

ENTER COMENTAL PROTECTION

99 AUG 27 PM 2: 03

August 26, 1999

Mr. Barney Chan Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Subject:

Stockpile Soil Sampling
Foothill Square Shopping Center
10700 MacArthur Boulevard

Oakland, California Project No. 3067

Dear Mr. Chan:

Enclosed is a copy of the Stockpile Soil Sampling report for the soil at the Foothill Shopping Center. Based on your conversation with Joe Derhake of our office, I believe the calculations in the report will be acceptable.

Please contact me at (925) 283-6000 if you have any questions.

Sincerely,

ALL ENVIRONMENTAL, INC.

Peter McIntyre

Project Geologist

STOCKPILED SOIL SAMPLING SUMMARY

Foothill Shopping Center 10700 MacArthur Boulevard Oakland, California

Project No. 3061

Prepared For

Jay-Phares Corporation 10700 MacArthur Boulevard, Suite 200 Oakland, CA 94605

Prepared By

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549 (800) 801-3224



901 Moraga Road, Suite C Lafayette, CA 94549-4567 Phone: (925) 283-6000 Fax: (925) 283-6121

August 26, 1999

Jay-Phares Corporation 10700 MacArthur Boulevard, Suite 200 Oakland, CA 94605

Subject:

Stockpiled Soil Sampling

Foothill Shopping Center 10700 MacArthur Boulevard

Oakland, California Project No. 3061

Dear Messrs. John Jay and Ken Phares:

All Environmental, Inc. (AEI) has prepared this report to document soil sampling activities performed at the Foothill Shopping Center. This sampling activity was performed at the request of the property owner to asses whether the soil could be considered for off-site use.

I Background

The stockpiled soil was removed from beneath the former location of Young's Cleaners, a drycleaning business, that occupied a unit of the Foothill Shopping Center. Between October 1995 and January 1996, AEI removed approximately 2,400 cubic yards of soil from beneath the former dry-cleaners. With the approval of the Bay Area Air Quality Management District, the soil was spread over the southeast corner of the property for aeration. The soil has been tilled several times since it was originally moved to the aeration area.

In February 1996, the soil was sampled to provide a baseline for soil remediation activities. A total of 10 samples were analyzed. The stockpile was found to contain a mean of 110 µg/kg of tetrachloroethene (PCE) and 10 µg/kg of trichloroethene (TCE). Target cleanup levels were established by AEI at two orders of magnitude below Preliminary Remediation Goals set by the EPA. In January 1997, the soil was again sampled to confirm a decrease in the levels of volatile hydrocarbons present in the soil. Through statistical analysis, it was shown by AEI that the concentrations of PCE and TCE had in fact decrease to below the target cleanup levels. In a letter dated April 8, 1997, Mr. Barney Chan of the Alameda County Health Care Services Agency (ACHCSA) concurred with AEI's conclusions that the soil could be reused on site in a limited capacity. Please refer to the Soil Remediation Summary, prepared by AEI, March 7, 1997, for details of the baseline sampling, confirmation sampling, and statistical methods used for characterization of the stockpiled soil.

Jay-Phares Corporation August 26, 1999 Project No. 3061 Page 2

II Sampling Activities

At the request of the property owner, AEI collected a total of seven soil samples from the stockpile in May 1999. This sampling was requested to characterize the stockpile for possible use off-site. This sampling was performed in accordance with the EPA's Test Methods for Evaluating Solid Waste (SW-846). These samples were collected from random locations on the stockpile from between six inches and three feet below the surface of the soil. Please refer to Figure 1 for the locations of the soil sample collection.

The samples were collected into 6-inch long brass liners and sealed with tephlon tape and caps. The samples were placed over ice and transported to McCampbell Analytical, Inc. of Pacheco, California. The seven samples were analyzed for volatile halocarbons by EPA method 8010/601. Results of the analytical testing are summarized in the follow table.

Sample #	A1W	B2S	СЗЕ	SP-01	SP-02	SP-03	SP-04
PCE (µg/kg)	<5	<5	<5	<8	28	<8	<8

Note: no other analytes by EPA method 8010/601 were not detected above laboratory reporting limits.

PCE was detected in the sample labeled SP-02 at 28 μ g/kg. PCE was not detected above the laboratory reporting limit of 5 μ g/kg in any of the other samples. No other volatile halocarbon was detected above laboratory reporting limits in any of the other samples. Laboratory results and chain of custody documentation are included in Appendix A.

III Statistical Analysis

The analytical results show that PCE concentrations have appreciable decreased since the confirmation sampling of January 1997. Standard statistical analysis of the PCE concentrations was performed to obtain the standard deviation and confidence interval of the analytical results.

The conditions of SW-846 require statistical analyses of sample data to ensure the 90% confidence interval has been reached. For the purpose of statistical analysis, non-detect values were conservatively treated as one half of the detection limit. The 90% Confidence Interval of the concentrations of PCE was calculated to be 6.786 μ g/kg \pm 5.107 μ g/kg, with an upper limit of 11.89 μ g/kg.

An appropriate number of samples was collected to characterize the PCE concentrations in the soil. The appropriate number of samples to be collected as calculated for this stockpile in 1997 was 2 samples, which is much lower than the number of samples actually analyzed during this sampling project.

Jay-Phares Corporation August 26, 1999 Project No. 3061 Page 3

IV Conclusions

The remediation goal for this stockpile of soil was initially achieved as shown by sampling performed in January 1997. The 2,400 cubic yards of soil were subsequently sampled in May 1999 to show a further decrease of contaminant concentrations. This was performed as part of the required information to release the soil for limited off-site use.

The recent sampling project has shown that the levels of contaminants have decreased significantly since January 1997. Based on the results of this sampling, and the statistical treatment of the analytical data in accordance with EPA SW-846, the stockpiled soil should be considered eligible for limited off-site use.

Jay-Phares Corporation August 26, 1999 Project No. 3061 Page 4

V Report Limitation

This report presents a summary of work completed by All Environmental, Inc. (AEI). The completed work includes observations and descriptions of site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices, in the environmental engineering and construction field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact me at (925) 283-6000.

Sincerely,

Peter McIntyre

Project Geologist

Joseph P. Derhake, PE

Principal

Figure 1

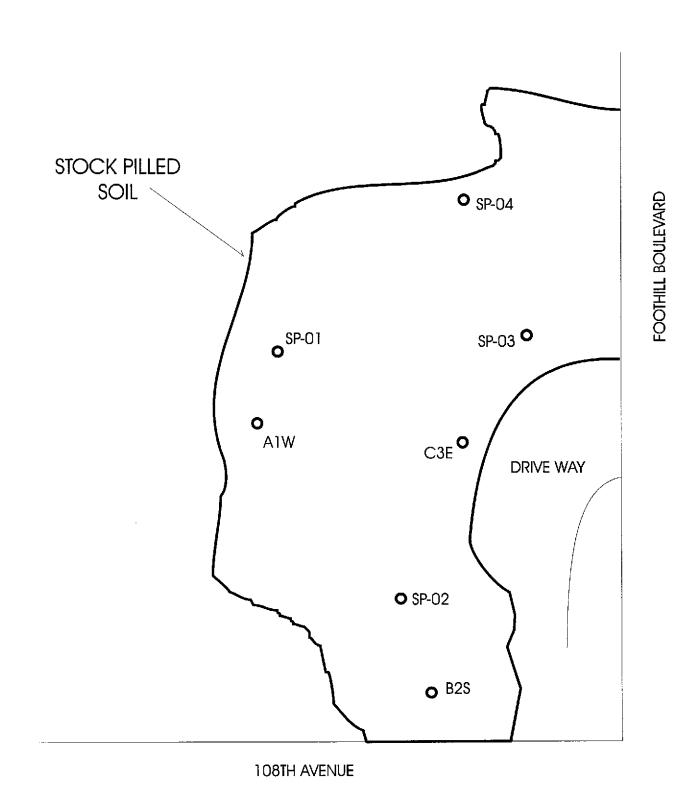
Sample Collection Location

Appendix A

Sample Analytical Documentation

Appendix B

SW 486 Statistical Analysis





O SOIL SAMPLE LOCATIONS AND IDENTIFICATION

ALL ENVIRONMENTAL, INC. 901 MORAGA ROAD, SUITE C, LAFAYETTE, CA

SOIL SAMPLE LOCATIONS

10700 FOOTHILL BOULEVARD OAKLAND, CALIFORNIA

FIGURE 2

SW-846 CALCULATION

Soil Sampling

Soil samples were collected in May 1999 in accordance with EPA's Test Methods for Evaluating Solid Waste (SW-846). Below is a summary of the equations utilized from SW-846.

Steps 1., 2., and 3.

Steps 1., 2., and 3. outline the procedures for the calculation of the initial number of random samples to be collected. However, the number of samples to be collected was chosen based on the previous calculations performed for this soil in January 1997. A total of seven samples were collected and analyzed, which has been proven to be more than adequate to obtain the required 90% confidence interval.

Step 4.

In May, 1999, on two separate days, soil samples were collected from random locations on the stockpiled soil. The samples were collected from a minimum of six inches below the surface. The samples were submitted to McCampbell Analytical, Inc. of Pacheco, California (State Certification #1644) and analyzed by EPA method 8010/601.

Step 5.

The values of the sample mean (x), variance of sample (s^2) , standard deviation of sample (s), and standard error (s_x) are calculated:

$$x = (28 + 2.5 + 2.5 + ...)/7$$

$$= 6.786$$

$$s^{2} = (28^{2} + 2.5^{2} + 2.5^{2} + ...) **(6.786^{2}/7)/6$$

$$= 88.08$$

$$s = s^{1/2}$$

$$= 9.38$$

$$s_{x} = 9.38/7^{1/2}$$

$$= 3.547$$

<u>Step 6.</u>

The Regulatory Threshold (RT) for PCE is the previously determined Target Cleanup Level of 70 μ g/kg (ppb). The study is continued with non-transformed data.

Step 7.

The confidence interval (CI) is now calculated using x, the student's "t" value, and s_x.

CI =
$$6.786 \pm (1.44) \times (3.547)$$

= 6.786 ± 5.107

Step 8.

The difference between the RT and x (Δ) as well as the appropriate number of samples to collect from the solid waste (n_2) are now calculated.

$$\Delta = 70 - 6.786$$

$$= 63.214$$

$$n_2 = ((1.44)^2 \times (9.38)^2)/(63.21)^2$$

= 0.045

Due to the very large difference between the RT and the calculated mean, the calculated number of samples required is impractically low. Clearly the 7 samples analyzed was sufficient.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #9999; Drake	Date Sampled: 05/06/99		
901 Moraga Road, Suite C		Date Received: 05/07/99		
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 05/07/99		
	Client P.O:	Date Analyzed: 05/07/99		

05/14/99

Dear Peter:

Enclosed are:

- 1). the results of 3 samples from your #9999; Drake project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID:	#9999; Drake	Date Sampled: 05/06/99 Date Received: 05/07/99			
901 Moraga Road, Suite C						
Lafayette, CA 94549	Client Contact: Pe	ter McIntyre	Date Extracted	: 05/07/99		
	Client P.O:		Date Analyzed	: 05/07/99		
EPA method 601 or 8010	Volatile	e Halocarbons				
Lab ID	10649	10650	10651			
Client ID	A1W	B2S	C3E			
Matrix	S	S	S			
Compound		Concen				
Bromodichloromethane	ND	ND	ND			
Bromoform ^(b)	ND	ND	ND			
Bromomethane	ND	ND	ND			
Carbon Tetrachloride ^(c)	ND	ND	ND			
Chlorobenzene	ND	ND	ND	-		
Chloroethane	ND	ND	ND			
2-Chloroethyl Vinyl Ether(d)	ND	ND	ND			
Chloroform (e)	ND	ND	ND			
Chloromethane	ND	ND	ND			
Dibromochloromethane	ND	ND	ND			
1,2-Dichlorobenzene	ND	ND	ND			
1,3-Dichlorobenzene	ND	ND	ND			
1,4-Dichlorobenzene	ND	ND	ND			
Dichlorodifluoromethane	ND	ND	ND			
1,1-Dichloroethane	. ND	ND	ND			
1,2-Dichloroethane	ND	ND	ND			
1,1-Dichloroethene	ND	ND	ND			
cis 1,2-Dichloroethene	ND	ND	ND			
trans 1,2-Dichloroethene	ND	ND	ND			
1,2-Dichloropropane	ND	ND	ND	,		
cis 1,3-Dichloropropene	NĐ	ND	ND			
trans 1,3-Dichloropropene	ND	ND	ND			
Methylene Chloride ^(f)	ND	ND	ND			
1,1,2,2-Tetrachloroethane	ND	ND	ND			
Tetrachloroethene	ND	ND	ND			
1,1,1-Trichloroethane	ND	ND	ND			
1,1,2-Trichloroethane	ND	ND	ND			
Trichloroethene	ND	ND	ND			
Trichlorofluoromethane	ND	ND	ND			
Vinyl Chloride [®]	ND	ND	ND			
0/ D C						

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

92

% Recovery Surrogate

Comments

⁽b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 voi. % sediment; (j) sample diluted due to high organic content.

QC REPORT FOR EPA 8010/8020/EDB

Date:

05/07/99-05/08/99

Matrix:

SOIL

	Conce	entrati	on (ug/kg	3)	% Reco	very	
Analyte	Sample			Amount			RPD
	(#02716)	MS	MSD	Spiked	MS	MSD	
				<u> </u>		·	
1,1-DCE	0	101	87	100	101	87	14.9
Trichloroethene	0	92	80	100	92	80	14.0
EDB	0	91	83	100	91	. 83	9.2
Chlorobenzene	0	99	91	100	99	91	8.4
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1			1			

% Rec. = (MS - Sample) / amount spiked x 100

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$



ALL ENVIRONMENTAL, INC. Environmental Engineering & Construction 901 Moraga Road, Suite C

CHAIN OF	CUSTC	DY
PAGE	OF /	

Lafaye (925) 283-6000	tle, CA 94549 Fax: (925) 283-61	21 150	129 Zal	e2	1. d	oc T	AT:	RUSI	H / 2		48	hr 🅖	day)/ 0	ther_	
AEI Project Manager Pe Project Name Dyck Ki	4er	MCI 999	ntyre 9	~ [/	u	/ /	//	STILL SON U/EVE	THE ONS	ATHE ORGANICS	/ _G	1.7520, 716		T /		OF CONTAINERS
PROJECT NUMBER				_	54, 302. 0154, 802.	NSW 015W	8		' /	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\E	21 m		/		TA
TOTAL # OF CONTAINERS				_ <i>\````</i>	85/				្ຮ√ ខុ≨	4 5 8	ਰੰ ਲੈ ਤੋਂ/					NO
RCVD. GOOD CONDITION/COL		N		(A)	1 9 E	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	# 4 E	E # 5				2 ₹ /			70.0	F.
SAMPLE ID	DATE	TIME	MATRE	X E S	TPH(d)	BTEK BILL SOSION	TOTAL OIL	VOLATER SELECTION	VOCS SYR. EPASSON	SOR. EN SEN TOTAL	Some with EAD (TILC)	SALE EL TISO, TISO, TISO, 7120, 73		<i>/</i>	*1	0 =
AIW	15/6		408					\searrow					aj Ristra	1064		!
825	<u> </u>							\searrow					1 . r . gl	1065	Q :	1
C3 E								2)				· • <u>1</u>	1065	1	1
						W-100 14 THIS PARMA AREA								.		
			1													
															·	
																··· ·
<u></u>											-					
				_									VOAS	ORG MET	ALS OTHE	R
						-2.54	·	CE/N	ONDITION	\		servation Ropriate		 		-
-				-	1	ļ 		HEAD S	PACE ABS	ENT .		TAINERS_		-		
				1/1	SUBSTITE S	√nv		סבכדוו	/FD DV		DELINIC	THE IEP D	:		CENTO	DV.
COMMENTS / INSTRUCTIONS				RELING 1	PUISHEC	(B)	Un	DU DU	Venge	20		NISHED B	·		CEIVED 8	
Analytical Laboratory			1/	Pole	NATURE	Thy	PEL	SIGNA V	y newyr	6		ATURE			GNATURE	
Address			:		E NAM			PRINTED	PINAME			D NAME			NIED NAM	1E Z
PHONE ()	FAX ()			ATE 5/7	99IME	300	DATE	J-COMP	TIME 3	DATE		MPANY TIME		C DATE	OMPANY	(کرز

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #3067; Drake	Date Sampled: 05/20/99		
901 Moraga Road, Suite C		Date Received: 05/20/99		
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 05/20/99		
	Client P.O:	Date Analyzed: 05/20/99		

05/27/99

Dear Peter:

Enclosed are:

- 1). the results of 4 samples from your #3067; Drake project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly, John M. H.

Edward Hamilton, Lab Director

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622

http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID:	#3067; Drake	Date Sampled:	Date Sampled: 05/20/99 Date Received: 05/20/99			
901 Moraga Road, Suite C		•	Date Received:				
701 Wioraga Road, Suite C							
Lafayette, CA 94549	Client Contact: Pe	ter McIntyre	Date Extracted:	05/20/99			
	Client P.O:		Date Analyzed:	05/21/99			
EPA method 601 or 8010	Volatile	e Halocarbons					
Lab ID	11594	11595	11596	11597			
Client ID	SP-01	SP-02	SP-03	SP-04			
Matrix	S	<u> </u>	S	S			
Compound		Concen		· · · · · · · · · · · · · · · · · · ·			
Bromodichloromethane	ND	ND	ND	ND			
Bromoform ^(h)	ND	ND	ND	ND			
Bromomethane	ND	ND	ND	ND			
Carbon Tetrachloride(c)	ND	ND	ND	ND			
Chlorobenzene	ND	ND	ND	ND			
Chloroethane	ND	ND	ND	ND			
2-Chloroethyl Vinyl Ether ^(d)	ND	ND	ND	ND			
Chloroform (e)	ND	ND	ND	ND			
Chloromethane	ND	ND	ND	ND			
Dibromochloromethane	ND	ND	ND	ND			
1,2-Dichlorobenzene	ND	ND	ND	ND			
1,3-Dichlorobenzene	ND	ND	ND	ND			
1,4-Dichlorobenzene	ND	ND	ND	ND			
Dichlorodifluoromethane	ND	ND	ND	ND			
1,1-Dichloroethane	ND	ND	ND	ND			
1,2-Dichloroethane	ND	ND	ND	ND			
1,1-Dichloroethene	ND	ND	ND	ND			
cis 1,2-Dichloroethene	ND	ND	ND	ND			
trans 1,2-Dichloroethene	ND	ND	ND	ND			
1,2-Dichloropropane	ND	ND ·	ND	ND			
cis 1,3-Dichloropropene	ND	ND	ND	ND			
trans 1,3-Dichloropropene	ND	ND	ND	ND			
Methylene Chloride ^(f)	ND<8	ND<8	ND<8	ND<8			
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND			
Tetrachloroethene	ND<8	28	ND<8	ND<8			
1,1,1-Trichloroethane	ND	ND	ND	ND			
1,1,2-Trichloroethane	ND	ND	ND	ND			
Trichloroethene	ND	ND	ND	ND			
Trichiorofluoromethane	ND	ND	ND	ND.			
Vinyi Chloride ^(g)	ND	ND	ND	ND ND			
% Recovery Surrogate	99	98		·			
Comments							

^{*} water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

Edward Hamilton, Lab Director

⁽b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

QC REPORT FOR EPA 8010/8020/EDB

Date: 05/20/99-05/21/99

Matrix: SOIL

	Conce	entration	on (ug/kg	3)	% Recov	very	RPD
Analyte	Sample (#02725)	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE Trichloroethene EDB: Chlorobenzene	0 0 N/A	106 93 N/A 94	103 88 N/A 93	100 100 N/A 100	106 93 N/A 94	103 88 N/A 93	2.9 5.5 N/A 1.1
Benzene Toluene Chlorobz (PID)	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A

% Rec. = (MS - Sample) / amount spiked x 100

. RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100

ENVIRONMENTAL, INC.

Environmental Engineering & Constituction

901 Moraga Road, Sulle C Lalayette, CA 94549

CHAIN	OF	CUSTODY

283-0121 15218 2ale 29. doc TAT: RUSH / 24 hr / 48 hr / 5 day OI (925) 283-6000 Fax: (925) 283-0121 AEI PROJECT MANAGER # OF CONTAINERS PROJECT NAME PROJECT NUMBER TOTAL # OF CONTAINERS. RCVD. GOOD CONDITION/COLD SAMPLE ID DATE TIME MATRIX Soil X K VOAS LO&GIMETALS LOTHER PRESERVATION CONTAINERS COMMENTS / INSTRUCTIONS WINQUISHED BY RECEIVED BY RELINQUISHED BY RECEIVED BY SIGNATURE SIGNATURE ANALYTICAL LABORATORY PRIMITED NAME PRITTED NAME ADDRESS COMPANY 20 DAIE 5/20 PHONE FAX (