



6/20/01  
talked to Dave Harnish  
re: approval to  
backfill.

CO #

EXTERNAL ONLY  
ENVIRONMENTAL SERVICES DEPARTMENT  
77 BEALE STREET, 24th FLOOR  
SAN FRANCISCO, CA 94106  
FAX: (415) 973-9201

DATE: 6/25/01  
TO: Susan Hugo  
COMPANY: Alameda County Environmental Health  
ADDRESS: \_\_\_\_\_  
TELECOPY#: 510-337-9335 CONFIRMATION#: \_\_\_\_\_  
TOTAL NUMBERS OF PAGES INCLUDING COVER LETTER: 4  
FROM PG&E: David Harnish  
EXTERNAL#: 415-973-6902

COMMENTS: Susan, Attached are a site map w/ verification  
sample locations, <sup>and</sup> a table of results with summary statistics.  
The 95% Upper confidence limit, which DTSC recommends as  
the input parameter in LEADSPREAD, meets our cleanup  
criteria. The confirmatory LEADSPREAD calculation also is  
attached. We are planning to backfill remaining areas (A-G) upon  
your approval.

IF YOU DO NOT RECEIVE ALL THE PAGES, OR IF YOU HAVE ANY QUESTIONS,  
PLEASE CALL (415)973-~~XXXX~~

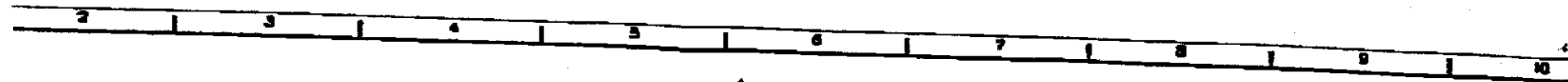
David

## Sheet1

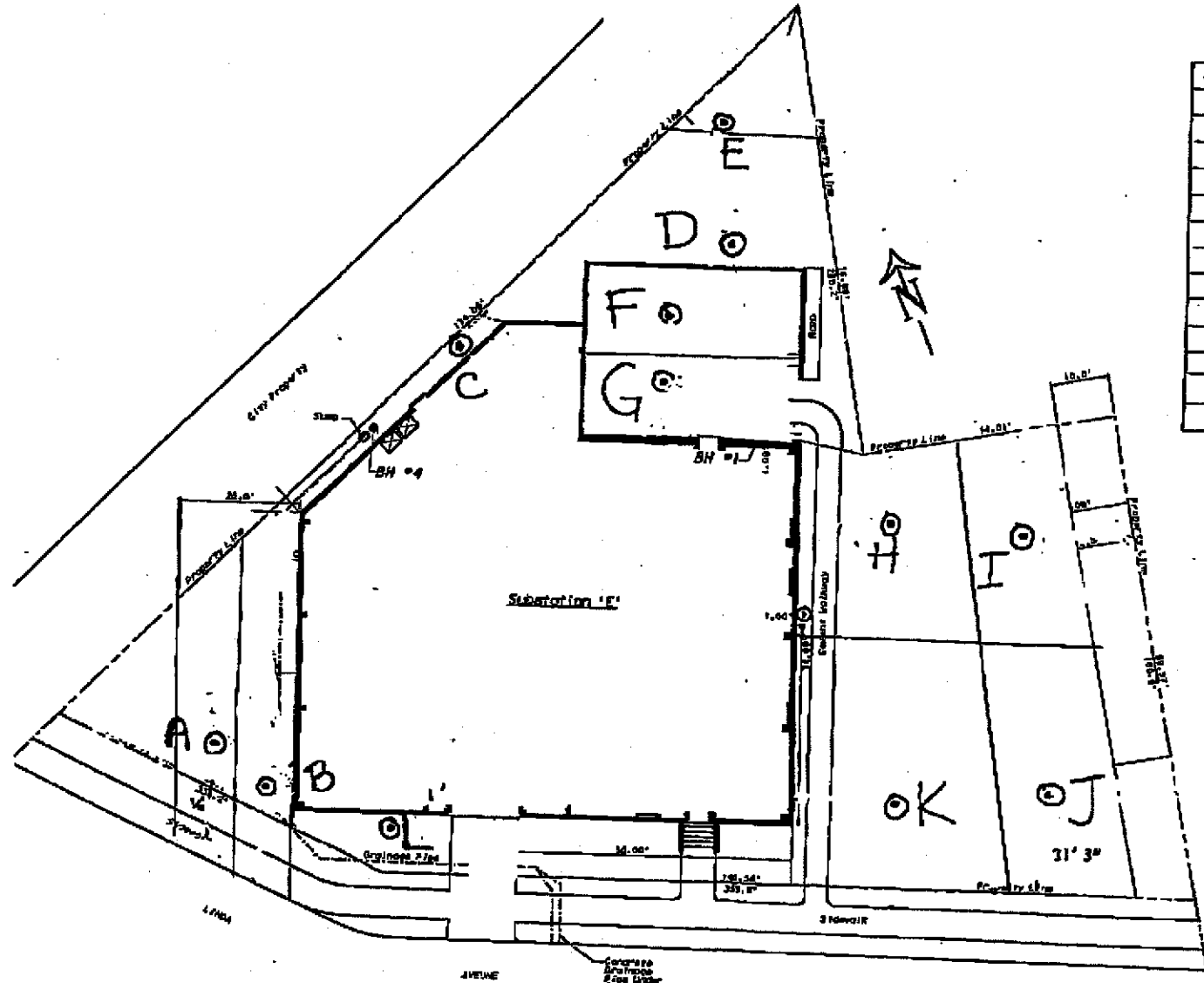
**Table**  
**Soil Excavation Verification Sample Results**  
**Former Substation E, Linda Avenue, Piedmont**

<b>Sample ID</b>	<b>Depth (ft)</b>	<b>Lead (mg/kg)</b>
A	2.0	150 ✓
B	2.0	150 ✓
C	1.7	47.9
D	1.7	33.6
E	1.0	65.1
F	1.0	100.9
G	1.7	33.4
H	1.2	177.9
I	1.0	41.7
J	0.5	96.9
K	0.5	100.5
L	1.0	139.9

<b><i>Summary Statistics for Lead Concentrations</i></b>	
<b>Mean</b>	<b>94.8</b>
<b>Median</b>	<b>98.7</b>
<b>Standard Deviation</b>	<b>50.9</b>
<b>Minimum</b>	<b>33.4</b>
<b>Maximum</b>	<b>177.9</b>
<b>Count</b>	<b>12.0</b>
<b>Confidence Level(95.0%)</b>	<b>32.4</b>
<b>95% Upper Confidence Limit</b>	<b>127.2</b>



SAMPLE	Pb(mg/kg)	DEPTH (in)
A	150	24
B	150	24
C	47.4	20
D	33.6	20
E	65.1	12
F	100.9	12
G	33.4	20
H	177.4	14"
I	41.7	12"
J	96.9	6"
K	100.5	6"
L	139.9	12"



Legend

⊙ A Verification Sample Location (approximate)

SITE PLAN

6/12/01



NO. 987	DATE: 6/12/01	PROJECT: SITE PLAN FOR VERIFICATION	SCALE: AS SHOWN
NO. 987	DATE: 6/12/01	PROJECT: SITE PLAN FOR VERIFICATION	SCALE: AS SHOWN
NO. 987	DATE: 6/12/01	PROJECT: SITE PLAN FOR VERIFICATION	SCALE: AS SHOWN

# LEAD RISK ASSESSMENT SPREADSHEET

## CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

USER'S GUIDE to version 7

INPUT	
MEDIUM	LEVEL
Lead in Air (ug/m <sup>3</sup> )	0.028
Lead in Soil/Dust (ug/g)	127.2
Lead in Water (ug/l)	5
% Home-grown Produce (ug/m <sup>3</sup> )	7%
	1.5

OUTPUT							
	Percentile Estimate of Blood Pb (ug/dl)					PRG-99	PRG-95
	50th	60th	95th	98th	99th	(ug/g)	(ug/g)
BLOOD Pb, ADULT	1.0	1.8	2.1	2.6	2.9	845	1232
BLOOD Pb, CHILD	2.5	4.5	5.3	6.5	7.4	197	298
BLOOD Pb, PICA CHILD	3.4	6.1	7.3	8.8	10.1	128	191
BLOOD Pb, OCCUPATIO	0.6	1.1	1.4	1.6	1.9	4344	6333

EXPOSURE PARAMETERS			
	units	adults	children
Days per week	days/wk	7	
Days per week, occupational		5	
Geometric Standard Deviation		1.6	
Blood lead level of concern (ug/dl)		10	
Skin area, residential	cm <sup>2</sup>	5700	2900
Skin area occupational	cm <sup>2</sup>	2900	
Soil adherence	ug/cm <sup>2</sup>	70	200
Dermal uptake constant (ug/dl)/(ug/d)		0.0001	
Soil ingestion	mg/day	50	100
Soil ingestion, pica	mg/day		200
Ingestion constant (ug/dl)/(ug/d)		0.04	0.16
Bioavailability	unitless	0.44	
Breathing rate	m <sup>3</sup> /day	20	6.6
Inhalation constant (ug/dl)/(ug/d)		0.08	0.19
Water ingestion	l/day	1.4	0.4
Food ingestion	kg/day	1.9	1.1
Lead in market basket	ug/kg	3.1	
Lead in home-grown produce	ug/kg	57.2	

PATHWAYS						
ADULTS	Residential			Occupational		
	Pathway contribution			Pathway contribution		
	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	3.8E-5	0.00	1%	1.4E-5	0.00	0%
Soil Ingestion	8.8E-4	0.11	12%	6.3E-4	0.08	13%
Inhalation, bkgmd		0.05	5%		0.03	5%
Inhalation	2.5E-6	0.00	0%	1.8E-6	0.00	0%
Water Ingestion		0.28	29%		0.28	45%
Food Ingestion, bkgmd		0.22	22%		0.23	37%
Food Ingestion	2.4E-3	0.30	32%			0%

CHILDREN	typical			with pica		
	Pathway contribution			Pathway contribution		
	PEF	ug/dl	percent	PEF	ug/dl	percent
Soil Contact	5.6E-5	0.01	0%		0.01	0%
Soil Ingestion	7.0E-3	0.90	36%	1.4E-2	1.79	53%
Inhalation	2.0E-6	0.00	0%		0.00	0%
Inhalation, bkgmd		0.04	1%		0.04	1%
Water Ingestion		0.32	13%		0.32	10%
Food Ingestion, bkgmd		0.50	20%		0.50	15%
Food Ingestion	5.5E-3	0.71	29%		0.71	21%

Click here for REFERENCES