

Environmental Consultants

676
504
676

415 521-0661
415 829-5493

SCS ENGINEERS

TO :

DATE: 8/6/91
NAME: PAUL SHATTUCK
COMPANY NAME: ALAMEDA Co
FAX NUMBER: 568-3706
PHONE NUMBER: 271-4320

FAX COVER

FROM :

NAME: NELS Johnson
JOB / OVERHEAD NUMBER: 0390044.02

CHECK ONE

NORMAL PROCESSING

CONFIDENTIAL

CALL TO CONFIRM ON ARRIVAL
(415) 829-0661

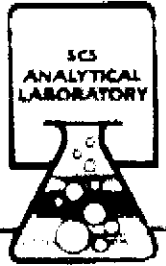
CHECK ONE

[unclear]

[unclear]

MESSAGE: ENCLOSED ARE RESULTS FROM
SAMPLING EVENT ON 7/12/91
if you have any questions
Don't be to call

[Signature]



SCS ANALYTICAL LABORATORY
12-31-90-0024

MEMO

To: John Cummings

From: Lam V. Ho

July 30, 1991

Job No.: 0390044.02

Page 1 of 4

LABORATORY REPORT

Samples: One (1) liquid and two (2) water samples from Harrison Street Garage, received 07/19/91 and analyzed 07/28/91

Sludge	S-1	Hoist Sump Sample Harrison St.
water	w-1	sample from Harrison St hoist
water	w-2	= Alice St basement drain
Sludge	S-2	" " " "
	w-3	capped off pipe Alice St basement

Metals - See attached sheets

David Sincerbeaux
David Sincerbeaux
Chemist

Lam V Ho
Lam V. Ho PhD, REP
Laboratory Director

Addendum Report, CAM Metals
Page 2 of 4

Sample I.D.: W-1
Date Received: 07/19/91
Date Analyzed: 07/26/91
Matrix: water
Project: 0390044.02
File #: harris5.rep

Compound	EPA Number	Result -----mg/L (ppm)-----	D.L
Cadmium	200.7	ND	0.05
Chromium	200.7	ND	0.05
Lead	200.7	ND	0.5
Nickel	200.7	ND	0.5
Zinc	200.7	1.4	0.1

ND = Not Detected
D.L. = Detection Limit

Addendum Report, CAM Metals
Page 3 of 4

Sample I.D.: W-2
Date Received: 07/19/91
Date Analyzed: 07/26/91
Matrix: water
Project: 0390044.02
File #: harris5.rep

Compound	EPA Number	Result -----mg/L (ppm)-----	D.L
Cadmium	200.7	ND	0.05
Chromium	200.7	0.24	0.05
Lead	200.7	20.5	0.5
Nickel	200.7	ND	0.5
Zinc	200.7	6.5	0.1

ND = Not Detected
D.L. = Detection Limit

Addendum Report, CAM Metals
Page 4 of 4

Sample I.D.: W-3
Date Received: 07/19/91
Date Analyzed: 07/26/91
Matrix: Liquid
Project: 0390044.02
File #: harris5.rep

Compound	EPA Number
Cadmium	200.7
Chromium	200.7
Lead	200.7
Nickel	200.7
Zinc	200.7

TTLc

Result	D.L
-----mg/L (ppm)-----	
0.94	0.05
0.14	0.05
84.6	0.5
ND	0.5
390	0.1

e no

ND = Not Detected
D.L. = Detection Limit

	stlc	TTLc
Cd	1.0	100.0
Cr	500.	2500.00
Pb	5.-	1000.00
Ni	20.-	2000.00
Zn	250.-	5000.00

Quality Assurance Addendum Report
Page 1 of 1

RCRA Metals

Matrix Spikes

Lab ID	Cd	Cr	Pb	Ni	Zn
	-----% Recovery-----				
6906-0 Spk.	91	90	88	73	86
6906-0 Spk. Dup.	106	100	100	82	100
% RSD	15	11	13	12	15
Control limits	50/128	35/126	32/160	40/140	16/162
# Outside limits	0	0	0	0	0
% Completeness	100	100	100	100	100

Notes:

Note that Matrix Spikes are not project specific. Therefore, spike information shown on this report may not be from the same project; however, they were analyzed in the same analytical batch.

Definitions:

Spike: A sample from the analytical batch which has been spiked with the parameter(s) of interest at a known concentration.

Spike Duplicate: A duplicate of the spiked sample.

Mean: The average spike recoveries, from both spikes and spike duplicates (or average sample results, for samples run in duplicate rather than spiked).

% RSD: Relative Standard Deviation between a Spike and a Spike Duplicate (or a sample and sample duplicate).

$$\%RSD = \frac{(\text{Spike} - \text{Spk. Dup.})}{\text{Mean}} \times 100$$

Control limits are calculated by SCS Analytical Laboratory for internal use from existing spike data. Control limits are found by calculating three standard deviations above and below the mean of the population.

harris1.qa

CHAIN OF CUSTODY RECORD REQUEST FOR ANALYSIS

561



COMPANY NAME: SCS ENGINEERS	CARRIER: Fed-Ex	TURNAROUND TIME REQUIRED: <input type="checkbox"/> NORMAL <input type="checkbox"/> 5-DAY <input type="checkbox"/> 3-DAY <input type="checkbox"/> 24-HOUR <input type="checkbox"/> IMMEDIATE ATTENTION
ADDRESS: 6761-D Sierra Ct. Dublin	SHIPMENT DATE: 7-18-1991	
PHONE NUMBER: (415) 829-0661	SHIPPING NUMBER:	
P.O. NUMBER:	NUMBER OF SAMPLES:	PAGE OF

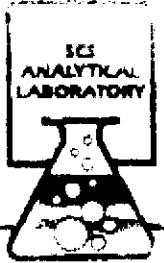
PROJECT NAME: Harrison St. Garage	ANALYSES REQUESTED	LAB ONLY
PROJECT ADDRESS: 1432 Harrison St. Oakland		
PROJECT NUMBER: 0390044-02		
SAMPLER NAME AND SIGNATURE: PRABHU N. RAVANOUR <i>R. Shankar</i>		
REPORTS TO BE SENT TO: John P. Cummings		

SAMPLE ID NUMBER	SAMPLE DESCRIPTION	SAMPLE MATRIX	SAMPLE PRESERVATION	CONTAINER SIZE / TYPE	DATE / TIME COLLECTED	FIELD TEMP.	FIELD pH	FIELD EC	SPECIAL PROGRAM REQUIREMENTS OR EPA-809-A COMPLIANCE	SAMPLE CONDITION UPON RECEIPT	
W-1	water		HNO ₃	500ml / 200ml	7-18-1991						X
W-2	water		HNO ₃	4	11						X
W-3	Liquid		cold	Th	11						X

SPECIAL INSTRUCTIONS / COMMENTS:

RELEASED BY: (Signature) <i>R. Shankar</i>	DATE: 7-19-1991	RECEIVED BY: (Signature) <i>John P. Cummings</i>	DATE: 7-18-1991	RECEIVED BY: (Signature)	DATE:	RECEIVED BY: (Signature)
COMPANY: SCS Engineers	TIME: 4:30	COMPANY: SCS Engineers	TIME: 7:18-91	COMPANY:	TIME:	COMPANY:

AUG 5 1991



SCS ANALYTICAL LABORATORY

MEMO

To: John Cummings

From: Lam V. Ho

August 1, 1991

Job No.: 0390044.02

Page 1 of 5

LABORATORY REPORT

Samples: Two (2) sludge samples from Harrison Street Garage, received 07/19/91 and analyzed 07/24/91 and 07/26/91.

Metals and EPA 8240 - See attached sheets

Loree Kenyon
 Loree Kenyon
 Chemist

Lam V. Ho
 Lam V. Ho PhD, REP
 Laboratory Director

Addendum Report, Metals
Page 2 of 5

Sample I.D.: S-1
Date Received: 07/19/91
Date Analyzed: 07/26/91
Matrix: Sludge
Project: 0390044.02
File #: harris6.rep

Compound	EPA Number	Result -----mg/kg (ppm)-----	D.L
Cadmium	6010	11	1 ←
Chromium	6010	76	1
Lead	6010	8510	10 ←
Nickel	6010	55	10 ←
Zinc	6010	1260	2 ←

ND = Not Detected
D.L. = Detection Limit

Addendum Report, Metals
Page 3 of 5

Sample I.D.: S-2 Soil Alice st Basement drain
Date Received: 07/19/91
Date Analyzed: 07/26/91
Matrix: Sludge
Project: 0390044.02
File #: harris6.rep

Compound	EPA Number	Result -----mg/kg (ppm)-----	D.L
Cadmium	6010	4	1
Chromium	6010	47	1
Lead	6010	8210	10
Nickel	6010	33	10
Zinc	6010	1090	2

ND = Not Detected
D.L. = Detection Limit

Addendum Report, EPA 8240
Page 4 of 5

Sample I.D.: S-1
Date Received: 07/19/91
Date Analyzed: 07/24/91
Matrix: sludge
Project #: 0390044.02
File #: harris6.rep

CAS #	Compound	Result ----ug/kg (ppb)----	D.L. ----
67-64-1	Acetone	ND	4000
107-02-8	Acrolein	ND	4000
107-13-1	Acrylonitrile	ND	4000
71-43-2	Benzene	1100	800
75-27-4	Bromodichloromethane	ND	800
75-25-2	Bromoform	ND	800
74-83-9	Bromomethane	ND	2400
78-93-3	2-Butanone	ND	4000
75-15-0	Carbon Disulfide	ND	800
56-23-5	Carbon Tetrachloride	ND	800
108-90-7	Chlorobenzene	8400	800
124-48-1	Chlorodibromomethane	ND	800
75-00-3	Chloroethane	ND	2400
110-75-8	2-Chloroethyl Vinyl Ether	ND	4000
67-66-3	Chloroform	ND	800
74-87-3	Chloromethane	ND	2400
74-95-3	Dibromomethane	ND	800
110-56-5	1,4-Dichloro-2-butane	ND	800
75-71-8	Dichlorodifluoromethane	ND	800
75-34-3	1,1-Dichloroethane	ND	800
107-06-2	1,2-Dichloroethane	ND	800
75-35-4	1,1-Dichloroethene	ND	800
105-60-5	trans-1,2-Dichloroethene	ND	800
78-87-5	1,2-Dichloropropane	ND	800
10061-01-5	cis-1,3-Dichloropropane	ND	800
10061-02-6	trans-1,3-Dichloropropane	ND	800
64-17-5	Ethanol	ND	600
100-41-4	Ethylbenzene	3900	800
97-63-2	Ethyl Methacrylate	ND	800
591-78-6	2-Hexanone	ND	2400
74-88-4	Iodomethane	ND	800
75-09-2	Methylene Chloride	ND	4000
108-10-1	4-Methyl-2-Pentanone	ND	2400

D.L. - Detection Limit
ND - Not Detected

Addendum Report, EPA 8240 (Cont.)
Page 5 of 5

Sample I.D.: S-1
Date Received: 07/19/91
Date Analyzed: 07/24/91
Matrix: sludge
Project #: 0390044.02
File #: harris6.re

CAS #	Compound	Result	D.L.
		----ug/kg (ppb)----	
100-42-5	Styrene	ND	800
79-34-5	1,1,2,2-Tetrachloroethane	ND	800
127-18-4	Tetrachloroethene	ND	800
108-88-3	Toluene	6300	800
71-55-6	1,1,1-Trichloroethane	ND	800
79-00-5	1,1,2-Trichloroethane	ND	800
79-01-6	Trichloroethene	ND	800
75-69-4	Trichlorofluoromethane	ND	800
96-18-4	1,2,3-Trichloropropane	ND	800
108-05-4	Vinyl Acetate	ND	2400
75-01-4	Vinyl Chloride	ND	2400
1330-20-7	m- and p-Xylenes	13000	800
95-47-6	o-Xylene	5900	800
541-73-1	1,3-Dichlorobenzene	ND	800
106-46-7	1,4-Dichlorobenzene	ND	800
95-50-1	1,2-Dichlorobenzene	ND	800

D.L. = Detection Limit
ND = Not Detected

Quality Assurance Addendum Report
Page 1 of 2

Metals

Matrix Spikes

Lab ID	Cd	Cu	Pb	Ni	Zn
	-----% Recovery-----				
6904-0 Spk.	96	106	*	71	*
6904-0 Spk. Dup.	92	92	*	78	*
% RSD	4.3	14	--	9.4	--
Control limits	51/116	41/130	40/126	53/113	24/134
# Outside limits	0	0	2	0	2
% Completeness	100	100	0	100	0

* Low recovery due to high matrix interference.

EPA 8240

Surrogate Spikes

Lab ID	DCAd ₄	Told ₈	BFB
	-----% Recovery-----		
6904-1	98	102	91
Control Limits	67/117	72/135	59/115
# Outside Limits	0	0	0
% Completion	100	100	100

Matrix Spikes

Lab ID	DCE	TCE	Bz	Toi	ClBz
	-----% Recovery-----				
6928-11 Spk.	120	119	113	106	110
6928-11 Spk. Dup.	120	118	112	107	110
% RSD	0	0.8	0.9	0.9	0
Control Limits	34/215	74/144	58/153	31/139	60/139
# Outside Limits	0	0	0	0	0
% Completeness	100	100	100	100	100

Quality Assurance Addendum Report
Page 2 of 2

Notes:

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Spike Duplicate: A duplicate of the spiked sample.

Mean: The average spike recoveries, from both spikes and spike duplicates (or average sample results, for samples run in duplicate rather than spiked).

% RSD: Relative Standard Deviation between a Spike and a Spike Duplicate (or a sample and sample duplicate).
 $\%RSD = [(Spike - Spk. Dup.) / Mean] * 100$

Control limits are calculated by SCS Analytical Laboratory for internal use from existing spike data. Control limits are found by calculating three standard deviations above and below the mean of the population.

harris2.qa

DAILY FIELD REPORT

PROJECT Harrison St. Garage PROJECT NO. 0390044.02 DATE 7.18.1991

LOCATION 1432 Harrison St. Oakland CLIENT _____

CONTRACTOR _____ SUPERINTENDENT _____

WEATHER Cloudy, warm

TIME 1 hr 20 min (both way) FIELD TIME 3 hr 45 min

EQUIPMENT USED _____

TIME	
8:50	Arrive at site for sampling at wash rack ramp basement drain. Capped pipe and at the underground tanks on Harrison St. sidewalk
9:15	Paul M. Smith from Alameda Co. Health Services arrived.
	- The light at the basement was bad flash lights were used to for sampling.
	- First sampling was done at the Alice street basement drain. The water sample was taken using bailer and deep taddle and collected in 500 ml plastic jar for the analysis of priority metals (Lead, Zinc, Nickel, Chromium and cadmium). Per conversation with Dave Mikesell at the laboratory, preservation requirements of nitric acid was carried in the container before leaving for sampling.

ENGINEER/GEOLOGIST/INSPECTOR _____

REVIEWED BY _____ SHEET 1 OF 6

DAILY FIELD REPORT

PROJECT Harrison St. Garage PROJECT NO. D390044.02 DATE 7-18-1991

LOCATION: 1432 Harrison St. Oakland CLIENT _____

CONTRACTOR _____ SUPERINTENDENT _____

WEATHER CONDITIONS Cloudy w/ sun

WIND 1 hr 20 min (windy) _____ FIELD NO. 3 hr 40 min

EQUIPMENT USED _____

TIME	
	<p>sampling. The sample was labeled W-2 consistent with previous samples. Same sample was also collected in 2 40-ml VOA vials for the analysis of EPA 8240. No acid preservation was added to the vials.</p>
	<p>- At this stage, Mr. Smith expressed that sludge is more representative for the analysis of metals than water. Per his request a sludge sample was also taken from this drain and labeled S-2. The analysis for priority metals was requested on this sample. The sludge from this basement drain was not sampled in the previous sampling event.</p>
	<p>- Mr. Smith also took collected a water sample (40 ml VOA) and sludge sample from the basement drain.</p>

ENGINEER/GEOLOGIST/INSPECTOR _____

REVIEWED BY _____ SHEET 2 OF 6

DAILY FIELD REPORT

PROJECT Harrison St. Garage PROJECT NO. 0390044-02 DATE 7-18-1991

LOCATION 1432 Harrison St. Oakland CLIENT _____

CONTRACTOR _____ SUPERINTENDENT _____

WEATHER CONDITIONS Cloudy, Warm

TRAVEL TIME 1 hr 20 min MILEAGE _____ FIELDTIME 3 hr 40 min

EQUIPMENT USED _____

TIME	
	<p>The second sample was collected in the capped pipe in the basement. The liquid in the capped pipe was collected in 500 ml jar for the analysis of priority metals. As the liquid is more like oil than water no preservative was added (per conversation with Dave Mikesell at SCS lab). The sample was collected using battery operated siphon and labeled W-3</p>
	<p>- The liquid was also collected in 2 40 ml VOA vials for the analysis of EPA 8240, (No preservative added)</p>
	<p>- Mr. Smith also collected the sample from the capped pipe in a 40 ml VOA vial</p>

ENGINEER/GEOLOGIST/INSPECTOR _____

REVIEWED BY _____ SHEET 3 OF 6

DAILY FIELD REPORT

PROJECT Harrison St Garage PROJECT NO. 039004-02 DATE 7.18.1991LOCATION 1432 Harrison St - Oakland CLIENT _____

CONTRACTOR _____ SUPERINTENDENT _____

WEATHER CONDITIONS Cloudy, warmWIND 10-15 mph, 20 min SUN 10:00 RAINFALL 3 hrs 40 minELEVATION 1000

TIME	
	- The samples were also collected from wash rack sump on the Harrison St. level garage. The water sample from the hoist was collected using a plastic bailer and labeled W-1 W-1. The sample was collected in a 500 ml jar (plastic jar) which was having nitric acid for preservation. The sample was used for the analysis of Priority Metals.
	- The water sample was also collected in a 40 ml VOA vial for the analysis of EPA 8240 (No preservation were added).
	- The sludge sample in the sump was collected in 2 500 ml jars (glass). One jar was for the analysis of priority metals and the other one for the analysis of EPA 8240 (Volatile organics). The sludge sample was labeled S-1.
	Mr. Smith also collected water samples.

ENGINEER/GEOLOGIST/INSPECTOR _____

REVIEWED BY _____ SHEET 4 OF 6

DAILY FIELD REPORT

PROJECT Harrison St. Garage PROJECT NO. D39 0044.02 DATE 7.18.1991

LOCATION 1432 Harrison St. Oakland CLIENT _____

DATE _____ SUPERINTENDENT _____

WEATHER Cloudy, warm
in sun WIND 3 by 4 km

TIME

in a 40 ml VOA vial and sledge sample in a jar. He mentioned that sump and the hoist be identified as separate entities ^{the report} rather than calling both as iron wash rack sump.

- I mentioned about one intention in the samples from the contents of CSTs in Harrison St, but Paul said that to postpone sampling until the proper safety procedure were addressed to take samples from the tank as he said 14% of benzene was detected in the previous sampling event. He said opening the valve now would be dangerous without proper safety requirement.

- We went around the building and he was having some questions about number of hoists in the Harrison St.

ENGINEER/GEOLOGIST/INSPECTOR _____

REVIEWED BY _____ SHEET 5 OF 6

Harrison Co. Garage 3906402
432 Cotton St. Oakland

Monday, 11/17/71

is a and paper inside walls of
the area inside door all with
new marks from USA (underground
new steel) and this is a sign
of the hole in things

back in office

ENGINEER AND ARCHITECT SUPERVISOR

REVIEWED BY

CHIEF OF OFFICE