

DRAFT

Table 1. Laboratory Results of Chemical Analyses of Soil Samples⁽¹⁾

Boring No.	Sample Depth (feet)	Date Sampled	Total Petroleum Hydrocarbons (as gasoline)	Benzene	Ethyl-Benzene	Toluene	Xylenes
B1	20.0 - 20.5	5/26/87	430	12	NA ⁽²⁾	ND ⁽³⁾	ND
B2	15.0 - 15.5	5/26/87	3,700,000	9,800	NA	22,000	74,000
B2	20.0 - 20.5	5/26/87	2,400,000	1,600	NA	5,500	42,000
B2	25.0 - 25.5	5/26/87	16,000,000	48,000	NA	110,000	190,000
B3	15.5 - 16.0	10/9/87	ND	0.5	ND	0.6	ND
B3	20.5 - 21.0	10/9/87	ND	0.5	ND	0.2	ND
B3	25.5 - 26.0	10/9/87	2,020,000	5,800	14,600	13,400	50,000
B3	30.0 - 30.5	10/9/87	2,500,000	14,000	21,000	10,000	47,100
B3	35.5 - 36.0	10/9/87	31,000	350	350	450	850
B4	15.5 - 16.0	10/9/87	ND	ND	ND	ND	ND
B4	20.5 - 21.0	10/9/87	ND	ND	ND	3.0	ND
B4	25.5 - 26.0	10/9/87	120	11.7	1.0	ND	24.3
B4	30.0 - 30.5	10/9/87	1,400	740	556	62	606
B4	35.5 - 36.0	10/9/87	860	525	29.5	14.0	198
B5	20.5 - 21.0	10/9/87	ND	ND	ND	0.5	ND
B5	25.5 - 26.0	10/9/87	2,800,000	8,300	20,000	10,000	197,000
B5	30.0 - 30.5	10/9/87	29,000	21.0	270	100	880
B5	35.5 - 36.0	10/9/87	470,000	13,047	1,232	492	6,594
B6	21.0 - 21.5	10/8/87	ND	ND	ND	ND	ND
B6	30.0 - 30.5	10/8/87	870,000	4,800	5,600	6,000	24,900
B7	25.5 - 26.0	10/8/87	1,100	4.9	1.9	0.7	3.4
B8	20.5 - 21.0	10/8/87	ND	ND	ND	ND	ND
B8	35.5 - 36.0	10/8/87	330	1.4	1.0	18.7	4.5

- 1 Concentrations in parts per billion
 2 Not analyzed
 3 Not detected



Report Date: 08-Mar-88
 Client: Harding Lawson Associates
 Attn: Pete Mote
 Sampled by: W. Godwin
 Submitted by: W. Godwin
 Preservatives: none
 Analyst: Oram
 WESCO JOB #: HLA 0828-L
 Analytical Method: EPA 3550/8015

Client Contract/PO: 9382,020.01
 Date Sampled: 29-Feb-88
 Site: Oakland, Chinatown
 Date Received: 29-Feb-88
 Extract/Digest/Purge Date: 01-Mar-88
 Analysis Completion Date: 01-Mar-88
 Hold Time: 1 day

=====

MATRIX: SOIL

=====

LAB #	CLIENT ID	Diesel (mg/kg)	Kerosene (mg/kg)	Motor oil (mg/kg)	Detection Limit(mg/kg)
8-2032	2908	N.D.	495	470	10
8-2033	2909	N.D.	75	81	10
8-2034	2910	480	N.D.	N.D.	10

N.D.: Not Detected


 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
METHOD : EPA 3550/8015

HLA 0828-L

COMPOUND	Blank (mg/l)	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1986 NCP 0812-L	8-1986 NCP 0812-L
Diesel	N.D.	48	51*

N.D.: Not Detected
* : Matrix Interference



Analytical Supervisor

Report Date: 08-Mar-88
Client: Harding Lawson Associates
Attn: Pete Mote
Sampled by: W. Godwin
Submitted by: W. Godwin
Preservatives: none
Analyst: Arntzen/Lewis
WESCO JOB #: HLA 0828-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 9382,020.01
Date Sampled: 29-Feb-88
Site: Oakland, Chinatown
Date Received: 29-Feb-88
Extract/Digest/Purge
Date: 29-Feb-88
Analysis Completion
Date: 29-Feb-88
Hold Time: 0 days

=====
LAB #: 8-2032 MATRIX: SOIL
CLIENT'S ID: 2908
=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	1600000*	50000

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 63 %

=====
LAB #: 8-2033 MATRIX: SOIL
CLIENT'S ID: 2909
=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	390000*	50000


QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 77 %

=====
LAB #: 8-2034 MATRIX: SOIL
CLIENT'S ID: 2910
=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	1100000*	100000

QUALITY CONTROL DATA
Surrogate Spike % Recovery
Fluorobenzene 68 %

* : Petroleum hydrocarbon quantified as gasoline.
N.D.: Not Detected


Analytical Supervisor


BLANK, SPIKE DUPLICATE AND SPIKE REPORT FOR JOB # HLA 0828-L
 METHOD: EPA 5030/8015

COMPOUND	Blank ug/l	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1933 AQS 0831-L	8-1933 AQS 0831-L
Benzene-----	N.D.	12	124
Toluene-----	N.D.	17	121
p-Xylene-----	N.D.	2	120
Gasoline-----	N.D.	12	55

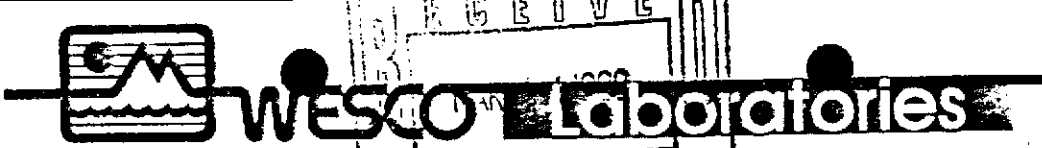
QUALITY CONTROL DATA

Surrogate Spike % Recovery			
Fluorobenzene	99 %	118 %	109%

N.D.: Not Detected



 Analytical Supervisor



ENVIRONMENTAL SERVICES DIVISION

Report Date: 10-Mar-88
Client: Harding Lawson Associates
Attn: Peter Mote
Sampled by: W. Godwin
Submitted by: W. Godwin
Preservatives: none
Analyst: Oram
WESCO JOB #: HLA 0825-L
Analytical Method: EPA 8080

Client Contract/PO: 9382,020.01
Date Sampled: 24-Feb-88
Site: Oakland, Chinatown
Date Received: 24-Feb-88
Extract/Digest/Purge:
Date: 26-Feb-88
Analysis Completion
Date: 29-Feb-88
Hold Time: 2 days

LAB #: 8-1990
CLIENT'S ID: 2407

MATRIX: SOIL

COMPOUND	Result (ug/kg)	Detection Limit (ug/kg)
Alpha-BHC	N.D.	8.0
Beta-BHC	N.D.	8.0
Lindane	N.D.	8.0
Delta-BHC	N.D.	8.0
Heptachlor	N.D.	8.0
Aldrin	N.D.	8.0
Heptachlor Epoxide	N.D.	8.0
Endosulfan I	N.D.	8.0
DDE	N.D.	16.0
Dieldrin	N.D.	16.0
Endrin	N.D.	16.0
Endosulfan II	N.D.	16.0
4,4-DDD	N.D.	16.0
Endrin Aldehyde	N.D.	16.0
4,4-DDT	N.D.	16.0
Endosulfan Sulfate	N.D.	16.0
Aroclor 1016	N.D.	80.0
Aroclor 1221	N.D.	80.0
Aroclor 1232	N.D.	80.0
Aroclor 1242	N.D.	80.0
Aroclor 1248	N.D.	80.0
Aroclor 1254	N.D.	160.0
Aroclor 1260	N.D.	160.0
Chlordane	N.D.	80.0
Toxaphene	N.D.	160.0
Methoxychlor	N.D.	80.0

QUALITY CONTROL DATA

Surrogate Spike % Recovery
2,4,5,6-TCMX 101 %

N.D.: Not Detected
n.d.: not determined

Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
METHOD: EPA 8080

HLA 0825-L

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1990	8-1990
Lindane	N.D.	11	78
Heptachlor	N.D.	N.S.	N.S.
Aldrin	N.D.	2	101
Endrin	N.D.	N.S.	N.S.

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
2,4,5,6-TCMX	107%	93 %	104 %

N.D.: Not Detected
n.d.: not determined
N.S.: Not Spiked



Analytical Supervisor

Report Date: 10-Mar-88
 Client: Harding Lawson Associates
 Attn: Peter Mote
 Sampled by: W. Godwin
 Submitted by: W. Godwin
 Preservatives: none
 Analyst: Arntzen/Lewis
 WESCO JOB #: HLA 0825-L
 Analytical Method: EPA 8010

Client Contract/PO: 9382,020.01
 Date Sampled: 24-Feb-88
 Site: Oakland, Chinatown
 Date Received: 24-Feb-88
 Extract/Digest/Purge Date: 29-Feb-88
 Analysis Completion Date: 29-Feb-88
 Hold time: 5 days

LAB #: 8-1990
 CLIENT'S ID: 2407

MATRIX: SOIL

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Dichlorodifluoromethane	N.D.	2.0
Chloromethane	N.D.	2.0
Vinyl Chloride	N.D.	2.0
Bromomethane	N.D.	2.0
Chloroethane	N.D.	2.0
Trichlorofluoromethane	N.D.	0.5
1,1-Dichloroethene	N.D.	0.5
Methylene Chloride	N.D.	0.5
trans-1,2-Dichloroethene	N.D.	0.5
1,1-Dichloroethane	N.D.	0.5
Chloroform	N.D.	0.5
1,1,1-Trichloroethane (TCA)	N.D.	0.5
Carbon Tetrachloride	N.D.	0.5
1,2-Dichloroethane (EDC)	N.D.	0.5
Trichloroethene (TCE)	N.D.	0.5
1,2-Dichloropropane	N.D.	0.5
Bromodichloromethane	N.D.	0.5
2-Chloroethylvinyl ether	N.D.	0.5
trans-1,3-Dichloropropene	N.D.	0.5
cis-1,3-Dichloropropene	N.D.	0.5
1,1,2-Trichloroethane	N.D.	0.5
Tetrachloroethene	N.D.	0.5
Dibromochloromethane	N.D.	0.5
Chlorobenzene	N.D.	0.5
Bromoform	N.D.	0.5
1,1,2,2-Tetrachloroethane	N.D.	0.5
1,3-Dichlorobenzene	N.D.	0.5
1,4-Dichlorobenzene	N.D.	0.5
1,2-Dichlorobenzene	N.D.	0.5

QUALITY CONTROL DATA

Surrogate Spike
 Bromochloromethane 71 %
 1,4-Dichlorobutane 93 %

N.D.: Not Detected

[Signature]
 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
 METHOD : EPA 8010

HLA 0825-L

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation 8-1990	Spike % recovery 8-1990
Dichlorodifluoromethane	N.D.	-	N.S.
Chloromethane	N.D.	-	N.S.
Vinyl Chloride	N.D.	-	N.S.
Bromomethane	N.D.	-	N.S.
Chloroethane	N.D.	-	N.S.
Trichlorofluoromethane	N.D.	-	N.S.
1,1-Dichloroethene	N.D.	-	N.S.
Methylene Chloride	N.D.	-	N.S.
trans-1,2-Dichloroethene	N.D.	-	N.S.
1,1-Dichloroethane	N.D.	29	32
Chloroform	N.D.	-	N.S.
1,1,1-Trichloroethane (TCA)	N.D.	-	N.S.
Carbon Tetrachloride	N.D.	-	N.S.
1,2-Dichloroethane (EDC)	N.D.	-	N.S.
Trichloroethene (TCE)	N.D.	0	79
1,2-Dichloropropane	N.D.	-	N.S.
Bromodichloromethane	N.D.	-	N.S.
2-Chloroethylvinyl ether	N.D.	-	N.S.
trans-1,3-Dichloropropene	N.D.	6	96
cis-1,3-Dichloropropene	N.D.	-	N.S.
1,1,2-Trichloroethane	N.D.	-	N.S.
Tetrachloroethene	N.D.	1	82
Dibromochloromethane	N.D.	-	N.S.
Chlorobenzene	N.D.	-	N.S.
Bromoform	N.D.	-	N.S.
1,1,2,2-Tetrachloroethane	N.D.	-	N.S.
1,3-Dichlorobenzene	N.D.	-	N.S.
1,4-Dichlorobenzene	N.D.	-	N.S.
1,2-Dichlorobenzene	N.D.	-	N.S.

QUALITY CONTROL DATA

Surrogate Spike % recovery			
Bromochloromethane	67 %	73 %	76 %
1,4-Dichlorobutane	77 %	90 %	98 %

N.D.: Not Detected
 N.S.: Not Spiked



Analytical Supervisor

Report Date: 10-Mar-88
Client: Harding Lawson Associates
Attn: Peter Mote
Sampled by: W. Godwin
Submitted by: W. Godwin
Preservatives: none
Analyst: Arntzen/Lewis
WESCO JOB #: HLA 0825-L
Analytical Method: EPA 8020

Client Contract/PO: 9382,020.01
Date Sampled: 24-Feb-88
Site: Oakland, Chinatown
Date Received: 24-Feb-88
Extract/Digest/Purge
Date: 29-Feb-88
Analysis Completion
Date: 29-Feb-88
Hold Time: 5 days

=====
LAB #: 8-1990

MATRIX: SOIL


CLIENT'S ID: 2407
=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Benzene-----	0.3	0.2
Toluene-----	2.5	0.2
Chlorobenzene-----	N.D.	0.2
Ethylbenzene-----	2	0.2
Xylene-----	41	0.2
1,3-Dichlorobenzene-----	N.D.	0.2
1,4-Dichlorobenzene-----	N.D.	0.2
1,2-Dichlorobenzene-----	N.D.	0.2

QUALITY CONTROL DATA
Surrogate Spike
Fluorobenzene

Percent Recovery
73 %

N.D.: Not Detected



Analytical Supervisor


BLANK, SPIKE DUPLICATE AND SPIKE REPORT FOR JOB # HLA 0825-L
METHOD: EPA 8020

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation 8-1990	Spike % recovery 8-1990
Benzene-----	N.D.	7	94
Toluene-----	N.D.	8	95
p-Xylene-----	N.D.	2	95

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
Fluorobenzene	95 %	73 %	67 %

N.D.: Not Detected


Analytical Supervisor

Report Date: 10-Mar-88
Client: Harding Lawson Associates
Attn: Peter Mote
Sampled by: W. Godwin
Submitted by: W. Godwin
Preservatives: none
Analyst: Oram
WESCO JOB #: HLA 0825-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 9382,020.01
Date Sampled: 24-Feb-88
Site: Oakland, Chinatown
Date Received: 24-Feb-88
Extract/Digest/Purge
Date: 02-Mar-88
Analysis Completion
Date: 02-Mar-88
Hold Time: 7 days

=====
LAB #: 8-1990

MATRIX: SOIL

CLIENT'S ID: 2407
=====


COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	1000	50.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery
Fluorobenzene

77 %

N.D.: Not Detected



Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT FOR JOB # HLA 0825-L
METHOD: EPA 5030/8015


COMPOUND	Blank ug/l	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1933 AQS 0831-L	8-1933 AQS 0831-L
Gasoline	N.D.	12	55

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
Fluorobenzene	99 %	118 %	109%

N.D.: Not Detected

Note: Wesco Laboratories will store samples for 30 days after date of report unless otherwise notified.



Analytical Supervisor

Report Date: 10-Mar-88
 Client: Harding Lawson Associates
 Attn: Peter Mote
 Sampled by: W. Godwin
 Submitted by: W. Godwin
 Preservatives: none
 Analyst: Libby
 WESCO JOB #: HLA 0825-L
 Analytical Method: CAM Metals


Client Contract/PO: 9382,020.01
 Date Sampled: 24-Feb-88
 Site: Oakland, Chinatown
 Date Received: 24-Feb-88
 Extract/Digest/Purge
 Date: 08-Mar-88
 Analysis Completion
 Date: 08-Mar-88

=====
 LAB #: 8-1990
 CLIENT ID: 2407
 =====

MATRIX: SOIL

COMPOUND	RESULT (mg/kg)	Detection limit(mg/kg)	Method number
Antimony (Sb)	N.D.	0.03	EPA 7041
Arsenic (As)	1.50	0.04	EPA 7061
Barium (Ba)	99.1	3.0	APHA 304
Beryllium (Be)	0.421	0.004	EPA 7091
Cadmium (Cd)	N.D.	2.0	EPA 7130
Chromium (Cr)	44.8	2.0	EPA 7190
Cobalt (Co)	12.6	2.0	EPA 7200
Copper (Cu)	9.9	2.0	EPA 7210
Lead (Pb)	5.0	2.0	EPA 7420
Mercury (Hg)	N.D.	0.018	EPA 7470
Molybdenum (Mo)	N.D.	3	EPA 7480
Nickel (Ni)	34.6	2.0	EPA 7520
Selenium (Se)	0.026	0.013	EPA 7741
Silver (Ag)	N.D.	2	EPA 7760
Thallium (Tl)	N.D.	0.1	EPA 7841
Vanadium (V)	42.4	1.0	EPA 7911
Zinc (Zn)	34.6	2.0	EPA 7950

N.D.: Not Detected



 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
METHOD:


CAM Metals

COMPOUND	Blank (mg/l)	Spike Duplicate % deviation 8-1990	Spike % recovery 8-1990
Antimony (Sb)	N.D.	-	84 *
Arsenic (As)	N.D.	-	86
Barium (Ba)	N.D.	4	123
Beryllium (Be)	N.D.	5	27
Cadmium (Cd)	N.D.	7	96
Chromium (Cr)	N.D.	1	103
Cobalt (Co)	N.D.	3	96
Copper (Cu)	N.D.	0.7	94
Lead (Pb)	N.D.	4	101
Mercury (Hg)	N.D.	9 **	86 **
Molybdenum (Mo)	N.D.	3	93
Nickel (Ni)	N.D.	0.8	108
Selenium (Se)	N.D.	-	97
Silver (Ag)	N.D.	9	95
Thallium (Tl)	N.D.	5 **	85 **
Vanadium (V)	N.D.	9	118
Zinc (Zn)	N.D.	5	105

N.D.: Not Detected

* : Spike recovery reported is for DI water. Spike was not recovered from samples.

** : Q.C. data from sample # 1931 (HLA 0824-L).



Analytical Supervisor



Harding Lawson Associates
 Environmental Services Division
 200 Rush Landing Road
 Novato, California 94947
 (415) 892-0821

CHAIN OF CUSTODY FORM

HLA 0825-2

Samplers: William H. Godwin

Job Number: 9382,020.01

Name/Location: Oakland Chinatown 10th St at Webster, Oakland Ca.

Project Manager: Peter Wote

Recorder: William Godwin for HLA.
 (Signature Required)

ANALYSIS REQUESTED															
<input checked="" type="checkbox"/>	EPA 601/8010	<input checked="" type="checkbox"/>	EPA 602/8020	<input checked="" type="checkbox"/>	EPA 624/8240	<input checked="" type="checkbox"/>	EPA 625/8270	<input checked="" type="checkbox"/>	Priority Piktnt. Metals CAM	<input checked="" type="checkbox"/>	Benzene/Toluene/Xylene	<input checked="" type="checkbox"/>	Total Petrol. Hydrocarb. In	<input checked="" type="checkbox"/>	EPA 8080

SOURCE CODE	MATRIX				#CONTAINERS & PRESERV.			SAMPLE NUMBER OR LAB NUMBER			DATE				
	Water	Sediment	Soil	Oil	Unpres.	H ₂ SO ₄	HNO ₃	Yr	Wk	Seq...	Yr	Mo	Dy	Time	
49			X		1			88	08	24	07	88	02	24	

STATION DESCRIPTION/NOTES
Excavation Central (G-1) S.

LAB NUMBER			DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
Yr	Wk	Seq				
88	08	24	07	11-13	10	

CHAIN OF CUSTODY RECORD		
RELINQUISHED BY: (Signature) <u>William Godwin</u>	RECEIVED BY: (Signature) <u>M. Landaco</u>	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature)	DATE/TIME	RECEIVED FOR LAB BY: (Signature) <u>M. Landaco</u>
METHOD OF SHIPMENT		DATE/TIME <u>2/24/88</u>



RECEIVED
ENVIRONMENTAL SERVICES
DIVISION

Report Date: 08-Mar-88 Client Contract/PO: 9382,020.01
 Client: Harding Lawson Associates Date Sampled: 22-Feb-88
 Attn: David Leland Site: Oakland, Chinatown
 Sampled by: W. Godwin Date Received: 23-Feb-88
 Submitted by: P. Llewellyn Extract/Digest/Purge
 Preservatives: none Date: 02-Mar-88
 Analyst: Arntzen/Moezzi Analysis Completion
 WESCO JOB #: HLA 0824-L Date: 02-Mar-88
 Analytical Method: EPA 8020 Hold Time: 9 days

=====

LAB #: 8-1931 MATRIX: SOIL
 CLIENT'S ID: 2205

=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Benzene-----	N.D.	100
Toluene-----	100	100
Chlorobenzene-----	N.D.	100
Ethylbenzene-----	N.D.	100
Xylene-----	340	100
1,3-Dichlorobenzene-----	N.D.	100
1,4-Dichlorobenzene-----	N.D.	100
1,2-Dichlorobenzene-----	N.D.	100

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 75 %

=====

LAB #: 8-1932 MATRIX: SOIL
 CLIENT'S ID: 2206

=====

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Benzene-----	N.D.	200
Toluene-----	330	200
Chlorobenzene-----	N.D.	200
Ethylbenzene-----	N.D.	200
Xylene-----	5100	200
1,3-Dichlorobenzene-----	N.D.	200
1,4-Dichlorobenzene-----	N.D.	200
1,2-Dichlorobenzene-----	N.D.	200

QUALITY CONTROL DATA

Surrogate Spike Percent Recovery
 Fluorobenzene 67 %

N.D.: Not Detected

[Signature]

 Analytical Supervisor


BLANK, SPIKE DUPLICATE AND SPIKE REPORT FOR JOB # HLA 0824-L
METHOD: EPA 8020

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation	Spike % recovery
Sample #		8-2044 PEI 0804-L	8-2044 PEI 0804-L
Benzene-----	N.D.	2.	101
Toluene-----	N.D.	3	100
p-Xylene-----	N.D.	1	101

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
Fluorobenzene	105 %	101 %	104 %

N.D.: Not Detected



Analytical Supervisor

Report Date: 08-Mar-88
 Client: AquaScience Engineers, Inc.
 Attn: T. Carter
 Sampled by: T. Carter
 Submitted by: T. Carter
 Preservatives: none
 Analyst: Arntzen/Moezzi
 WESCO JOB #: AQS 0828-L
 Analytical Method: EPA 8010

Client Contract/PO: CC0130
 Date Sampled: 11-Feb-88
 Site: Auburn II (Caltrans)
 Date Received: 12-Feb-88
 Extract/Digest/Purge
 Date: 02-Mar-88
 Analysis Completion
 Date: 02-Mar-88
 Hold time: 20 days

LAB #: 8-1931
 CLIENT'S ID: 2205


MATRIX: SOIL

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Dichlorodifluoromethane	N.D.	40
Chloromethane	N.D.	40
Vinyl Chloride	N.D.	40
Bromomethane	N.D.	40
Chloroethane	N.D.	40
Trichlorofluoromethane	N.D.	40
1,1-Dichloroethene	N.D.	10
Methylene Chloride	N.D.	10
trans-1,2-Dichloroethene	N.D.	10
1,1-Dichloroethane	N.D.	10
Chloroform	N.D.	10
1,1,1-Trichloroethane (TCA)	N.D.	10
Carbon Tetrachloride	N.D.	10
1,2-Dichloroethane (EDC)	N.D.	10
Trichloroethene (TCE)	N.D.	10
1,2-Dichloropropane	N.D.	10
Bromodichloromethane	N.D.	10
2-Chloroethylvinyl ether	N.D.	10
trans-1,3-Dichloropropene	N.D.	10
cis-1,3-Dichloropropene	N.D.	10
1,1,2-Trichloroethane	N.D.	10
Tetrachloroethene	N.D.	10
Dibromochloromethane	N.D.	10
Chlorobenzene	N.D.	10
Bromoform	N.D.	10
1,1,2,2-Tetrachloroethane	N.D.	10
1,3-Dichlorobenzene	N.D.	10
1,4-Dichlorobenzene	N.D.	10
1,2-Dichlorobenzene	N.D.	10

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
Bromochloromethane	77 %
1,4-Dichlorobutane	114 %

N.D.: Not Detected


 Analytical Supervisor

Report Date: 08-Mar-88
 Client: AquaScience Engineers, Inc.
 Attn: T. Carter
 Sampled by: T. Carter
 Submitted by: T. Carter
 Preservatives: none
 Analyst: Arntzen/Moezzi
 WESCO JOB #: AQS 0828-L
 Analytical Method: EPA 8010

Client Contract/PO: CC0130
 Date Sampled: 11-Feb-88
 Site: Auburn II (Caltrans)
 Date Received: 12-Feb-88
 Extract/Digest/Purge
 Date: 02-Mar-88
 Analysis Completion
 Date: 02-Mar-88
 Hold time: 20 days

LAB #: 8-1932
 CLIENT'S ID: 2206

MATRIX: SOIL

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Dichlorodifluoromethane	N.D.	40
Chloromethane	N.D.	40
Vinyl Chloride	N.D.	40
Bromomethane	N.D.	40
Chloroethane	N.D.	40
Trichlorofluoromethane	N.D.	40
1,1-Dichloroethene	N.D.	10
Methylene Chloride	N.D.	10
trans-1,2-Dichloroethene	N.D.	10
1,1-Dichloroethane	N.D.	10
Chloroform	N.D.	10
1,1,1-Trichloroethane (TCA)	N.D.	10
Carbon Tetrachloride	N.D.	10
1,2-Dichloroethane (EDC)	N.D.	10
Trichloroethene (TCE)	N.D.	10
1,2-Dichloropropane	N.D.	10
Bromodichloromethane	N.D.	10
2-Chloroethylvinyl ether	N.D.	10
trans-1,3-Dichloropropene	N.D.	10
cis-1,3-Dichloropropene	N.D.	10
1,1,2-Trichloroethane	N.D.	10
Tetrachloroethene	N.D.	10
Dibromochloromethane	N.D.	10
Chlorobenzene	N.D.	10
Bromoform	N.D.	10
1,1,2,2-Tetrachloroethane	N.D.	10
1,3-Dichlorobenzene	N.D.	10
1,4-Dichlorobenzene	N.D.	10
1,2-Dichlorobenzene	N.D.	10

QUALITY CONTROL DATA

Surrogate Spike	Percent Recovery
Bromochloromethane	83 %
1,4-Dichlorobutane	116 %

N.D.: Not Detected

[Signature]
 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
 METHOD : EPA 8010


AQS 0828-L

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation	Spike % recovery
	Sample #:	8-2044 PEI 0804-L	8-2044 PEI 0804-L
Dichlorodifluoromethane	N.D.	-	N.S.
Chloromethane	N.D.	-	N.S.
Vinyl Chloride	N.D.	-	N.S.
Bromomethane	N.D.	-	N.S.
Chloroethane	N.D.	-	N.S.
Trichlorofluoromethane	N.D.	-	N.S.
1,1-Dichloroethene	N.D.	-	N.S.
Methylene Chloride	N.D.	-	N.S.
trans-1,2-Dichloroethene	N.D.	-	N.S.
1,1-Dichloroethane	N.D.	0	100
Chloroform	N.D.	-	N.S.
1,1,1-Trichloroethane (TCA)	N.D.	-	N.S.
Carbon Tetrachloride	N.D.	-	N.S.
1,2-Dichloroethane (EDC)	N.D.	-	N.S.
Trichloroethene (TCE)	N.D.	8	93
1,2-Dichloropropane	N.D.	-	N.S.
Bromodichloromethane	N.D.	-	N.S.
2-Chloroethylvinyl ether	N.D.	-	N.S.
trans-1,3-Dichloropropene	N.D.	1	101
cis-1,3-Dichloropropene	N.D.	-	N.S.
1,1,2-Trichloroethane	N.D.	-	N.S.
Tetrachloroethene	N.D.	2	96
Dibromochloromethane	N.D.	-	N.S.
Chlorobenzene	N.D.	-	N.S.
Bromoform	N.D.	-	N.S.
1,1,2,2-Tetrachloroethane	N.D.	-	N.S.
1,3-Dichlorobenzene	N.D.	-	N.S.
1,4-Dichlorobenzene	N.D.	-	N.S.
1,2-Dichlorobenzene	N.D.	-	N.S.

QUALITY CONTROL DATA

Surrogate Spike % recovery			
Bromochloromethane	58 %	100 %	86 %
1,4-Dichlorobutane	102 %	114 %	103 %

N.D.: Not Detected
 N.S.: Not Spiked


 Analytical Supervisor

Report Date: 08-Mar-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: W. Godwin
Submitted by: P. LLewellyn
Preservatives: none
Analyst: Oram
WESCO JOB #: HLA 0824-L
Analytical Method: EPA 8080

Client Contract/PO: 9382,020.01
Date Sampled: 22-Feb-88
Site: Oakland, Chinatown
Date Received: 23-Feb-88
Extract/Digest/Purge
Date: 23-Feb-88
Analysis Completion
Date: 25-Feb-88
Hold Time: 1 day

=====
LAB #: 8-1931
CLIENT'S ID: 2205
=====

MATRIX: SOIL


COMPOUND	Result (ug/kg)	Detection Limit (ug/kg)
Alpha-BHC	N.D.	8.0
Beta-BHC	N.D.	8.0
Lindane	N.D.	8.0
Delta-BHC	N.D.	8.0
Heptachlor	N.D.	8.0
Aldrin	N.D.	8.0
Heptachlor Epoxide	N.D.	8.0
Endosulfan I	N.D.	8.0
4,4'-DDE	N.D.	16.0
Diieldrin	N.D.	16.0
Endrin	N.D.	16.0
Endosulfan II	N.D.	16.0
4,4'-DDD	N.D.	16.0
Endrin Aldehyde	N.D.	16.0
4,4'-DDT	N.D.	16.0
Endosulfan Sulfate	N.D.	16.0
Aroclor 1016	N.D.	80.0
Aroclor 1221	N.D.	80.0
Aroclor 1232	N.D.	80.0
Aroclor 1242	N.D.	80.0
Aroclor 1248	N.D.	80.0
Aroclor 1254	N.D.	80.0
Aroclor 1260	N.D.	160.0
Chlordane	N.D.	160.0
Toxaphene	N.D.	80.0
Methoxychlor	N.D.	160.0

QUALITY CONTROL DATA

Surrogate Spike & Recovery

2,4,5,6-TCMX 91 %

N.D.: Not Detected
n.d.: not determined



Analytical Supervisor

Report Date: 08-Mar-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: W. Godwin
 Submitted by: P. LLewellyn
 Preservatives: none
 Analyst: Oram
 WESCO JOB #: HLA 0824-L
 Analytical Method: EPA 8080

Client Contract/PO: 9382,020.01
 Date Sampled: 22-Feb-88
 Site: Oakland, Chinatown
 Date Received: 23-Feb-88
 Extract/Digest/Purge
 Date: 23-Feb-88
 Analysis Completion
 Date: 25-Feb-88
 Hold Time: 1 day

=====
 LAB #: 8-1932
 CLIENT'S ID: 2206
 =====

MATRIX: SOIL

COMPOUND	Result (ug/kg)	Detection Limit (ug/kg)
Alpha-BHC	N.D.	8.0
Beta-BHC	N.D.	8.0
Lindane	N.D.	8.0
Delta-BHC	N.D.	8.0
Heptachlor	N.D.	8.0
Aldrin	N.D.	8.0
Heptachlor Epoxide	N.D.	8.0
Endosulfan I	N.D.	8.0
4,4'-DDE	N.D.	16.0
Dieldrin	N.D.	16.0
Endrin	N.D.	16.0
Endosulfan II	N.D.	16.0
4,4'-DDD	N.D.	16.0
Endrin Aldehyde	N.D.	16.0
4,4'-DDT	N.D.	16.0
Endosulfan Sulfate	N.D.	16.0
Aroclor 1016	N.D.	80.0
Aroclor 1221	N.D.	80.0
Aroclor 1232	N.D.	80.0
Aroclor 1242	N.D.	80.0
Aroclor 1248	N.D.	80.0
Aroclor 1254	N.D.	160.0
Aroclor 1260	N.D.	160.0
Chlordane	N.D.	80.0
Toxaphene	N.D.	160.0
Methoxychlor	N.D.	80.0

 QUALITY CONTROL DATA
 Surrogate Spike % Recovery
 2,4,5,6-TCMX

102 %

N.D.: Not Detected
 n.d.: not determined

W. Webb

 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB #
METHOD: EPA 8080

HLA 0824-L

COMPOUND	Blank (ug/l)	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1931	8-1931
Lindane	N.D.	0	11
Heptachlor	N.D.	N.S.	N.S.
Aldrin	N.D.	16	87
Endrin	N.D.	N.S.	N.S.

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
2,4,5,6-TCMX	107%	77 %	80 %

N.D.: Not Detected
n.d.: not determined
N.S.: Not Spiked



Analytical Supervisor

Report Date: 08-Mar-88
Client: Harding Lawson Associates
Attn: David Leland
Sampled by: W. Godwin
Submitted by: P. LLewellyn
Preservatives: none
Analyst: Arntzen/Attalla
WESCO JOB #: HLA 0824-L
Analytical Method: EPA 5030/8015

Client Contract/PO: 9382,020.01
Date Sampled: 22-Feb-88
Site: Oakland, Chinatown
Date Received: 23-Feb-88
Extract/Digest/Purge
Date: 24-Feb-88
Analysis Completion
Date: 24-Feb-88
Hold Time: 2 days

=====
LAB #: 8-1931
CLIENT'S ID: 2205
=====

MATRIX: SOIL

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	1200000	50000

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 105 %

=====
LAB #: 8-1932
CLIENT'S ID: 2206
=====


MATRIX: SOIL

COMPOUND	RESULT (ug/kg)	Detection Limit (ug/kg)
Gasoline-----	780000	25000

QUALITY CONTROL DATA

Surrogate Spike % Recovery
Fluorobenzene 97 %

N.D.: Not Detected



Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT FOR JOB # HLA 0824-L
METHOD: EPA 5030/8015

COMPOUND	Blank ug/l	Spike Duplicate % deviation	Spike % recovery
Sample #		8-1876 HLA 0821-L	8-1876 HLA 0821-L
Gasoline	N.D.	11	92

QUALITY CONTROL DATA

Surrogate Spike % Recovery			
Fluorobenzene	93 %	108 %	105%

N.D.: Not Detected

Note: Wesco Laboratories will store samples for 30 days after date of report unless otherwise notified.



Analytical Supervisor

Report Date: 09-Mar-88
 Client: Harding Lawson Associates
 Attn: David Leland
 Sampled by: W. Godwin
 Submitted by: P. Llewellyn
 Preservatives: none
 Analyst: Libby/Staggs
 WESCO JOB #: HLA 0824-L
 Analytical Method: METALS

Client Contract/PO 9382,020.01
 Date Sampled: 22-Feb-88
 Site: Oakland, Chinatown
 Date Received: 23-Feb-88
 Extract/Digest/Purge
 Date: 23-Feb-88
 Analysis Completion
 Date: 25-Feb-88
 Hold Time 1 days

=====
 MATRIX: SOIL
 =====

LAB #	CLIENT ID	Antimony (Sb) (mg/kg)	Arsenic (As) (mg/kg)	Barium (Ba) (mg/kg)	Beryllium (Be) (mg/kg)	Cadmium (Ca) (mg/kg)	Chromium (Cr) (mg/kg)
8-1931	2205	N.D.	8.4	55	0.347	N.D.	44.0
8-1932	2206	N.D.	6.5	40	0.421	N.D.	44.7
Detection limit		0.03	1	10	0.004	2.0	2.0
Method number		EPA 7041	EPA 6010	EPA 6010	EPA 7091	EPA 7130	EPA 7190

LAB #	CLIENT ID	Cobalt (Co) (mg/kg)	Copper (Cu) (mg/kg)	Lead (Pb) (mg/kg)	Mercury (Hg) (mg/kg)	Molybdenum (Mo) (mg/kg)	Nickel (Ni) (mg/kg)
8-1931	2205	9.0	8	N.D.	N.D.	N.D.	40
8-1932	2206	6.8	10	2	N.D.	N.D.	35
Detection limit		2.0	2	2	0.018	3	2
Method number		EPA 7200	EPA 7210	EPA 7420	EPA 7470	EPA 7480	EPA 7520

LAB #	CLIENT ID	Selenium (Se) (mg/kg)	Silver (Ag) (mg/kg)	Thallium (Tl) (mg/kg)	Vanadium (V) (mg/kg)	Zinc (Zn) (mg/kg)
8-1931	2205	N.D.	N.D.	N.D.	39.1	40
8-1932	2206	N.D.	2.0	N.D.	20.9	44
Detection limit		0.5	2.0	0.10	1.0	2
Method number		EPA 6010	EPA 7760	EPA 7841	EPA 7911	EPA 7950

N.D.: Not Detected

Susan Libby

 Analytical Supervisor

BLANK, SPIKE DUPLICATE AND SPIKE REPORT JOB

HLA 0824-L

METHOD: METALS

COMPOUND Sample #	Blank (mg/l)	Spike Duplicate % deviation 8-1931	Spike % recovery 8-1931
Antimony	N.D.	-	84 *
Arsenic	N.D.	-	-
Barium	N.D.	-	-
Beryllium	N.D.	5	45
Cadmium	N.D.	6	99
Chromium	N.D.	18	99
Cobalt	N.D.	2	84
Copper	N.D.	8	91
Lead	N.D.	4	86
Mercury	N.D.	9	86
Molybdenum	N.D.	21	63
Nickel	N.D.	4	92
Selenium	N.D.	-	-
Silver	N.D.	2	106
Thallium	N.D.	5	85
Vanadium	N.D.	23	112
Zinc	N.D.	17	110

N.D.: Not Detected

* : Spike recovery reported is for DI water. Spike was not recovered from samples.

Susan Gibby
 Analytical Supervisor