treatment, storage, and disposal facilities in the state of California. The source is the California Environmental Protection Agency.

A review of the HWIS list, as provided by EDR, and dated 12/31/1993 has revealed that there are 7 HWIS sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
OAKLAND SCAVENGER CO	12/C10	PACIFIC GAS AND ELECTRIC	18/J36
ARTESIAN WASTE OIL RECOVERY	16/G27	PACIFIC GAS & ELECTRIC OAKLAND	19/J38
KUSTOM KAR/KARL ESTELL	19/K42		
CUSTOM WOOD FINISHING	23/L53		
MODERN MAIL SERVICES	23/N54		

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 02/29/1996 has revealed that there are 5 RCRIS-SQG sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
FINDLEY ADHESIVES INC	*10/5*		
OAKLAND SCAVENGER COMPANY#	*10/C7*		
HEAT-WELL CO	*13/15*		
SUPERIOR FRENCH LND & DRY CLNR	*14/19*		
ASSOCIATED FREIGHT LINES	*19/H40*		

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-LQG list, as provided by EDR, and dated 02/29/1996 has revealed that there are 3 RCRIS-LQG sites within approximately 0.25 Miles of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
NORTHWESTERN VENETIAN SUPPLY C	*13/16*	*PG&E GEN CONSTRUCTION OAKLAND*	*18/J34*

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
PACIFIC CRYOGENICS	*16/G26*		

BEP: Bond Expenditure Plan comes from the Department of Health Services.

A review of the CA Bond Exp. Plan list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA Bond Exp. Plan site within approximately 1 Mile of the subject property.

Equal/Higher Elevation	Page/Map ID	Lower Elevation	Page/Map ID
		SOUTHERN PACIFIC TRANSPORTATIO	37/X99

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
SOUTHERN PACIFIC - DESERT RAILYARD	AWP, Cal-Sites
SOUTHERN PACIFIC -WEST OAKLAND RAI	AWP, Cal-Sites
ST ALBANS SENIOR CENTER	Cal-Sites
CHINATOWN REDEVELOPMENT - OAKLAND	Cal-Sites
PORT OF OAKLAND / CYPRESS FREEWAY	Cal-Sites
PG&E - OAKLAND	Cal-Sites
UNION PACIFIC RAILROAD PROPERTY	Cal-Sites
GRAND AUTO/SUPER TIRES	Cortese, LUST
OLD OAKLAND TRIBUNE GARAGE	Cortese, LUST
COCA-COLA ENTERPRISES WEST	LUST
KALMAR AC	LUST
CLAWSON HIGH SCHOOL	LUST
ALL WEST EQUIPMENT DBA FRANK A	UST
ALLIS-CHALMERS MATERIAL HANDLI	UST
KANTOR'S DISTRIBUTION CENTER	UST
OAKLAND PRODUCTION AND DISTRIB	UST
PACIFIC PIPE COMPANY	UST
SEA CONTAINERS WEST-OAKLAND DE	UST
OAKLAND FUEL FACILITIES CORP.	AST
KALMARAC OF OAKLAND INC	FINDS, RCRIS-LQG, HWIS
HENRY ANDREOTTI	HWIS
1X JT TRUCKING	HWIS
ROBERT LINFORD	HWIS
COCA COLA BOTTLING OAKLAND	RCRIS-SQG
CUSTOM WOODWORKING SHOP	RCRIS-SQG, FINDS
PPG IND INC LOC #0161	FINDS, RCRIS-LQG
COCA-COLA BOTTLING CO OF CA	FINDS, RCRIS-LQG
ORRELL - KEEFE INC	RCRIS-LQG

TOPOGRAPHIC MAP - 0122037.5r - ENGEO Incorporated

Source: US Geological Survey 1-Degree Digital Elevation Model
Compiled 09/15/92

0 1/4 1/2 1 2
Miles

- Major Roads
- Contour lines (25 foot interval unless otherwise shown)
- Waterways
- Earthquake fault lines
- Earthquake epicenter, Richter 5 or greater.
- (F)(S) - Closest well according to (F)ederal or (S)tate database in quadrant.
- (P) - Closest public water supply well.

TARGET PROPERTY:	Asbury Graphite	CUSTOMER:	ENGEO Incorporated
ADDRESS:	2426-2500 Kirkham Street	CONTACT:	Shawn Munger
CITY/STATE/ZIP:	Oakland CA 94601	INQUIRY #:	0122037.5r
LAT/LONG:	37.8187 / 122.2865	DATE:	June 14, 1996

GEOCHECK VERSION 2.1
SUMMARY

GEOLOGIC AGE IDENTIFICATION†

Geologic Code:	Q
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary

ROCK STRATIGRAPHIC UNIT†

Category:	Stratifed Sequence

GROUNDWATER FLOW INFORMATION

General Topographic Gradient: General SW
General Hydrogeologic Gradient: no hydrogeologic data available.

Note: In a general way, the water table typically conforms to surface topography.‡

USGS TOPOGRAPHIC MAP ASSOCIATED WITH THIS SITE

Target Property: 2437122-G3 OAKLAND WEST, CA

FEDERAL DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP	LITHOLOGY	DEPTH TO WATER TABLE

NO WELLS FOUND

STATE DATABASE WELL INFORMATION

WELL QUADRANT	DISTANCE FROM TP

NO WELLS FOUND

PUBLIC WATER SUPPLY SYSTEM INFORMATION (EPA-FRDS)

Searched by Nearest Well.
NOTE: PWS System location is not always the same as well location.

PWS Name:	BERKELEY LAND COMPANY BERKELEY LAND COMPANY 13310 EAGLEFIELD RD FIREBAUGH, CA 93622
Location Relative to TP:	1/2 - 1 Mile North
Well currently has or has had major violation(s):	Yes

AREA RADON INFORMATION

ALAMEDA COUNTY, CA

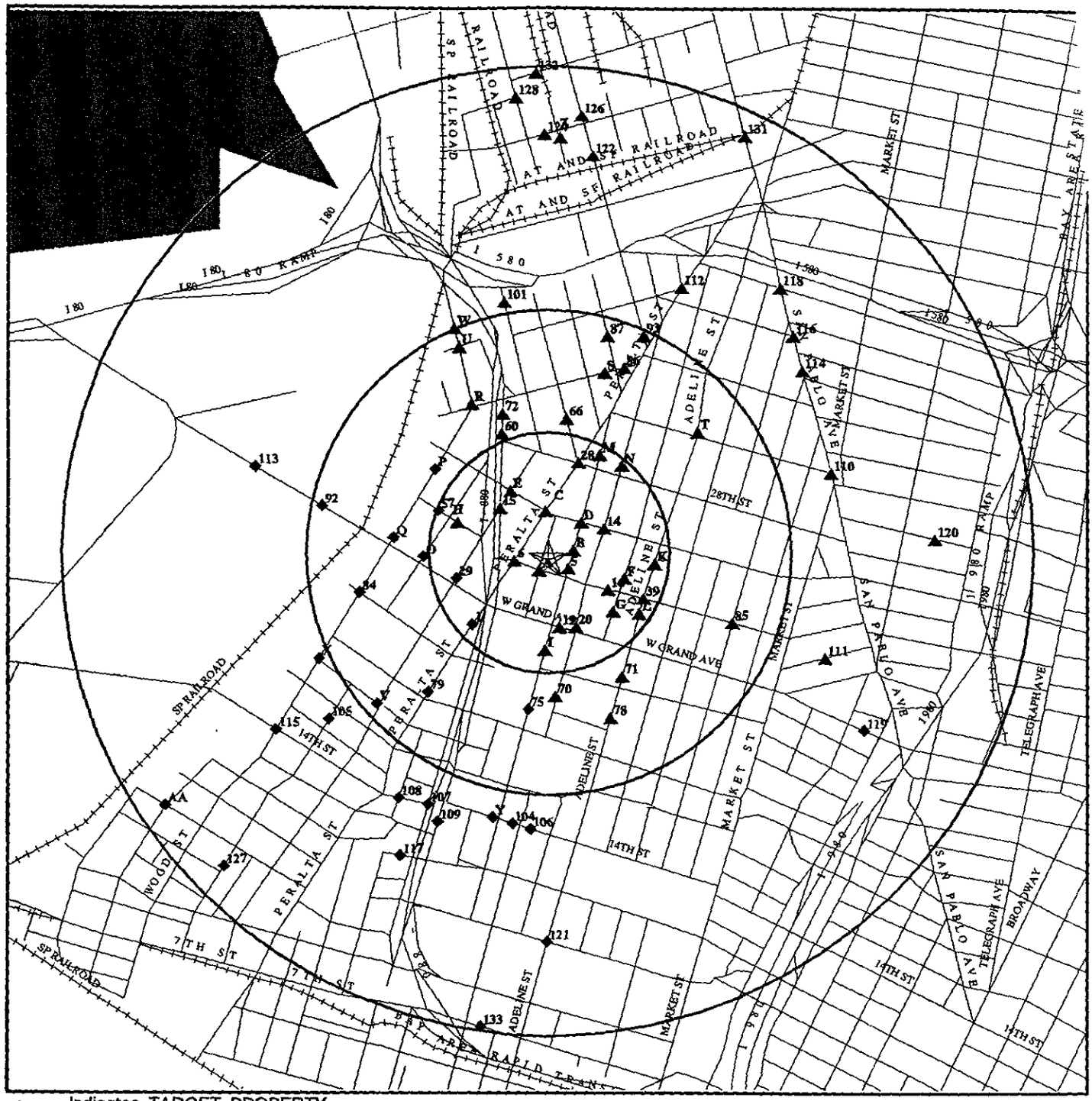
Number of sites tested: 49

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.776 pCi/L	100%	0%	0%
Living Area - 2nd Floor	-0.400 pCi/L	100%	0%	0%
Basement	1.338 pCi/L	100%	0%	0%

† Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

‡ U.S. EPA Ground Water Handbook, Vol I: Ground Water and Contamination, Office of Research and development EPA/625/6-90/016a,Chapter 4, page 78, September 1990.

OVERVIEW MAP - 0122037.5r - ENGEO Incorporated



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

◆ - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- National Priority List Sites

0 1/4 1/2 1

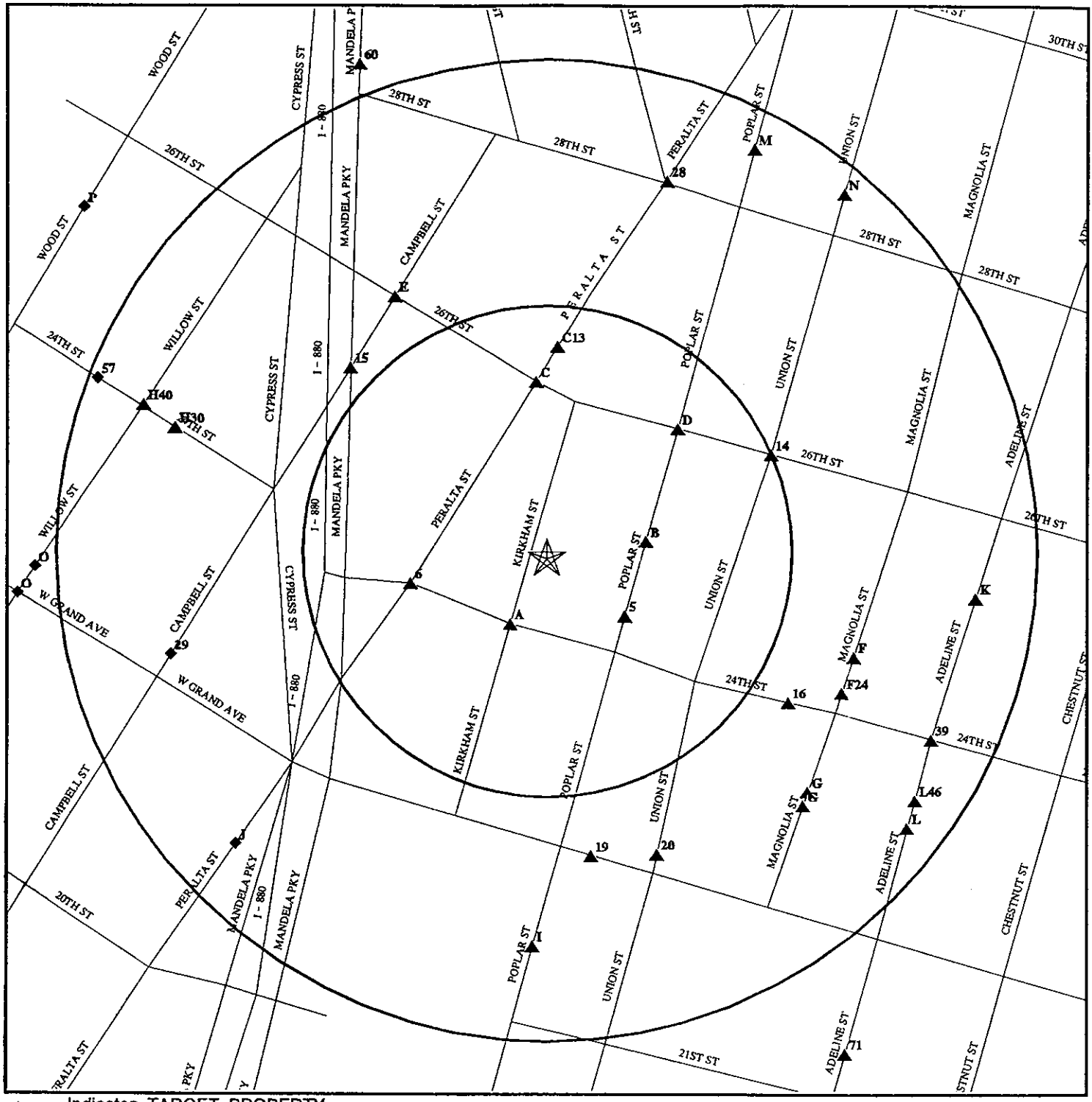
Miles

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	Asbury Graphite	CUSTOMER:	ENGEO Incorporated
ADDRESS:	2426-2500 Kirkham Street	CONTACT:	Shawn Munger
CITY/STATE/ZIP:	Oakland CA 94601	INQUIRY #:	0122037.5r
LAT/LONG:	37.8187 / 122.2865	DATE:	June 14, 1996

DETAIL MAP - 0122037.5r - ENGEO Incorporated



★ - Indicates TARGET PROPERTY.

▲ - Indicates sites at elevations higher than or equal to the target property.

◆ - Indicates sites at elevations lower than the target property.

- Coal Gasification Sites (if requested)

- Sensitive Receptors

- National Priority List Sites

0 1/8 1/4

Miles

- Power transmission lines (USGS DLG, 1993)

- Oil & Gas pipelines (USGS DLG, 1993)

TARGET PROPERTY:	Asbury Graphite	CUSTOMER:	ENGEO Incorporated
ADDRESS:	2426-2500 Kirkham Street	CONTACT:	Shawn Munger
CITY/STATE/ZIP:	Oakland CA 94601	INQUIRY #:	0122037.5r
LAT/LONG:	37.8187 / 122.2865	DATE:	June 14, 1996

MAP FINDINGS SUMMARY SHOWING ALL SITES

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	2	5	7	NR	14
Delisted Cal-Sites		1.000	0	0	0	0	NR	0
Notify 65		1.000	0	2	0	0	NR	2
CHMIRS		1.000	1	4	5	11	NR	21
Cortese	X	1.000	1	3	12	19	NR	35
Toxic Pits		1.000	0	0	0	2	NR	2
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
St. Landfill (SWIS)		0.500	0	0	0	NR	NR	0
LUST	X	0.500	1	6	15	NR	NR	22
UST		0.250	3	9	NR	NR	NR	12
CA FID		0.250	4	8	NR	NR	NR	12
AST		0.125	0	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
HWIS		0.250	1	6	NR	NR	NR	7
RCRIS Sm. Quan. Gen.		0.250	2	3	NR	NR	NR	5
RCRIS Lg. Quan. Gen.		0.250	0	3	NR	NR	NR	3
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
Site Mitigation		TP	NR	NR	NR	NR	NR	0
Industrial Site		TP	NR	NR	NR	NR	NR	0
HMMD		TP	NR	NR	NR	NR	NR	0
CA SLIC		TP	NR	NR	NR	NR	NR	0
CA Bond Exp. Plan		1.000	0	0	0	1	NR	1
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
CA HW Generator		TP	NR	NR	NR	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

MAP FINDINGS SUMMARY SHOWING ONLY SITES HIGHER THAN OR THE SAME ELEVATION AS TP

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPL		1.000	0	0	0	0	NR	0
Delisted NPL		TP	NR	NR	NR	NR	NR	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
AWP		1.000	0	0	0	0	NR	0
Cal-Sites		1.000	0	2	3	5	NR	10
Delisted Cal-Sites		1.000	0	0	0	0	NR	0
Notify 65		1.000	0	2	0	0	NR	2
CHMIRS		1.000	1	4	2	5	NR	12
Cortese	X	1.000	1	2	5	8	NR	16
Toxic Pits		1.000	0	0	0	0	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP		TP	NR	NR	NR	NR	NR	0
CORRACTS		1.000	0	0	0	0	NR	0
St. Landfill (SWIS)		0.500	0	0	0	NR	NR	0
LUST	X	0.500	1	4	9	NR	NR	14
UST		0.250	3	7	NR	NR	NR	10
CA FID		0.250	4	6	NR	NR	NR	10
AST		0.125	0	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
HWIS		0.250	1	4	NR	NR	NR	5
RCRIS Sm. Quan. Gen.		0.250	2	3	NR	NR	NR	5
RCRIS Lg. Quan. Gen.		0.250	0	2	NR	NR	NR	2
HMIRS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
ERNS		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
NPL Liens		TP	NR	NR	NR	NR	NR	0
Site Mitigation		TP	NR	NR	NR	NR	NR	0
Industrial Site		TP	NR	NR	NR	NR	NR	0
HMMD		TP	NR	NR	NR	NR	NR	0
CA SLIC		TP	NR	NR	NR	NR	NR	0
CA Bond Exp. Plan		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
CA HW Generator		TP	NR	NR	NR	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
Coal Gas		1.000	0	0	0	0	NR	0

TP = Target Property

NR = Not Requested at this Search Distance

* Sites may be listed in more than one database

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1 Target Property

CLARKE & CRAMER, INC
2500 KIRKHAM ST
OAKLAND, CA 94607

LUST — **S101438821** / **N/A**

LUST:

Case Number:	Not reported	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Waste Oil		
Lead Agency:	Local Agency		
Case Type:	Soil only		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	12/14/1990	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	09/18/1990

LUST Region 2:

Facility ID:	01-0426
Status:	Leak suspected at site but has not been confirmed

A2 Target Property

CLARKE & CRAMER, INC
KIRKHAM ST (2500)
OAKLAND, CA

Cortese — **S100226806** / **N/A**

CORTESE:
Facility ID: 01-000558 Data Source: LTNKA

B3 East < 1/8 Higher

OAKLAND YARD
2500 POPLAR
OAKLAND, CA 94607

UST — **U001599200** / **N/A**

UST:

Facility ID:	00000021104				
Tank Num:	1	Container Num:	#1	Tank Capacity:	00008000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	2	Container Num:	#2	Tank Capacity:	00008000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:					
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

OAKLAND YARD (Continued) U001599200

Facility ID:	00000021104				
Tank Num:	3	Container Num:	GAS	Tank Capacity:	00010000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	4	Container Num:	OIL	Tank Capacity:	00000500
Year Installed:	Not reported	Tank Used for:	WASTE		
Type of Fuel:	WASTE OIL	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	5	Container Num:	#1	Tank Capacity:	00008000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	6	Container Num:	#2	Tank Capacity:	00008000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:					
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	7	Container Num:	GAS	Tank Capacity:	00010000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

Facility ID:	00000021104				
Tank Num:	8	Container Num:	OIL	Tank Capacity:	00000500
Year Installed:	Not reported	Tank Used for:	WASTE		
Type of Fuel:	WASTE OIL	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	ANDY ANDERSON				
Telephone:	(415) 687-0480	Total Tanks:	0008	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING COMPANY		

MAP FINDINGS

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
B4 East < 1/8 Higher	**OAKLAND YARD** **2500 POPLAR ST** **OAKLAND, CA 94607**	Ca. FID	S101624379 N/A
5 SE < 1/8 Higher	**FINDLEY ADHESIVES INC** **2433 POPLAR ST** **OAKLAND, CA 94607**	RCRIS-SQG FINDS	1000190324 CAD035032630

RCRIS:
Owner: FINDLEY ADHESIVES INC
(415) 555-1212
Contact: ENVIRONMENTAL MANAGER
(415) 763-1500

Waste	Quantity	Info Source	Waste	Quantity	Info Source
U069	.00000 (N)	Notification	U088	.00000 (N)	Notification
U122	.00000 (N)	Notification	U188	.00000 (N)	Notification
U226	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

6 WSW < 1/8 Higher	**WALKERS CONCRETE INC** **2400 PERALTA ST** **OAKLAND, CA 94607**	Ca. FID	S101580302 N/A

CA FID:

Facility ID:	01002465	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(415) 452-1663
Mail To:	Not reported P O BOX OAKLAND, CA 94607		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	931022	Modified:	000000
EPA ID:	Not reported		
Comments:	Not reported		

C7 North < 1/8 Higher	**OAKLAND SCAVENGER COMPANY#** **2601 PERALTA ST** **OAKLAND, CA 94607**	RCRIS-SQG FINDS LUST	1000277307 CAD006910053

Map ID / Direction / Distance / Elevation | Site | Database(s) | EDR ID Number / EPA ID Number

OAKLAND SCAVENGER COMPANY# (Continued) **1000277307**

RCRIS:
Owner: OAKLAND SCAVENGER COMPANY
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(415) 465-2911

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D002	.00000 (N)	Notification
D004	.00000 (N)	Notification	F001	.00000 (N)	Notification
F002	.00000 (N)	Notification	F003	.00000 (N)	Notification
F004	.00000 (N)	Notification	F005	.00000 (N)	Notification
F006	.00000 (N)	Notification	F007	.00000 (N)	Notification
F008	.00000 (N)	Notification	F017	.00000 (N)	Notification
F018	.00000 (N)	Notification	K086	.00000 (N)	Notification
P004	.00000 (N)	Notification	P020	.00000 (N)	Notification
P035	.00000 (N)	Notification	P039	.00000 (N)	Notification
P050	.00000 (N)	Notification	P051	.00000 (N)	Notification
P059	.00000 (N)	Notification	P071	.00000 (N)	Notification
P089	.00000 (N)	Notification	P120	.00000 (N)	Notification
U013	.00000 (N)	Notification	U036	.00000 (N)	Notification
U066	.00000 (N)	Notification	U067	.00000 (N)	Notification
U129	.00000 (N)	Notification	U185	.00000 (N)	Notification
U224	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

LUST:

Case Number:	2332	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Waste Oil		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Preliminary site assessment workplan submitted		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	07/21/1993	Confirm Leak:	03/.*/0000
Workplan:	11/01/1990	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	04/21/1992

LUST Region 2:

Facility ID:	01-1080
Status:	Preliminary site assessment workplan submitted

C8 **MAIN OFFICE** Ca. FID S101630360
North **2601 PERALTA ST** N/A
< 1/8 **OAKLAND, CA 94607**
Higher

C9 **MAIN OFFICE** UST U001599189
North **2601 PERALTA STREET** N/A
< 1/8 **OAKLAND, CA 94607**
Higher

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

MAIN OFFICE (Continued) — **U001599189**

UST:

Facility ID:	00000016457				
Tank Num:	1	Container Num:	WO-10-01	Tank Capacity:	00010000
Year Installed:	1980	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	3/16 inches		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	DINO BIGGI				
Telephone:	(415) 465-2911	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCK YARD AND SHOP		

Facility ID:	00000016457				
Tank Num:	2	Container Num:	WO-03-02	Tank Capacity:	00003000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	DINO BIGGI				
Telephone:	(415) 465-2911	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCK YARD AND SHOP		

Facility ID:	00000016457				
Tank Num:	3	Container Num:	WO-0.5-04	Tank Capacity:	00000500
Year Installed:	Not reported	Tank Used for:	WASTE		
Type of Fuel:	WASTE OIL	Tank Construction:	Not Reported		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	DINO BIGGI				
Telephone:	(415) 465-2911	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCK YARD AND SHOP		

Facility ID:	00000016457				
Tank Num:	4	Container Num:	WO-03-03	Tank Capacity:	00003000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	DINO BIGGI				
Telephone:	(415) 465-2911	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCK YARD AND SHOP		

C10 — North — < 1/8 — Higher

OAKLAND SCAVENGER CO — HWIS — S100940971
2601 PERALTA ST — N/A
OAKLAND, CA 94607

D11 — NE — < 1/8 — Higher

WESTERN SEAFARE COMPANY — UST — U001599239
1301 26TH STREET — N/A
OAKLAND, CA 94607

UST:

Facility ID:	00000004404				
Tank Num:	1	Container Num:	130126	Tank Capacity:	00001000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 465-8750	Total Tanks:	0001	Region:	Not reported
Facility Type:	2	Other Type:	Not reported		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
D12 NE < 1/8 Higher	**WESTERN SEAFARE COMPANY** **1301 26TH ST** **OAKLAND, CA 94607**	Ca. FID	S101624402 N/A
C13 North < 1/8 Higher	**C.E. TOLAND & SON** **PERALTA ST (2635)** **OAKLAND, CA 94607**	Cortese	S101293730 N/A
14 ENE < 1/8 Higher	**2600 UNION** **OAKLAND, CA 94607**	CHMIRS	S100276806 N/A
15 NW 1/8-1/4 Higher	**HEAT-WELL CO** **2500 CAMPBELL ST** **OAKLAND, CA 94607**	RCRIS-SQG FINDS	1000394639 CAD981383268
16 ESE 1/8-1/4 Higher	**NORTHWESTERN VENETIAN SUPPLY CORP** **1218 24TH ST** **OAKLAND, CA 94607**	FINDS RCRIS-LQG	1000411043 CAD009185653
E17 NNW 1/8-1/4 Higher	**2600 CAMPBELL** **OAKLAND, CA 94607**	CHMIRS	S100278422 N/A

CORTESE:
Facility ID: 01-000386 Data Source: LTNKA

CHMIRS:

OES Control Number:	9100536	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	WASTE MOTOR OIL		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Industrial, Utility
Incident Date:	19-JUN-91	Date Completed:	19-JUN-91

RCRIS:
Owner: LEVOLOR LORENTZEN INCORPORATED
(415) 555-1212
Contact: ENVIRONMENTAL MANAGER
(201) 460-8400

Waste	Quantity	Info Source	Waste	Quantity	Info Source
F001	.00000 (N)	Notification	F003	.00000 (N)	Notification
F005	.00000 (N)	Notification	U228	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

(Continued) S100278422

CHMIRS:
OES Control Number: 9100530 DOT ID: Not reported
DOT Hazard Class: Not Reported
Chemical Name: NON HAZARD
Extent of Release: Not reported
CAS Number: Not reported Quantity Released: 0
Environmental Contamination: None Reported Property Use: Industrial, Utility
Incident Date: 17-JUN-91 Date Completed: 17-JUN-91

E18 | **2600 CAMPBELL** | CHMIRS | S100276803
NNW | **OAKLAND, CA 94607** | N/A
1/8-1/4
Higher

CHMIRS:
OES Control Number: 9100530 DOT ID: Not reported
DOT Hazard Class: Not Reported
Chemical Name: NON HAZARD
Extent of Release: Not reported
CAS Number: Not reported Quantity Released: 0
Environmental Contamination: None Reported Property Use: Industrial, Utility
Incident Date: 17-JUN-91 Date Completed: 17-JUN-91

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19 | **SUPERIOR FRENCH LND & DRY CLNRS** | RCRIS-SQG | 1000215836
South | **1284 W GRAND AVE** | FINDS | CAD981658792
1/8-1/4 | **OAKLAND, CA 94607**
Higher

RCRIS:
Owner: ANDY PORYES
(415) 555-1212
Contact: ENVIRONMENTAL MANAGER
(415) 444-0645

Waste	Quantity	Info Source
F002	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

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20 | **2221 UNION STREET** | CHMIRS | S100276616
SSE | **OAKLAND, CA 94607** | N/A
1/8-1/4
Higher

CHMIRS:
OES Control Number: 9100144 DOT ID: Not reported
DOT Hazard Class: Not Reported
Chemical Name: UNKNOWN
Extent of Release: No Release
CAS Number: Not reported Quantity Released: 0
Environmental Contamination: None Reported Property Use: County/City Road
Incident Date: 19-FEB-91 Date Completed: 19-FEB-91

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
F21 **ESE** **1/8-1/4** **Higher**	**BLOUNT INTERNATIONAL, LTD.** **2452 MAGNOLIA ST** **OAKLAND, CA 94607**	Ca. FID	S101624353 N/A
F22 **ESE** **1/8-1/4** **Higher**	**BLOUNT INTERNATIONAL, LTD.** **2452 MAGNOLIA STREET** **OAKLAND, CA 94607**	UST	U001599155 N/A

UST:

Facility ID:	00000066953				
Tank Num:	1	Container Num:	1	Tank Capacity:	00001000
Year Installed:	Not reported	Tank Used for:	WASTE		
Type of Fuel:	Not Reported	Tank Construction:	X centimeters		
Leak Detection:	None				
Contact Name:	Not reported				
Telephone:	(205) 244-4000	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	EQUIPMENT STORAGE		

Facility ID:	00000066953				
Tank Num:	2	Container Num:	2	Tank Capacity:	00001500
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	Not reported				
Telephone:	(205) 244-4000	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	EQUIPMENT STORAGE		

F23 **ESE** **1/8-1/4** **Higher**	**COLLINS PROPERTY** **2452 MAGNOLIA ST** **OAKLAND, CA 94608**	LUST	S101322257 N/A

LUST:

Case Number:	3788	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	05/23/1989	Confirm Leak:	03/23/1992
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	07/15/1988

LUST Region 2:

Facility ID:	01-0440
Status:	Leak suspected at site but has not been confirmed

F24 **ESE** **1/8-1/4** **Higher**	**LAHER SPRING AND ELECTRIC CAR** **2419 MAGNOLIA ST** **OAKLAND, CA 94607**	Cal-Sites	S102008282 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
G25 SE 1/8-1/4 Higher	2319 MAGNOLIA STREET OAKLAND, CA 94607	CHMIRS	S100279939 N/A

CHMIRS:

OES Control Number:	9014045	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	OIL, MOTOR		
Extent of Release:	Release Beyond Property Use of Origin		
CAS Number:	Not reported	Quantity Released:	1200
Environmental Contamination:	Other	Property Use:	Industrial, Utility
Incident Date:	15-NOV-90	Date Completed:	15-NOV-90

G26 SE 1/8-1/4 Higher	PACIFIC CRYOGENICS 2311 MAGNOLIA ST OAKLAND, CA 94607	FINDS RCRIS-LQG	1000250758 CAD990803967

RCRIS:
Owner: PAT HOPKINS
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(415) 444-8081

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	F017	.00000 (N)	Notification
U159	.00000 (N)	Notification	U220	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

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G27 SE 1/8-1/4 Higher	ARTESIAN WASTE OIL RECOVERY 2306 MAGNOLIA ST OAKLAND, CA 94607	HWIS	S100930066 N/A

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28 NNE 1/8-1/4 Higher	ALAMEDA CHEMICAL AND SCIENTIFIC 2668 HANNAH STREET OAKLAND, CA 94608	Cal-Sites	S102008173 N/A

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29 WSW 1/8-1/4 Lower	C.I.D. SERVICES 2226 CAMPBELL ST OAKLAND, CA 95607	Ca. FID	S101627717 N/A

H30 WNW 1/8-1/4 Same	CERESKE ELECTRIC CABLE COMPANY 1688-24TH STREET OAKLAND, CA 94607	UST	U001599164 N/A

CERESKE ELECTRIC CABLE COMPANY (Continued) **U001599164**

UST:

Facility ID:	00000042796				
Tank Num:	1	Container Num:	2	Tank Capacity:	00000550
Year Installed:	1971	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	12 gauge		
Leak Detection:	Stock Inventor				
Contact Name:	SCOTT JOHNSON				
Telephone:	(415) 832-3546	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	CABLE CO.		

Facility ID:	00000042796				
Tank Num:	2	Container Num:	1	Tank Capacity:	00002000
Year Installed:	1979	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	3/4 inches		
Leak Detection:	Stock Inventor				
Contact Name:	SCOTT JOHNSON				
Telephone:	(415) 832-3546	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	CABLE CO.		

I31
South
1/8-1/4
Higher

CENTRAL AREA SERVICE CENTER Ca. FID S101624357
2144 POPLAR ST N/A
OAKLAND, CA 94607

I32
South
1/8-1/4
Higher

CENTRAL AREA SERVICE CENTER UST U001599162
2144 POPLAR STREET N/A
OAKLAND, CA 94607

UST:

Facility ID:	00000027849				
Tank Num:	1	Container Num:	8630	Tank Capacity:	00012000
Year Installed:	1983	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	E.V. MATHEWS				
Telephone:	(415) 835-3000	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	WATER UTILITY		

Facility ID:	00000027849				
Tank Num:	2	Container Num:	56441-1	Tank Capacity:	00006000
Year Installed:	1979	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	E.V. MATHEWS				
Telephone:	(415) 835-3000	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	WATER UTILITY		

J33
SW
1/8-1/4
Lower

GENERAL CONSTRUCTION OAKLAND S Ca. FID S101624551
2121 PERALTA ST N/A
OAKLAND, CA 94623

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
J34 SW 1/8-1/4 Lower	PG&E GEN CONSTRUCTION OAKLAND SRV CNTR 2121 PERALTA STREET OAKLAND, CA 94607	FINDS RCRIS-LQG LUST	1000196878 CAT080011513

RCRIS:
Owner: PACIFIC GAS AND ELECTRIC COMPANY
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(415) 781-4211

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D002	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

LUST:

Case Number:	Not reported	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Misc. Motor Vehicle Fuels		
Lead Agency:	Local Agency		
Case Type:	Undefined		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	09/13/1994	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	09/27/1994	Release Date:	05/25/1988

LUST Region 2:
Facility ID: 01-1169
Status: Signed off, remedial action completed or deemed unnecessary

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J35 SW 1/8-1/4 Lower	PG&E PERALTA ST (2121) OAKLAND, CA	Cortese	S101306654 N/A

CORTESE:
Facility ID: 01-001285 Data Source: LTNKA

J36 SW 1/8-1/4 Lower	PACIFIC GAS AND ELECTRIC 2121 PERALTA OAKLAND, CA 94607	HWIS	S100941516 N/A

J37 SW 1/8-1/4 Lower	GENERAL CONSTRUCTION OAKLAND S 2121 PERALTA STREET OAKLAND, CA 94623	UST	U001599542 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number

GENERAL CONSTRUCTION OAKLAND S (Continued) — U001599542

UST:

Facility ID:	00000024792				
Tank Num:	1	Container Num:	1	Tank Capacity:	00001200
Year Installed:	1977	Tank Used for:	WASTE		
Type of Fuel:	WASTE OIL	Tank Construction:	1/8 inches		
Leak Detection:	Visual				
Contact Name:	H. BURLISON				
Telephone:	(415) 465-2105	Total Tanks:	0001	Region:	Not reported
Facility Type:	2	Other Type:	GARAGE		

J38 / SW / 1/8-1/4 / Lower

PACIFIC GAS & ELECTRIC OAKLAND SERV CTR
2121 PERALTA STREET
OAKLAND, CA 94607

HWIS — S100869896 / N/A

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39 / ESE / 1/8-1/4 / Higher

BUS STORAGE YARD EASTSHORE
2400 ADELINE ST
OAKLAND, CA 94607

Ca. FID — S101580324 / N/A

CA FID:

Facility ID:	01002497	Regulate ID:	Not reported
Reg By:	Active Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Active	Facility Tel:	(415) 763-1242
Mail To:	Not reported PO BOX OAKLAND, CA 94607		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	931022	Modified:	000000
EPA ID:	Not reported		
Comments:	Not reported		

H40 / WNW / 1/8-1/4 / Same

ASSOCIATED FREIGHT LINES
2403 WILLOW ST
OAKLAND, CA 94607

RCRIS-SQG / FINDS — 1000327995 / CAD050347251

K41 / East / 1/8-1/4 / Higher

E Z REST PRODUCTS
ADELINE ST (2528)
OAKLAND, CA 94607

Cortese — S101293661 / N/A

CORTESE:
Facility ID: 01-002272 Data Source: LTNKA

K42 / East / 1/8-1/4 / Higher

KUSTOM KAR/KARL ESTELL
2528 ADELINE STREET
OAKLAND, CA 94607

HWIS — S100938413 / N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
K43 East 1/8-1/4 Higher	E Z REST PRODUCTS 2528 ADELINE ST OAKLAND, CA 94607	LUST	S101321387 N/A

LUST:

Case Number:	01NBC0014	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Misc. Motor Vehicle Fuels		
Lead Agency:	Regional Board Inactive		
Case Type:	Undefined		
Status:	No leak action taken by responsible party after initial report of leak		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	07/30/1989	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	02/23/1987

LUST Region 2:

Facility ID:	Not reported
Status:	No leak action taken by responsible party after initial report of leak

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K44 East 1/8-1/4 Higher	E-Z-EST PRODUCTS CO., INC. 2528 ADELINE STREET OAKLAND, CA 94607	UST SLIC Region	U001599170 N/A

SLIC Region 2:

Facility ID:	01S0081	Facility Status:	Inactive

UST:

Facility ID:	00000067445				
Tank Num:	1	Container Num:	1#	Tank Capacity:	00001000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	X centimeters		
Leak Detection:	Stock Inventor				
Contact Name:	ROBERT W. VOGEL				
Telephone:	(415) 836-3980	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MANUFACTURING		
Facility ID:	00000067445				
Tank Num:	2	Container Num:	#2	Tank Capacity:	00000000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	ROBERT W. VOGEL				
Telephone:	(415) 836-3980	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MANUFACTURING		

K45 East 1/8-1/4 Higher	E-Z-EST PRODUCTS CO., INC. 2528 ADELINE ST OAKLAND, CA 94607	Ca. FID	S101624363 N/A

L46 SE 1/8-1/4 Higher	LEON HOMMEL MACHINE WORKS, INC 2340 ADELINE STREET, OAKLAND, OAKLAND, CA 94607	UST	U001599187 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	LEON HOMMEL MACHINE WORKS, INC (Continued)		**U001599187**

UST:
Facility ID: 00000037321
Tank Num: 1 Container Num: 1 Tank Capacity: 00000370
Year Installed: Not reported Tank Used for: PRODUCT
Type of Fuel: UNLEADED Tank Construction: Not Reported
Leak Detection: None
Contact Name: RICK SANFORD
Telephone: (415) 893-5588 Total Tanks: 0001 Region: Not reported
Facility Type: 2 Other Type: MACHINE & JOBBING SH

M47 **NNE** **1/8-1/4** **Higher**	**LINDFORD AIR & REFRIGERATION** **2850 POPLAR** **OAKLAND, CA 94608**	**Notify 65**	**S100453834** **N/A**

NOTIFY 65:
Date Reported: 19920730 Staff Initials: Not reported
Board File Number: 0LG921236
Facility Type: Leak Rpt
Discharge Date: 19920727
Incident Description: Not Reported

M48 **NNE** **1/8-1/4** **Higher**	**LINFORD AIR & REFRIGERATION** **POPLAR (2850)** **OAKLAND, CA 94608**	**Cortese**	**S101293732** **N/A**

CORTESE:
Facility ID: 01-001027 Data Source: LTNKA

M49 **NNE** **1/8-1/4** **Higher**	**LINDFORD AIR & REFRIGERATION** **2850 POPLAR** **OAKLAND, CA 94608**	**Notify 65**	**S100453871** **N/A**

M50 **NNE** **1/8-1/4** **Higher**	**LINFORD AIR & REFRIGERATION** **2850 POPLAR ST** **OAKLAND, CA 94608**	**Ca. FID**	**S101624438** **N/A**

M51 **NNE** **1/8-1/4** **Higher**	**LINFORD AIR & REFRIGERATION C** **2850 POPLAR** **OAKLAND, CA 94608**	**UST** **LUST**	**U001599289** **N/A**

LINFORD AIR & REFRIGERATION C (Continued) U001599289

LUST:

Case Number:	4048	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	06/23/1994	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	09/10/1992

LUST Region 2:

Facility ID:	01-0913
Status:	Leak suspected at site but has not been confirmed

UST:

Facility ID:	00000051535				
Tank Num:	1	Container Num:	1	Tank Capacity:	00010000
Year Installed:	1981	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	Not reported				
Telephone:	(415) 834-2430	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	CONSTRUCTION CONTRAC		

Facility ID:	00000051535				
Tank Num:	2	Container Num:	2	Tank Capacity:	00004000
Year Installed:	1972	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	3/16 inches		
Leak Detection:	Stock Inventor				
Contact Name:	Not reported				
Telephone:	(415) 834-2430	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	CONSTRUCTION CONTRAC		

L52 **NED CLYDE CONSTRUCTION** LUST S101322788
SE **2311 ADELINE ST** N/A
1/8-1/4 **OAKLAND, CA 94607**
Higher

LUST:

Case Number:	3806	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Post remedial action monitoring in progress		
Abate Method:	Excavate and Treat - remove contaminated soil and treat [includes spreading or land farming], Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	05/07/1990	Confirm Leak:	03/17/1992
Workplan:	05/01/1989	Prelim Assess:	05/12/1989
Pollution Char:	05/12/1989	Remed Plan:	04/01/1991
Remed Action:	05/01/1989	Monitoring:	04/01/1991
Close Date:	03/.*/0000	Release Date:	01/20/1989

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	NED CLYDE CONSTRUCTION (Continued)		**S101322788**
	LUST Region 2: Facility ID: 01-1036 Status: Post remedial action monitoring in progress		
L53 **SE** **1/8-1/4** **Higher**	**CUSTOM WOOD FINISHING** **2311 ADELINE STREET** **OAKLAND, CA 94607**	**HWIS**	**S100933485** **N/A**
N54 **NE** **1/8-1/4** **Higher**	**MODERN MAIL SERVICES** **2836 UNION ST** **OAKLAND, CA 94608**	**HWIS**	**S100868401** **N/A**
N55 **NE** **1/8-1/4** **Higher**	**MODERN MAIL SERVICE, INC.** **2836 UNION ST** **OAKLAND, CA 94608**	**UST**	**U001599296** **N/A**

UST:

Facility ID:	00000008914				
Tank Num:	1	Container Num:	1	Tank Capacity:	00010000
Year Installed:	1977	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	LAWRENCE M. WADLER				
Telephone:	(415) 444-6245	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MESSENGER SVC.		

Facility ID:	00000008914				
Tank Num:	2	Container Num:	2	Tank Capacity:	00002000
Year Installed:	1965	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	LAWRENCE M. WADLER				
Telephone:	(415) 444-6245	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MESSENGER SVC.		

N56 **NE** **1/8-1/4** **Higher**	**MODERN MAIL SERVICE, INC.** **2836 UNION ST** **OAKLAND, CA 94608**	**Ca. FID**	**S101624442** **N/A**
57 **WNW** **1/8-1/4** **Lower**	**PACIFIC SUPPLY OAKLAND** **1735 24TH STREET** **OAKLAND, CA 94607**	**UST** **LUST**	**U001599207** **N/A**

PACIFIC SUPPLY OAKLAND (Continued) **U001599207**

LUST:

Case Number:	3826	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Pollution characterization		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	08/01/1988	Confirm Leak:	03/27/1992
Workplan:	03/05/1990	Prelim Assess:	09/30/1988
Pollution Char:	12/31/1989	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	04/19/1990

LUST Region 2:

Facility ID:	01-1129
Status:	Pollution characterization

UST:

Facility ID:	00000052179				
Tank Num:	1	Container Num:	1	Tank Capacity:	00000550
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	HARRY MCINTOSH				
Telephone:	(415) 832-5734	Total Tanks:	0001	Region:	Not reported
Facility Type:	2	Other Type:	SUPPLY YARD		

O58 **ZELLERBACH OAKLAND FACILITY** **LUST** **S101323370**
West **2230 WILLOW ST** **N/A**
1/4-1/2 **OAKLAND, CA 94607**
Lower

LUST:

Case Number:	3718	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	04/17/1989	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	07/25/1989
Pollution Char:	01/01/1990	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	11/09/1995	Release Date:	03/01/1989

LUST Region 2:

Facility ID:	01-1693
Status:	Pollution characterization

O59 **ZELLERBACH OAKLAND FACILITY** **Cortese** **S101293748**
West **WILLOW ST (2230)** **N/A**
1/4-1/2 **OAKLAND, CA 94607**
Lower

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	ZELLERBACH OAKLAND FACILITY (Continued)		**S101293748**
	CORTESE: Facility ID: 01-001807 Data Source: LTNKA		
60 **NNW** **1/4-1/2** **Higher**	**JT TRUCKING** **2818 MANDELA PKY** **OAKLAND, CA 94608**	**LUST**	**S101323380** **N/A**
	LUST: Case Number: 3973 Cross Street: Not reported Reg Board: San Francisco Bay Region Qty Leaked: Not reported Chemical: Diesel Lead Agency: Local Agency Case Type: Undefined Status: Preliminary site assessment workplan submitted Abate Method: Excavate and Treat - remove contaminated soil and treat [includes spreading or land farming] Review Date: 07/21/1993 Confirm Leak: 03/.*/0000 Workplan: 06/07/1993 Prelim Assess: 03/.*/0000 Pollution Char: 03/.*/0000 Remed Plan: 03/.*/0000 Remed Action: 03/.*/0000 Monitoring: 03/.*/0000 Close Date: 03/.*/0000 Release Date: Not reported LUST Region 2: Facility ID: 01-1704 Status: Preliminary site assessment workplan submitted		
O61 **West** **1/4-1/2** **Lower**	**ROBIDEAUX PROPERTY** **GRAND AVE W. (1700)** **OAKLAND, CA 94607**	**Cortese**	**S101293698** **N/A**
	CORTESE: Facility ID: 01-001368 Data Source: LTNKA		
O62 **West** **1/4-1/2** **Lower**	**JORGENSEN STEEL & ALUMINUM** **1699 W GRAND AVE** **OAKLAND, CA 94607**	**LUST**	**S101321947** **N/A**
	LUST Region 2: Facility ID: 01-0085 Status: Preliminary site assessment workplan submitted		
O63 **West** **1/4-1/2** **Lower**	**WILL'S FREIGHT LINES** **1700 W GRAND AVE** **OAKLAND, CA 94607**	**LUST**	**S101322974** **N/A**

WILL'S FREIGHT LINES (Continued) **S101322974**

LUST:

Case Number:	3776	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Diesel		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	08/04/1992	Confirm Leak:	03/23/1992
Workplan:	04/16/1992	Prelim Assess:	06/19/1992
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	07/02/1993	Monitoring:	03/.*/0000
Close Date:	07/28/1994	Release Date:	04/16/1992

LUST Region 2:

Facility ID:	01-1252
Status:	Preliminary site assessment workplan submitted

O64
West
1/4-1/2
Lower

JORGENSEN STEEL & ALUMINUM
GRAND AVE W. (1699)
OAKLAND, CA 94607

Cortese **S101293697**
N/A

CORTESE:
Facility ID: 01-000950 Data Source: LTNKA

O65
West
1/4-1/2
Lower

JORGENSEN STEEL & ALUMINUM
1699 W GRAND AVE
OAKLAND, CA 94607

Ca. FID LUST **S101580068**
N/A

LUST:

Case Number:	3995	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Diesel		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site, No Action Taken - no action has as yet been taken at the site		
Review Date:	12/24/1992	Confirm Leak:	03/.*/0000
Workplan:	10/09/1992	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	11/09/1995	Release Date:	12/24/1992

JORGENSEN STEEL & ALUMINUM (Continued) S101580068

CA FID:

Facility ID:	01000950	Regulate ID:	00004398
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	(510) 835-8222
Mail To:	Not reported 1699 W GRAND AVE OAKLAND, CA 94607		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	931022	Modified:	000000
EPA ID:	Not reported		
Comments:	Not reported		

66
North
1/4-1/2
Higher

J.H. FITZMAURICE LUST S101322596
2857 HANNAH ST N/A
OAKLAND, CA 94608

LUST:

Case Number:	3248	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	08/21/1995	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	01/31/1990

LUST Region 2:

Facility ID:	01-0811
Status:	Leak suspected at site but has not been confirmed

P67
NW
1/4-1/2
Lower

2526 WOOD STREET CHMIRS S100276466
OAKLAND, CA 94607 N/A

CHMIRS:

OES Control Number:	9099621	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	TRANSMISSION FLUID		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Residential
Incident Date:	15-OCT-90	Date Completed:	15-OCT-90

P68
NW
1/4-1/2
Lower

B & P DISMANTLERS Cortese S101293751
WOOD ST (2525) N/A
OAKLAND, CA 94607

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	B & P DISMANTLERS (Continued)		**S101293751**
	CORTESE: Facility ID: 01-004792 Data Source: CALSI		
P69 **NW** **1/4-1/2** **Lower**	**B & P DISMANTLERS** **2525 WOOD ST** **OAKLAND, CA 94607**	**Cal-Sites**	**S102008262** **N/A**
70 **South** **1/4-1/2** **Same**	**GARDINER PROPERTY** **1920 UNION ST** **OAKLAND, CA 94607**	**LUST**	**S100721397** **N/A**

LUST:

Case Number:	42	Cross Street:	H ST
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Regional Board		
Case Type:	Other ground water affected		
Status:	Pollution characterization		
Abate Method:	Excavate and Treat - remove contaminated soil and treat [includes spreading or land farming]		
Review Date:	12/21/1994	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	02/04/1987
Pollution Char:	04/22/1987	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	02/13/1987

Case Number:	42	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	06/10/1992	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	05/04/1992

LUST Region 2:

Facility ID:	01-0681
Status:	Leak suspected at site but has not been confirmed
Facility ID:	21-0023
Status:	Pollution characterization

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
71 **SSE** **1/4-1/2** **Higher**	**EBMUD** **2130 ADELINE ST** **OAKLAND, CA 94607**	**LUST**	**S101322345** **N/A**

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number

EBMUD (Continued) **S101322345**

LUST:

Case Number:	3726	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Soil only		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	07/26/1988	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	03/23/1988

LUST Region 2:

Facility ID:	01-0542
Status:	Leak suspected at site but has not been confirmed

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72 NNW 1/4-1/2 Higher **WAREHAM PROPERTY** **LUST** **S101323331**
2855 MANDELA PKY **N/A**
OAKLAND, CA 94607

LUST:

Case Number:	3712	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Diesel		
Lead Agency:	Local Agency		
Case Type:	Soil only		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	09/24/1991	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	09/09/1991

LUST Region 2:

Facility ID:	01-1647
Status:	Leak suspected at site but has not been confirmed

Q73 West 1/4-1/2 Lower **LDS TRUCKING** **Cortese** **S101293750**
WOOD ST (2233) **N/A**
OAKLAND, CA 94607

CORTESE:
Facility ID: 01-004770 Data Source: CALSI

Q74 West 1/4-1/2 Lower **LDS TRUCKING** **Cal-Sites** **S102008225**
2233 WOOD ST **N/A**
OAKLAND, CA 94607

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
75 South 1/4-1/2 Lower	PACIFIC PIPE CO 1901 POPLAR ST OAKLAND, CA 94607	HWIS LUST	S100941548 N/A

LUST:

Case Number:	Not reported	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	04/11/1995	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	11/07/1995	Release Date:	11/11/1993

LUST Region 2:

Facility ID:	01-2048
Status:	No leak action taken by responsible party after initial report of leak

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R76 NNW 1/4-1/2 Higher	GENERAL TRANSPORTATION INC. 3211 WOOD ST. OAKLAND, CA 94608	UST LUST Cal-Sites	U001599281 N/A

LUST:

Case Number:	4074	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Diesel		
Lead Agency:	Local Agency		
Case Type:	Undefined		
Status:	No leak action taken by responsible party after initial report of leak		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	02/17/1993	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	05/19/1992

LUST Region 2:

Facility ID:	01-0690
Status:	No leak action taken by responsible party after initial report of leak

UST:

Facility ID:	00000067004				
Tank Num:	1	Container Num:	1001	Tank Capacity:	00008000
Year Installed:	Not reported	Tank Used for:	WASTE		
Type of Fuel:	Not Reported	Tank Construction:	X centimeters		
Leak Detection:	Stock Inventor				
Contact Name:	JIM HARDGRAVE				
Telephone:	(415) 652-0628	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MOTOR CARRIER		

GENERAL TRANSPORTATION INC. (Continued) U001599281

Facility ID:	00000067004				
Tank Num:	2	Container Num:	1002	Tank Capacity:	00010000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Stock Inventor				
Contact Name:	JIM HARDGRAVE				
Telephone:	(415) 652-0628	Total Tanks:	0002	Region:	Not reported
Facility Type:	2	Other Type:	MOTOR CARRIER		

R77
NNW
1/4-1/2
Higher

GENERAL TRANSPORTATION Cortese S101293752
WOOD ST (3211) N/A
OAKLAND, CA 94608

CORTESE:
Facility ID: 01-000813 Data Source: CALSI

78
SSE
1/4-1/2
Higher

AIRBORNE EXPRESS Cortese S101293660
ADELINE ST (1960) N/A
OAKLAND, CA 94607

CORTESE:
Facility ID: 01-003766 Data Source: LTNKA

79
SW
1/4-1/2
Lower

CADEMARTORI TRUCKING, INC. UST U001599158
1833 PERALTA STREET LUST N/A
OAKLAND, CA 94607

LUST:

Case Number:	3753	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Waste Oil		
Lead Agency:	Local Agency		
Case Type:	Soil only		
Status:	Preliminary site assessment workplan submitted		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	10/22/1990	Confirm Leak:	03/.*/0000
Workplan:	10/22/1990	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	08/09/1990

LUST Region 2:

Facility ID:	01-0254
Status:	Preliminary site assessment workplan submitted

CADEMARTORI TRUCKING, INC. (Continued) U001599158

UST:

Facility ID:	00000060046				
Tank Num:	1	Container Num:	I	Tank Capacity:	00001000
Year Installed:	1970	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:					
Contact Name:	RICHARD CADEMARTORI				
Telephone:	(415) 465-1996	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING CO.		

Facility ID:	00000060046				
Tank Num:	2	Container Num:	II	Tank Capacity:	00010000
Year Installed:	1970	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:					
Contact Name:	RICHARD CADEMARTORI				
Telephone:	(415) 465-1996	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING CO.		

Facility ID:	00000060046				
Tank Num:	3	Container Num:	3	Tank Capacity:	00000000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	RICHARD CADEMARTORI				
Telephone:	(415) 465-1996	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING CO.		

Facility ID:	00000060046				
Tank Num:	4	Container Num:	4	Tank Capacity:	00000000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	RICHARD CADEMARTORI				
Telephone:	(415) 465-1996	Total Tanks:	0004	Region:	Not reported
Facility Type:	2	Other Type:	TRUCKING CO.		

S80
NNE
1/4-1/2
Higher

ZERO WASTE SYSTEMS INC
1450 32ND ST
OAKLAND, CA 94609

Cal-Sites S102008168
N/A

S81
NNE
1/4-1/2
Higher

ZERO WASTE SYSTEMS INC
32ND ST (1450)
OAKLAND, CA 94609

Cortese S100455668
N/A

CORTESE:
Facility ID: 01-004728 Data Source: CALSI

T82
NE
1/4-1/2
Higher

CALIFORNIA ELECTRIC CO
ADELINE ST (3015)
OAKLAND, CA 94608

Cortese S101293662
N/A

CALIFORNIA ELECTRIC CO (Continued) S101293662

CORTESE:
Facility ID: 01-000396 Data Source: LTNKA

T83
NE
1/4-1/2
Higher

CALIFORNIA ELECTRIC CO
3015 ADELINE ST
OAKLAND, CA 94608

RCRIS-SQG 1000473018
FINDS CAD982438343
UST
Ca. FID
LUST

RCRIS:
Owner: CALIFORNIA ELECTRIC CO
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(415) 655-6100

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D002	.00000 (N)	Notification
F001	.00000 (N)	Notification	F002	.00000 (N)	Notification
F003	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

LUST:

Case Number:	3702	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Undefined		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site		
Review Date:	06/12/1919	Confirm Leak:	03/06/1992
Workplan:	03/*/0000	Prelim Assess:	03/*/0000
Pollution Char:	03/*/0000	Remed Plan:	03/*/0000
Remed Action:	03/*/0000	Monitoring:	03/*/0000
Close Date:	03/*/0000	Release Date:	10/10/1990

LUST Region 2:

Facility ID:	01-1761
Status:	Leak suspected at site but has not been confirmed

CA FID:

Facility ID:	01000396	Regulate ID:	00010487
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	(415) 655-6100
Mail To:	Not reported P O BOX OAKLAND, CA 94608		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	931022	Modified:	000000
EPA ID:	Not reported		
Comments:	Not reported		

CALIFORNIA ELECTRIC CO (Continued) 1000473018

UST:

Facility ID:	00000010487				
Tank Num:	1	Container Num:	62184	Tank Capacity:	00001000
Year Installed:	1976	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	10 unknown		
Leak Detection:	None				
Contact Name:	JAMES D. VANCE				
Telephone:	(415) 655-6100	Total Tanks:	0001	Region:	Not reported
Facility Type:	2	Other Type:	ELECTRO-MECH REP		

84
WSW
1/4-1/2
Lower

2001 WOOD ST.
OAKLAND, CA

CHMIRS **S100218595**
N/A

CHMIRS:

OES Control Number:	8910470	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	COOKING OIL & GREASE		
Extent of Release:	Undetermined		
CAS Number:	Not reported	Quantity Released:	60
Environmental Contamination:	Other	Property Use:	County/City Road
Incident Date:	13-JUN-89	Date Completed:	13-JUN-89

85
ESE
1/4-1/2
Higher

CAL-WEST PERIODICALS
2400 FILBERT ST
OAKLAND, CA 94607

LUST **S101322104**
N/A

LUST:

Case Number:	3774	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Signed off, remedial action completed or deemed unnecessary		
Abate Method:	ND		
Review Date:	11/07/1994	Confirm Leak:	03/.*/0000
Workplan:	10/25/1991	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	10/13/1995	Release Date:	10/30/1991

LUST Region 2:

Facility ID:	01-0258
Status:	Signed off, remedial action completed or deemed unnecessary

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86
NNE
1/4-1/2
Higher

1420 32 ST.
OAKLAND, CA

CHMIRS **S100279095**
N/A

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	(Continued)		**S100279095**

CHMIRS:
OES Control Number: 8803726 DOT ID: 1978
DOT Hazard Class: Gases
Chemical Name: PROPANE
Extent of Release: Release Beyond Property Use of Origin
CAS Number: 74-98-6 Quantity Released: 5
Environmental Contamination: Air Property Use: County/City Road
Incident Date: 16-NOV-88 Date Completed: 16-NOV-88

87		**CHMIRS**	**S100275061**
NNE	**3265 LOUISE STREET**		**N/A**
1/4-1/2	**OAKLAND, CA 94608**		
Higher			

CHMIRS:
OES Control Number: 8907408 DOT ID: 1263
DOT Hazard Class: Flammable liquid
Chemical Name: PAINT
Extent of Release: Other
CAS Number: Not reported Quantity Released: 55
Environmental Contamination: 7 Property Use: County/City Road
Incident Date: 10-AUG-89 Date Completed: 10-AUG-89

U88	**SUTTA RECYCLING**	**Cal-Sites**	**S102008172**
NNW	**3401 WOOD ST**		**N/A**
1/4-1/2	**OAKLAND, CA 94607**		
Higher			

U89	**SUTTA RECYCLING**	**Cortese**	**S101293753**
NNW	**WOOD ST (3401)**		**N/A**
1/4-1/2	**OAKLAND, CA 94608**		
Higher			

CORTESE:
Facility ID: 01-000638 Data Source: CALSI

V90		**CHMIRS**	**S100277940**
SW	**1655 17TH STREET**		**N/A**
1/4-1/2	**OAKLAND, CA 94607**		
Lower			

CHMIRS:
OES Control Number: 9118270 DOT ID: Not reported
DOT Hazard Class: Not Reported
Chemical Name: LOW PH PLATING CHEMICAL
Extent of Release: Release Beyond Property Use of Origin
CAS Number: Not reported Quantity Released: 500
Environmental Contamination: Ground Property Use: Industrial, Utility
Incident Date: 25-JUL-91 Date Completed: 25-JUL-91

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
V91 SW 1/4-1/2 Lower	**DON'S PLUMBING** **17TH ST (1655)** **OAKLAND, CA 94607**	Cortese	S101293773 N/A

CORTESE:
Facility ID: 01-003383 Data Source: LTNKA

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
92 WNW 1/4-1/2 Lower	**PENNZOIL GAS STATION** **GRAND AVE (2015)** **ALAMEDA, CA**	Cortese	S101306277 N/A

CORTESE:
Facility ID: 01-001269 Data Source: LTNKA

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
93 NNE 1/4-1/2 Higher	**ROMAK IRON WORKS** **3250 HOLLIS STREET** **OAKLAND, CA 94608**	HWIS LUST	S100943757 N/A

LUST:

Case Number:	379	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Leak suspected at site but has not been confirmed		
Abate Method:	Excavate and Treat - remove contaminated soil and treat [includes spreading or land farming]		
Review Date:	08/29/1994	Confirm Leak:	03/.*/0000
Workplan:	03/.*/0000	Prelim Assess:	03/.*/0000
Pollution Char:	03/.*/0000	Remed Plan:	03/.*/0000
Remed Action:	03/.*/0000	Monitoring:	03/.*/0000
Close Date:	03/.*/0000	Release Date:	Not reported

LUST Region 2:
Facility ID: 01-0786
Status: Leak suspected at site but has not been confirmed

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
W94 NNW 1/2-1 Higher	**THOMAS A. SHORT COMPANY** **3430 WOOD ST** **OAKLAND, CA 94607**	Cal-Sites	S102008201 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
W95 NNW 1/2-1 Higher	**THOMAS A. SHORT COMPANY** **WOOD ST (3430)** **OAKLAND, CA 94706**	Cortese	S101293754 N/A

CORTESE:
Facility ID: 01-001590 Data Source: CALSI

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
X96 WSW 1/2-1 Lower	**SP, W.OAKLAND YD.-(OILY WASTE)** **1707 WOOD STREET** **OAKLAND, CA 94607**	Toxic Pits	S100676226 N/A

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
	SP, W.OAKLAND YD.-(OILY WASTE) (Continued)		**S100676226**

TOXIC PITS:

Region:	02	Task #:	82010
Owner:	SOUTHERN PACIFIC TRANS. CO.		
Num. of Pits:	4	1/2 Mi Limit:	Yes
Hydro Geological Assessment Report Due: Not Reported			
Final Hydro Geological Assessment Review Completed: Not Reported			
Cease Discharge Due:	09/02/92	Cease Discharge Completed:	Not reported
Closure Due:	09/02/92	Closure Completed:	04/21/93
Status:	CLOSED		

X97 WSW 1/2-1 Lower	**SP, W.OAKLAND YARD-(WASHWATER)** **1707 WOOD STREET** **OAKLAND, CA 94607**	**Toxic Pits**	**S100676234** **N/A**

TOXIC PITS:

Region:	02	Task #:	82034
Owner:	SOUTHERN PACIFIC TRANS. CO.		
Num. of Pits:	2	1/2 Mi Limit:	Yes
Hydro Geological Assessment Report Due: Not Reported			
Final Hydro Geological Assessment Review Completed: 10/17/89			
Cease Discharge Due:	Not reported	Cease Discharge Completed:	01/16/88
Closure Due:	09/30/90	Closure Completed:	06/30/92
Status:	CLOSED		

X98 WSW 1/2-1 Lower	**SOUTHERN PACIFIC OAKLAND** **1707 WOOD ST** **OAKLAND, CA 94607**	**Cal-Sites**	**S102008215** **N/A**

X99 WSW 1/2-1 Lower	**SOUTHERN PACIFIC TRANSPORTATION CO. OAKLAND** **1707 WOOD STREET** **OAKLAND, CA 94607**	**Ca. BEP**	**S100833473** **N/A**

X100 WSW 1/2-1 Lower	**1706 WOOD STREET** **OAKLAND, CA 94607**	**CHMIRS**	**S100220074** **N/A**

CHMIRS:

OES Control Number:	9011574	DOT ID:	Not reported
DOT Hazard Class:	Not Reported		
Chemical Name:	UNKNOWN		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Industrial, Utility
Incident Date:	27-JUN-90	Date Completed:	27-JUN-90

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101 North 1/2-1 Higher	**3455 ETTIE STREET** **OAKLANDS, CA 94608**	**CHMIRS**	**S100274836** **N/A**

(Continued) S100274836

CHMIRS:
OES Control Number: 8905228 DOT ID: 1789
DOT Hazard Class: Corrosives
Chemical Name: ACID, HYDROCHLORIC
Extent of Release: Other
CAS Number: 7647-01-0 Quantity Released: 1
Environmental Contamination: 7 Property Use: Storage
Incident Date: 10-MAR-89 Date Completed: 10-MAR-89

Y102 **CARNATION DIARIES** FINDS 1000307618
SSW **1310 14TH ST** RCRIS-LQG CAD130171283
1/2-1 **OAKLAND, CA 94607** UST
Lower Cortese
Ca. FID

CORTESE:
Facility ID: 01-000416 Data Source: LTNKA

CA FID:
Facility ID: 01002256 Regulate ID: 00065866
Reg By: Inactive Underground Storage Tank Location
Cortese Code: Not reported SIC Code: Not reported
Status: Inactive Facility Tel: (415) 451-8161
Mail To: Not reported
P O BOX
OAKLAND, CA 946072297
Contact: Not reported Contact Tel: Not reported
DUNs No: Not reported NPDES No: Not reported
Creation: 931022 Modified: 000000
EPA ID: Not reported
Comments: Not reported

UST:
Facility ID: 00000065866
Tank Num: 1 Container Num: 1955 - 2 Tank Capacity: 00012000
Year Installed: 1955 Tank Used for: PRODUCT
Type of Fuel: REGULAR Tank Construction: Not Reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: (415) 451-8161 Total Tanks: 0007 Region: Not reported
Facility Type: 2 Other Type: DAIRY MANUFACTURER

Facility ID: 00000065866
Tank Num: 2 Container Num: 1955 - 3 Tank Capacity: 00000500
Year Installed: 1955 Tank Used for: WASTE
Type of Fuel: WASTE OIL Tank Construction: Not Reported
Leak Detection: Visual
Contact Name: Not reported
Telephone: (415) 451-8161 Total Tanks: 0007 Region: Not reported
Facility Type: 2 Other Type: DAIRY MANUFACTURER

CARNATION DIARIES (Continued) **1000307618**

Facility ID:	00000065866				
Tank Num:	3	Container Num:	010637	Tank Capacity:	00010000
Year Installed:	1963	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 451-8161	Total Tanks:	0007	Region:	Not reported
Facility Type:	2	Other Type:	DAIRY MANUFACTURER		

Facility ID:	00000065866				
Tank Num:	4	Container Num:	010627	Tank Capacity:	00012000
Year Installed:	1970	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 451-8161	Total Tanks:	0007	Region:	Not reported
Facility Type:	2	Other Type:	DAIRY MANUFACTURER		

Facility ID:	00000065866				
Tank Num:	5	Container Num:	010633	Tank Capacity:	00011405
Year Installed:	1947	Tank Used for:	PRODUCT		
Type of Fuel:	Not Reported	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 451-8161	Total Tanks:	0007	Region:	Not reported
Facility Type:	2	Other Type:	DAIRY MANUFACTURER		

Facility ID:	00000065866				
Tank Num:	6	Container Num:	1955 - 1	Tank Capacity:	00010000
Year Installed:	1955	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 451-8161	Total Tanks:	0007	Region:	Not reported
Facility Type:	2	Other Type:	DAIRY MANUFACTURER		

Facility ID:	00000065866				
Tank Num:	7	Container Num:	010637 - 2	Tank Capacity:	00012000
Year Installed:	1977	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Visual				
Contact Name:	Not reported				
Telephone:	(415) 451-8161	Total Tanks:	0007	Region:	Not reported
Facility Type:	2	Other Type:	DAIRY MANUFACTURER		

Y103
South
1/2-1
Lower

1400 POPLER ST
OAKLAND, CA 94607

CHMIRS **S100279726**
N/A

(Continued) S100279726

CHMIRS:
OES Control Number: 9000198 DOT ID: 1005
DOT Hazard Class: Gases
Chemical Name: AMMONIA
Extent of Release: Not reported
CAS Number: Not reported Quantity Released: 1000
Environmental Contamination: Air Property Use: Manufacturing
Incident Date: 15-FEB-90 Date Completed: 15-FEB-90

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104 South 1/2-1 Lower
NABISCO BRANDS, INC
14TH ST (1267)
OAKLAND, CA 94607
Cortese
S101293764
N/A

CORTESE:
Facility ID: 01-001146 Data Source: LTNKA

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105 SW 1/2-1 Lower
BASF CORPORATION
1545 WILLOW ST
OAKLAND, CA 94607
FINDS
RCRIS-LQG
Cortese
LUST
1000226859
CAD009122912

RCRIS:
Owner: BASF CORPORATION
(415) 555-1212

Contact: ENVIRONMENTAL MANAGER
(415) 451-3330

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D001	.00000 (N)	Notification	D004	.00000 (N)	Notification
F003	.00000 (N)	Notification	F005	.00000 (N)	Notification
K086	.00000 (N)	Notification			

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

LUST:

Case Number: Not reported Cross Street: Not reported
Reg Board: San Francisco Bay Region Qty Leaked: Not reported
Chemical: Solvents
Lead Agency: Regional Board Inactive
Case Type: Other ground water affected
Status: Signed off, remedial action completed or deemed unnecessary
Abate Method: No Action Taken - no action has as yet been taken at the site
Review Date: 07/24/1990 Confirm Leak: 03/.*/0000
Workplan: 03/.*/0000 Prelim Assess: 03/.*/0000
Pollution Char: 03/.*/0000 Remed Plan: 03/.*/0000
Remed Action: 03/.*/0000 Monitoring: 03/.*/0000
Close Date: 11/04/1994 Release Date: 03/22/1990

LUST Region 2:
Facility ID: 01-0152
Status: Signed off, remedial action completed or deemed unnecessary

CORTESE:
Facility ID: 01-000269 Data Source: LTNKA

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
106 South 1/2-1 Lower	SABEK VACANT LOT 14TH ST (1230) OAKLAND, CA 94607	Cortese	S101293763 N/A
	CORTESE: Facility ID: 01-005166 Data Source: LTNKA		
107 SSW 1/2-1 Lower	DALVIN PAINT 14TH ST (1401) OAKLAND, CA 94607	Cortese	S101293765 N/A
	CORTESE: Facility ID: 01-000607 Data Source: LTNKA		
108 SSW 1/2-1 Lower	NEW OAKLAND FIRE STATION #3 CENTER / 14TH STREET OAKLAND, CA 94607	Cal-Sites	S102008272 N/A
109 SSW 1/2-1 Lower	1340 MONDELLA PARKWAY OAKLAND, CA 94607	CHMIRS	S100276812 N/A

CHMIRS:

OES Control Number:	9100543	DOT ID:	2187
DOT Hazard Class:	Not Reported		
Chemical Name:	LIQUIFIED CARBON DIOXIDE		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Industrial, Utility
Incident Date:	22-JUN-91	Date Completed:	22-JUN-91

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
110 ENE 1/2-1 Higher	30TH STREET / SAN PABLO AVENUE OAKLAND, CA 94607	CHMIRS	S100275984 N/A

CHMIRS:

OES Control Number:	9012739	DOT ID:	9189
DOT Hazard Class:	Flammable liquid		
Chemical Name:	ISOCYNATE		
Extent of Release:	Release Beyond Property Use of Origin		
CAS Number:	Not reported	Quantity Released:	50
Environmental Contamination:	7	Property Use:	County/City Road
Incident Date:	04-SEP-90	Date Completed:	05-SEP-90

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
111 ESE 1/2-1 Higher	850 ATHENS STREET OAKLAND, CA 94617	CHMIRS	S100277981 N/A

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	(Continued)		S100277981

CHMIRS:
OES Control Number: 9118380 DOT ID: Not reported
DOT Hazard Class: Not Reported
Chemical Name: UNKNOWN LIQUID
Extent of Release: Confined to Property Use of Origin
CAS Number: Not reported Quantity Released: 1
Environmental Contamination: Ground Property Use: Residential
Incident Date: 07-AUG-91 Date Completed: 08-AUG-91

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112 NNE 1/2-1 Higher	**BELOUS PROPERTY** **HARLAN (3423)** **OAKLAND, CA 94608**	Cortese	S101293701 N/A

CORTESE:
Facility ID: 01-000302 Data Source: LTNKA

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113 WNW 1/2-1 Lower	**GRAND MARINA INC** **GRAND AVE (2099)** **ALAMEDA, CA 94501**	Cortese	S101293369 N/A

CORTESE:
Facility ID: 01-000842 Data Source: LTNKA

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114 NE 1/2-1 Higher	**3265 SAN PABLO AVENUE** **OAKLAND, CA 94609**	CHMIRS	S100276590 N/A

CHMIRS:
OES Control Number: 9100110 DOT ID: 1270
DOT Hazard Class: Miscellaneous hazardous material
Chemical Name: WASTE OILS
Extent of Release: Release Beyond Property Use of Origin
CAS Number: Not reported Quantity Released: 0
Environmental Contamination: Other Property Use: Mercantile, Business
Incident Date: 04-FEB-91 Date Completed: 04-FEB-91

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115 WSW 1/2-1 Lower	**SOUTHERN PACIFIC** **WOOD ST (1399)** **OAKLAND, CA 94607**	Cortese	S101293749 N/A

CORTESE:
Facility ID: 01-001520 Data Source: LTNKA

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116 NE 1/2-1 Higher	**THRIFTY OIL** **SAN PABLO AVE (3400)** **OAKLAND, CA**	Cortese	S101306664 N/A

CORTESE:
Facility ID: 01-001597 Data Source: LTNKA

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
117 SSW 1/2-1 Lower	**1420 12TH ST.** **OAKLAND, CA**	CHMIRS	S100278862 N/A

CHMIRS:

OES Control Number:	8801849	DOT ID:	1993
DOT Hazard Class:	Flammable liquid		
Chemical Name:	DIESEL FUEL		
Extent of Release:	Other		
CAS Number:	Not reported	Quantity Released:	50
Environmental Contamination:	7	Property Use:	County/City Road
Incident Date:	07-JUN-88	Date Completed:	07-JUN-88

118 NE 1/2-1 Higher	**CALIFORNIA HOTEL** **SAN PABLO AVE (3501)** **OAKLAND, CA 94608**	Cortese	S101293737 N/A

CORTESE:
Facility ID: 01-000399 Data Source: LTNKA

119 ESE 1/2-1 Lower	**FYNE PROPERTY** **GRAND AVE W. (774)** **OAKLAND, CA 94612**	Cortese	S101293699 N/A

CORTESE:
Facility ID: 01-000796 Data Source: LTNKA

120 East 1/2-1 Higher	**OAKLAND LAUNDRY COMPANY** **730 29TH ST** **OAKLAND, CA 94609**	Cal-Sites	S102008253 N/A

121 South 1/2-1 Lower	**SAFETY KLEEN** **10TH ST N. (1147)** **SAN JOSE, CA 94607**	Cortese	S101304165 N/A

CORTESE:
Facility ID: 43-012314 Data Source: LTNKA

122 North 1/2-1 Higher	**RANSOME CO** **4030 HOLLIS ST** **EMERYVILLE, CA 94608**	FINDS UST Ca. FID LUST Cal-Sites	1000384031 CAD982326662

RANSOME CO (Continued) **1000384031**

LUST:

Case Number:	1667	Cross Street:	Not reported
Reg Board:	San Francisco Bay Region	Qty Leaked:	Not reported
Chemical:	Gasoline		
Lead Agency:	Local Agency		
Case Type:	Other ground water affected		
Status:	Remedial action (cleanup) in progress		
Abate Method:	No Action Taken - no action has as yet been taken at the site		
Review Date:	07/21/1993	Confirm Leak:	03/*/0000
Workplan:	03/*/0000	Prelim Assess:	12/15/1990
Pollution Char:	01/18/1991	Remed Plan:	03/*/0000
Remed Action:	03/20/1991	Monitoring:	03/*/0000
Close Date:	03/*/0000	Release Date:	05/25/1988

LUST Region 2:

Facility ID:	01-1223
Status:	Remedial action (cleanup) in progress

CA FID:

Facility ID:	01001341	Regulate ID:	00018494
Reg By:	Inactive Underground Storage Tank Location		
Cortese Code:	Not reported	SIC Code:	Not reported
Status:	Inactive	Facility Tel:	Not reported
Mail To:	Not reported P O BOX EMERYVILLE, CA 94608		
Contact:	Not reported	Contact Tel:	Not reported
DUNs No:	Not reported	NPDES No:	Not reported
Creation:	931022	Modified:	000000
EPA ID:	Not reported		
Comments:	Not reported		

UST:

Facility ID:	00000018494				
Tank Num:	1	Container Num:	1	Tank Capacity:	00010000
Year Installed:	1956	Tank Used for:	PRODUCT		
Type of Fuel:	REGULAR	Tank Construction:	Not Reported		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	S.K. SMITH				
Telephone:	(415) 652-3600	Total Tanks:	0003	Region:	Not reported
Facility Type:	2	Other Type:	Not reported		

Facility ID:	00000018494				
Tank Num:	2	Container Num:	2	Tank Capacity:	00001000
Year Installed:	1982	Tank Used for:	PRODUCT		
Type of Fuel:	UNLEADED	Tank Construction:	Not Reported		
Leak Detection:	None				
Contact Name:	S.K. SMITH				
Telephone:	(415) 652-3600	Total Tanks:	0003	Region:	Not reported
Facility Type:	2	Other Type:	Not reported		

RANSOME CO (Continued) 1000384031

Facility ID:	00000018494				
Tank Num:	3	Container Num:	3	Tank Capacity:	00004000
Year Installed:	Not reported	Tank Used for:	PRODUCT		
Type of Fuel:	DIESEL	Tank Construction:	Not Reported		
Leak Detection:	Visual, Stock Inventor				
Contact Name:	S.K. SMITH				
Telephone:	(415) 652-3600	Total Tanks:	0003	Region:	Not reported
Facility Type:	2	Other Type:	Not reported		

Z123 **ELECTRO-COATINGS** FINDS 1000181776
North **1421 PARK AVE.** RCRIS-LQG CAD009116229
1/2-1 **EMERYVILLE, CA 94608** CERC-NFRAP
Higher UST
Cal-Sites

CERCLIS-NFRAP Classification Data:

Site Incident Category:	Not reported	Federal Facility:	NO
Ownership Status:	PRIVATE	NPL Status:	NOT ON NPL
EPA Notes:	Not reported		

CERCLIS-NFRAP Assessment History:

Assessment:	HAZARD RANKING DETERMINED	Completed:	10/01/81
Assessment:	DISCOVERY	Completed:	01/01/77
Assessment:	PRELIMINARY ASSESSMENT	Completed:	09/01/84
Assessment:	SCREENING SITE INSPECTION	Completed:	09/01/86

CERCLIS-NFRAP Alias Name(s):
EC INDUSTRIES

RCRIS:
Owner: L.P. HENDERSON
(415) 524-1586

Contact: ENVIRONMENTAL MANAGER
(415) 428-1303

Waste	Quantity	Info Source	Waste	Quantity	Info Source
D004	.00000 (N)	Notification	D007	.00000 (N)	Notification
F001	.00000 (N)	Notification	F006	.00000 (N)	Notification
F007	.00000 (N)	Notification	F008	.00000 (N)	Notification
F009	.00000 (N)	Notification	P030	.00000 (N)	Notification
P106	.00000 (N)	Notification	U228	.00000 (N)	Notification

(P) = Pounds , (K) = Kilograms , (M) = Metric Tons , (T) = Tons , (N) = Not Reported

CAL-SITES Status: PEARH (PRELIMINARY ENDANGERMENT ASSESSMENT (PEA) REQUIRED, HIGH PRIORITY)
Facility ID: 01340003 Current Status Date: 03/01/93

UST:

Facility ID:	00000007192				
Tank Num:	1	Container Num:	ONE	Tank Capacity:	00001800
Year Installed:	1974	Tank Used for:	WASTE		
Type of Fuel:	Not Reported	Tank Construction:	3/8 inches		
Leak Detection:	Visual				
Contact Name:	JOHN GARRATT				
Telephone:	(415) 655-0507	Total Tanks:	0001	Region:	Not reported
Facility Type:	2	Other Type:	PLATING PLANT		

Map ID / Direction / Distance / Elevation	Site	Database(s)	EDR ID Number / EPA ID Number
124 North 1/2-1 Higher	ELECTRO-COATINGS PARK AVE. (1421) EMERYVILLE, CA 94608	Cortese	S101293460 N/A

CORTESE:
Facility ID: 01-000003 Data Source: CALSI

Z125 North 1/2-1 Higher	CHROMEX DIV OF CHARLES LOWE CO 1400 PARK AVE EMERYVILLE, CA 94662	CERC-NFRAP Cal-Sites	1000334672 CAD028799401

CERCLIS-NFRAP Classification Data:

Site Incident Category:	Not reported	Federal Facility:	NO
Ownership Status:	UNKNOWN	NPL Status:	NOT ON NPL
EPA Notes:	Not reported		

CERCLIS-NFRAP Assessment History:

Assessment:	DISCOVERY	Completed:	12/01/86
Assessment:	PRELIMINARY ASSESSMENT	Completed:	04/01/87
Assessment:	PRELIMINARY ASSESSMENT	Completed:	02/01/88

126 North 1/2-1 Higher	DEL MONTE PLANT #35 HOLLIS ST (4202) EMERYVILLE, CA	Cortese	S101306379 N/A

CORTESE:
Facility ID: 01-000614 Data Source: LTNKA

127 SW 1/2-1 Lower	925 WILLOW COURT OAKLAND, CA 94607	CHMIRS	S100220111 N/A

CHMIRS:

OES Control Number:	9011701	DOT ID:	1830
DOT Hazard Class:	Corrosives		
Chemical Name:	BATTERY ACID		
Extent of Release:	Not reported		
CAS Number:	Not reported	Quantity Released:	0
Environmental Contamination:	None Reported	Property Use:	Vacant Lot
Incident Date:	06-JUL-90	Date Completed:	06-JUL-90

128 North 1/2-1 Higher	SHELL HORTON ST (4250) EMERYVILLE, CA	Cortese	S100226337 N/A

CORTESE:
Facility ID: 01-001477 Data Source: LTNKA

AA129 WSW 1/2-1 Lower	ARCO 10TH ST (1820) OAKLAND, CA 94607	Cortese	S101293756 N/A

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
	ARCO (Continued)		**S101293756**
	CORTESE: Facility ID: 01-001863 Data Source: LTNKA		
AA130 **WSW** **1/2-1** **Lower**	**1830 10TH STREET** **OAKLAND, CA 94607**	**CHMIRS**	**S100276479** **N/A**
	CHMIRS: OES Control Number: 9099654 DOT ID: Not reported DOT Hazard Class: Not Reported Chemical Name: NONE Extent of Release: Not reported CAS Number: Not reported Quantity Released: 0 Environmental Contamination: None Reported Property Use: Manufacturing Incident Date: 30-OCT-90 Date Completed: 30-OCT-90		
131 **NNE** **1/2-1** **Higher**	**4000 SAN PABLO AVENUE** **EMERYVILLE, CA 94608**	**CHMIRS**	**S100219989** **N/A**
	CHMIRS: OES Control Number: 9011273 DOT ID: 1203 DOT Hazard Class: Flammable liquid Chemical Name: GASOLINE Extent of Release: Undetermined CAS Number: Not reported Quantity Released: .5 Environmental Contamination: 7 Property Use: County/City Road Incident Date: 11-JUN-90 Date Completed: 11-JUN-90		
132 **North** **1/2-1** **Higher**	**CITY OF EMERYVILLE/FORMER SHEL** **45TH ST (1420)** **EMERYVILLE, CA 94608**	**Cortese**	**S100226317** **N/A**
	CORTESE: Facility ID: 01-000534 Data Source: LTNKA		
133 **South** **1/2-1** **Lower**	**ALL MERCEDES DISMANTLERS** **7TH (1225)** **OAKLAND, CA 94607**	**Cortese**	**S101293797** **N/A**
	CORTESE: Facility ID: 01-000177 Data Source: LTNKA		

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	Facility ID
EMERYVILLE	S102008252	ST ALBANS SENIOR CENTER	I-80 FRONTAGE ROAD, NORTH OF P	94608	Cal-Sites	
OAKLAND	S102008237	CHINATOWN REDEVELOPMENT - OAKLAND	BOUNDED BY 11TH, 10TH,WEBSTER	94601	Cal-Sites	
OAKLAND	1000119966	PPG IND INC LOC #0161	2300 CYPRESS AVE	94607	FINDS, RCRIS-LQG	
OAKLAND	1000142194	COCA COLA BOTTLING OAKLAND	1340 CYPRESS STREET	94607	RCRIS-SQG	
OAKLAND	1000143587	COCA-COLA BOTTLING CO OF CA	1340 CYPRESS ST	94607	FINDS, RCRIS-LQG	
OAKLAND	1000296008	KALMARAC OF OAKLAND INC	2792 CYPRESS STREET	94607	FINDS, RCRIS-LQG, HWIS	
OAKLAND	S100936808	HENRY ANDREOTTI	2201 CYPRESS	94607	HWIS	
OAKLAND	U001599146	ALL WEST EQUIPMENT DBA FRANK A	1724 CYPRESS ST.	94607	UST	00000049906
OAKLAND	U001599147	ALLIS-CHALMERS MATERIAL HANDLI	2792 CYPRESS ST.	94607	UST	00000038533
OAKLAND	U001599185	KANTOR'S DISTRIBUTION CENTER	2525 CYPRESS ST.	94607	UST	00000040383
OAKLAND	U001599199	OAKLAND PRODUCTION AND DISTRIB	1340 CYPRESS ST.	94607	UST	00000007065
OAKLAND	U001599206	PACIFIC PIPE COMPANY	2000 CYPRESS STREET	94607	UST	00000045634
OAKLAND	1000415947	CUSTOM WOODWORKING SHOP	2855 CYPRESS ST	94608	RCRIS-SQG, FINDS	
OAKLAND	S100851274	1X JT TRUCKING	2818 CYPRESS ST	94608	HWIS	
OAKLAND	S100943640	ROBERT LINFORD	2863 CYPRESS ST	94608	HWIS	
OAKLAND	U001599312	SEA CONTAINERS WEST-OAKLAND DE	2818 CYPRESS STREET	94608	UST	00000038155
OAKLAND	S101272671	SOUTHERN PACIFIC - DESERT RAILYARD	CYPRESS CORRIDOR	94607	AWP, Cal-Sites	
OAKLAND	S101272672	SOUTHERN PACIFIC -WEST OAKLAND RAI	CYPRESS CORRIDOR	94607	AWP, Cal-Sites	
OAKLAND	S101322255	COCA-COLA ENTERPRISES WEST	1340 CYPRESS ST	94607	LUST	3785
OAKLAND	S101322627	KALMAR AC	2792 CYPRESS ST	94607	LUST	3161
OAKLAND	S101661394	PORT OF OAKLAND / CYPRESS FREEWAY	I-80 FRONTAGE ROAD / BURMA ROA	94607	Cal-Sites	
OAKLAND	S102008234	PG&E - OAKLAND	50 MARKET BETWEEN FIRST / GROV	94607	Cal-Sites	
OAKLAND	S101322244	CLAWSON HIGH SCHOOL	3420/3315 PERALTA / & MAGNOLI	94608	LUST	3652
OAKLAND	S101306688	GRAND AUTO/SUPER TIRES	4240/4256 14TH ST E. (NO STREE		Cortese, LUST	
OAKLAND	A100038786	OAKLAND FUEL FACILITIES CORP.	TANK FARM S - S. FIELD		AST	
OAKLAND	S102008220	UNION PACIFIC RAILROAD PROPERTY	UNION STREET	94607	Cal-Sites	
OAKLAND	S100226903	OLD OAKLAND TRIBUNE GARAGE	VALDEZ / 13TH (NO STREET NBR		Cortese, LUST	
SOUTH SAN FRANCISCO	1000698160	ORRELL - KEEFE INC	GRAND AVE OVERPASS	94607	RCRIS-LQG	

GEOCHECK VERSION 2.1
PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

PWS SUMMARY:

PWS ID:	CA1009246	PWS Status:	Active	Distance from TP:	1/2 - 1 Mile
Date Initiated:	June / 1977	Date Deactivated:	Not Reported	Dir relative to TP:	North
PWS Name:	BERKELEY LAND COMPANY BERKELEY LAND COMPANY 13310 EAGLEFIELD RD FIREBAUGH, CA 93622				
Addressee / Facility Type:	System Owner/Responsible Party				
Facility Name:	BERKELEY LAND COMPANY 1211 NEWALL AVENUE 1 WALNUT CREEK, CA 94596				
Facility Latitude:	37 49 53		Facility Longitude:	122 17 03	
City Served:	Not Reported:				
Treatment Class:	Untreated		Population Served:	Under 101 Persons	

Well currently has or has had major violation(s): Yes

Violations information not reported.

EPA Waste Codes Addendum

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D004	ARSENIC
D007	CHROMIUM
F001	THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F002	THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F004	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: CRESOLS AND CRESYLIC ACID, AND NITROBENZENE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, AND F005; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT

EPA Waste Codes Addendum

Code	Description
	SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F006	WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
F007	SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS
F008	PLATING BATH RESIDUES FROM THE BOTTOM OF PLATING BATHS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F009	SPENT STRIPPING AND CLEANING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS WHERE CYANIDES ARE USED IN THE PROCESS.
F017	NOT DEFINED
F018	NOT DEFINED
K086	SOLVENT WASHES AND SLUDGES, CAUSTIC WASHES AND SLUDGES, OR WATER WASHES AND SLUDGES FROM CLEANING TUBS AND EQUIPMENT USED IN THE FORMULATION OF INK FROM PIGMENTS, DRIERS, SOAPS, AND STABILIZERS CONTAINING CHROMIUM AND LEAD.
P004	ALDRIN
P004	1,4,5,8-DIMETHANONAPHTHALENE, 1,2,3,4,10,10-HEXA-CHLORO-1,4,4A,5,8,8A,-HEXAHYDRO-, (1ALPHA,4ALPHA,4ABETA,5ALPHA,8ALPHA,8ABETA)-
P020	DINOSEB
P020	PHENOL, 2-(1-METHYLPROPYL)-4,6-DINITRO-
P030	CYANIDES (SOLUBLE CYANIDE SALTS), NOT OTHERWISE SPECIFIED
P035	NOT DEFINED
P039	DISULFOTON
P039	PHOSPHORODITHIOIC ACID, O,O-DIETHYL S-[2-(ETHYLTHIO)ETHYL] ESTER
P050	ENDOSULFAN
P050	6,9-METHANO-2,4,3-BENZODIOXATHIEPIN,

EPA Waste Codes Addendum

Code	Description
	6,7,8,9,10,10-HEXACHLORO-1,5,5A,6,9,9A-HEXAHYDRO- , 3-OXIDE
P051	2,7:3,6-DIMETHANONAPHTH [2,3-B]OXIRENE, 3,4,5,6,9,9-HEXACHLORO-1A,2,2A,3,6,6A,7,7A-OCTAHYDRO-, (1AALPHA,2BETA,2ABETA,3ALPHA,6ALPHA,6ABETA,7BETA, 7AALPHA)-, & METABOLITES
P051	ENDRIN
P051	ENDRIN, & METABOLITES
P059	HEPTACHLOR
P059	4,7-METHANO-1H-INDENE, 1,4,5,6,7,8,8-HEPTACHLORO- 3A,4,7,7A-TETRAHYDRO-
P071	METHYL PARATHION
P071	PHOSPHOROTHIOIC ACID, O,O,DIMETHYL O-(4-NITROPHENYL) ESTER
P089	PARATHION
P089	PHOSPHOROTHIOIC ACID, O,O-DIETHYL O-(4-NITROPHENYL) ESTER
P106	SODIUM CYANIDE
P106	SODIUM CYANIDE NA(CN)
P120	VANADIUM OXIDE V2O5
P120	VANADIUM PENTOXIDE
U013	NOT DEFINED
U036	CHLORDANE, ALPHA & GAMMA ISOMERS
U036	4,7-METHANO-1H-INDENE, 1,2,4,5,6,7,8,8-OCTACHLORO-2,3,3A,4,7,7A-HEXAHYDRO-
U066	1,2-DIBROMO-3-CHLOROPROPANE
U066	PROPANE, 1,2-DIBROMO-3-CHLORO-
U067	ETHANE, 1,2-DIBROMO-
U067	ETHYLENE DIBROMIDE
U069	1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER
U069	DIBUTYL PHTHALATE
U088	1,2-BENZENEDICARBOXYLIC ACID, DIETHYL ESTER
U088	DIETHYL PHTHALATE
U122	FORMALDEHYDE
U129	CYCLOHEXANE, 1,2,3,4,5,6-HEXACHLORO-,

EPA Waste Codes Addendum

Code	Description
	(1ALPHA,2ALPHA,3BETA,4ALPHA,5ALPHA,6BETA)-
U129	LINDANE
U159	2-BUTANONE (I,T)
U159	METHYL ETHYL KETONE (MEK) (I,T)
U185	BENZENE, PENTACHLORONITRO-
U185	PENTACHLORONITROBENZENE (PCNB)
U188	PHENOL
U220	BENZENE, METHYL-
U220	TOLUENE
U224	NOT DEFINED
U226	ETHANE, 1,1,1-TRICHLORO-
U226	METHYL CHLOROFORM
U228	ETHENE, TRICHLORO-
U228	TRICHLOROETHYLENE

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM RECORDS:

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA/NTIS
Telephone: 703-603-8904
CERCLIS: CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/31/96
Date Made Active at EDR: 06/03/96
Date of Data Arrival at EDR: 04/23/96
Elapsed ASTM days: 41

ERNS: Emergency Response Notification System
Source: EPA/NTIS
Telephone: 202-260-2342
ERNS: Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/95
Date Made Active at EDR: 02/19/96
Date of Data Arrival at EDR: 01/26/96
Elapsed ASTM days: 24

NPL: National Priority List
Source: EPA
Telephone: 703-603-8852
NPL: National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, it is EDR's policy to plot NPL sites greater than approximately 500 acres in size as areas (polygons). Sites smaller in size are point-geocoded at the site's address.

Date of Government Version: 09/01/95
Date Made Active at EDR: 10/25/95
Date of Data Arrival at EDR: 10/17/95
Elapsed ASTM days: 8

RCRIS: Resource Conservation and Recovery Information System
Source: EPA/NTIS
Telephone: 703-308-7907
RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 02/29/96
Date Made Active at EDR: 05/09/96
Date of Data Arrival at EDR: 03/18/96
Elapsed ASTM days: 52

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FEDERAL NON-ASTM RECORDS:

CONSENT: Superfund (CERCLA) Consent Decrees
Source: EPA Regional Offices
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: Varies — Date of Next Scheduled Update: 09/01/95

CORRACTS: Corrective Action Report
Source: EPA
Telephone: 703-308-7907
CORRACTS: CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 04/10/95 — Date of Next Scheduled Update: 06/17/96

FINDS: Facility Index System
Source: EPA/NTIS
Telephone: 800-908-2493
FINDS: Facility Index System. FINDS contains both facility information and "pointers" to other sources that contain more detail. These include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

Date of Government Version: 09/30/95 — Date of Next Scheduled Update: 07/08/96

HMIRS: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4555
HMIRS: Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/95 — Date of Next Scheduled Update: 07/29/96

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 02/13/96 — Date of Next Scheduled Update: 07/15/96

NPL LIENS: Federal Superfund Liens
Source: EPA
Telephone: 205-564-4267
NPL LIENS: Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91 — Date of Next Scheduled Update: 08/26/96

PADS: PCB Activity Database System
Source: EPA
Telephone: 202-260-3992
PADS: PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/14/94 — Date of Next Scheduled Update: 08/19/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RAATS: RCRA Administrative Action Tracking System
Source: EPA
Telephone: 202-564-4104
RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA.

Date of Government Version: 04/17/95 Date of Next Scheduled Update: 06/17/96

ROD: Records Of Decision
Source: NTIS
Telephone: 703-416-0703
Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/31/95 Date of Next Scheduled Update: 06/03/96

TRIS: Toxic Chemical Release Inventory System
Source: EPA/NTIS
Telephone: 202-260-2320
TRIS: Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/92 Date of Next Scheduled Update: 07/01/96

TSCA: Toxic Substances Control Act
Source: EPA/NTIS
Telephone: 202-260-1444
TSCA: Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site. USEPA has no current plan to update and/or re-issue this database.

Date of Government Version: 01/31/95 Date of Next Scheduled Update: 06/17/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF CALIFORNIA ASTM RECORDS:

BEP: Bond Expenditure Plan
Source: Department of Health Services
Telephone: 916-255-2118
BEP: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/89
Date Made Active at EDR: 08/02/94
Date of Data Arrival at EDR: 07/27/94
Elapsed ASTM days: 6

CAL-SITES (AWP): Annual Workplan
Source: California Environmental Protection Agency
Telephone: 916-323-3400
CAL-SITES (AWP): Known Hazardous Waste Sites. California DTSC's Annual Workplan (AWP), formerly BEP, identifies known hazardous substance sites targeted for cleanup.

Date of Government Version: 06/30/95
Date Made Active at EDR: 03/06/96
Date of Data Arrival at EDR: 02/02/96
Elapsed ASTM days: 33

CAL-SITES (ASPIS): Calsites
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
CAL-SITES (ASPIS): Known and Potential Hazardous Waste Sites. CAL-SITES, formerly ASPIS, contains both known and potential hazardous substance sites.

Date of Government Version: 04/12/96
Date Made Active at EDR: 06/06/96
Date of Data Arrival at EDR: 05/06/96
Elapsed ASTM days: 31

CHMIRS: California Hazardous Material Incident Report System
Source: Office of Emergency Services
Telephone: 916-262-1081
CHMIRS: California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/91
Date Made Active at EDR: 11/05/92
Date of Data Arrival at EDR: 08/08/92
Elapsed ASTM days: 89

CORTESE: Cortese
Source: CAL EPA/Office of Emergency Information
Telephone: 916-327-1848
CORTESE: Identified Hazardous Waste and Substance Sites. The database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release and all solid waste disposal facilities from which there is known migration.

Date of Government Version: 12/31/94
Date Made Active at EDR: 04/04/95
Date of Data Arrival at EDR: 01/23/95
Elapsed ASTM days: 71

FID: Facility Inventory Database
Source: California Environmental Protection Agency
Telephone: 916-445-6532
The Facility Inventory Database (FID) contains active and inactive underground storage tank locations from the State Water Resource Control Board.

Date of Government Version: 10/31/94
Date Made Active at EDR: 09/29/95
Date of Data Arrival at EDR: 09/05/95
Elapsed ASTM days: 24

LUST: Leaking Underground Storage Tank Information System
Source: State Water Resources Control Board
Telephone: 916-445-6532
LUST: Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 01/31/96
Date Made Active at EDR: 04/11/96
Date of Data Arrival at EDR: 03/11/96
Elapsed ASTM days: 31

NOTIFY 65: Proposition 65
Source: State Water Resources Control Board
Telephone: 916-657-0696
NOTIFY 65: Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/93 — Date of Data Arrival at EDR: 11/01/93
Date Made Active at EDR: 11/19/93 — Elapsed ASTM days: 18

SWF/LF (SWIS): Solid Waste Information System
Source: Integrated Waste Management Board
Telephone: 916-255-2248
SWF/LF (SWIS): Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 2004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/15/96 — Date of Data Arrival at EDR: 02/05/96
Date Made Active at EDR: 03/06/96 — Elapsed ASTM days: 30

TOXIC PITS: Toxic Pits
Source: State Water Resources Control Board
Telephone: 916-227-4364
TOXIC PITS: Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/95 — Date of Data Arrival at EDR: 08/30/95
Date Made Active at EDR: 09/26/95 — Elapsed ASTM days: 27

UST: Hazardous Substance Storage Container Database
Source: State Water Resources Control Board
Telephone: 916-227-4319
UST: Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/15/90 — Date of Data Arrival at EDR: 01/25/91
Date Made Active at EDR: 02/12/91 — Elapsed ASTM days: 18

WMUDS/SWAT: Waste Management Unit Database
Source: State Water Resources Control Board
Telephone: 916-892-0323
WMUDS/SWAT: Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 03/25/96 — Date of Data Arrival at EDR: 03/29/96
Date Made Active at EDR: 04/11/96 — Elapsed ASTM days: 13

STATE OF CALIFORNIA NON-ASTM RECORDS:

AST: Aboveground Petroleum Storage Tank Facilities
Source: State Water Resources Control Board
Telephone: 916-227-4364
AST: Registered Aboveground Storage Tanks.

Date of Government Version: 03/01/96 — Date of Next Scheduled Update: 08/12/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HWIS: Hazardous Waste Information System
Source: California Environmental Protection Agency
Telephone: 916-324-0659
HWIS: Hazardous Waste Information System. HWIS identifies hazardous waste generators and hazardous waste treatment, storage, and disposal facilities in the state of California.

Date of Government Version: 12/31/93 Date of Next Scheduled Update: 08/12/96

SOUTH BAY: South Bay Site Management System
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-576-2220
SOUTH BAY: Groundwater pollution cases in the Santa Clara Valley where the regulatory lead is the San Francisco Bay Regional Water Quality Control Board.

Date of Government Version: 05/31/95 Date of Next Scheduled Update: 08/26/96

WDS: Waste Discharge System
Source: State Water Resources Control Board
Telephone: 916-657-1701
WDS: Sites which have been issued waste discharge requirements.

Date of Government Version: 05/01/96 Date of Next Scheduled Update: 08/26/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CALIFORNIA COUNTY RECORDS

LOS ANGELES COUNTY:

Site Mitigation Complaint Control Log
Source: Community Health Services
Telephone: 213-890-7806
Los Angeles County Site Mitigation Log.

Date of Government Version: 10/18/95 — Date of Next Scheduled Update: 08/26/96

Street Number List
Source: Department of Public Works
Telephone: 818-458-3517
Los Angeles County Underground Storage Tank (UST) List.

Date of Government Version: 03/28/96 — Date of Next Scheduled Update: 06/24/96

List of Solid Waste Facilities
Source: La County Department of Public Works
Telephone: 818-458-5185

Date of Government Version: 06/28/94 — Date of Next Scheduled Update: 08/26/96

ORANGE COUNTY:

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Industrial Site Cleanups.

Date of Government Version: 04/05/95 — Date of Next Scheduled Update: 06/17/96

List of Underground Storage Tank Cleanups
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 03/28/96 — Date of Next Scheduled Update: 06/17/96

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3446
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/28/96 — Date of Next Scheduled Update: 06/17/96

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 909-358-5055
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/96 — Date of Next Scheduled Update: 06/17/96

Tank List
Source: Health Services Agency
Telephone: 909-358-5055

Date of Government Version: 01/05/96 — Date of Next Scheduled Update: 06/17/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN BERNARDINO COUNTY:

DEHS Permit System Print-Out By Location
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/19/96 Date of Next Scheduled Update: 06/17/96

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-927-0710

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 07/08/96

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-338-2209
San Diego County Solid Waste Facilities.

Date of Government Version: 11/08/95 Date of Next Scheduled Update: 09/02/96

Hazardous Materials Management Division Databse
Source: Hazardous Materials Management Division
Telephone: 619-338-2268

Date of Government Version: 03/15/96 Date of Next Scheduled Update: 08/19/96

SUTTER COUNTY:

Underground Storage Tanks
Source: Sutter County Department of Agriculture
Telephone: 916-741-7504

Date of Government Version: 02/15/96 Date of Next Scheduled Update: 07/15/96

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 06/24/96

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 06/24/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Operating UGT Sites & Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-654-2813
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 06/24/96

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-654-2818
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 01/08/94 Date of Next Scheduled Update: 09/02/96

KERN COUNTY:

Sites & Tanks Listing
Source: Kern County Environment Health Services Department
Telephone: 805-862-8700
Kern County Sites & Tanks Listing.

Date of Government Version: 06/10/94 Date of Next Scheduled Update: 07/15/96

California Regional Water Quality Control Board (RWQCB) LUST Records

LUST Region 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-576-2220

Date of Government Version: 02/02/96 Date of Next Scheduled Update: 06/03/96

LUST Region 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-1269

Date of Government Version: 01/04/96 Date of Next Scheduled Update: 06/24/96

LUST Region 3: LUSTIS Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 04/12/96 Date of Next Scheduled Update: 08/26/96

LUST Region 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-266-7500

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 07/08/96

LUST Region 5: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3000

Date of Government Version: 04/30/96 Date of Next Scheduled Update: 08/26/96

LUST Region 6L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 916-544-3481

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 06/17/96

LUST Region 6V: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 619-241-6583

Date of Government Version: 03/22/96 Date of Next Scheduled Update: 06/17/96

LUST Region 7: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 619-346-7491

Date of Government Version: 01/09/96 Date of Next Scheduled Update: 09/02/96

LUST Region 8: (LUSTIS) Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4130

Date of Government Version: 03/28/96 Date of Next Scheduled Update: 06/24/96

LUST Region 9: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-467-2952

Date of Government Version: 02/29/96 Date of Next Scheduled Update: 06/10/96

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC Region 1: Active Toxic Site Investigations
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220

Date of Government Version: 02/02/96 Date of Next Scheduled Update: 09/02/96

SLIC Region 2: North and South Bay Slic Report
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-1255

Date of Government Version: 05/02/96 Date of Next Scheduled Update: 06/24/96

SLIC Region 3: Active Slic Cases
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147

Date of Government Version: 01/20/96 Date of Next Scheduled Update: 08/26/96

SLIC Region 4: SLIC Sites
Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-266-7500

Date of Government Version: 04/01/96 Date of Next Scheduled Update: 07/08/96

SLIC Region 5: SLIC List
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-255-3125

Date of Government Version: 02/01/96 Date of Next Scheduled Update: 08/26/96

SLIC Region 8: SLIC List
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4130

Date of Government Version: 02/28/96 Date of Next Scheduled Update: 06/24/96

SLIC Region 9: Nurds/Nugtank
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-467-2980

Date of Government Version: 07/05/95 Date of Next Scheduled Update: 06/10/96

Historical and Other Database(s)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

DELISTED NPL: Delisted NPL Sites
Source: EPA
Telephone: 703-603-8769
DELISTED NPL: The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

NFRAP: No Further Remedial Action Planned
Source: EPA/NTIS
Telephone: 703-416-0702
NFRAP: As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

FRDS: Federal Reporting Data System
Source: EPA/Office of Drinking Water
Telephone: 202-260-2805
FRDS provides information regarding public water supplies and their compliance with monitoring requirements, maximum contaminant levels (MCL's), and other requirements of the Safe Drinking Water Act of 1986.

Area Radon Information: The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

Oil/Gas Pipelines/Electrical Transmission Lines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines and electrical transmission lines.

Sensitive Receptors: There are individuals who, due to their fragile immune systems, are deemed to be especially sensitive to environmental discharges. These typically include the elderly, the sick, and children. While the exact location of these sensitive receptors cannot be determined, EDR indicates those facilities, such as schools, hospitals, day care centers, and nursing homes, where sensitive receptors are likely to be located.

USGS Water Wells: In November 1971 the United States Geological Survey (USGS) implemented a national water resource information tracking system. This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on more than 900,000 wells, springs, and other sources of groundwater.

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1994 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Water Dams: National Inventory of Dams
Source: Federal Emergency Management Agency
Telephone: 202-646-2801
WATER DAMS: National computer database of more than 74,000 dams maintained by the Federal Emergency Management Agency.

Earthquake Fault Lines in California: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

Drinking Water Quality Database
Source: Department of Health Services
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

Environmental Data Resources, Inc.

Creators of Toxicheck®

The EDR-Fire Insurance Map And City Directory
Abstract

Asbury Graphite
2426-2500 Kirkham Street
Oakland, CA 94601

June 21, 1996

Inquiry Number: 122037-14

***The* Source For Environmental Risk Management Data**

3530 Post Road
Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050
FAX: 1-800-231-6802

THE EDR-FIRE INSURANCE MAP AND CITY DIRECTORY *ABSTRACT*

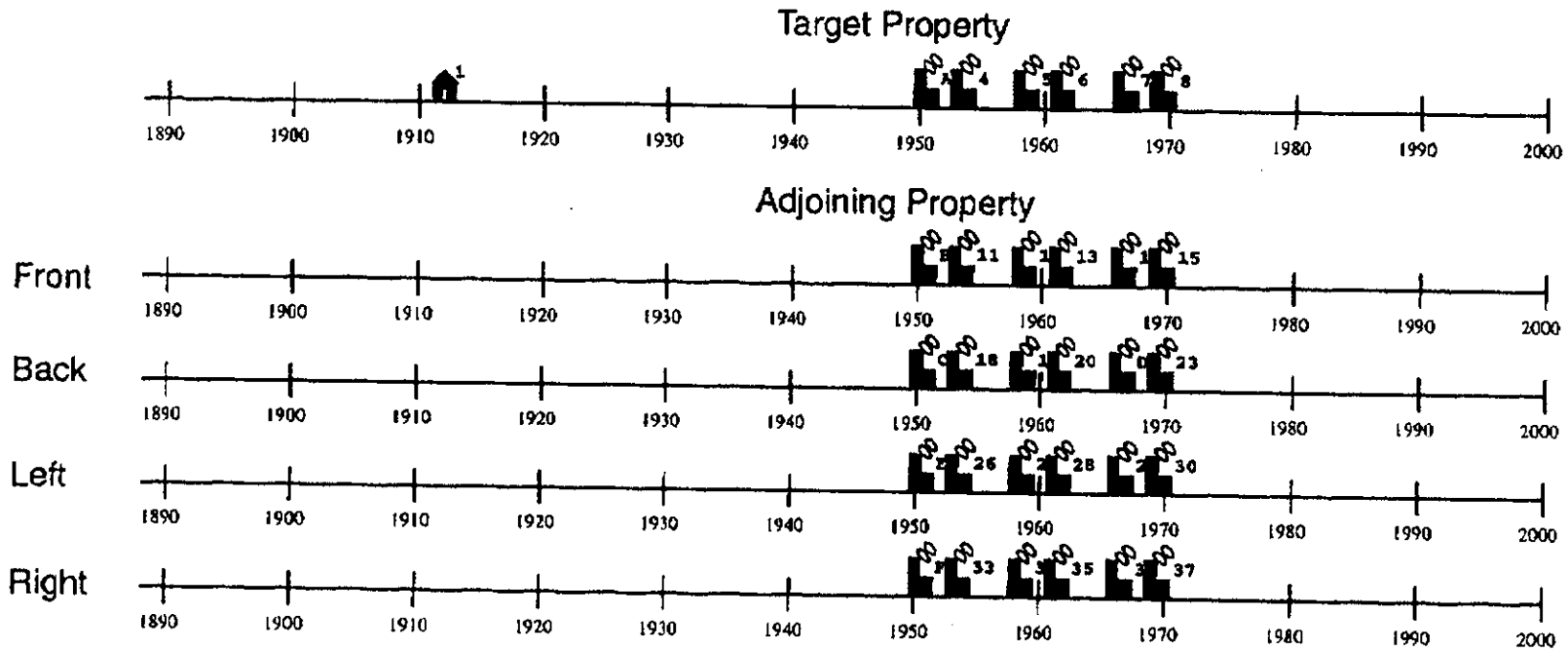
The EDR-Fire Insurance Map and City Directory *Abstract* is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities on the property or adjoining to the property. Historical sources may include a review of Fire Insurance Maps and City Directories.

Fire Insurance Maps
Fire Insurance Maps are produced for private fire insurance map companies (such as Sanborn, Perris, Spielman and Brush, Hexamer, Scarlett, and The Fire Underwriters Inspection Bureau) that indicate uses of properties at specified dates and that encompass the property. Such maps were initially produced to provide information on the fire insurance risks of buildings and other structures. Fire Insurance Maps have become a valuable historical resource for persons concerned with evaluating the presence of, or potential for site contamination based on past use. Fire Insurance Maps are standard historical sources under ASTM E 1527-94 (Section 7.3.4). Fire Insurance Maps are publicly available for approximately 12,000 cities and towns for periods commencing as early as 1852 to the present. Fire insurance map coverage is most comprehensive in older urban centers and suburbs, with scarce map coverage in rural areas and suburbs developed after 1950.

EDR reviews microfilm collections of fire insurance maps available through the Library of Congress, University Publications of America, and various public local sources. There may be instances where a fire insurance map not included in the searched microfilm collections is available in a private collection. If gaps exist in historical use information, EDR recommends a review of an additional historical resource (e.g., city directories, historical aerial photographs, and/or telephone interviews with local government officials).

City Directories
City directories have been published for cities and towns across the U.S. since the 18th Century. Originally a list of town residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. ASTM E 1527-94 specifies that a *"Review of city directories (standard historical sources) at less than approximately five years intervals is not required by this practice."* (ASTM E 1527-94, Section 7.3.2.1, page 11.)

EDR Prior Use Report™ Timeline



Legend:

- = Residential (R)
- = Commercial or Industrial (C)
- = Residential with Commercial Use (RC)
- V = Vacant
- 0 = Other
- = Multiple Research Sources
- = Multiple Types
- = Aerial Photos Available *
- = Aerial Photos Included (P) *
- = Historical Topographic Map (HT) *

Superscript number corresponds to graph ID in text

* *Displayed on timeline when Aerial Photos, Historical Topos, or Aerial Research Summary are purchased*

Target Property: Asbury Graphite
Address: 2426-2500 Kirkham Street
City/State/Zip: Oakland, CA 94601

Customer: ENGEO Incorporated
Contact: Shawn Munger
Inquiry #: 122037-14
Date: 06/21/96

4. SUMMARY

- *Fire Insurance Maps:*

Microfilm collections of fire insurance maps available through the Library of Congress, University Publications of America, and various public local sources were searched. Fire insurance maps depicting the target property and adjoining properties were identified for 1912, 1951, 1952, 1954, 1959, 1962, 1967, and 1970. These maps were reviewed for information pertaining to the historical uses of the site.

- *City Directories:*

City directories including Polk and cross reference directories were reviewed, if available, at approximately five year intervals for the years spanning 1937 through 1967. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

Date EDR Searched Historical Sources:
Fire Insurance Maps June 13, 1996
City Directories June 14, 1996

Target Property:
2426-2500 Kirkham Street
Oakland, CA 94601

PUR ID / Year	Uses	Portion-Findings (FIM Information Only)	Source
1	*Address not listed in research source. Address researched: 2504-2516 Kirkham St.*		
1912	Residence and unidentified structure (2504 Kirkham)	composition roof	Sanborn Fire Insurance Maps
	Residence and unidentified structure (2516 Kirkham)	composition roof	
	no structure identified on site (unnumbered Kirkham)	N/A	
--			
1937	Address not Listed in Research Source		Polk's City Directory
--			
1943	Address not Listed in Research Source		Polk's City Directory
A 2	*Address not listed in research source. Address researched: 2426-2516 Kirkham St.*		
1951	portion of Bay View Villa:Housing Project/32 Flats	(2426-2449 Kirkham) composition roof	Sanborn Fire Insurance Maps
	Storage (2514 Kirkham)	composition roof no chimney	
	Residence (2516 Kirkham)	composition roof	
A 3	*Address not listed in research source. Address researched: 2426-2516 Kirkham St.*		
1952	portion of Bay View Villa:Housing Project/32 Flats	(2426-2449 Kirkham) composition roof	Sanborn Fire Insurance Maps
	Storage (2514 Kirkham)	composition roof no chimney	
	Residence (2516 Kirkham)	composition roof	
4	*Address not listed in research source. Address researched: 2426-2516 Kirkham St.*		
1954	portion of Bay View Villa:Housing Project/32 Flats	(2426-2449 Kirkham) composition roof	Sanborn Fire Insurance Maps
	Storage (2514 Kirkham)	composition roof no chimney	
	Residence (2516 Kirkham)	composition roof	
5	*Address not listed in research source. Address researched: 2514 Kirkham St.*		
1959	Storage (2514 Kirkham)	composition roof	Sanborn Fire Insurance Maps
	no structure identified on site (unnumbered Kirkham)	N/A	
6	*Address not listed in research source. Address researched: 2426-2514 Kirkham St.*		
1962	Foundry Supplies & Graphite Warehouse (2426 Kirkham)	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	Sanborn Fire Insurance Maps
	graphite grinding	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	
	storage (2514 Kirkham)	composition roof	
--			
1967	Address not Listed in Research Source		Polk's City Directory
7	*Address not listed in research source. Address researched: 2426-2514 Kirkham St.*		
1967	Foundry Supplies & Graphite Warehouse (2426-2500 Kirkham)	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	Sanborn Fire Insurance Maps

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1967 (continued)			
	-graphite grinding	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	
	-graphite warehouse	iron concrete floor composition roof	
	no structure identified on site (2514 Kirkham)	N/A	
8	*Address not listed in research source. Address researched: 2426-5210 Kirkham St.*		
1970	Foundry Supplies & Graphite Warehouse (2426-2510 Kirkham)	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	Sanborn Fire Insurance Maps
	-graphite grinding	concrete floors composition roof wood trusses on posts opening with single iron or tin clad door	
	-graphite warehouse	iron concrete floor composition roof	
	-packing	iron concrete floor composition roof	

Adjoining Properties

FRONT Adjoining Property

Multiple Addresses
Oakland, CA 94601

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
-- 1912	No Structure Identified on Site		Sanborn Fire Insurance Maps
-- 1937	Address not Listed in Research Source		Polk's City Directory
-- 1943	Address not Listed in Research Source		Polk's City Directory
8 9 1951	California Metals Co:Paper Baling & Who. (2310-98 Peralta)	concrete floors opening with single iron or tin clad door concrete block tile junk elevator wood posts siamese fire department connection hydraulic press room baler room smelting kettle	Sanborn Fire Insurance Maps
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Inc.:Concrete Aggregate Plant	(2400-2504 Peralta) not in operation	
	-tipple house	fireproof construction built in 1928 reinforced concrete sand and gravel tanks	
	-tire and miscellaneous storage	composition roof	
	Railroad Siding	N/A	
	-oil house/storage/machine shop/auto repair	non comb. roof cov. of metal,slate,tile or asbestos shingles concrete block	
	-auto house	concrete floor steel truss roof	

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1951 (continued)			
		concrete block composition roof	
	-lime putty plant	elevator bin	
	-office	hydrant	
	-lime & cement warehouse	wood floor iron columns composition roof	
	Railroad Siding	N/A	
B 10 1952	California Metals Co:Paper Baling & Who. (2310-98 Peralta)	concrete floors opening with single iron or tin clad door concrete block tile junk elevator wood posts siamese fire department connection hydraulic press room boiler room smelting kettle	Sanborn Fire Insurance Maps
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Inc.:Concrete Aggregate Plant	(2400-2504 Peralta) not in operation	
	-tipple house	fireproof construction built in 1928 reinforced concrete sand and gravel tanks	
	-fire and miscellaneous storage	composition roof	
	Railroad Siding	N/A	
	-oil house/storage/machine shop/auto repair	non comb. roof cov. of metal,slate,tile or asbestos shingles concrete block	
	-auto house	concrete floor steel truss roof concrete block composition roof	
	-lime putty plant	elevator bin	
	-office	hydrant	
	-lime & cement warehouse	wood floor iron columns composition roof	
	Railroad Siding	N/A	
11 1954	US Post Office/Garage/Stock Room/Repairing (2380-98 Peralta)	concrete opening with single iron or tin clad door concrete block	Sanborn Fire Insurance Maps
	-gas and oil structure	non comb. roof cov. of metal,slate,tile or asbestos shingles	
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Inc.:Concrete Aggregate Plant	(2400-2504 Peralta) not in operation	
	-tipple house	fireproof construction built in 1928 reinforced concrete sand and gravel tanks	
	-fire and miscellaneous storage	composition roof	
	Railroad Siding	N/A	
	-oil house/storage/machine shop/auto repair	non comb. roof cov. of metal,slate,tile or asbestos shingles concrete block	
	-auto house	concrete floor steel truss roof concrete block	

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1954 (continued)			
		composition roof	
	-lime putty plant	elevator bin	
	-office	hydrant	
	-lime & cement warehouse	wood floor iron columns composition roof	
	Railroad Siding	N/A	
12			
1959	US Post Office/Garage/Stock Room/Repairing (2380-98 Peralta)	concrete opening with single iron or tin clad door concrete block spray painting	Sanborn Fire Insurance Maps
	-gas and oil structure	non comb. roof cov. of metal,slate,tile or asbestos shingles	
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Inc.:Concrete Aggregate Plant	(2400-2504 Peralta) not in operation	
	-tipple house	fireproof construction built in 1928 reinforced concrete sand and gravel tanks	
	-tire and miscellaneous storage	composition roof	
	Railroad Siding	N/A	
	-oil house/storage/machine shop/auto repair	non comb. roof cov. of metal,slate,tile or asbestos shingles concrete block	
	-auto house	concrete floor steel truss roof concrete block composition roof	
	-lime putty plant	elevator bin	
	-office	hydrant	
	-lime & cement warehouse	wood floor iron columns composition roof	
	Railroad Siding	N/A	
13			
1962	US Post Office/Garage/Stock Room/Repairing (2380-98 Peralta)	concrete opening with single iron or tin clad door concrete block spray painting	Sanborn Fire Insurance Maps
	-gas and oil structure	non comb. roof cov. of metal,slate,tile or asbestos shingles	
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Inc.:Concrete Aggregate Plant	(2400-2504 Peralta) not in operation	
	-tipple house	fireproof construction built in 1928 reinforced concrete sand and gravel tanks	
	-tire and miscellaneous storage	composition roof	
	Railroad Siding	N/A	
	-oil house/storage/machine shop/auto repair	non comb. roof cov. of metal,slate,tile or asbestos shingles concrete block	
	-auto house	concrete floor steel truss roof concrete block composition roof	
	-lime putty plant	elevator bin	

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1962 (continued)			
	-office	hydrant	
	-lime & cement warehouse	wood floor iron columns composition roof	
	Railroad Siding	N/A	
--			
1967	Address not Listed in Research Source		Polk's City Directory
14			
1967	US Post Office/Garage/Stock Room/Repairing (2380-98 Peralta)	concrete opening with single iron or tin clad door concrete block	Sanborn Fire Insurance Maps
	-gas and oil structure	non comb. roof cov. of metal,slate,tile or asbestos shingles	
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Div. of Lone Star Cement Corp.	concrete aggregate plant yard no. 254 sand and gravel tanks iron concrete 4 iron storage tanks hopper	
	-tipple house	fireproof construction built in 1928 reinforced concrete	
	-control house	iron	
	-truck repair shop	further information is illegible	
	Railroad Siding	N/A	
15			
1970	Vacant structure (2380-2398 Peralta)	concrete opening with single iron or tin clad door concrete block	Sanborn Fire Insurance Maps
	-gas and oil structure	non comb. roof cov. of metal,slate,tile or asbestos shingles	
	no structure identified on site (1351 24th St/2399 Kirkham)	N/A	
	Pacific Cement & Aggregates Div. of Lone Star Cement Corp.	concrete aggregate plant yard no. 254 sand and gravel tanks iron concrete 4 iron storage tanks hopper	
	-tipple house	fireproof construction built in 1928 reinforced concrete	
	-control house	iron	
	-truck repair shop	further information is illegible	
	Railroad Siding	N/A	

BACK Adjoining Property
2401-2505 Poplar St.
Oakland, CA 94601

Back Property Log of Address Changes
1970 2401-2505 Poplar St.
1959 2401-2449 Kirkham/2505 Poplar
1952 2401-2449 Kirkham/unmbrd Poplar
1912 Unnumbered Poplar St

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
--			
1912	No Structure Identified on Site		Sanborn Fire Insurance Maps
--			
1937	Address not Listed in Research Source		Polk's City Directory
--			
1943	Address not Listed in Research Source		Polk's City Directory
C 16			

PUR ID / Year	Uses	Portion-Findings (FIM Information Only)	Source
1951 (continued)			
1951	Bay View Villa Housing Projects:32 flats (2401-2449 Kirkam)	composition roof	Sanborn Fire Insurance Maps
	Railroad Siding	N/A	
	Warehouse (unnumbered Poplar)	concrete floor steel columns composition roof	
C 17			
1952	Bay View Villa Housing Projects:32 flats (2401-2449 Kirkam)	composition roof	Sanborn Fire Insurance Maps
	Railroad Siding	N/A	
	Warehouse (unnumbered Poplar)	concrete floor steel columns composition roof	
18			
1954	Bay View Villa Housing Projects:32 flats (2401-2449 Kirkam)	composition roof	Sanborn Fire Insurance Maps
	Railroad Siding	N/A	
	Warehouse (unnumbered Poplar)	concrete floor steel columns composition roof	
19			
1959	Electrical Sign Warehouse (2505 Poplar)	concrete floor composition roof	Sanborn Fire Insurance Maps
20			
1962	Bread Depot & Private Garage (2433 Poplar)	composition roof reinforced concrete concrete floor wood trusses	Sanborn Fire Insurance Maps
	Electric Sign Factory (2505 Poplar)	noncombustible buiding built in 1962 paint spraying iron reinforced concrete	
	no structure identified on site (2401 Poplar)	N/A	
	Railroad Siding	N/A	
D 21			
1967	** KIRKHAM STREET Addresses **	N/A	Polk's City Directory
	address range not in source (2401-2449)		
	** POPLAR STREET Addresses **		
	American Crayon Co (2401)		
	Asbury Graphite (2401)		
	Industrial Foundry (2401)		
	Dixon Pottery (2401)		
	vacant (2433)		
	Modern Neon (2505)		
D 22			
1967	Bread Depot & Private Garage (2433 Poplar)	composition roof reinforced concrete concrete floor wood trusses	Sanborn Fire Insurance Maps
	Electric Sign Factory (2505 Poplar)	noncombustible buiding built in 1962 paint spraying iron reinforced concrete	
	no structure identified on site (2401 Poplar)	N/A	
	Railroad Siding	N/A	

23

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1970 (continued)			
1970	Tire Recapping (2433 Poplar)	composition roof reinforced concrete concrete floor wood trusses	Sanborn Fire Insurance Maps
	Electric Sign Factory (2505 Poplar)	noncombustible building built in 1962 paint spraying iron reinforced concrete	
	no structure identified on site (2401 Poplar)	N/A	
	Railroad Siding	N/A	

LEFT Adjoining Property
1349 24th St.
Oakland, CA 94601

Left Property Log of Address Changes
1970 1349 24th St.
1954 2200-2345 Kirkland St.

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
-- 1917	No Structure Identified on Site		Sanborn Fire Insurance Maps
-- 1937	Address not Listed in Research Source		Polk's City Directory
-- 1943	Address not Listed in Research Source		Polk's City Directory
E 24 1951	portion of Bay View Villa Housing Projects:2200-2345 Kirkham	64 flats composition roof	Sanborn Fire Insurance Maps
E 25 1952	portion of Bay View Villa Housing Projects:2200-2345 Kirkham	64 flats composition roof	Sanborn Fire Insurance Maps
26 1954	portion of Bay View Villa Housing Projects:2200-2345 Kirkham	64 flats composition roof	Sanborn Fire Insurance Maps
27 1959	Emporium-Capwell Co. Furniture & Merchandise Warehouse	reinforced concrete vertical pipes elevator opening with single iron or tin clad door steel columns and beams pilastered walls double hydrant	Sanborn Fire Insurance Maps
	-trash room		
	-storage		
	-office		
	-furniture refinishing		
28 1962	Emporium-Capwell Co.:Furniture & Merchandise Warehouse	reinforced concrete vertical pipes elevator opening with single iron or tin clad door steel columns and beams pilastered walls double hydrant	Sanborn Fire Insurance Maps
	-trash room		
	-storage		
	-office		
	-furniture refinishing		
-- 1967	Address not Listed in Research Source		Polk's City Directory

29

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1967 (continued)			
1967	Emporium-Capwell Co :Furniture & Merchandise Warehouse	reinforced concrete vertical pipes elevator opening with single iron or tin clad door steel columns and beams pilastered walls double hydrant	Sanborn Fire Insurance Maps
	-trash room		
	-storage		
	-office		
	-furniture refinishing		
30			
1970	Emporium-Capwell Co.:Furniture & Merchandise Warehouse	reinforced concrete vertical pipes elevator opening with single iron or tin clad door steel columns and beams pilastered walls double hydrant	Sanborn Fire Insurance Maps
	-trash room		
	-storage		
	-office		
	-furniture refinishing		

RIGHT Adjoining Property
Unnumbered Kirkham/Poplar
Oakland, CA 94601

Right Property Log of Address Changes
1970 Unnumbered Kirkham/Poplar
1959 1301 26th St.

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
--			
1912	No Structure Identified on Site		Sanborn Fire Insurance Maps
--			
1937	Address not Listed in Research Source		Polk's City Directory
--			
1943	Address not Listed in Research Source		Polk's City Directory
F 31			
1951	West Coast Soap Co:Warehouse/Factory & Storage(1301 26th St)	composition roof wood posts fuel:gas power:steam engine	Sanborn Fire Insurance Maps
	-2 boiler Houses	iron chimney concrete floor composition roof cement floor 4 steel tallow tanks tallow storage kets gas meter house	
F 32			
1952	West Coast Soap Co:Warehouse/Factory & Storage(1301 26th St)	composition roof wood posts fuel:gas power:steam engine	Sanborn Fire Insurance Maps
	-2 boiler Houses	iron chimney concrete floor composition roof cement floor 4 steel tallow tanks tallow storage kets gas meter house	

33

PUR ID Year	Uses	Portion-Findings (FIM Information Only)	Source
1954 (continued)			
1954	West Coast Soap Co Warehouse/Factory & Storage(1301 26th St)	composition roof wood posts fuel:gas power:steam engine	Sanborn Fire Insurance Maps
	-2 boiler Houses	iron chimney concrete floor composition roof cement floor 6 steel tallow tanks gas meter house	
34			
1959	2 Vacant structures (1301 26th St)	composition roof	Sanborn Fire Insurance Maps
	-2 boiler Houses	iron chimney concrete floor composition roof cement floor 6 steel tallow tanks gas meter house	
35			
1962	Cold Storage (unnumbered Poplar)	reinforced concrete wood trusses pilastered	Sanborn Fire Insurance Maps
	Miscellaneous Storage (unnumbered Kirkham)	concrete floor composinon roof	
..			
1967	Address not Listed in Research Source		Polk's City Directory
36			
1967	Cold Storage (unnumbered Kirkham)	reinforced concrete wood trusses pilastered	Sanborn Fire Insurance Maps
	Cold Storage (unnumbered Poplar)	reinforced concrete wood trusses pilastered	
	Miscellaneous Storage (unnumbered Kirkham)	concrete floor composition roof	
37			
1970	Cold Storage (unnumbered Kirkham)	reinforced concrete wood trusses pilastered	Sanborn Fire Insurance Maps
	Cold Storage (unnumbered Poplar)	reinforced concrete wood trusses pilastered	
	Miscellaneous Storage (unnumbered Kirkham)	concrete floor composition roof	

Glossary of Terms

Address Change

Indicates that a change of address has occurred; indicates new address. A change of address may occur when a city, street, or the address ranges of a street are restructured.

Address in Research Source

Indicates that a property is listed at a different address than the one provided by the user. Generally occurs when a property is located on a corner or, when the physical address of a property is different than its mailing address.

Address Not Listed in Research Source

Occurs when a specific site address is not listed in city directories and/or fire insurance maps.

Adjoining

Any property that is contiguous, or a property that would be contiguous if not for a public thoroughfare, to the target property. *To differentiate from each adjoining property, stand at the target property's "front door" facing the street.*

Adjoining Back

Property directly to the rear of the target property.

Adjoining Front

Property directly in front of the target property.

Adjoining Left

Property directly to the left of the target property.

Adjoining Right

Property directly to the right of the target property.

Adjoining Surrounding Area

Property that may adjoin the target property but due to lack of specific map information cannot be located precisely. This situation typically occurs when city directory information, but not fire insurance map information, is available.

CD

City Directory

Commercial

Any property including, but not limited to, property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; property used for residential purposes that has more than four residential dwelling units.

Commercial or Industrial

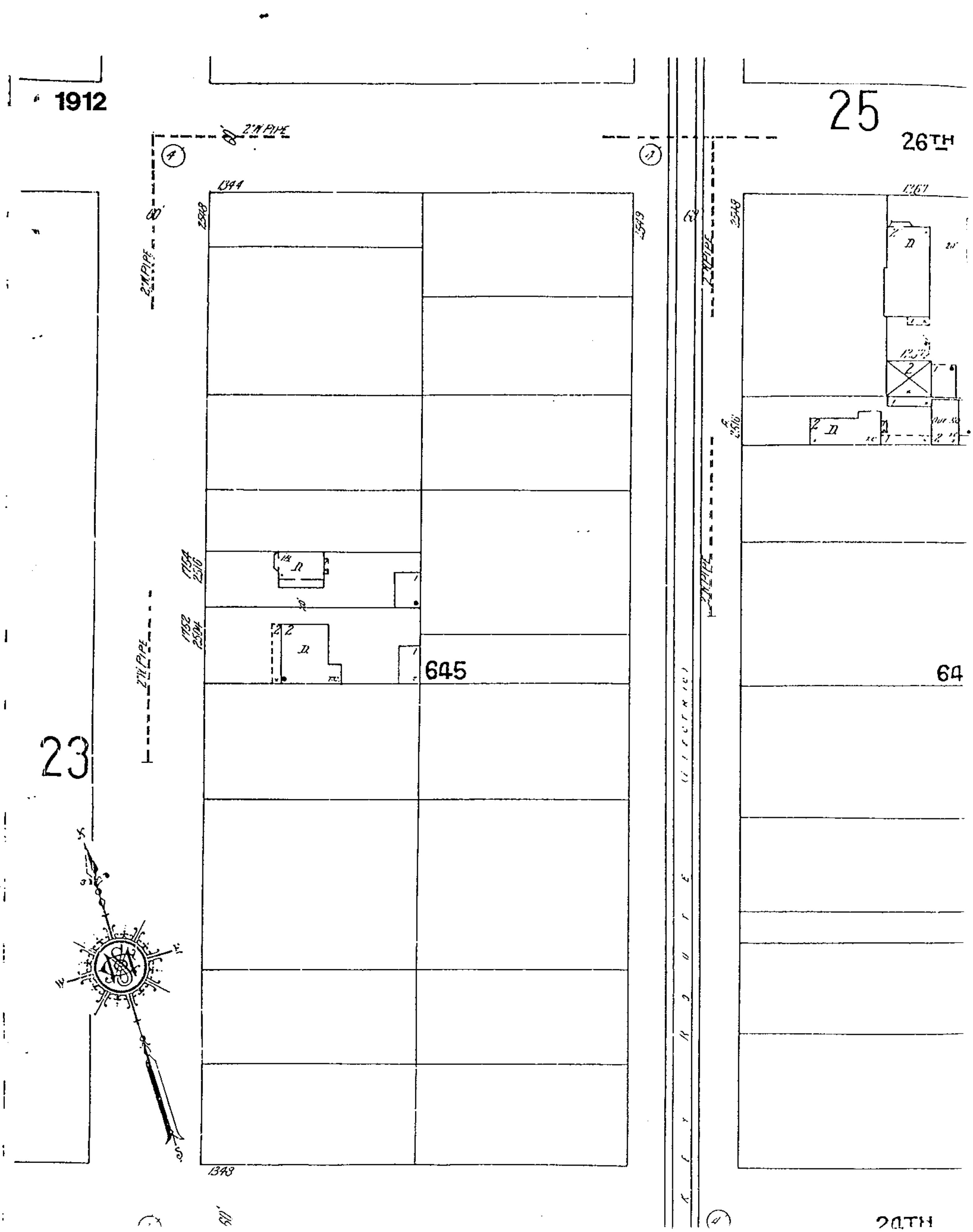
Property that has either a commercial *or* an industrial use. Examples include retail stores, manufacturing facilities, factories, and apartment buildings.

FIM

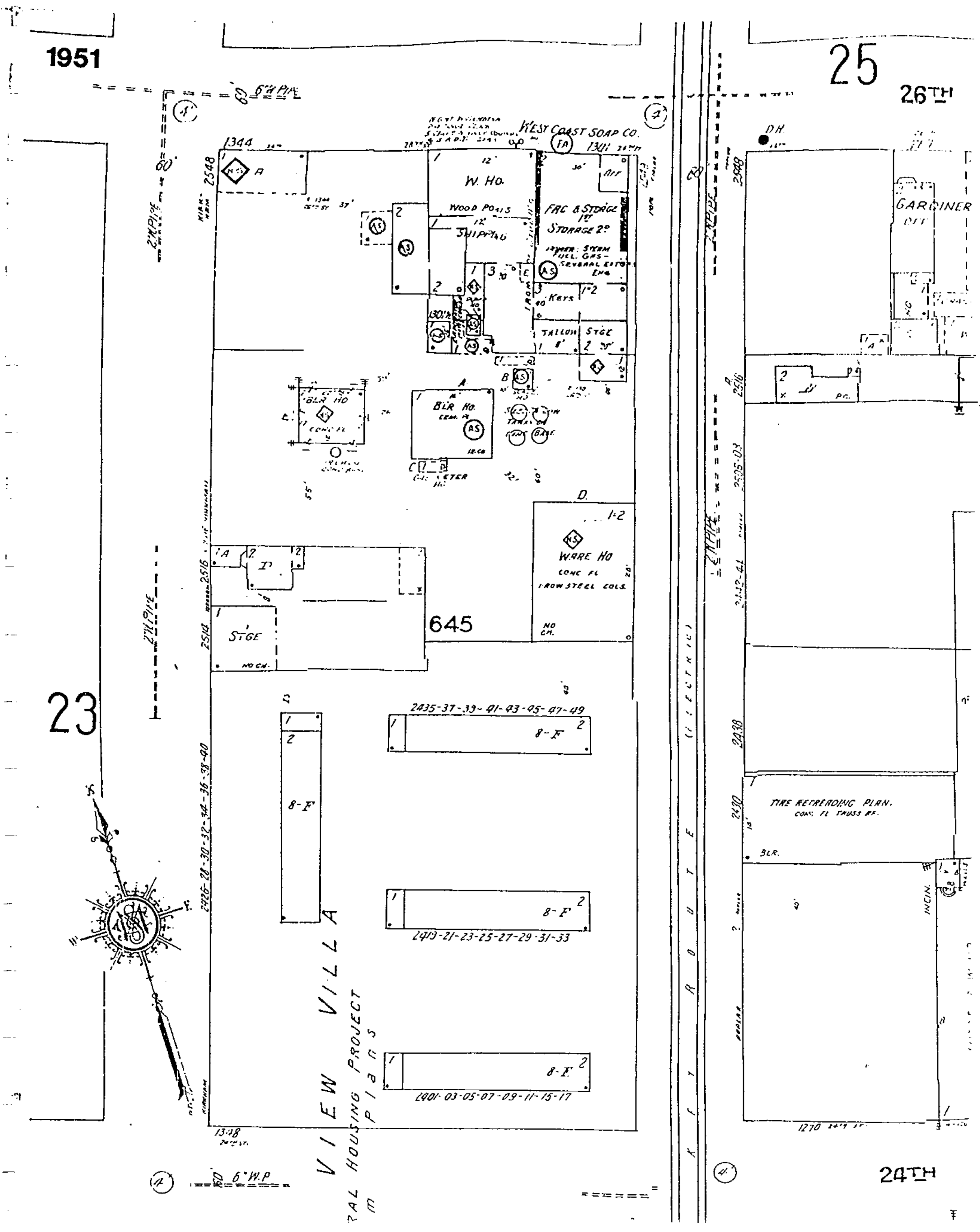
Fire Insurance Map

Map Required Not Available in Local Collection

Property is located on a fire insurance map sheet not available in local and/or microfilm collection.

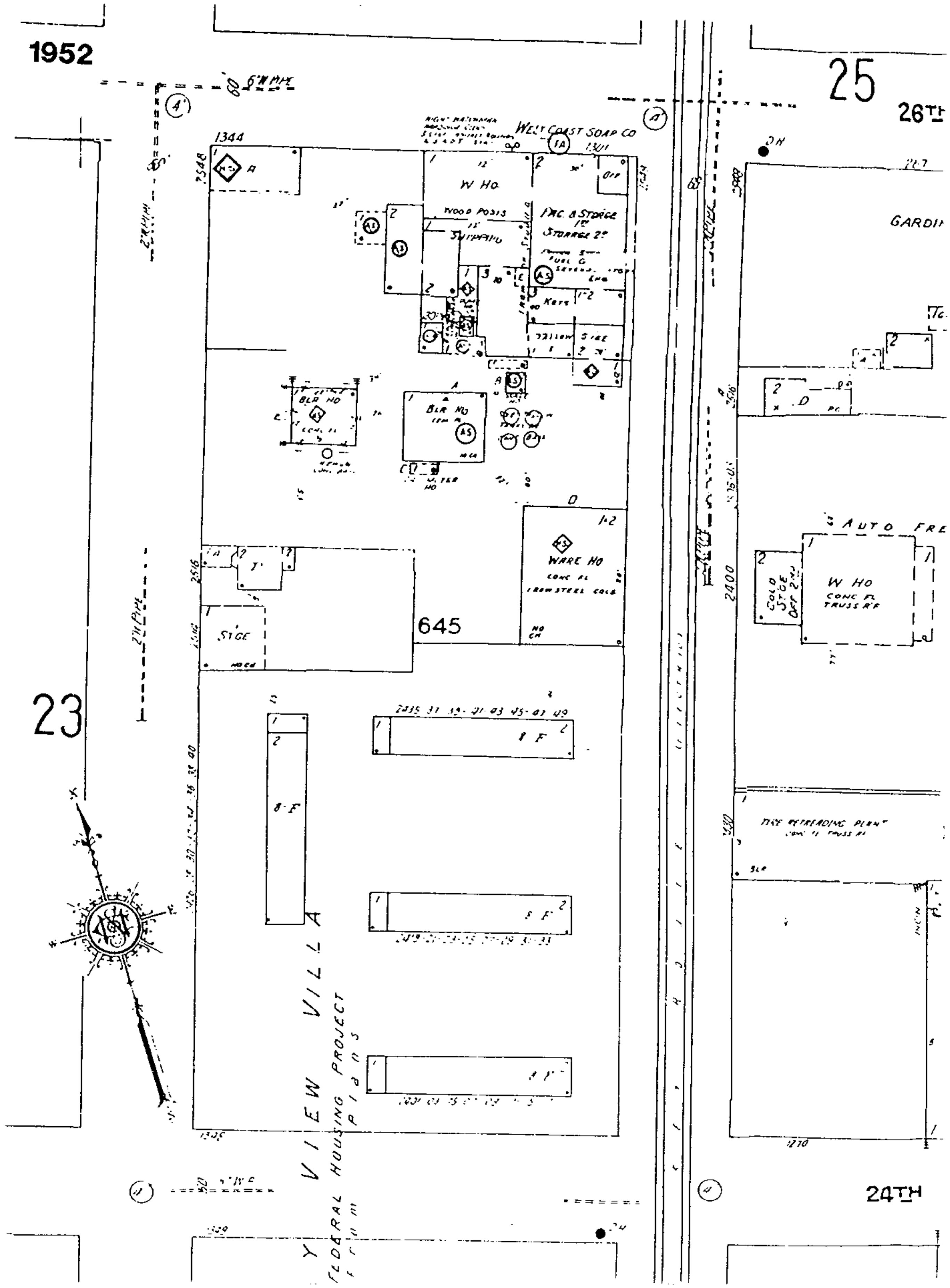


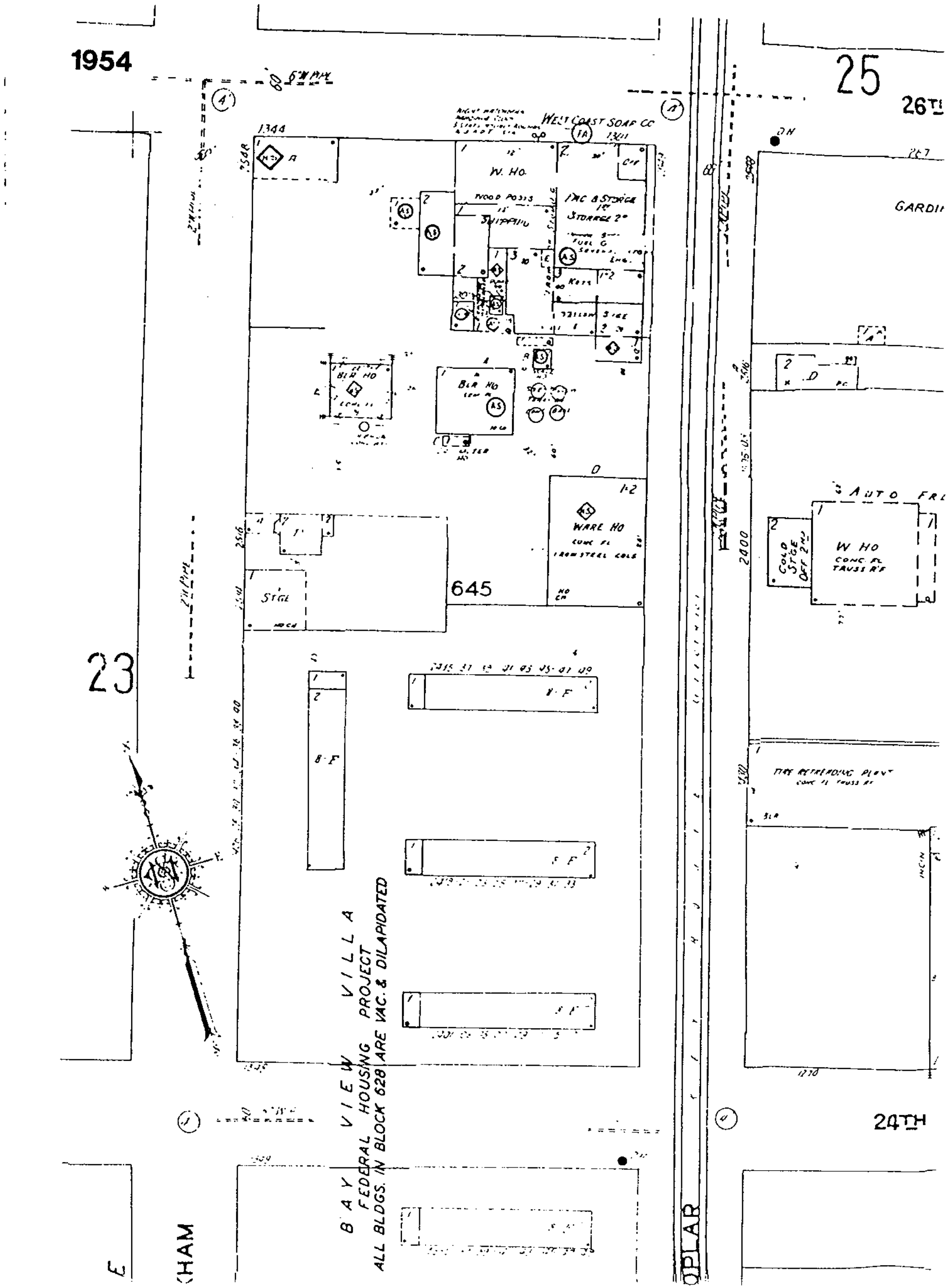
1912
25
26TH
2" W PIPE
60'
1344
2548
2549
1754
2516
1752
2504
645
64
23
1343
20TH

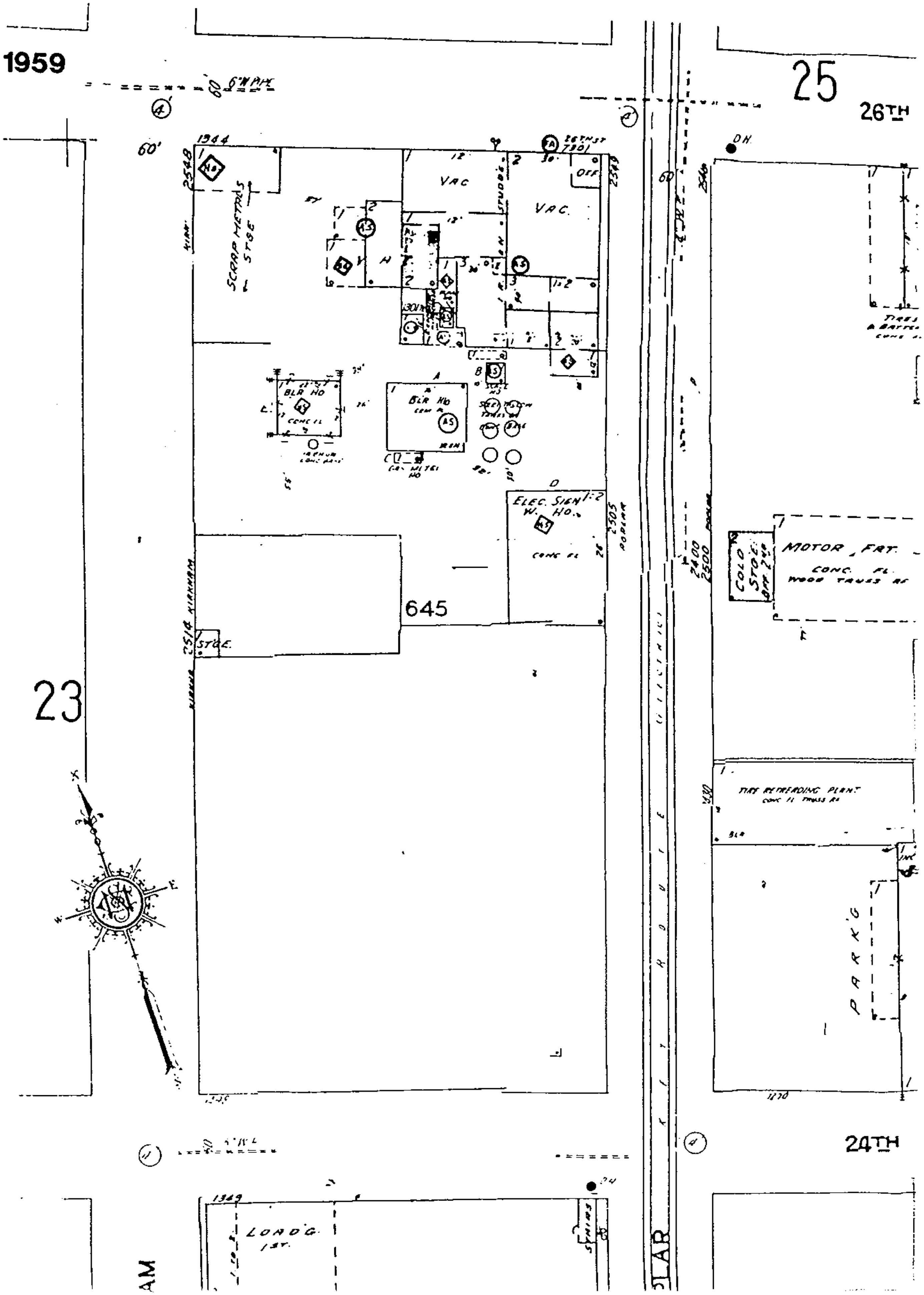


1951
25
26TH
23
24TH
645
WEST COAST SOAP CO.
W. HO.
WOOD POSTS
SHIPPING
FAC & STORAGE 1ST
STORAGE 2D
KETS
TALLOW
STGE
BLR HO
CONC FL
BLR. HO.
GAS METER HO.
WARE HO
CONC FL
IRON STEEL COLS.
NO CH.
STGE
GARDINER
OFF
TIRE RETREADING PLANT
BLR.
INCIN.
8-F
2435-37-39-41-43-45-47-49
2419-21-23-25-27-29-31-33
2401-03-05-07-09-11-15-17
2426-28-30-32-34-36-38-40
VIEW VILLA
FEDERAL HOUSING PROJECT
Plans
KEY ROUTE (ELECTRIC)
6" W.P.
6" W. PIPE
2 1/2" PIPE
2548
2516
2514
2430
2438
1344
1348
1270

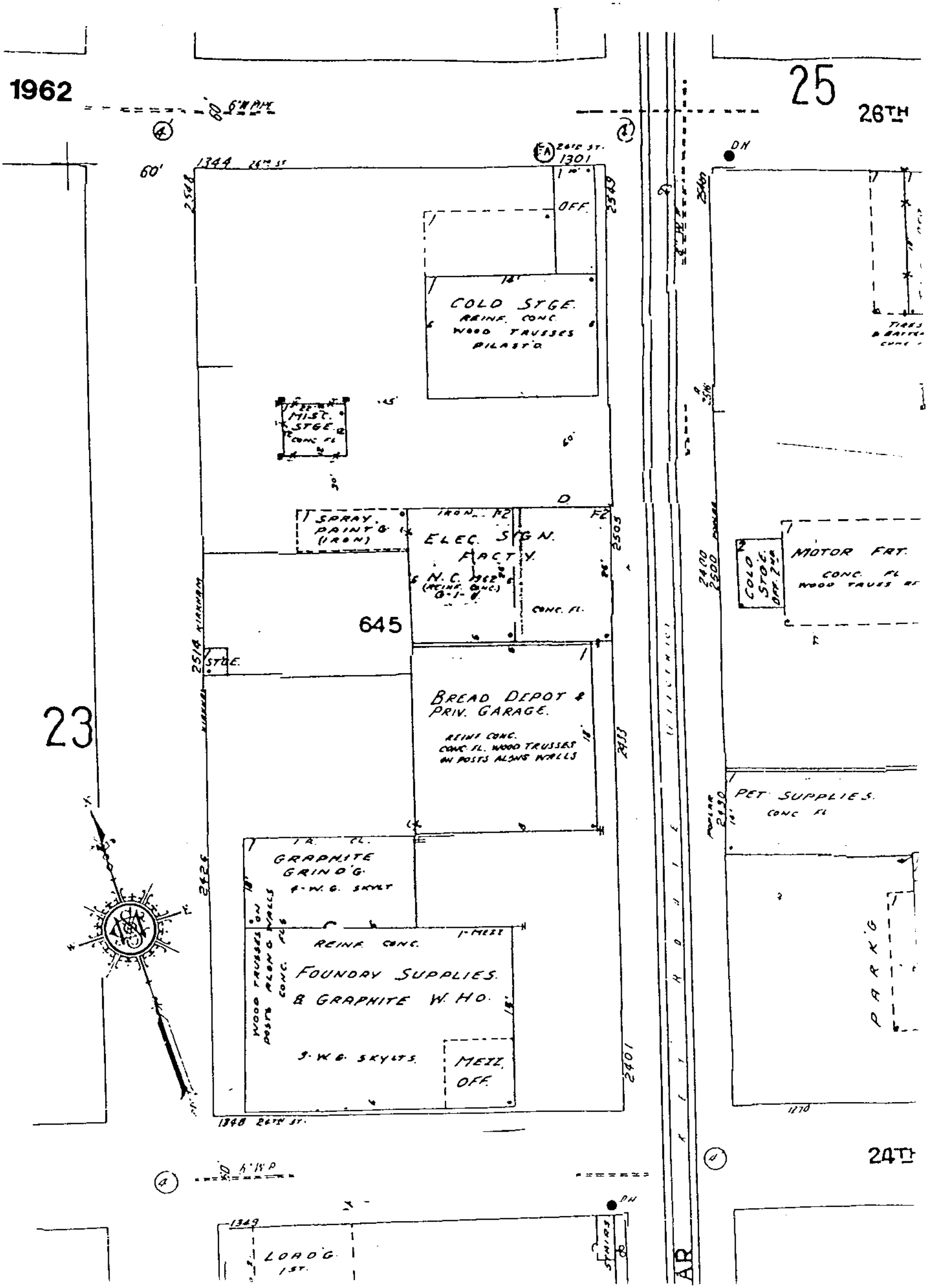
1952


25
26TH
WEST COAST SOAP CO
1344
1301
W Ho
WOOD POSTS
SHIPPING
MFG. & STORGE
STORAGE 2D
KETS
BLR HO
BLR HO
WARE HO
CONC FL
645
STGE
23
2400
GARDI
AUTO FRE
W HO
CONC FL
TRUSS R'F
COLD STGE OFF 2D
TIRE RETREADING PLANT
24TH
VIEW VILLA
FEDERAL HOUSING PROJECT
FROM PLANS

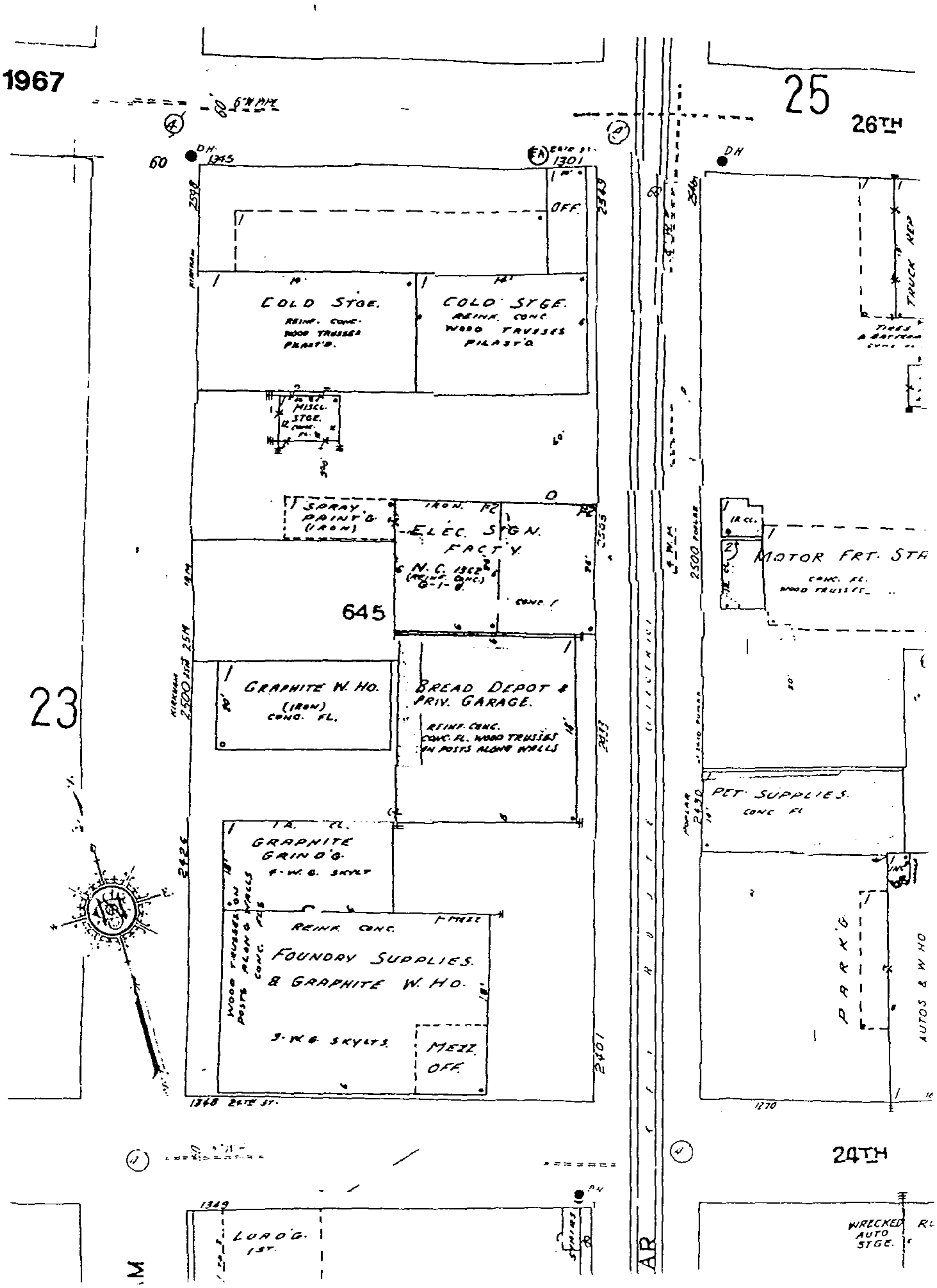

1954
25
23
WEST COAST SOAP CO
1344
1301
W. HO
WOOD POSTS
SHIPPING
PKG & STORGE 1ST
STORAGE 2ND
BLR HO
WARE HO
CONC FL
645
STGE
B.F
TIRE RETREADING PLANT
COLD STGE OFF 2ND
W HO
CONC FL
TRUSS R'F
2400
24TH
BAY VIEW VILLA
FEDERAL HOUSING PROJECT
ALL BLDGS. IN BLOCK 628 ARE VAC. & DILAPIDATED



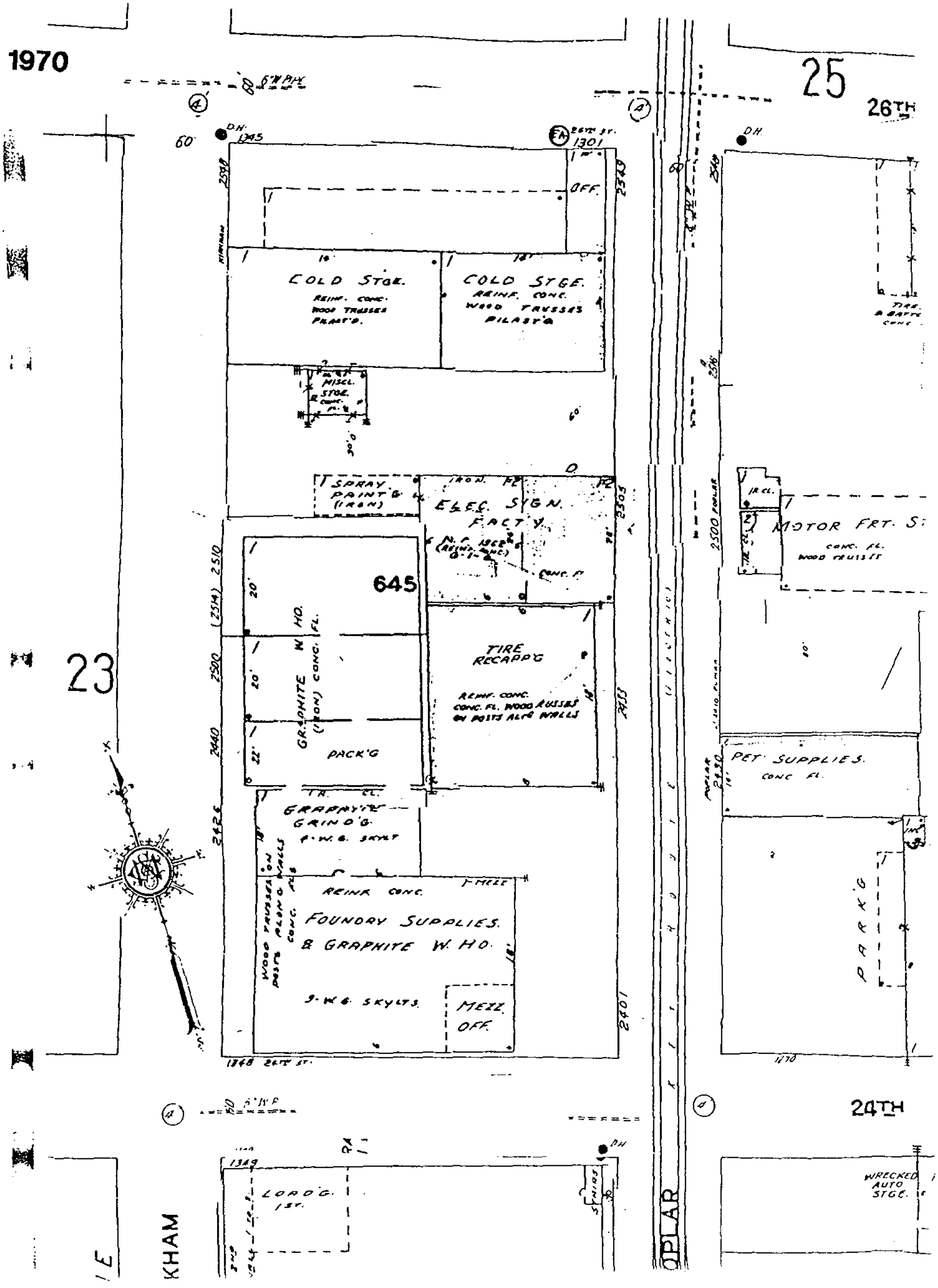
1959
25
26TH
23
645
24TH
SCRAP METALS STGE
VAC
VAC.
OFF
BLR HO
BLR HO
ELEC. SIGN W. HO.
CONC FL
MOTOR FRT.
CONC. FL.
COLD STGE.
TIRE RETREADING PLANT
PARK'G
STGE.
LOAD'G
KIRKHAM
POPLAR
1944
2548
2505
2514
1349



1962
25
26TH
1344 26TH ST.
1301
OFF.
COLD STGE.
REINF. CONC.
WOOD TRUSSES
PILAST'D.
MISC. STGE.
CONC. FL.
SPRAY. PAINT'G. (IRON)
ELEC. SIGN. FACT'Y.
N.C. 1922
CONC. FL.
645
STGE.
KIRKHAM
23
BREAD DEPOT & PRIV. GARAGE.
REINF. CONC.
CONC. FL. WOOD TRUSSES ON POSTS ALONG WALLS
GRAPHITE GRIND'G.
REINF. CONC.
FOUNDRY SUPPLIES.
& GRAPHITE W. HO.
WOOD TRUSSES ON POSTS ALONG WALLS
CONC. FL.
MEZZ. OFF.
1348 24TH ST.
2401
2433
2505
2543
2514
2426
MOTOR FRT.
COLD STGE.
PET SUPPLIES.
CONC. FL.
PARK'G
24TH
LOAD'G.
STAIRS
1349



1967
25
26TH
23
645
24TH
COLD STGE.
REINF. CONC.
WOOD TRUSSES
PILAST'D.
OFF.
MISCL. STGE.
SPRAY PAINT'G (IRON)
ELEC. SIGN. FACT'Y.
MOTOR FRT. STA
CONC. FL.
WOOD TRUSSES
GRAPHITE W. HO.
(IRON)
CONC. FL.
BREAD DEPOT & PRIV. GARAGE.
PET SUPPLIES.
GRAPHITE GRIND'G.
FOUNDRY SUPPLIES. & GRAPHITE W. HO.
MEZZ. OFF.
TRUCK REP.
PARK'G
AUTOS & W HO
WRECKED AUTO STGE.
LDR'G.
1345
1301
1348 24TH ST.
1349
2401
2500



1970
25
26TH
23
645
24TH
COLD STGE.
REINF. CONC.
WOOD TRUSSES
COLD STGE.
REINF. CONC.
WOOD TRUSSES
PILAST'G
OFF.
MISCL. STGE.
SPRAY PAINT'G (IRON)
ELEC. SIGN FACTY.
GRAPHITE W. HO.
(IRON) CONC. FL.
PACK'G
TIRE RECAPP'G
REINF. CONC.
CONC. FL. WOOD TRUSSES
ON POSTS ALG WALLS
GRAPHITE GRIND'G
REINF. CONC.
FOUNDRY SUPPLIES
& GRAPHITE W. HO.
WOOD TRUSSES ON POSTS ALONG WALLS CONC. FL.
MEZZ. OFF.
LOAD'G
MOTOR FRT. ST
CONC. FL.
WOOD TRUSSES
PET SUPPLIES
CONC. FL.
PARK'G
WRECKED AUTO STGE.
1301
1345
1348 24TH ST.
1349
2598
2543
2510
2500
2440
2426
2505
2433
2401
2500 POPLAR
2430 POPLAR
KHAM
OPLAR

earth metrics incorporated

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level One Environmental Site Assessment and Limited Soil Chemistry Study for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

INTRODUCTION

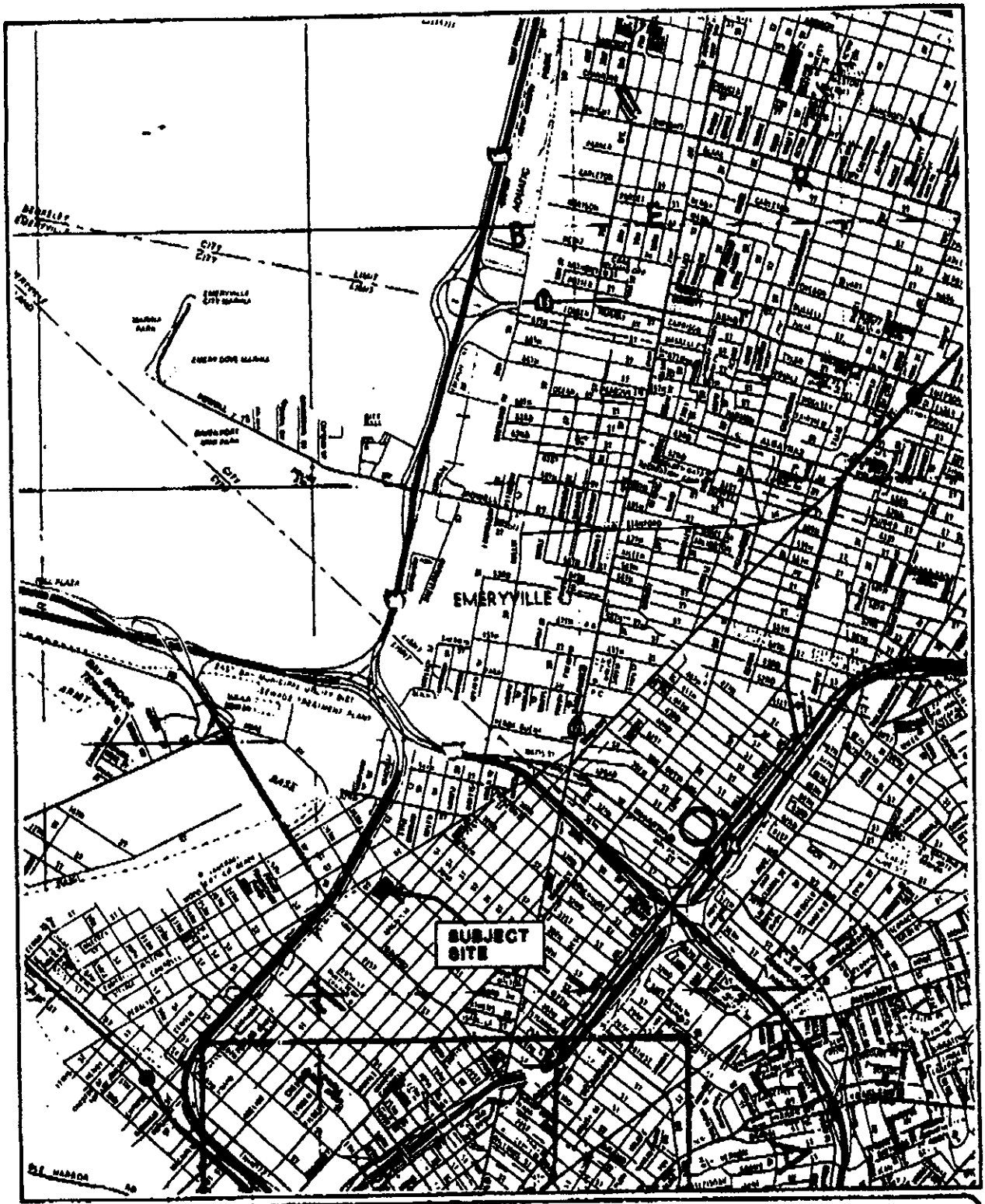
The following is a summary of findings of the Level One Environmental Site Assessment and Limited Soil Chemistry Study prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl

FIGURE 1. REGIONAL SUBJECT LOCATION MAP



earth metrics

N

SCALE
NO SCALE

FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Records for the subject site prior to that time are unavailable at the time of report preparation due to public agency closures resulting from damage sustained during the October 17, 1989, earthquake in the San Francisco area.

Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608 007-0609 007-0610	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.016	0.053
Detection Limits:		1.0	0.0050	0.0050	0.0050	0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.
007-0609		
007-0610		

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 12, 1990
			Reported:	Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2,	170
007-0609	X2	
007-0610		

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2866 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 6, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoulakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
Arsenic	0.25	0.97
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	0.25	22
Copper	0.50	17
Lead	0.25	5.4
Mercury	0.10	N.D.
Nickel	0.5	23
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
Zinc	0.50	37

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

161-3039

PROJ. NO.	PROJECT NAME	NO OF CONTAINERS	Full Scan / BTEX / O&G	Priority Metals	REMARKS
10730	KIRKHAM				

SAMPLERS: Signature

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan / BTEX / O&G	Priority Metals	REMARKS
					2500 Kirkham, Oakland				C: Composite X: Archive
H1	7/3/90	10:30		✓	Side driveway, through cement	1	X	X	C: composite
H2	"	10:40		✓	"	1	C	C	H2 & F2 ; x2
H3	"	10:50		✓	"	1	X	X	and test for
H4	"	10:50		✓	"	1	X	X	TPH Full Scan (BTEX / 503 (O&G) and Priority Metals
H5	"	11:10		✓	"	1	X	X	Total # of row: 2
F1	"	11:30		✓	"	1	X	X	
F2	"	11:30		✓	"	1	C	C	Archive samples for
F3	"	11:30		✓	"	1	X	X	further testing if required.
F4	"	12:00		✓	"	1	X	X	
F5	"	12:00		✓	"	1	X	X	
F6	"	12:10		✓	"	1	X	X	10 DAY RUSH
X1	"	1:30		✓	Frame shop	1	X	X	
X2	"	1:30		✓	"	1	C	C	5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	7/3/90		7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS: 5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2655 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

PROJ. NO.	PROJECT NAME	NO OF CON-TAINERS	Full Scan/BTEX/O&G	Prio. MQ Metals						REMARKS
10730	KIRKHAM									

SAMPLERS: Signature

[signature]

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan/BTEX/O&G	Prio. MQ Metals						REMARKS
X3	7/3/90	1:30		✓	Fremont Street	1	x	x						x: ARCHIVE
X4	"	2:10		✓		1	x	x						DO NOT TEST!!
X5	"	2:10		✓		1	x	x						
X6	"	2:30		✓		1	x	x						
														5 DAY RUSH

Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
[signature]	7/3/90 500 pm	[signature]	7/3 4:45
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time

REMARKS: 5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9800

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
X

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 3 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2	6		SP	
Soil	4			X3	7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5	11			
Soil	13			X6	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 2 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5				
					12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

END

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5				
					12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

H.M.R.

earth metrics incorporated

RECEIVED
JAN 10 1991

December 17, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level Two Environmental Site Assessment (Limited Soil Chemistry) for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730C)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level Two Environmental Site Assessment (Limited Soil Chemistry Study) for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

INTRODUCTION

The following is a summary of findings of the Level Two Environmental Site Assessment (Limited Soil Chemistry Study) prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the later areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level Two Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site; consultation with local and county agencies having jurisdiction over the subject site; the selection of four test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil and Oil and Grease (Standard Method 503.3) in soil.

7000 Marina Boulevard, 4th Floor, Brisbane, CA 94005 (415)742-9900

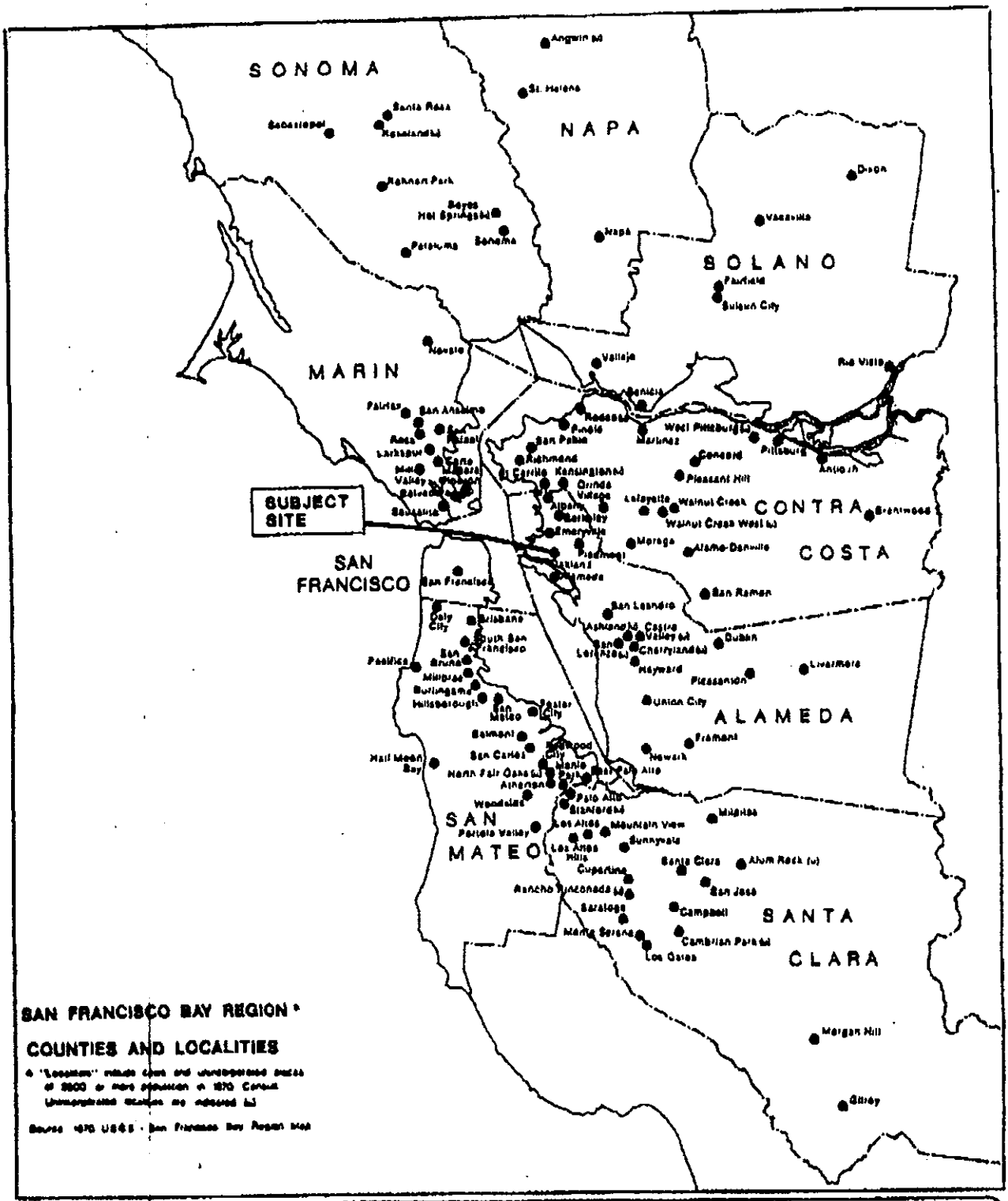
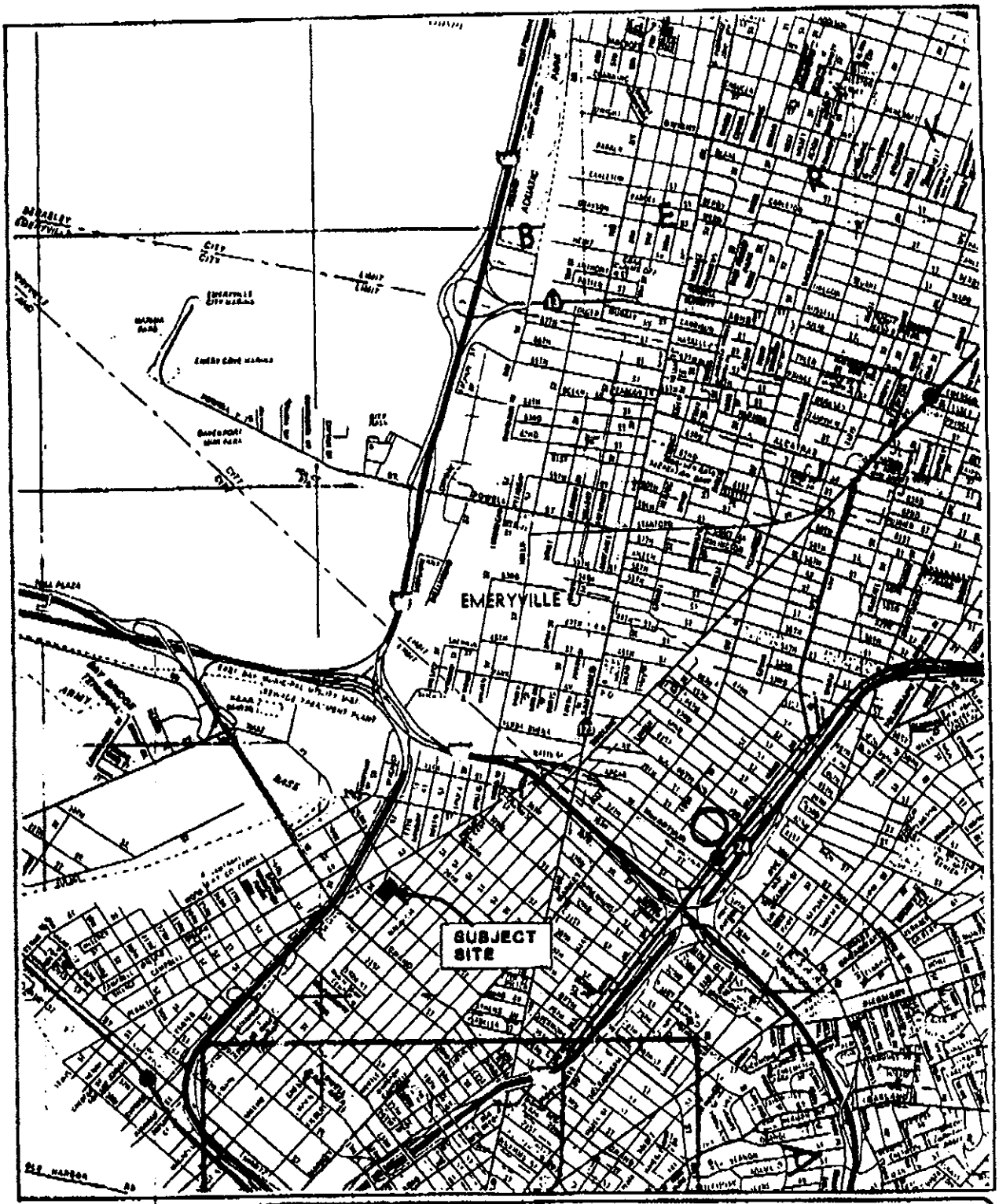


FIGURE 1. REGIONAL SUBJECT LOCATION MAP

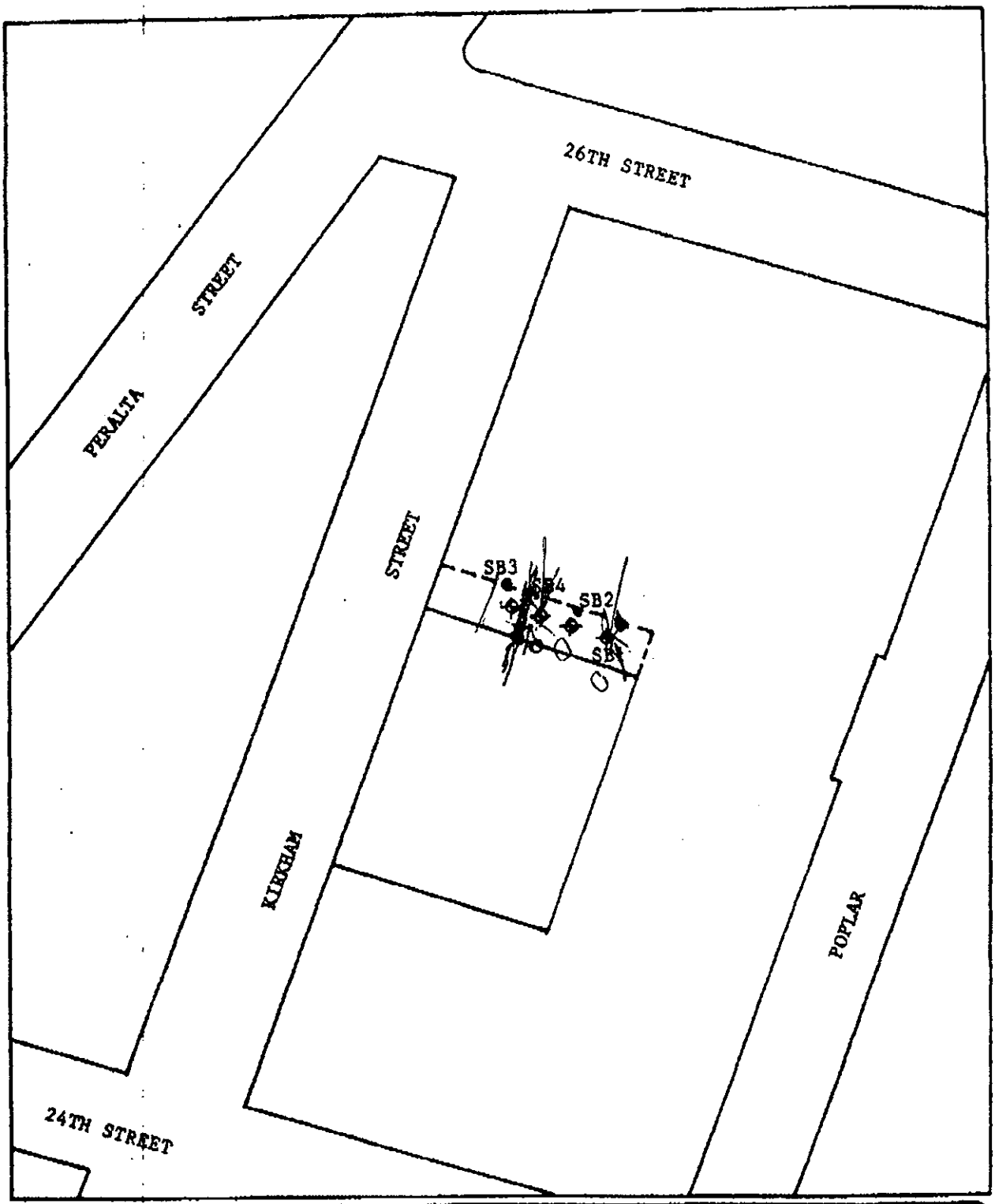


earth metrics

N

SCALE
NO SCALE

FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA



earth metrics

N

SCALE
1" = 80'

FIGURE 3. BORING LOCATION MAP

Agency consultation and historical research did not yield any information that would indicate the subject was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the are is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Four boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 16 feet below ground. Twelve (12) soil samples were collected representing three discrete depth intervals, that is three, eight and thirteen feet below ground.

Twelve (12) soil samples were analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; and Oil and Grease in Soil (Standard Method 503.3) in soil.

All soil samples that were collected from the eight and thirteen foot depth interval indicated the absence of any High Boiling Point Petroleum Hydrocarbons Fuel as Diesel (TPH-D); only one sample (i.e., SB4-3) of the four soil samples that were collected and analyzed from the three foot depth interval indicated the presence of 180 ppm of some petroleum based compound. According to Mrs. Malie A. McBirney, Project Manager, Sequoia Analytical, "the above samples do not appear to contain diesel." Total Recoverable Petroleum Oil and Oil and Grease (O&G) was found present at eight and thirteen feet

below ground at concentrations varying from non-detected to a maximum of 65 ppm (i.e. below action level); Oil and Grease was found to be present at the top three feet of soil at concentrations varying from non-detected at SB3 to 11,000 *ppm* at SB4.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was even a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Dennis J. Byrne, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 80 Swan Way, Room 200, Oakland, California (tel. no. (415) 271-4320).

Based on the localized presence of O&G in the top three feet of soil, Earth Metrics recommends excavation and proper disposal of all contaminated soils. This would involve the excavation of approximately 300 cubic yards (i.e., 100 feet long by 20 feet wide by 4 feet deep) of contaminated soil and disposal as Hazardous Waste.

Guidelines established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) require that a groundwater investigation be conducted on a property whenever soil contamination is detected indicating that an impact on groundwater quality may have occurred.

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis
Project Manager

Enclosures: Figures 1, 2 and 3
Lab Results (4 pages)
Chain Of Custody (1 page)
Boring Logs (4 pages)

100 x 15 x 4 = 6000 cuft

225 cu yds

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2600 Kirkham Rd., Oakland	Sampled:	Nov 14, 1990
2655 Campus Drive	Matrix Descript:	Soil	Received:	Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015	Extracted:	Nov 20, 1990
Attention: Lucia Owens	First Sample #:	011-2010	Analyzed:	Nov 21, 1990
			Reported:	Nov 28, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
011-2010	SB1-3	29
011-2011	SB1-8	N.D.
011-2012	SB1-13	N.D.
011-2013	SB2-3	N.D.
011-2014	SB2-8	N.D.
011-2015	SB2-13	N.D.
011-2016	SB3-3	N.D.
011-2017	SB3-8	N.D.
011-2018	SB3-13	N.D.
011-2019	SB4-3	160

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Maile A. McBirney
Project Manager

Please Note:
The above samples do not appear to contain diesel.

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled: Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received: Nov 16, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015	Extracted: Nov 20, 1990
Attention: Lucia Owens	First Sample #:	011-2020	Analyzed: Nov 21, 1990
			Reported: Nov 26, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
011-2020	SB4-8	N.D.
011-2021	SB4-13	N.D.

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Mairav A. McBirney
Project Manager

Please Note:
The above samples do not appear to contain diesel.

112010.EAR <2>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled: Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received: Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted: Nov 16, 1990
Attention: Lucia Owens	First Sample #:	011-2010	Analyzed: Nov 16, 1990
			Reported: Nov 26, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
011-2010	SB1-3	600
011-2011	SB1-8	N.D.
011-2012	SB1-13	N.D.
011-2013	SB2-3	230
011-2014	SB2-8	N.D.
011-2015	SB2-13	40
011-2016	SB3-3	N.D.
011-2017	SB3-8	59
011-2018	SB3-13	N.D.
011-2019	SB4-3	11,000
Detection Limits:		30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Mate A. McBirney
Project Manager

112010.EAR <3>

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled:	Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Nov 16, 1990
Attention: Lucia Owens	First Sample #:	011-2020	Analyzed:	Nov 16, 1990
			Reported:	Nov 26, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
011-2020	SB4-8	N.D.
011-2021	SB4-13	66

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Mike A. McBirney
Project Manager

112010.EAR <4>

PROJ. NO.	PROJECT NAME
10730C	2426-2500 Kinkham Rd Oakland, CA

SAMPLERS: Signature: Lucia Chiang

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	GC/FID 3550	5030 D+E	REMARKS
SB1-3	11/14	10:a		X	2426-2500 Kinkham Rd 9' N of bldg 8' E of Rd	1	X	X	
SB1-8	"	10:15		X	"	2	X	X	← where there are 2 samples ind 1 for GC FID 3550 + other for 5030 D+E
SB1-13	"	10:30		X	"	2	X	X	←
SB2-3	"	11:30		X	75' E of Rd 9' N of bldg	1	X	X	
SB2-8	"	11:45		X		2	X	X	←
SB2-13	"	1:30 pm		X	"	1	X	X	
SB3-3	"	2:00		X	50' E of Rd 9' N of bldg	1	X	X	
SB3-8	"	2:15		X	"	1	X	X	
SB3-13	"	2:45		X	"	1	X	X	
SB4-3	"	3:45		X	70' E of Rd, 9' N of bldg	1	X	X	
SB4-8	"	4:15		X	"	1	X	X	
SB4-13	"	4:30		X	"	1	X	X	

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Lucia Chiang	11/15 9:50		
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	11/15 9:50	KDC	

REMARKS:
5 day turnaround

EARTH METRICS INCORPORATED
2855 Campus Drive Suite 300
San Mateo, CA 94403
(415) 578-0000

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMEER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB1

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT.	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD	SHEET 1 OF 4
								CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	
	10/6/6				0-3		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.	
	10/6/6				7-8				
					8-13		CL	Gravely sandy clay, mottled, fine grained sand with medium grained gravel, tan silt, damp, medium dense, medium plasticity, well graded, no odor.	
	7/10/15				13-14		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.	

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90

JOB NO : 10730C

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB3
	SAMPLING METHOD CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 3 OF 4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT.	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			
					1			
					2			
	2/3/4			SB3-3	3		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.
					4			
					5			
					6			
					7			
					8			
	8/11/15			SB3-8	9		SP	Clayey sand with fine grained pebbles, fine grained sand, tan sand medium dense, damp, meidum plasticity, well graded.
					10			
					11			
					12			
					13			
	8/11/15			SB3-13	14		SP	Sand, fine to medium grained, with lens of graveley sand, medium grained gravel, moist, no plasticity, medium dense, well graded, no odor.
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/15/90 | JOB NO : 10730C

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT.	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD: CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 4 OF 4
					0				
					1				
					2				
					3				
	2/3/4			SB4-3	4		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.	
					5				
					6				
					7				
					8				
	7/9/10			SB4-8	9		CL	Sandy gravelly clay, fine grained tan sand, fine grained gravel, grey clay, sand mottled in clay, damp, high plasticity, medium dense, well graded, no odor.	
					10				
					11				
					12				
					13				
	11/13/16			SB4-13	14		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.	
					15				
					16				
					17				
					18				
					19				
					20				

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90

JOB NO : 10730C

END

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB2
	SAMPLING METHOD CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 2 OF 4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			
					1			
					2			
2/2/3				SB2-3	3		OH	Silty clay with organic material, dark brown, moist, medium plasticity, loose, poorly graded.
					4			
					5			
					6			
					7			
8/13/17				SB3-8	8			
					9		CL	Gravely sandy clay, mottled, fine grained sand with medium grained gravel, tan silt, damp, medium dense, medium plasticity, well graded, no odor.
					10			
					11			
					12			
10/13/14				SB3-13	13			
					14		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90

JOB NO : 10730C

PLATE

OAKLAND
COMMERCE CORPORATION

David P. Johnson
Executive Director

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e-mail: occ@ccnet.com

Asbury Graphite Inc. of California

a Division of ASBURY CARBONS

RICHARD CAMERON
Sales Coordinator & Manager

2855 Franklin Canyon Road
Rodeo, CA, U.S.A. 94572-2116

Phone: 510-799-3636
Fax: 510-799-7460

ENGEO INCORPORATED

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

MATERIALS TESTING

Shawn Munger, RG, REA
MANAGER, ENVIRONMENTAL SERVICES

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E-mail: engstaff@engeo.com
WWW: http://www.hooked.net/engeo

ENGEO
INCORPORATED

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

Keith E. Nowell
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PHONE (510) 838-1600
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Asbury Graphite
2500 Kirkham St.
Oakland CA 94607

7/18/96 spoke w/Shawn Munger of Engeo: (838-1600) RWQCB has this site listed as a LUST site. There was never a UST. It's adjacent to Findley Adhesive at 2433 Poplar St. He did a file review here for Findley; we could not locate the Asbury Graphite file (about 3 wks ago). **They plan to excavate hot spots. He thinks that we may request Geoprobe for gw invest.** They had drum storage. Site used for graphite manufacturing; maybe had lube oils. Therefore make it a SLIC site. How does he know there were no USTs? Seller is Asbury Graphite. He did a Phase I for the buyer; it is in draft form; can be to me by Monday.

phoned Clarke and Cramer Inc. 633-1666. Found them in the phone book. Just left a message. They are realtors. 415-392-4040 is their fax. They also have a SF address (see phone book). Ty Campbell: 633-1759; he will look for his file, and call me back to compare contents.

Spoke w/Ty Campbell: He has a 9/24/90 letter fm Ty to Marvin Riddle of Asbury G: sale is stalemated: gw must be investigated; purchaser not willing to buy site as such; he wanted a closure letter; seller was not willing to do further invest. Mr. Riddle didn't really want to acknowledge that there might be a problem. Deal fell apart. It didn't surprise him. Seller's company was Asbury Graphite Mills Inc., from Asbury, NJ. There was another broker after that. He has the Level One dated 8/7/90, and Env Site Assessment by Earth Metrics dated 12/7/89 (not too thick)(has fuel leaks and spills w/in one mile, contam incidents, land use history, asbestos inspection, 11/17/89 asbestos inspection, aerial photos, existing site conditions). He's worried about his legal obligations. Tom Thatcher is w/Hamilton, Kohn, Thatcher on Capwell Dr. in Oakland (most recent broker)(562-4490). Also broker John Swikert (569-0386). They've been involved w/site more recently.

7/25/96 Dave Johnson of Oakland Commerce Corp, phoned. They are a nonprofit funded by City to retain businesses in Oakland. One of his colleagues has been working w/Joinery Structures at 2500 Kirkham St. He's getting up to speed, and understands there's been a Phase I study. Wants to know status, so he can work back w/Joinery, and to know how the process works. Call him at 632-1238.

Phoned Shawn Munger: he knows he still owes me a Phase I. Joinery Structures is prospective buyer. They sent me the check $$. But the Phase I won't tell me much more than the reports I already have. No USTs. Won't shed much light.

7/25/96 Reviewed 12/17/90 "Level Two Env Site Assmt" by Earth Metrics Inc. Site was used for grinding of graphite, production of calcium petroleum coke and foundry mold coatings. Specifically, they used ground graphite in a slurry in oil drilling, a zirconium silicate, soldium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke as a recarbonizer in the steel industry. Site is located one block from former Cypress structure (maybe negative GWEs?). Did four borings on 11/14/90; analyzed soil at 3', 8', and 13' for TPHd by 8015 and TOG by 503.3. Soil results: two hits of TPHd: 29 ppm and 180 ppm (both at 3'bgs). (TPHd was not detected below these 3' samples.) They also had some Total Recoverable Petroleum Oil (by SM 503 D&E) hits: max was 11,000 ppm at 3'bgs. Boring logs indicate clays and sandy clays. No indication of DTW. **They recommend gw invest, and excavating approx 300 yd3 of contam soil. PROBLEMS: The site map is inadequate; no site features are shown. What was the rationale for locating the borings where they did?**

Reviewed 8/7/90 "Level One Env Site Assmt" by Earth Metrics Inc. They did 3 borings and analyzed for Tphg, BTEX, TPHd, O&G, and metals. Three soil samples from 5.5 to 6.0'bgs *were composited* and analyzed. Soil results: ND Benzene, ND TPHg, ND TPHd. They did get some TEX, metals at low concs (< 10X the STLCs), but also 170 ppm Total Recoverable Petroleum Oil (by SM 503 D&E). Borings went to 11.5' and no gw was encountered. Soils were sands and clayey sands. **PROBLEMS: There is no site map!**

Phoned Dave Johnson: (632-1238) He works under contract to City's Redevelopment Agency. He heard there was a spill (their broker told him). But the 1990 reports say there were no indications of unauthorized releases. Told him I don't yet have the Phase I, but that it's not supposed to add much info to the Earthmetrics reports. They want to close on the sale by early Sept. Told him that Engeo thinks we will require gw invest, and excavate hot spots. Told him I don't have enough info to make a decision. I assume site is zoned as comm/ind and not res. He thinks that is correct. Joinery does assembly of wood for structures in unusual ways: ie Japanese compound, using only wood and no nails. John Swikert (broker) is conscientious. Joinery has been using the site temporarily as a tenant, and now wants to buy the property. He will pass my questions onto John S.

7/25/96 Phoned S. Munger: he also doesn't have a site map on 8/90 report. But he will call John Swikert. Told him there's no rationale for boring placement. Did he find any sumps? No. Small lavatory in S or SE corner of bldg. They focused on the N side of bldg; it's been paved over w/concrete. They claim that concrete powder from concrete plant nearby just got in, and mixed w/moisture. Hopes Mr. Cameron can shed more light (the po, representing Asbury); wants to be at our mtg. He saw a sketch at one time, re first report site map.

Asked Pam Evans what the COCs wd be from these industrial processes? Did they have (hydraulic or lube) oil or other coolant for their machines? Put out on voice mail: Ask if anyone has been to this site, and if they know the COCs of this process. Or check library references for industrial processes. Waste min reports by state or Fed EPA.

7/29/96 Madhulla located the old SLIC case file for this site, and gave it to Tom, who gave it to me. Reviewed this original Site Mit file. FOUND THE SITE MAP W/THE 3 BORING LOCATIONS, FROM 8/7/90 LEVEL ONE EARTHMETRICS REPORT.

Phoned Paul Smith and Rob Weston and asked if they know the COCs for these processes. Left messages.

Reviewed the **DRAFT, unsigned** "Phase One Env Site Assmt" by Engeo Inc., dated 6/20/96 (brand new report). **They recommend a soil remediation and gw invest wp be submitted.** (But page 4 says that "a subsurface invest is NOT recommended.) QUESTIONS: 1) Why is this draft and unsigned? 2) why didn't they speak to the seller (pg 20). What does a prospective buyer know about the past use? 3) What type of coolant did they use for their machines? Did they have (hydraulic or lube) oil or other coolant for their machines? COMMENTS: 1) I should do my own site recon to double check for USTs, etc. 2) what about the materials listed on pg 17? Don Hwang says there are ok; no incompatibles.

Phoned Shawn Munger of Engeo: If they want a mtg, I'd like to meet w/the SELLER. Seller is Mr. Cameron, and he wasn't available at the time they did the Phase One. Seller would be available for the mtg. Probably best to do a site recon prior to our mtg. Mr. Discoe has keys to the bldg. Are the boring locations obvious? There is an 8" cylindrical hole onsite. He will call Mr. Discoe, and have him contact me. I will meet him onsite on 8/2 at 10 am. Then have a mtg on 8/6 at 3 pm.

8/2/96 SITE VISIT: see field notes. Met Mrs. Discoe and John Swickard onsite. He asked why I'm inspecting the inside premises, when their site invest was on the outside area. I said I didn't know the rationale for the placement of the borings, and that I was just looking around for sumps, etc (possible sources of contam.).

Discussed the case w/Tom: he said he remembers inspecting it. (But there's no inspection report). Discussed the graphite process, etc.

QUESTIONS FOR THE MTG:

What was their process?

How did they generate waste oil?

Ask DTSC what conc of O&G is HW? (Lm for Lyn on 8/2; she's out til 8/5)

How did they lubricate and cool their machines?

What did they do w/their waste IPA?

Where did the "residual petroleum product" come from? See pg 17.

What does he plan to do w/these left over materials? If he brings it to another of his own sites, then I should get a bill of lading, even if it's their own driver. The bill of lading should be very specific, including amounts, containers and materials. If he can't use it, it's a HW.

What about the 11,000 ppm O&G at 3'bgs? Soil type? Clay to 13', no gw noted. But gw at Findley was 2-8'bgs. Fully characterized? Maybe not. But it will be w/excavation and conf sampling.

8/6/96 Site visit: took 2 photos. Possible UST on N side bldg? Concrete pad over concrete pad. Strange piping along bldg, ending in a 45 degree angle.

lm DTSC (Lyn Nakashima): what is the cleanup level for O&G in surface soils? Ie 3'bgs

Susan said the RWQCB allowed 17,000 ppm O&G (Bunker C) around 5'bgs in Emeryville. Close to gw. But it doesn't solubilize in gw. But they did a gw invest. And asked for PNAs, but they were ND. PNAs not necessarily in O&G; more likely in Bunker C. Look for metals and semi-VOCs. She doesn't think DTSC has a cleanup level.

8/6/96 MEETING W/BUYER, SELLER, DAVE JOHNSON OF OAKLAND COMMERCE CORP, CONSULTANT SHAWN MUNGER OF ENGEO, AND REALTOR JOHN SWIKERT. See notes. They proposed to excavate the hot spot and do 2 Geoprobe borings. Sounds good. We'll find out whether there was a UST in that area.

Spoke w/Lyn at DTSC: RE cleanup concs for O&G: Any petroleum product is exempt from their purview, based on CERCLA. If it's mixed w/something else, ie solvent, then they can deal w/it. So they don't really have a generic cleanup #. Their S&E Unit can enforce if it is a Haz Waste. State of Mass has a model. . .Ch 6.5 Enf and Permit, 6.8 cleanups (excludes petroleum).

8/12/96 mess fm Shawn Munger: they are drilling right now. . . . This is strange; no advance notification.

Reviewed 8/7/96 "Proposal for GW Invest and Soil Mitigation" by Engeo. This was received between 8/7 and 8/9, but I haven't had a chance to review it until now. Two Geoprobe borings. **Does not indicate which soil samples will be submitted for analysis.** It will be based on field obs. Grab gw samples also.

Spoke w/S. Munger: Couldn't reach the boring bet SB1 and SB2, so they put that boring in the bldg as well as the other one. But the soil excavation will occur from SB1 to boring F. Where is gw? Infiltration is very slow; tight materials like Bay Mud, clayey silt and fine sand. Sat from 6.5 to 7', then dries out, and then sat again at about 17'. Got samples at 4, 8, and 12'. How many soil samples to be analyzed? 3 from each boring. Cap fringe may be 7'bgs. Looked at Findley's boring logs. The gw varies from boring to boring, from about 3' to 9.6'bgs! Excavation sampling on 8/20 9 am.

8/20/96 BRIEF SITE VISIT; no sampling today bec he thinks soil is asphaltic, and may have been the cause of the high O&G hits. Wants to get lab analysis back (from Geoprobe), and also took one soil sample from the excavation today. Wants those results before he recommends further action. Maybe just return soil to pit, and encapsulate it. Offhaul would cost $15,000.

8/23/96 spoke w/Shawn Munger: he doesn't have results back yet. Thought he would. Lab is slow, or having a problem. Wants to schedule the excavation sampling for 8/28 10 am. OK. Wednesday.

9/12/96 Received and reviewed 9/9/96 "Soil and GW sampling" report by Engeo. **Remember I want doc of disposal of Asbury's stuff before closure letter.** Phoned S. Munger to ask him about the Ids of the chromatograms. They did a WET for TPH as oil and TPH-d using DI. Unusual. Findley had TPHd in one of their Mws also. He will forward the signed lab reports.

9/12 con't I copied the asphalt chromatogram, and compared it to the samples they say resemble asphalt; put the AS-1 Chr over these samples, and indeed they are similar in shape. They say that the previously reported petroleum HC contam is likely a result of asphaltic material within fill material. It may be laterally extensive, both on and off site. Discussed w/SH: she thinks it's ok: the asphalt chr look like these samples, and their proposal to backfill w/the SP. It will be at least 4' above gw. **I will write them a letter saying I agree with their findings, and ok to backfill. But first I want the signed lab report, as well as doc of removal of Asbury's stuff.** Phoned Gloria Discoe: when will Asbury remove their belongings from inside the bldg? They are in the process right now. They started right now. She's trying to go to Paris on 9/28, and wants to close escrow first. She thinks they wanted to wait to remove stuff after the closure letter came through. They wanted to be assured the sale wd go through. OK, OK. Told her I agree w/Engeo's conclusions. OK, good.

Shawn Munger phoned again: He spoke w/Brad Job at RWQCB, and they said they've been accepting DI on organics. SPLP on metals: synthetic precipitate leaching potential, to simulate acid rain scenario (EPA 1312). It uses a nitric and sulfuric acid extractant at pH 5.0, but it's less aggressive than citric acid. But obviously more aggressive than DI. Fine that they used the DI. OK.

9/19/96 WROTE CONDITIONAL CLOSURE LETTER, spoke w/Gloria Discoe, Shawn Munger.

9/24/96 Shawn Munger phoned: Discoes want to plant a garden back there in that area, instead of paving it. It would increase the amt of water infiltrating thru the soil column. Vegetable or flower? I wouldn't ok vegetables; possible toxins. They could always use redwood planters for a container garden. Told him no. Scheduled to backfill on Thursday 9/26. Will be ready for inspection by next week.

9/26/96 Gloria Discoe phoned: Fax closure letter to John Swickerd at 569-7093 (phone 569-0386). They filled in hole today.

9/30/96 John Swikert phoned: paving should occur in the next few days. He doesn't understand why they just can't dispose of the soil for no charge, if County is saying that there's no environmental problem. Discoes will be pouring concrete in that area in the future. Mfg equipment will be placed in that area in the future, and that may require some digging thru the concrete/asphalt cap. I told him that we DID detect up to 730 ppm TOG in the SP; however, it was determined to be due to asphaltic material, and not leaching, so therefore, not a significant threat to the env or human health (no BTEX). OK.

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

Attn: Richard Cameron
Asbury Graphite Inc. Of California
2855 Franklin Canyon Rd.
Rodeo CA 94572-2116

RE: **CONDITIONAL CASE CLOSURE LETTER,** former Graphite Mill, 2500 Kirkham St., Oakland CA 94607

Dear Mr. Cameron,

I am in receipt of the "Soil and Groundwater Sampling" report prepared by Engeo Inc., dated September 9, 1996. This report documents a soil and groundwater investigation conducted on the above-referenced property. Two Geoprobe borings were emplaced inside the building on 8/12/96; three soil samples and one grab groundwater sample were collected from each boring. In addition, approximately 80 cubic yards of soil (fill material) was removed to a total depth of 4'bgs from the north property area. Seven soil samples were collected from the resulting shallow excavation, and two 3-point composite samples were collected from the stockpiled soil.

Results indicate that the Total Recoverable Petroleum Oil (SM 503) discovered in 1990 from borings emplaced in the north property area is likely a result of asphaltic material within fill material. In addition a waste extraction test performed on this material indicates that this fill material does not appear to pose a threat to groundwater. Although low concentrations of TPH-diesel are present in groundwater, the absence of BTEX in all of the samples and the lack of potable uses of groundwater in the area indicate **that there is no significant threat to human health or the environment.**

This office agrees with Engeo's proposal to backfill the stockpiled material into the excavation, then compact it and cover with asphalt or concrete paving. **A final case closure letter will be issued to you when the stockpiled material is backfilled and covered as previously mentioned.**

If you have any questions, please contact me at 510-567-6761.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Kevin Graves, RWQCB
Gloria and Paul Discoe, Joinery Structures, 2653 Willow St., Oakland CA 94607
Shawn Munger, Engeo Inc., 2401 Crow Canyon Rd., Suite 200, San Ramon CA 94583-1545
Jennifer Eberle/file

je.slic.250

H.M.R.

earth metrics incorporated

December 17, 1990

RECEIVED
JAN 10 1991

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level Two Environmental Site Assessment (Limited Soil Chemistry) for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730C)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level Two Environmental Site Assessment (Limited Soil Chemistry Study) for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

INTRODUCTION

The following is a summary of findings of the Level Two Environmental Site Assessment (Limited Soil Chemistry Study) prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the later areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level Two Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site; consultation with local and county agencies having jurisdiction over the subject site; the selection of four test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil and Oil and Grease (Standard Method 503.3) in soil.

7000 Marina Boulevard, 4th Floor, Brisbane, CA 94005 (415)742-9900

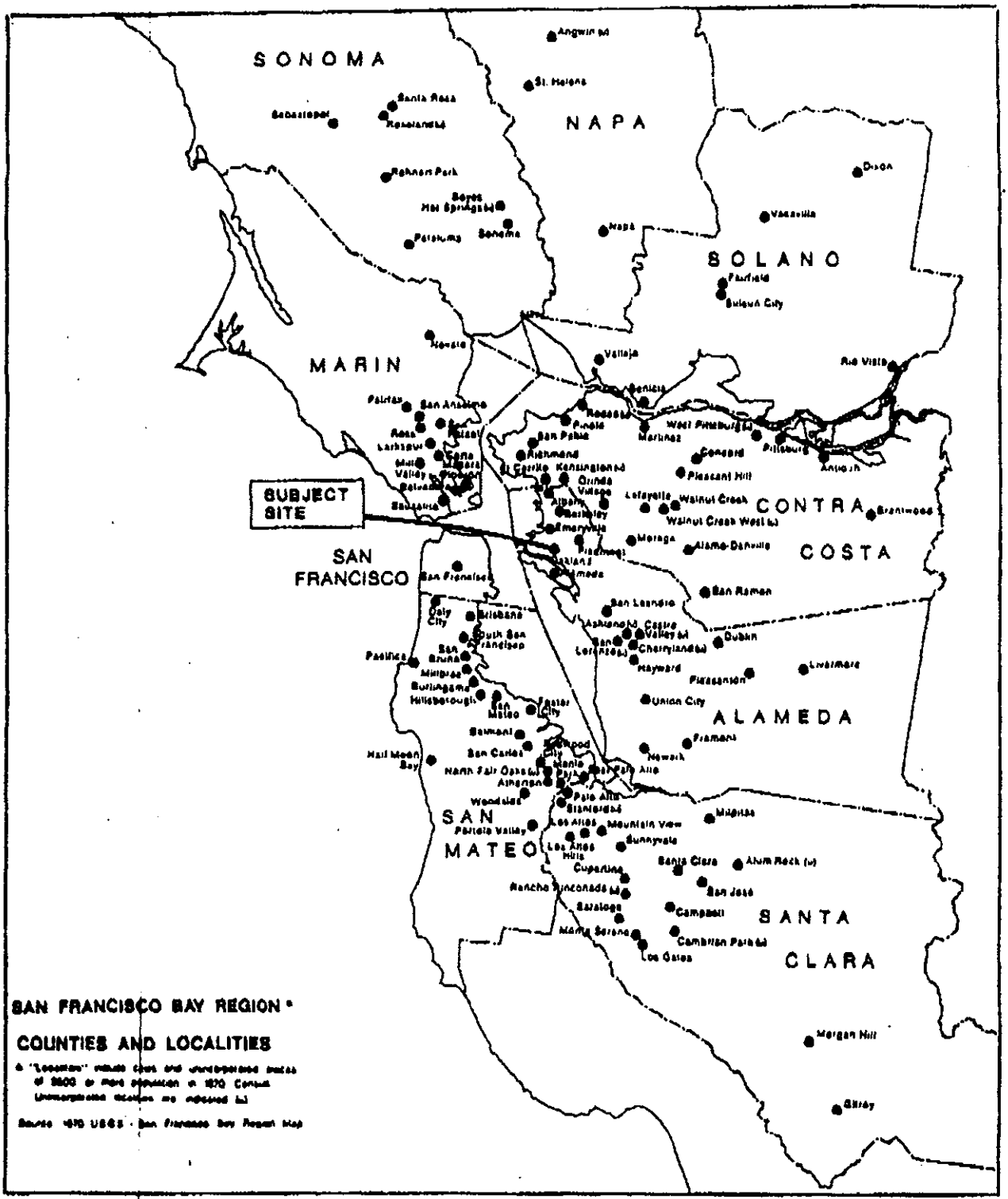
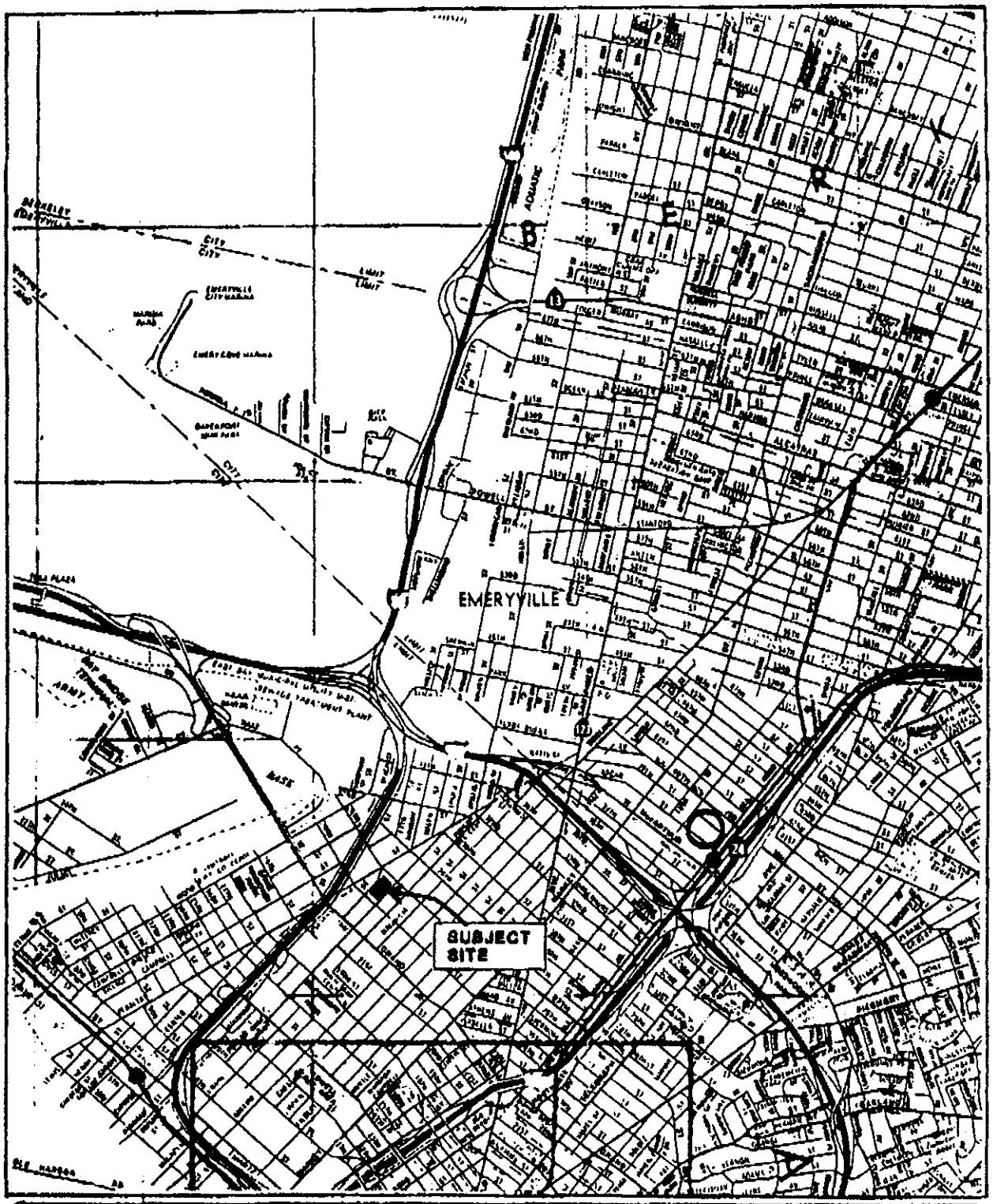


FIGURE 1. REGIONAL SUBJECT LOCATION MAP

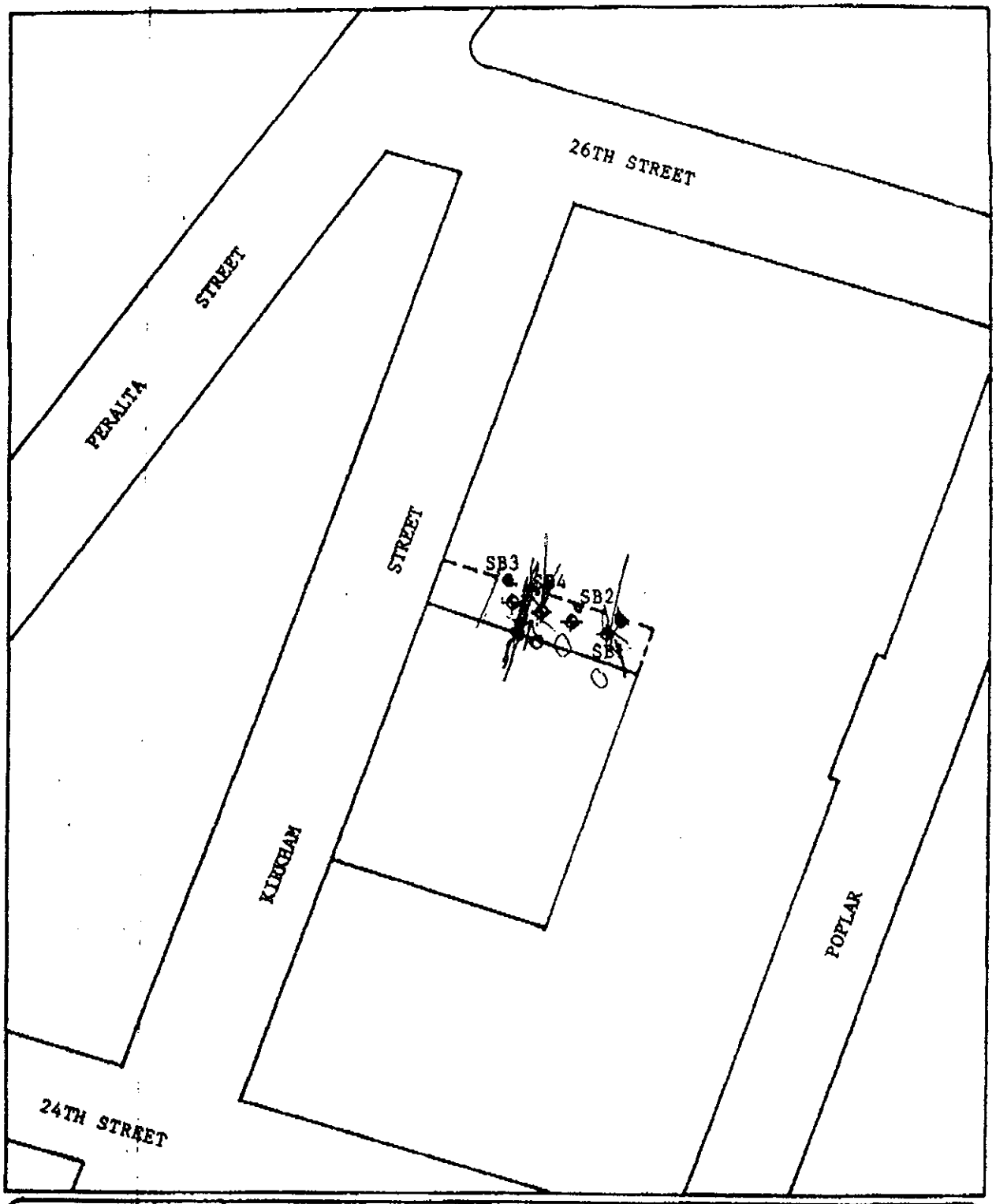


earth metrics

N

SCALE
NO SCALE

FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA



earth metrics

N

SCALE
1" = 80'

FIGURE 3. BORING LOCATION MAP

Agency consultation and historical research did not yield any information that would indicate the subject was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the are is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Four boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 16 feet below ground. Twelve (12) soil samples were collected representing three discrete depth intervals, that is three, eight and thirteen feet below ground.

Twelve (12) soil samples were analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; and Oil and Grease in Soil (Standard Method 503.3) in soil.

All soil samples that were collected from the eight and thirteen foot depth interval indicated the absence of any High Boiling Point Petroleum Hydrocarbons Fuel as Diesel (TPH-D); only one sample (i.e., SB4-3) of the four soil samples that were collected and analyzed from the three foot depth interval indicated the presence of 180 ppm of some petroleum based compound. According to Mrs. Malie A. McBirney, Project Manager, Sequoia Analytical, "the above samples do not appear to contain diesel." Total Recoverable Petroleum Oil and Oil and Grease (O&G) was found present at eight and thirteen feet

below ground at concentrations varying from non-detected to a maximum of 65 ppm (i.e. below action level); Oil and Grease was found to be present at the top three feet of soil at concentrations varying from non-detected at SB3 to 11,000 *ppm* at SB4.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was even a generator of any hazardous material or unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Dennis J. Byrne, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 80 Swan Way, Room 200, Oakland, California (tel. no. (415) 271-4320).

Based on the localized presence of O&G in the top three feet of soil, Earth Metrics recommends excavation and proper disposal of all contaminated soils. This would involve the excavation of approximately 300 cubic yards (i.e., 100 feet long by 20 feet wide by 4 feet deep) of contaminated soil and disposal as Hazardous Waste.

Guidelines established by the San Francisco Bay Regional Water Quality Control Board (RWQCB) require that a groundwater investigation be conducted on a property whenever soil contamination is detected indicating that an impact on groundwater quality may have occurred.

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis
Project Manager

Enclosures: Figures 1, 2 and 3
Lab Results (4 pages)
Chain Of Custody (1 page)
Boring Logs (4 pages)

100 x 15 x 4 = 6000 cuft

225 cu yds

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled:	Nov 14, 1990
2655 Campus Drive	Matrix Descript:	Soil	Received:	Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015	Extracted:	Nov 20, 1990
Attention: Lucia Owens	First Sample #:	011-2010	Analyzed:	Nov 21, 1990
			Reported:	Nov 26, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
011-2010	SB1-3	29
011-2011	SB1-8	N.D.
011-2012	SB1-13	N.D.
011-2013	SB2-3	N.D.
011-2014	SB2-8	N.D.
011-2015	SB2-13	N.D.
011-2016	SB3-3	N.D.
011-2017	SB3-8	N.D.
011-2018	SB3-13	N.D.
011-2019	SB4-3	160

TPHd

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Mark A. McBirney
Project Manager

Please Note:
The above samples do not appear to contain diesel.

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled: Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received: Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015	Extracted: Nov 20, 1990
Attention: Lucia Owens	First Sample #:	011-2020	Analyzed: Nov 21, 1990
			Reported: Nov 26, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
011-2020	SB4-8	N.D.
011-2021	SB4-13	N.D.

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Please Note:
The above samples do not appear to contain diesel.

Mallory McBirney
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled:	Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Nov 16, 1990
Attention: Lucia Owens	First Sample #:	011-2010	Analyzed:	Nov 16, 1990
			Reported:	Nov 26, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
011-2010	SB1-3	600 ~ 3'
011-2011	SB1-8	N.D.
011-2012	SB1-13	N.D.
011-2013	SB2-3	230 ~ 3'
011-2014	SB2-8	N.D.
011-2015	SB2-13	40
011-2016	SB3-3	N.D.
011-2017	SB3-8	59
011-2018	SB3-13	N.D.
011-2019	SB4-3	11,000 ~ 3'

11,000 ppm O+G

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Malie A. McBirney
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	10730C / 2426 - 2500 Kirkham Rd., Oakland	Sampled: Nov 14, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received: Nov 15, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted: Nov 16, 1990
Attention: Lucia Owens	First Sample #:	011-2020	Analyzed: Nov 16, 1990
			Reported: Nov 26, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
011-2020	SB4-6	N.D.
011-2021	SB4-13	65

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Malie A. McBirney
Project Manager

PROJ. NO.	PROJECT NAME	NO OF CON-TAINERS	GCFID 3550	503 D+E						REMARKS
10730C	426-2500 Kirkham Rd Oakland, CA									

SAMPLERS: Signature: Lucia Owens

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION 2426-2500 Kirkham [illegible] n of bldg 81' E of Rd	NO OF CON-TAINERS	GCFID 3550	503 D+E						REMARKS
SB1-3	11/14	10:am		X	"	1	X	X						
SB1-8	"	10:15		X	"	2	X	X			←			where there are 2 samples use 1 for GCFID 3550 + other for 503 D+E
SB1-13	"	10:30		X	"	2	X	X				←		
SB2-3	"	11:30		X	75' E of Rd 4' n of bldg	1	X	X						
SB2-8	"	11:45		X		2	X	X					←	
SB2-13	"	1:30 pm		X	"	1	X	X						
SB3-3	"	2:00		X	60' E of Rd 9' n of bldg	1	X	X						
SB3-8	"	2:15		X	"	1	X	X						
SB3-13		2:45		X	"	1	X	X						
SB4-3	"	3:45		X	70' E of Rd, 9' n of bldg	1	X	X						
SB4-8	"	4:15		X	"	1	X	X						
SB4-13	"	4:30		X	"	1	X	X						

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Lucia Owens	11/15 9:50		
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	11/15 9:50	KN[illegible]	

REMARKS: 5 day rush

EARTH METRICS INCORPORATED
2855 Campus Drive Suite 300
San Mateo, CA 94403
(415) 578-9900

gw ?

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB1
	SAMPLING METHOD CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 1 OF 4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
	10/6/6				0–3		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.
	10/6/6				8–13		CL	Gravely sandy clay, mottled, fine grained sand with medium grained gravel, tan silt, damp, medium dense, medium plasticity, well graded, no odor.
	7/10/15				13–14		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90

JOB NO : 10730C

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB3
	SAMPLING METHOD CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 3 OF 4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT.	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			
					1			
					2			
	2/3/4			SB3-3	3		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.
					4			
					5			
					6			
					7			
					8			
	8/11/15			SB3-8	9			Clayey sand with fine grained pebbles, fine grained sand, tan sand medium dense, damp, meidum plasticity, well graded.
					10		SP	
					11			
					12			
					13			
	8/11/15			SB3-13	14			Sand, fine to medium grained, with lens of graveley sand, medium grained gravel, moist, no plasticity, medium dense, well graded, no odor.
					15		SP	
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/15/90 | JOB NO : 10730C

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB4

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT.	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD: CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 4 OF 4
	2/3/4			SB4-3	3		OH	Silty clay, with organic material dark brown, medium plasticity, medium dense, poorly graded.	
	7/9/10			SB4-8	8		CL	Sandy gravelly clay, fine grained tan sand, fine grained gravel, gray clay, sand mottled in clay, damp, high plasticity, medium dense, well graded, no odor.	
	11/13/16			SB4-13	13		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.	

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90 | JOB NO : 10730C

PLATE

END

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
SEE FIGURE 3.	HOLLOW STEM AUGER	SB2

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD: CALIFORNIA MODIFIED SPLIT SPOON DRIVEN WITH 140 lbs HAMMER	SHEET 2 OF 4
2/2/3				SB2-3	3		OH	Silty clay with organic material, dark brown, moist, medium plasticity, loose, poorly graded.	
8/13/17				SB3-8	8		CL	Gravely sandy clay, mottled, fine grained sand with medium grained gravel, tan silt, damp, medium dense, medium plasticity, well graded, no odor.	
10/13/14				SB3-13	13		SC	Clayey sand, fine grained sand, gray clay, tan sand, damp, medium plasticity, medium dense, poorly graded, no odor.	

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

2426-2500 KIRKHAM STREET
OAKLAND, CALIFORNIA

DATE : 11/14/90 | JOB NO : 10730C

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

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

FACSIMILE TRANSMITTAL

TO:

(415) 578-1942
Fax Phone Number

Floor/Room # _____

Name: Chris Zouboulakis
Title/Section

Agency: Earth Metrics Inc.

Address: 2855 Campus Dr. Suite 300 San Mateo CA

Phone #: (415) 578-9906

FROM:

568-3706
Fax Phone Number

Floor/Room # _____

Date: 11/1/90

Time Sent: 1650

Sender: Dennis Byrne Haz Mat Spec
Title/Section

Phone #: (415) 271-4320

Number of Pages Including Transmittal Sheet: 2

Special Instructions/Comments:

STATE ID NUMBER 00000039590002

APPLICATION FOR PERMIT TO OPERATE UNDERGROUND STORAGE TANK

( ) 01 NEW PERMIT ( ) 05 RENEWED PERMIT ( ) 07 TANK CLOSED ( ) 09 DELETE FROM FILE (NO FEE)
( ) 02 CONDITIONAL PERMIT ( ) 06 AMENDED PERMIT ( ) 08 MINOR CHANGE (NO SURCHARGE)

I OWNER

NAME(CORPORATION,INDIVIDUAL OR PUBLIC AGENCY)	PUBLIC AGENCY ONLY		
MOBIL OIL CORPORATION	( ) 01 FED ( ) 02 STATE ( ) 03 LOCAL		
STREET ADDRESS	CITY	STATE	ZIP
612 SO. FLOWER STREET	LOS ANGELES	CA	90017

II FACILITY

FACILITY NAME	DEALER/FOREMAN/SUPERVISOR		
MOBIL SERVICE STATION	ROY HIFAI		
STREET ADDRESS	NEAREST CROSS STREET		
46840 WARM SPRINGS	MISSION		
CITY	COUNTY	ZIP	
FREMONT	ALAMEDA	94538	
MAILING ADDRESS	CITY	STATE	ZIP
46840 WARM SPRINGS	FREMONT	CA	94538
PHONE W/AREA CODE	TYPE OF BUSINESS		
415-490-9734	(X) 01 GASOLINE STATION ( ) 02 OTHER		
NUMBER OF CONTAINERS	RURAL AREAS ONLY :	TOWNSHIP	RANGE	SECTION
4				

III 24 HOUR EMERGENCY CONTACT PERSON

DAYS: NAME(LAST NAME FIRST) AND PHONE W/AREA CODE	NIGHTS: NAME(LAST NAME FIRST) AND PHONE W/AREA CODE
HIFAI, ROY 415-490-9734	ENGINEERING CENTER 213-583-6571

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV DESCRIPTION

A. (X) 01 TANK ( ) 04 OTHER:	CONTAINER NUMBER 2
B. MANUFACTURER (IF APPROPRIATE): CENTURY YEAR MFG:	C. YEAR INSTALLED 1984 ( ) UNKNOWN
D. CONTAINER CAPACITY: 10000 GALLONS ( ) UNKNOWN	E. DOES THE CONTAINER STORE: ( ) 01 WASTE (X) 02 PRODUCT
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OIL ? (X) 01 YES ( ) 02 NO IF YES CHECK APPROPRIATE BOX(ES): ( ) 01 UNLEADED (X) 02 REGULAR ( ) 03 PREMIUM ( ) 04 DIESEL ( ) 05 WASTE OIL ( ) 06 OTHER	

V CONTAINER CONSTRUCTION

A. THICKNESS OF PRIMARY CONTAINMENT: ( ) GAUGE ( ) INCHES ( ) CM (X) UNKNOWN

B. ( ) 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) (X) 02 NON-VAULTED ( ) 03 UNKNOWN

C. (X) 01 DOUBLE WALLED ( ) 02 SINGLE WALLED ( ) 03 LINED

D. ( ) 01 CARBON STEEL ( ) 02 STAINLESS STEEL (X) 03 FIBERGLASS ( ) 04 POLYVINYL CHLORIDE ( ) 05 CONCRETE
( ) 06 ALUMINUM ( ) 07 STEEL CLAD ( ) 08 BRONZE ( ) 09 COMPOSITE ( ) 10 NON-METALLIC
( ) 12 UNKNOWN ( ) 13 OTHER:

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

1 November 1990

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

Ty Campbell
Clarke & Cramer, Incorporated
401 Roland Way
Oakland, CA 94621

Subject: Environmental Investigation of 2500 Kirkham, Oakland.

Dear Mr. Campbell:

This office has received and reviewed a proposal prepared by Earth Metrics Incorporated concerning a further characterization of soil contamination associated with your property. Approval is granted for the implementation of this project as described in the Earth Metrics proposal dated 20 September 1990.

Please ensure that the results of this investigation are communicated to this office for review and inclusion into our records. The need for any further action on this site will be based upon the data derived from this investigation.

If you have any questions concerning this matter, please contact me at (415)271-4320.

Sincerely,

Dennis J. Byrne
Hazardous Materials Specialist

cc: Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Chris Zouboulakis, Earth Metrics, Inc.

Fax 578-1942

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

1 November 1990

DEPARTMENT OF ENVIRONMENTAL HEALTH
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Sincerely,

Dennis J. Byrne
Hazardous Materials Specialist

cc: Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Chris Zouboulakis, Earth Metrics, Inc.

earth metrics incorporated

90 SEP 27 PM 1:37

September 20, 1990

Mr. Dennis J. Byrne
Department of Environmental Health Services
Hazardous Materials Program
Alameda County
80 Swan Way, Rm 200
Oakland, CA 94621

Subject: Request for Review of Draft Work Plan for Total Petroleum Hydrocarbons Testing of 2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730B)

Dear Mr. Byrne:

Earth Metrics has been retained by Asbury Graphite to conduct a Total Petroleum Hydrocarbons characterization analysis of its warehouse facility, located at 2500 Kirkham Street, Oakland, California. An environmental site assessment which included composite testing for Total Petroleum Hydrocarbons was initiated by Asbury Graphite, and completed on July 8, 1990.

At this time, Earth Metrics wishes to coordinate a supplemental sampling and testing program with your agency. Our objectives are:

* to characterize residual hydrocarbon concentrations in soil;

* to identify any potential hydrocarbon hot spots;

* to perform an elementary health risk assessment and recommend worker protection measures and/or site mitigation measures; and

* to obtain environmental clearance for the proposed industrial use of the site.

Based on the available soil results, and the fact that virtually all low, medium and high boiling point hydrocarbons were not detected in the soil, it is Earth Metrics conclusion that additional sampling is required around the previously drilled boring locations in order to assess the San Francisco Bay Regional Water Quality Control Board requirement for groundwater investigation. To accomplish that Earth Metrics proposes to drill five additional borings down to 15 feet below grade and test individual soil samples at a rate of one sample per five feet for high boiling point hydrocarbons with a fuel fingerprint test (i.e. GCFID series test).

We have enclosed the Draft Sampling Plan and copies of the available Environmental Site Assessment and preliminary soil test results.

2855 CAMPUS DRIVE, SUITE 300, SAN MATEO, CALIFORNIA 94403 (415) 578-9900

Please let us know whether your agency will coordinate this work and name of staff assigned to this work. In order to start this work Earth Metrics will need at least a verbal authorization by the Department of Environmental Health Services Hazardous Materials Program, Alameda County, with the written authorization to follow up within two weeks. Your timely reply would be greatly appreciated. Thank you for your cooperation in this matter.

Sincerely,

Chris S. Zouboulakis
Project Manager, Earth Metrics

cc: Mr. Rafat Shahid, Assistant Director, Department of Environmental Health Services Hazardous Materials Program, Alameda County

Mr. Richard Cameron, Asbury Graphite

Attachments

1. Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2406-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

2. Draft work plan.

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level One Environmental Site Assessment and Limited Soil Chemistry Study for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

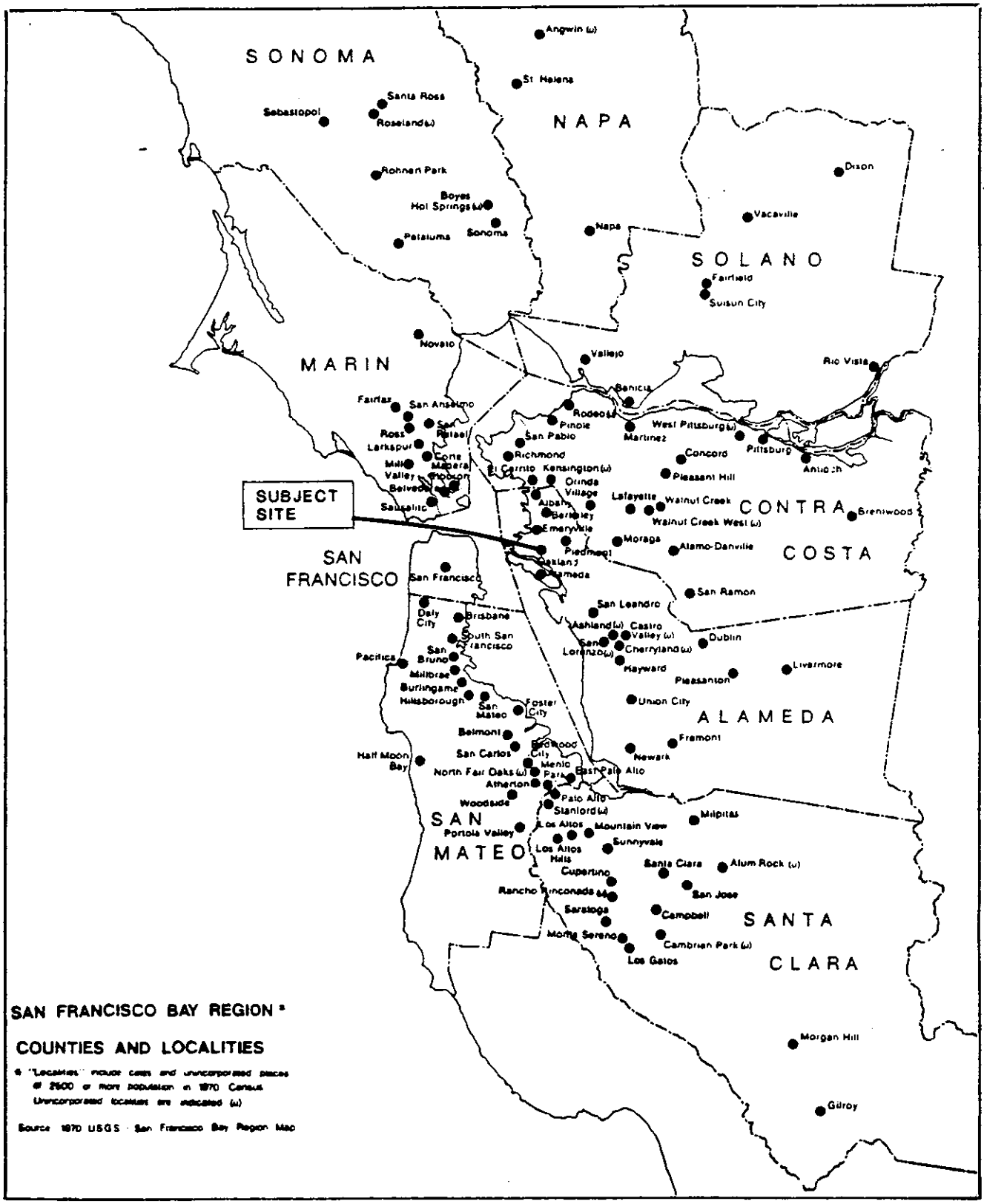
INTRODUCTION

The following is a summary of findings of the Level One Environmental Site Assessment and Limited Soil Chemistry Study prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl



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N

SCALE

1" = 15 miles

FIGURE 1. REGIONAL SUBJECT LOCATION MAP

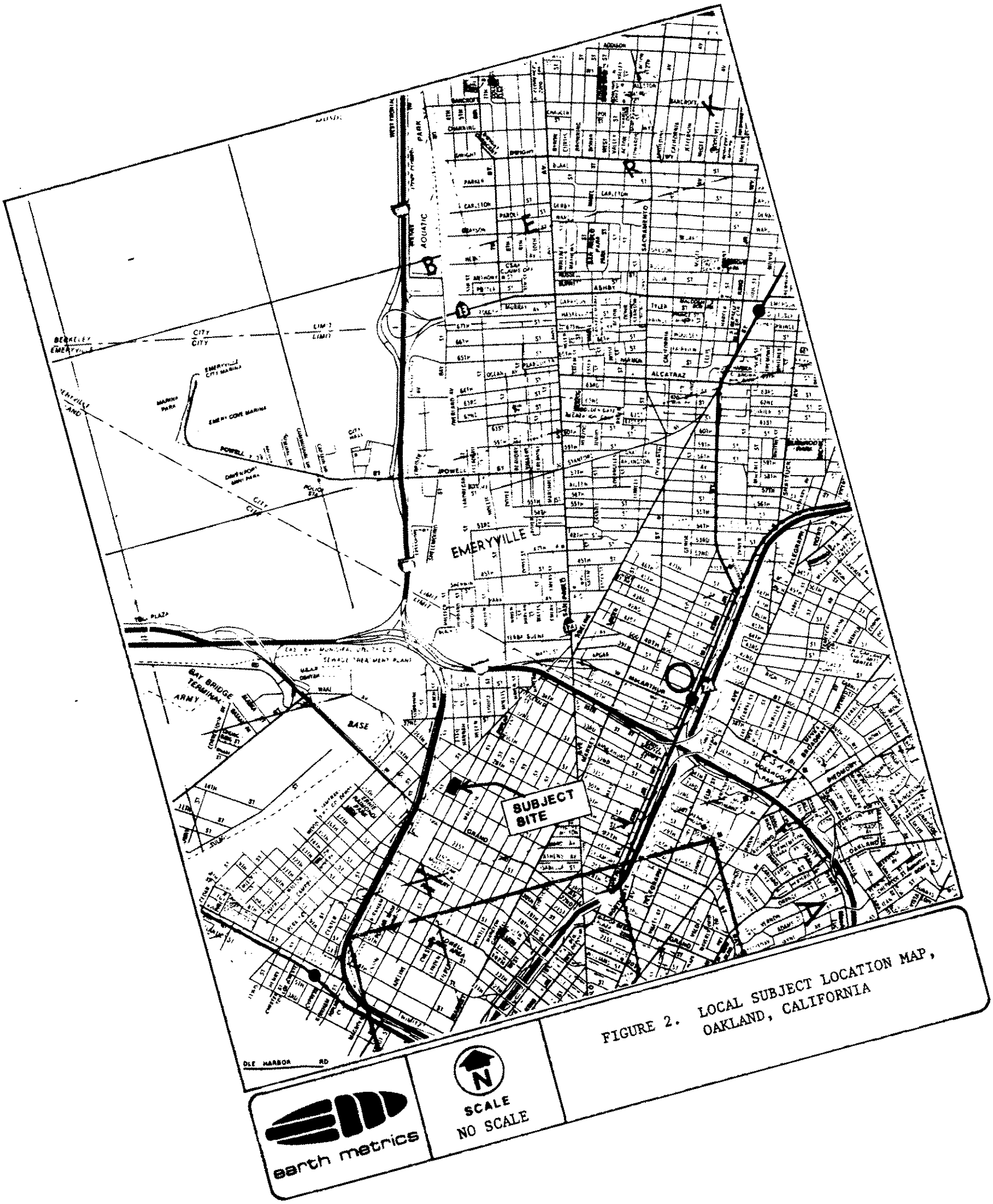


FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Records for the subject site prior to that time are unavailable at the time of report preparation due to public agency closures resulting from damage sustained during the October 17, 1989, earthquake in the San Francisco area.

Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

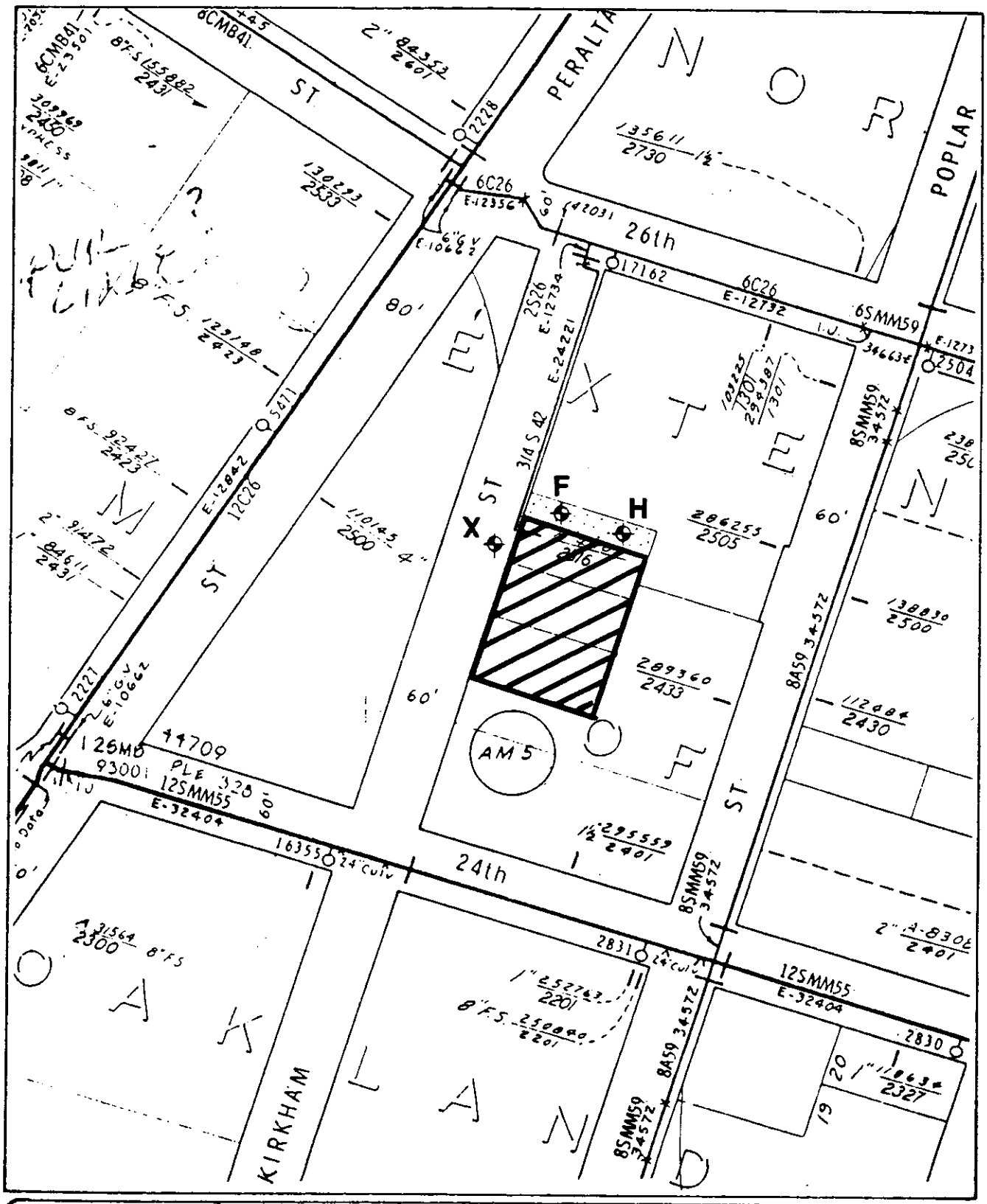
Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)



earth metrics

N

SCALE
NO SCALE

FIGURE 3. BORING LOCATION MAP

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.015	0.053
007-0609						
007-0610						
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.
007-0609		
007-0610		

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 12, 1990
			Reported:	Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2, X2	170
007-0609		
007-0610		

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 5, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoulakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
Arsenic	0.25	0.97
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	0.25	22
Copper	0.50	17
Lead	0.25	5.4
Mercury	0.10	N.D.
Nickel	2.5	22
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
Zinc	0.50	37

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

261-3039

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan /BTEX/O&G	Prio Metals	REMARKS
					2500 Kirkham, Oakland				O: composite X: archive
H1	7/2/90	10:30		✓	Side driveway, through cement	1	X	X	O: composite
H2	"	10:40		✓	"	1	O	O	H2 & F2 ; X2
H3	"	10:50		✓	"	1	X	X	and test for
H4	"	10:50		✓	"	1	X	X	TPH Full Scan BTEX / 503 (O&G) and Prio Metals.
H5	"	H:10		✓	"	1	X	X	Total # of tests: 2
F1	"	11:30		✓	"	1	X	X	
F2	"	11:30		✓	"	1	O	O	Archive samples for
F3	"	11:30		✓	"	1	X	X	further testing, if required.
F4	"	12:00		✓	"	1	X	X	
F5	"	12:00		✓	"	1	X	X	
F6	"	12:20		✓	"	1	X	X	3 DAY RUSH
X1	"	1:30		✓	Front street	1	X	X	
X2	"	1:30		✓	"	1	O	O	5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	7/3/90		7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:
5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

T. Zouboulakis

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan /BTEX /O&G	Prio Metals	REMARKS
X3	7/3/90	1:30		✓	Front Street	1	X	X	X: ARCHIVE
X4	"	2:10		✓		1	X	X	DO NOT TEST!!
X5	"	2:10		✓		1	X	X	
X6	"	2:30		✓		1	X	X	
									5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
T. Zouboulakis	7/3/90 500 pm		7/3 5:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:

5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
2500 KIRKHAM 7/3/90 OAKLAND, CALIFORNIA	HOLLOW STEM AUGER	X

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD: CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30" — SHEET 3 OF 3
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2	6		SP	
Soil	4			X3	7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5	11			
Soil	13			X6	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90 | JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5				
					12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

ATTACHMENT 2

Draft Work Plan

The purpose of this work is to define the horizontal and vertical extent of soil contamination and develop a remediation plan according to Subsection 8.1.5 of the Alameda County Groundwater Monitoring Guidelines at a portion of the subject property located at 2426/2500 Kirkham Street, Oakland, California.

Part One, Soil Screening

- Select five (5) soil sampling locations on the eastern portion of the subject property.

- Drill five (5) borings to a depth of 15 feet below grade. Groundwater is expected at 13 feet below grade.

- Using pre-cleaned brass sleeves and a California modified split spoon sampler, collect three (3) soil samples from each boring location at the rate of one sample every five feet. A total of 15 soil samples will be collected.

- Care will be taken to obtain undisturbed soil samples from each discrete depth interval, without mixing soil between intervals.

- Conduct chemical analysis tests as follows: total petroleum fuel hydrocarbons as diesel in soil (TPH D), fifteen (15) samples.

- Develop and implement a site safety plan.

- Consult and coordinate the proposed work with Alameda County Environmental Health. Earth Metrics will pay the initial $500.00 fee. If any additional consultation fee is involved, such a fee will be paid by Asbury Graphite.

- Development of a written report of findings.

The client is responsible for securing timely rights of access. If any concrete pavement opening and closing is required for drilling, such pavement opening and closing will be considered as an additional charge. (Earth Metrics will attempt selection of all test locations such that no concrete pavement opening is required.)

earth metrics incorporated

90 SEP 27 PM 1:37

September 20, 1990

Mr. Dennis J. Byrne
Department of Environmental Health Services
Hazardous Materials Program
Alameda County
80 Swan Way, Rm 200
Oakland, CA 94621

Subject: Request for Review of Draft Work Plan for Total Petroleum Hydrocarbons Testing of 2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730B)

Dear Mr. Byrne:

Earth Metrics has been retained by Asbury Graphite to conduct a Total Petroleum Hydrocarbons characterization analysis of its warehouse facility, located at 2500 Kirkham Street, Oakland, California. An environmental site assessment which included composite testing for Total Petroleum Hydrocarbons was initiated by Asbury Graphite, and completed on July 8, 1990.

At this time, Earth Metrics wishes to coordinate a supplemental sampling and testing program with your agency. Our objectives are:

* to characterize residual hydrocarbon concentrations in soil;

* to identify any potential hydrocarbon hot spots;

* to perform an elementary health risk assessment and recommend worker protection measures and/or site mitigation measures; and

* to obtain environmental clearance for the proposed industrial use of the site.

Based on the available soil results, and the fact that virtually all low, medium and high boiling point hydrocarbons were not detected in the soil, it is Earth Metrics conclusion that additional sampling is required around the previously drilled boring locations in order to assess the San Francisco Bay Regional Water Quality Control Board requirement for groundwater investigation. To accomplish that Earth Metrics proposes to drill five additional borings down to 15 feet below grade and test individual soil samples at a rate of one sample per five feet for high boiling point hydrocarbons with a fuel fingerprint test (i.e. GCFID series test).

We have enclosed the Draft Sampling Plan and copies of the available Environmental Site Assessment and preliminary soil test results.

2855 CAMPUS DRIVE, SUITE 300, SAN MATEO, CALIFORNIA 94403 (415) 578-9900

Please let us know whether your agency will coordinate this work and name of staff assigned to this work. In order to start this work Earth Metrics will need at least a verbal authorization by the Department of Environmental Health Services Hazardous Materials Program, Alameda County, with the written authorization to follow up within two weeks. Your timely reply would be greatly appreciated. Thank you for your cooperation in this matter.

Sincerely,

Chris S. Zouboulakis
Project Manager, Earth Metrics

cc: Mr. Rafat Shahid, Assistant Director, Department of Environmental Health Services Hazardous Materials Program, Alameda County

Mr. Richard Cameron, Asbury Graphite

Attachments

1. Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2406-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

2. Draft work plan.

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level One Environmental Site Assessment and Limited Soil Chemistry Study for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

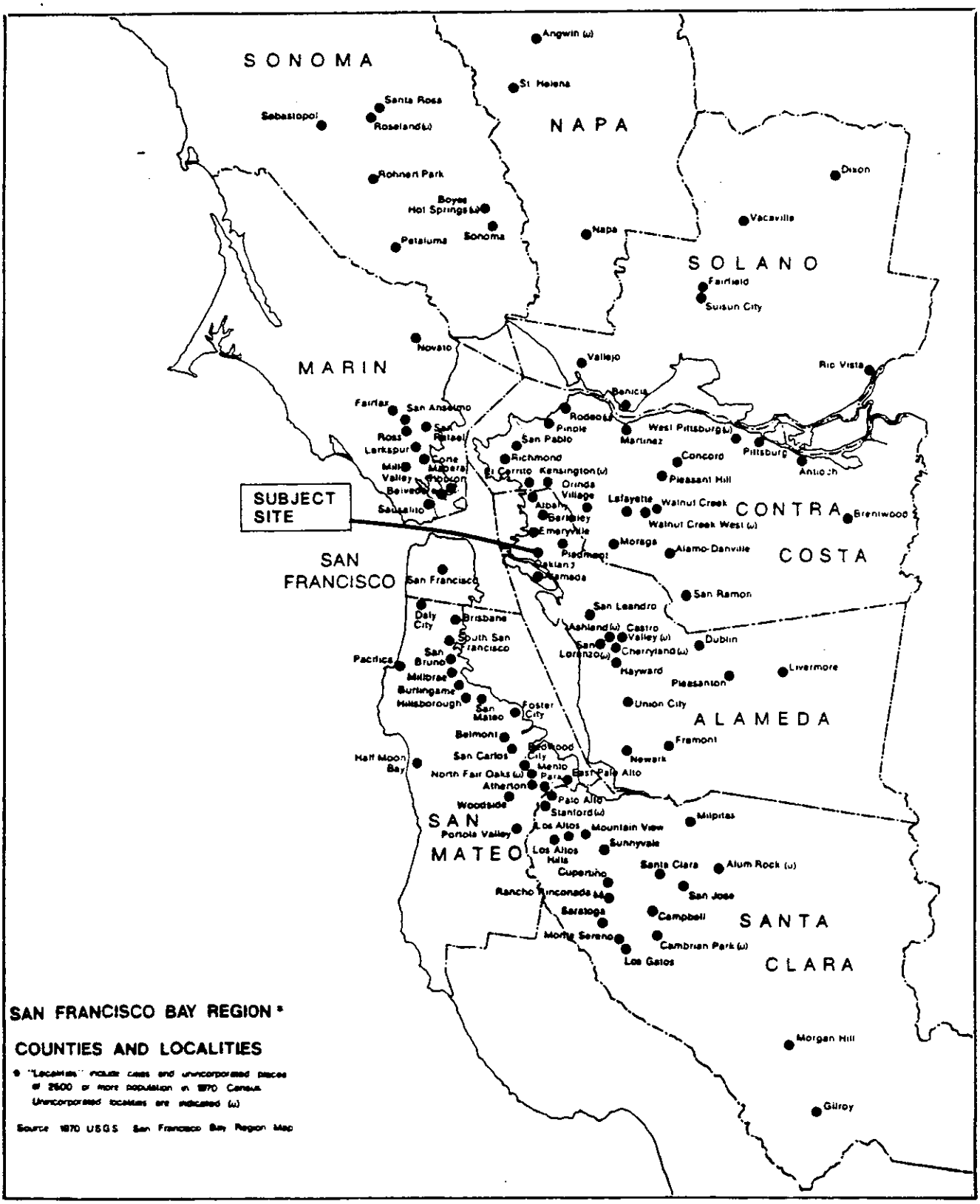
INTRODUCTION

The following is a summary of findings of the Level One Environmental Site Assessment and Limited Soil Chemistry Study prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl



SAN FRANCISCO BAY REGION *

COUNTIES AND LOCALITIES

* "Localities" include cities and unincorporated places of 2500 or more population in 1970 Census. Unincorporated localities are indicated (ω).

Source: 1970 U.S.G.S. San Francisco Bay Region Map

earth metrics

N

SCALE

1" = 15 miles

FIGURE 1. REGIONAL SUBJECT LOCATION MAP

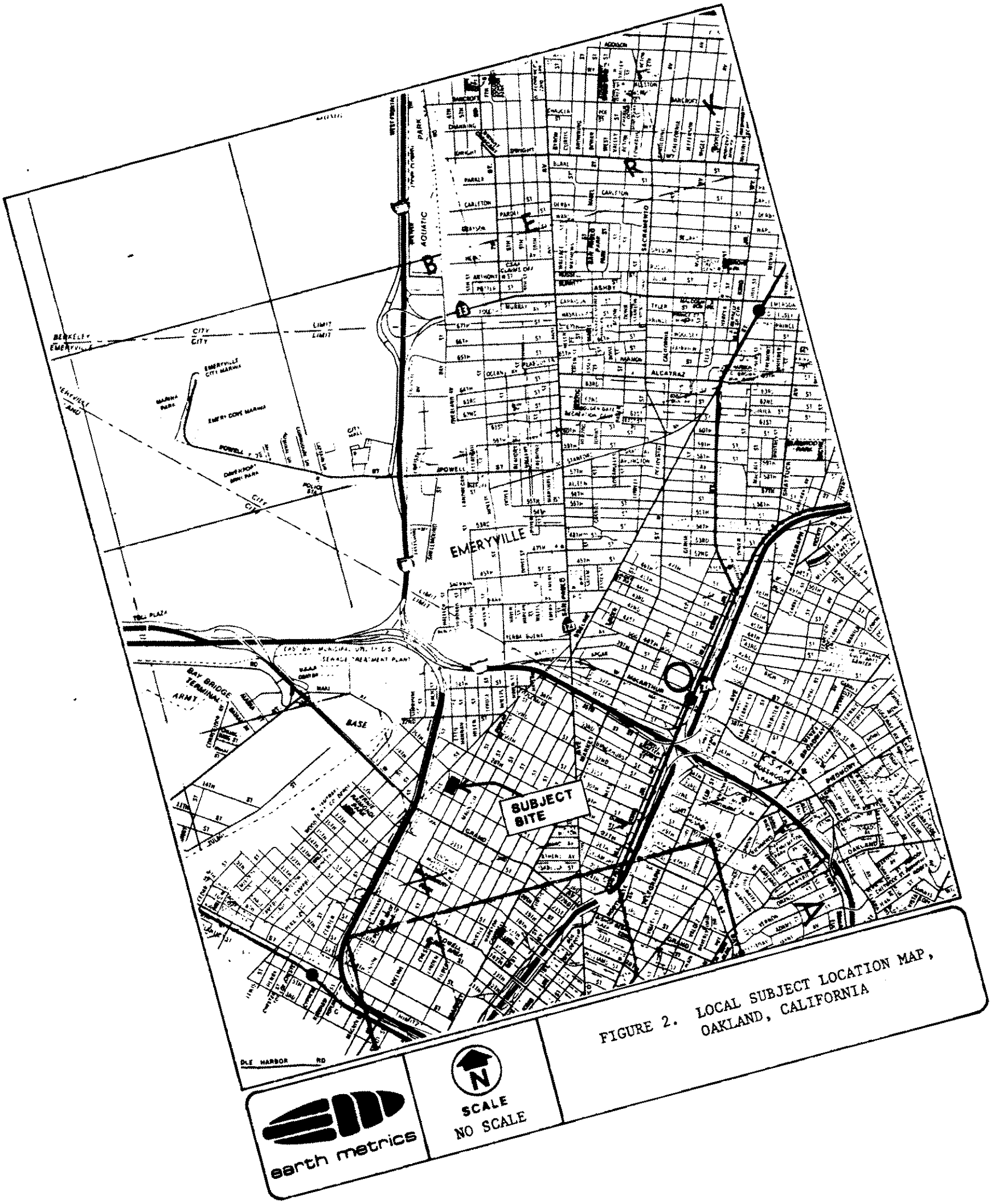


FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Records for the subject site prior to that time are unavailable at the time of report preparation due to public agency closures resulting from damage sustained during the October 17, 1989, earthquake in the San Francisco area.

Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)

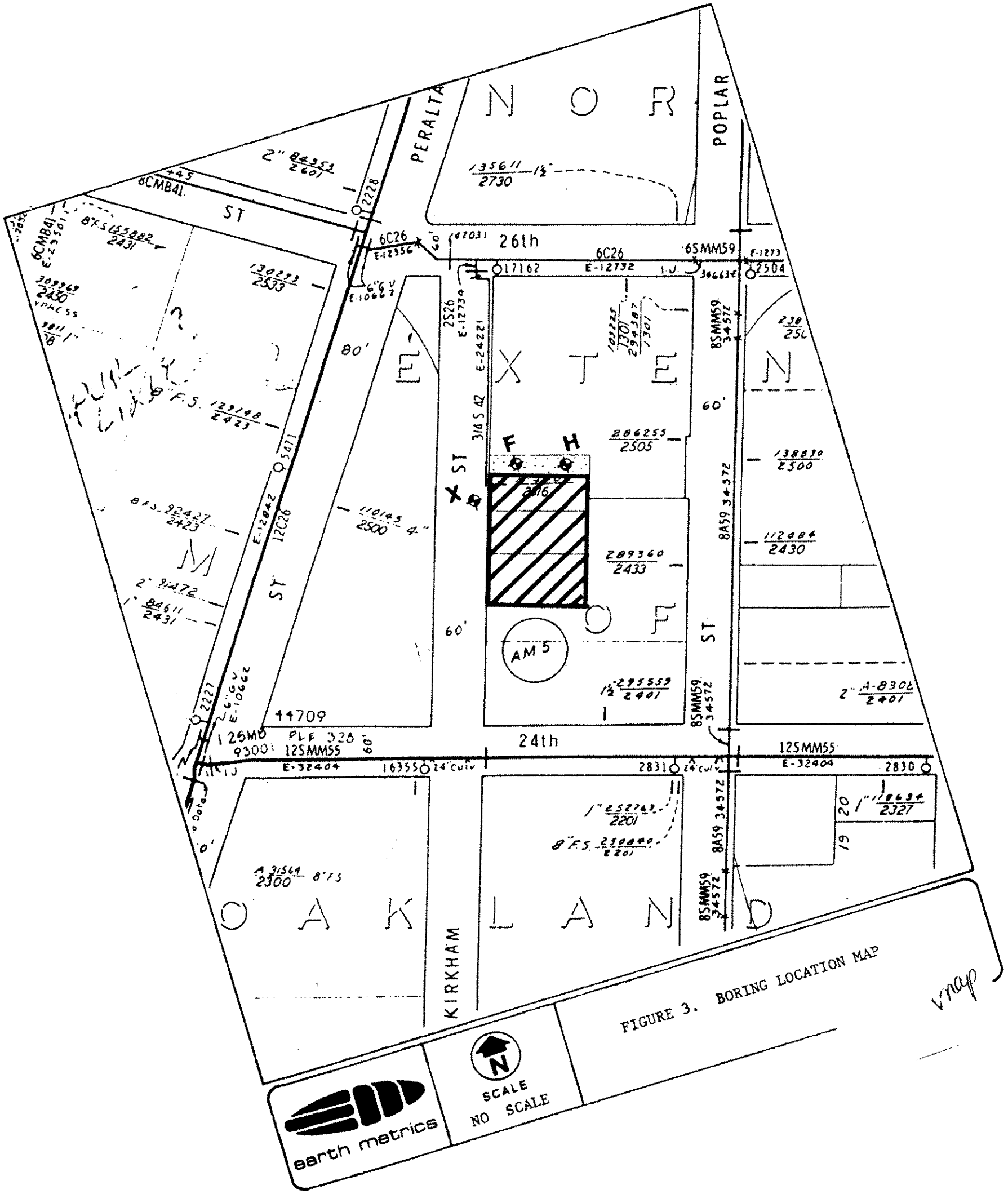


FIGURE 3. BORING LOCATION MAP

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608 007-0609 007-0610	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.015	0.053
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hacki
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.
007-0609		
007-0610		

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 12, 1990
			Reported:	Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2, X2	170
007-0609		
007-0610		

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 5, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoulakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
Arsenic	0.25	0.97
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	0.25	22
Copper	0.50	17
Lead	0.25	5.4
Mercury	0.10	N.D.
Nickel	2.5	22
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
Zinc	0.50	37

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

161-3039

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan / BTEX / O&G	Prio Metals	REMARKS
					2500 Kirkham, Oakland				O: composite X: archive
H1	7/3/90	10:30		✓	Side driveway, through cement	1	X	X	O: composite
H2	"	10:40		✓	"	1	O	O	H2 & F2 & X2
H3	"	10:50		✓	"	1	X	X	and test for
H4	"	10:50		✓	"	1	X	X	TPH Full Scan (BTEX / 503 (O&G) and Prio Metals.
H5	"	11:10		✓	"	1	X	X	Total # of tests: 2
F1	"	11:30		✓	"	1	X	X	
F2	"	11:30		✓	"	1	O	O	Archive samples for
F3	"	11:30		✓	"	1	X	X	further testing, if required.
F4	"	12:00		✓	"	1	X	X	
F5	"	12:00		✓	"	1	X	X	
F6	"	12:20		✓	"	1	X	X	5 DAY RUSH
X1	"	1:30		✓	Front street	1	X	X	
X2	"	1:30		✓	"	1	O	O	5 DAY RUSH

Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
	7/3/90		7/3 4:45
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time

REMARKS:
5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

PROJ. NO.	PROJECT NAME	NO OF CON-TAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
10730	KIRKHAM									

SAMPLERS: Signature

[signature]

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
X3	7/3/90	1:30		✓	Front Street	1	X	X						X: ARCHIVE
X4	"	2:10		✓		1	X	X						DO NOT TEST!!
X5	"	2:10		✓		1	X	X						
X6	"	2:30		✓		1	X	X						

5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
[signature]	7/3/90 500 pm	[signature]	7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS: 5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

BORING LOCATION, ELEVATION AND DATE DRILLED	DRILLING METHOD	BORING NUMBER
2500 KIRKHAM 7/3/90 OAKLAND, CALIFORNIA	HOLLOW STEM AUGER	X

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	SAMPLING METHOD: CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30" — SHEET 3 OF 3
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2	6		SP	
Soil	4			X3	7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5	11			
Soil	13			X6	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc

ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90 | JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED

2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD

HOLLOW STEM AUGER

BORING NUMBER

F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 2 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U S C S	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

ATTACHMENT 2

Draft Work Plan

The purpose of this work is to define the horizontal and vertical extent of soil contamination and develop a remediation plan according to Subsection 8.1.5 of the Alameda County Groundwater Monitoring Guidelines at a portion of the subject property located at 2426/2500 Kirkham Street, Oakland, California.

Part One, Soil Screening

- Select five (5) soil sampling locations on the eastern portion of the subject property.

- Drill five (5) borings to a depth of 15 feet below grade. Groundwater is expected at 13 feet below grade.

- Using pre-cleaned brass sleeves and a California modified split spoon sampler, collect three (3) soil samples from each boring location at the rate of one sample every five feet. A total of 15 soil samples will be collected.

- Care will be taken to obtain undisturbed soil samples from each discrete depth interval, without mixing soil between intervals.

- Conduct chemical analysis tests as follows: total petroleum fuel hydrocarbons as diesel in soil (TPH D), fifteen (15) samples.

- Develop and implement a site safety plan.

- Consult and coordinate the proposed work with Alameda County Environmental Health. Earth Metrics will pay the initial $500.00 fee. If any additional consultation fee is involved, such a fee will be paid by Asbury Graphite.

- Development of a written report of findings.

The client is responsible for securing timely rights of access. If any concrete pavement opening and closing is required for drilling, such pavement opening and closing will be considered as an additional charge. (Earth Metrics will attempt selection of all test locations such that no concrete pavement opening is required.)

work plan

Alameda County Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Rm. 200, Oakland, CA 94621
Ph: 510-271-4320 FAX: 510-568-3706

Meeting Attendees

Subject former Asbury Graphite Mill, 2500 Kirkham St. Oakland CA 94607

Date 8-6-96

Location as above

	Name	Affiliation	Phone # / FAX #
1	Jennifer Eberle	Alameda County	567-6761 / 337-9335
2	Richard Conery	Asbury Graphite	510/799-3636 / 799-7460
3	David P. [illegible]	Oakland Commerce Corp	632-1238 / 632-2815
4	JOHN SWICKARD	INDUSTRIAL PROPERTIES	569-0386 / 569-7093
5	Shaw Minor	ENGEO Inc.	838-1600 / 838-7425
6	Jonn Discoe	Joinery Structures	451-6345 / 451-5686
7	Paul Discoe	Joinery Structures	451-6345 / 451-5686
8			/
9			/
10			/
11			/
12			/
13			/
14			/
15			/
16			/
17			/

8-6-96 mtg.

DJ: has contact w/ City OEDE to ~~attract~~ retain bs'
RC: has facil. in Rodeo. Been w/ Asbury 11 yrs, since 85. Grindg + screeng graphite fm Mexico. (major use). Also powder blends used in foundries. Late 60's: repackaged calcined petroleum coke from Unocal used as recarburizer in steel industry. (Bay 4)
15% "volatile mtr" Non-calcined → extracted light ends HCs.
.35% "volatile mtr" Calcined → burns off volatiles w/ heat. BTEX long gone.
Hired outside contractors fp mtrl. Asbury never owned → own trucks: just one vehicle
JE: Machinery? RC: Raymond mill, ribbon blender ~~blower~~ bauer mill, air packers, wash blender
Grease used in ribbon blender. No coolant or cooling sys. Used air to cool Raymond mill, + 90 wt. oil to lube it.
JE: Why do SBs there? RC: Buyer → Phase I: As removal. Stored foundry core oil in drums on N side. BP ~180-220°F (guess.) ~hydraulic oil. Thinks → w a spill of 1-2 drums.
JE: Conc pad w/ rebar? RC: guess: compressor or Roots blowers to fluidize powder → pkg or bag. Guess used machinery oil w offhauled / recycled.

RC: Plans to remove all Haz Mats bf Discoes take over. Will label + move in next wk.

JE: asked for copy of bill of lading.

SM: proposes 2 Geoprobes - gw for O+G + excavation of hotspot.
BTEX, TPH-d 8015, O+G by 5520

2
94
-6
/
564.

earth metrics incorporated

File: 10730B

TELEFAX TRANSMITTAL

Date: 10/23/90 Time: 11:30 am

Please forward to: Dennis Byrne
Haz Mat Specialist
Alameda County
DOEHS
→ 568-3706

From: Chris Zouboulakis
Project Mgr

Total no of Pages (including this page) 3

TELFAX NUMBER: 1 (415) 578-1942
OFFICE NUMBER: 1 (415) 578-9900

September 20, 1990

Mr. Dennis J. Byrne
Department of Environmental Health Services
Hazardous Materials Program
Alameda County
80 Swan Way, Rm 200
Oakland, CA 94621

Subject: Request for Review of Draft Work Plan for Total Petroleum Hydrocarbons Testing of 2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730B)

Dear Mr. Byrne:

Earth Metrics has been retained by Asbury Graphite to conduct a Total Petroleum Hydrocarbons characterization analysis of its warehouse facility, located at 2500 Kirkham Street, Oakland, California. An environmental site assessment which included composite testing for Total Petroleum Hydrocarbons was initiated by Asbury Graphite, and completed on July 8, 1990.

At this time, Earth Metrics wishes to coordinate a supplemental sampling and testing program with your agency. Our objectives are:

* to characterize residual hydrocarbon concentrations in soil;

* to identify any potential hydrocarbon hot spots;

* to perform an elementary health risk assessment and recommend worker protection measures and/or site mitigation measures; and

* to obtain environmental clearance for the proposed industrial use of the site.

Based on available soil results, and the fact that virtually all low, medium and high boiling point hydrocarbons were not detected in the soil, it is Earth Metrics conclusion that additional sampling is required around the previously drilled boring locations in order to assess the San Francisco Bay Regional Water Quality Control Board requirement for groundwater investigation. To accomplish that Earth Metrics proposes to drill five additional borings down to 15 feet below grade and test individual soil samples at a rate of one sample per five feet for high boiling point hydrocarbons with a fuel fingerprint test (i.e. GCFID series test).

We have enclosed the Draft Sampling Plan and copies of the available Environmental Site Assessment and preliminary soil test results.

Please let us know whether your agency will coordinate this work and name of staff assigned to this work. In order to start this work Earth Metrics will need at least a verbal authorization by the Department of Environmental Health Services Hazardous Materials Program, Alameda County, with the written authorization to follow up within two weeks. Your timely reply would be greatly appreciated. Thank you for your cooperation in this matter.

Sincerely,

Chris S. Zouboulakis
Project Manager, Earth Metrics

cc Mr. Rafat Shahid, Assistant Director, Department of Environmental Health Services Hazardous Materials Program, Alameda County

Mr. Richard Cameron, Asbury Graphite

Attachments

1. Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2406-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

2. Draft work plan.

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

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

14 September 1990

Ty Campbell
Clarke & Cramer, Incorporated
401 Roland Way
Oakland, CA 94621

Subject: Assessment Report of 2500 Kirkham Street, Oakland.

Dear Mr. Campbell:

Thank you for the report, dated 7 August 1990, prepared by Earth Metrics Incorporated for the site listed above. A review of this report has been completed. The Earth Metrics report states that Total Oil and Grease contamination of up to 170 parts per million was measured in composite samples obtained from borings drilled on your property. Based upon this information, some follow-up action is required.

Guidelines established by the San Francisco Bay Regional Water Quality Control Board require that a ground water investigation be conducted on a property whenever soil contamination is detected indicating that an impact on ground water quality may have occurred. Such an investigation needs to be conducted at 2500 Kirkham Street. To fulfill all of the requirements of the Regional Board, this investigation should include defining the ground water gradient at the site and analyzing the water for the presence of Total Petroleum Hydrocarbons-Diesel (EPA Method GCFID 3510), Benzene, Toluene, Xylene and Ethylbenzene (EPA Method 602, 624 or 8260) and Total Oil and Grease (EPA Method 5520 C&F). During well installation soil samples should be collected for analysis at five foot depth intervals until ground water is reached. A copy of all data and boring logs should be submitted to this office for review and inclusion into our records.

The contents of this letter have been discussed with Chris Zouboulakis of Earth Metrics. If you have any question concerning this matter, pleases contact me at (415) 271-4320.

Sincerely,

Dennis J. Byrne
Hazardous Materials Specialist

cc: Lester Feldman, SFBRWQCB
Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Chris Zouboulakis, Earth Metrics Inc.
File

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

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

14 September 1990

realtor
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Clarke & Cramer, Incorporated
401 Roland Way
Oakland, CA 94621

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The contents of this letter have been discussed with Chris Zouboulakis of Earth Metrics. If you have any question concerning this matter, pleases contact me at (415) 271-4320.

Sincerely,

Dennis J. Byrne
Hazardous Materials Specialist

cc: Lester Feldman, SFBRWQCB
Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Chris Zouboulakis, Earth Metrics Inc.

Clarke & Cramer

September 13, 1990

Mr. Dennis Byrne
ALAMEDA COUNTY DEPARTMENT OF HEALTH
80 Swan Way
Oakland, CA 94621

RE: 2426 - 2500 Kirkham Street, Oakland, CA

Dear Mr. Byrne:

As a follow-up to our phone conversation of September 6, 1990 I am writing to explain that I have not received your letter with the questions you had regarding the Earthmetrics' report on the referenced property.

I asked Chris Zouboulakis of Earthmetrics to call you to expedite your obtaining the answers to those questions. He can be reached at (415) 578-9900.

I appreciate your efforts so that I may obtain a response from you regarding the report as soon as possible.

Very truly yours,

CLARKE & CRAMER, INC.

Ty Campbell

TC:mjb

cc: Chris Zouboulakis
Richard Cameron

Clarke & Cramer

90 AUG 23 PM 1:44

August 23, 1990

Mr. Lowell Miller
Senior Hazardous Material Specialist
ALAMEDA COUNTY DEPARTMENT OF
ENVIRONMENTAL HEALTH
470 27th Street, Room 322
Oakland, CA 94612

RE: 2526 - 2500 Kirkham Street, Oakland, CA 94607

Dear Mr. Miller:

Enclosed is a copy of an environmental assessment conducted by Earth Metrics Incorporated for the referenced property. This may be in fact the second copy you have received.

My purpose in writing is that I am acting as agent for the owner of the property in a potential sale.

The prospective purchaser's lender has requested a sign-off letter to the assessment, and my understanding is that you would direct such a letter if the assessment merits it.

I will call you on Monday, August 27, 1990 to learn how long it might take to review the case and have action taken on it.

Thank you for your attention to this matter.

Very truly yours,

CLARKE & CRAMER, INC.

Ty Campbell

TC:mjb

cc: Richard Cameron
George McLeod

earth metrics incorporated

90 AUG 23 PM 1:44

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level One Environmental Site Assessment and Limited Soil Chemistry Study for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

INTRODUCTION

The following is a summary of findings of the Level One Environmental Site Assessment and Limited Soil Chemistry Study prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Records for the subject site prior to that time are unavailable at the time of report preparation due to public agency closures resulting from damage sustained during the October 17, 1989, earthquake in the San Francisco area.

Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

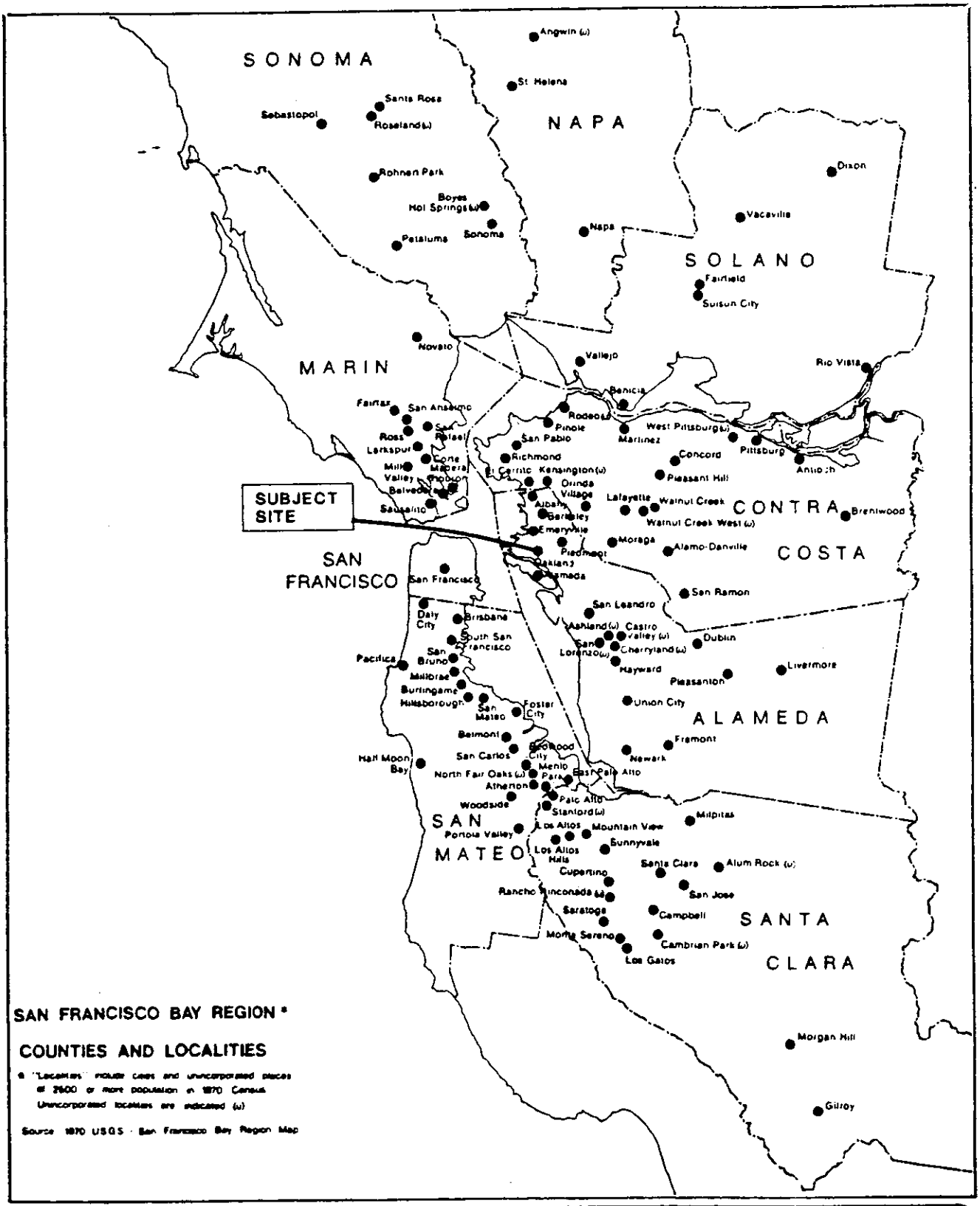
This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)



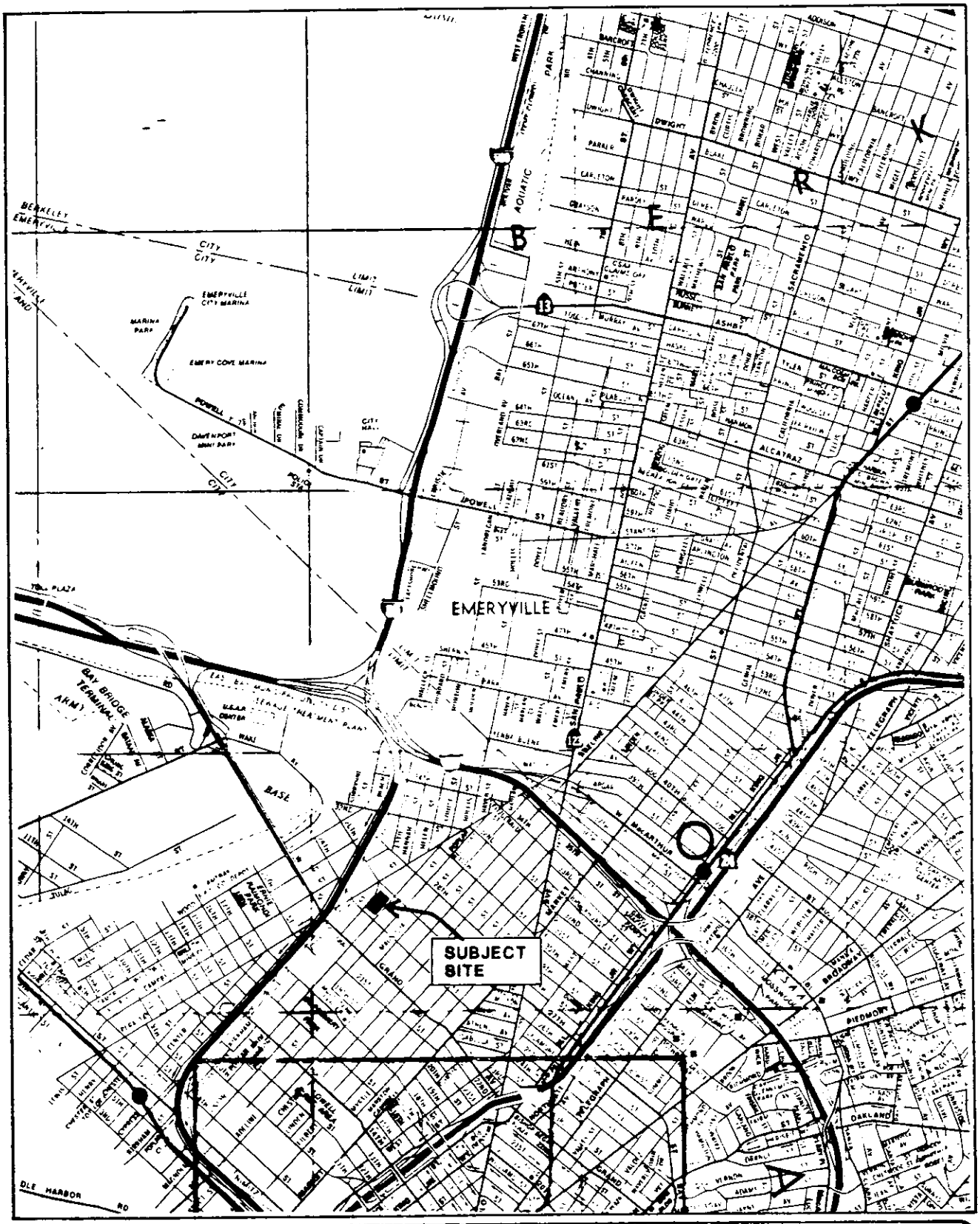
earth metrics

N

SCALE

1" = 15 miles

FIGURE 1. REGIONAL SUBJECT LOCATION MAP



earth metrics

N

SCALE

NO SCALE

FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

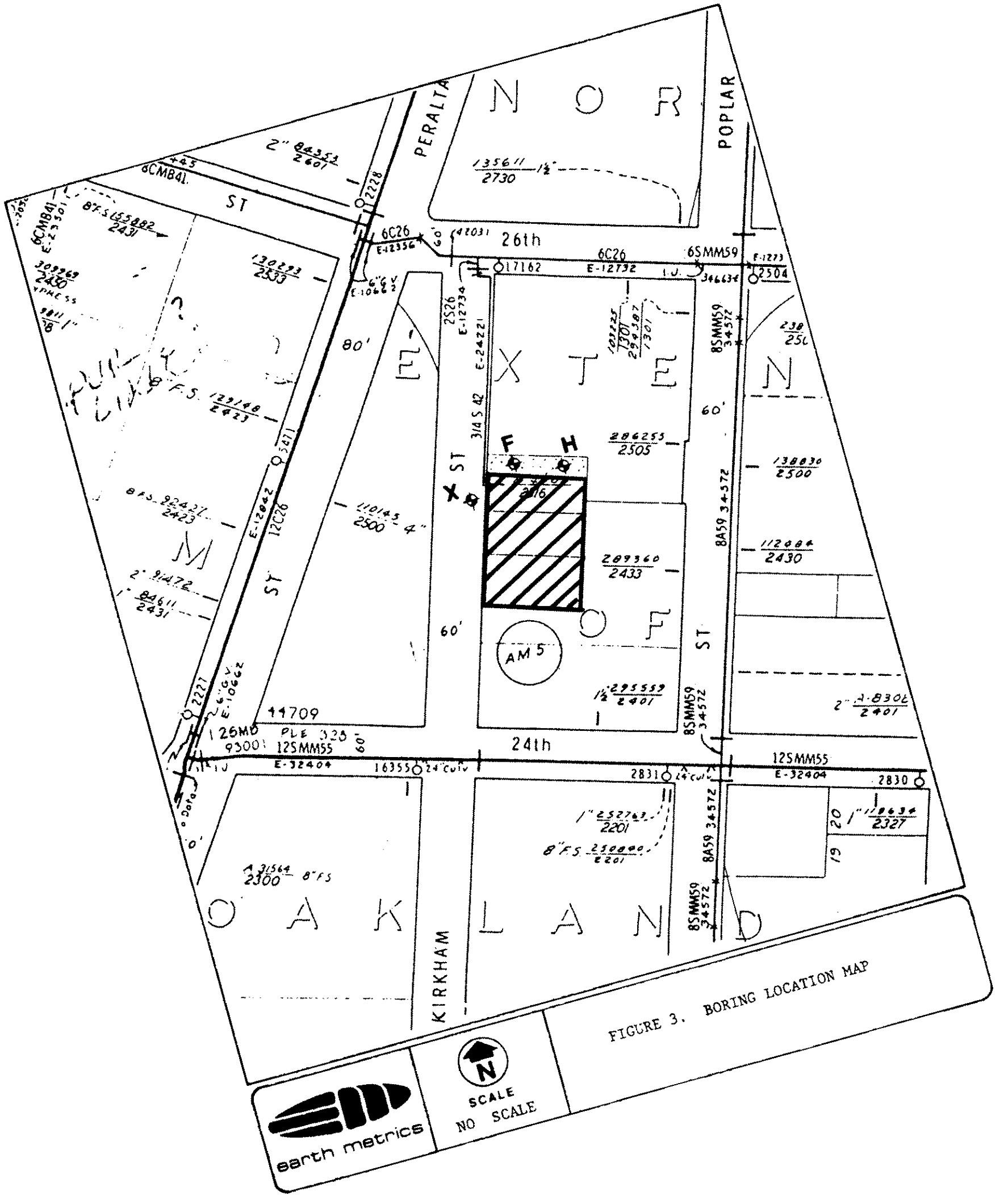


FIGURE 3. BORING LOCATION MAP

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608 007-0609 007-0610	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.015	0.053
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.
007-0609		
007-0610		

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 12, 1990
			Reported:	Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2, X2	170
007-0609		
007-0610		

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 5, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoulakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
Arsenic	**0.25**	**0.97**
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	**0.25**	**22**
Copper	**0.50**	**17**
Lead	**0.25**	**5.4**
Mercury	0.10	N.D.
Nickel	**2.5**	**22**
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
Zinc	**0.50**	**37**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

CHAIN OF CUSTODY RECORD

161-3039

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
					2500 Kirkham, Oakland									O: Composite X: archive
H1	7/3/90	10:30		✓	Side driveway, through cement	1	X	X						O: composite
H2	"	10:40		✓	"	1	O	O						H2 & F2 & X2
H3	"	10:50		✓	"	1	X	X						and test for
H4	"	10:50		✓	"	1	X	X						TPH Full Scan/BTEX/503 (O&G) and Prio Metals.
H5	"	11:10		✓	"	1	X	X						Total # of tests: 2
F1	"	11:30		✓	"	1	X	X						
F2	"	11:30		✓	"	1	O	O						Archive samples for
F3	"	11:30		✓	"	1	X	X						further testing, if required.
F4	"	12:00		✓	"	1	X	X						
F5	"	12:00		✓	"	1	X	X						
F6	"	12:20		✓	"	1	X	X						5 DAY RUSH
X1	"	1:30		✓	Front street	1	X	X						
X2	"	1:30		✓	"	1	O	O						5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	7/3/90		7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS: 5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

C. Zoubouklakis

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full scan 624+625	Priority Metals						REMARKS
X3	7/3/90	11:30		✓	Front Street	1	X	X						X: ARCHIVE
X4	"	2:10		✓		1	X	X						DO NOT TEST!!
X5	"	2:10		✓		1	X	X						
X6	"	2:30		✓		1	X	X						
														5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
C. Zoubouklakis	7/3/90 500 pm		7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS:
5 Day Rush

Christos Socrates Zoubouklakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

BORING LOCATION, ELEVATION AND DATE DRILLED

2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD

HOLLOW STEM AUGER

BORING NUMBER

X

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 3 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U S C S	
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2				
Soil	4			X3	6		SP	
					7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5				
Soil	13			X6	11			
					12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U S C S	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

LARRY ✓
ARIV

Clarke & Cramer

August 8, 1990

Mr. Richard Cameron
ASBURY GRAPHITE
2855 Franklin Canyon Road
Rodeo, CA 94572

Dear Richard:

I received copies of the Earth Metrics report and I have forwarded copies to Rosalee Zimmerman of Fidelity Bank and George McLeod. I will be delivering copies to the buyers this afternoon.

My understanding is that you will send a copy to Marvin Riddle and I assume you will also be sending a copy to Lowell Miller.

I will be in touch as necessary.

Very truly yours,

CLARKE & CRAMER, INC.

Ty Campbell

TC:mjb

Jan -
Lowell Miller's address is on the last Page of the E.M. Rept.

earth metrics incorporated

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

Enclosed herewith is Earth Metrics' Level One Environmental Site Assessment and Limited Soil Chemistry Study for the above-referenced site. The subject site consists of a light industrial facility of approximately 20,000 square feet of storage and manufacturing space subdivided into four connected segments.

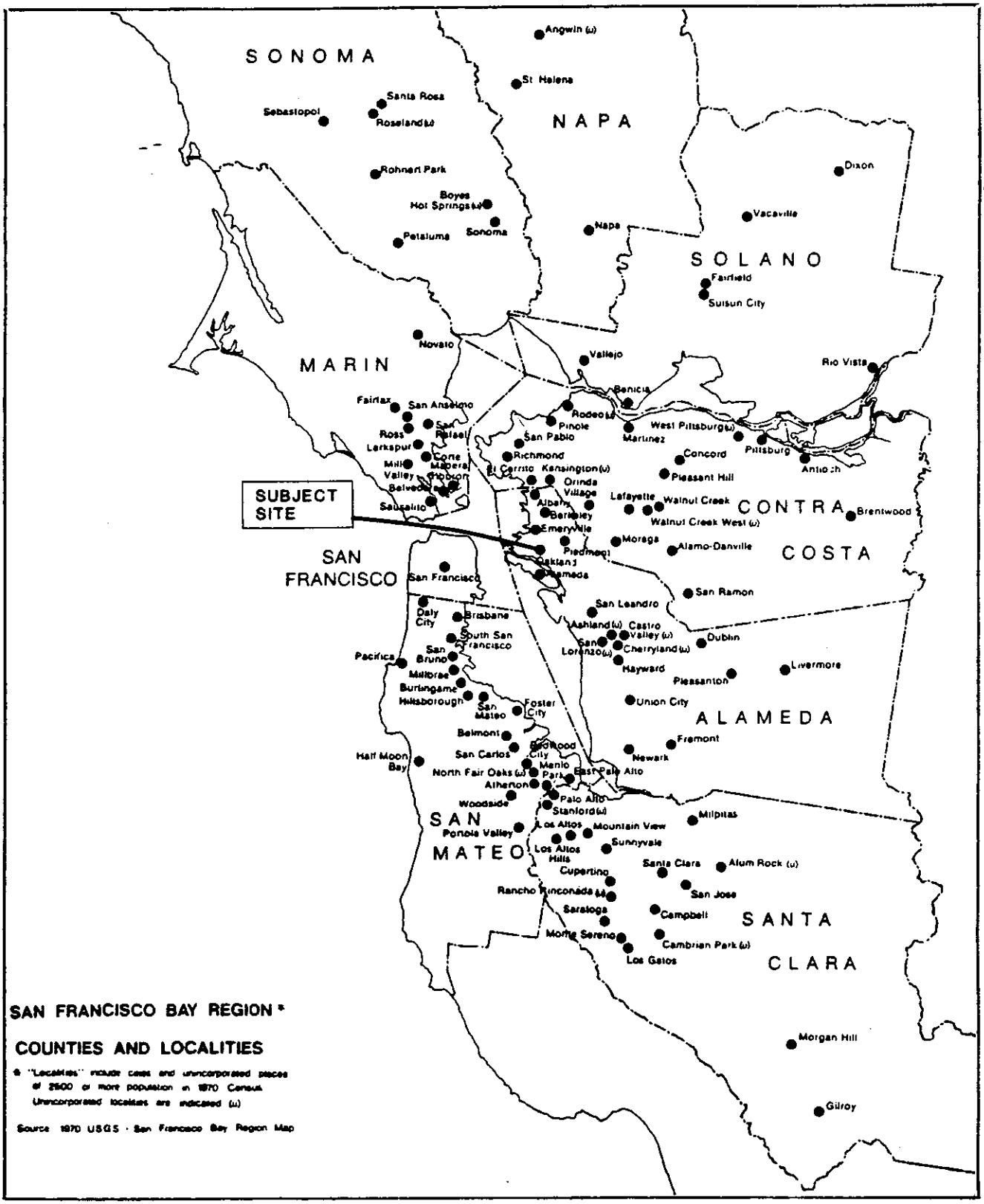
INTRODUCTION

The following is a summary of findings of the Level One Environmental Site Assessment and Limited Soil Chemistry Study prepared for the subject site located at 2426-2500 Kirkham Street, Oakland, California (see Figures 1 and 2).

The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl



SAN FRANCISCO BAY REGION *

COUNTIES AND LOCALITIES

* "Localities" include cities and unincorporated places of 2500 or more population in 1970 Census. Unincorporated localities are indicated (u).

Source 1970 USGS - San Francisco Bay Region Map

earth metrics

N

SCALE

1" = 15 miles

FIGURE 1. REGIONAL SUBJECT LOCATION MAP

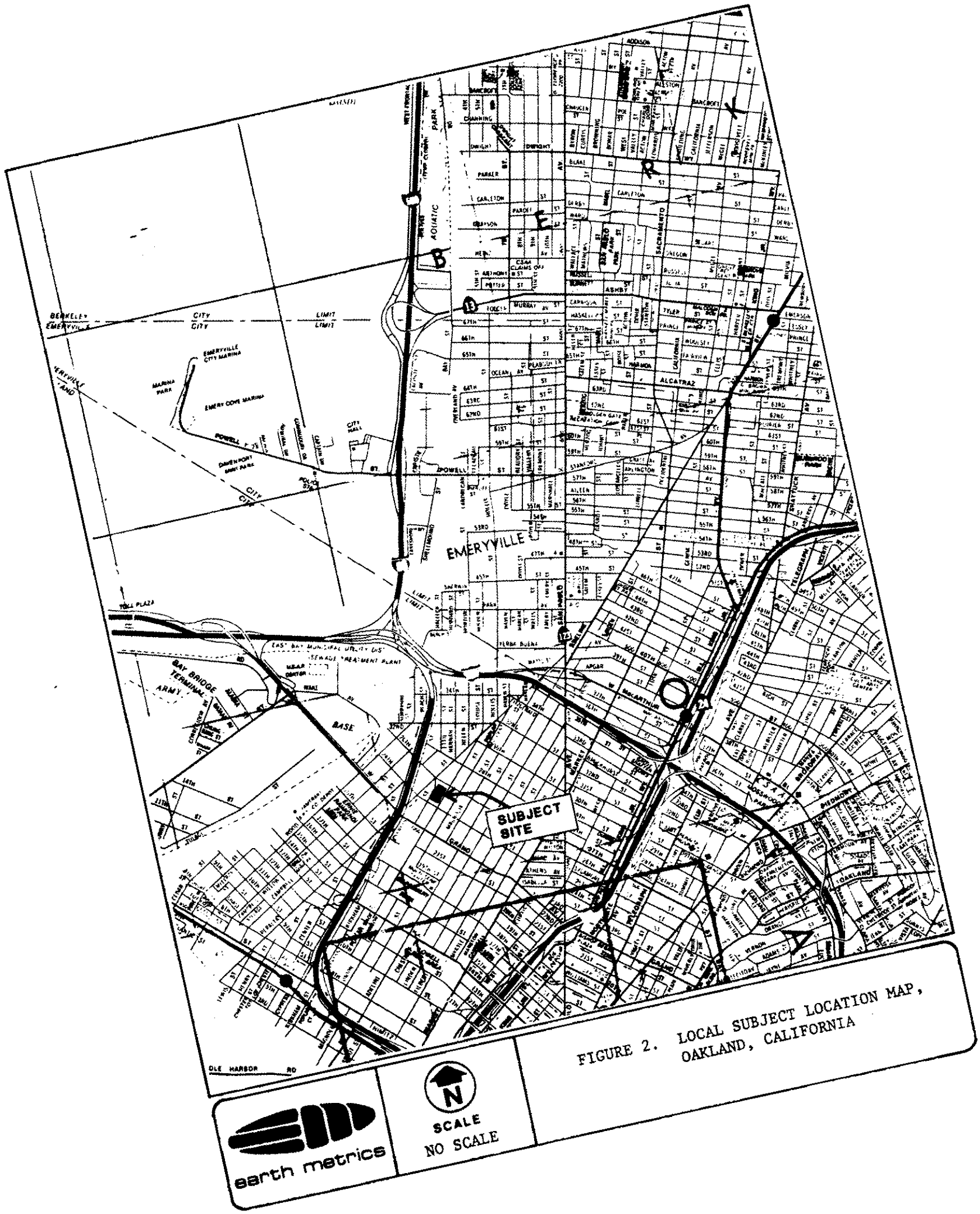


FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

According to Mr. Douglas Ditmer, Production Coordinator for the property, the subject site has been owned and operated by Asbury Graphite since 1962. Records for the subject site prior to that time are unavailable at the time of report preparation due to public agency closures resulting from damage sustained during the October 17, 1989, earthquake in the San Francisco area.

Asbury Graphite used the facility for the production of ground graphite, used as a slurry in oil drilling, a zirconium silicate, sodium silicate and isopropyl alcohol coatings for foundry molds, and calcium petroleum coke, which was used as a recarbonizer in the steel industry. Rough graphite was ground and packaged at the facility. The other products were mixed and packaged at the facility. Nuisance dust masks were used during the production process to avoid worker exposure to the fine graphite and zircon silicate. According to Doug Ditmer, Plant Manager for the Asbury Graphite facility during its operations, California Occupational Safety and Health Administration performed air quality testing approximately four or five years ago and the facility was reported to be in compliance with worker safety levels of exposure (Ditmer, 1989).

LIMITED SOIL CHEMISTRY STUDY

Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis /kb

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)

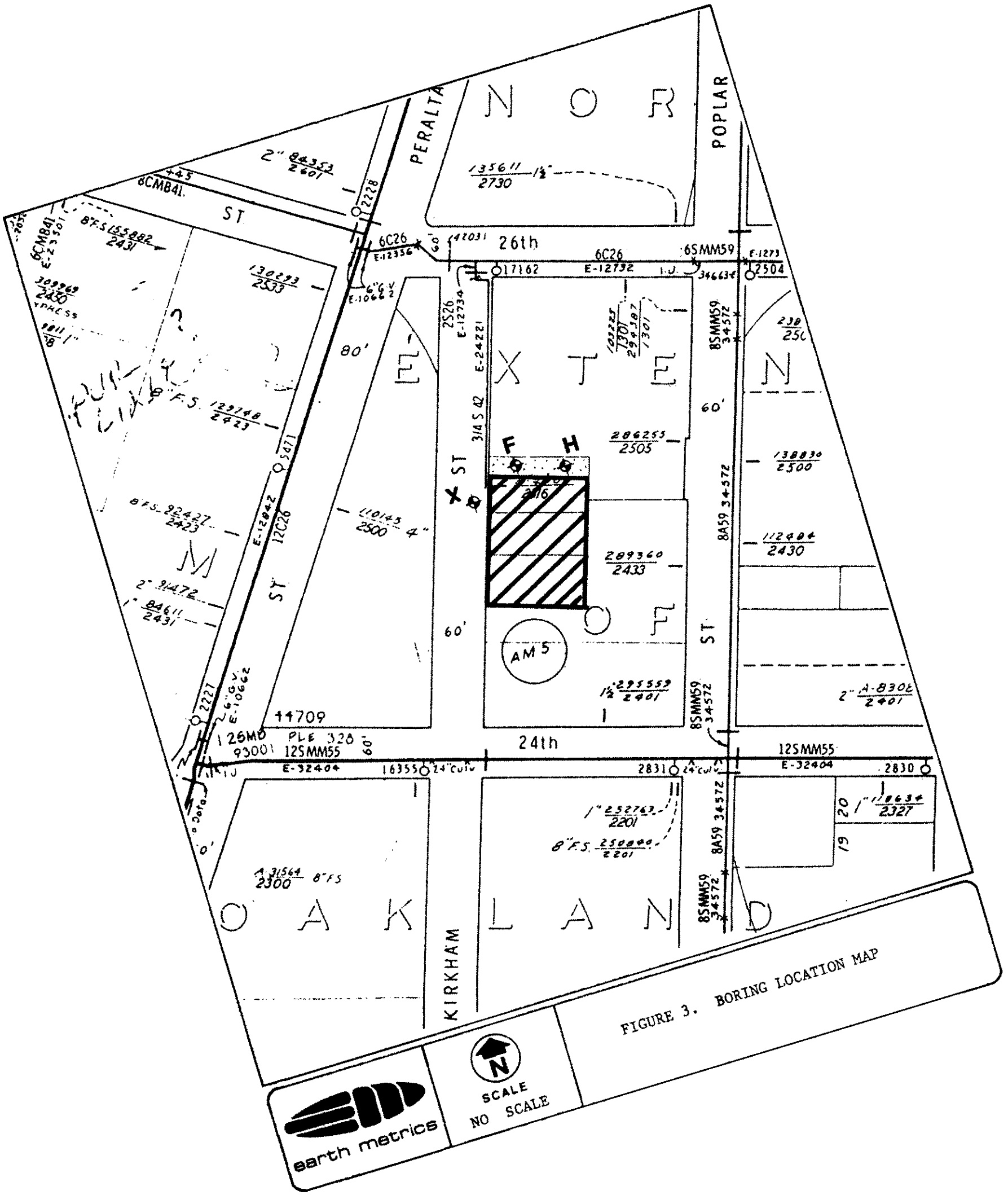


FIGURE 3. BORING LOCATION MAP

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608 007-0609 007-0610	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.015	0.053
Detection Limits:		**1.0**	**0.0050**	**0.0050**	**0.0050**	**0.0050**

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2, X2	N.D.
007-0609		
007-0610		

Detection Limits:	**1.0**

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted:	Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 12, 1990
			Reported:	Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2, X2	170
007-0609		
007-0610		

Detection Limits:	**30**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 5, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoulakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
Arsenic	0.25	0.97
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
Chromium	0.25	22
Copper	0.50	17
Lead	0.25	5.4
Mercury	0.10	N.D.
Nickel	2.5	22
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
Zinc	0.50	37

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

CHAIN OF CUSTODY RECORD

161-3039

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature
X. Zouboulakis

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan / BTEX / O&G	Prio Metals						REMARKS (O: composite, X: archive)
					2500 Kirkham, Oakland									
H1	7/3/90	10:30		✓	Side driveway, through cement	1	X	X						O: composite
H2	"	10:40		✓	"	1	O	O						H2 & F2 & X2
H3	"	10:50		✓	"	1	X	X						and test for
H4	"	10:50		✓	"	1	X	X						TPH Full Scan / BTEX / 503 (O&G) and Prio Metals.
H5	"	11:10		✓	"	1	X	X						Total # of tests: 2
F1	"	11:30		✓	"	1	X	X						
F2	"	11:30		✓	"	1	O	O						Archive samples for
F3	"	11:30		✓	"	1	X	X						further testing, if required.
F4	"	12:00		✓	"	1	X	X						
F5	"	12:00		✓	"	1	X	X						
F6	"	12:20		✓	"	1	X	X						10 DAY RUSH
X1	"	1:30		✓	Front street	1	X	X						
X2	"	1:30		✓	"	1	O	O						5 DAY RUSH

Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
X Zouboulakis	7/3/90		7/3 4:45
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time

REMARKS:
5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME					NO OF CON-TAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
10730	KIRKHAM													
SAMPLERS: Signature	[signature]													
STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION									
X3	7/3/90	1:30		✓	Front Street	1	X	X						X: ARCHIVE
X4	"	2:10		✓		1	X	X						DO NOT TEST!!
X5	"	2:10		✓		1	X	X						
X6	"	2:30		✓		1	X	X						
														5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	REMARKS:
[signature]	7/3/90 500 pm	[signature]	7/3 4:45	5 Day Rush
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2855 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9900

BORING LOCATION, ELEVATION AND DATE DRILLED

2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD

HOLLOW STEM AUGER

BORING NUMBER

X

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 3 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2	6		SP	
Soil	4			X3	7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5	11			
Soil	13			X6	12			
					13			BORING TERMINATED AT 11.5'
					14			NO GROUNDWATER ENCOUNTERED
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
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					2			
					3			
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Soil	3				7			
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Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

earth metrics incorporated

August 7, 1990

Mr. Richard Cameron
Asbury Graphite
2855 Franklin Canyon Road
Rodeo, CA 94572

Subject: Level One Environmental Site Assessment and Limited Soil Chemistry for Former Graphite Mill at 2426-2500 Kirkham Street, Oakland, California (Earth Metrics' file reference 10730)

Dear Mr. Cameron:

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The subject site is an approximately 20,000 square foot facility consisting of four main storage and manufacturing areas formerly used for the grinding of graphite and the production of calcium petroleum coke and foundry mold coatings. In addition to remaining graphite inventory and grinding machinery, the subject site contains one office area and one shower and employee area, which are elevated within the larger areas.

The subject site is located in a light to medium industrial area of the City of Oakland. Neighboring businesses include a cement factory, a recycling operation, an industrial foundry supply store, pipe and adhesive wholesale operations, and a warehouse. The subject site is located approximately one block from the earthquake damaged Cypress Overpass of the Nimitz Freeway (Interstate Highway 880).

The Level One Environmental Site Assessment prepared for the subject site was based on a physical inspection of the site, a review of applicable archival information, and consultation with local, county, state and federal agencies having jurisdiction over the subject site. The current work was based on the selection of three test bore locations that would represent the subsurface conditions at the subject site; augering and testing for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl

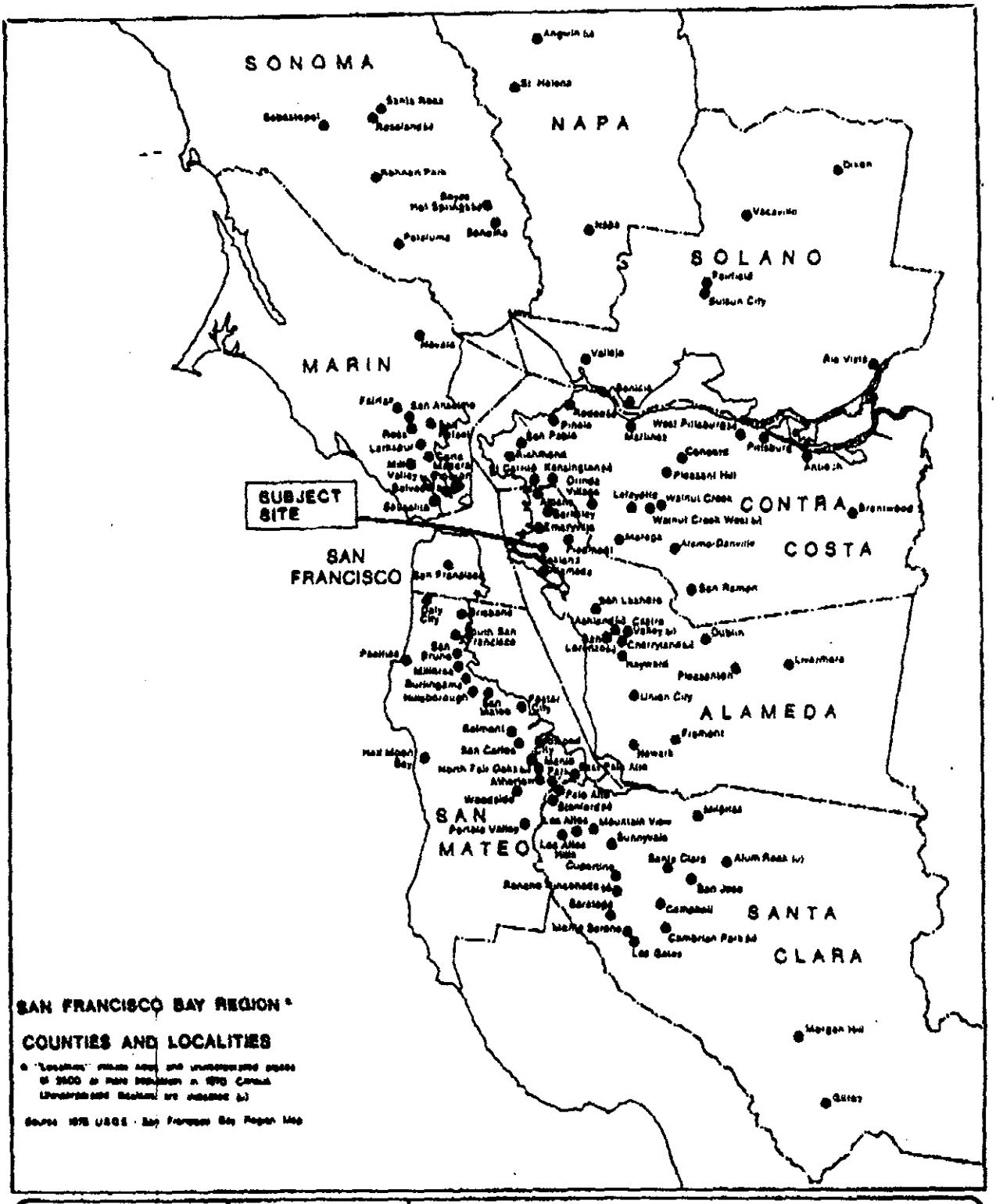
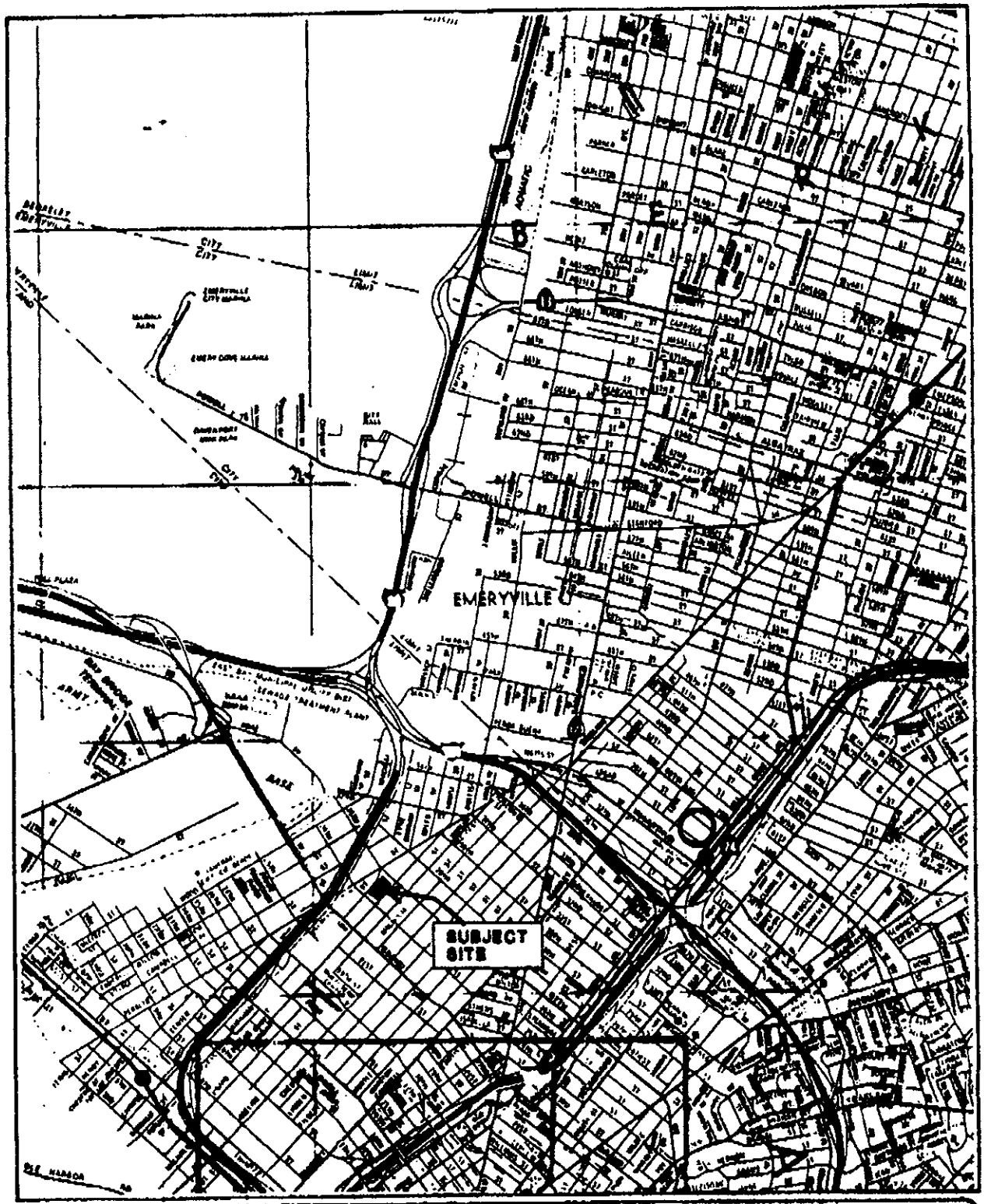


FIGURE 1. REGIONAL SUBJECT LOCATION MAP



earth metrics

N

SCALE
NO SCALE

FIGURE 2. LOCAL SUBJECT LOCATION MAP, OAKLAND, CALIFORNIA

Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Agency consultation and historical research did not yield any information that would indicate the subject site was ever used for fuel or toxic chemical storage, or agricultural purposes. Several fuel leak sites, however, were found within a two mile radius of the subject site.

SITE HYDROGEOLOGY

The subject site is located on level ground at an elevation of approximately five feet above mean sea datum (U.S. Geological Survey, Oakland West 7.5" Quadrangle, 1959, photorevised 1980). The general area of the subject site is composed of Clear Lake soil, which is a very deep and poorly drained soil with slow permeability. Urban build up at the subject site and in the entire surrounding area has altered this natural alluvium formation at the superficial level and may increase the drainage and permeability characteristics of the soil. However, groundwater movement in the area is likely to be highly limited due to the high water table and slow permeability (U.S. Department of Agriculture, 1981).

SITE HISTORY

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Three boring locations were selected to represent the best possible subsurface conditions at the subject site. A California split spoon modified sampler (140 lbs. 30" drop) was used to auger to a depth of 12 feet below ground. Eighteen (18) soil samples were collected representing two discrete depth intervals, that is five feet to 6.5 feet and 10 feet to 11.5 feet.

Three (3) soil samples (H2, F2, X2) representing the 5.5 to 6.0 foot interval were composited and analyzed for High Boiling Point Hydrocarbons as Diesel (EPA Test Method 8015) in soil; Benzene, Toluene, Ethyl Benzene, and Xylenes (EPA Test Method 8020) in soil; Oil and Grease in Soil (Standard Method 503.3) in soil; Low Boiling Point Hydrocarbons as Gasoline (EPA Test Method 8015) in soil; and EPA Priority Metals in soil.

Three (3) soil samples representing the 5.0 to 5.5 foot interval, three (3) soil samples representing the 6.0-6.5 foot interval, and nine soil samples representing the 10-11.5 foot interval were archived for further testing if needed. For the boring locations one may refer to Figure 3.

No Benzene, Low Boiling Point Hydrocarbons as Gasoline, or High Boiling Point Hydrocarbons as Diesel were detected in the soil. Toluene, Ethyl Benzene, Xylenes, and some EPA Priority Metals were detected in the soil at negligible amounts, well below any action levels. Total Recoverable Petroleum Oil (Oil and Grease) was found present in the soil at 170 ppm.

The oil and grease concentration (170 ppm) in the composite soil sample is not so high as to require immediate source removal. The Oil and Grease concentration is not related to any diesel or gasoline contamination or records of underground tanks. Levels of volatile constituents are not consistent with fuel oil, oil, or asphalt. The soil boring logs indicate presence of volatile vapors detected in the field using a photoionization detector.

RECOMMENDATIONS

Agency consultation and historical research did not yield any information that would indicate the subject site was ever a generator of any hazardous material unauthorized releases.

Earth Metrics recommends that the findings of this study be disclosed to any future buyers of the subject property according to the Innocent Landowner Defense Amendment Act of 1989, Section 101(35) of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et seq.). Finally, a copy of this report should be forwarded to Mr. Lowell Miller, Senior Hazardous Materials Specialist, Alameda County Department of Environmental Health, 470-27th Street, Room 322, Oakland, California (tel. no. (415) 271-4320).

This Level Two Environmental Site Assessment was prepared in compliance with accepted documents and practices for such studies and Earth Metrics' in-house quality assurance program. The undersigned pledge that the facts presented herein are based upon available information discovered by Earth Metrics and represent existing conditions at the site up to the present time. If you have any questions or comments regarding this report, please feel free to call me at this office.

Sincerely,

Chris S. Zouboulakis

Chris S. Zouboulakis
Project Manager

Inserts: Lab Results (4 pages)
Chain Of Custody (2 pages)
Boring Logs (3 pages)

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2655 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 5030/8015/8020	Analyzed:	Jul 10, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS with BTEX DISTINCTION (EPA 8015/8020)

Sample Number	Sample Description	Low/Medium B.P. Hydrocarbons mg/kg (ppm)	Benzene mg/kg (ppm)	Toluene mg/kg (ppm)	Ethyl Benzene mg/kg (ppm)	Xylenes mg/kg (ppm)
007-0608 007-0609 007-0610	Comp., H2, F2, X2	N.D.	N.D.	0.011	0.015	0.053
Detection Limits:		1.0	0.0050	0.0050	0.0050	0.0050

Low to Medium Boiling Point Hydrocarbons are quantitated against a gasoline standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received:	Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	EPA 3550/8015		
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed:	Jul 10, 1990
			Reported:	Jul 12, 1990

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)

Sample Number	Sample Description	High B.P. Hydrocarbons mg/kg (ppm)
007-0608	Comp., H2, F2,	N.D.
007-0609	X2	
007-0610		

Detection Limits:	1.0

High Boiling Point Hydrocarbons are quantitated against a diesel fuel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled: Jul 3, 1990
2855 Campus Drive	Matrix Descript:	Soil	Received: Jul 5, 1990
San Mateo, CA 94403	Analysis Method:	SM 503 D&E (Gravimetric)	Extracted: Jul 11, 1990
Attention: Kris Zoupoulakis	First Sample #:	007-0608	Analyzed: Jul 12, 1990
			Reported: Jul 12, 1990

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/kg (ppm)
007-0608	Comp., H2, F2,	170
007-0609	X2	
007-0610		

Detection Limits:	30

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Earth Metrics	Client Project ID:	#10730, Kirkham	Sampled:	Jul 3, 1990
2855 Campus Drive	Sample Descript:	Soil Composite, H2, F2, X2	Received:	Jul 5, 1990
San Mateo, CA 94403				
Attention: Kris Zoupoutakis	Lab Number:	0070608, 09, 10	Reported:	Jul 12, 1990

E.P.A. PRIORITY POLLUTANTS: METALS

STLC

Analyte	Detection Limit mg/kg (ppm)	Sample Results mg/kg (ppm)
Antimony	5.0	N.D.
5 Arsenic	0.25	0.97
Beryllium	0.50	N.D.
Cadmium	0.50	N.D.
5 Chromium	0.25	22
25 Copper	0.50	7
5 Lead	0.25	5.4
Mercury	0.10	N.D.
20 Nickel	2.5	23
Selenium	0.25	N.D.
Silver	0.50	N.D.
Thallium	25	N.D.
250 Zinc	0.50	37

OK

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Elizabeth W. Hackl
Project Manager

PROJ. NO.	PROJECT NAME
10730	KIRKHAM

SAMPLERS: Signature

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan / BTEX / O&G	Prio Metals						REMARKS
					2500 Kirkham, Oakland									O: Composite X: archive
H1	7/3/90	10:30		✓	Side driveway, through cement	1	X	X						O: composite
H2	"	10:40		✓	"	1	O	O						H2 & F2 ; x2
H3	"	10:50		✓	"	1	X	X						and hold for
H4	"	10:50		✓	"	1	X	X						TPH Full Scan (BTEX / 503 (O&G) and Prio Metals
H5	"	11:10		✓	"	1	X	X						Total # of rows: 2
F1	"	11:30		✓	"	1	X	X						
F2	"	11:30		✓	"	1	O	O						Archive samples for
F3	"	11:30		✓	"	1	X	X						further testing if required
F4	"	12:00		✓	"	1	X	X						
F5	"	12:00		✓	"	1	X	X						
F6	"	12:20		✓	"	1	X	X						5 DAY RUSH
X1	"	1:30		✓	Front street	1	X	X						
X2	"	1:30		✓	"	1	O	O						5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
	7/3/90		7/3 4:45
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time

REMARKS: 5 Day Rush

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2655 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-8900

101-5039

PROJ. NO.	PROJECT NAME	NO OF CON-TAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
10730	KIRKHAM									

SAMPLERS: Signature

[signature]

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO OF CONTAINERS	Full Scan/BTEX/O&G	Prio Metals						REMARKS
X3	7/3/90	1:30		✓	Fremont Street	1	x	x						x: ARCHIVE
X4	"	2:10		✓		1	x	x						DO NOT TEST !!
X5	"	2:10		✓		1	x	x						
X6	"	2:30		✓		1	x	x						

5 DAY RUSH

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	REMARKS:
[signature]	7/3/90 500 pm	[signature]	7/3 4:45	5 Day Rush
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	
Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time	

Christos Socrates Zouboulakis
Environmental Physicist/Project Manager

2655 Campus Drive, Su 300, San Mateo, CA 94403 (415) 578-9800

BORING LOCATION, ELEVATION AND DATE DRILLED

2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD

HOLLOW STEM AUGER

BORING NUMBER

X

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 3 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 6" ASPHALT, BEDROCK & CEMENT
					1			Black sand with large site gravels. General backfill material with odor and signs of discoloration.
					2			
					3			
					4			
Soil	3			X1	5			Light green gravely sand. No odor.
Soil	3			X2	6		SP	
Soil	4			X3	7			
					8			
					9			Light green well graded sandy material mixed with yellow fine sand. No odor.
Soil	5			X4	10		SW	
Soil	13			X5	11			
Soil	13			X6	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
F

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
					4			
Soil	7			H1	5		SC	
Soil	3			H2	6			
Soil	3				7			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					8			
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5				
					12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED.
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

END

BORING LOCATION, ELEVATION AND DATE DRILLED
2500 KIRKHAM 7/3/90
OAKLAND, CALIFORNIA

DRILLING METHOD
HOLLOW STEM AUGER

BORING NUMBER
H

SAMPLING METHOD
CALIFORNIA MODIFIED SPLIT SPOON WITH A 140 lbs. HAMMER FROM 30"

SHEET 1 OF 3

SAMPLER TYPE	NUMBER OF BLOWS / FT	DRY DENSITY PCF	MOISTURE CONTENT % DRY WT	SAMPLE NUMBER	DEPTH IN FEET	SOIL GRAPH	U.S.C.S.	
					0			0" - 8" CEMENT
					1			Dark brown gravely sand, moist, no plasticity. Vapor analyzer indicated high readings of volatile organic compounds. General backfill material with signs of discoloration.
					2			
					3			
					4			
Soil	7			H1	5		SC	Light green and brown clayey sand, moist, medium plasticity. Vapor analyzer indicated high readings.
Soil	3			H2	6			
Soil	3				7			
					8			Well graded sandy material with little fines. Vapor analyzer indicated high readings.
					9		SW	
Soil	3			H3	10			
Soil	7			H4	11			
Soil	10			H5	12			BORING TERMINATED AT 11.5'
					13			NO GROUNDWATER ENCOUNTERED
					14			
					15			
					16			
					17			
					18			
					19			
					20			

LOG OF BORING

earth metrics inc
ENVIRONMENTAL CONSULTANT

CHRIS ZOUBOULAKIS

DATE : 7/25/90

JOB NO : 10730

PLATE

Activities Report Go

CLARKE CRAMER INC (T0600100387) - MAP THIS SITE *OPEN - SITE ASSESSMENT*

2500 KIRKHAM ST
OAKLAND , CA 94607
ALAMEDA COUNTY

ACTIVITIES REPORT
PUBLIC WEBPAGE

VIEW PRINTABLE CASE SUMMARY FOR THIS SITE

CLEANUP OVERSIGHT AGENCIES
ALAMEDA COUNTY LOP *(LEAD) - CASE #: 01-0426*
SAN FRANCISCO BAY RWQCB (REGION 2) - *CASE #: 01-0426*

ACTIVITIES REPORT **ACTIVITY TYPE FILTER:** Show All Activities Go *** INDICATES A REVISED DUE DATE**

SCHEDULE NEW REGULATORY ACTION SCHEDULE NEW COMPLIANCE RESPONSE / SCHEDULE RECURRING

ACTION TYPE	ACTION	ACTION DATE	RECEIVED / ISSUE DATE	ACTION DESCRIPTION
LEAK ACTION	Leak Discovery	9/18/1990		
LEAK ACTION	Leak Reported	9/18/1990		
LEAK ACTION	Leak Stopped	9/18/1990		

LOGGED IN AS PKHATRI

Facility / Site Address Go

CLARKE CRAMER INC (T0600100387) - MAP THIS SITE

OPEN - SITE ASSESSMENT

2500 KIRKHAM ST
OAKLAND , CA 94607
ALAMEDA COUNTY
VIEW PRINTABLE CASE SUMMARY FOR THIS SITE

ACTIVITIES REPORT
PUBLIC WEBPAGE

CLEANUP OVERSIGHT AGENCIES
ALAMEDA COUNTY LOP *(LEAD)* - *CASE #: 01-0426*
SAN FRANCISCO BAY RWQCB (REGION 2) - *CASE #: 01-0426*

FACILITY / SITE ADDRESS

Save Changes

THIS IS A "TEST PROJECT" (WILL BE EXCLUDED FROM PUBLIC SEARCH / REPORTS AND REGULATOR REPORTS)

PROJECT NAME
CLARKE CRAMER INC

THIS PROJECT IS A RESIDENCE

STREET # 2500

STREET NAME / LOCATION KIRKHAM ST

BUILDING #

CITY OAKLAND

STATE CA

ZIP 94607

COUNTY Alameda

CROSS STREET NAME

FIELDS CALCULATED BASED ON LATITUDE / LONGITUDE

GW BASIN NAME	WATERSHED NAME	COUNTY
Santa Clara Valley - East Bay Plain (2-9.04)	South Bay - East Bay Cities (20420)	Alameda

SPELL CHECK

LOGGED IN AS PKHATRI

CONTACT GEOTRACKER HELP

Project Information Go

CLARKE CRAMER INC (T0600100387) - MAP THIS SITE

OPEN - SITE ASSESSMENT

2500 KIRKHAM ST
OAKLAND , CA 94607
ALAMEDA COUNTY
VIEW PRINTABLE CASE SUMMARY FOR THIS SITE

ACTIVITIES REPORT
PUBLIC WEBPAGE

CLEANUP OVERSIGHT AGENCIES
ALAMEDA COUNTY LOP *(LEAD)* - *CASE #: 01-0426*
SAN FRANCISCO BAY RWQCB (REGION 2) - *CASE #: 01-0426*

PROJECT INFORMATION

PROJECT STATUS HISTORY

Save Changes

SITE TYPE	STATUS	STATUS DATE
LUST Cleanup Site	Open - Site Assessment	9/18/1990

FUNDING FOR CLEANUP	FILE LOCATION	RP IDENTIFICATION	RP ID DATE

HUMAN HEALTH EXPOSURE - INFO		GROUNDWATER MIGRATION - INFO		FINAL REMEDY FOR CLEANUP			
CONTROLLED?	DATE	CONTROLLED?	DATE	SELECTED?	DATE	IMPLEMENTED?	DATE

STAFF NOTES (INTERNAL)

SITE HISTORY (PUBLIC)

CLEANUP OVERSIGHT AGENCIES

CASE NUMBER	CLEANUP OVERSIGHT AGENCY	LEAD	LEAD DATE	END DATE
01-0426	ALAMEDA COUNTY LOP		9/18/1990	
01-0426	SAN FRANCISCO BAY RWQCB (REGION 2)			

LATITUDE/LONGITUDE INFORMATION MUST BE IN THE GEOGRAPHIC NAD83 COORDINATE SYSTEM:

LATITUDE	LONGITUDE	BUFFER (IN FEET)
37.819013	-122.286408	50

CLICK HERE TO RE-POSITION THIS PROJECT ON THE MAP

SPELL CHECK

LOGGED IN AS PKHATRI

Project Summary Go

GEOTRACKER HOME | MANAGE PROJECTS | REPORTS | SEARCH | LOGOUT

CLARKE CRAMER INC (T0600100387) - MAP THIS SITE

OPEN - SITE ASSESSMENT

2500 KIRKHAM ST
OAKLAND , CA 94607
ALAMEDA COUNTY

ACTIVITIES REPORT

PUBLIC WEBPAGE

VIEW PRINTABLE CASE SUMMARY FOR THIS SITE

CLEANUP OVERSIGHT AGENCIES

ALAMEDA COUNTY LOP *(LEAD) - CASE #: 01-0426*
SAN FRANCISCO BAY RWQCB (REGION 2) - *CASE #: 01-0426*

PROJECT INFO

SITE TYPE	STATUS	STATUS DATE
LUST CLEANUP SITE	OPEN - SITE ASSESSMENT	9/18/1990

CONTACTS

THERE ARE CURRENTLY NO CONTACTS ASSOCIATED WITH THIS PROJECT

LOGGED IN AS PKHATRI

CONTACT GEOTRACKER HELP

Risk Information Go

CLARKE CRAMER INC (T0600100387) - MAP THIS SITE

OPEN - SITE ASSESSMENT

2500 KIRKHAM ST
OAKLAND , CA 94607
ALAMEDA COUNTY
VIEW PRINTABLE CASE SUMMARY FOR THIS SITE

ACTIVITIES REPORT
PUBLIC WEBPAGE

CLEANUP OVERSIGHT AGENCIES
ALAMEDA COUNTY LOP *(LEAD)* - *CASE #: 01-0426*
SAN FRANCISCO BAY RWQCB (REGION 2) - *CASE #: 01-0426*

RISK INFORMATION

Save Changes

RELEASE TYPE

CONTAMINANT(S) OF CONCERN
WASTE OIL / MOTOR / HYDRAULIC / LUBRICATING

INTERNAL PRIORITY (OPTIONAL)

REDEVELOPMENT PLANNED - INFO
YES NO

CURRENT LAND USE
NONE SPECIFIED

BENEFICIAL USE
NONE SPECIFIED

MEDIA OF CONCERN
NONE SPECIFIED

VULNERABILITY BASIS

ADDITIONAL RISK DESCRIPTION (IF NEEDED)

 # IMPACTED DRINKING WATER WELLS

DRINKING WATER SUPPLY SHUT DOWN
YES NO

THERE ARE 0 DHS SUPPLY WELLS WITHIN 1/2 MILE OF THIS SITE (INCLUDING SITE BUFFER)

WELL IMPACT DESCRIPTION

REPORT DATE
9/18/1990

RELEASE DESCRIPTION

STOP DATE
9/18/1990

STOP METHOD

STOP DESCRIPTION

DISCHARGE DATE

DISCHARGE CAUSE
STRUCTURAL FAILURE

DISCHARGE SOURCE
TANK

DISCHARGE DESCRIPTION

DISCOVERED DATE
9/18/1990

HOW DISCOVERED
TANK CLOSURE

HOW DISCOVERED DESCRIPTION

QUANTITY (GALLONS)

HAZMAT INCIDENT FILED WITH OES?

LEAK CONFIRMED AS A VAPOR RELEASE?

SPELL CHECK

LOGGED IN AS PKHATRI

CONTACT GEOTRACKER HELP