Cal/EPA

Department of Toxic Substances Control

700 Heinz Avenue Bldg. F, Suite 200 Berkeley, CA 94710

April 2, 1998

Pete Wilson Governor

Peter M. Rooney Secretary for Environmental Protection

Mr. William F. Blank
Manager, Site Remediation
AlliedSignal Inc.
P.O. Box 1139
Morristown, New Jersey 07962-1139

Dear Mr. Blank:

COST REIMBURSEMENT AGREEMENT, HSA 95/96 - 056
VERDESE CARTER PARK, OAKLAND, CALIFORNIA

Since there have been no activities involving the Department of Toxic Substances Control (DTSC) and AlliedSignal Inc. on the subject site within the last 21 months, DTSC has elected to terminate the referenced Cost Reimbursement Agreement (CRA).

This notification letter is in accordance with Section 2.11 of the CRA. This letter serves as the thirty (30) day notice of this action.

If you have any questions, you may contact Thomas Tse, Hazardous Substances Engineer, at (510) 540-3845.

Sincerely,

Barbara J. Cook, P.E., Chief
Northern California - Coastal
Cleanup Operations Branch

cc: See next Page

cc: Mr. Loren Henning
U.S. EPA
75 Hawthorne Street
San Francisco, California 94105-3901

Mr. David Diamond
Project Manager
Parsons Engineering Science, Inc.
1301 Marina Village Parkway, Suite 200
Alameda, California 94501

Mr. Gordon Coleman
Alameda County Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway, Room 250
Alameda California 94502-6577

Oakland
All-America City
1993

CITY OF OAKLAND

CITY HALL • 1333 BROADWAY • OAKLAND, CALIFORNIA 94612

Office of Public Works

(510) 238-3961
FAX: (510) 238-2233
TDD (510) 839-6451

August 11, 1994

Ms. Nancy Lindsay
Chief, Superfund Enforcement Branch
US Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

RE: Verdese Carter Park

Dear Ms. Lindsay:

On May 24, 1994 I sent a letter to Mr. Donald White regarding the remediation activities at Verdese Carter Park. In the letter I listed a number of City concerns with the planned testing of the Park and the off-site areas by the Environmental Protection Agency.

Since my initial letter, the EPA sampling and analysis plan has been completed, additional test samples have been taken and analyzed, and the City has completed approximately 50% of the additional soil removal. Staff anticipates that this work will be finished next week and that EPA will retest the areas shortly thereafter. In addition, the City Attorney and a representative from EPA have had an opportunity to discuss cost recovery strategies the City may pursue against the prior site owner.

At this point we are approximately one week behind the schedule the City proposed in April. Given the high visibility and importance of this project in the community, I would like to thank you and your staff for helping us keep to this aggressive schedule.

My staff has informed me that EPA is planning several meetings during the next two weeks, at least one of which will involve neighborhood representatives. I am confident that the community will be satisfied with the remediation work that has taken place at the Park. With the completion of this work, it is likely that the neighborhood concerns will shift to potential off-site areas of contamination.

In my prior correspondence, the City requested EPA to:

1. Designate the prior owner of the property as being the Responsible Party (RP).

2. Develop a work plan and take responsibility for all off-site testing of the surrounding neighborhood. EPA should pay for all testing and remediation work and be responsible for obtaining reimbursement from the RP.

3. Provide a written confirmation that all off-site testing and remedial action is the responsibility of the RP and not the City.

The City is concerned that additional tests for lead should be taken in the area surrounding the Park. Because many of the residents living in the area have limited financial resources, the City is looking to EPA as the funding source for this work.

The City would like to receive a commitment from EPA that it will fund the off-site testing and remediation prior to the community meeting. If you would like to discuss this further with me, I may be reached at (510) 238-3961.

Thank you for your work on this project to date, and I hope that we will be able to begin the restoration of the Park in the next two months.

Sincerely,

for Terry E. Roberts
Director of Public Works

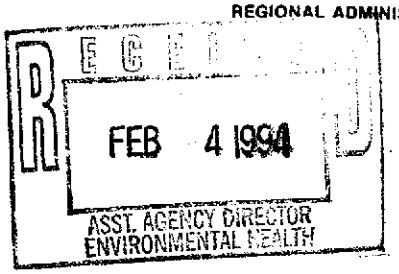
cc: Dr. Ravi Arulanantham, Alameda County
James Hanson, USEPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

ALCO HAZMAT
94 FEB -2 PM 3:52

JAN 27 1994

OFFICE OF THE REGIONAL ADMINISTRATOR



Honorable Ronald V. Dellums
U. S. Representative
1301 Clay Street
Suite 1000-N
Oakland, CA 94612

Dear Mr. Dellums:

Thank you for your inquiry of December 9, 1993 to EPA Administrator Carol Browner. I have been requested to respond to you concerning your constituent Rafeeq Naji and the African American Development Association regarding the Verdese Carter Park and Cox Elementary School located in Oakland California.

The U.S. Environmental Protection Agency first learned of potential soil contamination at the Verdese Carter Park when the park was being constructed in 1978. At that time, several thousand cubic yards of lead contaminated soils were removed by the City of Oakland. EPA conducted a Preliminary Assessment under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) in 1985 and, based on the soil remediation, determined that no further action was necessary at that time. Later, in March of 1993, we were notified that a yellow-white precipitate was "oozing" up through cracks in the basketball court at Verdese Carter Park. Based on this information, we reopened our investigation of this site.

As you know, the City of Oakland owns the park and is currently conducting a soil removal under the supervision of the Alameda County Health Department. The Project Manager for the Alameda County Health Department is Dr. Ravi Arulanantham who can be reached at (510) 271-4320. In addition to Alameda County's oversight, EPA conducted a field audit of the City of Oakland's soil removal activities on November 19, 1993, and we have conducted two soil sampling events to confirm the adequacy of the soil removal. Our investigation discovered other "hot spots" that were immediately remediated by the City of Oakland.

The Cox Elementary School is located directly adjacent to the Verdese Carter Park. Upon hearing of the community's concern regarding blood lead testing for school children, we contacted Bill Nelson of the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR then contacted the Alameda County Health Department and blood lead testing of school children was conducted. The results of the blood lead testing are available

from Dr. Carl Smith of the Alameda County Health Department at (510) 268-2727.

Cox Elementary School has recently removed contaminated soils from the school and we have subsequently taken confirmation samples to ensure there is no residual contamination above health based standards. We have not yet received the results of our confirmatory sampling.

Based on the extensive remedial actions taken by the City of Oakland, the degree of oversight from Alameda County Health, and results of our recent confirmatory samples indicating that the cleanup is achieving the remediation goals, we do not believe that EPA cleanup action at this site is warranted. However, we will continue to monitor the City of Oakland's cleanup to ensure it proceeds at a reasonable pace.

I trust this information will be helpful in responding to your constituent's concerns. If I can be of further assistance, please contact me or my Congressional Liaison Officer, Catherine Roberts at (415) 744-1560.

Yours,

Deanna M. Wieman for

Felicia Marcus
Regional Administrator

cc: Rafeeq Naji, African American Development Association
Dr. Ravi Arulanantham, Alameda County Health
Dr. Carl Smith, Alameda County Health
Bill Nelson, (ATSDR)

Noted
Ravi Arulanantham
1/14/94

January 17, 1994

Project No. 93C0243A

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

Subject: Remediation Progress Report
Verdese Carter Park Site
98th and Bancroft Avenues, Oakland 94603

Dear Dr. Arulanantham:

Per your request, this letter presents a brief progress report of the City of Oakland's remediation of metals-contaminated soil at the Verdese Carter Park site in East Oakland. This report provides a general assessment of progress to date as well as an assessment of particular aspects of the project. I have also provided a detailed site map indicating the various site areas discussed below.

General Progress. Despite delays in November and December due to weather and transport logistical difficulties, progress has been good. The only significant component of the work remaining is excavation of the paved areas of the park. We expect to complete the site remediation in two weeks, with the exception of miscellaneous "mopping up" and removal and closure of an abandoned underground fuel storage tank at the site (see below).

Knolls. The fill soil within many of the landscaped knolls at the park contained lead contamination related to the previous battery factory at the site. All of these knolls have been excavated to the planned depths, and in most cases down an additional 6 to 18 inches. Sample results confirm that clean-up goals have been achieved at nearly all of the knoll excavations, with the exception of portions of Knolls A and C, and Knoll H. Final excavation of these remaining areas is expected to be completed this week.

Loading Dock/Rail Spur Excavation. The planned subexcavation between Knolls A and B unexpectedly encountered a large, intact portion of the previous battery factory's loading dock, aboveground storage tank pads, and rail loading spur parallel to Bancroft Avenue. Yellow-stained soil (due to sulphuric acid) was also encountered at some locations in this area. The concrete, related debris and underlying soil have been removed from this area. Soil sampling results confirm that clean-up goals have been achieved.

Underground Storage Tank. Excavation of the rail spur area encountered an abandoned underground storage tank near Bancroft Avenue. The single-walled steel tank had a capacity of approximately 12,000 gallons and is in poor structural condition. Historical records indicate that this was a fuel oil storage tank for the factory and was installed sometime prior to 1935. Regulatory oversight for removal and closure of the tank has been referred to Ms. Eva Chu with the LOP program of ACDEH. Permit applications and closure workplans to ACDEH will be prepared soon.

Paved Areas. The paved areas of the park are underlain by arsenic-rich ryholite gravel backfill. Excavation of these areas began today and is expected to be completed this week or early next week, pending confirmation sampling results.

98th Avenue Frontage Area. The contamination here included arsenic-rich rhyolite gravel placed as a surface dressing and shallow soil lead contamination related to the battery factory. This area has been remediated as confirmed by sampling. The area adjacent to 98th Avenue has already been backfilled to accomodate a road construction project.

Sunnyside Street Planter Strip. The contamination here included arsenic-rich rhyolite gravel placed as a surface dressing and shallow soil lead contamination related to the battery factory. The excavation work has been done and is expected to achieve clean-up goals. Most of the confirmation sampling results have been received and support this expectation. Remaining confirmation sample results will be available in about a week.

Soil Disposal. Prior to early December, soil excacavated from the site was disposed by rail at the ECDC landfill in Utah. Since then, excavated soil has been disposed by truck at the Laidlaw Environmental Lokern hazardous waste landfill near Bakersfield.

Site Safety Monitoring. Site safety procedures compliance has been monitored by the full-time site safety officer. Compliance has been consistently achieved, with the exception of occasional, relatively minor infractions by miscellaneous remediation workers.

Perimeter Air Monitoring. Perimeter air sampling for lead, arsenic, zinc, and respirable dust has been conducted on every day of site activity. No confirmed results have come close to or exceeded action levels (some high levels were reported, but were later found to be due to laboratory error).

US EPA Involvement. EPA conducted a site audit of remediation activities in mid-Novemeber and were satisfied that proper procedures were being followed. Since then, they have conducted two rounds of X-Ray Flourescence (XRF) analysis of soil samples at the site. This work is being done on an experimental basis to develop this innovative analytic method. Reportedly, they are still not sure of the method's accuracy or reliability applied at this site. Apparently, EPA is not sure when and if they will conduct additional XRF testing.

I hope that this progress report is useful to you. Should you have any questions or comments, please contact me at 874-3288. I expect to be providing preliminary confirmation sampling results to you in the near future. It is a pleasure to be of service to you and your staff on this important project.

Sincerely,

Michael McGuire, P.E.
Woodward-Clyde Consultants
Project Engineer

Bechtel

50 Beale Street
San Francisco, CA 94105-1895
Mailing address: P.O. Box 193965
San Francisco, CA 94119-3965

November 1, 1993

Ravie Arulananthan
County of Alameda, Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Scheduled Site Visit

Dear Mr. Arulananthan:

Bechtel Environmental, Inc. (BEI) is currently a contractor to the U.S. Environmental Protection Agency (EPA) under EPA Contract No. 68-W9-0060. Pursuant to Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and to Section 3007 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA), the EPA is conducting a nationwide inventory and screening of sites and facilities where hazardous substances may be located. Under the contractual relationship with the EPA, BEI is responsible for assisting the EPA in identifying and investigating such potential sites.

The Verdese Carter Park site was entered into the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database in May 1978, and a preliminary assessment (PA) was conducted in March 1985.

The EPA has requested BEI to conduct a site inspection (SI) of the Verdese Carter Park site. An SI is an investigation of CERCLIS sites that have been through the PA stage of the CERCLA assessment process. As part of the investigation, SI investigators collect available information, conduct a "walk around" of the site and its immediate environs, and interview the site representative. The SI is designed to complement information collected at the PA stage in order to determine whether a site poses a threat to human health and the environment. The SI also identifies sites requiring assessment for possible emergency response actions.

Since you stated during our telephone conversation this morning that BEI can visit the Verdese Carter Park site anytime, I would like to schedule a site visit for the following date and time:

November 9, 1993
9:00 AM

Upon arrival at the site, BEI representatives will produce a letter of introduction duly designating BEI to conduct an SI at the facility. We will take photographs and collect information about the site, which will be incorporated into the SI. After the site tour, we would like to meet with you or a representative from the County of Alameda and/or City of Oakland to discuss the information requested by this letter.

Pursuant to applicable provisions of Section 104 of CERCLA; Section 3007 of the Resource Conservation and Recovery Act (RCRA); Section 9 of the Federal Insecticide, Fungicide, and Rodenticide Act; Section 3 of the Toxic Substances Control Act; and Section 308 of the Clean Water Act, EPA hereby requests that the County of Alameda and/or City of Oakland make the following information available to BEI at the time of the facility visit or at another convenient date:

- Ownership and operational history of the site.
- Site plans, facility maps, and historical aerial photographs, if available, showing the locations of any hazardous substances, pollutant or contaminant, management activities, wells, buildings,

drainage, and any other relevant features.

- List of all hazardous substances, pollutants or contaminants generated, stored, treated, transported from or disposed of at the facility, including dates and amounts, if known.
- Description of past and present waste management practices, including onsite generation, storage, treatment, disposal or removal of hazardous substances, pollutants or contaminants.
- Description of all onsite hazardous substances or pollutants and contaminant storage, treatment or disposal areas, including size, containment features, dates used, and amounts of materials stored, treated or disposed of.
- Description of any releases of hazardous substances to the environment, including dates and regulatory agency response to the releases, if any.
- Description of any environmental or public health regulatory or enforcement agency involvement at the facility.
- Description of all federal, state, and local permits held by the facility, include permit number, issuance and expiration dates. Also describe any occurrence of noncompliance with these permits.
- Copies of all environmental reports, sampling and analysis plans, and work plans conducted for the site.

Please see the accompanying Attachment A regarding confidential business information. If you wish to comment on the confidentiality of the information requested or the EPA's release of such confidential information to the public, you must do so in writing within five (5) days from your receipt of this letter. Submit any such comments to:

Thomas A. Mix
Chief, Site Evaluation Section (H-8-1)
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Please call me if you wish to discuss this letter or BEI's upcoming visit. I may be reached at (415) 768-5958. Please feel free to invite anyone to the meeting and site visit who can discuss the information requested above. You may also discuss this matter with Michael Bellot, EPA Region IX Site Assessment Manager, at (415) 744-2339. I look forward to meeting with you or a representative from the County of Alameda and/or City of Oakland at the site.

Respectfully yours,

Gary Yao

Gary Yao
Site Leader

T. Fowler for

Michele Dermer
Project Manager

Attachment

cc: CERCLA file

Attachment A

Access to the information requested by EPA in the accompanying letter must be provided notwithstanding its possible characterization as confidential information or trade secrets. You may, if you desire, assert a confidentiality claim covering part or all of the information requested, pursuant to CERCLA Section 104 (e) and 40 C.F.R. Section 2.203(b), by attaching to such information at the time EPA's duly designated representative is provided access to such information, a cover sheet, stamped or typed legend, or some other suitable form of notice employing language such as "trade secret", "proprietary", or "confidential business information". Information covered by such a claim will be released by EPA or its representatives only to the extent authorized by CERCLA Section 104(e). If no such claim accompanies the information when it is released to EPA's duly designated representative, it may be made available to the public by EPA and its representatives without further notice to you. You should read the above-cited regulations carefully before asserting a business confidentiality claim, since certain categories of information are not properly the subject of such a claim.

The regulations of 40 CFR Section 2.211 preclude EPA employees from wrongfully using or disclosing any business information that was obtained during the performance of the employee's official duties. In addition, EPA employees must take all appropriate action to safeguard business information from improper disclosure. EPA employees who violate these requirements are subject to dismissal, suspension or fines. Criminal action may be taken against EPA employees who willfully disclose confidential business information. A contractor with EPA who obtains business information during execution of an EPA contract can disclose information only as allowed in the contract. EPA regulations on confidentiality in 40 CFR Part 2 Subpart B require that the contractor agree to the clause entitled, "Treatment of Confidential Business Information" before any confidential business information may be furnished to the Contractor.

This letter serves as notice to you, pursuant to 40 C.F.R. Section 2.310(h), of the contemplated disclosure by EPA of the information at your facility relating to (1) any materials which have been or are generated, treated, stored, disposed of, or transported from the facility, and (2) your ability to pay for or to perform a cleanup. EPA plans to disclose this information to Bechtel Environmental, Inc. (BEI) under contract number 68-W9-0060; this disclosure is necessary in order for BEI to carry out the inspection of your facility, including document review and copying. Pursuant to 40 C.F.R. Section 2.310(h), you may submit comments to EPA on EPA's disclosure of confidential business information of its authorized representatives. Any comments on this contemplated disclosure must be submitted to EPA within 5 days of your receipt of this letter. Submit any such comments to:

Thomas A. Mix
Chief, Site Evaluation Section (H-8-1)
Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Failure to submit your comments in a timely manner shall not be cause for refusal to allow BEI access to the requested records.

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

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

October 22, 1993

Ms. Vivian O'Neal, Esq.
City Attorney's Office
City of Oakland
505 14th Avenue, 12th Floor
Oakland, CA 94612

SUBJECT: REMEDIATION WORK PLAN/SITE HEALTH AND SAFETY PLAN VERDESE CARTER PARK, 98th AND BANCROFT AVENUES, OAKLAND

Dear Ms. O'Neal:

I have completed the review of the remediation work plan/site safety plan, dated October 20, 1993 and prepared by Woodward-Clyde Consultants. The scope of work that is described in this report in order to reclaim the park is complete and acceptable to this office. Please proceed with the reclamation activities as detailed in this report. At the conclusion of the reclamation activities, please submit a detail closure report for the review and approval by this office.

Should you have any questions regarding this matter, please call me at 271-4320.

Sincerely,

Ravi Arulanantham, Ph.D., CHMM
Staff Toxicologist

c: Edgar B. Howell, ACDEH
Harry Schrauth, City of Oakland
Michael P. McGuire, Woodward-Clyde Consultants

verdese93

ADMINISTRATION BUILDING
1025 Second Avenue
Oakland, CA 94606
(510) 836-8109

93 SEP 24 PM 1:49

PLANNING, FACILITIES AND GOVERNMENT RELATIONS

September 22, 1993

Certified Mail
Fax : (510) 238-2233
Phone (510) 238-6263.

Surlene Grant
Office of Public Works
City Hall
1333 Broadway
Oakland, CA 94612

Dear Ms Grant:

Late in the day on Tuesday, September 21, 1993, I received a fax from your office of a draft letter and form (copies attached) regarding blood testing of children at Cox School because of the lead and other contaminant problem at Carter Park.

Be advised that my office has no authority or responsibility for health matters of students in the District, nor for the children at Cox School. If you are seeking a response to the faxed material and its contents, such actions must come through the Area Superintendent, Assistant Superintendent for Support Services, the District Risk Manager, the District General Counsel and the Superintendent of Schools.

The address and phone number of each of the above are as follows:

Richard P. Mesa, Superintendent of Schools
Oakland Unified School District
1025 Second Avenue, Room 301
Oakland, California 94606
(510) 836-8200 (Phone) 465-8799 (Fax)

Alan Young, Area B Superintendent
Oakland Unified School District
495 Jones Street
Oakland, California 94603
(510) 562-0713 (Phone) 562-2174 (Fax)

Carol Quan, Assistant Superintendent, Support Services
Oakland Unified School District
1025 Second Avenue
Oakland, California 94606
(510) 836-8253 (Phone) 836-8607 (Fax)

Nancy Germond, Director of Risk Managment
Oakland Unified School District
1025 Second Avenue, Room 112
Oakland, California 94606
(510) 836-8103 (Phone) 451-2926 (Fax)

Jane Moore, General Counsel
Oakland Unified School District
1025 Second Avenue, Room 406
Oakland, California. 94606
(510) 836-8535 (Phone) 268-0279 (Fax)

Prior to any further action on this matter, the above District representatives should be contact 1.

Yours very truly
Robert Long
Coordinator, Facilities Planning

RL:pc

cc: Pete Mesa (with copy of City documents)
Sue Woehrle
Jane Moore
Alan Young
Carol Quan
Nancy Germond
John Cooke

1162.9.22.3

ALAMEDA COUNTY LEAD POISONING PREVENTION PROGRAM

REGISTRATION AND INFORMED CONSENT FOR MINOR BLOOD TEST AT COX ELEMENTARY SCHOOL ON September 29, 1993

The Alameda County Lead Poisoning Prevention Program, in cooperation with the African American Development Association, the Elmhurst Concerned Citizens Committee, Cox Elementary School, and City Of Oakland Public Works, has undertaken a screening program for possible lead exposure among children ages 1 to 7 years, living in the Elmhurst District of Oakland. If you wish to have your child tested for current exposure to lead, a blood test can be done to determine the level. The results of the test will be sent to you within 10 days of the test. If you have any questions about having the blood test done, you may call your regular doctor or one of the Lead Program nurses: Michelle McClenton at 670-6486 or Betty Wolverton at 670-6489. If you do not have a regular doctor, CHDP outreach workers will be available at Cox School from 8:00am to 6:00pm to help determine if your child is eligible for free health check-ups and will assist in getting your child an appointment to see a doctor.

LAST NAME:_____ **FIRST:**_____

DATE OF BIRTH:_____ **AGE:**_____

ADDRESS:_____ **CITY:**_____ **ZIP:**_____

REGULAR DOCTOR:_____ **PHONE:**_____

GRADE _____ TEACHER _____ RM: _____

AUTHORIZATION FOR PHLEBOTOMY AND BLOOD LEAD LEVEL TEST:

I hereby consent to having a small sample (less than one teaspoon) of blood drawn from a vein in my child's arm or hand for the purpose of testing the blood for lead. I understand that this is a screening test for lead poisoning only and does not substitute for other tests that my child's doctor may order to evaluate my child's general health. The blood for the lead test will be drawn by a certified phlebotomist from MetWest Clinical lab and the test will be processed at no charge to me.

I understand that the blood test may cause some temporary discomfort from the small needle stick and there may be a bruise at the site where the blood was drawn. No other adverse effects are expected.

I also consent to the release of the test results, in writing, to my child's regular physician, and Confidentially, to the participating agencies who may assist in the evaluation of lead poisoning risks in East Oakland.

_____

Parent or Guardian Signature | Print Name | Date

_____

Relationship to Above Minor Child | Address if Different than Child | Phone

DRAFT DRAFT DRAFT

September 21, 1993

Dear Parent:

As you know, Verdese Carter Park, the park across the street from E. Morris Cox School is closed. The City of Oakland closed the park to reduce chances of exposure to lead from contaminated soil in the park. The City of Oakland has been working with several agencies to clean the park and rebuild a new one.

In the meantime, recognizing the seriousness of the issue, Alameda County Health Care Services Agency, Alameda County Lead Poisoning Prevention Program, Alameda County Child Health and Disability Prevention Program (CHDP) and, the City of Oakland and Oakland Unified School District have made resources available to provide for lead screening and testing of young children in the area. The testing will be primarily for children age 7 and under. The results will help health officials and medical professionals determine if your child or other children in the community have been exposed to high levels of lead.

The testing will take place at E. Morris Cox School, 9800 Sunnyside Street, on Wednesday, September 29. The testing procedure involves drawing a blood sample from your child; therefore, you must give your consent for this process. The process and the consent form are on the back of this letter. Please read the form, sign it and have your child return it to his or her teacher as soon as possible, no later than Tuesday, September 28. The testing is available to any child under the age of seven who lives in the community; the child does not have to be a student at E. Morris Cox School. All children must have parental consent for testing. If you have questions about the testing please call the Alameda County Lead Program nurses at 670-6486 or at 670-6489.

In addition to the lead screening tests, the County CHDP program will also be on hand to sign up eligible families with children who need to have routine medical examinations. Through enrolling with the CHDP worker at the school on Wednesday, children who do not have a family doctor or who receive regular and routine medical examinations, will be able to do so. The program is offered free to eligible families. Also, if you know that your child needs basic childhood immunization for such things as tetanus, measles, whooping cough, etc., these services will also be available on Wednesday, September 29.

We hope that you will ensure that your child (children) take advantage of these health care services being offered to your community. If you have any questions please call the Public Health Nurse at 670-6488 or 670-6489; the CHDP outreach coordinator at 667-3987; or the Lead Prevention Program at 670-6438.

Thank you for your concern and attention to this program.
signed, Alameda County Health Care Services Agency,
City of Oakland
Oakland Unified School District

Please see reverse for consent form.

African American

Development Association Incorporated

RECEIVED in the Office of the City Clerk of the City of Oakland, California by COUNTER/MAIL at 9:22 o'clock A.M. 9/7 1993.
CEDA FLOYD, CITY CLERK
Per Deputy City Clerk

City Hall Plaza
C/O Greg Kocian, City Manager
505 14th Street, City Hall Plaza
Oakland, CA 94612

RE: Verdese Carter Park

The African American Development Association, along with concerned citizens of the Elmhurst District have been encouraged by the efforts of the City of Oakland with regard to addressing our concerns of the clean-up of the toxic materials at Verdese Carter Park and the associated community health concerns in a responsive manner.

The Community Health Education Forum held August 26, 1993 at Cox Elementary School served as an excellent forum in established a partnership with the City of Oakland, Alameda County health officials and concerned citizens in creating an awareness and the hazards of the toxic problems in the park. The city's expections manner and desire to correct this problem is commended. Due to questions raised and community concerns, we feel that recomendation work should not begin in mid-September until the following expressed concerns and issues are satisfactorily addressed.

The following items being presently here are based on unresolved and unanswered questions raised at the August 26, 1993 Community Health Education Forum and the Site Characterization Report prepared by Woodward - Clyde Consultants dated August 19, 1993.

I. More soil testing should be done within the park, specifically, inside the community center/maintenance structure where foundation cracks have been reported by post child care employees, and around the boundries of the park. Specifically Sunnyside street where levels of toxic contamanation were reported in 1978 as noted in the Woodward Clyde report, and into the playground area of Cox Elementary School. The ground water should be tested also because of reported drainage problems at the park and to determine if there's any spread of toxans due to ground water leaching.

II. Broaden the screening demographics to include the entire Elmurst District community, not be limited to children, but to be included up to senior citizens. The community feels the potential testing offered by the Alameda County Health Care Services is an excellent jesture, however, in order to get an accurate picture of the effects of this problem, the community would be better served if a door-to-door screening program be implemented. This is already established by the County Lead Abatement Program in 1991 thru the Oakland City Council. We also request the entire student population of Cox Elementary School be tested.

(510) 633-1212 Box 896 Oakland, California 94604

III. Provide better outreach by Alameda County Health Department educating the community regarding toxic poisoning. The concerned citizens of the neighborhood are willing to assist in this effort.

IV. Establish a comprehensive plan that is acceptable to the neighborhood of the park regarding the risks and potential hazards, and the necessary safety precausions that will be in place when the recomended work begins. We recommend that the park be encapsulated when the recomended work takes place. It is our view, along with the affected community that until the above concerns are addressed in a satifactory manner, no remediations should be done.

If you have any questions or concerns you wish to share with the citizens of the Elmhurst District, please contact me at (510) 763-6226.

Sincerely,

Rafeeq Naji

Rafeeq Naji
President, AADA

cc: Charles Bonner, Esq.
Jane Williams, City Attorney
Desi Woods-Jones, Counselperson District 7
Terry Roberts, Director Public Works
Mary King, Alameda County Board of Supervisors

City of Oakland

Oakland All-America City 1993

Facsimile Transmission

Date 9/3/93

To Ravi Arulanantham **Company** County Harzardous

From Surlene Grant **Dept.** Office of Public Works

Total Pages (Including this Page) 2

Fax Number (510) 238 - 2233 **Office Number** (510) 238-3961

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Notes:

CITY OF OAKLAND

CITY HALL • 1333 BROADWAY • OAKLAND, CALIFORNIA 94612

Office of Public Works

(510) 238-3961
FAX: (510) 238-2233
TDD (510) 839-6451

Transmitted by facsimile
September 3, 1993

Dear Colleague:

On behalf of the Office of Public Works and the Office of Health and Human Services, I would like to invite you to participate in a meeting on Tuesday, September 7 to discuss community outreach and health education regarding Verdese Carter Park. The meeting will be held at 10:00 a.m. in the Office of Health and Human Services, 505 14th Street, 3rd floor conference room.

As you know, there has been expressed concern from residents of the community surrounding Verdese Carter Park and faculty of Cox Elementary School regarding health effects, testing and public education. The general purpose of this meeting is to ensure that we are coordinating our efforts to provide the community with information about the park and the services available. It seems that there is not a clear understanding as to what is happening next in the community and what health services are available. It is the intent that by bringing everyone to the same table we will be able to better plan our outreach and describe to one another the services available from each entity.

I hope you will be able to join with us. If you have any questions, please feel free to call me at (510) 238-6263. I look forward to seeing you on Tuesday.

Sincerely,

Surlene G. Grant
Public Information Officer

Distribution / Invited Participants:
Avon Manning, City Manager's Officer
Terry Roberts, OPW
Joyce Lemon, Health and Human Services
Harry Schrauth, OPW
Dr. Carl Smith, M.D., County Health Officer
Ravi Arulanantham, County Hazardous Material
John Rodgers, County Lead Program
Ariu Levi, County Hazardous Materials
Edgar Howell, County Hazardous Materials
Joan Mazetti, County, CHDP Coordinator
Deb Cornwell, City Safety Coordinator
Mona Scott, City Health Consultant
Sunny Shabazz, Community Member
Dr. Cook, Cox Elementary School
Bob Long, Oakland School District
Vivian O'Neal, City Attorney
Dezie Woods-Jones, Council Member
James Grady, Council Assistant
Mona Lombard, Public Information Office

Smith : Avad

Office of Public Works

(415) 273-3961
FAX: 273-2233
TDD 839-6451

FAX COVER SHEET

DATE: 9/21/93

TO (FAX NUMBER) 465-8799

COMMENTS: _____

PLEASE IMMEDIATELY PASS ON THESE TELECOPIES TO:

ATTENTION: Bob Lorig

DEPT./DIV.: OUSD

FROM: Surlene Grant

DEPT./DIV.: OPW

THIS IS PAGE 1 OF A TOTAL OF ____ PAGE(S)

OUR FAX NUMBER IS (415) 273-2233.

IF YOU HAVE NOT RECEIVED A COMPLETE OR CLEAR FAX, PLEASE ADVISE THROUGH FAX OR CALL 273-3961 FOR IMMEDIATE RESEND.

FAX OPERATOR LaWanda

Oakland
All-America City
1993

City of Oakland

Facsimile Transmission

Date 8/26/93

To _____ Company _____

From Sylene Grant Dept. Oakland Public Works

Total Pages (Including this Page) 5 pages

Fax Number (510) 238 - 2233 Office Number (510) 238-6263

Please alert sender if your received FAX is incomplete.

Floretta Chisam, Oakland Health
Ravi Arulkanantham, County Health
Carl Smith, County Health.

Notes:
PLEASE REVIEW ASAP!

THIS IS A COPY OF THE AGENDA AS THE PUBLIC WILL SEE IT.

CITY OF OAKLAND

CITY HALL • 1333 BROADWAY • OAKLAND, CALIFORNIA 94612

Office of Public Works

(510) 238-3961
FAX: (510) 238-2233
TDD (510) 839-6451

VERDESE CARTER PARK
COMMUNITY HEALTH EDUCATION FORUM
THURSDAY, AUGUST 26, 1993
6:00 P.M. TO 8:00 P.M.

WELCOME AND INTRODUCTIONS --	James Grady, Representative *Office of Council member Dezie Woods Jones*
238 3165 →	Floretta Chisolm *Director, Office of Health and Human Services* *City of Oakland*
PRESENTATIONS --	Terry E. Roberts *Director, Office of Public Works* *City of Oakland*
	Dr. Carl Smith, M.D., M.P.H. Health Officer Alameda County Health Agency
670 6618	Dr. Ravi Arulanantham, Ph.D. Senior Hazardous Materials Specialist Alameda County Health Agency
	name ???? Public Health Nurse Alameda County Health Agency
QUESTIONS AND ANSWERS --	Floretta Chisolm, Moderator

For your information , after this meeting if you have any questions or concerns about the work going on at Verdese Carter Park, you should call the Verdese Carter Park information line in the Office of Public Works at (510) 238-6362.

If you have any questions regarding health screenings, evaluations and other medical concerns, you can contact Angela Wynder, Verdese Carter Park Public Health Information Nurse at Alameda County Health Services (510) 667-3987.

MASSEY

scripted agenda

TO: All panel participants and other key individuals for Thursday 8/26 health education meeting

From: Surlene Grant, City of Oakland
OPW Public Information Officer
(510) 238-6283 (direct line)
(510) 238-2233 (fax)

RE: Verdese Carter Presentation

The following is the agenda I have prepared for this evening. I would like each of you to review it and give me any comment s you may have by 3:00 p.m.
Reminder: The meeting is scheduled from 6 to 8 p.m. at Verdese Carter Park, 9800 Sunnyside (98th & Bancroft)

6:05 p.m. Welcome and introduction of Floretta Chisolm (Floretta is the moderator) by a staff person from Council member Dezie Woods Jones Office.

6:08 - 6:10 (10 minutes) Floretta Chisolm, Director of the City of Oakland's Office of Health and Human Services will explain why we are here:
-- to explain conditions at the park
-- to address questions and concerns regarding health risks and exposures
-- forms and materials available at the back
-- a copy of the report will be there for perusal. Copies for longer study are available at Elmhurst and the Main branch libraries, City Clerks Office, the Office of Public Works, Oakland Unified School District Office.
-- All questions to be taken at the end

Floretta then introduces the panel members and acknowledges other key people in the audience (ideally in the front somewhere).
Panel members:
Dr. Carl Smith, Health Officer, (M.D.) Alameda County
Dr. Ravi Arulanantham, (Ph.D) Senior Hazardous Materials Specialist
name????, County Public Health Nurse
Terry Roberts, Director Office of Public Works
name????, Office of Parks and Recreation
name ????, County Lead Poisoning Prevention Program**
Michael McGuire, Consultant Woodward Clyde Consultants (I am still waiting on confirmation)

After introductions, Floretta will yield / introduce Terry Roberts at microphone.

p.2 - scripted agenda

6:10 - 6:25 (15 minutes) -- Terry will review briefly the past findings of the park and comment on the new findings and the results of the additional tests that were done. Terry will also address the remidiation activities. In addition, Terry will talk about the employment opportunities and introduce OPW staff who will be there with applications.

Floretta introduces Ravi

6:30 - 6:45 (15 minutes) -- Ravi discusses the County's oversight role as the regulatory agency and safety concerns and risk factors regarding the park.

Floretta introduces Carl Smith

6:47 - 7:05 -- Carl Smith discusses health issues regarding lead, arsenic and zinc. He also explains the procedures we have set forth for residents to be screened. At this time he will introduce the nurse and the registration form concept. The registration form will not be made available until after this segment. It will be in the back of the auditorium.

7:05 -8:00 ***QUESTIONS AND ANSWERS -- Floretta orchestrates***

8:00 ADJOURNMENT

Is David Kears attending? If so where should I plug him in.

** I am assuming that John Rodgers or Steven Schwartzberg will be attending -- is this so?

County - I need your final Okay!

REQUEST FOR HEALTH SERVICES EVALUATION

NAME: _____

ADDRESS: _____

_____

PHONE: _____

NAME AND AGES OF CHILDREN OR OTHER FAMILY MEMBERS WHO SHOULD BE EVALUATED. LIST YOURSELF IF APPROPRIATE.

_____ _____

_____ _____

_____ _____

_____ _____

PRIOR TO ITS CLOSURE, HOW OFTEN DID YOU OR YOUR CHILDREN VISIT THE PARK IN THE PAST 5 YEARS? (CHECK APPROPRIATE LINES)

____ EVERY DAY ____ FEW TIMES (2-3 TIMES/WEEK)

____ 4-5 TIMES/WEEK ____ SELDOM (LESS THAN 1 TIME/WEEK)

DO YOU HAVE A PHYSICIAN OR DOCTOR WHO YOU SEE? _____ (YES/NO)

WHAT IS HER/HIS NAME? _____

CITY? _____

HOW OFTEN DO YOU SEE HIM OR HER? _____

THIS FORM IS TO ASSIST ~~BE~~ OF ALAMEDA COUNTY HEALTH AGENCY IN DETERMINING THE NEED FOR AND THE SETTING UP SCREENINGS FOR LEAD AND ARSENIC EXPOSURE. THIS FORM WILL BE SUBMITTED TO THE PUBLIC HEALTH NURSE WHO WILL CONTACT YOU BY SEPTEMBER 3 WITH FURTHER INFORMATION.

Is this date okay?

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY

Ed/Chris

DEPARTMENT OF ENVIRONMENTAL HEALTH

MEMORANDUM

DATE: July 29, 1993

TO: Dave Kears

FROM: Rafat Shahid

SUBJECT: VERDESE CARTER PARK, LEAD AND ARSENIC CONTAMINATION

Verdese Carter Park located at 98th Ave. and Bancroft Ave. in Oakland, is under evaluation for toxic levels of Lead, Arsenic, and Zinc. This work responds to local neighborhood concerns, and is conducted by the City of Oakland under the regulatory direction of the Hazardous Materials Division of the Environmental Health Department.

The City of Oakland closed the park in March of this year to initiate further environmental testing. The Hazardous Materials Division was contacted by the city, and requested to accept lead regulatory responsibility for this project from Cal-EPA. This request was made to meet the city's need for expeditious review by staff that meet the State's standards for technical expertise. The Cal-EPA delegated this responsibility in April. The following documents the office's involvement to date:

* 4/29/93
  Staff Toxicologists and program supervisor met with city public works staff to review initial reports

* 5/4/93
  Site visit by staff

* 5/10/93-5/12/93
  Staff monitored field testing

* 6/14/93, 7/12/93
  Staff Toxicologists met with city staff and Woodward Clyde to discuss data results

* 7/24-25/93
  Staff Toxicologists and program supervisor reviewed final report and met with the City Public Works Director

* 7/28/93
  Program Chief developed and sent letter to city public works director documenting the Department's evaluation and findings.
  City of Oakland conducted town meeting to present data to the public. Staff Toxicologists and program administration present to answer questions.

A second town meeting is scheduled for mid to late August. The second meeting will present information concerning the health risks associated with exposure to the contaminants discovered. Department staff will work with the city to clearly and accurately communicate health information to local residents and other park users.

The Department will continue to work with the City of Oakland to insure all investigative and clean up procedures meet State standards, and to expedite the process of rendering Verdese Carter park environmentally safe for public use.

RAS/cdb
crtrvrd3/zzz

Attachments

cc: Alameda County Board of Supervisors
County Administrator's Office

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

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

July 28, 1993

Mr. Terry Roberts,
Director of Public Works
1333 Broadway, Suite 800
Oakland, CA

Re: Verdes Carter Park, 98th and Bancroft Avenue, Oakland

Dear Mr. Roberts:

The Alameda County Environmental Health Department, Hazardous Materials Division has reviewed the Verdes Carter Park Site Characterization Report submitted by Woodward Clyde Consultants on July 22, 1993. The following records the results of discussions held on July 26, and 27, with members of your staff, Ms. Vivian O'Neal, Deputy City Attorney, and Mr. Michael McGuire of Woodward Clyde, regarding this report, and the Department's evaluation and findings.

The report identifies potential public health and environmental risks posed by Arsenic, Lead, Zinc, and acidic aggregate base discovered at this site. From the information presented, risk to public health as a result of exposure to site contamination is clearly the Department's primary concern. Potential threat to ground water remains an environmental concern.

This Department cannot further qualify or assess the risk posed to the public from the limited information provided to date. As a result of discussion, it was agreed that the City of Oakland will pursue further testing to delineate the extent of contamination, and identify relevant exposure routes to the population of park users. A report of "Workplan to Sample" will be submitted to this Department upon development by the city or their consultants.

Furthermore, in the absence of conclusive evidence that contaminants such as Arsenic and Lead have not impacted the park user population, or residents in close proximity to the affected areas of the park, the Department strongly recommends the city or their consultant evaluate and, if appropriate, implement a plan to conduct biological testing for Lead and Arsenic. Evaluation of the decision tree to identify the need for biological testing will be conducted by health professionals within the Alameda County Health Care Services Agency or California Health Department.

Should you have any questions regarding this matter, please contact either Ariu Levi or Ravi Arulanantham of this office at (510) 271-4320.

Sincerely,

Edgar B. Howell III, Chief
Division of Hazardous Materials

c: Rafat A. Shahid, Director, ACDEH
Vivian O'Neal, City of Oakland Attorney's Office
Files

crtrvrds.ltr/zzz

VERDESE CARTER PARK ENVIRONMENTAL RECLAIMATION

LOCATION: 3 ACRES OF COMMUNITY PARK

- > two basket ball courts
- > a children's sandbox/play ground
- > a community center
- > a large grassy field

PAST HISTORY:

1912 - 1977

- > A wet cell battery factory occupied the southern half of the park
- > Contaminants include acids, sulphur, lead, arsenic and zinc

1912 - 1968/73

- > A commercial nursery occupied the northern half of the park
- > No pesticides was found

1978

- > City of Oakland converted the site in the park
- > City removed about 1700 cubic yards of contaminated soil and replaced it with clean soil

March 1993

- > Citizens reported observing a yellow-white precipitate in cracks in the asphalt basket ball court

HMS, Inc.
HAZARD MANAGEMENT SERVICES, INC.

93 SEP 22 PM 12:45

April 13, 1993

Mr. Jack Phar, Director
Risk Management Department
Oakland Unified School District
Administration Building
1025 2nd Avenue
Oakland, CA 94606

Dear Mr. Phar:

At your request I visited the Cox Elementary School site on April 5, 1993. You requested that I collect soil, air and wipe samples from this site in order to evaluate concentrations of lead. The visit was prompted by the City of Oakland's concern over the possibility of lead contamination at a park site immediately north of Cox Elementary.

Attached you will find a report which contains observations, sampling procedures and analytical results. Also attached are copies of various pertinent documents including a journal article, a summary of lead sampling and analytical procedures and a "Lead Resource Guide."

If you have any questions please call.

Sincerely,

James E Sharp
President

JES/bcy

Attachments: As Stated Above

d:\clients\oakland\coxlead.rsl

P.O. Box 576848
Modesto, CA 95357-6848
(209) 551-2000

P.O. Box 7548
Citrus Heights, CA 95621-7548
(916) 723-4350

P.O. Box 25474
Fresno, CA 93729
(209) 434-8163

OBSERVATIONS

Site: Cox Elementary School
9860 Sunnyside Street
Oakland, CA 94603
Dr. John Cook, Principal

Grades K-5
Students 976

Description of Perimeter

North - Carter Park occupies a city block across 98th Avenue to the north of the school. A substantial pipeline replacement project is occurring in the street at the edge of the park. The project is being conducted by the East Bay Municipal Utility District.

West - Sunnyside Street is a residential area.

East - Bancroft Street is an expressway which has both commercial and multi-unit buildings.

South - There is a row of homes on the north side of 99th Avenue whose properties back up to the school property.

Physical Description of School

The school consists of permanent and relocatable buildings constructed mainly on the south end of the property away from the park site. The north end of the site is an asphalt-covered play yard with basketball backboards and some climbing apparatus. The asphalt is in relatively good condition but a few holes and cracks do exist. There is a concrete sidewalk around the perimeter of the site (except to the south). There are small tree wells in the sidewalk along Bancroft and Sunnyside. There is a planting strip in the sidewalk on 98th Avenue, however, there is no vegetation in the strip.

Student Activity

There were no students onsite during my April 5, 1993 visit so no observation of student activities was possible.

SAMPLING PROTOCOL

Air Samples

Two air tests were conducted at this site. One sample was collected at the north end of the site just inside the fence line. The second was taken at the south end of the play yard immediately adjacent to the relocatable buildings. The samples were collected on each filter on 0.8 micron filters housed in 37 mm cassettes. Over 1400 liters of air were collected at a rate of 4.0 liters of air per minute. The samples were collected and analyzed according to the procedures listed on page 4 of the attached guideline, "Collection and Analysis of Lead and Other Metals."

Wipe Samples

Four wipe samples were collected at the main building. One was taken on floor tiles immediately inside the north entrance to this building. One was taken on the concrete steps leading into the main entry. Another was taken just inside the main entry on floor tiles. The final sample was taken in the kitchen area from horizontal surfaces. Each sample was taken from a one square foot area and was deliberately collected from locations where visible debris was observed.

All sampling and analytical procedures followed those listed on page 10 of the attached guideline, "Collection and Analysis of Lead and Other Metals."

Soil Samples

Seven composite soil samples were collected. Each sample was taken randomly from the top 1-3 inches of soil in each identified location. Sample No. - 01S was taken from tree wells outside the school fence along Sunnyside Street. Sample No. - 02S was taken from holes in the asphalt along the inside of the Sunnyside Street fence. Sample No. - 03S was taken from asphalt holes and cracks along the inside of the 98th Avenue fence. Sample No. - 04S was collected from asphalt holes and cracks inside the Bancroft Street fence. Sample No. - 05S was taken from the planting strip in the sidewalk outside the 98th Avenue fence. Sample No. - 06S was taken from tree wells in the Bancroft Street sidewalk and Sample No. - 07S was taken from dirt at the hedges north of the main building entrance. All soil samples were collected according to the procedures listed on page 7 of the attached guideline, "Collection and Analysis of Lead and Other Metals."

RESULTS

Air Tests

The air samples collected at this site did not contain measurable levels of lead. Both samples contained less than .431 micrograms of lead per cubic meter of air. The California Environmental Protection Agency ambient air level limit is 1.5 micrograms of lead per cubic meter of air (3 month average). Airborne lead levels were non-existent during the sampling period.

Wipe Tests

The California Department of Health Services "recommended" maximum levels for wipe tests range from 200 micrograms per square foot (floors) to 800 micrograms per square foot (window wells). The samples collected at this site ranged 14.3 micrograms to 114.8 micrograms per square foot.

Sample No	Site	Microgram/sq. ft.
- 08S	At main entry - on tiles	15.3
- 09S	At main entry - on concrete	14.3
- 10S	At north entry - on tiles	114.8
- 11S	In kitchen - horizontal surfaces	69.3

None of these levels exceed allowable limits, but sample No. -10S indicates that the entry area closest to the park area contains the highest level of lead.

Soil Tests

California's Department of Health Services recommends abatement of lead in soil when levels exceed 500 parts per million (ppm). California EPA classifies soils exceeding 1000 ppm and designated for disposal as "hazardous waste." Concentrations of lead in soil samples at Cox Elementary ranged from 162.8 ppm to 2754.2 ppm according to the following listing.

Sample No	Location	Lead, ppm
- 01S	Tree wells - Sunnyside Street	1789.3
- 02S	Holes in asphalt - at Sunnyside fence	498.7
- 03S	Holes in asphalt - at 98th Ave. fence	2283.9
- 04S	Holes in asphalt - at Bancroft fence	1631.S
- 0S5	Planting strip - outside 98th Ave. fence	2754.2
- 06S	Tree wells - Bancroft Street	162.8
- 07S	At hedges - main entry area	1306.2

As you can see from the results, the dirt areas closest to the park site generally contain more lead contamination than those farther away. This may be due to a "tracking" effect where foot traffic brings contaminated soil toward the school. It may also be a result of the prevailing winds which, in general, blow across the park diagonally towards the school. Some of the concentrations may also result from the many years that leaded gasoline was used. Of course, there may be other unidentified sources of pollution as well.

RECOMMENDATIONS

While the air and wipe tests do not indicate there were airborne concentrations outside the school or dust accumulations inside the school, the results of the soil samples indicate the need for remedial action. The following actions are recommended:

1. Fill in holes and cracks where dust and dirt accumulates in the play yard areas. This may include re-sealing substantial areas of the asphalt. Then a rigorous ongoing reinspection of the asphalt should occur so that any new holes, cracks or depressions are repaired routinely.

2. The tree wells on Sunnyside and Bancroft Streets and the planting strip along 98th Avenue should also be addressed. Either the soil should be removed and replaced or the surface should be sealed.

3. If the dirt areas cannot be sealed quickly I would discourage eating in the play yard. Hand-to-mouth actions are common for children even when they are not eating. Consuming food after touching dirt should always be discouraged but it is especially a problem if the dirt contains lead.

4. Encourage hand washing upon exiting the play yard.

5. Institute a random blood lead testing program for children who have lived in this area and have attended this school for significant periods of time. While exposures to lead at home from lead-based paint and to the possible concentrations of lead at Carter Park may complicate the findings, it would be beneficial to all students and their families to know if there is or isn't a wide spread blood lead problem in this area.

6. Further testing would also be appropriate. If the soil is removed, core samples should be taken first to determine if the lead concentrations increase or diminish in lower strata of the soil. This would assist in determining the proper abatement procedures. It may also be appropriate to take samples from the surface of the asphalt.

   I would also recommend that Oakland Unified or the City of Oakland take air samples representing lead concentrations exiting the park during any abatement exercise that occurs at the park. It would also seem appropriate to collect soil samples where the East Bay Municipal Utility District is excavating on 98th Avenue.

COMMUNITY MEETING AND OPEN HOUSE

EPA is hosting an open house and community meeting to inform residents of recent sampling results, hear concerns and answer questions about lead contamination in the area of the Verdese Carter Park.

Community Meeting: 10:00 a.m. - Noon
Open House: Noon - 1:00 p.m.
Saturday, March 11, 1995
E. Morris Cox Elementary School
9800 Sunnyside Street, Oakland

Representatives from EPA, ATSDR, Alameda County Department of Environmental Health, Alameda County Lead Poisoning Prevention Program, the City of Oakland, California Department of Health Services - Childhood Lead Poisoning Prevention Program and Congressman Dellums' Office will be available before and after the meeting to talk to residents one-on-one about the lead cleanup at Verdese Carter Park and the results of the yard sampling.

MARK YOUR CALENDAR!

U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street (H-1-1)
San Francisco, CA 94105
Attn: Dorothy Wilson

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Penalty for Private Use,
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Inside:
Update on activities at Verdese Carter Park, including lead safety tips
Adentro:
• Traduccion Español

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EPA VERDESE CARTER PARK
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY • REGION IX • San Francisco, CALIFORNIA
Oakland, California March1995

EPA Hosts Community Meeting and Open House to Provide Neighborhood Sampling Results

INTRODUCTION

The U.S. Environmental Protection Agency (EPA), in coordination with several other agencies and local elected officials, is hosting a community meeting and open house, **10:00 a.m. - 1:00 p.m., Saturday, March 11, 1995, at E. Morris Cox Elementary, 9800 Sunnyside Street, Oakland**. The other agencies include the Agency for Toxic Substances and Disease Registry (ATSDR), Alameda County Department of Environmental Health, Alameda County Lead Poisoning Prevention Program, the City of Oakland, and the California Department of Health Services - Childhood Lead Poisoning Prevention Program. A representative from Congressman Dellums' Office and Councilwoman Dezie Woods-Jones will also participate in the meeting. The purpose of the meeting and open house is to provide information about recent sampling activities in the neighborhood near Verdese Carter Park and to hear community concerns, answer questions, and present next steps.

This fact sheet provides a brief summary of past, present and future environmental activities related to Verdese Carter Park and the nearby neighborhood. The fact sheet also contains specific information about the recent residential soil sampling, and **tips on how to reduce your potential exposure to lead.**

BACKGROUND

Verdese Carter Park is located in a residential area of Oakland. The park, approximately three acres, is bordered on the north by 96th Avenue, the east by Bancroft Avenue, the south by 98th Avenue and on the west by Sunnyside Street (see Figure 1).

From approximately 1912 until the mid-70s, a battery factory operated on the southern half of the park property. A commercial greenhouse reportedly operated on the northern end of the park property from as early as 1912 to the late 60's or early 70's. The City of Oakland acquired the former battery factory and greenhouse properties in approximately 1975.

LOCATION OF COMMUNITY MEETING AND OPEN HOUSE

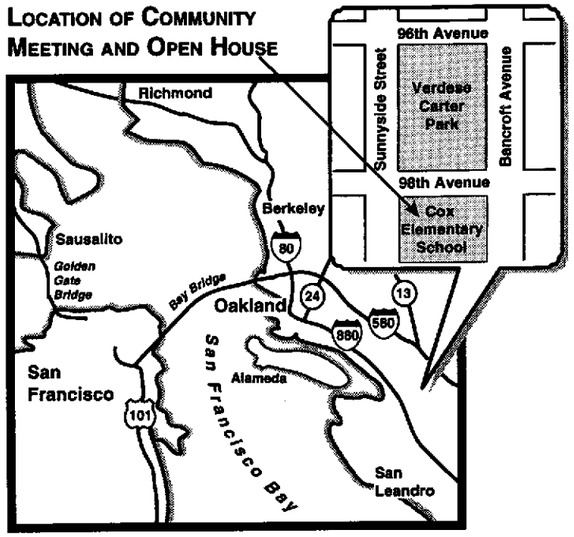


Figure 1: Verdese Carter Park site location map

PARK HISTORY

Between 1976 and 1978, the City of Oakland removed approximately 5,700 cubic yards of lead-contaminated soils before construction of the park.

In March 1993, concerned citizens notified the City of Oakland about a yellow-white substance in cracks of the paved basketball court. The City of Oakland closed the park and conducted surface and sub-surface soil sampling. The results of this sampling showed that elevated levels of lead were present in soils, and elevated levels of arsenic were present in the rock that was brought in from an off-site location and used as the base beneath the asphalt.

The City of Oakland developed a cleanup plan for the park and removed approximately 17,000 cubic yards of soil and arsenic-contaminated rock from the park. Alameda County Department of Health and EPA provided joint oversight of the park cleanup. The results of both EPA and the City's confirmation sampling indicate that the cleanup has met Alameda County's cleanup goals.

Residential Sampling

Although the cleanup at the park is complete, concerns remain about whether lead from the former battery factory was present in nearby yards. In December 1994, EPA tested soil in the yards of 36 homes located directly adjacent to the park. The results of this sampling activity show that there are elevated levels of lead in some of the yards. However, there may be other sources that may have contributed to the elevated levels of lead in these yards, such as lead-based paint and lead from past automobile emissions. Currently, EPA is working with the Alameda County Lead Poisoning Prevention Program and California Department of Health Services to address concerns dealing with lead-based paint.

Because elevated levels of lead were detected in the area of the former battery factory, and similar levels of lead were detected in some nearby yards, we suspect that some of the lead found in these yards may have come from the former battery factory.

EPA and the Alameda County Lead Poisoning Prevention Program Department believe that the lead levels found in yards near the Park do not pose an immediate danger to people living or working near the park, or children attending nearby schools, provided that the lead safety tips identified below are followed.

Notification of Sampling Results

Representatives from EPA and Alameda County Lead Poisoning Prevention Program have been meeting informally with residents that have the highest levels of lead in their yards. The purposes of the meetings are to provide information about the amount of lead found in these yards and identify some things that residents can do to reduce the potential for lead exposure. EPA and Alameda County Lead Poisoning Prevention Program staff plan to meet individually or in small groups with all residents whose yards were sampled earlier. During the meetings EPA and Alameda County Lead Poisoning Prevention Program staff are presenting sampling results on a yard-by-yard basis, making specific recommendations for reducing the potential for exposure to lead and answering questions.

If your yard has been tested, but you have not been contacted, a representative from EPA or a local community group, the African American Development Association, will be contacting you soon to set up a meeting. If you have questions prior to being contacted, please call the EPA staff identified in this fact sheet (see page 3).

Lead Safety Tips

The following are some easy things you can do to help minimize your exposure to lead:

- Keep your home clean: mop floors regularly, wipe window ledges, and wash all surfaces with water and household detergent.
- Do not let your children play or eat soil from areas that may contain lead.
- Never sand, burn or scrape paint unless you know that it does not contain lead.
- Before you begin work, test painted surfaces for lead in any area that you plan to remodel.
- Encourage healthy eating habits. Eating regular, healthy meals makes it harder for the body to absorb lead.
- Wash children's hands often, especially before eating.
- Do not use imported or handmade dishes for serving, preparing or storing food or drink unless you know that they do not contain lead.
- Avoid hobbies that use lead, like stained glass and making fishing sinkers.
- Keep furniture away from damaged paint. Do not place cribs, playpens, beds or high chairs next to areas where paint is chipping or peeling and can be eaten by children.
- If you work or play in an environment where you suspect lead is present, you should:

  Take off work clothes, including your shoes before entering the home. Work clothes should also be washed separately. This will help prevent lead dust and soil from being tracked into the house, potentially exposing family members to lead contamination.
- Do not use home remedies or cosmetics that contain lead.

Finally, talk to your health care professional if you suspect your child has been exposed to lead. Ask your doctor to perform a blood lead test on your child. This is the only way to know if your child has elevated blood lead levels.

If you do not have a health care provider, contact the California Child Health and Disability Prevention Program at (510) 268-2653 for arrangements to get your child tested.

If you need more information about lead, please see the "For More Information" section on the following page.

Next Steps

EPA, in conjunction with involved agencies and community group(s), is planning a number of community outreach activities in the coming weeks.

March 11, EPA will host a community meeting and open house at E. Morris Cox Elementary School (see back page for more details). To inform the community about upcoming EPA activities, fact sheets, such as this one, will be distributed to the community. Also, to assist in this effort, we are developing a mailing list. If you would like to be on the mailing list to receive fact sheets, please complete and return the mailer below or call Dorothy Wilson at 415/744-2179 or toll-free 1/800-231-3075.

In spring 1995, EPA will begin additional sampling in the neighborhood near Verdese Carter Park to determine the extent and possible source of lead contamination. Every effort will be made to minimize any inconvenience this may cause to residents participating in the sampling activity. After completion, the community will be informed of the sampling results.

Community Group Gets Involved

A special thanks to the African American Development Association (AADA) for assisting us in our community relations outreach efforts in the Oakland community near Verdese Carter Park.

AADA has been acting as a liaison between the community and EPA during the recent residential soil sampling activity. Public involvement is an important part of the outreach program. We appreciate AADA's efforts and we encourage your participation as well. To find out how you can get involved in our outreach efforts in the community near Verdese Carter Park, please call the EPA staff identified in this fact sheet.

For More Information

If you have questions regarding any of EPA's activities at this site, please contact the following EPA staff:

Dorothy Wilson
Community Relations Specialist
75 Hawthorne Street (H-1-1)
San Francisco, CA 94105
(415) 744-2179

Michael E. Bellot
Project Manager
75 Hawthorne Street (H-7-2)
San Francisco, CA 94105
(415) 744-2364

Paula Bruin
Media Contact
75 Hawthorne Street ((E-2)
San Francisco, CA 94105
(415) 744-1587

or call toll-free at 1/800-231-3075

For general information about lead exposure, questions about how to minimize lead exposure, and blood lead testing, please contact the Alameda County Lead Poisoning Prevention Program at 1-800-B-LEAD SAFE (1-800-253-2372 33) or the California Childhood Lead Poisoning Prevention at (510) 450-2460. The Agency for Toxic Substances and Disease Registry (ATSDR) also has fact sheets on lead and can be reached at (415) 744-2194.

Also, the African American Development Association has developed a collection of documents about lead. This information is located at 1212 Broadway, Eighth Floor, Oakland, California (510) 452-2929.

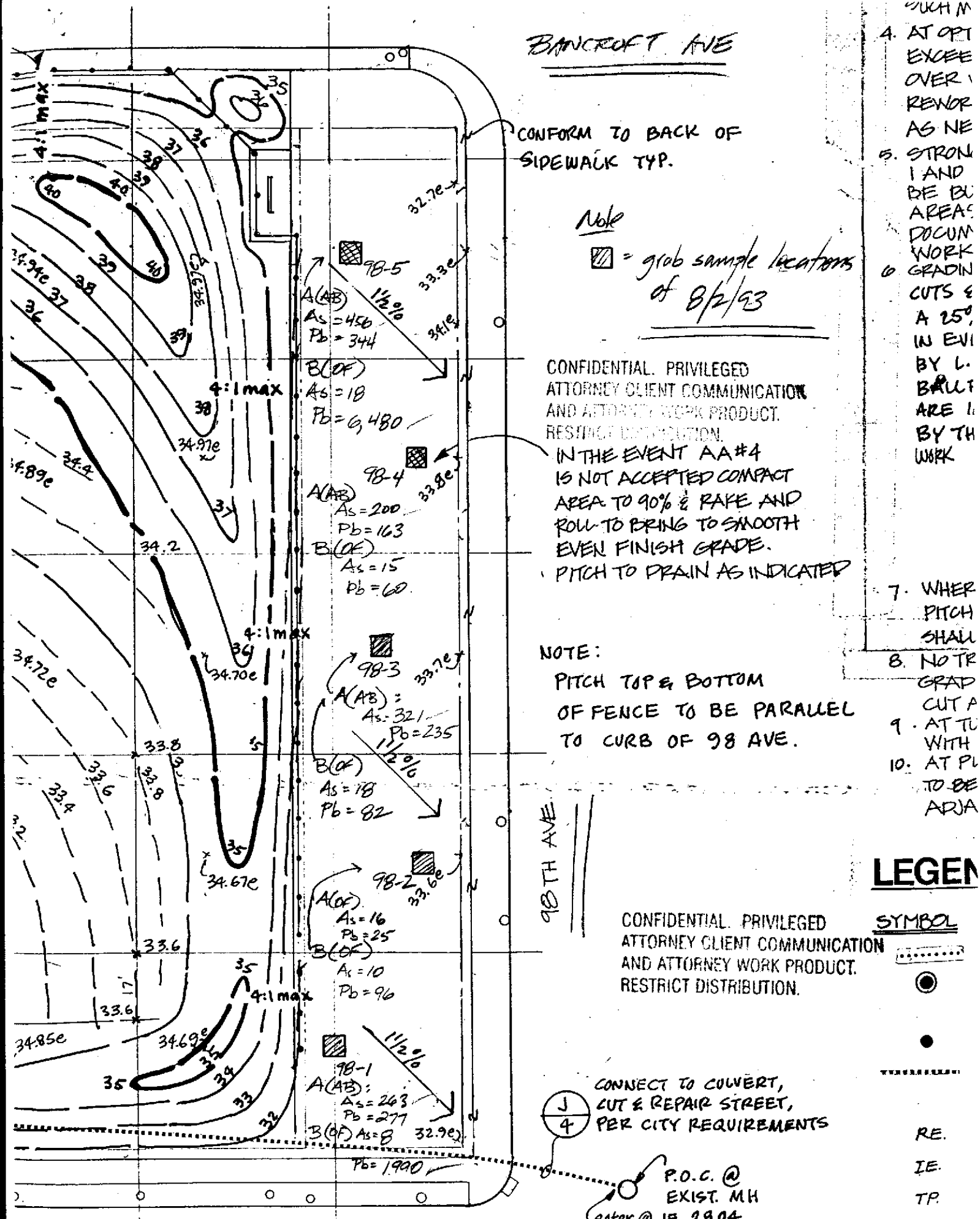
Mailing List Coupon

If you would like to be on the mailing list for the Verdese Carter Park Site, fill out and return this coupon to: Dorothy Wilson, Community Relations Coordinator, U.S. EPA, Region 9, 75 Hawthorne Street (H-1-1), San Francisco, CA 94105.

Name: _____

Address: _____

City/State/Zip: _____


BANCROFT AVE
CONFORM TO BACK OF SIDEWALK TYP.
Note
= grab sample locations of 8/2/93
CONFIDENTIAL. PRIVILEGED ATTORNEY CLIENT COMMUNICATION AND ATTORNEY WORK PRODUCT. RESTRICT DISTRIBUTION.
IN THE EVENT AA#4 IS NOT ACCEPTED COMPACT AREA TO 90% & RAKE AND ROLL TO BRING TO SMOOTH EVEN FINISH GRADE. PITCH TO DRAIN AS INDICATED
NOTE:
PITCH TOP & BOTTOM OF FENCE TO BE PARALLEL TO CURB OF 98 AVE.
98TH AVE
98-5
A(AB) As=456 Pb=344
B(OF) As=18 Pb=6,480
98-4
A(AB) As=200 Pb=163
B(OF) As=15 Pb=60
98-3
A(AB): As=321 Pb=235
B(OF) As=18 Pb=82
98-2
A(OF) As=16 Pb=25
B(OF) As=10 Pb=96
98-1
A(AB): As=263 Pb=277
B(OF) As=8 Pb=1990
4:1 max
1½%
CONNECT TO CULVERT, CUT & REPAIR STREET, PER CITY REQUIREMENTS
J/4
P.O.C. @ EXIST. MH
enter @ IE 28.04
LEGEN
SYMBOL
RE.
IE.
TP.
TW.
FL.

STATE OF CALIFORNIA

PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, SUITE 500
OAKLAND, CA 94612
(510) 464-1255

Certified Mail - Return Receipt Requested

February 14, 1992
File No. 1545.00(DCW)

Gerry Bouldin
Ridgemont Development Company
207 Fairgate Drive
Vacaville, CA 95687

Andrea Mitchel
Aluminum Company of America
1501 ALCOA Building
Pittsburgh, Penn 15219

NOTICE OF PUBLIC HEARING
FOR
WASTE DISCHARGE REQUIREMENTS FOR THE LEONA HEIGHTS SULFUR MINE AND MINING WASTE DISPOSAL SITE, OAKLAND HILLS, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board), will hold a public hearing which will commence at the time and place indicated:

DATE: March 18, 1992
TIME: 9:30 am
PLACE: BART Headquarters Building
800 Madison Street, 2nd Floor Meeting Room
Oakland, California

At this meeting the Regional Board will consider adoption of the attached tentative order, Waste Discharge Requirements for the Leona Heights Sulfur Mine and Mining Waste Disposal Site. Persons wishing to file written comments on, or objections to, the provisions of the tentative order, or any other aspects of this matter, are requested to do so in writing within 10 days of the hearing date. Interested persons are invited to attend and express their views at the Public Hearing. The Regional Board will hear oral comment, but requests that written conformation thereof be filed before or during the hearing, to assure accuracy of the record.

If you have any questions please contact Dyan Whyte at 510-464-1324.

Sincerely,

Steven R. Ritchie
Executive Officer

Attachment: Tentative Order

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

TENTATIVE ORDER

WASTE DISCHARGE REQUIREMENTS FOR:

Ridgemont Development Company, Ridgemont Development Company dba Watt Homes of Northern California, Inc., and Aluminum Company of America
Leona Heights Sulfur Mine and Mining Waste Disposal Site
Oakland Hills, Alameda County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. Ridgemont Development Company dba Watt Homes of Northern California, Inc. is the current property owner of the Leona Heights Sulfur Mine and Mining Waste Disposal Site (hereinafter called the Site) located in the Oakland Hills near the junction of Interstate 580 and State Highway 13. Ridgemont Development Company submitted a Report of Waste Discharge (ROWD) on July 22, 1991 consisting of a Mine Closure and Post-Closure Maintenance Plan. The ROWD is hereby incorporated as part of this Order.

2. Aluminum Company of America owned the site from 1975 to 1986. In 1980 Watt Homes acquired an interest in the site under a joint venture development agreement. In 1986 Watt Homes became the sole owner of the site. The Site was operated as a sulfur mine from approximately 1900 - 1929 by the Leona Chemical Company. Since cessation of mining activities, conditions at the site have changed very little. Both the current and previous property owner are responsible for proper closure and maintenance of the mined area. RIDGEMONT DEVELOPMENT COMPANY, RIDGEMONT DEVELOPMENT dba WATT HOMES OF NORTHERN CALIFORNIA, INC., and ALUMINUM COMPANY OF AMERICA are hereinafter called the dischargers.

3. Sulfur-bearing ore was mined from this location and possibly used to manufacturer paint pigments and sulfuric acid. Sulfuric acid production is a fairly simple process most likely done by crushing the ore, possibly heating it, and running water through it. The residual crushed ore is what remains at the Site and will be referred to as mine tailings. The presence of these mine tailings is what constitutes a discharge of waste to land. When water contacts these mine tailings the quality becomes significantly altered producing what is generally called "acid mine drainage". Acid mine drainage poses a serious threat to the beneficial uses of receiving waters in that it is very acidic and contains high concentrations of dissolved metals in exceedence of water quality objectives.

4. The Site is located in a steep ravine approximately one-half mile northeast of the intersection of Interstate 580 and State Highway 13, in the hills of Oakland. A residential community borders to the west and south, Merrit College lies to the east, and an undeveloped area borders the northern boundary. The closest private residence is located below the Site, approximately 25 feet south of one of the mine tailings pile, and 50 feet from the Site property line. The Site covers approximately two acres. The watershed above the area is approximately 50 acres in size and consists of shrub- and grass-covered hills and ravines. Ephemeral streams drain this upper watershed and pass directly through the Site. In addition, there is one spring fed perennial stream in which the headwaters appears to be a buried mine adit in the upper tailings pile.

   Flows emerging at and passing through the Site follow a natural drainage channel of several hundred feet and then enter a storm drain near the intersection of Mountain Boulevard and Griffin Street. The storm drain discharges to Lake Aliso on the Mills College Campus, and ultimately discharges to San Leandro Bay via Line "J" of the Alameda County Flood Control and Water Conservation District's Storm Drain System.

5. The Site is underlain by the Leona Rhyolite bedrock formation. The Leona Rhyolite is a highly fractured volcanic deposit containing irregular, discontinuous lenses of massive sulfur and sulfuric mineral deposits (such as pyrite). Volcanic activity took place in this area approximately 2 to 10 million years ago and is most likely related to movement along the North American and Pacific Plates. Active faults in the area include the San Andreas, Calaveras, and Hayward faults. The Site is located approximately 0.5 miles from the nearest mapped trace of the Hayward fault.

6. The dischargers conducted a limited survey of groundwater wells within a half mile radius of the Site. Four irrigation and four monitoring wells were located below the Site within the subdrainage basin. These eight wells are located on the Mills College Campus. The occurrence and potential beneficial uses of groundwater beneath the Site and within the Subdrainage basin, and the potential threat mining activities at the Site may pose to groundwater resources has not been evaluated.

7. The Site contains three mine tailings piles defined as: the Upper Tailings Pile, the Lower Tailings Pile, and the Side Tailings Pile. Two mine adits are located in the Upper Tailings Pile. One is closed with iron rails and partially buried. The second is located approximately 50 feet below, partially buried, and appears to be the source of the on-Site perennial spring. The Site also contains three mine shafts of which two have been sealed with concrete blocks, and the third partially filled with mine tailings.

8. The tailings were analyzed for California Health and Safety Code, Title 22 metals and pH. All metals concentrations were below the Title 22 CCR Section 66699 Total Threshold Limit Concentrations which are the criteria used to characterize material as hazardous waste.

9. Water samples were taken in January 1989 during dry weather, and March 1990 during dry and wet weather. Samples were taken where the perennial spring emerges at the bottom of the Upper Tailings Pile and downstream, below the Lower Tailing Pile. Wet weather samples represent a mixture of the spring discharge water and stormwater runoff which has been in contact with mining waste. Dry weather samples are representative of the spring fed perennial stream measured to flow at 18 gallons per minute. Wet and dry weather samples were taken in similar locations. Sample results are summarized in Table 1 (below).

Table 1.

SURFACE WATER SAMPLES (concentrations in ug/L)

	Dry Weather Sampling		Wet Weather Sampling		
	Site		Site		Water Quality
	Spring	Bottom	Spring	Bottom	Objective*
Compound					
Arsenic	6.0	<2.0	1700	170	190
Cadmium	8.5	12.0	57.0	21.0	3.5
Chromium	<5.0	<5.0	200	53.0	11.0
Copper	1100	1600	32,000	6500	40.0
Lead	3.0	<2.0	7.0	14.0	19.8
Nickel	22.0	50.0	300	150	530
Zinc	3200	4000	13,000	5700	357
pH	4.4	3.0	3.18	2.87	6.5 - 8.5
Hardness	420,000				

* Water quality objectives are for the protection of freshwater aquatic life, 4-day average, and estimated using a total hardness of 420 mg/L.

The increased metals concentrations observed during storm events and wet weather discharges may be attributed to lower pH levels associated with rainwater contacting the tailings.

10. Mining Wastes pose a serious threat to water quality. Storm water drainage within the watershed that contacts the waste has metals concentrations which exceed the water quality objectives necessary to protect the beneficial uses of receiving waters. In accordance to the California Water Code, Title 23, Chapter 15, Article 7, Section 2571, Tailings Piles at this Site are assigned to the Group B mining waste

classification defined as, "Mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the State."

11. The ROWD contains an estimate of the mass loading of metals discharged during wet and dry weather. The analytical data listed in Table 1 (above) were used to estimate metals concentrations in the perennial stream below the Site. A flow rate of 18 gallons per minute, based on the measured flow of the spring, was used for the dry weather calculations. Wet weather flows were calculated using a mean annual precipitation of 26 inches per year, a 50 acre watershed, and 30% runoff. Under these assumptions, it was determined that 92% of the total mass loading of metals occurs during wet weather.

12. The dischargers has proposed in the ROWD to undertake corrective actions at the Site in a phased approach generally consisting of:

    a. Capping, consolidating, and isolating all tailings from stormwater in order to eliminate the major source of metals loadings to receiving waters.
    b. Collecting all mine adit waters and acid groundwater seeps and assessing the potential impacts to beneficial uses of receiving waters in order to determine the necessity and degree of additional corrective actions needed.

13. The Board adopted a Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region in December 1986. These requirements are consistent with that Plan.

14. The Basin Plan defines beneficial uses for all major waterbodies in the Region. The beneficial uses listed below serve as a basis for establishing water quality objectives for all receiving waters potentially impacted by waters released from the Site. The existing and potential beneficial uses of Lion Creek, Lake Aliso, and San Leandro Bay are:

    Agricultural Water Supply
    Water Contact Recreation
    Non-Contact Water Recreation
    Warm Fresh Water Habitat
    Wildlife Habitat
    Preservation of Rare and Endangered Species
    Shellfish Harvesting
    Estuarine Habitat
    Ocean Commercial and Sport Fishing
    Industrial Service Supply

15. The State Water Resources Control Board, in April 1991, adopted the California Inland Surface Water Plan. These requirements are consistent with that Plan.

16. The dischargers is negotiating to transfer approximately 130 acres of its property, including the Site, to the East Bay Regional Parks District.

17. The action to adopt waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act, in accordance with section 15301, Title 14, California Administrative Code.

18. The Board has notified the dischargers and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

19. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

It is HEREBY ORDERED that Ridgemont Company shall meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and shall also comply with the following:

A. PROHIBITIONS

1. The disposal of waste shall not create a condition of pollution or nuisance as defined in Sections 13050(l) and 13050(m) of the California Water Code.

2. Mining Wastes shall not be disposed of or placed in any position where they can be carried from the disposal Site and discharged into waters of the State.

3. No post-closure land uses shall be permitted that might impair the integrity of containment structures.

B. DISCHARGE SPECIFICATIONS

1. The dischargers shall operate the mining waste disposal unit so as not to cause an impact in beneficial uses of receiving waters. The dischargers shall propose Water Quality Protection Standards (WQPS) and compliance monitoring points according to the requirements of this Order and Article 5 of Chapter 15 within 2 years of adoption of this Order. WQPS shall be

proposed for the following parameters:

a. pH-
b. Total Dissolved Solids-
c. Arsenic-
d. Cadmium-
e. Chromium-
f. Copper-
g. Lead-
f. Nickel-
g. Zinc-

2. The dischargers shall install any additional leachate and groundwater monitoring devices required to fulfill the terms of any Self-Monitoring Program issued to the dischargers in order that the Board may evaluate compliance with the conditions of this Order.

3. The Site shall be protected from any washout or erosion of wastes or covering material and from inundation which could occur as a result of a 100 year 24 hour precipitation event.

C. PROVISIONS

1. The dischargers shall comply with all Prohibitions, Specifications, and Provisions of this Order immediately upon adoption of this Order.

2. The dischargers shall submit a report of **Financial Responsibility Assurance** acceptable to the Executive Officer. The dischargers shall provide for adequate funding to pay for the cost of closure and post-closure maintenance, monitoring, and foreseeable corrective action.
REPORT DUE DATE: May 15, 1992

3. The dischargers shall submit a report on **Alternative Disposal Options.** This report shall evaluate the feasibility of 1) disposing of all tailings off-Site, and 2) treating or neutralizing the tailings. If off-site disposal or treatment is determined by the Executive Officer to be infeasible, the dischargers shall consolidate and incapsulate the tailings in a manner as to best isolate the mining waste from stormwater runoff and groundwater.
REPORT DUE DATE: April 30, 1992

4. The discharge may be exempted from Chapter 15, Article 7 requirements for liners and leachate collection systems if a comprehensive hydrologic investigation demonstrates that: (1) there are only minor amounts of groundwater underlying the area; or (2) the discharge is in compliance with

the applicable water quality plans; and (3) either natural conditions or containment structures will prevent lateral hydraulic interconnection with natural geologic materials containing groundwater suitable for agricultural, domestic, or municipal beneficial uses. If the dischargers proposes the above described exemption, a **Hydrologic Investigation Report** acceptable to the Executive Officer shall be submitted.
REPORT DUE DATE: May 29, 1992

5. The discharge shall submit a **Workplan and Implementation Schedule for Stormwater Volume Reduction and Control Measures** acceptable to the Executive Officer. This Plan shall address Long and short term measures which shall be taken to minimize the amount of stormwater and surface runoff within the surrounding watershed. The feasibility and effectiveness of revegetating areas upland of the Site and controlling runoff from the upper parking lots shall be evaluated in this regard.
REPORT DUE DATE: April 30, 1992

6. The dischargers shall submit a **Corrective Action Plan and Implementation Schedule**, acceptable to the Executive Office, in order to consolidate and incapsulate the tailings in a manner as to best isolate the mining waste from stormwater runoff and groundwater. This Plan shall address the following:
   a. All mine adits on the property shall be sealed, and any acidic discharge or drainage waters shall be collected.
   b. A leachate collection, monitoring, and control system shall be designed, maintained, and operated in order to collect waters which may percolate through the tailings and any mine adit drainage waters and/or acidic groundwater seeps, and minimize the buildup of hydraulic head on the bottom of the capped waste pile.
   c. The dischargers shall ensure that the recapping and regrading of the tailings, the leachate collection system and the storm water control system are designed, constructed, and maintained in order to withstand conditions generated during the maximum probable earthquake.

   REPORT DUE DATE: June 15, 1992

7. The dischargers shall submit a detailed **Post-earthquake Inspection and Corrective Action Plan** to be implemented in the event of any earthquake generating ground shaking of Modified Mercalli Intensity V or greater at or near the Site. The plan shall provide for reporting results of the post earthquake inspection to the Board within 48 hours of the occurrence of the earthquake. In the event of any damage due to liquefaction, or other slope failure, the corrective action plan shall be implemented immediately, and the Board notified immediately.
REPORT DUE DATE: December 31, 1992

8. The dischargers shall submit and implement a **Short Term Monitoring Program** acceptable to the Executive Officer. This program shall be aimed at assessing the effectiveness of remediation activities and evaluating whether additional water treatment will be needed.
REPORT DUE DATE: September 30, 1992

9. The dischargers shall submit a **Corrective Action Evaluation Report** consisting of the results of the short-term monitoring efforts, an evaluation of the effectiveness of corrective action activities, and a proposal for long term monitoring identifying compliance monitoring points and water quality protection standards, and additional remediation efforts which may be necessary in order to meet such standards.
REPORT DUE DATE: October 30, 1993

10. The discharge shall comply with all conditions of these Waste Discharge Requirements and applicable provisions of Chapter 15 that are not specifically referred to in this Order. Violations may result in enforcement orders, including Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these Waste Discharge Requirements by the Board.

11. The post-closure maintenance shall end when the Board determines that the water quality aspects of reclamation are complete and wastes no longer pose a threat to water quality.

12. The dischargers shall notify the Board in writing of any proposed change of ownership or responsibility for construction, operation, closure, or post-closure maintenance of the mining waste management unit. This notification shall be given prior to the effective date of the change and shall include a statement by the new dischargers that construction, operation, closure, and post-closure maintenance will be in compliance with any existing waste discharge requirements and any revisions thereof. The Board shall amend the existing Waste Discharge Requirements to name the new dischargers.

13. All reports submitted pursuant to these Provisions shall be prepared under the supervision of a registered civil engineer or certified engineering geologist.

14. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under Federal, State, or Local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies or organizations.

15. This Order is subject to Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics, in five year increments from the effective date of this Order.

16. Where the dischargers becomes aware that it failed to submit any relevant facts in a ROWD or submitted incorrect information in any reports to the Board, it shall promptly submit such facts or information.

17. Provisions of these Waste Discharge Requirements are severable. If any provision of these requirements are found invalid, the remainder of these requirements shall not be affected.

18. The dischargers shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the dischargers to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order.

19. All monitoring instruments and devices used by the dischargers to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to insure their continued accuracy.

20. Unless otherwise permitted by the Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the California Toxics Substances Control Program. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines for Establishing Test Procedures for Analysis of Pollutants" (40 CFR Part 136) promulgated by the U.S. Environmental Protection Agency.

21. The dischargers shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Executive Officer. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurements;

b. The individuals who performed the sampling or the measurement;
c. The date analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

22. All application reports or information submitted to the Executive Officer shall be signed and certified by a principal executive officer of at least the level of vice president. The person signing the document shall make the following certification:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on _____.

Steven R. Ritchie
Executive Officer