RUST ENVIRONMENT & INFRASTRUCTURE

RUST Environment & Infrastructure Inc.
12 Metro Park Road
Albany, NY 12205
Tel. (518) 458-1313 • FAX (518) 458-2472

January 5, 1995

Steve Krival, M.S.
Hazardous Substances Scientist
CAL-EPA, DTSC, Region 2
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Dear Mr. Krival:

Subject: STLC Analytical Results
RCRA Storage Areas Closure
Former ANC Oakland Facility
EPA ID# CAD009162116

Enclosed are the laboratory analytical reports for additional analyses performed on December 23, 1994, on selected soil samples previously collected from the subject site. These samples were reanalyzed because the original analytical results for these samples showed that the total chromium concentrations were more than ten times the STLC regulatory limit.

Two samples (PB-12.3 and PB-13.2) from the Solder Dross Storage Area and four samples (PB-4.2, PB-5.3, PB-8.2, and PB-9.3) from the Drum Storage Area were analyzed by both CWET and TCLP procedures for chromium. The results of these analyses are presented in the enclosed laboratory analytical reports. As you will note, none of the sample results exceed the regulatory limits for hazardous waste under Title 22 or RCRA. The analytical results also provide an indication that the chromium in the soil is not readily leachable, and therefore is not mobile under conditions designed to simulate the environment.

Please contact me with any questions regarding this matter.

Very truly yours,

Edward W. Alusow

Edward W. Alusow
Senior Project Manager

Enclosure

cc: J. Moran, Esq.
J. Peters, ANC
E. Rawlings, ANC
J. Kessler, HSA
R. Creps, PES
J. Renauer, Kmart
D. Bruegel, Esq., Dickinson, Wright
R. Arulananthum, SFBRWQCB
B. Chan, ACDEH

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. WALTER HOWARD
RUST ENVIRONMENT AND INFRASTRUCTURE
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9412219
Date Received : 12/21/94
Project ID : 35195.108
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9412219- 1	PB-8.2
9412219- 2	PB-9.3
9412219- 3	PB-13.2
9412219- 4	PB-12.3
9412219- 5	PB-4.2
9412219- 6	PB-5.3

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Jodi Goringer for
Susan Kraska Yeager
Laboratory Director

Cristina V Rayburn
Project Manager

12-29-94
Date

This report consists of 13 pages.

ANAMETRIX REPORT DESCRIPTION
INORGANICS

Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- CCR Title 22, Section 66261, Appendix II, California Waste Extraction Test.
- CCR Title 22, Section 66261, Appendix XI, Organic Lead.
- "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.
- USEPA Contract Laboratory Program Statement of Work for Inorganic Analyses, ILM02.1, 1991.

Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anametrix control limit for MSR is 75-125% with 25% for RPD limits, except for Method 6010A, which is 80-120% with 25% RPD limits.

Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anametrix control limit for LCSR is 80-120%.

Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anametrix control limit for PDSR is 75-125%.

Qualifiers (Q)

Anametrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

- I - Sample was analyzed at the stated dilution due to spectral interferences.
- U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
- B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
- H - Spike percent recovery was outside of Anametrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.
- L - Reporting limit was increased to compensate for background absorbances or matrix interferences.

Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

- A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
- T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
- C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
- D - Reported results are dissolved, not total, metals.

Reporting Conventions

Analytical values reported are gross values, i.e., <u>not</u> corrected for method blank contamination. Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. WALTER HOWARD
RUST ENVIRONMENT AND INFRASTRUCTURE
12 METRO PARK ROAD
ALBANY, NY 12205

Workorder # : 9412219
Date Received : 12/21/94
Project ID : 35195.108
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9412219- 1	PB-8.2	SOIL	10/31/94	1311-INORG
9412219- 2	PB-9.3	SOIL	10/31/94	1311-INORG
9412219- 3	PB-13.2	SOIL	10/31/94	1311-INORG
9412219- 4	PB-12.3	SOIL	10/31/94	1311-INORG
9412219- 5	PB-4.2	SOIL	10/28/94	1311-INORG
9412219- 6	PB-5.3	SOIL	10/28/94	1311-INORG
9412219- 1	PB-8.2	SOIL	10/31/94	CWET-INORG
9412219- 2	PB-9.3	SOIL	10/31/94	CWET-INORG
9412219- 3	PB-13.2	SOIL	10/31/94	CWET-INORG
9412219- 4	PB-12.3	SOIL	10/31/94	CWET-INORG
9412219- 5	PB-4.2	SOIL	10/28/94	CWET-INORG
9412219- 6	PB-5.3	SOIL	10/28/94	CWET-INORG
9412219- 1	PB-8.2	SOIL	10/31/94	CWETMETALS
9412219- 2	PB-9.3	SOIL	10/31/94	CWETMETALS
9412219- 3	PB-13.2	SOIL	10/31/94	CWETMETALS
9412219- 4	PB-12.3	SOIL	10/31/94	CWETMETALS
9412219- 5	PB-4.2	SOIL	10/28/94	CWETMETALS
9412219- 6	PB-5.3	SOIL	10/28/94	CWETMETALS
9412219- 1	PB-8.2	SOIL	10/31/94	TCLPMETALS
9412219- 2	PB-9.3	SOIL	10/31/94	TCLPMETALS
9412219- 3	PB-13.2	SOIL	10/31/94	TCLPMETALS
9412219- 4	PB-12.3	SOIL	10/31/94	TCLPMETALS
9412219- 5	PB-4.2	SOIL	10/28/94	TCLPMETALS
9412219- 6	PB-5.3	SOIL	10/28/94	TCLPMETALS

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. WALTER HOWARD
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ALBANY, NY 12205

Workorder # : 9412219
Date Received : 12/21/94
Project ID : 35195.108
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Department Supervisor 12/28/94 Date

Chemist 12/28/94 Date

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: **Chromium-STLC-6010A**
Client Project Number: **35195.108**
Matrix - Units: **SOIL - mg/L**

Analyst: UP
Supervisor: MW

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9412219-01	PB-8.2	CWET	ICP1	10/31/94	12/23/94	12/23/94	5	0.050	**0.20**	
9412219-02	PB-9.3	CWET	ICP1	10/31/94	12/23/94	12/23/94	5	0.050	**0.076**	
9412219-03	PB-13.2	CWET	ICP1	10/31/94	12/23/94	12/23/94	5	0.050	**0.16**	
9412219-04	PB-12.3	CWET	ICP1	10/31/94	12/23/94	12/23/94	5	0.050	**0.10**	
9412219-05	PB-4.2	CWET	ICP1	10/28/94	12/23/94	12/23/94	5	0.050	**0.12**	
9412219-06	PB-5.3	CWET	ICP1	10/28/94	12/23/94	12/23/94	5	0.050	**0.20**	
BD234EA	METHOD BLANK	CWET	ICP1	N/A	12/23/94	12/23/94	5	0.050	**ND**	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: **Chromium-TCLP-6010A**
Client Project Number: **35195.108**
Matrix - Units: **SOIL - mg/L**

Analyst: NP
Supervisor: MW

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9412219-01	PB-8.2	3010A	ICP1	10/31/94	12/22/94	12/23/94	1	0.010	**ND**	
9412219-02	PB-9.3	3010A	ICP1	10/31/94	12/22/94	12/23/94	1	0.010	**ND**	
9412219-03	PB-13.2	3010A	ICP1	10/31/94	12/22/94	12/23/94	1	0.010	**ND**	
9412219-04	PB-12.3	3010A	ICP1	10/31/94	12/22/94	12/23/94	1	0.010	**ND**	
9412219-05	PB-4.2	3010A	ICP1	10/28/94	12/22/94	12/23/94	1	0.010	**ND**	
9412219-06	PB-5.3	3010A	ICP1	10/28/94	12/22/94	12/23/94	1	0.010	**ND**	
BD224TA	METHOD BLANK	3010A	ICP1	N/A	12/22/94	12/23/94	1	0.010	**ND**	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

SAMPLE DUPLICATE REPORT

Anametrix Sample ID: **9412219-02D**
Client Sample ID: **PB-9.3**
Client Project Number: **35195.108**
Matrix: **SOIL**

Analyst: JC
Supervisor: MM

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
Chromium-STLC	CWET	6010A	ICP1	12/23/94	12/23/94	5	mg/L	**0.076**	**0.076**	**0.0**	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

SAMPLE DUPLICATE REPORT

Anametrix Sample ID: **9412219-02D**
Client Sample ID: **PB-9.3**
Client Project Number: **35195.108**
Matrix: **SOIL**

Analyst:
Supervisor:

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
Chromium-TCLP	3010A	6010A	ICP1	12/22/94	12/23/94	1	mg/L	**ND**	**ND**	**N/A**	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

Anametrix. Sample ID: **9412219-01MS**
Client Sample ID: **PB-8.2**
Client Proj. Number: **35195.108**
Matrix: **SOIL**

Analyst: CH
Supervisor: MW

Analyte	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amount	Sample Conc.	Matrix Spike Conc.	% Rec.				Q
Chromium-STLC	6010A	ICP1	12/23/94	12/23/94	mg/L	5.0	0.20	4.8	**92.0**				

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

Anametrix. Sample ID: **9412219-01MS**
Client Sample ID: **PB-8.2**
Client Proj. Number: **35195.108**
Matrix: **SOIL**

Analyst: UP
Supervisor: WW

Analyte	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amount	Sample Conc.	Matrix Spike Conc.	% Rec.				Q
Chromium-TCLP	6010A	ICP1	12/22/94	12/23/94	mg/L	5.0	0.0	4.3	**86.0**				U

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Lab. Control Sample ID: **LD224TA**
Anametrix WO #: **9412219**
Client Project Number: **35195.108**
Matrix: **SOIL**

Analyst: LP
Supervisor: MW

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Chromium-TCLP	3010A	6010A	ICP1	12/22/94	12/23/94	1	mg/L	5.0	4.5	**90.0**	

COMMENTS:

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9412219 CLIENT PROJECT ID: 35195.108

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	(YES)	NO	N/A
List temperature of cooler (s): 6 °C			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ✓ BROKEN ____			
If NO, were samples transferred to proper container? ____			
Were VOA containers received with zero headspace?	YES	NO	(N/A)
If NO, was it noted on the chain of custody? ____			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	YES	NO	(N/A)
If NO, was the proper preservative added at time of receipt? ____			
pH check of samples required at time of receipt?	YES	(NO)	
If YES, pH checked and recorded by: ____			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	(YES)	NO
Sampling date and time indicated?	YES	(NO)
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR ____ RUSH ✓		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: J. P Date: 12/21/94 Project Manager: R. Devine Date: 12-21-94

4811

9412219 10/1 14:32

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
35195.108	

Send Report Attention of: Walter Howard

Report Due: / /

Verbal Due: 12/27/94

	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: Cr (STLC)	Type of Analysis: Cr (TCLP)	Condition of Samples	Initial
1	PB-8.2	10/31/94	-		soil		2	BL	X	X		
2	PB-9.3	10/31/94	--		Soil		↓	↓	X	X		
3	PB 13.2	10/31/94	—		Soil				X	X		
4	PB 12.3	10/31/94	—		soil				X	X		
5	PB 4.2	10/26/94	1:30		Soil				X	X		
6	PB 5.3	10/26/94	2:15		Soil		↓	↓	X	X		

Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Todd Heringa	12/21/94 1330		
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by Lab: Josephine DeCarli	Date/Time 12/21/94 13:30

Remarks: Results to: RUST Environment & Infrastructure
12 metro Park Rd.
Albany / NY 12205

COMPANY:
ADDRESS:
PHONE (518) 458-1313 FAX: (518) 458-2472