Final Report

FOOD CHAIN AND HEALTH IMPLICATIONS OF AIRBORNE LEAD

By

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Abstract

In January 1970, lead poisoning among horses in the Carquinez Strait Area led to questions as to whether lead in air might be affecting human food supplies in that area or elsewhere in California. This added further urgency to the Department's interest in seeing whether sensitive methods could be applied to distinguishing blood lead levels in population samples of California adults and children.

Air samples and food samples reflecting usual local purchase and consumption habits were obtained in five areas; one an isolated mountain community and two paired communities each in the San Francisco Bay Area (Martinez and Crockett) and in Los Angeles (Manhattan Beach and Burbank). In addition, blood and urine samples from adults and children were obtained and analyzed for lead or for metabolic evidence of lead exposure.

The first hypothesis tested was that there was a relationship between ingestion of lead by humans through food chain mechanisms and blood lead levels. The second hypothesis tested was that there was an important association between airborne lead levels, and lead levels in blood or evidence of impairment of biochemical processes through the effect on delta-amino-levilinic acid dehydratase.

Supplemental support permitted further studies of the factors influencing lead levels in the blood of children in Los Angeles and in San Diego.

We found no appreciable contribution of food lead levels to lead body burden as reflected by blood lead or other biological indices. We found blood lead among school children in Burbank to be significantly higher than in Manhattan Beach, and blood lead among adults to be higher in Crockett than in Benicia. Air samples from Burbank also showed higher concentrations of lead than did those from Manhattan Beach. We did not find any evidence of high blood lead levels among children in San Diego who lived in older housing. We recommend further monitoring of lead in children in relation to atmospheric exposure and to other sources. We recommend further application of vegetation sampling (Avena) as an indicator of particulate metalic pollutant.

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Community participants in Alpine County, Benicia, Crockett, Manhattan Beach, Burbank, and San Diego.

CONCLUSIONS

The conclusions are based on Tables 1, 2, and 3, appended. Raw data for environmental, food, and biological reactions were submitted earlier.

A. Food Chain Aspects

Food intake as determined by dietary history in each of the five communities was sampled by purchase from local grocery stores and by "backyard" garden samples. The highest lead value was in carrot greens (not usually a human food), followed by other leafy vegetables; the highest value in meat was in veal kidney (probably not used in quantity). No important differences by area occurred. Canned milk has enough lead (even when diluted 1:1) so that it could contribute an excessive amount to infant ingestion. We find no evidence that in areas polluted by lead sufficient to poison horses, human ingestion of lead through food chain mechanisms is a public health problem.

B. Health Hazards

When men and women in Benicia and Crockett are compared with respect to blood lead, the Crockett populations have significantly higher values. The sources may have been via food in the past or it may reflect respiratory exposure. It was not due to occupational exposure, for occupationally exposed individuals were not included. The levels observed were not in the range likely to be clinically important. No significant differences in blood lead in children from Benicia and Crockett were noted.

Significant differences in blood lead from both male and female children were observed between Burbank and Manhattan Beach. Burbank boys have mean blood lead slightly greater than 23 μg/100 g and girls greater than 20 μg/100 g, both of which exceed the "acceptable biological limits" proposed for groups of children by Zielhuis. It should be noted that the California laboratory methods may not be strictly comparable with those used in defining the Zielhuis standards. Also, the California blood lead results are reported in μg/100 g. These should be multiplied by a conversion factor of about 1.05 to give results for comparison with the Zielhuis standards, which are expressed as μg/100 ml.

Among preschool children in San Diego living in houses which are positive for lead paint, no exceptionally high blood lead levels were observed. The highest reported value was 31 μg/100 g. No relationship was found between blood lead levels and concentration of lead in dirt from play areas. The limits for individual blood lead levels (>40 μg/100 g) were exceeded for two out of twenty male adults in Crockett.

In general, biochemical tests and urinary lead, where available, support these contrasts.

In Alpine County, the blood lead values in adults are as low as any populations included (within measurement error), but are not much lower than urban samples, as was also the case in our study there in 1960. While our laboratory tests of high volume filters agree with samples split with the Kettering Laboratory, our blood lead values are significantly lower (Figure I).

RECOMMENDATIONS

Studies of the association of childhood hyperactivity and probable lead exposure should be undertaken in Los Angeles. Further studies of children can give useful validation to the scanty data reported here.

Results of studies of blood lead levels and biochemical indices, especially in children, are a useful guide to the magnitude of pollution and the need for control. Measurement of lead and other contaminants in vegetation samples provided a useful supplement to high-volume air monitoring.

The results reported here in our opinion suffice to indicate the urgent adoption of policies on local, state, and federal levels to meet as soon as possible the Air Quality Standard for Lead.

I. INTRODUCTION AND NARRATIVE HISTORY OF THE PROJECT

The California State Health Department first focused on the Community exposures to lead in 1959, in connection with the first report on ambient air quality standards. At that time, the fundamental research of Professor Kehoe had provided guidelines which indicated that "absorption from all routes of 120 micrograms of lead a day might be harmful, while a total of 60 micrograms is presumably safe". Blood levels for lead appeared to give a sensitive indication of the potential toxicity. Based on data at that time available, it was indicated that the possible air pollution standard might be 6 micrograms per cubic meter. It was understood that community air pollution exposure should be allocated only a portion of the allowable body burden as estimated by absorption or excretion.

At the same time, (1959), the industries using lead in motor fuel, were requesting the Surgeon General of the Public Health Service to evaluate a proposed increase in the maximum amount of lead in motor fuels from 3 milliliters per gallon of ethyl fluid to 4 milliliter per gallon. In the course of this evaluation, additional data came to light concerning the proportional retention in the body of lead of a particle size likely to occur in community air pollution.

Accordingly, a number of health authorities undertook to actively study the extent to which elevated levels of blood lead could be associated with the atmospheric exposure variations in different parts of the country. This resulted in the so called Three City Study (1965), which documented the substantial and persistent excess of lead in urban dwellers as opposed to blood samples taken from rural populations.

The set of results from the Three City Study indicated that with increasing respiratory exposure, there tended to be increasing blood levels which presumably reflected respiratory exposure and body burden increases. A number of requests for studying populations living near California freeways led to a study being undertaken in 1966 to determine whether people living near a freeway had a higher concentration of blood lead than that of people living at some distance.

Samples of blood were taken from two groups of 50 persons each. The homes of the first group were adjacent to a heavily traveled freeway, and in the second, near the coast, in an area with substantially less atmospheric lead. There was found to be a consistently significant excess of blood lead among the populations living near the freeway, independent of age, sex or ethnic status. However, the values observed did not deviate markedly from the values found for other populations in the Los Angeles Basin. The significant finding was that the population living along the sea coast had lower values than other population groups.

In 1967, there became available experimental human exposure data that reflected the range of exposures similar to those occurring in community air pollution. Goldsmith and Hexter thereupon published a paper proposing that there existed a statistically significant increase in body burden of lead in male populations that was associated with increased respiratory exposure to lead.

Following this, the Department set about the process of using such findings as a basis for air quality standards. In 1969, the Department proposed such standards in a seminar at the Air Pollution Control Association. In 1970, standards were proposed by the Department to the Air Resources Board. A standard of 1.5 micrograms per cubic meter, based on a 30 day average was recommended and after public hearings, was adopted.

In the meanwhile, the federal air pollution research groups in collaboration with the American Petroleum Institute, and the International Lead-Zinc Research Organization was undertaking the so-called "Seven City" Study, the results of which have not been published though they have been widely quoted by industry representatives.

Between 1967 and 1970, the Department repeatedly sought to obtain funds from the Federal Government to study the blood lead levels and biochemical indices of California populations who, on the basis of previous work, were expected to have lead exposures of differing magnitude. The efforts to obtain research support were without avail.

Between 1967 and 1969, the Department received contract support to evaluate air quality criteria and make recommendations to the Federal Government, and a portion of the work involved, the collection and organization of information about lead. The National Academy of Sciences-National Research Council, however, appointed a panel to consider lead in perspective and the further support of work toward air quality criteria by the Federal Government was held in abeyance.

In January 1970, the Department of Public Health and the University of California School of Veterinary Medicine were asked to determine the cause of death of horses in pastures in southern Solano County. Preliminary work indicated the horses had died of lead poisoning and that other animals in the vicinity had elevated levels of lead in blood and hair samples and in tissues. Atmospheric sampling at the same time did not give evidence of unusually high exposures, though there were several large sources in the area which might have been contributing, including traffic over the Carquinez bridges, and the Selby smelter. Between March of 1970 and November of 1971, the State Health Department and the Air Resources Board, with the assistance of other agencies, carried out a study on lead contamination relative to horse deaths in southern Solano County. This study utilized a systematic sampling of lead levels in Avena fatua which was developed in the Department. This permitted the determination of gradients that fit the estimates of exposure and dissemination. It was based on analysis for two substances, lead and cadmium.

In recognizing that the pastures in the Carquinez Strait area were widely contaminated with lead and cadmium and other metals, the stage was set for concern that other food sources were contaminated as well, and this became one basis for the proposal which led to the present research.

In early 1971, the Department put forth a proposal to study both the food chain and health effects of air-borne lead. This proposal was accepted and initiated on July 1, 1971.

The continuation and completion of the work on vegetation sampling in relation to Benicia, Crockett and the Selby smelter, was carried on with support from the Air Resources Board during the period of study. The plant pathologist, Mrs. Thornton was able to assist us in obtaining vegetation samples, and backyard garden produce was obtained in as many places as possible.

Initial community studies were carried out in Alpine County cooperatively with the Kettering Laboratory, which was supported by industry and by the Federal Government. Benicia and Crockett were studied in northern California, and Manhattan Beach and Burbank were studied in Southern California.

While the work was underway, and without notifying us, Dr. Tepper made available the data from the blood samples in Alpine County, and they were used as evidence against proposed regulations of the Environmental Protection Agency. The lack of agreement between the Kettering Laboratory results and our results for blood lead is to be contrasted with the agreement between air samples obtained by the Kettering Laboratory and analyzed both by their laboratory and ours.

The organization and conduct of an international symposium on public health aspects of lead occurred at a time which has permitted the development of acceptable levels for tentative population exposure, and this is covered in Section II.

At the end of the study period, it is still not possible for us to look forward with certainty to control of the emission of high amounts of lead from motor vehicle exhausts, which is necessary to meet the State's air quality standards.

II. CONCURRENT RESEARCH ACTIVITY AND ITS RELEVANCE

A. International Symposium on Environmental Health Aspects of Lead, Amsterdam

At this meeting jointly sponsored by the U.S. Environmental Protection Agency and the Council of European Communities, current research was presented and appraised.

There were several highlights of the meeting. Biochemical indices were found to be useful; ALAD was recommended as the most sensitive test and appropriate for estimating community exposures in a range capable of derangement of hemoglobin synthesis. However, the importance of such derangement to health has not yet been fully evaluated.

Dr. Zielhuis, from the Netherlands, proposed acceptable biological limits both for individuals and for groups, and for adults and for children. These included lead in blood (PbB), amino-levulinic acids in urine (ALAU), and amino-levulinic acid dehydratase (ALAD). These values are shown on the next page. Provided that groups are representative and include at least 15 persons, and that the methods used are standardized, the participants accepted these as guidelines. In comparing the results of the California data with them, however, it should be noted that there is a conversion factor of about 5% between μg/100ml (used in the Amsterdam recommendations) and μg/100g used in the California study. Also, the methods used may not be strictly comparable.

Excerpt from:

LEAD ABSORPTION AND PUBLIC HEALTH: AN APPRAISAL OF HAZARDS
by R. Zielhuis

International Symposium: Environmental Health Aspects of Lead, Amsterdam, October 2-6, 1972

Acceptable biological limits

Environmental standards have to take into account total daily uptake; this can be measured indirectly by biological monitoring of PbB, ALAD and ALAU. Particularly for more or less homogeneous groups one may conclude to acceptable biological limits, characterized by group averages and upper limits; for individuals one may present upper limits. These limits should not be regarded as fine lines discriminating innocent from nocuous environments; however, if these limits are exceeded, the possibility of undue acute effects and/or chronic sequelae increases. The data as established in population groups should always be interpreted by experts, and not by the lay public as such. Single values moderately exceeding upper limits in individuals should cause awareness and caution; the measurement should be repeated. Group data have a stronger significance than individual data.

The following acceptable limits are suggested as guidelines:

For adults

	individual upper limit	group average	unit
PbB	≤40	≤25	µg Pb/100 ml
ALAU	≤ 6	≤ 3	mg/l urin
ALAD	≥20	≥30	procentual decrease from 100% (at PbB = 10 µg Pb/100 ml)

For children

	individual upper limit	group	
PbB	≤35	≤20	as above
ALAU	≤ 5	≤ 3	"
ALAD	≥30	≥40	"

The Environmental Protection Agency input to the meeting emphasized its concern about the contribution motor vehicle emissions were making to the exposure, uptake, and lead burden in children. There was no clear agreement as to the risk or contribution of air pollution to lead toxicity in children.

Professor Truhaut reported on a joint expert committee of the Food and Agricultural Organization/ World Health Organization concerning food additives, which evaluated toxicology of lead. They established in adults, based on the assumption of only 10% of ingested lead from food and water being absorbed, a provisional tolerable weekly intake of 3 mg. lead per person, equivalent to 0.05 mg/kg body weight. This is equivalent to 3000 x 10% = 300 micrograms per week or 42.8 micrograms of lead absorbed per day. The experts went on to say that "Any increase in the amount of lead derived from the drinking water or inhaled from the atmosphere must decrease the amount which can be tolerated in food. The contribution of lead in air is probably the one most accessible to action for reducing the total body burden of lead, especially where this fraction is large compared with that absorbed from food."

This position supports the complementarity of food and air pollution as important routes in ingestion.

B. Occupational Health Study in Smelter Employees

At the Amsterdam meeting, Cooper, Tabershaw and Nelson reported follow-up studies of former employees of the Selby smelter. An unexpected finding was a depression of serum inorganic phosphorous in individuals with blood lead levels above 40 µg/100g of blood (i.e., those with little or no lead exposure were normal). Higher blood lead levels were associated with

reduced amounts of hemoglobin. The hypophospatemia was "consistent with disturbed function of the proximal renal tubules and failure to reabsorb phosphate". It may reflect damage by cadmium or lead or a combination. Since it occurs in an area also covered in our study, this work provides a useful basis for reference. However, persons with occupational exposures were excluded from our studies.

C. "Seven City Study"

This study generally confirms that urban women have higher blood lead levels than rural ones, and that smokers have higher values that non-smokers. It suggests that with increasing urban lead levels, there is increasing lead storage, although the gradients do not appear to be as steep for women as for men. Inclusion of Los Alamos (elevation 7,300 feet) implies an expected high hematocrit, and the role of this factor is not appraised either in the draft report on the "Seven City Study" or in interpreting results from Alpine County.

Fecal lead measurements were made, partially to test the allegation that previously observed differences in blood lead were due to dietary differences. No data supporting this allegation were found. This is similar to our study's finding of no appreciable differences in lead intake in market-purchased foods in the several areas. (Environmental Protection Agency, "A Survey of Air and Population Lead Levels in Selected American Communities", EPA-R1-73-005, December 1972.)

D. Manuscript on Vegetation Monitoring

During the period of support, we completed a manuscript for publication entitled "Vegetation Monitoring for Airborne Heavy Metal Pollution" (appended). This proposes a supplemental monitoring system, one which has also been applied by Kalman and Graham at Stanford, who also are publishing supporting data from Palo Alto.

E. Studies of Environmental and Population Exposures in the Vicinity of El Paso, Texas Smelter.

The U.S. Public Health Service has been studying lead levels in individuals living near a smelter. According to a preliminary report, highest levels were found among children 1-4 years old living within 1 mile of the smelter (42.4% $\geq$ 40 μg/100 ml). Air samples within 1 mile showed significantly high values (annual mean 8-10 μ lead/m^3). A relationship between blood lead levels and concentration of lead in house dust is demonstrated by the finding that children within 1 mile who had levels $\leq$ 40 μg/100 ml were exposed to 3.5 times amuch lead in dust as those with lower levels (6,447 ppm versus 2,067, $p<0.0001$).

The revelance of this to our work is that it confirms the inadequacy of air sampling as a basis for health risk estimation in the vicinity of point sources.

The population sampling data obtained in Benicia and Crockett do not indicate an exposure of the level of severity apparent in the preliminary data from El Paso. A preliminary report of the El Paso study is available from the Center for Disease Control, Atlanta, Georgia. An article is being submitted for publication in the New England Journal of Medicine.

III LABORATORY METHODOLOGY

A. Analytical Methods

During this study several methods were adapted by the Air and Industrial Hygiene Laboratory for the analysis of lead in biological specimens, food-stuffs, and air. Blood specimens were also analyzed for aminolevulinic acid dehydratase (ALAD) and urine specimens for aminolevulinic acid (ALA). A concurrent study was conducted to optimize blood sample storage conditions to assure the stability of the ALAD.

1. Lead in Blood, Foodstuffs and Air

Blood samples were analyzed by two atomic absorption methods: the methyl isobutyl ketone extraction (IBK) method of Yeager, Cholak, and Henderson(1) and the Delves method(2,3). Samples collected early in the study were clotted and had to be analyzed by the MIBK method. Subsequent samples, thoroughly mixed with heparin in the field, were analyzed by the more rapid Delves method. Therefore, a study was conducted by AIHL to determine the equivalency of the two methods, cf. AIHL Report 161, Appendix. The results demonstrated the Delves ratio method, when adjusted by the appropriate proportionality factor, to be equivalent to MIBK, the reference method. The MIBK method was used for the analysis of foodstuffs including market samples, garden vegetables, and hospital diets (AIHL Method No. 42, Appendix).

Air samples collected on cellulose paper were analyzed by an atomic absorption method following acid digestion of the filters (AIHL Method No. 41, Appendix).

2. Aminolevulinic Acid Dehydratase (ALAD) in Blood

a) Method

Blood was analyzed for ALAD by the method of Bonsignore et al(4). The method is based on the formation of porphobilinogen (PBG) from δ-aminolevulinic acid under the influence of ALAD in blood. The resulting PBG reacts with p-dimethylamino-benzaldehyde to form a red color which is read spectrophotometrically at 553 nm.

b) ALAD Stability Study

Because of questions concerning stability of ALAD, only those blood samples collected in northern California were analyzed for ALAD. In a concurrent study it was established that blood specimens for ALAD determination should be analyzed within 10 hours after drawing the blood. The enzyme activity is best determined within 4 hours of drawing the blood. When the analysis cannot be done in this period, it is possible to

correct the results for the decrease in activity. The results from the stability study are described in a paper by Prpic-Majic, et al, Appendix. We adjusted ALAD results as described in the article.

3. δ-Aminolevulinic Acid (ALA) in Urine

The method used is based on condensing ALA with acetylacetone to form a pyrrole which in turn reacts with p-dimethylamino-benzaldehyde to form a red color. The method was modified to permit the use of disposable ion-exchange columns. The method is described in AIHL Method No. 20, Appendix.

B. Interlaboratory Comparisons

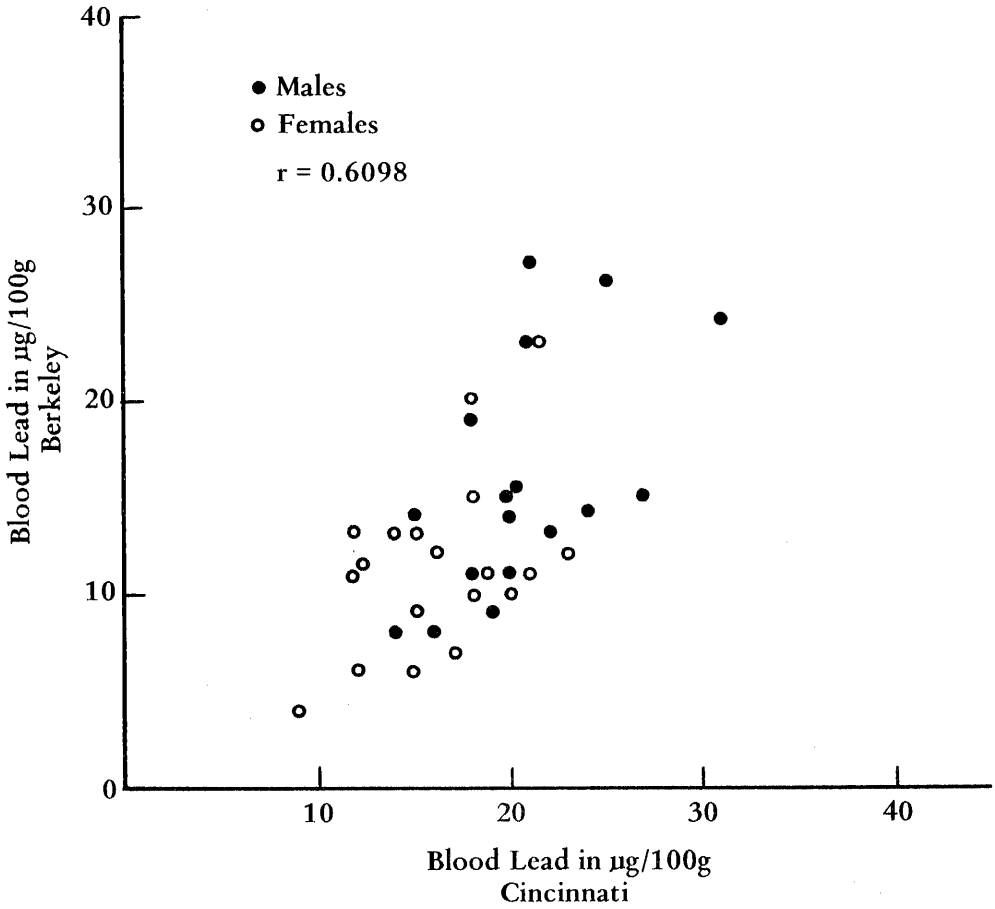
For blood and air samples obtained in Alpine County, samples were split between the AIHL and The Kettering Laboratory of the University of Cincinatti School of Medicine. For air samples, excellent agreement was observed. For blood samples, the Cincinatti readings were nearly always higher than Berkeley. (See Figure 1.) There is a correlation of 0.57 for males (N = 17) and 0.47 (N = 19) for females.

There is a peculiar distribution of values as well, suggesting a constant excess of about 5 μg/100g in Cincinatti, for values less than 15 μg (Berkeley.)

Assuming that these differences are constant and that the true values lie between the Berkeley and Cincinatti results, Berkeley reports may underestimate lead in blood and Cincinatti may overestimate it.

Figure I

BLOOD LEAD CONCENTRATION
ALPINE COUNTY SPECIMENS
INTERLABORATORY COMPARISON



	Berkeley (CSDPH)	Cincinnati (Kettering)
Males		
Mean	15.65	20.65
S.E.	1.475	1.043
N	17	
r	0.573	
Females		
Mean	11.42	16.16
S.E.	1.044	0.866
N	19	
r	0.465	
Both Sexes		
Mean Cincinnati ÷ Mean Berkeley	1.362	

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IV. CHOICE OF COMMUNITIES

The choice of communities to be studied was motivated by the basic plan of the study, which was to obtain both environmental and health data from areas which would represent exposure of human populations to several different levels of lead in the ambient air.

Benicia and Crockett were chosen to represent relatively high exposure in northern California, partly because of the relatively high exposure to lead suggested by the high levels of lead found in vegetation (Avena) sampled in the area, and partly as a result of the concern for the effects on human health of the exposure through the food chain which was believed to be a cause of the horse deaths in the Benicia area.

In early discussions of possible choices for an area of low exposure in California, Alpine County was suggested because it had previously been shown to yield relatively low levels of lead in blood and urine obtained from residents. However, it was proposed that a more urban coastal area might be more suitable in terms of selecting a population whose other characteristics (relevant to exposure to lead from other sources) would be more nearly comparable to those of the Benicia-Crockett area. The Bodega Bay and Fort Bragg areas were proposed as candidates. However, it was subsequently learned that the Kettering laboratory was planning a study which would involve obtaining blood specimens from residents of Alpine County during a health fair and that ambient air sampling would also be carried out. It was therefore decided to enter into a cooperative arrangement to obtain blood, urine, and questionnaire data from participants in the health fair.

The obvious choices of areas in southern California were an area near the coast to represent low exposure and an inland area to represent high exposure. Again, areas were sought which would yield populations whose exposure to lead from sources other than the ambient air would not be drastically different. Pasadena was tentatively selected as the high exposure area, but upon inspection, was rejected for the following reasons: 1) Much of the downtown area was being converted from older single-dwelling units to newer multiple dwelling units, which suggested that relatively few residents would meet the minimum residence requirement of three years (discussed below) as well as that they might represent significant demographic differences from occupants of single dwelling units, 2) some residential areas near the downtown area were being demolished for freeway construction, 3) the southern area of the town (toward San Marino) represented an obviously high income level, 4) the northern end of town (Altadena) was at a higher elevation and would probably not have represented as high an exposure to air pollution. Burbank appeared to offer a more stable, typical area with high exposure to air pollution.

Coastal areas in Santa Monica, Venice, and Playa del Rey were considered, but these either represented high income levels or beach areas with shoddy

housing which suggested low income levels and populations with unstable residence. Manhattan Beach was selected as a better possibility, but an area of the city slightly inland was selected as being somewhat more comparable to the Burbank area than that near the coast.

V. SAMPLING AND COLLECTION OF HUMAN SPECIMENS

A. Adults

Sampling in Burbank and Manhattan Beach was carried out in relatively homogeneous (as suggested by inspection of housing), compact areas several square miles in size. Households were counted and the sampling ratio was calculated to give the number of households needed for initial screening interviews in order to obtain approximately 50 eligible adults who would satisfy the screening requirements and from whom blood and urine specimens could be obtained. Using the sampling ratio, a systematic sample of households was selected using a random start.

Similar sampling methods were used in Crockett and Benicia, except that sampling was carried out in the entire community in each case, with the exception of a new area in Benicia in which length of residence was uniformly less than the required three years. It was necessary to augment the original samples in Benicia and Crockett in order to obtain an adequate number of subjects who passed the screening test and agreed to give blood and urine specimens.

The screening questionnaire was completed by personal interview, and consisted of several parts. The first page was used to determine whether the respondent was the appropriate person in the household to be solicited for the study, that is, an adult male or female, the sex having been randomly designated ahead of time. If an adult of the required sex was not living in the household, any adult living there was accepted as a candidate for the study. If the initial respondent was not the appropriate person, an appointment for later interview was made. The candidate was then questioned whether he had lived within the study area for less than three years, had worked in any one of several occupations designated as high risk for exposure to lead, or had ever been treated for lead poisoning. A positive answer to any of these three questions immediately disqualified the candidate for inclusion in the study. If the candidate passed these screening questions, he was then asked questions concerning commuting habits, medical conditions, smoking, past or present employment in some occupations not considered high risk but with the possibility of enough exposure to lead so that it should be taken into account in evaluating the laboratory results, and a diet history to determine what foods were commonly eaten in the area and whether any individuals had diets which departed from these in such a way as to be significant in evaluating the laboratory results.

A telephone number was obtained for each respondent who passed the screening questions and agreed to donate specimens. Appointments for donation of specimens were made several days before they were collected. In Benicia, collection of the specimens was done in a private physician's office under the specifications of the study, that is, using special leadfree needles, vacuatainers, and urine containers, and with proper handling, storage, and transport of the specimens to the State laboratory. In Crockett, a laboratory technologist visited the homes fo participants to obtain specimens. In both Benicia and Crockett, specimens were delivered to the laboratory and held

for a maximum of 12 hours before determination of ALAD was carried out, then both blood and urine specimens were frozen for subsequent determination of lead concentration and, in the case of urine, ALA determination.

In Manhattan Beach and Burbank, no attempt was made to deliver the specimens to the laboratory within the time limit necessary for ALAD determination, but they were frozen for transport to the laboratory for subsequent determination of lead concentration and ALA analysis. In Alpine County, refrigerated specimens were transported to the laboratory during the night following the Health Fair.

B. School Children

Selection of school children for participation in the surveys was done through the school districts serving the areas covered by the survey of adults. The judgment of each district was followed as to which third grade classes would be most suitable for inclusion in the study based on probable cooperation of children, parents, and school personnel. Class rosters were supplied, and a systematic selection of panels of children for each area was made. Parents of these children were contacted directly by the study staff in Benicia and Crockett (by mail) and through the schools in Burbank and Manhattan Beach. In Benicia, appointments were made for specimens to be obtained in a private physician's office; in Crockett, an evening clinic was held at the local community center; and in Burbank and Manhattan Beach, clinics were held at the schools with the participation of school personnel and parent volunteers. Blood and urine specimens were obtained in Benicia and Crockett, and ALAD determinations were carried out in addition to lead concentration and ALA determinations. Only blood specimens were obtained in Burbank and Manhattan Beach because of the difficulty that had been experienced in obtaining adequate urine specimens from children in northern California, and the blood specimens were not analyzed for ALAD because of the difficulty in delivering them to the Berkeley laboratories whthin the crucial time limit. Children were also screened for length of residence and previous treatment of lead poisoning.

Table 1 shows the numbers of adult respondents originally contacted, the numbers who did not pass the screening criteria for various reasons, and the numbers of specimens finally obtained.

The method of sampling adults from the general population was selected in the hope of obtaining broad representation of the area being studied and of obtaining samples unbiased with respect to relevant factors other than air pollution exposure, such as diet. However, because of the high rate of failure to meet the screening requirements, the high rate of refusal to give blood specimens, and the failure to keep clinic appointments, it is doubtful whether a "better" sample was obtained than would have resulted from the less expensive method of using individual volunteers or volunteers from organized community groups. It is unlikely that significant bias would occur from such volunteers unless special conditions of water supply or diet were encountered, and these could be screened by questionnaire.

Table 1

HOUSEHOLD SAMPLES AND SUCCESSFUL CONTACTS

HOUSEHOLD SAMPLE	BENICIA	CROCKETT	MANHATTAN BEACH	BURBANK
Number of Housing Units	194	160	205	201
Vacant housing units	8	4	1	5
Unable to locate occupant	9	0	10	31
Contacts made	177	156	194	165
Refused interview	13	17	23	25
Screening criteria not met	75	38	41	24
Less than 3 yrs. residence	55	26	24	19
Occupational exposure to lead	20	12	17	5
Past lead poisoning	0	0	0	0
Interviews completed	89	101	130	116
No specimens collected	37	50	89	73
Specimens collected	52	51	41	43

VI. POPULATION SAMPLING RESULTS

A. Raw Data

Laboratory results for individuals who participated in the study are given in the Appendix.

B. Analysis and Interpretation

1. Distributional Attributes

The departure of the distributions of results for the various tests from normality does not appear to be marked enough to invalidate the use of normal theory in performing statistical tests of significance.

2. Proportion Outside of Provisional Limits

Of the entire population sample, only two adults had blood lead concentrations greater than the acceptable individual upper limit of 40 μg/100 ml recommended at the Amsterdam symposium. Both of these were male residents of Crockett. No children had values above the recommended upper limit of 35 μg/100 ml of blood lead. The concentrations reported by our laboratory as μg/100 g have been accepted as roughly equivalent to those proposed at Amsterdam as μg/100 ml. In fact, a better approximation to the Amsterdam units would result from multiplying the California values by a conversion factor of about 1.05. Methodological differences could also result in lack of comparability of our data with the Amsterdam recommendations. Unfortunately, it is not possible to compare ALAD and d-ALA values from this study with the recommended standards proposed at the Amsterdam conference because they are reported in different units than ours, and the methods used for both these determinations are not specified. However, the blood lead values as reported above are probably roughly comparable.

3. Comparisons by Area

Comparison of mean values by area for blood lead, ALAD units, urine lead, and d-ALA are shown for adults and children respectively in Tables 2 and 3. Significance tests were done for each of these measurements for the differences between Benicia and Crockett, and the differences between Burbank and Manhattan Beach. In adults, statistically significant differences between mean values in Benicia and Crockett were found for blood lead for both males and females (Crockett higher than Benicia), and for ALAD units for males (Benicia higher than Crockett). Differences between Burbank and Manhattan Beach were not significant among adults. In children, statistically significant differences for both males and females were found between mean blood lead levels in Burbank and Manhattan Beach.

For both adults and children, ALAD unit determinations were done only for Benicia and Crockett because of the critical timing of the

laboratory test. Urine lead and d-ALA determinations were not done in Burbank and Manhattan Beach because of the difficulty in obtaining adequate specimens from children and the problem of freezing and transporting specimens to the Berkeley laboratory.

4. Comparisons Among Tests

In terms of the presence or absence of statistical significance in mean area differences, the following can be said.

a. Of the four area differences for which both blood ALAD units and blood lead concentrations were available, both tests gave the same results except for adult females. That is, both tests showed significant area differences between Benicia and Crockett among adult males, neither showed significant differences between Benicia and Crockett among children of either sex. Adult females showed a significant difference in blood lead only.

b. Of the six area differences for which both urine lead concentrations and urine d-ALA measurements were available, both gave consistent results except for adult males in Benicia and Crockett, for whom only lead concentration differences were significant, and for adult females, for whom only d-ALA differences were significant.

c. Comparisons of significance tests for blood and urine results also show some inconsistencies. For the groups in which significant area differences <u>did</u> occur for blood lead and ALAD units (Benicia and Crockett adults), significant area urine lead concentration differences occurred only among males, and significant d-ALA differences occurred only among females. Significant area urine differences did <u>not</u> occur in any groups <u>not</u> showing blood lead or ALAD differences.

These results are shown in Tables 2 and 3. No evaluation has been done of the relationships between the results of the various tests in individuals.

Table 2

SUMMARY OF LABORATORY RESULTS
SPECIMENS FROM ADULTS

ANALYSIS	MALE					FEMALE				
	Alpine	Benicia	Crockett	Burbank	Manhattan Beach	Alpine	Benicia	Crockett	Burbank	Manhattan Beach
Blood Lead(μg/100 g)										
N	15	27	20	20	22	20	25	31	22	19
Mean	15.40	16.30*	20.75*	16.85	15.32	11.75	11.76**	14.29**	15.45	13.79
S.E. of Mean	1.51	0.79	2.21	1.00	0.84	1.05	0.40	0.55	0.82	0.83
ALAD Units										
N	NA	26	20	NA	NA	NA	25	31	NA	NA
Mean	NA	100.92*	71.25*	NA	NA	NA	127.16	110.06	NA	NA
S.E. of Mean	NA	7.97	7.50	NA	NA	NA	7.40	6.68	NA	NA
Urine Lead (μg/100ml)										
N	10	26	20	17	21	3	21	30	16	17
Mean	1.74	1.21*	2.04*	2.16	1.64	2.97	1.30	1.46	1.94	1.39
S.E. of Mean	0.19	0.67	0.25	0.24	0.12	1.52	0.18	0.14	0.22	0.17
D–ALA (μg/100 ml)										
N	10	26	20	20	22	5	23	31	21	19
Mean	0.27	0.16	0.16	0.21	0.25	0.30	0.23*	0.17*	0.23	0.17
S.E. of Mean	0.03	0.02	0.02	0.03	0.03	0.06	0.02	0.02	0.03	0.03

* Differences between means are significant at the 5% level.
** Differences between means are significant at the 1% level.

NA Not available.

Note: Signicance tests refer to differences between means for Benicia–Crockett and Burbank–Manhattan Beach.

Table 3

SUMMARY OF LABORATORY RESULTS
SPECIMENS FROM CHILDREN

ANALYSIS	MALE				FEMALE			
	Benicia	Crockett	Burbank	Manhattan Beach	Benicia	Crockett	Burbank	Manhattan Beach
Blood Lead(μg/100 g)								
N	17	18	17	21	17	10	19	19
Mean	13.12	14.33	23.29**	16.81**	13.71	13.80	20.37**	17.05**
S.E. of Mean	0.64	0.89	1.14	0.88	0.76	1.53	0.67	1.00
ALAD Units								
N	14	18	NA	NA	16	10	NA	NA
Mean	116.50	94.61	NA	NA	111.60	100.50	NA	NA
S.E. of Mean	9.42	9.62	NA	NA	6.33	11.36	NA	NA
Urine Lead (μg/100 ml)								
N	19	14	NA	NA	14	6	NA	NA
Mean	2.70	2.24	NA	NA	2.35	3.13	NA	NA
S.E. of Mean	0.22	0.27	NA	NA	0.24	0.33	NA	NA
D–ALA (μg/100 ml)								
N	20	18	NA	NA	17	10	NA	NA
Mean	0.33	0.31	NA	NA	0.31	0.30	NA	NA
S.E. of Mean	0.04	0.02	NA	NA	0.02	0.03	NA	NA

** Differences between means significant at the 1% level.

NA Not available.

Note: Significance test refer to differences between means for Benicia–Crockett and Burbank–Manhattan Beach.

VII. ENVIRONMENTAL SAMPLING RESULTS

A. Raw Data

1. Food Chain Hazards

Results of determination of lead concentration in a large variety of foodstuffs are given in the Appendix. These are in the form of three lists arranged in the following ways:

a. Ascending order of food code number within each area, to facilitate comparisons of specific foods.

b. Ascending order of food code number within area within food type (vegetables, meat, fruit, fish, beverages, dairy products, bakery products, and miscellaneous).

c. Descending order of lead concentration within area, regardless of food type.

At the end of each list the hospital diet and backyard garden data are shown.

2. Air Monitoring

Lists of the air monitoring data by day and location are appended.

3. Data for Lead Concentration in Avena Collected from Manhattan Beach

B. Analysis and Interpretation

1. Food Chain Hazards

Food intake was sampled by purchasing common food items from local grocery stores and by obtaining samples of food grown in backyard gardens in each area. Results of interviews were used to determine whether diets differed appreciably in the different locations and to determine which grocery stores were used most frequently. Comparable items of food could not be obtained consistently in all areas because of differences in seasonal or local availability and problems of transportation and storage. Lead concentrations in some common food items obtained from most areas are shown in the summary tables (Tables 4 - 6), and no consistent area differences can be detected. When more than one sample was obtained from an area, values for each sample are shown. Considerable variation occurred between different food items as well as between different samples of the same food. The highest concentration of lead occurred in carrot greens from a backyard garden in Benicia (5.60 $\mu g/g$). Other vegetables with high values were chard, parsley, lettuce, mustard greens, and spinach, with concentrations ranging from 0.85 - 2.41 $\mu g/g$. Other foods showing relatively high concentrations of lead were anchovies and anchovy paste, veal kidney, top round, tuna, and ham, with values ranging from 0.84 to 2.00 $\mu g/g$.

The Bureau of Radiological Health routinely collects samples of hospital diets for surveillance of background radiation. Each sample consists of all food and beverages from a hospital tray as it is served to patients, including all liquids. Twenty-four samples from throughout the State were analyzed for lead concentration. The values were uniformly low and range from <0.01 $\mu g/g$ to 0.17, all but three of the values being less than 0.10. Individual values appear in the computer output of food lead levels.

No evidence was found that a significant amount of lead would be ingested through the food chain, nor were significant area differences detected.

Table 4

COMPARISON OF LEAD CONCENTRATIONS
IN FOOD BY AREA
(μg/g for individual samples)

	ALPINE	BENICIA	CROCKETT	BURBANK	MANHATTAN BEACH
FRUIT					
Apples	.15 .20	.09 .09 .02	<.01	.08 .03 .03 .06 .04 .07 .06	.05 .05
Tomatoes	.02 .18	<.01	<.01	.02	.02
Oranges	NA	.12 .08	.06 .08	.04 .10 .05 .04	.05
VEGETABLES					
Lettuce	.05	NA	.54	.04 .26	.10
Parsley	.20	.66 .88	.24	1.25	.49
Spinach	.32	.23	.85	.69	.42
Romaine	.26	.09 .40	.08	.35	.15
Celery	.04	NA	.00	.05	.12
Eggplant	.02	.05 .05	.02	NA	.03
Carrots	.31 .12	.12 .10	<.01	.03	.17
Potatoes	.02 .04	.09 .13	.02	.05 .05 .03	.05

NA: Not available.

Table 5

COMPARISON OF LEAD CONCENTRATIONS IN FOOD BY AREA
(μg/g for individual samples)

	ALPINE	BENICIA	CROCKETT	BURBANK	MANHATTAN BEACH
MEAT					
Ground Beef	.16	<.03	.12	.08(x2) .09(x2)	.07
Chicken	.16 .42	<.03 .16	.10	.10	.09
Bacon	.30 .06	.20 .44	.28	.03	.24
Ham	.84 .08	.13 .32	.22	.11	.16
Lamb Chops	.10 .16	.18 <.03	.17	.08	.25
Pork Chops	.16 .19	.27 .38 <.03	.15	.10	.07
DAIRY					
Butter	.12	.45 .17	.05	.09	.05
Milk	<.01 .08	.03 .06	.06	.07	.03
Eggs	.02	.12 .04	.08	.05	.07
Cottage Cheese	NA	.06	.08	.15	.04
GRAIN PRODUCTS					
Bread	.18	.83 .63	NA	.10	.13
Margarine	.52	.08 .13	NA	.06	.06

NA: Not available.

x2: Two samples each.

Table 6

COMPARISON OF LEAD CONCENTRATIONS
IN BACKYARD GARDEN PRODUCE BY AREA
(μg/g for individual samples)

	BENICIA AND CROCKETT	BURBANK	MANHATTAN BEACH
Apples	NA	.24 .23	.07
Carrots	.47 .16 .18	.30 .06	.07
Zucchini	.19 .07 .05 < .04	.02	.02
Chard	.15 .29 2.41	.30	.57
Lettuce	NA	.70	.42
Bell Peppers	.08 .03 .18 .05 < .09	.10	.02
Tomatoes	.08 .01 .07 .06 .12	.04	.02 .04
Cherry Tomatoes	NA	.04	.03
Figs	.29 .09 .26	.18	.16
Lemons	.21 .14	.09 .08 .08 .06	.06
Strawberries	.47	NA	.45

NA: Not available.

2. Air Monitoring

Table 7 shows a summary of the air monitoring data. High volume sampling stations were set up within each of the residential areas studied. The mean lead concentrations by quarter for Burbank are consistently higher than the comparable means for Manhattan Beach, but only the differences for the second quarter of 1972 are statistically significant using a two-tailed t-test ($p < 0.05$). The differences between means for Benicia and Crockett are not consistent in direction, and the only statistically significant difference using a two-tailed t-test is for the third quarter of 1972 ($p < 0.1$).

The consistently higher mean values in Burbank when compared to Manhattan Beach suggest that these differences could be a factor in the higher blood lead concentrations found among Burbank children. This is supported by comparisons of the values for individual days, which also show a marked tendency for Burbank values to be higher than those reported from Manhattan Beach. Results of sign tests were significant at the 5% level for the first and second quarters (6 out of 6, and 9 out of 10 differences, respectively, showing higher values for Burbank than for Manhattan Beach) while a similar test for all three quarters combined was significant at the 1% level (31 out of 41 differences showing higher values for Burbank).

The significantly higher mean value in Crockett when compared to Benicia (second quarter, 1972) corresponds to the significantly higher blood lead means found among adults in Crockett.

However, the relative lack of consistency in direction of differences for individual days, as well as the uniformly low values, suggests the lack of a significant human effect, at least from inhaled air. The possibility of air exposure to lead on soil and vegetation is a different problem.

3. *Avena* Sampling

Avena sampling in Benicia and Crockett and subsequent analysis for lead has been carried out and reported under a previous interagency agreement with ARB. It was planned that *Avena* be used in this study as a supplemental method of indicating exposure to airborne lead. However, *Avena* was not generally available in the Alpine County study area nor in the Burbank area. Several *Avena* samples were collected in the Manhattan Beach area. The results of these analyses are given in the Appendix.

TABLE 7

Summary of Air Sampling Data

$\mu g/m^3$

Time Interval	Burbank			Manhattan Beach		
	N	Mean	S.E.	N	Mean	S.E.
Fourth Quarter, 1971 10/8 - 11/7	25	2.315	0.312	25	1.979	0.253
First Quarter, 1972 1/12 - 1/30	13	5.458	0.684	13	3.658	0.569
Second Quarter, 1972* 4/4 - 4&23	10	3.267	0.502	10	1.868	0.432

Time Interval	Benicia			Crockett		
	N	Mean	S.E.	N	Mean	S.E.
First Quarter, 1972 2/7 - 3/23	8	0.741	0.211	8	0.598	0.140
Second Quarter, 1972 3/30 - 6/29	9	0.211	0.052	11	0.317	0.088
Third Quarter, 1972** 7/5 - 9/27	14	0.195	0.018	15	0.303	0.033
Fourth Quarter, 1972 10/3 - 12/26	10	0.328	0.049	10	0.250	0.040

* Difference between means significant at 5% level, two-tailed t-test.
** Difference between means significant at 1% level, two-tailed t-test.

VIII. SUPPLEMENTARY STUDIES OF CHILDREN

A. Six-Community Study in Los Angeles

The six community study in Los Angeles was designed to compare the effects of air pollution on lung function and other indicators in communities representing high, moderate, and low exposure. Two communities were chosen to represent each exposure level. Results reported here are limited to blood lead concentrations in elementary school boys and girls, mostly 9-10 years old, and in male high school athletes (Table 8). In most cases, male-female differences among the elementary school children were slight, although males showed consistently higher concentrations than females. No consistent differences were observed between elementary school children and high school students. The lowest mean concentrations of lead occurred in the two low pollution communities for both elementary and high school students, but the highest mean value in elementary school students occurred in an area of moderate pollution. Means from the two high pollution areas combined (Riverside and Azusa) and the two low pollution areas combined (Lancaster and Oceanside) were tested for each sex for statistically significant differences. Both high school and elementary school differences were significant at the 5% level.

B. Housing in San Diego

Population samples of preschool children were chosen in several areas of San Diego County representing pre-World War II housing containing lead-based paint. These included east San Diego, representing whites with non-spanish surnames and "other" than low economic status; southeast San Diego, representing low economic status and a variety of ethnic backgrounds; National City, representing low economic status and with all but two individuals in the sample having Spanish surnames; Pala, an Indian reservation; Escondido, with a sample consisting entirely of individuals with Spanish surnames; and Oceanside and Carlsbad represented by one child each.

East San Diego, southeast San Diego, and National City were each represented by children who could be classified as living near traffic or away from traffic. Boundaries between "near" and "away from" traffic were set to coincide with divisions between city blocks. "Near" was within 380 feet of traffic; "away from" was between 380 and 700 feet. Differences between mean blood lead concentrations in the groups living near and away from traffic were tested separately for each of these three areas and for all three areas combined using a two-tailed t-test. The only statistically significant difference was for National City ($p < 0.05$). These results, along with mean values for other areas, are shown in Table 9. There were no mean values or individual values that exceeded the suggested limits from the Amsterdam Symposium.

Lead concentrations in soil ranged from 45 ppm to 2256 ppm. A rank correlation test (Spearman's rho) was used to determine whether there existed a significant correlation between blood lead concentration and concentration of lead in soil from corresponding play areas, either within any of the study areas or for all areas combined. The results were not statistically significant at the 5% level. For all areas combined, a median test was done to determine whether significant differences in soil lead concentration occurred between samples collected from households near traffic compared with those away from traffic. These results, also, were not statistically significant at the 5% level.

Table 8

BLOOD LEAD CONCENTRATION ($\mu g/100$ g) BY LOCATION AND SEX
SIX–COMMUNITY STUDY OF SCHOOL CHILDREN
SOUTHERN CALIFORNIA

POPULATION	HIGH POLLUTION		MODERATE POLLUTION		LOW POLLUTION	
	Riverside	Azusa	Long Beach	Culver City	Lancaster	Oceanside
Elementary School						
Male						
N	27	18	22	28	10	24
Median	11.0	11.0	11.0	14.0	8.0	10.5
Mean	12.1	12.6	11.4	14.6	9.2	10.8
S.E. of Mean	0.6	0.7	0.6	0.8	1.0	0.5
Female						
N	23	23	24	21	28	19
Median	11.0	12.0	10.0	12.0	8.0	9.0
Mean	11.4	12.0	10.7	12.4	8.5	9.8
S.E. of Mean	0.5	0.7	0.6	0.6	0.4	0.5
High School						
Male						
N	17	23	30	19	20	26
Median	11.0	14.0	12.0	13.0	9.0	9.5
Mean	12.1	14.6	12.6	14.0	9.0	10.1
S.E. of Mean	1.0	0.6	0.5	0.6	0.5	0.6

Note: Differences between pooled means for the high and low pollution areas were statistically significant at the 1% level for both high school and elementary school differences.

TABLE 9

San Diego County Study of School Children
Comparison of Mean Blood Lead Concentrations

μg/100g

	Total			Away From Traffic			Near Traffic		
	N.	Mean	S. E.	N.	Mean	S. E.	N.	Mean	S. E.
Total, Three Areas	74	15.9	0.57	26	15.2	1.03	48	16.3	0.68
East San Diego	20	15.6	0.82	8	17.4	1.46	12	14.4	0.83
Southeast San Diego	34	17.1	0.93	11	16.2	1.79	23	17.5	1.09
National City	20	14.2	1.08	7	11.0*	1.11	13	16.0*	1.33
Pala	4	11.2	2.02	4	11.2	2.02	-	-	-
Escondido	5	12.2	1.98	5	12.2	1.98	-	-	-

*Difference between means statistically significant ($p < 0.05$, two-tailed t-test).

IX. APPENDIX

A. RAW DATA - ENVIRONMENTAL SAMPLING RESULTS

A. 1. FOOD - LEAD CONCENTRATION

a. ORDERED BY FOOD CODE WITHIN AREA

LEAD STUDY FOOD LIST 0

ALPINE			FOOD TYPE		LEAD µg/100g			
11221A	58	2	LETTUCE	108		0.05	L 03202	NO
11221A	53	1	PARSLEY	111		0.20	L 01072	YES
11221A	56	2	SPINACH	112		0.32	L 12141	YES
11218A	17	1	ROMAINE	114		0.26	L 11231	YES
11218A	16	2	CELERY	126		0.04	L 03202	NO
11218A	13	2	EGGPLANT	128		0.02	L 03202	NO
11218A	15	1	CARROT	147		0.31	L 11231	YES
11221A	50	1	CARROT	147		0.12	L 11231	YES
11218A	14	2	ONION	148		0.03	L 03202	NO
11221A	55	2	ONION	148		0.05	L 03202	NO
11218A	12	2	POTATO	154		0.02	L 03202	YES
11221A	51	2	POTATO	154		0.04	L 03202	YES
11221A	52	2	RADISH	155		0.23	L 11231	YES
11219A	25	2	BACON	200		0.30	L 04032	YES
11220A	40	2	BACON	200		0.06	L 04032	YES
11219A	26	2	CHICKEN	205		0.16	L 04032	YES
11220A	44	1	CHICKEN	205		0.42	L 01072	YES
11218A	24	3	GRNDCHUCK	207		0.08	L 04032	YES
11220A	39	2	GRND BEEF	207		0.16	L 04032	YES
11218A	23	2	HAM	208		0.84	L 11191	YES
11220A	41	2	HAM	208		0.08	L 04032	YES
11219A	27	2	LAMBCHOP	211		0.10	L 04032	YES
11220A	43	2	LAMB CHOP	211		0.16	L 04032	YES
11220A	42	2	PORK CHOP	212		0.19	L 04032	YES
11220A	38	2	RD STEAK	215		0.48	L 04032	YES
11218A	21	1	SAUSGELNK	217		0.69	L 11191	YES
11220A	37	2	SAUSGEPRK	218		0.18	L 04032	YES
11218A	20	2	TOP ROUND	220		0.52	L 11191	YES
11218A	22	3	BEEFLIVER	238		0.45	L 01072	YES
11220A	36	2	CHICLIVER	242		0.21	L 04032	YES
11220A	35	2	PORKLIVER	245		0.14	L 04032	YES
11220A	48	2	MEATPOTED	254		0.10	L 04042	YES
11218A	11	1	APPLES	304		0.15	L 01072	YES
11219A	32	1	APPLES	304		0.20	L 11231	YES
11219A	31	1	GRAPES	314		0.30	L 11231	YES
11221A	54	1	PEACHES	322	<	0.08	L 01072	YES
11219A	30	3	PRUNES	328		0.04	L 03202	NO
11218A	18	3	TOMATO	337		0.02	L 03202	NO
11221A	49	2	TOMATO	337		0.18	L 11231	YES
11220A	47	1	TUNA	422		0.89	L 01072	YES
11219A	34	2	BUTTER	600		0.12	L 04032	YES
11219A	29	3	EGG	617		0.02	L 04032	YES
11219A	33	2	MILK	619	<	0.01	L 04032	YES
11220A	45	1	MILK	619		0.08	L 01072	YES
11221A	57	1	BREAD	700		0.18	L 03202	YES
11220A	46	1	MARGARINE	858		0.52	L 01072	YES

LEAD STUDY FOOD LIST 0

BENICIA			FOOD TYPE		LEAD			
20055BP	20	1	COLRD GRN	104		0.48	L 03152	YES
20003BS	193	1	MSTRD GRN	110		0.75	L 03142	YES
20055BP	17	1	PARSLEY	111		0.66	L 03152	YES
20003BS	194	1	PARSLEY	111		0.88	L 03142	YES
20055BP	19	1	SPINACH	112		0.23	L 03152	YES
20114BS	206	1	SPINCHFRZ	113		0.16	L 03142	YES
20055BP	21	1	ROMAINE	114		0.09	L 03152	YES
20003BS	189	1	ROMAINE	114		0.40	L 03142	YES
20002BS	132	1	BEANS	122		0.11	L 01252	YES
20055BP	38	1	BEANS GRN	123		0.07	L 03162	YES
20003BS	199	1	BEANSGRN	123		0.12	L 03142	YES
20055BP	27	1	CAULIFLWR	125		0.28	L 03152	YES
20003BS	197	1	CAULIFLWR	125		0.12	L 03142	YES
20055BP	35	1	EGGPLANT	128		0.05	L 03162	YES
20003BS	195	1	EGGPLANT	128		0.05	L 03142	YES
20002BS	146	2	OLIVES	130		0.59	L 04042	YES
20002BS	131	1	PEAS	131		0.14	L 01252	YES
20114BS	205	1	PEAS,FRZN	132		0.26	L 03142	YES
20055BP	25	1	PEPERGRN	133	<	0.01	L 03152	YES
20002BS	136	1	PICKLES	134		0.13	L 03142	YES
20055BP	37	1	ZUCCHINI	136		0.01	L 03162	YES
20003BS	191	1	ZUCCHINI	136		0.04	L 03142	YES
20055BP	28	2	CARROT	147		0.12	L 05252	YES
20003BS	185	1	CARROT	147		0.10	L 03142	YES
20055BP	18	1	GREN ONIO	149		0.06	L 03152	YES
20003BS	196	1	ONIONGRN	149		0.18	L 03142	YES
20055BP	40	1	ONIONWHT	152	<	0.01	L 03162	YES
20055BP	29	1	ONIONYEL	153		0.04	L 03152	YES
20003BS	192	1	ONIONYEL	153		0.11	L 03142	YES
20055BP	30	1	POTATO	154		0.05	L 03152	YES
20055BP	36	1	POTATO	154		0.09	L 03162	YES
20003BS	198	1	POTATO	154		0.13	L 03142	YES
20003BS	200	1	POTATO	154		0.10	L 03142	YES
20055BP	32	1	YAM	156	<	0.02	L 03162	YES
20114BS	207	1	VEG,FRZ	158		0.09	L 03142	YES
20002BS	116	1	CASPRAGUS	160		0.19	L 01252	YES
20002BS	139	1	CLIMABEAN	162		0.38	L 03142	YES
20002BS	148	1	CSPINACH	168		0.26	L 03142	YES
20002BS	107	1	CSAURCRUT	169		0.52	L 01252	YES
20002BS	154	1	C BEANS	170		0.29	L 04102	YES
20002BS	168	1	CCORN	172		0.18	L 03142	YES
20002BS	105	1	CSTWDTMTO	174		0.41	L 01252	YES
20002BS	149	1	CTOMTOPST	178		0.08	L 03152	NO
20002BS	104	1	CTOMTOSCE	180		0.18	L 03152	NO
20002BS	143	1	CTOMTOSUP	182		0.05	L 03152	NO
20002BS	163	1	CBEETS	184		0.18	L 03142	YES
20002BS	129	1	CTRN,GRN	185		0.48	L 01252	YES
20002BS	113	1	CTOMTOJU	186		0.07	L 03152	NO
20002BS	127	1	CTOMTOJU	186		0.10	L 03152	NO
20002BS	145	1	CV-8	188		0.20	L 03152	NO
20055BP	2	1	BACON	200		0.20	L 03152	YES
20003BS	180	1	BACON	200		0.44	L 01252	YES
20055BP	15	1	BALONEY	202		0.07	L 03152	YES

LEAD STUDY FOOD LIST 0

20055BP	14	1	CHICKEN	205	<	0.03	L	03152	YES
20003BS	172	2	CHICKEN	205		0.16	L	04042	YES
20002BS	160	1	CHICKBD	206		0.41	L	03162	YES
20055BP	7	1	GRNDBEEF	207	<	0.03	L	03152	YES
20003BS	183	3	HAMBURGER	207		0.10	L	04102	YES
20055BP	4	1	HAM	208		0.13	L	03152	YES
20003BS	184	1	HAM	208		0.32	L	01252	YES
20055BP	3	1	HOTDOG	210	<	0.02	L	03152	YES
20003BS	179	2	HOTDOGS	210		0.18	L	04042	YES
20055BP	8	1	LAMBCHOP	211	<	0.03	L	03152	YES
20003BS	177	2	LAMBCHOP	211		0.18	L	04042	YES
20055BP	12	1	PORKCHOP	212	<	0.03	L	03152	YES
20003BS	173	2	PORKCHOP	212		0.27	L	04042	YES
20114BS	210	1	PORKCHOP	212		0.38	L	01252	YES
20003BS	176	1	SAUSAGE	216	<	0.02	L	01252	YES
20055BP	1	1	SAUSGEPRK	218		0.05	L	03152	YES
20055BP	13	1	TOPROUND	220	<	0.03	L	03152	YES
20003BS	174	1	TOP ROUND	220		0.93	L	01252	YES
20114BS	209	1	VEALKIDNY	234		1.52	L	01252	YES
20003BS	178	1	BEEFLIVER	238		0.43	L	01252	YES
20055BP	6	1	LAMBLIVER	244		0.05	L	03152	YES
20002BS	153	1	HAMDEVLD	248		0.12	L	03162	YES
20002BS	170	1	GJRCHICK	256		0.14	L	03162	YES
20002BS	171	1	GJRCHICK	256		0.14	L	03162	YES
20002BS	134	1	SPAM	258		0.14	L	03162	YES
20002BS	144	1	CONSOMME	260		0.05	L	03152	NO
20002BS	128	1	BEEFHASH	263		0.61	L	04102	YES
20002BS	162	1	PORK BEAN	265		0.28	L	04102	YES
20002BS	157	1	BF STEW	267		0.19	L	04102	YES
20055BP	26	1	APPLES	304		0.09	L	03152	YES
20055BP	33	1	APPLES	304		0.02	L	03162	YES
20003BS	187	1	APPLE	304		0.09	L	03142	YES
20144BP	44	1	BANANA	306		0.11	L	04172	YES
20145BS	213	1	BANANA	306		0.10	L	04172	YES
20055BP	41	1	MUSHROOM	318	<	0.00	L	03162	YES
20144BP	43	1	ORANGE	320		0.08	L	04172	YES
20145BS	212	1	ORANGE	320		0.12	L	04172	YES
20055BP	31	1	PEAR	324		0.05	L	03162	YES
20055BP	34	1	PEAR	324		0.13	L	03162	YES
20003BS	188	1	PEARS	324		0.12	L	03142	YES
20114BS	204	1	RAISIN	330		0.55	L	03162	YES
20055BP	42	1	TOMATO	337	<	0.01	L	03162	YES
20002BS	119	2	CAPPLEJU	340		0.26	L	03152	NO
20002BS	133	1	GAPLSAUCE	343		0.03	L	04032	YES
20002BS	109	2	CAPRICOT	344		0.07	L	04032	YES
20002BS	115	2	CFRUTCKTL	346		0.11	L	04032	NO
20002BS	112	1	CGRPFRTJ	348		0.09	L	03152	NO
20002BS	158	1	CCONLMEJU	354		0.42	L	03152	NO
20002BS	167	1	CORANGJU	356		0.10	L	03152	NO
20002BS	147	1	CPEACHES	358		0.15	L	03142	YES
20002BS	102	1	CPINEAPLE	359		0.27	L	01252	YES
20002BS	120	1	CPINAPLJU	360		0.01	L	03152	NO
20002BS	122	2	ANCHOVY C	402		0.93	L	04042	YES
20002BS	103	1	CLAMSMKD	404		0.31	L	04042	YES
20114BS	211	2	HALIBUT	406		0.36	L	04042	YES
20055BP	11	1	OYSTER	410	<	0.04	L	03152	YES
20002BS	114	1	OYSTSMKD	414		0.51	L	04042	YES

LEAD STUDY FOOD LIST 0

20055BP	5	1	SHRIMP 416	0.19	L	03152	YES
20002BS	159	1	SHRIMPC 418	0.21	L	04042	YES
20055BP	24	1	SOLE 420	0.05	L	03152	YES
20002BS	138	1	COFE GRND500	1.50	L	03142	YES
20002BS	166	1	COFEE,FD 503	0.37	L	03142	YES
20002BS	161	1	TEA LEAVS504	0.77	L	03142	YES
20002BS	151	1	BURGUNDYW505	0.33	L	04042	YES
20002BS	141	1	CBEER 506	0.03	L	03152	NO
20002BS	130	1	COKE 507	0.04	L	03152	NO
20055BP	10	1	BUTTER 600	0.17	L	03152	YES
20003BS	175	2	BUTTER 600	0.45	L	04042	YES
20003BS	190	1	CHEESE 602	< 0.02	L	03152	YES
20055BP	9	1	COTCHEESE608	0.06	L	03152	YES
20002BS	150	1	CHESESPRD614	< 0.01	L	03152	NO
20055BP	23	1	EGG 617	0.04	L	03152	YES
20003BS	186	1	EGGS 617	0.12	L	01252	YES
20055BP	22	1	MILK 619	0.06	L	03152	YES
20003BS	182	2	MILK 619	0.03	L	04102	YES
20002BS	164	1	MILKEVAP 620	0.19	L	03162	YES
20002BS	106	1	MILKPNFT 629	0.21	L	03152	YES
20002BS	169	1	SIMILAC 632	0.12	L	03162	YES
20055BP	39	1	BREAD 700	0.68	L	04042	YES
20114BS	203	1	BREAD 700	0.83	L	03142	YES
20002BS	100	1	CORNFLAKE702	0.38	L	01252	YES
20002BS	117	1	COOKIE 703	0.33	L	05252	YES
20114BS	202	1	CRACKERS 704	0.66	L	03142	YES
20114BS	208	1	FLOUR 706	< 0.03	L	03162	YES
20003BS	201	1	BREDFRNCH708	0.87	L	03142	YES
20002BS	101	1	MACARONI 710	0.58	L	01252	YES
20002BS	137	1	OATMEAL 712	0.84	L	03142	YES
20002BS	110	3	RICE 714	0.05	L	04042	NO
20002BS	124	2	SPAGHETTI716	0.13	L	04032	YES
20002BS	108	2	HONEY 804	0.23	L	04042	YES
20002BS	135	2	JAM 805	0.16	L	04042	YES
20002BS	125	1	PENUTBUTR806	0.10	L	03152	YES
20002BS	121	1	POTATOCHP808	< 0.03	L	04032	NO
20002BS	152	2	SUGAR 810	0.14	L	04042	YES
20002BS	155	2	SYRUP 812	0.12	L	04042	YES
20055BP	16	1	MARGARINE858	0.13	L	03152	YES
20003BS	181	3	MARGARINE858	0.08	L	04172	YES
20002BS	156	2	OIL 860	0.51	L	04042	YES
20002BS	165	1	OLIVE OIL862	0.04	L	04032	YES
20002BS	111	1	PUDINGCHC902	0.38	L	03152	YES
20002BS	123	1	CATFOOD 933	0.22	L	04042	YES
20002BS	118	1	DOGFOOD 935	0.14	L	04042	YES
20002BS	142	1	KETCHUP 958	0.14	L	03152	YES
20002BS	140	1	CHICKNDSP973	0.11	L	04102	YES
20002BS	126	1	VEGBFSOUP975	0.51	L	04102	YES

LEAD STUDY FOOD LIST 0

CROCKETT			FOOD TYPE		LEAD			
20066CL	14	1	LETTUCE	108		0.54	L 03162	YES
20066CL	6	1	PARSLEY	111		0.24	L 03162	YES
20066CL	11	2	SPINACH	112		0.85	L 03162	YES
20066CL	16	1	ROMAINE	114		0.08	L 03162	YES
20066CL	13	1	BROCCOLI	121		0.02	L 03162	YES
20066CL	5	1	BEANSGRN	123		0.03	L 03162	YES
20066CL	15	1	CAULIFLWR	125		0.01	L 03162	YES
20066CL	7	1	CELERY	126		0.00	L 03162	YES
20066CL	8	1	EGGPLANT	128		0.02	L 03162	YES
20066CL	18	1	ZUCCHINI	136		0.00	L 03162	YES
20066CL	19	1	CORN KRNL	138	<	0.01	L 03162	YES
20066CL	10	1	CARROT	147	<	0.01	L 03162	YES
20066CL	12	1	ONION	148	<	0.01	L 03162	YES
20066CL	4	1	POTATO	154		0.02	L 03162	YES
20066CL	32	1	BACON	200		0.28	L 03162	YES
20066CL	33	1	CHICKEN	205		0.10	L 03162	YES
20066CL	22	1	GRNDBEEF	207		0.12	L 03162	YES
20066CL	29	1	HAM	208		0.22	L 03162	YES
20148VA	1	1	HORSEMEAT	209		0.11	L 05252	YES
20066CL	26	1	LAMBCHOP	211		0.17	L 03162	YES
20066CL	30	1	PORKCHOP	212		0.15	L 03162	YES
20066CL	28	1	RDSTEAK	215		0.09	L 03162	YES
20066CL	21	1	SAUSGEPRK	218		0.07	L 03162	YES
20066CL	27	1	LIVER	236		0.40	L 03162	YES
20066CL	17	1	APPLES	304	<	0.01	L 03162	YES
20146CL	35	1	BANANA	306		0.10	L 04172	YES
20147CP	2	1	BANANA	306		0.07	L 04172	YES
20146CL	34	1	ORANGE	320		0.06	L 04172	YES
20147CP	1	1	ORANGE	320		0.08	L 04042	YES
20066CL	9	1	TOMATO	337	<	0.01	L 03162	YES
20066CL	1	1	CAPPLEJU	340		0.08	L 03152	NO
20066CL	31	1	SOLE	420		0.34	L 03162	YES
20066CL	3	1	ROOTBEER	512		0.05	L 03152	NO
20066CL	24	1	BUTTER	600		0.05	L 03152	YES
20066CL	25	1	COTCHEESE	608		0.08	L 04102	YES
20066CL	2	1	EGGS	617		0.08	L 03152	YES
20066CL	23	1	MILK	619		0.06	L 03152	YES
20066CL	20	1	HERSHYCDY	803		0.15	04032	YES

BURBANK			FOOD TYPE		LEAD		
20217BKS	21	1	CABBAGE	100	0.03	L 05042	YES

LEAD STUDY FOOD LIST O

20217BKS	35	1	LETTUCE	108	0.04	L	05052	YES
20217BKS	62	1	LETTUCE	108	0.26	L	05052	YES
20218BKV	4	1	LETTUCE	108	0.05	L	05242	YES
20218BKV	13	3	LETTUCE	108	1.72	L	06292	YES
20217BKS	61	1	MSTRD GRN	110	0.41	L	05052	YES
20217BKS	64	1	MSTRD GRN	110	0.13	L	05052	YES
20218BKV	11	1	MSTRD GRN	110	0.90	L	05232	YES
20217BKS	18	2	PARSLEY	111	1.25	L	05042	YES
20217BKS	20	2	SPINACH	112	0.69	L	05042	YES
20218BKV	5	1	SPINACH	112	0.32	L	05242	YES
20217BKS	59	1	ROMAINE	114	0.35	L	05052	YES
20217BKS	43	1	ASPARAGUS	117	0.05	L	05052	YES
20217BKS	57	1	AVOCADO	120	0.02	L	05052	YES
20217BKS	63	1	BROCCOLI	121	0.02	L	05052	YES
20217BKS	25	1	GR BEAN	123	0.06	L	05042	YES
20218BKV	3	1	BEANS GRN	123	0.03	L	05242	YES
20217BKS	52	1	CELERY	126	0.05	L	05052	YES
20217BKS	46	1	PEPER BEL	133	0.03	L	05052	YES
20218BKV	2	1	PEPER BEL	133	0.02	L	05242	YES
20217BKS	36	1	ZUCCHINI	136	0.02	L	05052	YES
20217BKS	48	1	CORN	138	0.08	L	05052	YES
20217BKS	58	1	CARROT	147	0.03	L	05052	YES
20217BKS	19	1	GREN ONIO	149	0.14	L	05042	YES
20217BKS	23	1	RD ONION	150	0.03	L	05042	YES
20217BKS	47	1	WHT ONION	152	0.02	L	05052	YES
20217BKS	37	1	YEL ONION	153	0.03	L	05052	YES
20217BKS	22	1	POTATO	154	0.05	L	05042	YES
20217BKS	45	1	POTATO	154	0.05	L	05052	YES
20217BKS	65	1	POTATO	154	0.03	L	05242	YES
20217BKS	17	1	RADISH	155	0.04	L	05042	YES
20217BKS	54	1	RADISH	155	0.04	L	05052	YES
20217BKS	5	1	BACON	200	0.03	L	05052	YES
20217BKS	40	1	BOLOGNA	202	0.08	L	05252	NO
20217BKS	4	1	CALF CHOP	204	0.33	L	05052	YES
20217BKS	50	1	CHICKEN	205	0.10	L	05232	YES
20216BKL	1	1	GRND BEEF	207	0.09	L	05232	YES
20216BKL	6	1	GRND BEEF	207	0.08	L	05232	YES
20217BKS	12	1	GRND BEEF	207	0.08	L	05232	YES
20218BKV	17	1	GRND BEEF	207	0.09	L	05232	YES
20216BKL	8	1	HAM	208	0.11	L	05252	YES
20207BKS	7	1	HOT DOG	210	0.13	L	04102	YES
20216BKL	3	1	LAMB CHOP	211	0.08	L	05232	YES
20217BKS	33	1	PORK CHOP	212	0.10	L	05052	YES
20217BKS	6	1	RND STEAK	215	0.10	L	05052	YES
20218BKV	1	1	RD STEAK	215	0.07	L	05232	YES
20217BKS	14	3	SAUSAGE	216	0.11	L	06292	YES
20217BKS	3	1	SAUSGE PR	218	0.20	L	05052	YES
20217BKS	11	1	SPARE RIB	219	0.07	L	05052	YES
20216BKL	7	1	VEAL	222	0.13	L	05232	YES
20217BKS	2	1	BEEF HEAR	230	0.25	L	05052	YES
20216BKL	4	1	BEEFLIVER	238	0.25	L	05232	YES
20217BKS	49	1	BEEFLIVER	238	0.19	L	05232	YES
20217BKS	1	1	CHIC LIVE	242	0.25	L	05052	YES
20217BKS	10	1	LAMB STEW	269	0.13	L	05052	YES
20217BKS	16	1	APPLE	304	0.06	L	05042	YES
20217BKS	31	1	APPLE	304	0.04	L	05052	YES
20217BKS	44	1	APPLE	304	0.07	L	05052	YES

LEAD STUDY FOOD LIST 0

20217BKS	51	1	APPLE	304	0.06	L	05052	YES
20218BKV	6	1	APPLE	304	0.08	L	05232	YES
20218BKV	10	1	APPLE	304	0.03	L	05232	YES
20218BKV	12	1	APPLE	304	0.03	L	05232	YES
20217BKS	26	1	BANANA	306	0.05	L	05042	YES
20218BKV	15	1	BANANA	306	0.03	L	05232	YES
20216BKL	10	1	MUSHROOM	318	0.07	L	05232	NO
20217BKS	30	1	ORANGE	320	0.10	L	05042	YES
20217BKS	41	1	ORANGE	320	0.05	L	05052	NO
20217BKS	42	1	ORANGE	320	0.04	L	05052	YES
20218BKV	9	1	ORANGE	320	0.04	L	05232	YES
20217BKS	15	1	PEAR	324	0.05	L	05042	YES
20218BKV	7	1	PEAR	324	0.02	L	05232	YES
20216BKL	11	1	STRAWBERY	332	0.05	L	05052	YES
20217BKS	29	1	TANGELO	334	0.08	L	05042	YES
20217BKS	39	1	TOMATO	337	0.02	L	05052	YES
20217BKS	9	1	HADDOCK	408	0.07	L	05052	YES
20217BKS	13	1	OYSTERS	410	0.12	L	05052	YES
20216BKL	2	1	SHRIMP	416	0.10	L	05052	YES
20217BKS	8	1	SHRIMP	416	0.13	L	05052	YES
20216BKL	9	1	SOLE	420	0.10	L	05232	YES
20217BKS	60	1	BUTTER	600	0.09	L	05232	YES
20217BKS	28	1	CHESE AME	603	0.02	L	05052	YES
20217BKS	38	1	CHESE CHD	605	0.02	L	05052	YES
20217BKS	55	1	COTCHEESE	608	0.15	L	05252	YES
20217BKS	24	1	EGGS	617	0.05	L	05052	YES
20217BKS	53	1	MILK	619	0.07	L	05232	YES
20217BKS	32	1	MILK NOFT	626	0.03	L	05232	YES
20217BKS	56	1	YOGURT	635	0.04	L	05232	YES
20217BKS	34	1	BREAD	700	0.10	L	05242	YES
20218BKV	14	1	BUNS	701	0.12	L	05232	YES
20218BKV	16	1	PENUTBUTR	806	0.12	L	05252	YES
20217BKS	27	1	MARGARINE	858	0.06	L	05052	YES

MANHATTAN BEACH			FOOD TYPE		LEAD			
20207MBL	23	1	ENDIVE	105	0.18	L	04172	YES
20206MBS	22	1	ENDIVE	105	0.09	L	04172	YES
20206MBS	21	1	LEEKS	107	0.20	L	04172	YES
20207MBL	13	1	LETTUCE	108	0.10	L	04172	YES
20207MBL	14	1	LETTUCERD	109	0.12	L	04172	YES
20206MBS	16	1	PARSLEY	111	0.49	L	04172	YES
20206MBS	23	1	SPINACH	112	0.42	L	04172	YES
20207MBL	15	1	ROMAINE	114	0.15	L	04172	YES
20207MBL	22	1	ASPARAGUS	117	0.04	L	04172	YES
20207MBL	19	1	BROCCOLI	121	0.11	L	04172	YES
20206MBS	18	1	GREEN BEA	123	0.03	L	04172	YES
20207MBL	21	1	CAULIFLWR	125	0.08	L	04172	YES
20207MBL	16	1	CELERY	126	0.12	L	04172	YES

LEAD STUDY FOOD LIST 0

20206MBS	32	1	EGGPLANT	128	0.03	L	05042	YES
20207MBL	17	1	PEPER BEL	133	0.05	L	04172	YES
20207MBL	30	1	ZUCCHINI	136	0.08	L	04172	YES
20207MBL	29	1	CORN	138	0.03	L	04172	YES
20207MBL	24	1	BEET	146	0.05	L	04172	YES
20207MBL	18	1	CARROT	147	0.17	L	04172	YES
20206MBS	31	1	ONION	148	0.02	L	05042	YES
20206MBS	24	1	GREN ONIO	149	0.08	L	04172	YES
20207MBL	26	1	RED ONION	150	0.05	L	04172	YES
20207MBL	28	1	RUS POTAT	151	0.03	L	04172	YES
20207MBL	27	1	WHT ONION	152	0.02	L	04172	YES
20206MBS	19	1	POTATO	154	0.05	L	04172	YES
20206MBS	25	1	RADISH	155	0.02	L	04172	NO
20207MBL	25	1	YAM	156	0.04	L	04172	YES
20207MBL	43	1	G SPINACH	167	0.04	L	05252	YES
20206MBS	4	1	BACON	200	0.24	L	04102	YES
20207MBL	5	1	BALONEY	202	0.06	L	04102	YES
20206MBS	44	1	BEEF BRAI	203	0.15	L	05052	YES
20207MBL	1	1	CHICKEN	205	0.09	L	04102	YES
20206MBS	6	1	GRND BEEF	207	0.07	L	05052	YES
20206MBS	5	1	HAM	208	0.16	L	04102	YES
20207MBL	12	1	HOTDOG	210	0.26	L	04102	YES
20206MBS	7	1	LAMBCHOP	211	0.25	L	04102	YES
20207MBL	6	1	PORK CHOP	212	0.07	L	05052	YES
20207MBL	10	1	PORKCHOP	212	0.18	L	04102	NO
20207MBL	7	1	RDSTEAK	215	0.32	L	04102	YES
20207MBL	2	1	SAUSGE LN	217	0.29	L	04102	YES
20207MBL	3	1	SAUSGEPRK	218	0.08	L	04102	YES
20206MBS	3	1	VEAL	222	0.16	L	04102	YES
20207MBL	4	1	BF KIDNEY	232	0.41	L	05052	YES
20207MBL	9	1	BEEF LIVE	238	0.19	L	05052	YES
20206MBS	8	1	CALF LIVE	240	0.28	L	05052	YES
20206MBS	9	1	PORKLIVER	245	0.23	L	04102	YES
20207MBL	42	1	LIVERWRST	246	0.16	L	05252	YES
20207MBL	39	1	C HAM	247	0.11	L	05252	YES
20206MBS	35	1	C KIDNEY	250	0.02	L	05252	YES
20206MBS	34	1	C LIVER	252	0.32	L	05252	YES
20207MBL	8	1	BEEFSTEW	267	0.10	L	04102	YES
20207MBL	31	1	APPLE	304	0.05	L	04172	YES
20206MBS	41	1	APPLE	304	0.05	L	05042	YES
20206MBS	30	1	BANANA	306	0.06	L	05052	YES
20206MBS	17	1	MUSHROOM	318	0.05	L	04172	YES
20206MBS	29	1	ORANGE	320	0.05	L	05042	YES
20206MBS	20	1	PEACH	322	0.01	L	05042	YES
20206MBS	26	1	PEAR ANJO	325	0.03	L	05042	YES
20206MBS	27	1	PEAR BOSC	326	0.08	L	05042	YES
20206MBS	15	1	STRAWBERY	332	0.17	L	05042	YES
20206MBS	28	1	TANGERINE	336	0.05	L	05042	YES
20207MBL	20	1	TOMATO	337	0.02	L	05052	YES
20206MBS	12	1	ANCHVYPST	403	2.00	L	05252	YES
20206MBS	1	1	HALIBUT	406	0.10	L	04102	YES
20207MBL	11	1	OYSTERS	410	0.15	L	05052	YES
20206MBS	14	1	C OYSTERS	415	0.52	L	05252	YES
20206MBS	2	1	SHRIMP	416	0.33	L	04102	YES
20207MBL	34	1	TUNA	422	0.28	L	05252	YES
20207MBL	33	1	BUTTER	600	0.05	L	05052	YES
20206MBS	42	1	CHDR CHEE	605	0.13	L	04172	YES

LEAD STUDY FOOD LIST 0

20206MBS	43	1	COTCHEESE608		0.04	L	05232	YES
20206MBS	11	2	EGGS 617		0.07	L	05052	YES
20207MBL	32	2	MILK 619		0.03	L	05052	YES
20206MBS	13	1	MILK EVAP620		0.31	L	05232	YES
20207MBL	37	1	MILK NOFT626		0.08	L	05042	YES
20207MBL	36	1	SLENDER 632		0.22	L	05042	YES
20207MBL	41	1	SOYALAC 632		0.13	L	05252	YES
20206MBS	33	1	BREAD 700		0.13	L	05042	YES
20207MBL	40	1	CORNFLAKE702		0.22	L	05252	YES
20206MBS	40	1	SOYA FLOU705		0.12	L	05042	YES
20207MBL	38	1	RYE FLOUR707		0.14	L	05042	YES
20206MBS	37	1	ROLLED OA711		0.13	L	05042	YES
20206MBS	38	1	BROWN RIC715		0.22	L	05042	YES
20206MBS	36	1	WHEAT CRK719		0.14	L	05042	YES
20206MBS	39	1	WHEAT GER722		0.79	L	05042	YES
20206MBS	10	2	MARGARINE858		0.06	L	06292	YES
20207MBL	35	1	PUDINGCOC900		0.75	L	05042	YES

BENICIA GARDEN			FOOD TYPE		LEAD			
20118B	12	2	CABBAGE 100		0.03	L	03202	YES
20117B	24	1	CAROT GRN102		2.20	L	12201	YES
20116B	45	3	CAROT GRN102		5.60	L	03202	YES
20118B	3	1	CHARD 103		0.15	L	12171	YES
20118B	14	1	CHARD 103		0.29	L	12171	YES
20116B	40	2	CHARD 103		2.41	L	03202	YES
20116B	30	1	KALE 106		0.48	L	12201	YES
20118B	2	2	PARSLEY 111		0.50	L	01072	YES
20118B	6	1	BROCCOLI 121		0.22	L	12171	YES
20116B	29	1	BEANS 122		0.25	L	12201	YES
20117B	23	1	BEANS,GRN123		0.26	L	12201	YES
20116B	38	2	BEANS GRN123		0.21	L	03202	YES
20115B	44	2	BEANGRN 123		0.20	L	03202	YES
20115B	53	1	BEANS,GRN123		0.14	L	01072	YES
20115B	54	1	CUCUMBER 127		0.04	L	01072	YES
20118B	4	2	PEPERBEL 133		0.08	L	03202	YES
20117B	16	2	PEPERBEL 133		0.03	L	03202	NO
20117B	21	1	PEPER,BEL133		0.18	L	12201	NO
20116B	42	2	PEPERBEL 133		0.05	L	03202	NO
20115B	47	1	PEPER,BEL133	<	0.09	L	12281	NO
20116B	35	1	SQASH,SUM135	<	0.01	L	12281	YES
20118B	5	1	ZUCCHINI 136		0.19	L	12171	YES
20118B	8	1	ZUCCHINI 136		0.07	L	12171	YES
20116B	36	2	ZUCCHINI 136		0.05	L	03202	NO
20115B	43	1	ZUCCHINI 136	<	0.04	L	12281	NO
20116B	33	2	CORN KRNL138		0.10	L	03202	YES
20116B	34	1	CORN COB 139		0.40	L	12201	YES
20116B	32	1	CORNHUSK 140		1.03	L	12201	YES
20117B	17	2	PEPRCHLI 142		0.05	L	03202	YES
20116B	50	2	SQUASHBN 143		0.10	L	03202	YES
20115B	49	1	SQUASH 144		0.12	L	01072	YES
20117B	25	1	CARROT 147		0.47	L	12201	YES
20116B	41	2	CARROT 147		0.16	L	03202	YES

LEAD STUDY FOOD LIST 0

20115B	46	1	CARROT	147		0.18	L	12281	YES
20116B	31	2	ONION	148		0.05	L	03202	YES
20115B	55	1	ONION	148		0.16	L	01072	YES
20117B	20	1	ONION,GRN	149		0.71	L	12201	YES
20115B	56	1	POTATO	154		0.27	L	01072	YES
20118B	13	1	BERRIES	308		0.62	L	12171	YES
20117B	18	1	FIGS	310		0.29	L	12201	YES
20116B	48	2	FIGS	310		0.09	L	03202	YES
20115B	58	1	FIGS	310		0.26	L	01072	YES
20118B	11	2	GRAPFRUIT	312		0.07	L	03202	YES
20116B	37	2	LEMON	316		0.21	L	01072	YES
20115B	52	1	LEMON	316		0.14	L	01072	YES
20117B	15	1	PEACH	322		0.48	L	12171	YES
20117B	27	1	PEACHES	322		0.57	L	12201	YES
20118B	9	1	PEARS	324	<	0.14	L	12171	YES
20115B	51	1	PEARS	324		0.29	L	01072	YES
20115B	57	1	PEARS	324		0.23	L	01072	YES
20117B	26	1	STRWBERIE	332		0.47	L	12201	NO
20118B	1	2	TOMATO	337		0.08	L	01072	YES
20118B	7	2	TOMATO	337		0.01	L	03202	NO
20117B	19	1	TOMATO	337		0.07	L	12201	NO
20117B	28	1	TOMATO	337		0.06	L	12201	YES
20116B	39	2	TOMATO	337		0.12	L	03202	NO
20118B	10	2	LIMEJUICE	352		0.29	L	03202	YES
20117B	22	1	CHILI	970		0.13	L	12201	NO

MAN BCH GARDEN			FOOD TYPE			LEAD			
20236MBG	4	1	CHARD	103		0.57	L	05252	YES
20236MBG	1	1	LETTUCE	108		0.42	L	05252	YES
20236MBG	6	1	PARSLEY	111		1.82	L	05252	YES
20236MBG	5	1	ASPARAGUS	117		0.16	L	05052	NO
20236MBG	2	1	CARROT	147		0.07	L	05252	NO
20236MBG	3	1	STRAWBERY	332		0.45	L	05052	NO

HOSPITAL DIET			FOOD TYPE			LEAD			
20080D-11676	1	HOSPDIET	950			0.04	L	03162	YES
20080D-11677	1	HOSPDIET	950			0.09	L	03162	YES
20149D-11678	1	HOSPDIET	950			0.08	L	04042	YES
11217D-15301	1	DIETS	950			0.17	L	11191	YES
11217D-15302	2	DIETS	950		<	0.01	L	12141	YES
11217D-15303	3	HOSPDIET	950			0.05	L	04032	YES
20080D-21679	1	HOSPDIET	950			0.07	L	03162	YES
20080D-21680	1	HOSPDIET	950			0.01	L	03162	YES
20080D-21681	1	HOSPDIET	950			0.05	L	03162	YES
11217D-25304	2	HOSPDIET	950			0.04	L	04032	YES
20149D-31682	1	HOSPDIET	950			0.02	L	04042	YES

LEAD STUDY FOOD LIST 0

20149D-31684	1	HOSPDIET 950	0.04	L	04042	YES
20149D-41685	1	HOSPDIET 950	0.06	L	04042	YES
20149D-41686	1	HOSPDIET 950	0.05	L	04042	YES
20149D-41687	1	HOSPDIET 950	0.04	L	04042	YES
11217D-43861	3	HOSPDIET 950	0.05	L	04032	YES
20080D-45312	1	HOSP DIET950	0.02	L	03162	YES
20149D-51689	1	HOSPDIET 950	0.08	L	04042	YES
20149D-51690	1	HOSPDIET 950	0.05	L	04042	YES
20080D-55313	1	HOSP DIET950	0.03	L	03162	YES
20080D-55314	1	HOSP DIET950	0.13	L	03162	YES
20149D-61691	1	HOSPDIET 950	0.05	L	04042	YES
11217D-65305	2	HOSPDIET 950	0.05	L	04032	YES
20080D-75320	1	HOSP DIET950	0.16	L	03162	YES

b. ORDERED BY FOOD CODE WITHIN FOOD TYPE

LEAD STUDY FOOD LIST 0

ALPINE				VEG	LEAD µg/100g			
11221A	58	2	LETTUCE	108		0.05	L 03202	NO
11221A	53	1	PARSLEY	111		0.20	L 01072	YES
11221A	56	2	SPINACH	112		0.32	L 12141	YES
11218A	17	1	ROMAINE	114		0.26	L 11231	YES
11218A	16	2	CELERY	126		0.04	L 03202	NO
11218A	13	2	EGGPLANT	128		0.02	L 03202	NO
11218A	15	1	CARROT	147		0.31	L 11231	YES
11221A	50	1	CARROT	147		0.12	L 11231	YES
11218A	14	2	ONION	148		0.03	L 03202	NO
11221A	55	2	ONION	148		0.05	L 03202	NO
11218A	12	2	POTATO	154		0.02	L 03202	YES
11221A	51	2	POTATO	154		0.04	L 03202	YES
11221A	52	2	RADISH	155		0.23	L 11231	YES

BENICIA				VEG	LEAD			
20055BP	20	1	COLRD GRN	104		0.48	L 03152	YES
20003BS	193	1	MSTRD GRN	110		0.75	L 03142	YES
20055BP	17	1	PARSLEY	111		0.66	L 03152	YES
20003BS	194	1	PARSLEY	111		0.88	L 03142	YES
20055BP	19	1	SPINACH	112		0.23	L 03152	YES
20114BS	206	1	SPINCHFRZ	113		0.16	L 03142	YES
20055BP	21	1	ROMAINE	114		0.09	L 03152	YES
20003BS	189	1	ROMAINE	114		0.40	L 03142	YES
20002BS	132	1	BEANS	122		0.11	L 01252	YES
20055BP	38	1	BEANS GRN	123		0.07	L 03162	YES
20003BS	199	1	BEANSGRN	123		0.12	L 03142	YES
20055BP	27	1	CAULIFLWR	125		0.28	L 03152	YES
20003BS	197	1	CAULIFLWR	125		0.12	L 03142	YES
20055BP	35	1	EGGPLANT	128		0.05	L 03162	YES
20003BS	195	1	EGGPLANT	128		0.05	L 03142	YES
20002BS	146	2	OLIVES	130		0.59	L 04042	YES
20002BS	131	1	PEAS	131		0.14	L 01252	YES
20114BS	205	1	PEAS,FRZN	132		0.26	L 03142	YES
20055BP	25	1	PEPERGRN	133	<	0.01	L 03152	YES
20002BS	136	1	PICKLES	134		0.13	L 03142	YES
20055BP	37	1	ZUCCHINI	136		0.01	L 03162	YES
20003BS	191	1	ZUCCHINI	136		0.04	L 03142	YES
20055BP	28	2	CARROT	147		0.12	L 05252	YES
20003BS	185	1	CARROT	147		0.10	L 03142	YES
20055BP	18	1	GREN ONIO	149		0.06	L 03152	YES
20003BS	196	1	ONIONGRN	149		0.18	L 03142	YES
20055BP	40	1	ONIONWHT	152	<	0.01	L 03162	YES
20055BP	29	1	ONIONYEL	153		0.04	L 03152	YES
20003BS	192	1	ONIONYEL	153		0.11	L 03142	YES
20055BP	30	1	POTATO	154		0.05	L 03152	YES
20055BP	36	1	POTATO	154		0.09	L 03162	YES
20003BS	198	1	POTATO	154		0.13	L 03142	YES
20003BS	200	1	POTATO	154		0.10	L 03142	YES
20055BP	32	1	YAM	156	<	0.02	L 03162	YES
20114BS	207	1	VEG,FRZ	158		0.09	L 03142	YES
20002BS	116	1	CASPRAGUS	160		0.19	L 01252	YES
20002BS	139	1	CLIMABEAN	162		0.38	L 03142	YES
20002BS	148	1	CSPINACH	168		0.26	L 03142	YES

LEAD STUDY FOOD LIST O

20002BS	107	1	CSAURCRUT	169		0.52	L	01252	YES
20002BS	154	1	C BEANS	170		0.29	L	04102	YES
20002BS	168	1	CCORN	172		0.18	L	03142	YES
20002BS	105	1	CSTWDTMTO	174		0.41	L	01252	YES
20002BS	149	1	CTOMTOPST	178		0.08	L	03152	NO
20002BS	104	1	CTOMTOSCE	180		0.18	L	03152	NO
20002BS	143	1	CTOMTOSUP	182		0.05	L	03152	NO
20002BS	163	1	CBEETS	184		0.18	L	03142	YES
20002BS	129	1	CTRN,GRN	185		0.48	L	01252	YES
20002BS	113	1	CTOMTOJU	186		0.07	L	03152	NO
20002BS	127	1	CTOMTOJU	186		0.10	L	03152	NO
20002BS	145	1	CV-8	188		0.20	L	03152	NO

CROCKETT VEG LEAD

20066CL	14	1	LETTUCE	108		0.54	L	03162	YES
20066CL	6	1	PARSLEY	111		0.24	L	03162	YES
20066CL	11	2	SPINACH	112		0.85	L	03162	YES
20066CL	16	1	ROMAINE	114		0.08	L	03162	YES
20066CL	13	1	BROCCOLI	121		0.02	L	03162	YES
20066CL	5	1	BEANSGRN	123		0.03	L	03162	YES
20066CL	15	1	CAULIFLWR	125		0.01	L	03162	YES
20066CL	7	1	CELERY	126		0.00	L	03162	YES
20066CL	8	1	EGGPLANT	128		0.02	L	03162	YES
20066CL	18	1	ZUCCHINI	136		0.00	L	03162	YES
20066CL	19	1	CORN KRNL	138	<	0.01	L	03162	YES
20066CL	10	1	CARROT	147	<	0.01	L	03162	YES
20066CL	12	1	ONION	148	<	0.01	L	03162	YES
20066CL	4	1	POTATO	154		0.02	L	03162	YES

BURBANK VEG LEAD

20217BKS	21	1	CABBAGE	100		0.03	L	05042	YES
20217BKS	35	1	LETTUCE	108		0.04	L	05052	YES
20217BKS	62	1	LETTUCE	108		0.26	L	05052	YES
20217BKS	61	1	MSTRD GRN	110		0.41	L	05052	YES
20217BKS	64	1	MSTRD GRN	110		0.13	L	05052	YES
20217BKS	18	2	PARSLEY	111		1.25	L	05042	YES
20217BKS	20	2	SPINACH	112		0.69	L	05042	YES
20217BKS	59	1	ROMAINE	114		0.35	L	05052	YES
20217BKS	43	1	ASPARAGUS	117		0.05	L	05052	YES
20217BKS	57	1	AVOCADO	120		0.02	L	05052	YES
20217BKS	63	1	BROCCOLI	121		0.02	L	05052	YES
20217BKS	25	1	GR BEAN	123		0.06	L	05042	YES
20217BKS	52	1	CELERY	126		0.05	L	05052	YES
20217BKS	46	1	PEPER BEL	133		0.03	L	05052	YES
20217BKS	36	1	ZUCCHINI	136		0.02	L	05052	YES
20217BKS	48	1	CORN	138		0.08	L	05052	YES
20217BKS	58	1	CARROT	147		0.03	L	05052	YES
20217BKS	19	1	GREN ONIO	149		0.14	L	05042	YES
20217BKS	23	1	RD ONION	150		0.03	L	05042	YES
20217BKS	47	1	WHT ONION	152		0.02	L	05052	YES
20217BKS	37	1	YEL ONION	153		0.03	L	05052	YES
20217BKS	22	1	POTATO	154		0.05	L	05042	YES
20217BKS	45	1	POTATO	154		0.05	L	05052	YES

LEAD STUDY FOOD LIST 0

20217BKS	65	1	POTATO	154
20217BKS	17	1	RADISH	155
20217BKS	54	1	RADISH	155
20218BKV	4	1	LETTUCE	108
20218BKV	13	3	LETTUCE	108
20218BKV	11	1	MSTRD GRN	110
20218BKV	5	1	SPINACH	112
20218BKV	3	1	BEANS GRN	123
20218BKV	2	1	PEPER BEL	133

MANHATTAN BEACH VEG

20207MBL	23	1	ENDIVE	105
20206MBS	22	1	ENDIVE	105
20206MBS	21	1	LEEKS	107
20207MBL	13	1	LETTUCE	108
20207MBL	14	1	LETTUCERD	109
20206MBS	16	1	PARSLEY	111
20206MBS	23	1	SPINACH	112
20207MBL	15	1	ROMAINE	114
20207MBL	22	1	ASPARAGUS	117
20207MBL	19	1	BROCCOLI	121
20206MBS	18	1	GREEN BEA	123
20207MBL	21	1	CAULIFLWR	125
20207MBL	16	1	CELERY	126
20206MBS	32	1	EGGPLANT	128
20207MBL	17	1	PEPER BEL	133
20207MBL	30	1	ZUCCHINI	136
20207MBL	29	1	CORN	138
20207MBL	24	1	BEET	146
20207MBL	18	1	CARROT	147
20206MBS	31	1	ONION	148
20206MBS	24	1	GREN ONIO	149
20207MBL	26	1	RED ONION	150
20207MBL	28	1	RUS POTAT	151
20207MBL	27	1	WHT ONION	152
20206MBS	19	1	POTATO	154
20206MBS	25	1	RADISH	155
20207MBL	25	1	YAM	156
20207MBL	43	1	G SPINACH	167

ALPINE MEAT

11219A	25	2	BACON	200
11220A	40	2	BACON	200
11219A	26	2	CHICKEN	205
11220A	44	1	CHICKEN	205
11218A	24	3	GRNDCHUCK	207
11220A	39	2	GRND BEEF	207
11218A	23	2	HAM	208
11220A	41	2	HAM	208
11219A	27	2	LAMBCHOP	211
11220A	43	2	LAMB CHOP	211

0.03	L	05242	YES
0.04	L	05042	YES
0.04	L	05052	YES
0.05	L	05242	YES
1.72	L	06292	YES
0.90	L	05232	YES
0.32	L	05242	YES
0.03	L	05242	YES
0.02	L	05242	YES

LEAD

0.18	L	04172	YES
0.09	L	04172	YES
0.20	L	04172	YES
0.10	L	04172	YES
0.12	L	04172	YES
0.49	L	04172	YES
0.42	L	04172	YES
0.15	L	04172	YES
0.04	L	04172	YES
0.11	L	04172	YES
0.03	L	04172	YES
0.08	L	04172	YES
0.12	L	04172	YES
0.03	L	05042	YES
0.05	L	04172	YES
0.08	L	04172	YES
0.03	L	04172	YES
0.05	L	04172	YES
0.17	L	04172	YES
0.02	L	05042	YES
0.08	L	04172	YES
0.05	L	04172	YES
0.03	L	04172	YES
0.02	L	04172	YES
0.05	L	04172	YES
0.02	L	04172	NO
0.04	L	04172	YES
0.04	L	05252	YES

LEAD

0.30	L	04032	YES
0.06	L	04032	YES
0.16	L	04032	YES
0.42	L	01072	YES
0.08	L	04032	YES
0.16	L	04032	YES
0.84	L	11191	YES
0.08	L	04032	YES
0.10	L	04032	YES
0.16	L	04032	YES

LEAD STUDY FOOD LIST 0

11220A	42	2	PORK CHOP212	0.19	L	04032	YES
11220A	38	2	RD STEAK 215	0.48	L	04032	YES
11218A	21	1	SAUSGELNK217	0.69	L	11191	YES
11220A	37	2	SAUSGEPRK218	0.18	L	04032	YES
11218A	20	2	TOP ROUND220	0.52	L	11191	YES
11218A	22	3	BEEFLIVER238	0.45	L	01072	YES
11220A	36	2	CHICLIVER242	0.21	L	04032	YES
11220A	35	2	PORKLIVER245	0.14	L	04032	YES
11220A	48	2	MEATPOTED254	0.10	L	04042	YES

BENICIA MEAT LEAD

20055BP	2	1	BACON 200		0.20	L	03152	YES
20003BS	180	1	BACON 200		0.44	L	01252	YES
20055BP	15	1	BALONEY 202		0.07	L	03152	YES
20055BP	14	1	CHICKEN 205	<	0.03	L	03152	YES
20003BS	172	2	CHICKEN 205		0.16	L	04042	YES
20002BS	160	1	CHICKBD 206		0.41	L	03162	YES
20055BP	7	1	GRNDBEEF 207	<	0.03	L	03152	YES
20003BS	183	3	HAMBURGER207		0.10	L	04102	YES
20055BP	4	1	HAM 208		0.13	L	03152	YES
20003BS	184	1	HAM 208		0.32	L	01252	YES
20055BP	3	1	HOTDOG 210	<	0.02	L	03152	YES
20003BS	179	2	HOTDOGS 210		0.18	L	04042	YES
20055BP	8	1	LAMBCHOP 211	<	0.03	L	03152	YES
20003BS	177	2	LAMBCHOP 211		0.18	L	04042	YES
20055BP	12	1	PORKCHOP 212	<	0.03	L	03152	YES
20003BS	173	2	PORKCHOP 212		0.27	L	04042	YES
20114BS	210	1	PORKCHOP 212		0.38	L	01252	YES
20003BS	176	1	SAUSAGE 216	<	0.02	L	01252	YES
20055BP	1	1	SAUSGEPRK218		0.05	L	03152	YES
20055BP	13	1	TOPROUND 220	<	0.03	L	03152	YES
20003BS	174	1	TOP ROUND220		0.93	L	01252	YES
20114BS	209	1	VEALKIDNY234		1.52	L	01252	YES
20003BS	178	1	BEEFLIVER238		0.43	L	01252	YES
20055BP	6	1	LAMBLIVER244		0.05	L	03152	YES
20002BS	153	1	HAMDEVLD 248		0.12	L	03162	YES
20002BS	170	1	GJRCHICK 256		0.14	L	03162	YES
20002BS	171	1	GJRCHICK 256		0.14	L	03162	YES
20002BS	134	1	SPAM 258		0.14	L	03162	YES
20002BS	144	1	CONSOMME 260		0.05	L	03152	NO
20002BS	128	1	BEEFHASH 263		0.61	L	04102	YES
20002BS	162	1	PORK BEAN265		0.28	L	04102	YES
20002BS	157	1	BF STEW 267		0.19	L	04102	YES

CROCKETT MEAT LEAD

20066CL	32	1	BACON 200	0.28	L	03162	YES
20066CL	33	1	CHICKEN 205	0.10	L	03162	YES
20066CL	22	1	GRNDBEEF 207	0.12	L	03162	YES
20066CL	29	1	HAM 208	0.22	L	03162	YES
20148VA	1	1	HORSEMEAT209	0.11	L	05252	YES
20066CL	26	1	LAMBCHOP 211	0.17	L	03162	YES
20066CL	30	1	PORKCHOP 212	0.15	L	03162	YES
20066CL	28	1	RDSTEAK 215	0.09	L	03162	YES

20066CL	21	1	SAUSGEPRK218	0.07	L	03162	YES
20066CL	27	1	LIVER 236	0.40	L	03162	YES

BURBANKT MEAT LEAD

20217BKS	5	1	BACON 200	0.03	L	05052	YES
20217BKS	40	1	BOLOGNA 202	0.08	L	05252	NO
20217BKS	4	1	CALF CHOP204	0.33	L	05052	YES
20217BKS	50	1	CHICKEN 205	0.10	L	05232	YES
20217BKS	12	1	GRND BEEF207	0.08	L	05232	YES
20216BKL	1	1	GRND BEEF207	0.09	L	05232	YES
20216BKL	6	1	GRND BEEF207	0.08	L	05232	YES
20218BKV	17	1	GRND BEEF207	0.09	L	05232	YES
20216BKL	8	1	HAM 208	0.11	L	05252	YES
20207BKS	7	1	HOT DOG 210	0.13	L	04102	YES
20216BKL	3	1	LAMB CHOP211	0.08	L	05232	YES
20217BKS	33	1	PORK CHOP212	0.10	L	05052	YES
20217BKS	6	1	RND STEAK215	0.10	L	05052	YES
20218BKV	1	1	RD STEAK 215	0.07	L	05232	YES
20217BKS	14	3	SAUSAGE 216	0.11	L	06292	YES
20217BKS	3	1	SAUSGE PR218	0.20	L	05052	YES
20217BKS	11	1	SPARE RIB219	0.07	L	05052	YES
20216BKL	7	1	VEAL 222	0.13	L	05232	YES
20217BKS	2	1	BEEF HEAR230	0.25	L	05052	YES
20217BKS	49	1	BEEFLIVER238	0.19	L	05232	YES
20216BKL	4	1	BEEFLIVER238	0.25	L	05232	YES
20217BKS	1	1	CHIC LIVE242	0.25	L	05052	YES
20217BKS	10	1	LAMB STEW269	0.13	L	05052	YES

MANHATTAN BEACH MEAT LEAD

20206MBS	4	1	BACON 200	0.24	L	04102	YES
20207MBL	5	1	BALONEY 202	0.06	L	04102	YES
20206MBS	44	1	BEEF BRAI203	0.15	L	05052	YES
20207MBL	1	1	CHICKEN 205	0.09	L	04102	YES
20206MBS	6	1	GRND BEEF207	0.07	L	05052	YES
20206MBS	5	1	HAM 208	0.16	L	04102	YES
20207MBL	12	1	HOTDOG 210	0.26	L	04102	YES
20206MBS	7	1	LAMBCHOP 211	0.25	L	04102	YES
20207MBL	6	1	PORK CHOP212	0.07	L	05052	YES
20207MBL	10	1	PORKCHOP 212	0.18	L	04102	NO
20207MBL	7	1	RDSTEAK 215	0.32	L	04102	YES
20207MBL	2	1	SAUSGE LN217	0.29	L	04102	YES
20207MBL	3	1	SAUSGEPRK218	0.08	L	04102	YES
20206MBS	3	1	VEAL 222	0.16	L	04102	YES
20207MBL	4	1	BF KIDNEY232	0.41	L	05052	YES
20207MBL	9	1	BEEF LIVE238	0.19	L	05052	YES
20206MBS	8	1	CALF LIVE240	0.28	L	05052	YES
20206MBS	9	1	PORKLIVER245	0.23	L	04102	YES
20207MBL	42	1	LIVERWRST246	0.16	L	05252	YES
20207MBL	39	1	C HAM 247	0.11	L	05252	YES
20206MBS	35	1	C KIDNEY 250	0.02	L	05252	YES
20206MBS	34	1	C LIVER 252	0.32	L	05252	YES
20207MBL	8	1	BEEFSTEW 267	0.10	L	04102	YES

LEAD STUDY FOOD LIST 0

ALPINE				FRUIT	LEAD			
11218A	11	1	APPLES	304		0.15	L 01072	YES
11219A	32	1	APPLES	304		0.20	L 11231	YES
11219A	31	1	GRAPES	314		0.30	L 11231	YES
11221A	54	1	PEACHES	322	<	0.08	L 01072	YES
11219A	30	3	PRUNES	328		0.04	L 03202	NO
11218A	18	3	TOMATO	337		0.02	L 03202	NO
11221A	49	2	TOMATO	337		0.18	L 11231	YES

BENICIA				FRUIT	LEAD			
20055BP	26	1	APPLES	304		0.09	L 03152	YES
20055BP	33	1	APPLES	304		0.02	L 03162	YES
20003BS	187	1	APPLE	304		0.09	L 03142	YES
20144BP	44	1	BANANA	306		0.11	L 04172	YES
20145BS	213	1	BANANA	306		0.10	L 04172	YES
20055BP	41	1	MUSHROOM	318	<	0.00	L 03162	YES
20144BP	43	1	ORANGE	320		0.08	L 04172	YES
20145BS	212	1	ORANGE	320		0.12	L 04172	YES
20055BP	31	1	PEAR	324		0.05	L 03162	YES
20055BP	34	1	PEAR	324		0.13	L 03162	YES
20003BS	188	1	PEARS	324		0.12	L 03142	YES
20114BS	204	1	RAISIN	330		0.55	L 03162	YES
20055BP	42	1	TOMATO	337	<	0.01	L 03162	YES
20002BS	119	2	CAPPLEJU	340		0.26	L 03152	NO
20002BS	133	1	GAPLSAUCE	343		0.03	L 04032	YES
20002BS	109	2	CAPRICOT	344		0.07	L 04032	YES
20002BS	115	2	CFRUTCKTL	346		0.11	L 04032	NO
20002BS	112	1	CGRPFRTJ	348		0.09	L 03152	NO
20002BS	158	1	CCONLMEJU	354		0.42	L 03152	NO
20002BS	167	1	CORANGJU	356		0.10	L 03152	NO
20002BS	147	1	CPEACHES	358		0.15	L 03142	YES
20002BS	102	1	CPINEAPLE	359		0.27	L 01252	YES
20002BS	120	1	CPINAPLJU	360		0.01	L 03152	NO

CROCKETT				FRUIT	LEAD			
20066CL	17	1	APPLES	304	<	0.01	L 03162	YES
20146CL	35	1	BANANA	306		0.10	L 04172	YES
20147CP	2	1	BANANA	306		0.07	L 04172	YES
20146CL	34	1	ORANGE	320		0.06	L 04172	YES
20147CP	1	1	ORANGE	320		0.08	L 04042	YES
20066CL	9	1	TOMATO	337	<	0.01	L 03162	YES
20066CL	1	1	CAPPLEJU	340		0.08	L 03152	NO

BURBANK				FRUIT	LEAD			
20217BKS	16	1	APPLE	304		0.06	L 05042	YES
20217BKS	31	1	APPLE	304		0.04	L 05052	YES

LEAD STUDY FOOD LIST 0

20217BKS	44	1	APPLE	304	0.07	L	05052	YES
20217BKS	51	1	APPLE	304	0.06	L	05052	YES
20218BKV	6	1	APPLE	304	0.08	L	05232	YES
20218BKV	10	1	APPLE	304	0.03	L	05232	YES
20218BKV	12	1	APPLE	304	0.03	L	05232	YES
20217BKS	26	1	BANANA	306	0.05	L	05042	YES
20218BKV	15	1	BANANA	306	0.03	L	05232	YES
20216BKL	10	1	MUSHROOM	318	0.07	L	05232	NO
20217BKS	30	1	ORANGE	320	0.10	L	05042	YES
20217BKS	41	1	ORANGE	320	0.05	L	05052	NO
20217BKS	42	1	ORANGE	320	0.04	L	05052	YES
20218BKV	9	1	ORANGE	320	0.04	L	05232	YES
20217BKS	15	1	PEAR	324	0.05	L	05042	YES
20218BKV	7	1	PEAR	324	0.02	L	05232	YES
20216BKL	11	1	STRAWBERY	332	0.05	L	05052	YES
20217BKS	29	1	TANGELO	334	0.08	L	05042	YES
20217BKS	39	1	TOMATO	337	0.02	L	05052	YES

MANHATTAN BEACH				FRUIT	LEAD			
20207MBL	31	1	APPLE	304	0.05	L	04172	YES
20206MBS	41	1	APPLE	304	0.05	L	05042	YES
20206MBS	30	1	BANANA	306	0.06	L	05052	YES
20206MBS	17	1	MUSHROOM	318	0.05	L	04172	YES
20206MBS	29	1	ORANGE	320	0.05	L	05042	YES
20206MBS	20	1	PEACH	322	0.01	L	05042	YES
20206MBS	26	1	PEAR ANJO	325	0.03	L	05042	YES
20206MBS	27	1	PEAR BOSC	326	0.08	L	05042	YES
20206MBS	15	1	STRAWBERY	332	0.17	L	05042	YES
20206MBS	28	1	TANGERINE	336	0.05	L	05042	YES
20207MBL	20	1	TOMATO	337	0.02	L	05052	YES

ALPINE				FISH	LEAD			
11220A	47	1	TUNA	422	0.89	L	01072	YES

BENICIA				FISH	LEAD			
20002BS	122	2	ANCHOVY C	402	0.93	L	04042	YES
20002BS	103	1	CLAMSMKD	404	0.31	L	04042	YES
20114BS	211	2	HALIBUT	406	0.36	L	04042	YES
20055BP	11	1	OYSTER	410	< 0.04	L	03152	YES
20002BS	114	1	OYSTSMKD	414	0.51	L	04042	YES
20055BP	5	1	SHRIMP	416	0.19	L	03152	YES
20002BS	159	1	SHRIMPC	418	0.21	L	04042	YES
20055BP	24	1	SOLE	420	0.05	L	03152	YES

CROCKETT				FISH	LEAD			
20066CL	31	1	SOLE	420	0.34	L	03162	YES

LEAD STUDY FOOD LIST 0

BURBANKT				FISH	LEAD			
20217BKS	9	1	HADDOCK	408		0.07	L 05052	YES
20217BKS	13	1	OYSTERS	410		0.12	L 05052	YES
20216BKL	2	1	SHRIMP	416		0.10	L 05052	YES
20217BKS	8	1	SHRIMP	416		0.13	L 05052	YES
20216BKL	9	1	SOLE	420		0.10	L 05232	YES

MANHATTAN BEACH				FISH	LEAD			
20206MBS	12	1	ANCHVYPST	403		2.00	L 05252	YES
20206MBS	1	1	HALIBUT	406		0.10	L 04102	YES
20207MBL	11	1	OYSTERS	410		0.15	L 05052	YES
20206MBS	14	1	C OYSTERS	415		0.52	L 05252	YES
20206MBS	2	1	SHRIMP	416		0.33	L 04102	YES
20207MBL	34	1	TUNA	422		0.28	L 05252	YES

BENICIA				BEVERAGE	LEAD			
20002BS	138	1	COFE GRND	500		1.50	L 03142	YES
20002BS	166	1	COFEE,FD	503		0.37	L 03142	YES
20002BS	161	1	TEA LEAVS	504		0.77	L 03142	YES
20002BS	151	1	BURGUNDYW	505		0.33	L 04042	YES
20002BS	141	1	CBEER	506		0.03	L 03152	NO
20002BS	130	1	COKE	507		0.04	L 03152	NO

CROCKETT				BEVERAGE	LEAD			
20066CL	3	1	ROOTBEER	512		0.05	L 03152	NO

ALPINE				DAIRY	LEAD			
11219A	34	2	BUTTER	600		0.12	L 04032	YES
11219A	29	3	EGG	617		0.02	L 04032	YES
11219A	33	2	MILK	619	<	0.01	L 04032	YES
11220A	45	1	MILK	619		0.08	L 01072	YES

BENICIA				DAIRY	LEAD			
20055BP	10	1	BUTTER	600		0.17	L 03152	YES
20003BS	175	2	BUTTER	600		0.45	L 04042	YES
20003BS	190	1	CHEESE	602	<	0.02	L 03152	YES
20055BP	9	1	COTCHEESE	608		0.06	L 03152	YES
20002BS	150	1	CHESESPRD	614	<	0.01	L 03152	NO
20055BP	23	1	EGG	617		0.04	L 03152	YES
20003BS	186	1	EGGS	617		0.12	L 01252	YES
20055BP	22	1	MILK	619		0.06	L 03152	YES
20003BS	182	2	MILK	619		0.03	L 04102	YES

LEAD STUDY FOOD LIST 0

20002BS	164	1	MILKEVAP	620	0.19	L	03162	YES
20002BS	106	1	MILKPNFT	629	0.21	L	03152	YES
20002BS	169	1	SIMILAC	632	0.12	L	03162	YES

CROCKETT DAIRY LEAD

20066CL	24	1	BUTTER	600	0.05	L	03152	YES
20066CL	25	1	COTCHEESE	608	0.08	L	04102	YES
20066CL	2	1	EGGS	617	0.08	L	03152	YES
20066CL	23	1	MILK	619	0.06	L	03152	YES

BURBANK DAIRY LEAD

20217BKS	60	1	BUTTER	600	0.09	L	05232	YES
20217BKS	28	1	CHESE AME	603	0.02	L	05052	YES
20217BKS	38	1	CHESE CHD	605	0.02	L	05052	YES
20217BKS	55	1	COTCHEESE	608	0.15	L	05252	YES
20217BKS	24	1	EGGS	617	0.05	L	05052	YES
20217BKS	53	1	MILK	619	0.07	L	05232	YES
20217BKS	32	1	MILK NOFT	626	0.03	L	05232	YES
20217BKS	56	1	YOGURT	635	0.04	L	05232	YES

MANHATTAN BEACH DAIRY LEAD

20207MBL	33	1	BUTTER	600	0.05	L	05052	YES
20206MBS	42	1	CHDR CHEE	605	0.13	L	04172	YES
20206MBS	43	1	COTCHEESE	608	0.04	L	05232	YES
20206MBS	11	2	EGGS	617	0.07	L	05052	YES
20207MBL	32	2	MILK	619	0.03	L	05052	YES
20206MBS	13	1	MILK EVAP	620	0.31	L	05232	YES
20207MBL	37	1	MILK NOFT	626	0.08	L	05042	YES
20207MBL	36	1	SLENDER	632	0.22	L	05042	YES
20207MBL	41	1	SOYALAC	632	0.13	L	05252	YES

ALPINE BREAD LEAD

11221A	57	1	BREAD	700	0.18	L	03202	YES

BENICIA BREAD LEAD

20055BP	39	1	BREAD	700	0.68	L	04042	YES
20114BS	203	1	BREAD	700	0.83	L	03142	YES
20002BS	100	1	CORNFLAKE	702	0.38	L	01252	YES
20002BS	117	1	COOKIE	703	0.33	L	05252	YES
20114BS	202	1	CRACKERS	704	0.66	L	03142	YES
20114BS	208	1	FLOUR	706	< 0.03	L	03162	YES
20003BS	201	1	BREDFRNCH	708	0.87	L	03142	YES
20002BS	101	1	MACARONI	710	0.58	L	01252	YES
20002BS	137	1	OATMEAL	712	0.84	L	03142	YES
20002BS	110	3	RICE	714	0.05	L	04042	NO

LEAD STUDY FOOD LIST D

20002BS	124	2	SPAGHETTI	716		0.13	L	04032	YES

BURBANK BREAD LEAD

20217BKS	34	1	BREAD	700		0.10	L	05242	YES
20218BKV	14	1	BUNS	701		0.12	L	05232	YES

MANHATTAN BEACH BREAD LEAD

20206MBS	33	1	BREAD	700		0.13	L	05042	YES
20207MBL	40	1	CORNFLAKE	702		0.22	L	05252	YES
20206MBS	40	1	SOYA FLOU	705		0.12	L	05042	YES
20207MBL	38	1	RYE FLOUR	707		0.14	L	05042	YES
20206MBS	37	1	ROLLED OA	711		0.13	L	05042	YES
20206MBS	38	1	BROWN RIC	715		0.22	L	05042	YES
20206MBS	36	1	WHEAT CRK	719		0.14	L	05042	YES
20206MBS	39	1	WHEAT GER	722		0.79	L	05042	YES

ALPINE MISC LEAD

11220A	46	1	MARGARINE	858		0.52	L	01072	YES

BENICIA MISC LEAD

20002BS	108	2	HONEY	804		0.23	L	04042	YES
20002BS	135	2	JAM	805		0.16	L	04042	YES
20002BS	125	1	PENUTBUTR	806		0.10	L	03152	YES
20002BS	121	1	POTATOCHP	808	<	0.03	L	04032	NO
20002BS	152	2	SUGAR	810		0.14	L	04042	YES
20002BS	155	2	SYRUP	812		0.12	L	04042	YES
20055BP	16	1	MARGARINE	858		0.13	L	03152	YES
20003BS	181	3	MARGARINE	858		0.08	L	04172	YES
20002BS	156	2	OIL	860		0.51	L	04042	YES
20002BS	165	1	OLIVE OIL	862		0.04	L	04032	YES
20002BS	111	1	PUDINGCHC	902		0.38	L	03152	YES
20002BS	123	1	CATFOOD	933		0.22	L	04042	YES
20002BS	118	1	DOGFOOD	935		0.14	L	04042	YES
20002BS	142	1	KETCHUP	958		0.14	L	03152	YES
20002BS	140	1	CHICKNDSP	973		0.11	L	04102	YES
20002BS	126	1	VEGBFSOUP	975		0.51	L	04102	YES

CROCKETT MISC LEAD

20066CL	20	1	HERSHYCDY	803		0.15		04032	YES

BURBANK MISC LEAD

20218BKV	16	1	PENUTBUTR	806		0.12	L	05252	YES
20217BKS	27	1	MARGARINE	858		0.06	L	05052	YES

LEAD STUDY FOOD LIST 0

MANHATTAN BEACH			MISC		LEAD			
20206MBS	10	2	MARGARINE	858		0.06	L 06292	YES
20207MBL	35	1	PUDINGCOC	900		0.75	L 05042	YES

HOSP DIET			FOOD TYPE		LEAD			
20080D-11676	1	HOSPDIET	950			0.04	L 03162	YES
20080D-11677	1	HOSPDIET	950			0.09	L 03162	YES
20149D-11678	1	HOSPDIET	950			0.08	L 04042	YES
11217D-15301	1	DIETS	950			0.17	L 11191	YES
11217D-15302	2	DIETS	950		<	0.01	L 12141	YES
11217D-15303	3	HOSPDIET	950			0.05	L 04032	YES
20080D-21679	1	HOSPDIET	950			0.07	L 03162	YES
20080D-21680	1	HOSPDIET	950			0.01	L 03162	YES
20080D-21681	1	HOSPDIET	950			0.05	L 03162	YES
11217D-25304	2	HOSPDIET	950			0.04	L 04032	YES
20149D-31682	1	HOSPDIET	950			0.02	L 04042	YES
20149D-31684	1	HOSPDIET	950			0.04	L 04042	YES
20149D-41685	1	HOSPDIET	950			0.06	L 04042	YES
20149D-41686	1	HOSPDIET	950			0.05	L 04042	YES
20149D-41687	1	HOSPDIET	950			0.04	L 04042	YES
11217D-43861	3	HOSPDIET	950			0.05	L 04032	YES
20080D-45312	1	HOSP DIET	950			0.02	L 03162	YES
20149D-51689	1	HOSPDIET	950			0.08	L 04042	YES
20149D-51690	1	HOSPDIET	950			0.05	L 04042	YES
20080D-55313	1	HOSP DIET	950			0.03	L 03162	YES
20080D-55314	1	HOSP DIET	950			0.13	L 03162	YES
20149D-61691	1	HOSPDIET	950			0.05	L 04042	YES
11217D-65305	2	HOSPDIET	950			0.05	L 04032	YES
20080D-75320	1	HOSP DIET	950			0.16	L 03162	YES

BENICIA GARDEN			FOOD TYPE		LEAD			
20118B	12	2	CABBAGE	100		0.03	L 03202	YES
20117B	24	1	CAROT GRN	102		2.20	L 12201	YES
20116B	45	3	CAROT GRN	102		5.60	L 03202	YES

LEAD STUDY FOOD LIST 0

20118B	3	1	CHARD	103		0.15	L	12171	YES
20118B	14	1	CHARD	103		0.29	L	12171	YES
20116B	40	2	CHARD	103		2.41	L	03202	YES
20116B	30	1	KALE	106		0.48	L	12201	YES
20118B	2	2	PARSLEY	111		0.50	L	01072	YES
20118B	6	1	BROCCOLI	121		0.22	L	12171	YES
20116B	29	1	BEANS	122		0.25	L	12201	YES
20117B	23	1	BEANS,GRN	123		0.26	L	12201	YES
20116B	38	2	BEANS GRN	123		0.21	L	03202	YES
20115B	44	2	BEANGRN	123		0.20	L	03202	YES
20115B	53	1	BEANS,GRN	123		0.14	L	01072	YES
20115B	54	1	CUCUMBER	127		0.04	L	01072	YES
20118B	4	2	PEPERBEL	133		0.08	L	03202	YES
20117B	16	2	PEPERBEL	133		0.03	L	03202	NO
20117B	21	1	PEPER,BEL	133		0.18	L	12201	NO
20116B	42	2	PEPERBEL	133		0.05	L	03202	NO
20115B	47	1	PEPER,BEL	133	<	0.09	L	12281	NO
20116B	35	1	SQASH,SUM	135	<	0.01	L	12281	YES
20118B	5	1	ZUCCHINI	136		0.19	L	12171	YES
20118B	8	1	ZUCCHINI	136		0.07	L	12171	YES
20116B	36	2	ZUCCHINI	136		0.05	L	03202	NO
20115B	43	1	ZUCCHINI	136	<	0.04	L	12281	NO
20116B	33	2	CORN KRNL	138		0.10	L	03202	YES
20116B	34	1	CORN COB	139		0.40	L	12201	YES
20116B	32	1	CORNHUSK	140		1.03	L	12201	YES
20117B	17	2	PEPRCHLI	142		0.05	L	03202	YES
20116B	50	2	SQUASHBN	143		0.10	L	03202	YES
20115B	49	1	SQUASH	144		0.12	L	01072	YES
20117B	25	1	CARROT	147		0.47	L	12201	YES
20116B	41	2	CARROT	147		0.16	L	03202	YES
20115B	46	1	CARROT	147		0.18	L	12281	YES
20116B	31	2	ONION	148		0.05	L	03202	YES
20115B	55	1	ONION	148		0.16	L	01072	YES
20117B	20	1	ONION,GRN	149		0.71	L	12201	YES
20115B	56	1	POTATO	154		0.27	L	01072	YES
20118B	13	1	BERRIES	308		0.62	L	12171	YES
20117B	18	1	FIGS	310		0.29	L	12201	YES
20116B	48	2	FIGS	310		0.09	L	03202	YES
20115B	58	1	FIGS	310		0.26	L	01072	YES
20118B	11	2	GRAPFRUIT	312		0.07	L	03202	YES
20116B	37	2	LEMON	316		0.21	L	01072	YES
20115B	52	1	LEMON	316		0.14	L	01072	YES
20117B	15	1	PEACH	322		0.48	L	12171	YES
20117B	27	1	PEACHES	322		0.57	L	12201	YES
20118B	9	1	PEARS	324	<	0.14	L	12171	YES
20115B	51	1	PEARS	324		0.29	L	01072	YES
20115B	57	1	PEARS	324		0.23	L	01072	YES
20117B	26	1	STRWBERIE	332		0.47	L	12201	NO
20118B	1	2	TOMATO	337		0.08	L	01072	YES
20118B	7	2	TOMATO	337		0.01	L	03202	NO
20117B	19	1	TOMATO	337		0.07	L	12201	NO
20117B	28	1	TOMATO	337		0.06	L	12201	YES
20116B	39	2	TOMATO	337		0.12	L	03202	NO
20118B	10	2	LIMEJUICE	352		0.29	L	03202	YES
20117B	22	1	CHILI	970		0.13	L	12201	NO

LEAD STUDY FOOD LIST 0

MAN BCH GARDEN			FOOD TYPE		LEAD	
20236MBG	4	1	CHARD	103	0.57 L 05252	YES
20236MBG	1	1	LETTUCE	108	0.42 L 05252	YES
20236MBG	6	1	PARSLEY	111	1.82 L 05252	YES
20236MBG	5	1	ASPARAGUS	117	0.16 L 05052	NO
20236MBG	2	1	CARROT	147	0.07 L 05252	NO
20236MBG	3	1	STRAWBERY	332	0.45 L 05052	NO

c. ORDERED BY LEAD VALUES WITHIN AREA

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

ALPINE			FOOD TYPE		LEAD µg/100g			
11220A	47	1	TUNA	422	0.89	L	01072	YES
11218A	23	2	HAM	208	0.84	L	11191	YES
11218A	21	1	SAUSGELNK	217	0.69	L	11191	YES
11218A	20	2	TOP ROUND	220	0.52	L	11191	YES
11220A	46	1	MARGARINE	858	0.52	L	01072	YES
11220A	38	2	RD STEAK	215	0.48	L	04032	YES
11218A	22	3	BEEFLIVER	238	0.45	L	01072	YES
11220A	44	1	CHICKEN	205	0.42	L	01072	YES
11221A	56	2	SPINACH	112	0.32	L	12141	YES
11218A	15	1	CARROT	147	0.31	L	11231	YES
11219A	25	2	BACON	200	0.30	L	04032	YES
11219A	31	1	GRAPES	314	0.30	L	11231	YES
11218A	17	1	ROMAINE	114	0.26	L	11231	YES
11221A	52	2	RADISH	155	0.23	L	11231	YES
11220A	36	2	CHICLIVER	242	0.21	L	04032	YES
11221A	53	1	PARSLEY	111	0.20	L	01072	YES
11219A	32	1	APPLES	304	0.20	L	11231	YES
11220A	42	2	PORK CHOP	212	0.19	L	04032	YES
11220A	37	2	SAUSGEPRK	218	0.18	L	04032	YES
11221A	49	2	TOMATO	337	0.18	L	11231	YES
11221A	57	1	BREAD	700	0.18	L	03202	YES
11219A	26	2	CHICKEN	205	0.16	L	04032	YES
11220A	39	2	GRND BEEF	207	0.16	L	04032	YES
11220A	43	2	LAMB CHOP	211	0.16	L	04032	YES
11218A	11	1	APPLES	304	0.15	L	01072	YES
11220A	35	2	PORKLIVER	245	0.14	L	04032	YES
11221A	50	1	CARROT	147	0.12	L	11231	YES
11219A	34	2	BUTTER	600	0.12	L	04032	YES
11219A	27	2	LAMBCHOP	211	0.10	L	04032	YES
11220A	48	2	MEATPOTED	254	0.10	L	04042	YES
11218A	24	3	GRNDCHUCK	207	0.08	L	04032	YES
11220A	41	2	HAM	208	0.08	L	04032	YES
11221A	54	1	PEACHES	322	< 0.08	L	01072	YES
11220A	45	1	MILK	619	0.08	L	01072	YES
11220A	40	2	BACON	200	0.06	L	04032	YES
11221A	58	2	LETTUCE	108	0.05	L	03202	NO
11221A	55	2	ONION	148	0.05	L	03202	NO
11218A	16	2	CELERY	126	0.04	L	03202	NO
11221A	51	2	POTATO	154	0.04	L	03202	YES
11219A	30	3	PRUNES	328	0.04	L	03202	NO
11218A	14	2	ONION	148	0.03	L	03202	NO
11218A	13	2	EGGPLANT	128	0.02	L	03202	NO
11218A	12	2	POTATO	154	0.02	L	03202	YES
11218A	18	3	TOMATO	337	0.02	L	03202	NO
11219A	29	3	EGG	617	0.02	L	04032	YES
11219A	33	2	MILK	619	< 0.01	L	04032	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

BENECIA

20114BS	209	1	VEALKIDNY234	1.52	L	01252	YES
20002BS	138	1	COFE GRND500	1.50	L	03142	YES
20003BS	174	1	TOP ROUND220	0.93	L	01252	YES
20002BS	122	2	ANCHOVY C402	0.93	L	04042	YES
20003BS	194	1	PARSLEY 111	0.88	L	03142	YES
20003BS	201	1	BREDFRNCH708	0.87	L	03142	YES
20002BS	137	1	OATMEAL 712	0.84	L	03142	YES
20114BS	203	1	BREAD 700	0.83	L	03142	YES
20002BS	161	1	TEA LEAVS504	0.77	L	03142	YES
20003BS	193	1	MSTRD GRN110	0.75	L	03142	YES
20055BP	39	1	BREAD 700	0.68	L	04042	YES
20055BP	17	1	PARSLEY 111	0.66	L	03152	YES
20114BS	202	1	CRACKERS 704	0.66	L	03142	YES
20002BS	128	1	BEEFHASH 263	0.61	L	04102	YES
20002BS	146	2	OLIVES 130	0.59	L	04042	YES
20002BS	101	1	MACARONI 710	0.58	L	01252	YES
20114BS	204	1	RAISIN 330	0.55	L	03162	YES
20002BS	107	1	CSAURCRUT169	0.52	L	01252	YES
20002BS	114	1	OYSTSMKD 414	0.51	L	04042	YES
20002BS	156	2	OIL 860	0.51	L	04042	YES
20002BS	126	1	VEGBFSOUP975	0.51	L	04102	YES
20055BP	20	1	COLRD GRN104	0.48	L	03152	YES
20002BS	129	1	CTRN,GRN 185	0.48	L	01252	YES
20003BS	175	2	BUTTER 600	0.45	L	04042	YES
20003BS	180	1	BACON 200	0.44	L	01252	YES
20003BS	178	1	BEEFLIVER238	0.43	L	01252	YES
20002BS	158	1	CCONLMEJU354	0.42	L	03152	NO
20002BS	105	1	CSTWDTMTO174	0.41	L	01252	YES
20002BS	160	1	CHICKBD 206	0.41	L	03162	YES
20003BS	189	1	ROMAINE 114	0.40	L	03142	YES
20002BS	139	1	CLIMABEAN162	0.38	L	03142	YES
20114BS	210	1	PORKCHOP 212	0.38	L	01252	YES
20002BS	100	1	CORNFLAKE702	0.38	L	01252	YES
20002BS	111	1	PUDINGCHC902	0.38	L	03152	YES
20002BS	166	1	COFEE,FD 503	0.37	L	03142	YES
20114BS	211	2	HALIBUT 406	0.36	L	04042	YES
20002BS	151	1	BURGUNDYW505	0.33	L	04042	YES
20002BS	117	1	COOKIE 703	0.33	L	05252	YES
20003BS	184	1	HAM 208	0.32	L	01252	YES
20002BS	103	1	CLAMSMKD 404	0.31	L	04042	YES
20002BS	154	1	C BEANS 170	0.29	L	04102	YES
20055BP	27	1	CAULIFLWR125	0.28	L	03152	YES
20002BS	162	1	PORK BEAN265	0.28	L	04102	YES
20003BS	173	2	PORKCHOP 212	0.27	L	04042	YES
20002BS	102	1	CPINEAPLE359	0.27	L	01252	YES
20114BS	205	1	PEAS,FRZN132	0.26	L	03142	YES
20002BS	148	1	CSPINACH 168	0.26	L	03142	YES
20002BS	119	2	CAPPLEJU 340	0.26	L	03152	NO
20055BP	19	1	SPINACH 112	0.23	L	03152	YES
20002BS	108	2	HONEY 804	0.23	L	04042	YES
20002BS	123	1	CATFOOD 933	0.22	L	04042	YES
20002BS	159	1	SHRIMPC 418	0.21	L	04042	YES
20002BS	106	1	MILKPNFT 629	0.21	L	03152	YES
20055BP	2	1	BACON 200	0.20	L	03152	YES
20002BS	145	1	CV-8 188	0.20	L	03152	NO
20055BP	5	1	SHRIMP 416	0.19	L	03152	YES
20002BS	116	1	CASPRAGUS160	0.19	L	01252	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20002BS	157	1	BF STEW	267	0.19	L	04102	YES
20002BS	164	1	MILKEVAP	620	0.19	L	03162	YES
20003BS	196	1	ONIONGRN	149	0.18	L	03142	YES
20002BS	168	1	CCORN	172	0.18	L	03142	YES
20002BS	104	1	CTOMTOSCE	180	0.18	L	03152	NO
20002BS	163	1	CBEETS	184	0.18	L	03142	YES
20003BS	179	2	HOTDOGS	210	0.18	L	04042	YES
20003BS	177	2	LAMBCHOP	211	0.18	L	04042	YES
20055BP	10	1	BUTTER	600	0.17	L	03152	YES
20114BS	206	1	SPINCHFRZ	113	0.16	L	03142	YES
20003BS	172	2	CHICKEN	205	0.16	L	04042	YES
20002BS	135	2	JAM	805	0.16	L	04042	YES
20002BS	147	1	CPEACHES	358	0.15	L	03142	YES
20002BS	131	1	PEAS	131	0.14	L	01252	YES
20002BS	170	1	GJRCHICK	256	0.14	L	03162	YES
20002BS	171	1	GJRCHICK	256	0.14	L	03162	YES
20002BS	134	1	SPAM	258	0.14	L	03162	YES
20002BS	152	2	SUGAR	810	0.14	L	04042	YES
20002BS	118	1	DOGFOOD	935	0.14	L	04042	YES
20002BS	142	1	KETCHUP	958	0.14	L	03152	YES
20055BP	4	1	HAM	208	0.13	L	03152	YES
20055BP	34	1	PEAR	324	0.13	L	03162	YES
20055BP	16	1	MARGARINE	858	0.13	L	03152	YES
20002BS	136	1	PICKLES	134	0.13	L	03142	YES
20003BS	198	1	POTATO	154	0.13	L	03142	YES
20002BS	124	2	SPAGHETTI	716	0.13	L	04032	YES
20055BP	28	2	CARROT	147	0.12	L	05252	YES
20003BS	199	1	BEANSGRN	123	0.12	L	03142	YES
20003BS	197	1	CAULIFLWR	125	0.12	L	03142	YES
20002BS	153	1	HAMDEVLD	248	0.12	L	03162	YES
20145BS	212	1	ORANGE	320	0.12	L	04172	YES
20003BS	188	1	PEARS	324	0.12	L	03142	YES
20003BS	186	1	EGGS	617	0.12	L	01252	YES
20002BS	169	1	SIMILAC	632	0.12	L	03162	YES
20002BS	155	2	SYRUP	812	0.12	L	04042	YES
20144BP	44	1	BANANA	306	0.11	L	04172	YES
20002BS	132	1	BEANS	122	0.11	L	01252	YES
20003BS	192	1	ONIONYEL	153	0.11	L	03142	YES
20002BS	115	2	CFRUTCKTL	346	0.11	L	04032	NO
20002BS	140	1	CHICKNDSP	973	0.11	L	04102	YES
20003BS	185	1	CARROT	147	0.10	L	03142	YES
20003BS	200	1	POTATO	154	0.10	L	03142	YES
20002BS	127	1	CTOMTOJU	186	0.10	L	03152	NO
20003BS	183	3	HAMBURGER	207	0.10	L	04102	YES
20145BS	213	1	BANANA	306	0.10	L	04172	YES
20002BS	167	1	CORANGJU	356	0.10	L	03152	NO
20002BS	125	1	PENUTBUTR	806	0.10	L	03152	YES
20055BP	21	1	ROMAINE	114	0.09	L	03152	YES
20055BP	36	1	POTATO	154	0.09	L	03162	YES
20055BP	26	1	APPLES	304	0.09	L	03152	YES
20114BS	207	1	VEG,FRZ	158	0.09	L	03142	YES
20003BS	187	1	APPLE	304	0.09	L	03142	YES
20002BS	112	1	CGRPFRTJ	348	0.09	L	03152	NO
20144BP	43	1	ORANGE	320	0.08	L	04172	YES
20002BS	149	1	CTOMTOPST	178	0.08	L	03152	NO
20003BS	181	3	MARGARINE	858	0.08	L	04172	YES
20055BP	38	1	BEANS GRN	123	0.07	L	03162	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20055BP	15	1	BALONEY	202		0.07	L	03152	YES
20002BS	113	1	CTOMTOJU	186		0.07	L	03152	NO
20002BS	109	2	CAPRICOT	344		0.07	L	04032	YES
20055BP	18	1	GREN ONIO	149		0.06	L	03152	YES
20055BP	9	1	COTCHEESE	608		0.06	L	03152	YES
20055BP	22	1	MILK	619		0.06	L	03152	YES
20055BP	35	1	EGGPLANT	128		0.05	L	03162	YES
20055BP	30	1	POTATO	154		0.05	L	03152	YES
20055BP	1	1	SAUSGEPRK	218		0.05	L	03152	YES
20055BP	6	1	LAMBLIVER	244		0.05	L	03152	YES
20055BP	31	1	PEAR	324		0.05	L	03162	YES
20055BP	24	1	SOLE	420		0.05	L	03152	YES
20003BS	195	1	EGGPLANT	128		0.05	L	03142	YES
20002BS	143	1	CTOMTOSUP	182		0.05	L	03152	NO
20002BS	144	1	CONSOMME	260		0.05	L	03152	NO
20002BS	110	3	RICE	714		0.05	L	04042	NO
20055BP	29	1	ONIONYEL	153		0.04	L	03152	YES
20055BP	11	1	OYSTER	410	<	0.04	L	03152	YES
20055BP	23	1	EGG	617		0.04	L	03152	YES
20003BS	191	1	ZUCCHINI	136		0.04	L	03142	YES
20002BS	130	1	COKE	507		0.04	L	03152	NO
20002BS	165	1	OLIVE OIL	862		0.04	L	04032	YES
20055BP	14	1	CHICKEN	205	<	0.03	L	03152	YES
20055BP	7	1	GRNDBEEF	207	<	0.03	L	03152	YES
20055BP	8	1	LAMBCHOP	211	<	0.03	L	03152	YES
20055BP	12	1	PORKCHOP	212	<	0.03	L	03152	YES
20055BP	13	1	TOPROUND	220	<	0.03	L	03152	YES
20002BS	133	1	GAPLSAUCE	343		0.03	L	04032	YES
20002BS	141	1	CBEER	506		0.03	L	03152	NO
20003BS	182	2	MILK	619		0.03	L	04102	YES
20114BS	208	1	FLOUR	706	<	0.03	L	03162	YES
20002BS	121	1	POTATOCHP	808	<	0.03	L	04032	NO
20055BP	32	1	YAM	156	<	0.02	L	03162	YES
20055BP	3	1	HOTDOG	210	<	0.02	L	03152	YES
20055BP	33	1	APPLES	304		0.02	L	03162	YES
20003BS	176	1	SAUSAGE	216	<	0.02	L	01252	YES
20003BS	190	1	CHEESE	602	<	0.02	L	03152	YES
20055BP	25	1	PEPERGRN	133	<	0.01	L	03152	YES
20055BP	37	1	ZUCCHINI	136		0.01	L	03162	YES
20055BP	40	1	ONIONWHT	152	<	0.01	L	03162	YES
20055BP	42	1	TOMATO	337	<	0.01	L	03162	YES
20002BS	120	1	CPINAPLJU	360		0.01	L	03152	NO
20002BS	150	1	CHESESPRD	614	<	0.01	L	03152	NO
20055BP	41	1	MUSHROOM	318	<	0.00	L	03162	YES

CROCKETT			FOOD TYPE		LEAD			
20066CL	11	2	SPINACH	112		0.85	L	03162	YES
20066CL	14	1	LETTUCE	108		0.54	L	03162	YES
20066CL	27	1	LIVER	236		0.40	L	03162	YES
20066CL	31	1	SOLE	420		0.34	L	03162	YES
20066CL	32	1	BACON	200		0.28	L	03162	YES
20066CL	6	1	PARSLEY	111		0.24	L	03162	YES
20066CL	29	1	HAM	208		0.22	L	03162	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20066CL	26	1	LAMBCHOP	211		0.17	L	03162	YES
20066CL	30	1	PORKCHOP	212		0.15	L	03162	YES
20066CL	20	1	HERSHYCDY	803		0.15		04032	YES
20066CL	22	1	GRNDBEEF	207		0.12	L	03162	YES
20148VA	1	1	HORSEMEAT	209		0.11	L	05252	YES
20066CL	33	1	CHICKEN	205		0.10	L	03162	YES
20146CL	35	1	BANANA	306		0.10	L	04172	YES
20066CL	28	1	RDSTEAK	215		0.09	L	03162	YES
20066CL	16	1	ROMAINE	114		0.08	L	03162	YES
20147CP	1	1	ORANGE	320		0.08	L	04042	YES
20066CL	1	1	CAPPLEJU	340		0.08	L	03152	NO
20066CL	25	1	COTCHEESE	608		0.08	L	04102	YES
20066CL	2	1	EGGS	617		0.08	L	03152	YES
20066CL	21	1	SAUSGEPRK	218		0.07	L	03162	YES
20147CP	2	1	BANANA	306		0.07	L	04172	YES
20146CL	34	1	ORANGE	320		0.06	L	04172	YES
20066CL	23	1	MILK	619		0.06	L	03152	YES
20066CL	3	1	ROOTBEER	512		0.05	L	03152	NO
20066CL	24	1	BUTTER	600		0.05	L	03152	YES
20066CL	5	1	BEANSGRN	123		0.03	L	03162	YES
20066CL	13	1	BROCCOLI	121		0.02	L	03162	YES
20066CL	8	1	EGGPLANT	128		0.02	L	03162	YES
20066CL	4	1	POTATO	154		0.02	L	03162	YES
20066CL	15	1	CAULIFLWR	125		0.01	L	03162	YES
20066CL	19	1	CORN KRNL	138	<	0.01	L	03162	YES
20066CL	10	1	CARROT	147	<	0.01	L	03162	YES
20066CL	12	1	ONION	148	<	0.01	L	03162	YES
20066CL	17	1	APPLES	304	<	0.01	L	03162	YES
20066CL	9	1	TOMATO	337	<	0.01	L	03162	YES
20066CL	7	1	CELERY	126		0.00	L	03162	YES
20066CL	18	1	ZUCCHINI	136		0.00	L	03162	YES

BURBANK			FOOD TYPE			LEAD			
20218BKV	13	3	LETTUCE	108		1.72	L	06292	YES
20217BKS	18	2	PARSLEY	111		1.25	L	05042	YES
20218BKV	11	1	MSTRD GRN	110		0.90	L	05232	YES
20217BKS	20	2	SPINACH	112		0.69	L	05042	YES
20217BKS	61	1	MSTRD GRN	110		0.41	L	05052	YES
20217BKS	59	1	ROMAINE	114		0.35	L	05052	YES
20217BKS	4	1	CALF CHOP	204		0.33	L	05052	YES
20218BKV	5	1	SPINACH	112		0.32	L	05242	YES
20217BKS	62	1	LETTUCE	108		0.26	L	05052	YES
20217BKS	2	1	BEEF HEAR	230		0.25	L	05052	YES
20216BKL	4	1	BEEFLIVER	238		0.25	L	05232	YES
20217BKS	1	1	CHIC LIVE	242		0.25	L	05052	YES
20217BKS	3	1	SAUSGE PR	218		0.20	L	05052	YES
20217BKS	49	1	BEEFLIVER	238		0.19	L	05232	YES
20217BKS	55	1	COTCHEESE	608		0.15	L	05252	YES
20217BKS	19	1	GREN ONIO	149		0.14	L	05042	YES
20217BKS	64	1	MSTRD GRN	110		0.13	L	05052	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20207BKS	7	1	HOT DOG	210	0.13	L	04102	YES
20216BKL	7	1	VEAL	222	0.13	L	05232	YES
20217BKS	10	1	LAMB STEW	269	0.13	L	05052	YES
20217BKS	8	1	SHRIMP	416	0.13	L	05052	YES
20217BKS	13	1	OYSTERS	410	0.12	L	05052	YES
20218BKV	14	1	BUNS	701	0.12	L	05232	YES
20218BKV	16	1	PENUTBUTR	806	0.12	L	05252	YES
20216BKL	8	1	HAM	208	0.11	L	05252	YES
20217BKS	14	3	SAUSAGE	216	0.11	L	06292	YES
20217BKS	50	1	CHICKEN	205	0.10	L	05232	YES
20217BKS	33	1	PORK CHOP	212	0.10	L	05052	YES
20217BKS	6	1	RND STEAK	215	0.10	L	05052	YES
20217BKS	30	1	ORANGE	320	0.10	L	05042	YES
20216BKL	2	1	SHRIMP	416	0.10	L	05052	YES
20216BKL	9	1	SOLE	420	0.10	L	05232	YES
20217BKS	34	1	BREAD	700	0.10	L	05242	YES
20216BKL	1	1	GRND BEEF	207	0.09	L	05232	YES
20218BKV	17	1	GRND BEEF	207	0.09	L	05232	YES
20217BKS	60	1	BUTTER	600	0.09	L	05232	YES
20217BKS	48	1	CORN	138	0.08	L	05052	YES
20217BKS	40	1	BOLOGNA	202	0.08	L	05252	NO
20216BKL	6	1	GRND BEEF	207	0.08	L	05232	YES
20217BKS	12	1	GRND BEEF	207	0.08	L	05232	YES
20216BKL	3	1	LAMB CHOP	211	0.08	L	05232	YES
20217BKS	29	1	TANGELO	334	0.08	L	05042	YES
20218BKV	6	1	APPLE	304	0.08	L	05232	YES
20218BKV	1	1	RD STEAK	215	0.07	L	05232	YES
20217BKS	11	1	SPARE RIB	219	0.07	L	05052	YES
20216BKL	10	1	MUSHROOM	318	0.07	L	05232	NO
20217BKS	44	1	APPLE	304	0.07	L	05052	YES
20217BKS	9	1	HADDOCK	408	0.07	L	05052	YES
20217BKS	53	1	MILK	619	0.07	L	05232	YES
20217BKS	25	1	GR BEAN	123	0.06	L	05042	YES
20217BKS	16	1	APPLE	304	0.06	L	05042	YES
20217BKS	51	1	APPLE	304	0.06	L	05052	YES
20217BKS	27	1	MARGARINE	858	0.06	L	05052	YES
20218BKV	4	1	LETTUCE	108	0.05	L	05242	YES
20217BKS	43	1	ASPARAGUS	117	0.05	L	05052	YES
20217BKS	52	1	CELERY	126	0.05	L	05052	YES
20217BKS	22	1	POTATO	154	0.05	L	05042	YES
20217BKS	45	1	POTATO	154	0.05	L	05052	YES
20216BKL	11	1	STRAWBERY	332	0.05	L	05052	YES
20217BKS	26	1	BANANA	306	0.05	L	05042	YES
20217BKS	41	1	ORANGE	320	0.05	L	05052	NO
20217BKS	15	1	PEAR	324	0.05	L	05042	YES
20217BKS	24	1	EGGS	617	0.05	L	05052	YES
20217BKS	35	1	LETTUCE	108	0.04	L	05052	YES
20217BKS	17	1	RADISH	155	0.04	L	05042	YES
20217BKS	54	1	RADISH	155	0.04	L	05052	YES
20217BKS	31	1	APPLE	304	0.04	L	05052	YES
20217BKS	42	1	ORANGE	320	0.04	L	05052	YES
20218BKV	9	1	ORANGE	320	0.04	L	05232	YES
20217BKS	56	1	YOGURT	635	0.04	L	05232	YES
20217BKS	21	1	CABBAGE	100	0.03	L	05042	YES
20218BKV	3	1	BEANS GRN	123	0.03	L	05242	YES
20217BKS	46	1	PEPER BEL	133	0.03	L	05052	YES
20217BKS	58	1	CARROT	147	0.03	L	05052	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20217BKS	23	1	RD ONION 150	0.03	L	05042	YES
20217BKS	37	1	YEL ONION153	0.03	L	05052	YES
20217BKS	65	1	POTATO 154	0.03	L	05242	YES
20217BKS	5	1	BACON 200	0.03	L	05052	YES
20218BKV	10	1	APPLE 304	0.03	L	05232	YES
20218BKV	12	1	APPLE 304	0.03	L	05232	YES
20218BKV	15	1	BANANA 306	0.03	L	05232	YES
20217BKS	32	1	MILK NOFT626	0.03	L	05232	YES
20217BKS	57	1	AVOCADO 120	0.02	L	05052	YES
20217BKS	63	1	BROCCOLI 121	0.02	L	05052	YES
20217BKS	36	1	ZUCCHINI 136	0.02	L	05052	YES
20218BKV	2	1	PEPER BEL133	0.02	L	05242	YES
20217BKS	47	1	WHT ONION152	0.02	L	05052	YES
20217BKS	39	1	TOMATO 337	0.02	L	05052	YES
20218BKV	7	1	PEAR 324	0.02	L	05232	YES
20217BKS	28	1	CHESE AME603	0.02	L	05052	YES
20217BKS	38	1	CHESE CHD605	0.02	L	05052	YES

MANHATTAN BEACH			FOOD TYPE	LEAD			
20206MBS	12	1	ANCHVYPST403	2.00	L	05252	YES
20206MBS	39	1	WHEAT GER722	0.79	L	05042	YES
20207MBL	35	1	PUDINGCOC900	0.75	L	05042	YES
20206MBS	14	1	C OYSTERS415	0.52	L	05252	YES
20206MBS	16	1	PARSLEY 111	0.49	L	04172	YES
20206MBS	23	1	SPINACH 112	0.42	L	04172	YES
20207MBL	4	1	BF KIDNEY232	0.41	L	05052	YES
20206MBS	2	1	SHRIMP 416	0.33	L	04102	YES
20207MBL	7	1	RDSTEAK 215	0.32	L	04102	YES
20206MBS	34	1	C LIVER 252	0.32	L	05252	YES
20206MBS	13	1	MILK EVAP620	0.31	L	05232	YES
20207MBL	2	1	SAUSGE LN217	0.29	L	04102	YES
20207MBL	34	1	TUNA 422	0.28	L	05252	YES
20206MBS	8	1	CALF LIVE240	0.28	L	05052	YES
20207MBL	12	1	HOTDOG 210	0.26	L	04102	YES
20206MBS	7	1	LAMBCHOP 211	0.25	L	04102	YES
20206MBS	4	1	BACON 200	0.24	L	04102	YES
20206MBS	9	1	PORKLIVER245	0.23	L	04102	YES
20207MBL	36	1	SLENDER 632	0.22	L	05042	YES
20207MBL	40	1	CORNFLAKE702	0.22	L	05252	YES
20206MBS	38	1	BROWN RIC715	0.22	L	05042	YES
20206MBS	21	1	LEEKS 107	0.20	L	04172	YES
20207MBL	9	1	BEEF LIVE238	0.19	L	05052	YES
20207MBL	23	1	ENDIVE 105	0.18	L	04172	YES
20207MBL	10	1	PORKCHOP 212	0.18	L	04102	NO
20207MBL	18	1	CARROT 147	0.17	L	04172	YES
20206MBS	15	1	STRAWBERY332	0.17	L	05042	YES
20207MBL	42	1	LIVERWRST246	0.16	L	05252	YES
20206MBS	5	1	HAM 208	0.16	L	04102	YES
20206MBS	3	1	VEAL 222	0.16	L	04102	YES
20207MBL	15	1	ROMAINE 114	0.15	L	04172	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20207MBL	11	1	OYSTERS	410	0.15	L	05052	YES
20206MBS	44	1	BEEF BRAI	203	0.15	L	05052	YES
20207MBL	38	1	RYE FLOUR	707	0.14	L	05042	YES
20206MBS	36	1	WHEAT CRK	719	0.14	L	05042	YES
20207MBL	41	1	SOYALAC	632	0.13	L	05252	YES
20206MBS	42	1	CHDR CHEE	605	0.13	L	04172	YES
20206MBS	33	1	BREAD	700	0.13	L	05042	YES
20206MBS	37	1	ROLLED OA	711	0.13	L	05042	YES
20207MBL	14	1	LETTUCERD	109	0.12	L	04172	YES
20207MBL	16	1	CELERY	126	0.12	L	04172	YES
20206MBS	40	1	SOYA FLOU	705	0.12	L	05042	YES
20207MBL	19	1	BROCCOLI	121	0.11	L	04172	YES
20207MBL	39	1	C HAM	247	0.11	L	05252	YES
20207MBL	13	1	LETTUCE	108	0.10	L	04172	YES
20207MBL	8	1	BEEFSTEW	267	0.10	L	04102	YES
20206MBS	1	1	HALIBUT	406	0.10	L	04102	YES
20207MBL	1	1	CHICKEN	205	0.09	L	04102	YES
20206MBS	22	1	ENDIVE	105	0.09	L	04172	YES
20207MBL	21	1	CAULIFLWR	125	0.08	L	04172	YES
20207MBL	30	1	ZUCCHINI	136	0.08	L	04172	YES
20207MBL	3	1	SAUSGEPRK	218	0.08	L	04102	YES
20207MBL	37	1	MILK NOFT	626	0.08	L	05042	YES
20206MBS	24	1	GREN ONIO	149	0.08	L	04172	YES
20206MBS	27	1	PEAR BOSC	326	0.08	L	05042	YES
20207MBL	6	1	PORK CHOP	212	0.07	L	05052	YES
20206MBS	6	1	GRND BEEF	207	0.07	L	05052	YES
20206MBS	11	2	EGGS	617	0.07	L	05052	YES
20207MBL	5	1	BALONEY	202	0.06	L	04102	YES
20206MBS	30	1	BANANA	306	0.06	L	05052	YES
20206MBS	10	2	MARGARINE	858	0.06	L	06292	YES
20207MBL	17	1	PEPER BEL	133	0.05	L	04172	YES
20207MBL	24	1	BEET	146	0.05	L	04172	YES
20207MBL	26	1	RED ONION	150	0.05	L	04172	YES
20207MBL	31	1	APPLE	304	0.05	L	04172	YES
20207MBL	33	1	BUTTER	600	0.05	L	05052	YES
20206MBS	19	1	POTATO	154	0.05	L	04172	YES
20206MBS	41	1	APPLE	304	0.05	L	05042	YES
20206MBS	17	1	MUSHROOM	318	0.05	L	04172	YES
20206MBS	29	1	ORANGE	320	0.05	L	05042	YES
20206MBS	28	1	TANGERINE	336	0.05	L	05042	YES
20207MBL	22	1	ASPARAGUS	117	0.04	L	04172	YES
20207MBL	25	1	YAM	156	0.04	L	04172	YES
20207MBL	43	1	G SPINACH	167	0.04	L	05252	YES
20206MBS	43	1	COTCHEESE	608	0.04	L	05232	YES
20207MBL	29	1	CORN	138	0.03	L	04172	YES
20207MBL	28	1	RUS POTAT	151	0.03	L	04172	YES
20207MBL	32	2	MILK	619	0.03	L	05052	YES
20206MBS	18	1	GREEN BEA	123	0.03	L	04172	YES
20206MBS	32	1	EGGPLANT	128	0.03	L	05042	YES
20206MBS	26	1	PEAR ANJO	325	0.03	L	05042	YES
20207MBL	27	1	WHT ONION	152	0.02	L	04172	YES
20207MBL	20	1	TOMATO	337	0.02	L	05052	YES
20206MBS	31	1	ONION	148	0.02	L	05042	YES
20206MBS	25	1	RADISH	155	0.02	L	04172	NO
20206MBS	35	1	C KIDNEY	250	0.02	L	05252	YES
20206MBS	20	1	PEACH	322	0.01	L	05042	YES

CALIF LEAD STUDY FOOD SAMPLE DECK RANKED BY LEAD VALUES

20115B	57	1	PEARS	324		0.23	L	01072	YES
20118B	6	1	BROCCOLI	121		0.22	L	12171	YES
20116B	38	2	BEANS GRN	123		0.21	L	03202	YES
20116B	37	2	LEMON	316		0.21	L	01072	YES
20115B	44	2	BEANGRN	123		0.20	L	03202	YES
20118B	5	1	ZUCCHINI	136		0.19	L	12171	YES
20117B	21	1	PEPER,BEL	133		0.18	L	12201	NO
20115B	46	1	CARROT	147		0.18	L	12281	YES
20116B	41	2	CARROT	147		0.16	L	03202	YES
20115B	55	1	ONION	148		0.16	L	01072	YES
20118B	3	1	CHARD	103		0.15	L	12171	YES
20115B	53	1	BEANS,GRN	123		0.14	L	01072	YES
20115B	52	1	LEMON	316		0.14	L	01072	YES
20118B	9	1	PEARS	324	<	0.14	L	12171	YES
20117B	22	1	CHILI	970		0.13	L	12201	NO
20115B	49	1	SQUASH	144		0.12	L	01072	YES
20116B	39	2	TOMATO	337		0.12	L	03202	NO
20116B	33	2	CORN KRNL	138		0.10	L	03202	YES
20116B	50	2	SQUASHBN	143		0.10	L	03202	YES
20115B	47	1	PEPER,BEL	133	<	0.09	L	12281	NO
20116B	48	2	FIGS	310		0.09	L	03202	YES
20118B	4	2	PEPERBEL	133		0.08	L	03202	YES
20118B	1	2	TOMATO	337		0.08	L	01072	YES
20118B	8	1	ZUCCHINI	136		0.07	L	12171	YES
20118B	11	2	GRAPFRUIT	312		0.07	L	03202	YES
20117B	19	1	TOMATO	337		0.07	L	12201	NO
20117B	28	1	TOMATO	337		0.06	L	12201	YES
20116B	42	2	PEPERBEL	133		0.05	L	03202	NO
20116B	36	2	ZUCCHINI	136		0.05	L	03202	NO
20117B	17	2	PEPRCHLI	142		0.05	L	03202	YES
20116B	31	2	ONION	148		0.05	L	03202	YES
20115B	54	1	CUCUMBER	127		0.04	L	01072	YES
20115B	43	1	ZUCCHINI	136	<	0.04	L	12281	NO
20118B	12	2	CABBAGE	100		0.03	L	03202	YES
20117B	16	2	PEPERBEL	133		0.03	L	03202	NO
20116B	35	1	SQASH,SUM	135	<	0.01	L	12281	YES
20118B	7	2	TOMATO	337		0.01	L	03202	NO

MAN BEACH GARDEN			FOOD TYPE		LEAD				
20236MBG	6	1	PARSLEY	111		1.82	L	05252	YES
20236MBG	4	1	CHARD	103		0.57	L	05252	YES
20236MBG	3	1	STRAWBERY	332		0.45	L	05052	NO
20236MBG	1	1	LETTUCE	108		0.42	L	05252	YES
20236MBG	5	1	ASPARAGUS	117		0.16	L	05052	NO
20236MBG	2	1	CARROT	147		0.07	L	05252	NO

A. 2. AIR MONITORING - LEAD CONCENTRATION BY DAY

Air Monitoring Data
Hi Vol Sampling
($\mu g/m^3$)

Benicia and Crockett

	24-Hours Starting	Lead Concentration			24-Hours Starting	Lead Concentration	
		Benicia	Crockett			Benicia	Crockett
Third Quarter				First Quarter			
September, 1972	3	0.11	0.19	January, 1973	1	0.18	0.24
	9	0.16	0.15		7	0.79	0.16
	21	0.22	0.33		13	0.12	0.05
	27	0.22	0.32		19	0.26	0.20
					25	0.06	0.03
Fourth Quarter					31	0.14	0.13
October, 1972	3	0.15	0.42	February, 1973	6	0.17	0.28
	15	0.38	0.14		12	0.42	0.12
	21	0.43	0.48		18	1.01	0.35
	27	0.19	0.25		24	0.21	0.11
November, 1972	8	0.61	0.25	March, 1973	2	0.38	0.23
	14	0.15	0.12		8	0.25	0.21
	26	0.46	0.21		14	0.60	0.55
December, 1972	8	0.43	0.11		20	0.13	0.10
	20	0.23	0.18		26	0.19	0.16
	26	0.25	0.34				
				Second Quarter			
				April, 1972	1	0.16	0.18
					13	0.17	0.16
					19	0.13	0.16
					25	0.32	2.22

Air Monitoring Data
Hi Vol Sampler
($\mu g/m^3$)

Burbank and Manhattan Beach

	24-Hours Starting	Lead Concentration			24-Hours Starting	Lead Concentration	
		Burbank	Manhattan Beach			Burbank	Manhattan Beach
Third Quarter October, 1971	9	3.33	2.94	First Quarter January, 1972	12	10.506	5.485
	10	1.09	2.81		13	5.405	2.565
	11	3.91	0.80		14	8.907	7.002
	14	1.47	0.65		17	5.803	1.736
	15	0.49	0.37		18	4.763	1.589
	16	0.55	1.27		19	7.831	3.389
	17	0.91	2.11		24	3.909	3.975
	18	1.67	2.77		25	2.224	0.862
	20	2.89	3.36		26	3.622	2.019
	21	5.24	5.00		27	2.910	2.273
	22	4.06	2.77		28	7.016	5.968
	23	1.57	1.95		29	4.159	6.611
	24	1.18	0.95		30	3.893	4.082
	25	2.12	0.67	Second Quarter April, 1972	4	5.948	1.624
	26	1.71	1.09		5	3.144	0.617
	27	1.15	0.42		6	2.551	1.055
	28	0.23	0.83		17	1.283	0.270
	29	1.42	1.52		18	1.462	1.262
	30	2.25	0.98		19	3.251	3.076
	31	2.48	1.92		20	5.062	1.554
November, 1971	1	2.20	1.78		21	4.524	2.867
	2	2.82	2.55		22	3.811	1.507
	3	1.96	2.80		23	1.635	4.850
	4	4.85	2.25				
	5	6.32	4.91				

A. 3. CONCENTRATION OF LEAD AND CADMIUM IN AVENA, MANHATTAN BEACH

CONCENTRATION OF LEAD AND CADMIUM IN AVENA

Manhattan Beach

April, 1972

Specimen	Lead (μg/g)	Cadmium (μg/g)
MB1	133	<.4
MB2	23	<.5
MB3	32	<.5
MB4	64	<.5
MB5	<7	<.4
MB6	21	<.5
MB7	12	<.5
MB8	<8	<.5
MB10	14	<.5