

ANALYTICAL LABORATORY REPORT

CLIENT NAME AND ADDRESS

ATTN: Mr. C. Treen

CUROCO METALS CO. 536 Cleveland Ave. Albany, CA 94710

LABORATORY SAMPLE ID: See Below

DATE REPORTED: 06-13-89
DATE SUBMITTED: 05-10-89
DISCARD DATE: 06-09-89
P.O. NUMBER: D. Burton
COLLECTED BY: BAE Staff

SUMMARY OF WORK:

Surface soil samples were collected from two locations outside the area outlined by CUROCO's sampling plan. The first location (BKGND 1) is west of site # 6 near the grass past the railroad tracks. The second location (BKGND 2) is south of site # 3 near the end of the adjacent property's fence. The soil from BKGND 1 and BKGND 2 were digested according to EPA method 3050. The total soil content of chromium, lead and zinc was determined using EPA methods 7190 (detection limit 1.5 ppm), 7420 (detection limit 10 ppm) and 7950 (detection limit 1 ppm) respectively. Portions of the soil samples were dried at 105°C in order to determine the moisture content. The concentrations of metals reported below are based on the wet weight.

Subsurface soil samples (depth of two feet) at sites 3 and 6 were extracted according to the State of Califorina WET procedure (Title 22). The extract was analyzed for chromium, lead and zinc using EPA methods 7190 (detection limit 0.13 ppm), 7420 (detection limit 1 ppm) and 7950 (detection limit 0.5 ppm) respectively. The results are summarized below.

SITE	DEPTH	% MOISTURE	Cr,mg/Kg	Pb.mg/Kg	Zn,mg/Kg
TOTAL META	AL CONTENT:				
BKGND 1 BKGND 2	Surface Surface	3.6 8.6	295 56	46 149 *	95 2150
SOLUBLE ME	ETAL CONTENT	? :			
3 6	2' 2'	18 13	1.4 0.5	13.4 ** 5.8 **	23.5 13.2

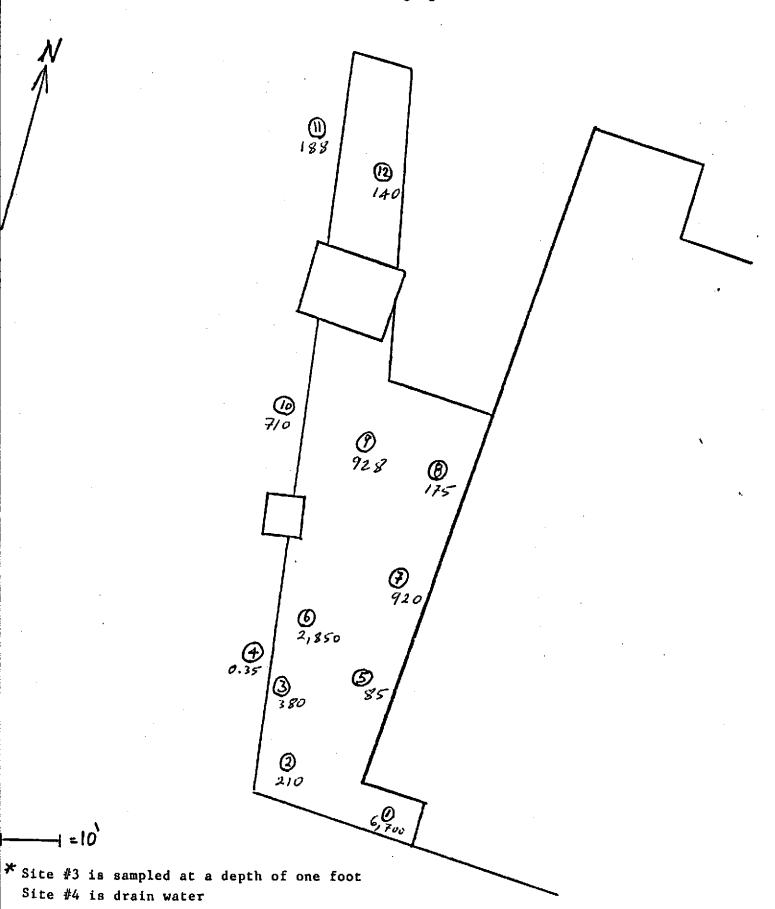
* Exceeds Title 22 STLC X 10

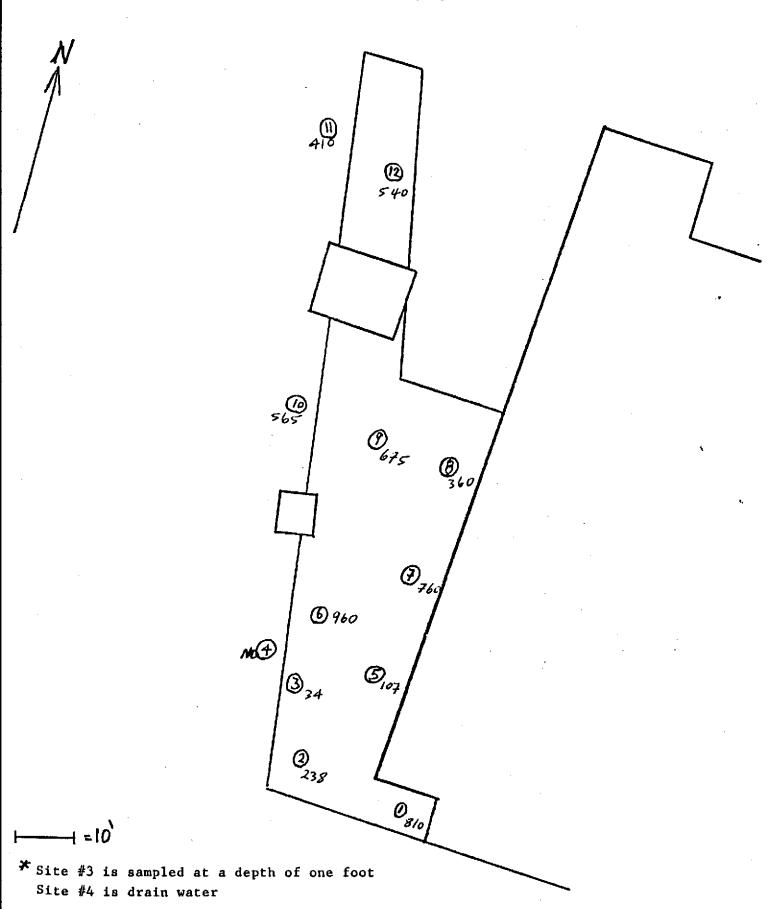
** Exceeds Title 22 STLC

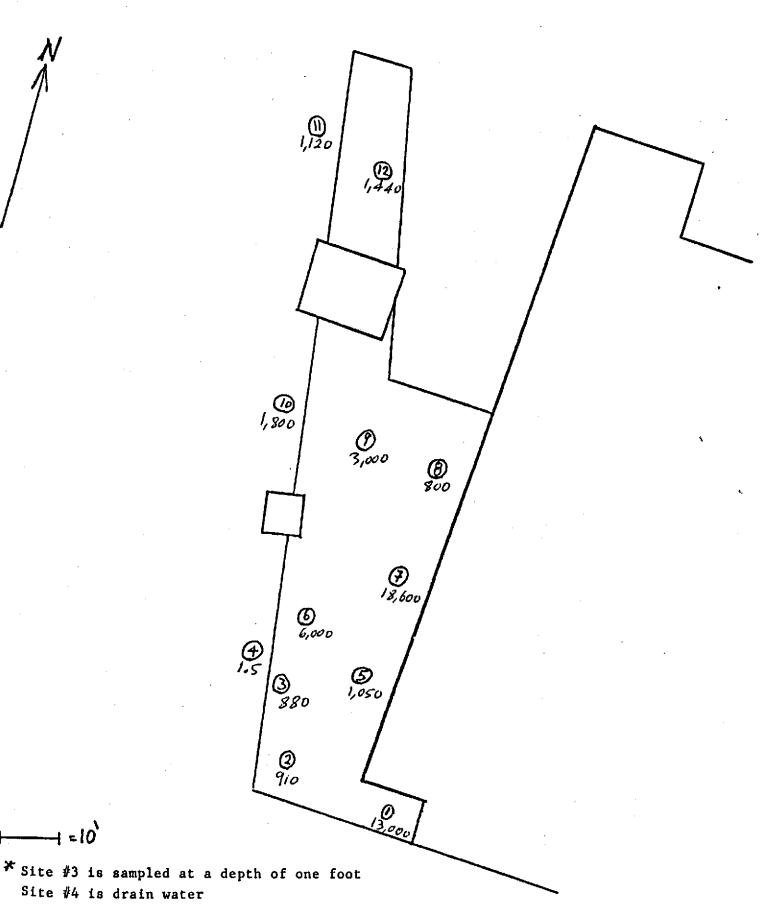
Reviewed and Approved By:

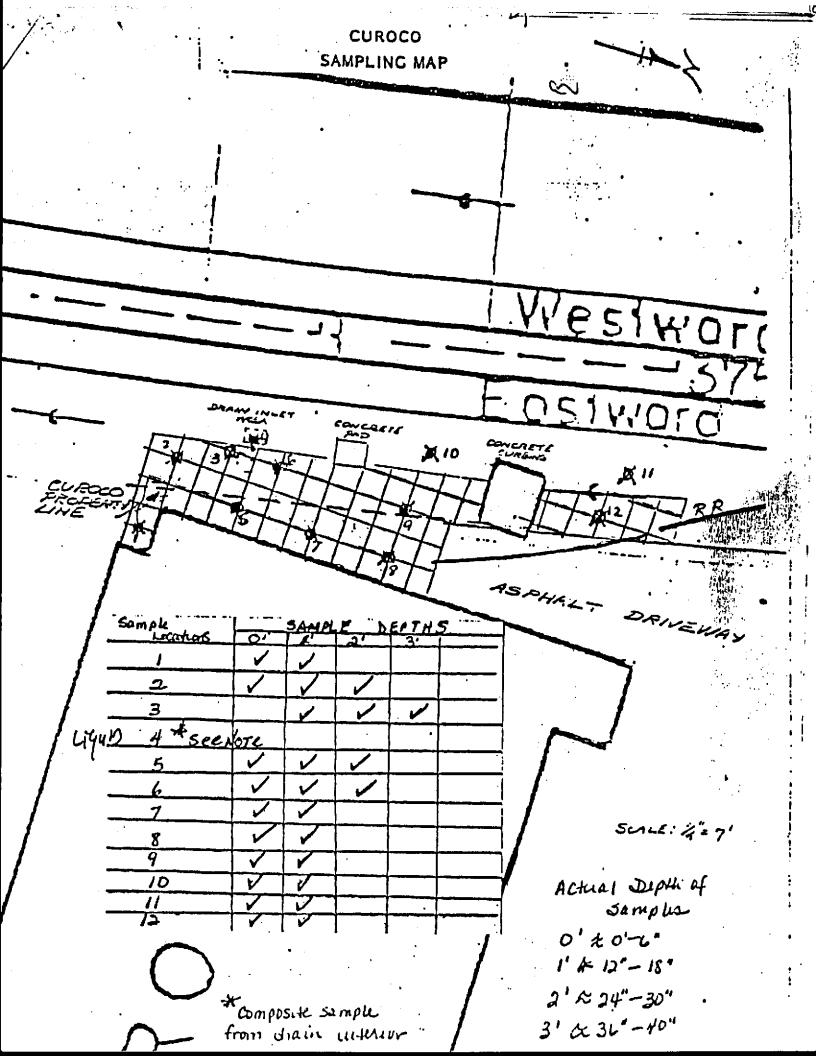
Muliemmad Sharaf

Laboratory Manager









LOG NO: E90-02-602

Received: 20 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION,	SOIL SAMPI	ĿES		DA	TE SAMPLED
02-602-1 02-602-2 02-602-3 02-602-4 02-602-5	CS6A4 CS7A4 CS8A4 CS9A4 CS12A4					20 FEB 90 20 FEB 90 20 FEB 90 20 FEB 90 20 FEB 90
PARAMETER		02-602-1	02-602-2	02-602-3	02-602-4	02-602-5
Chromium, m Lead, mg/kg Zinc, mg/kg Nitric Acid		110 51 76 02.23.90	68 16 50 02.23.90	81 22 62 02.23.90	37 65 89 02.23.90	45 14 44 02.23.90



LOG NO: E90-02-602

Received: 20 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION,	SOIL SAM	PLES		Da	ATE SAMPLED
02-602-7 02-602-8 02-602-9	CS7A2 CS8A2 CS9A2 CS12A2 CS11A4					20 FEB 90 20 FEB 90 20 FEB 90 20 FEB 90 20 FEB 90
PARAMETER		02-602-	6 02-602-7	02-602-8	02-602-9	02-602-10
Chromium, mg Lead, mg/kg Zinc, mg/kg Nitric Acid	Digestion, Date	3 5 6 02.23.9	5 78 8 94	550	63 12 48 02.23.90	49 14 57 02.23.90

Sim D. Lessley, Ph.D., Laboratory Director



LOG NO: E90-02-642

Received: 21 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION,	SOIL SAMPL	ES		DA	TE SAMPLED
02-642-1 02-642-2 02-642-3 02-642-4 02-642-5	CS1A4 CS2A4 CS3A4 CS4A2 CS4A4					21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90
PARAMETER		02-642-1	02-642-2	02-642-3	02-642-4	02-642-5
Chromium, make Lead, mg/kg Zinc, mg/kg		150 110 170 03.01.90	22 70 58 03.01.90	100 85 140 03.01.90	55 14 120 03.01.90	69 9 58 03.01.90



LOG NO: E90-02-642

Received: 21 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTIO	N, SOIL	SAMPLE	ZS .		DA	ATE SAMPLED
02-642-7 02-642-8 02-642-9	CS5A4 CS10A2 CS10A4 CS13A2 CS13A4						21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90
PARAMETER		02-6	642-6	02-642-7	02-642-8	02-642-9	02-642-10
Chromium, mg Lead, mg/kg Zinc, mg/kg Nitric Acid	/kg Digestion, Date	03.0	35 14 32 01.90	54 25 80 03.01.90	61 20 68 03.01.90	52 74 220 02.28.90	44 33 140 02.28.90



LOG NO: E90-02-642

Received: 21 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION	SOIL SA	AMPLE	S		DA	TE SAMPLED
02-642-11 02-642-12 02-642-13 02-642-14 02-642-15	CS14A1 CS14A2 CS14A4 CS15A1 CS15A2						21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90
PARAMETER		02-642	-11	02-642-12	02-642-13	02-642-14	02-642-15
Chromium, mg Lead, mg/kg Zinc, mg/kg Nitric Acid			99 160 140 .90	54 37 72 02.28.90	42 <6 32 02.28.90	190 190 260 02.28.90	110 140 180 02.28.90



LOG NO: E90-02-642

Received: 21 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DA	TE SAMPLED
02-642-16 02-642-17	CS15A4 CS13A1			21 FEB 90 21 FEB 90
PARAMETER		02-642-16	02-642-17	
Chromium, m Lead, mg/kg Zinc, mg/kg Nitric Acid		54 <6 38 02.28.90	38 59 240 02.28.90	



LOG NO: E90-02-642

Received: 21 FEB 90 Reported: 07 MAR 90

Mr. Todd Stein
Environ Corporation
5820 Shellmound Street, Suite 700
Emeryville, California 94608

Project: 03-1332A

REPORT OF ANALYTICAL RESULTS

Page 6

LOG NO	SAMPLE DESCRIPTION,	AQUEOUS	SAMPLES		D	ATE SAMPLED
02-642-25	CS12AFP CS13AFP CS14AFP CS15AFP					21 FEB 90 21 FEB 90 21 FEB 90 21 FEB 90
PARAMETER			02-642-23	02-642-24	02-642-25	02-642-26
Total Fuel			02.24.90 1 <1	02.24.90 1 <1	02.24.90 1 <1	02.24.90 1 <1

Sim D. Lessley, Ph.D., Laboratory Director



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Cou	nsel in l	tealth ar	nd En	- Mironm	ental Sci	ence

A ...

CHAIN-of-CUSTODY FORM

Sheet 7 of 2 5820 Shellmound St, Suite 700 Emeryville, California 94608 (415) 655-7400

	PROJECT NAME: Curco Steel CASE NO.: 03-1332A ENVIRON SAMPLE ID.	COLLECTION DATE	COLLECTED BY (initials)	MATRIX	TOTAL NO. OF	- 1- AM.	Charles Ses.	7	//			//	/	//	COMMENTS	,
-	CSGA4	यय	145	50.1	(1										_
2	CS 7A4	zlzo	TLS	50.1	1	1					 					_
<u>ઃ</u>	CS8A4	zlzo	TLS	Soil	1	}										
4	CS 9 A4		725		1 -	5										:
- 15	CS 12A4	2/20	TLS	· ,	-	1										
۷_	CS7AZ	2/20	TLS	Sal	1	١				!						
7	CS8A2	zlzo	725		١	(
8	CS9AZ	2/20	125	Soil	1	{										
9	CSIZAZ	420	,125	Soil	Í	(
	TOTAL	\times	\boxtimes	\times	9	9										

Relinduished by:	Date:	ı ime:	Received by:	Company:	Date:	ı ime;

Sout Steen	2/20/90		July Co	BC4	2/20	1830

100 # 900602

$\overline{\epsilon}$	N	V		R	0	N
Cou	nsel in t	tealth a	nd En	vironm	ental Sci	ence

CHAIN-of-CUSTODY FORM

Sheet Of 25820 Shellmound St, Suite 200 Emeryville, California 94608 (415) 655-7400

PROJECT NAME:	COLLECTION DATE	COLLECTED BY (initials)	MATRIX	TOTAL NO. OF CONTAINERS	AM.	7/4/1/SE.			/ /	<u> </u>	<u> </u>	<u> </u>	COMMENTS
CSIIFP	2/20	TLS	Water	1	\$								* Please have
			product										Tony Blake
CS11A4	2/0	725		1		1							call Phil
													Fitzwater
													Re: expedited
													analysis
													on this free
													product Sample.
TOTAL	\times	X	> <	1	2								

Relinquished by:	Date:	Time:	Received by:	Company:	Date:	Time:
						
Todd L. Steve	2/20/90	<u> 1830</u>	HACE.	BC4.	2/20	<u>1830</u>

2014 9002602

$\overline{\epsilon}$	N	V	I	R	0	N
Cou	nsel in l	Health ar	nd En	wronm	ental Sci	ence

CHAIN-of-CUSTODY FORM

Sheet Of 3 5820 Shellmound St, Suite 700 Emeryville, California 94608 (415) 655-7400

	PROJECT NAME: UTOLO TEE CASE NO.: 03-1332A ENVIRON SAMPLE ID.	COLLECTION DATE	COLLECTED BY (initials)	MATRIX	TOTAL NO. OF CONTAINERS	14W	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		*//					/ /			CON	MEN'	rs
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ح.	C53A4				1	-													
4_	CS 4AZ				ı	1													
_ ق	CS 4 A 4				1	1													
 ی	C55A4)			1	1													
7	CSIDAZ				1														
-8	C510A4		\prod															· · · · · · · · · · · · · · · · · · ·	
-9	CS13A2		V		1	1													
-	TOTAL	\times	\boxtimes	\geq]9	9													
	Relinquished by:			Date:		Time	B:	Rec	eive	d by	/:		Co	mpa	ny:		Date:	T	ime:

Told them 2/21/90 2100 / 1/2 BCA 2/21/10 2100

ENVIRON Counsel in Health and Environmental Science						CHAIN-of-CUSTODY FORM									5820 She Emeryvil	neet Of ellmound St, Suite le, California 94608 655-7400		
PROJECT NAME: JEEU CASE NO.: 03-1332A ENVIRON SAMPLE ID.	COLLECTION DATE	COLLECTED BY (initials)	MATRIX	TOTAL NO. OF	140	- 141 X3E.								//			CON	IMENTS
10 CS13A4	211	725	Soil		I				:									
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-20)_					C58	SAFP	1											
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-24						CSI	3AFP												
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BROWN AND CALDWELL LABORATORIES

1255 Powell Street, Emeryville, CA 94608 (415) 428-2300

373 South Fair Oaks Avenue, Pasadena, CA 91105 (818) 795-7553

1200 Pacifico Avenue, Anaheim, CA 92805

Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

*KEY: AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

Counsel in Health and Environmental Science

CHAIN-of-CUSTODY FORM

9004343 Sheet | Of | 5820 Shellmound St, Suite 700 Emeryville, California 94608

(415) 655-7400

PROJECT NAME: CASE NO.: 03-13320 ENVIRON SAMPLE ID.	COLLECTION DATE	COLLECTED BY (initials)	MATRIX	TOTAL NO. OF CONTAINERS	Po AM.	2 / 2 / SES.	10/5- 10/2 1 4/5/2 1 4/5/2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/ 1	*/				//	COMMENTS
BG-1@0'	4/12	DS BL	3011	l	×			•						
B6-101'				1	×									
BG-1@2'				1	×									
B6-1@41				Ţ	X									
BG-Z@O'		\prod		-	X									
BG-Z01'	\prod			\	×									
BG-Z@Z'		17		1	X									* use same 1.01 boll
BG-Z@4'			V	ι	X						i			for CAM Wet of other
BG-1	J	V	water	6		X	X							samples that you use for this Pb
TOTAL	\times	\times	\times	14										(may be composited
				-			•			 				 Zormore liters)

Time: Received by: Company:

Date:

Time:



ANALYTICAL LABORATORY REPORT

CLIENT NAME AND ADDRESS

ATTN: MR. C. TREEN
CUROCO METALS CO.
536 Cleveland Ave.
Albany, CA 94710

LABORATORY SAMPLE ID: See Below

DATE REPORTED: 05-05-89 DATE SUBMITTED: 04-25-89 DISCARD DATE: 05-24-89 P.O. NUMBER: D. Burton COLLECTED BY: BAE Staff

SUMMARY OF WORK

Soil samples were collected according to the sampling plan provided by CUROCO (copy attached). Ten surface soil samples were acquired at sites 1, 2, 5, 6, 7, 8, 9, 10, 11, and 12. The soil at site 3 was sampled at a depth of one foot. Drain water was collected at site 4. The soil samples were digested according to EPA method 3050, and analyzed for chromium (EPA method 7190), lead (EPA method 7420) and zinc (EPA method 7950). The detection limits for the above three metals were found to be 1.5 ppm, 10 ppm and 1 ppm respectively. The water sample was digested according to EPA method 3010 and analyzed for the above three metals similarly. The detection limits for the above three metals in aqueous matrices were found to be 0.15 ppm, 0.5 ppm and 0.10 ppm. Portions of the soil samples were dried at 105° C in order to determine the moisture content. The concentrations of metals reported below are based on the wet weight.

SITE	Percent Moisture	Cr, mg/Kg	Pb, mg/Kg	Zn, mg/Kg
1	22,31	6,700*	810**	13,000*
• 2	9,927	210	238**	910
3	7.924	380	34	880
4		0.35	ND	1.5
5	13.19	85	107**	1,050
6	8.378	2,850*	960**	6,000*
7	15.57	920	760**	18,600*
8	9.730	175	360**	800
9	9.759	928	675**	3,000**
. 10	14.96	710	565**	1,800
11	22.88	188	410**	1,120
12	10.76	140	540**	1,440

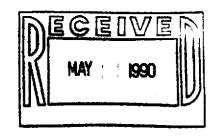
Reviewed and Approved by:

Muhammad Sharaf, Laboratory Manager

ND = Not detected

*Exceeds Title 22 TTLC

**Exceeds Title 22 STLC X 10



LOG NO: E90-04-512

Received: 18 APR 90 Reported: 03 MAY 90

Dr. Robert Ellgas Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

REPORT ()F	ANALYTICAL	RESULTS
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Page 1

LOG NO	SAMPLE DESCRIPTION, CALIF WASTI	E EXTRACT S	SAMPLES	DA	TE SAMPLED
04-512-1 04-512-2 04-512-3 04-512-4	CS1A4 Relog of E9002642-1 CS6A4 Relog of E9002602-1 CS15A-1 Relog of E9002642-14 WET Solution Relog of E9003343-	-10			21 FEB 90 20 FEB 90 21 FEB 90
PARAMETER		04-512-1	04-512-2	04-512-3	04-512-4
Lead, mg/L CAM WET Ext Date Filter	raction, Date ed	<0.3 04.30.90	1.8 04.30.90	2.0 04.30.90	<0.3 04.30.90

Sim D. Lessley, Ph.D./ Laboratory Director





ANALYTICAL LABORATORY REPORT

CLIENT NAME AND ADDRESS

ATTN: Mr. C. Treen
CUROCO METALS CO.
536 Cleveland Ave.
Albany, CA 94710

LABORATORY SAMPLE ID: See Below

DATE REPORTED: 05-26-89 DATE SUBMITTED: 05-10-89 DISCARD DATE: 06-09-89 P.O. NUMBER: D. Burton COLLECTED BY: BAE Staff

SUMMARY OF WORK:

Soil samples were collected according to the sampling plan provided by CUROCO (copy attached). Sites 1, 2, 5, 6, 7, 8, 9, 10, 11, and 12 were sampled at a depth of one foot. Additional samples were collected at a depth of two feet at sites 2, 3, 5 and 6. A soil sample was also obtained from the drain pipe (site 4). The water table at site 3 was found to be between 2 and 3 feet below the surface. Consequently no soil samples were obtained below 2 feet at site 3.

EPA method 3050 was used to digest the soil samples. The total soil content of chromium, lead, and zinc was determined using EPA methods 7190 (detection limit 1.5 ppm), 7420 (detection limit 10 ppm) and 7950 (detection limit 1 ppm) respectively. Portions of the soil samples were dried at 105°C in order to determine the moisture content. The concentrations of metals reported below are based on the wet weight.

SITE	DEPTH	% MOISTURE	Cr,mg/Kg	Pb,mg/Kg	Zn,mg/Kg
1	1'	14	140	119*	450
2	1'	13	20	53*	335
· 2	21	21	43	183*	690
3	21	18	65	265*	270
4		24	1100	750*	2520
5	1'	11	28	39	145
5	21	8.7	45	56*	360
6	Ĩ†	7.4	47	83*	225
6	21	13	40	71*	93
7	<u>1</u> 1	7.7	35	51*	385
. 8	Ά	5.4	28	59*	195
9	11	9.0	23	65*	215
10	ī'	10	31	55*	245
11	ī'	11	28	81*	185
12	ī۱	16	35	69*	475

* Exceeds Title 22 STLC x 10

Reviewed and Approved By:

Muhammad Sharaf Laboratory Manager

1125 HENSLEY STREET, RICHMOND, CALIFORNIA 94801 (415) 233-8001



LOG NO: E90-04-343

Received: 12 APR 90 Reported: 24 APR 90

Mr. Robert Elgas Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332C

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESC	CRIPTION,	SOIL	SAMPLE	ES		DA	TE SAMPLED
04-343-1 04-343-2 04-343-3 04-343-4 04-343-5	BG-1 @ 0' BG-1 @ 1' BG-1 @ 2' BG-1 @ 4' BG-2 @ 0'							12 APR 90 12 APR 90 12 APR 90 12 APR 90 12 APR 90
PARAMETER			04-3	343-1	04-343-2	04-343-3	04-343-4	04-343-5
Chromium, m Lead, mg/kg Zinc, mg/kg Nitric Acid		Date	04.	28 240 250 18.90	30 15 270 04.18.90	22 17 36 04.18.90	27 <6 24 04.18.90	46 80 120 04.18.90



LOG NO: E90-04-343

Received: 12 APR 90 Reported: 24 APR 90

Mr. Robert Elgas Environ Corporation 5820 Shellmound Street, Suite 700 Emeryville, California 94608

Project: 03-1332C

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DAT	E SAMPLED
04-343-6 04-343-7 04-343-8	BG-2 @ 1' BG-2 @ 2' BG-2 @ 4'			12 APR 90 12 APR 90 12 APR 90
PARAMETER		04-343-6	04-343-7	04-343-8
Chromium, m Lead, mg/kg Zinc, mg/kg Nitric Acid		32 67 97 04.18.90	37 45 79 04.18.90	28 18 42 04.18.90



LOG NO: E90-04-343

Received: 12 APR 90 Reported: 24 APR 90

Mr. Robert Elgas
Environ Corporation
5820 Shellmound Street, Suite 700
Emeryville, California 94608

Project: 03-1332C

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION,	GROUND	WATER	SAMPLES		DA	ATE SAMPLED
04-343-9 04-343-10	BG-1 BG-1						12 APR 90 12 APR 90
PARAMETER					04-343-9	04-343-10	
Sample Held, Not Analyzed TPH - Modified 8015				HELD			
Date Analyzed			04.18.90				
Dilution Factor, Times			1				
Total Fuel Hydrocarbons, mg/L				<1			
Other TPH	- Modified 8015						

Sim D. Lessey, Ph.D., Laboratory Director

