ecology and environment, inc.
International Specialists in the Environment

ANALYTICAL SERVICES CENTER
4493 Walden Avenue
Lancaster, New York 14086
Tel. (716) 685-8080, Fax: (716) 685-0852

RECEIVED
MAY - 1 1996
MAY-01, 1996

April 30, 1996

Ms. Smita Sumbaly
Roy F. Weston
1090 King Georges Post Road
Suite 201
Edison, New Jersey 08837

RE: 9600.789

Dear Ms. Sumbaly:

Attached is the laboratory report of the analyses conducted on samples received at the Analytical Services Center on April 24, 1996. Analyses were performed according to procedures set forth in NIOSH 5503 and 7300.

The chain of custody form provided herein is integral to this report and must be included with the analytical results forms upon transferral to another data user.

The accuracy of all analyses depends upon the representative nature of the sample and the reliability of collection procedures as well as the accuracy of the laboratory analysis of the sample as submitted. Ecology and Environment, Inc.'s activity and representations with respect to these samples are limited solely to the laboratory analysis of the samples presented to us.

All samples on which this report is based will be retained by E & E for a period of 30 days from the date of this report, unless otherwise instructed by the client. If additional storage of samples is requested by the client, a storage fee of $1.00 per sample container per month will be charged for each sample, with such charges accruing until destruction of the samples is authorized by the client.

CASE NARRATIVE

Desorption efficiency raw data is located on pages 8-13 of this data package.

231797

RECEIVED
1 1996

METALS

Due to software limitations, E & E identification codes have been used throughout this report. Full client ID's can be found in the comment section on form 1.

The following calculation was used for the determination of arsenic and lead in air samples:

$$\frac{\text{ug}}{\text{Liter}} \times \frac{0.01\ \text{Liter}}{1\ \text{filter}} = \frac{\text{ug}}{\text{filter}}$$

The spike recoveries for samples MCEF-SA and MCEF-SB were calculated using the associated lot blanks as the original sample results (MCEF-LA and MCEF-LB respectively).

Lead was detected in the preparation blank at 0.256 ug/filter, just above the IDL of 0.21 ug/filter. Lead was also detected in all the samples. It is not possible to redigest and reanalyze filters.

PCB in Air

The following calculations were used for the determination of PCB's in air samples:

1. $$\text{Result}\ \frac{\text{ug}}{\text{tube}} = \frac{1.0\ \text{ml final volume}}{\text{tube}} \times \text{concentration}\ \frac{\text{ug}}{\text{ml}}$$

2. liters x (1 cubic meter / 1000 liters) = 1 cubic meter

$$\text{Result}\ \frac{\text{ug}}{\text{cubic meter}} = \text{concentration}\ \frac{\text{ug}}{\text{ml}} \times \frac{1.0\ \text{ml final volume}}{\text{volume sampled (cubic meter)}}$$

Accidentally, pesticide spiking solution was added to all samples instead of PCB surrogate solution. The pesticide compounds do not interfere with the PCB pattern.

The extraction codes for the PCB in air analyses are as follows: 3200 = front end of tube, 3210 = back end of tube, 3220 = front end of spiked tube, 3290 = back end of spiked tube.

The continuing AROCLOR-1254 standards (runs 17, 28, & 35) exceeded the 15% difference criteria. Percent differences were 16%, 17%, and 24% respectively.

RECEIVED
1996

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Gary Hahn

Gary Hahn - Manager
Analytical Services Center
April 30, 1996

Total number of pages in this data package is: 358 .

1995

Ecology and Environment, Inc.
Analytical Services Center
Cooler Receipt Form

PACKAGE RECEIPT #: 636 NUMBER OF COOLERS: 1 DATE RECEIVED: 4-24-96

E&E Project #: Project or Site Name: Roy F. Weston -START

A: Preliminary Examination Phase

(CIRCLE ONE)

1 Did coolers come with airbill or packing slip? YES NO

if YES, enter carrier here and print airbill # below: FedEx

2 Did cooler(s) have custody seals? YES NO

if YES, how many and where: 1 at each seam

3 Were custody seals unbroken and intact on receipt? YES NO*

4 Where custody seals dated and signed? YES NO*

if YES, enter Date: 4-23-96 Name: J. Price

5 Initial here to acknowledge receipt of cooler(s): WLK

B Unpacking Phase:

Date Cooler(s) Opened: 4-24-96 C-O-C Numbers:

Coolers Opened By(print): William H. Howard (sign): William H. Howard

6 Where C-O-C forms received and sealed in plastic bag? YES NO*

7 Was the project identifiable from the C-O-C form? YES NO

if YES, enter the project number and name in the heading above.

8 Was enough packing material used in cooler(s)? YES NO

Circle type of material: Vermiculite Bubble Wrap Other

9 If required, was enough ice used?: NA ~~YES~~ ~~NO~~

if YES, circle type of ice: WET DRY BLUE Other

10 Was a temperature blank included inside cooler(s)? YES NO

if Yes, indicate temperature in table below.

If No, indicate Cooler temperature in table below.

11 Were all containers sealed in separate plastic bags?: YES NO*

12 Did all containers arrive unbroken and in good condition? YES NO

C Login Phase:

Date Samples Logged in: 4-24-96

Samples logged in By(print): William H. Howard (sign): William H. Howard

13 Were all container labels complete(eg.date,time,preserv.)? YES NO*

14 Were all C-O-C forms filled out properly in ink and signed? YES NO*

15 Did the C-O-C form agree with containers received? YES NO*

16 Were the correct containers used for the tests requested? YES NO*

17 Were the correct preservatives listed on the sample labels? YES NO*

18 Was a sufficient sample volume sent for the tests requested? YES NO*

19 Were all volatile samples received without head space? NA ~~YES~~ ~~NO~~

Please record Temp. Blank or Cooler Temp. for each cooler, range (2 - 5 C°)*

AIRBILL #	TEMP.C°	AIRBILL #	TEMP.C°	AIRBILL #	TEMP.C°
335 5819 302	NA				

* If NO or Temp. outside of acceptable range a Discrepancy form must be filed.

6

JOB NUMBER : 9600.789

Ecology and Environment, Inc.
SAMPLE TRACKING REPORT

SAMPLE NUMBER	CLIENT SAMPLE ID	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED
TO-10 PCB IN AIR	-AIR			
43062.01	BLIND-PCB-A	04/23/96	04/25/96	04/26/96
43063.01	BLIND-PCB-B	04/23/96	04/25/96	04/26/96
43064.01	BLIND-PCB-C	04/23/96	04/25/96	04/26/96
43065.01	LB-PCB-A	04/23/96	04/25/96	04/26/96
43066.01	LB-PCB-B	04/23/96	04/25/96	04/26/96
43067.01	LB-PCB-C	04/23/96	04/25/96	04/26/96
43068.01	STN1-PCB	04/23/96	04/25/96	04/26/96
43069.01	STN2-PCB	04/23/96	04/25/96	04/26/96
43070.01	STN3-PCB	04/23/96	04/25/96	04/26/96
43071.01	STN4-PCB	04/23/96	04/25/96	04/26/96

Batch No. 04262038

Test Performed: METALS DIGESTION

Date: 4-26-96

Work Performed by: C. Baldwin

Job Number	ID Number	pH (1 - 14)	Color	Clarity	Texture	Artifacts	Digestion Code (ICP)	Digestion Code Furnace	Initial Weight or Volume	Final Weight or Volume	Color (Final) ICP	Clarity (Final) ICP	Color (Final) Furnace	Clarity (Final) Furnace
9600.789	43049.01 Ø MCEF-SA				SPK		28		1 Filter	10ml	CL	C		
	43050.01 Ø MCEF-SB				SPK									
	43051.01 MCEF-LA													
	43052.01 MCEF-LB													
	43053.01 MCEF-FA													
	43054.01 MCEF-FB													
	43055.01 STN1-PB													
	43056.01 STN2-PB													
	43057.01 STN3-PB													
	43058.01 STN3-PB													
	PB 500								-					
	LCS 500								-					

Ø Added 100 ml of ICP Spiking Solutions #1 (lot #W152) and #2 (lot #W251)

Comments:

BALANCE MODEL _____

CALIBRATION SERIAL # _____

0.50g = ____ HOT PLATE _____

1.00g = ____ TEMP= _____

2.00g = ____

Circle one reference

REFERENCE	METHOD		
CLP	ILMO 3.0	ILMO 4.0	
SW846	3050 (SOLIDS)	3010 (ICP-WATER)	3020 (FURNACE-WATER)
OTHER	NIOSH Air Filters		

Approved by: _____ Date: _____

F0131191.PM6

Batch No. 04262035

Test Performed: METALS DIGESTION

Date: 4-26-96

Work Performed by: C. Beldue

Job Number	ID Number	pH (1 - 14)	Color	Clarity	Texture	Artifacts	Digestion Code (ICP)	Digestion Code Furnace	Initial Weight or Volume	Final Weight or Volume	Color (Final) ICP	Clarity (Final) ICP	Color (Final) Furnace	Clarity (Final) Furnace
9600.789	43049.01 Ø MCEF-SA				SPK		28		1 Filter	10ml	CL	C		
	43050.01 Ø MCEF-SB				SPK									
	43051.01 MCEF-LA													
	43052.01 MCEF-LB													
	43053.01 MCEF-FA													
	43054.01 MCEF-FB													
	43055.01 STN1-PB													
	43056.01 STN2-PB													
	43057.01 STN3-PB													
	43058.01 STN3-PB													
	PB 500								-					
	LCS 500								-					

Ø Added 100 ml of ICP Spiking Solutions #1 (lot #W152) and #2 (lot #W251)

Comments:

BALANCE MODEL

CALIBRATION SERIAL #

0.50g = HOT PLATE

1.00g = TEMP=

2.00g =

Circle one reference

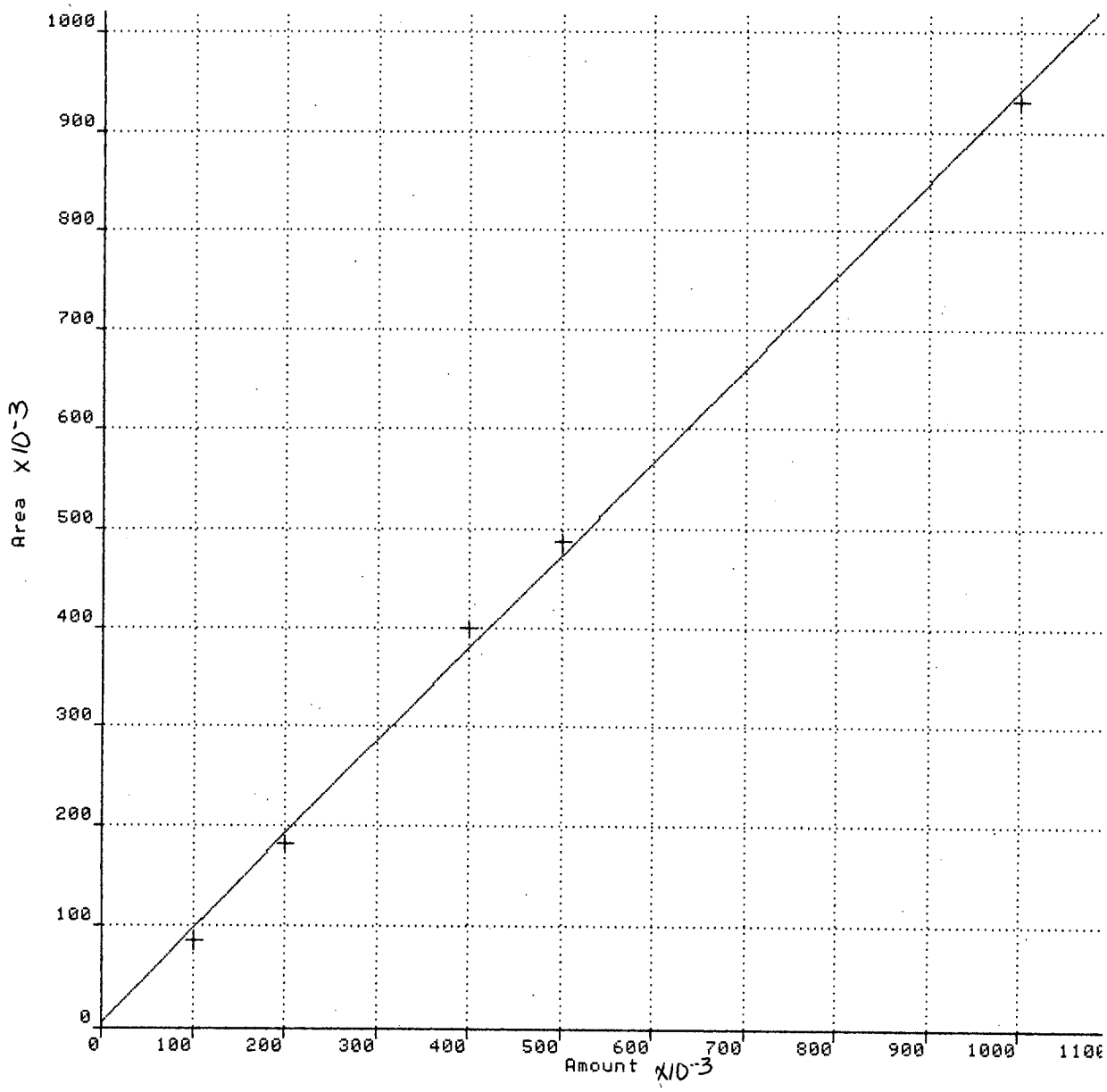
REFERENCE	METHOD		
CLP	ILMO 3.0	ILMO 4.0	
SW846	3050 (SOLIDS)	3010 (ICP-WATER)	3020 (FURNACE-WATER)
OTHER	NIOSH Air Filters		

Approved by: Date:

F0131191.PM6

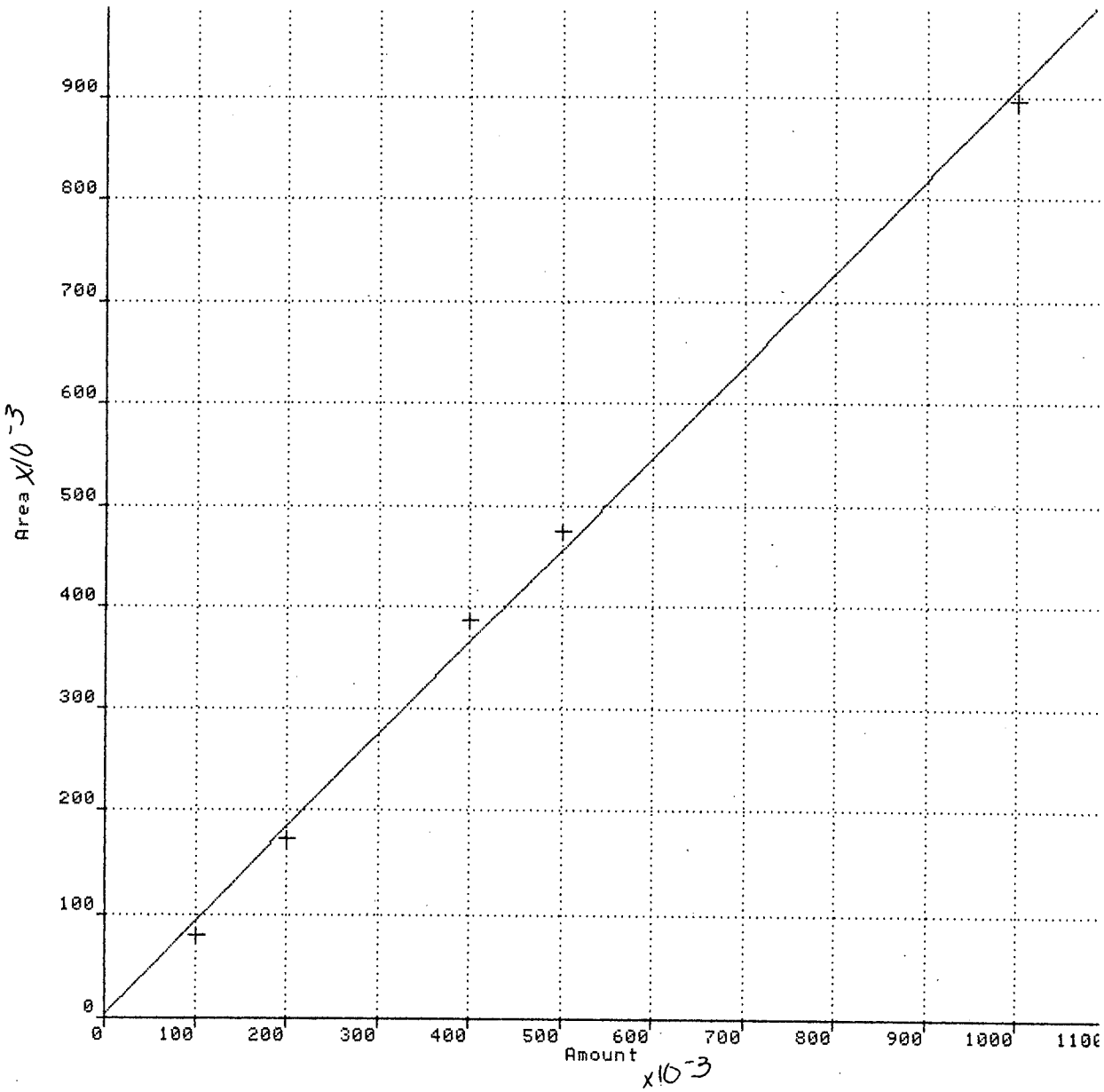
Method: DKB0:[NEARY]3_SET3.MET;2
Component: 1254 DE
Date: 29-APR-1996 22:25:21.04
Linear fit, Origin Treament....Ignore.
K0: 4.8699E+00 K1: 9.3711E-01
Coeff. of determination: 0.9976

Standard Sample	Component Area x10^-3	Component Mass x10^-3	% Rel. St. Dev.
0.1	87	100.00	
0.2	181	200.00	
0.4	400	400.00	
0.5	488	500.00	
1.0	930	1000.0	



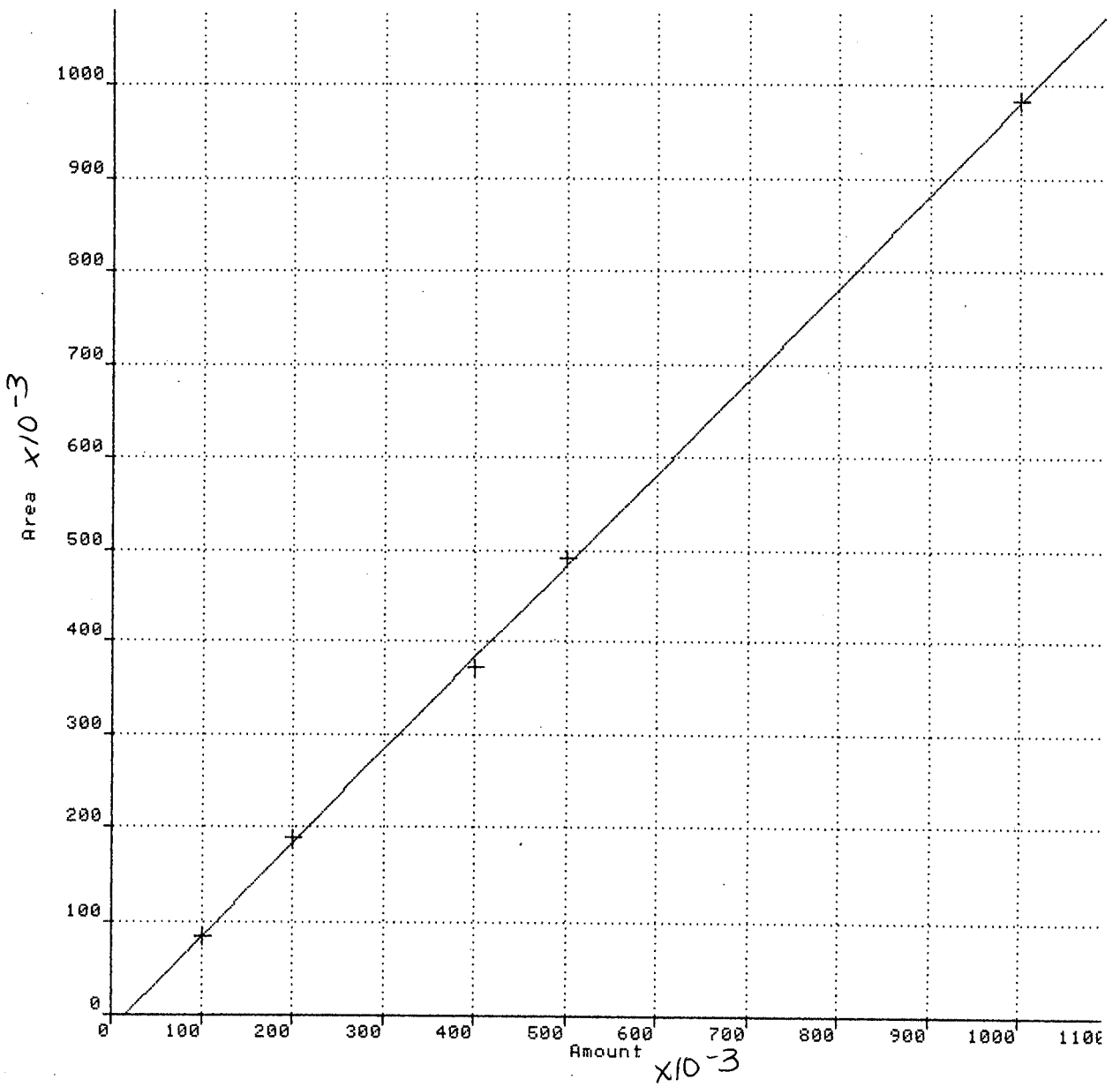
Method: DKB0:[NEARY]4_SET3.MET;2
Component: 1254 DE
Date: 29-APR-1996 22:31:31.05
Linear fit, Origin Treament....Ignore.
K0: 2.7480E+00 K1: 9.0785E-01
Coeff. of determination: 0.9970

Standard Sample	Component Area x10^-3	Component Mass x10^-3	% Rel. St. Dev.
0.1	80	100.00	
0.2	173	200.00	
0.4	386	400.00	
0.5	475	500.00	
1.0	897	1000.0	



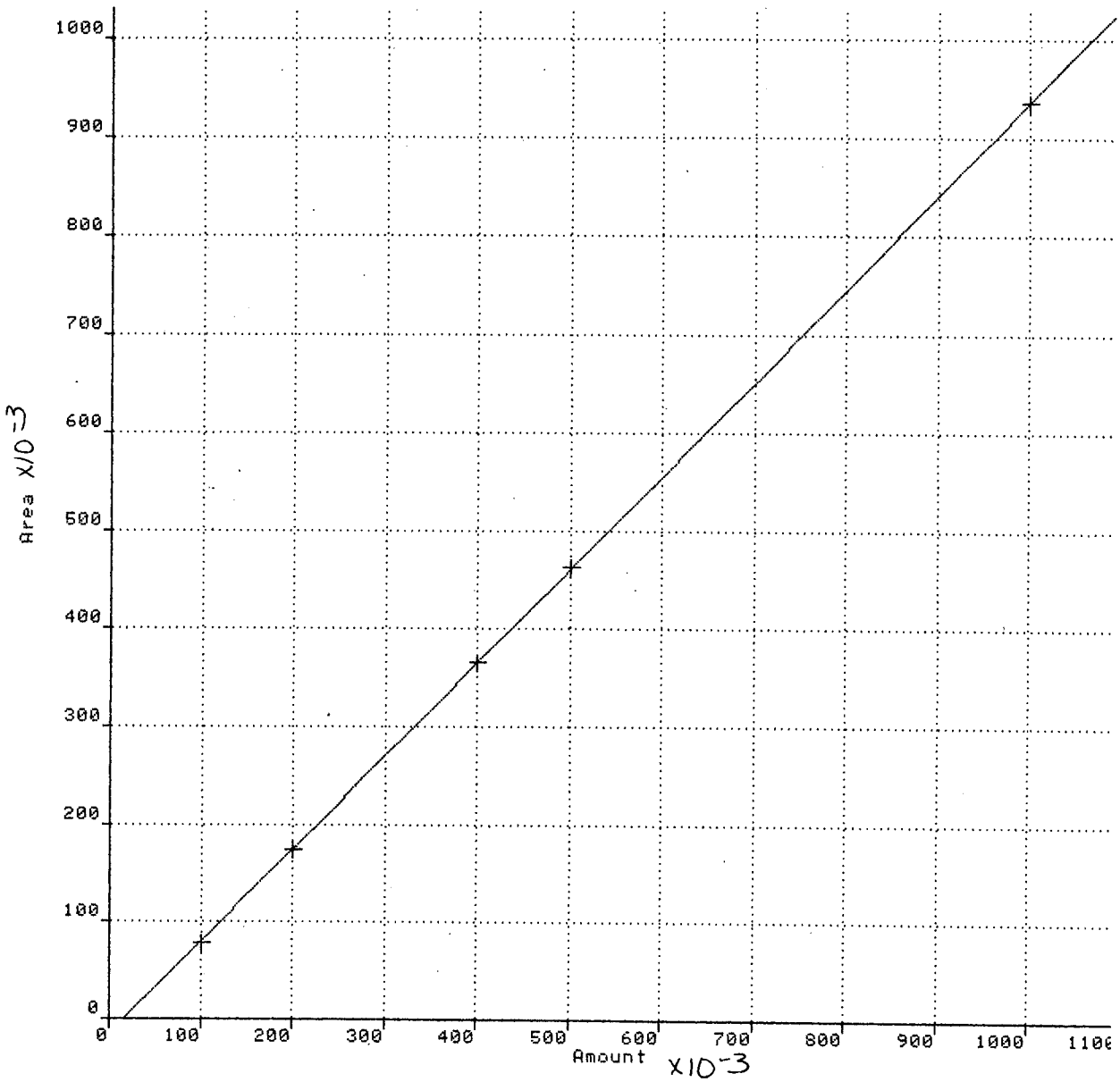
Method: DKB0:[NEARY]3_SET2.MET;2
Component: 1254 DE
Date: 29-APR-1996 22:24:55.69
Linear fit, Origin Treament....Ignore.
K0: -1.5846E+01 K1: 9.9874E-01
Coeff. of determination: 0.9996

Standard Sample	Component Area $\times 10^{-3}$	Component Mass $\times 10^{-3}$	% Rel. St. Dev.
0.1	84	100.00	
0.2	188	200.00	
0.4	372	400.00	
0.5	491	500.00	
1.0	983	1000.0	



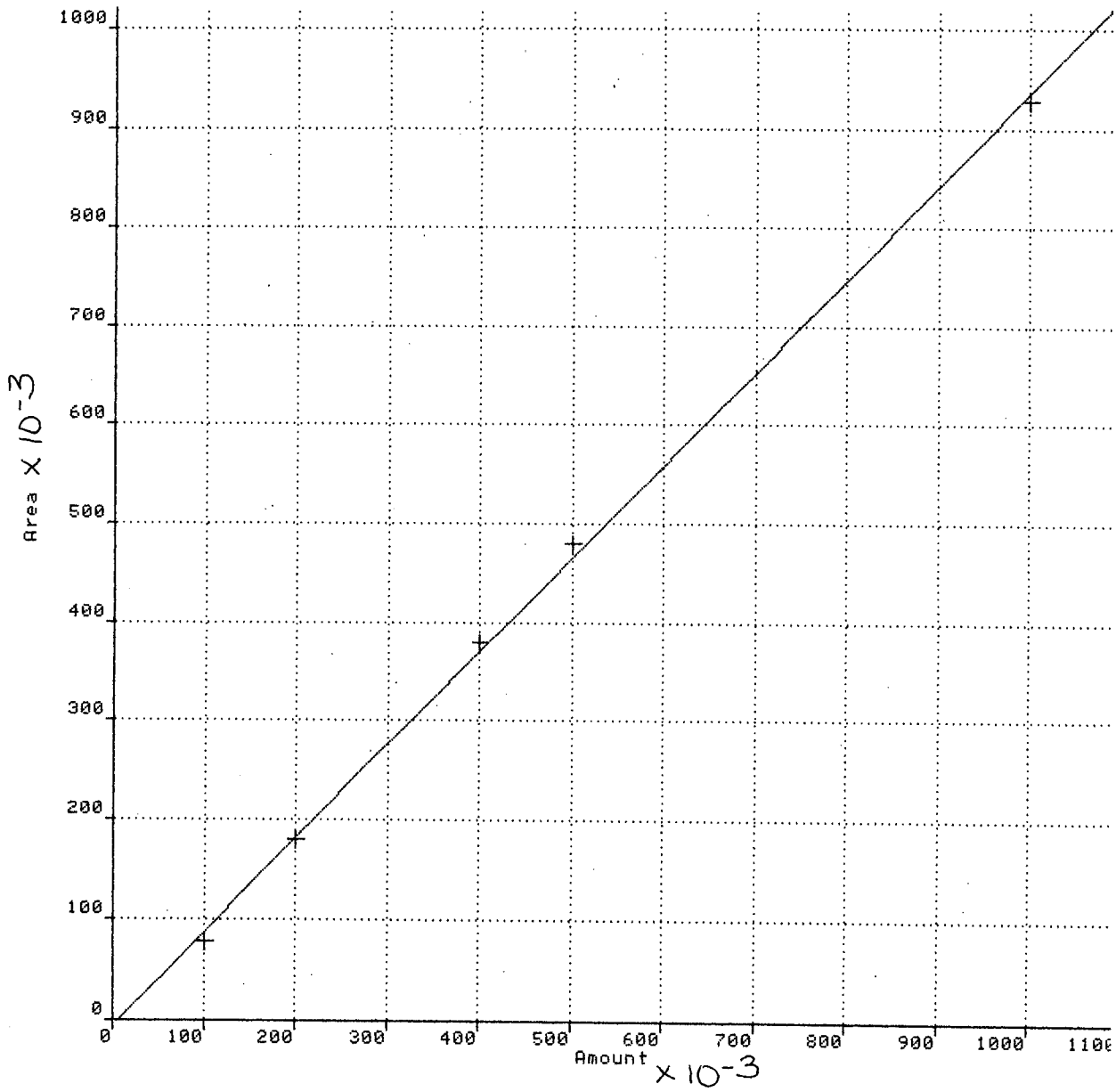
Method: DKB0:[NEARY]4_SET2.MET;2
Component: 1254 DE
Date: 29-APR-1996 22:31:08.22
Linear fit, Origin Treament....Ignore.
K0: -1.5423E+01 K1: 9.5187E-01
Coeff. of determination: 1.0000

Standard Sample	Component Area $\times 10^{-3}$	Component Mass $\times 10^{-3}$	% Rel. St. Dev.
0.1	78	100.00	
0.2	175	200.00	
0.4	365	400.00	
0.5	464	500.00	
1.0	935	1000.0	



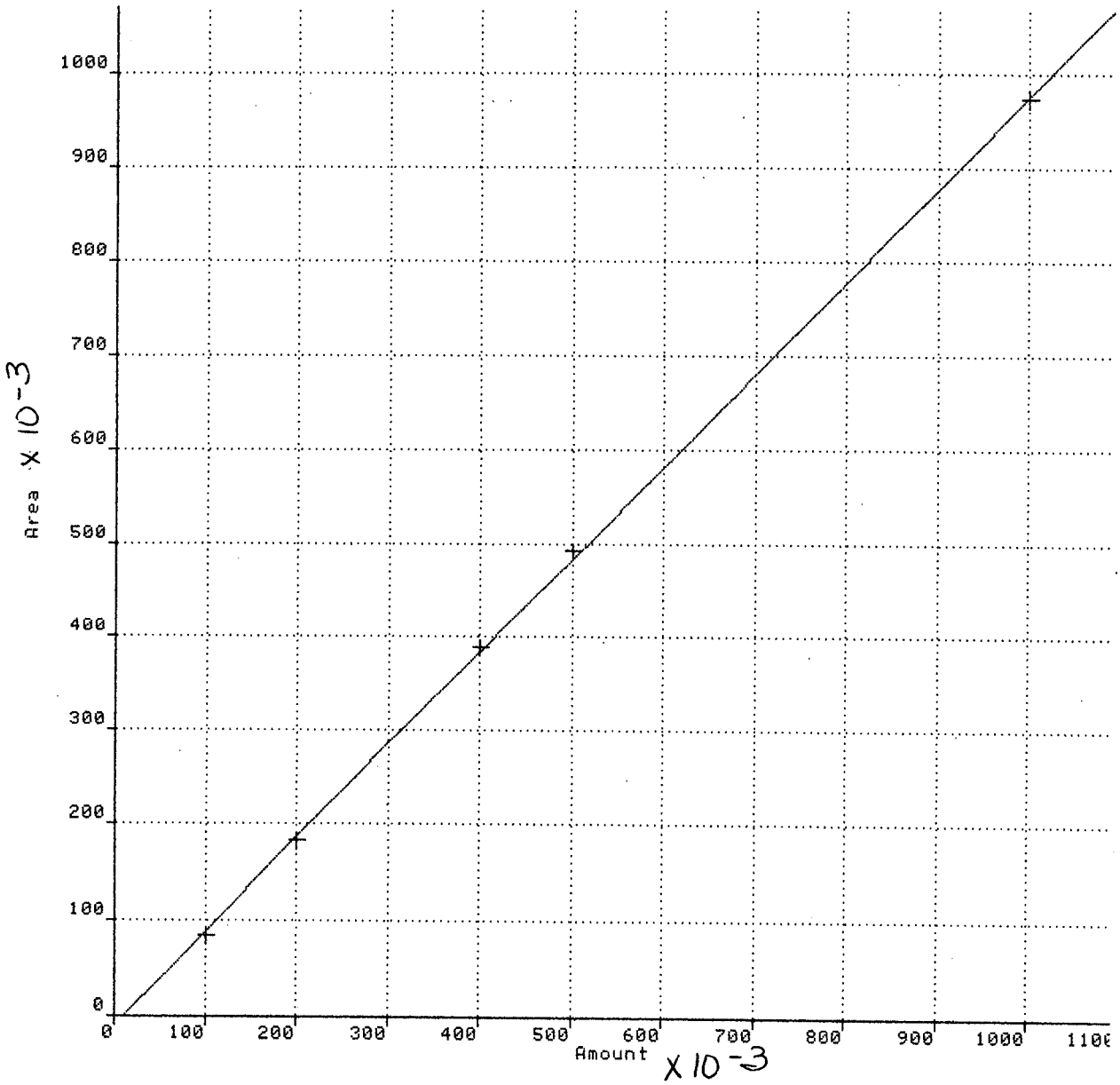
Method: DKB0:[NEARY]4_SET1.MET;2
Component: 1254 DE
Date: 29-APR-1996 22:30:46.15
Linear fit, Origin Treament....Ignore.
K0: -5.0081E+00 K1: 9.4138E-01
Coeff. of determination: 0.9990

Standard Sample	Component Area x10-3	Component Mass x10-3	% Rel. St. Dev.
0.1	80	100.00	
0.2	179	200.00	
0.4	379	400.00	
0.5	480	500.00	
1.0	928	1000.0	



Method: DKB0:[NEARY]3_SET1.MET;3
Component: 1254 DE
Date: 29-APR-1996 22:24:06.95
Linear fit, Origin Treament....Ignore.
K0: -1.0252E+01 K1: 9.8785E-01
Coeff. of determination: 0.9997

Standard Sample	Component Area $\times 10^{-3}$	Component Mass $\times 10^{-3}$	% Rel. St. Dev.
0.1	85	100.00	
0.2	183	200.00	
0.4	389	400.00	
0.5	492	500.00	
1.0	973	1000.0	



U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.:43049_

SOW No.: ILM03.0

EPA Sample No.	Lab Sample ID
_MCEF-SAS_____	_43049S_____
_MCEF-SBS_____	_43050S_____
_MCEF-LA_____	_43051_____
_MCEF-LB_____	_43052_____
_MCEF-FA_____	_43053_____
_MCEF-FB_____	_43054_____
_STN1-PB_____	_43055_____
_STN2-PB_____	_43056_____
_STN3-PB_____	_43057_____
_STN4-PB_____	_43058_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Gary Hahn Name: Gary Hahn

Date: 4-30-96 Title: Laboratory Manager

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43051

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43051

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.037	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.0070	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	1.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver	0.0094	B	J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID: MCEF-LA

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43052

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43052

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__	0.037	U		P
7440-39-3	Barium___				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__	0.0070	U		P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_				NR
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	0.78			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___	0.0060	U	J	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____				NR
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID:__MCEF-LB

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43053

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43053

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__	0.037	U		P
7440-39-3	Barium__				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__	0.0070	U		P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_				NR
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	0.61			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___	0.0060	U	J	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____				NR
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID:__MCEF-FA

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43054

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43054

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.049	B		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.0070	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	0.24			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver	0.0060	U	J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID: MCEF-FB

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43055

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43055

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.037	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.024	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	~~0.96~~			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver	0.0060	U	J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID: STN1-PB

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43056

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43056

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__	0.037	U		P
7440-39-3	Barium__				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__	0.013	B		P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_				NR
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	3.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___	0.022	B	J	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____				NR
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID:__STN2-PB

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43057

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43057

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.037	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.0070	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver	0.0060	U	J	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID: STN3-PB

FORM I - IN ILM03.0

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

43058

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Lab Sample ID: 43058

Level (low/med): LOW__ Date Received: 04/24/96

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_				NR
7440-36-0	Antimony_				NR
7440-38-2	Arsenic__	0.037	U		P
7440-39-3	Barium__				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium__	0.018	B		P
7440-70-2	Calcium__				NR
7440-47-3	Chromium_				NR
7440-48-4	Cobalt___				NR
7440-50-8	Copper___				NR
7439-89-6	Iron____				NR
7439-92-1	Lead____	8.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury__				NR
7440-02-0	Nickel___				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium_				NR
7440-22-4	Silver___	0.0060	U	T	P
7440-23-5	Sodium___				NR
7440-28-0	Thallium_				NR
7440-62-2	Vanadium_				NR
7440-66-6	Zinc____				NR
	Cyanide__				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: CL_____ Clarity After: C_____ Artifacts: _____

Comments:

CLIENT_SAMPLE_ID:__STN4-PB

FORM I - IN ILM03.0

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL PROTECTION AGENCY – REGION II
Environmental Services Division
EDISON, NEW JERSEY 08817

RECEIVED 1 1996

Name of Unit and Address: Roy F. Weston - START
1090 King Georges Post Rd
Suite 201 Edison NJ 08837 (908) 225-6116

REF: RFP# 1316

Sample Number	Number of Containers	Description of Samples
MCEF-SA	1	NIOSH 7300 - LOT SPIKE A volume = 0 liters ~~SKE~~ 30
MCEF-SB	1	NIOSH 7300 - LOT SPIKE B
MCEF-LA	1	NIOSH 7300 - LOT BLANK A
MCEF-LB	1	NIOSH 7300 - LOT BLANK B
MCEF-FA	1	NIOSH 7300 - Field BLANK A
MCEF-FB	1	NIOSH 7300 - Field BLANK B volume = 0 liters
STN1-Pb	1	STATION 1 - MCEF volume = 900 l
STN2-Pb	1	STATION 2 - MCEF volume = 900 l
STN3-Pb	1	STATION 3 - MCEF volume = 900 l
STN4-Pb	1	STATION 4 - MCEF volume = 900 l

ALL samples below for analysis per NIOSH 7300 for lead, cadmium, silver, arsenic

GILIAN FILTER LOT: 922I229

Person Assuming Responsibility for Sample:	Time	Date
[signature]	5 30 pm	4/23/96

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
ALL	[signature]				
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
	FedEx	[signature]	0930	4-24-96	Analysis
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

CHAIN OF CUSTODY RECORD

RECEIVED 1996

ENVIRONMENTAL PROTECTION AGENCY – REGION II
Environmental Services Division
EDISON, NEW JERSEY 08817

Name of Unit and Address: Roy F. Weston - START
1090 King Georges Post Rd
Suite 201 Edison NJ 08837 (908) 225-6116

RFP#: 1316

Sample Number	Number of Containers	Description of Samples
		* ALL SAMPLES BELOW FOR ANALYSIS PER NIOSH 5503 ** SAMPLES ENTAIL BOTH A FLORISIL TUBE + A 13mm GLASS FIBER FILTER
LB-PCB (A,B,C)	3 sets	3 LOT BLANKS - NIOSH 5503 VOLUME = 0 SKC LOT 377 FLORISIL TUBES || FILTER LOT = SKC 9494
BLND PCB (A,B,C)	3 sets	3 BLIND SPIKES - NIOSH 5503 VOLUME = 0
ANAL-PCB (A,B,C)	3 sets	3 ANALYTICAL SPIKES - NIOSH 5503 VOLUME = 0
DE-PCB (A-O)	15 sets	15 DESORPTION EFFICIENCY SAMPLES - NIOSH 5503 VOLUME = 0
STN1-PCB	1 set	STATION 1 PCB VOL = 30 l
STN2-PCB	1 set	STATION 2 PCB VOL = 30 l
STN3-PCB	1 set	STATION 3 PCB VOL = 30 l
STN4-PCB	1 set	STATION 4 PCB VOL = 30 l

Person Assuming Responsibility for Sample: [signature] Time: 5:30 pm Date: 4/23/96

Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
BLL	[signature]				
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
	FedEx	[signature]	0930	4-24-96	Analysis
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody
Sample Number	Relinquished By:	Received By:	Time	Date	Reason for Change of Custody

Page No.

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.: 43049_

Initial Calibration Source: EPA-LV/P-E__

Continuing Calibration Source: VHG/NBS_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic	1000.0	993.59	99.4	500.0	482.16	96.4	495.24	99.0	P
Barium									NR
Beryllium									NR
Cadmium	500.0	485.62	97.1	500.0	447.96	89.6	476.62	95.3	P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead	1000.0	991.65	99.2	1000.0	929.06	92.9	945.43	94.5	P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver	200.0	189.65	94.8	500.0	471.48	94.3	487.23	97.4	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.: 43049_

Initial Calibration Source: EPA-LV/P-E__

Continuing Calibration Source: VHG/NBS_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	473.18	94.6	484.03	96.8	P
Barium									NR
Beryllium									NR
Cadmium				500.0	452.49	90.5	471.68	94.3	P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead				1000.0	899.48	89.9	967.21	96.7	P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver				500.0	455.91	91.2	493.76	98.8	P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.: 43049_

Initial Calibration Source: EPA-LV/P-E__

Continuing Calibration Source: VHG/NBS_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									NR
Antimony									NR
Arsenic				500.0	476.61	95.3			P
Barium									NR
Beryllium									NR
Cadmium				500.0	467.78	93.6			P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead				1000.0	959.71	96.0			P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver				500.0	485.80	97.2			P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

AA CRDL Standard Source: PERKIN-ELMER

ICP CRDL Standard Source: VHG_____

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	True	Initial Found	%R	Final Found	%R
Aluminum								
Antimony								
Arsenic				20.0	18.86	94.3	15.99	79.9
Barium								
Beryllium								
Cadmium				10.0	9.76	97.6	9.77	97.7
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead				6.0	3.34	55.7	4.54	75.7
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver				20.0	19.39	96.9	19.59	97.9
Sodium								
Thallium								
Vanadium								
Zinc								

U.S. EPA - CLP

3
BLANKS

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.: 43049_

Preparation Blank Matrix (soil/water): AIR FILTER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/FILTER

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	3.7	U	3.7	U	3.7	U	3.7	U	0.037	U	P
Barium											NR
Beryllium											NR
Cadmium	0.7	U	0.7	U	0.7	U	0.7	U	0.007	U	P
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	-2.6	B	2.1	U	2.1	U	-2.4	B	0.256		P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver	0.6	U	0.6	U	0.6	U	0.6	U	0.0063	B	P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

FORM III - IN ILM03.0

U.S. EPA - CLP

3
BLANKS

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.: 43049_

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			3.7	U	-7.3	B					P
Barium											NR
Beryllium											NR
Cadmium			0.7	U	0.7	U					P
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			-2.9	B	2.1	U					P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver			0.6	U	0.6	U					P
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No: _____ SDG No.: 43049_

ICP ID Number: OPTIMA_____ ICS Source: VHG_____

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum								
Antimony								
Arsenic		75		79.7	106.3		75.2	100.3
Barium								
Beryllium								
Cadmium		873		820.7	94.0		836.0	95.8
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead		99		81.8	82.6		86.7	87.6
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver		158		129.7	82.1		131.7	83.4
Sodium								
Thallium								
Vanadium								
Zinc								

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

43049

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Level (low/med): LOW___

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic		20.4259		0.0370	U	20.00	102.1		P
Barium									NR
Beryllium									NR
Cadmium		0.5567		0.0070	U	0.50	111.3		P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		5.5262		1.4102		5.00	82.3		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver		0.6490	B	0.0060	U	0.50	129.8		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

CLIENT SAMPLE ID: MCEF-SA

FORM V (Part 1) - IN ILM04.0

ecology and environment, inc.

International Specialists in the Environment

ANALYTICAL SERVICES CENTER
4493 Walden Avenue • Lancaster, New York 14086
Telephone: 716/685-8080 • Fax: 716/685-0852

Our pledge is to provide the highest quality analytical results in a timely, efficient, and economical manner.

TELECOPIER TRANSMISSION FORM

Date: 5/9/96	Time:
Project Number:	Total Number of Pages (Including Transmission Form): 2
To: SMITA SUMBALY	
Company: ROY F. WESTON	
Telecopier Phone: 908-~~225-6116~~ 225-7039	
From: GARY HAHN	

Special Instructions:

Spike corrections

- Invoice to follow from corporate office.

Full Service Capability

- Atomic Absorption Analysis
- Inductively Coupled Plasma Analysis
- Gas Chromatography
- Gas Chromatography/Mass Spectrometry
- High Performance Liquid Chromatography
- Ion Chromatography, Fourier Transform Infra-red Ultraviolet/Visible Spectroscopy
- Air (Canisters, Bags, Tenax ®, Charcoal)
- Chlorophenols, AOX
- Immunoassay
- Nitroaromatics (Explosives), Chemical Agents
- NPDES/SPDES
- Soil Gas Screening (Field or Laboratory)
- TCLP
- TPH - BETX

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

43049

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Level (low/med): LOW___

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic		20.4259		0.0370	U	20.00	102.1		P
Barium									NR
Beryllium									NR
Cadmium		0.5567		0.0070	U	0.50	111.3		P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		5.5262		1.4102		5.00	82.3		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver		0.0649	B	0.0060	U	0.50	13.0		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

CLIENT SAMPLE ID: MCEF-SA

FORM V (Part 1) - IN ILM03.0

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

43050

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): AIR FILTER Level (low/med): LOW___

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): UG/FILTER

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic		20.1443		0.0370	U	20.00	100.7		P
Barium									NR
Beryllium									NR
Cadmium		0.5515		0.0070	U	0.50	110.3		P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		5.5252		0.7771		5.00	95.0		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver		0.7120	B	0.0060	U	0.50	~~142.4~~ 140.2		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

CLIENT SAMPLE: MCEF-SB

FORM V (Part 1) - IN ILM04.0

U.S. EPA - CLP

7
LABORATORY CONTROL SAMPLE

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Solid LCS Source: ERA_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (UG/FILTER) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic				10.0	9.7		8.0	12.0	97.4
Barium									
Beryllium									
Cadmium				10.0	10.2		8.0	12.0	102.0
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				10.0	10.4		8.0	12.0	103.6
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver				1.0	0.80		0.8	1.2	80.1
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

U.S. EPA - CLP

8
STANDARD ADDITION RESULTS

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract:_____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.:_____ SDG No.:43049_

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q

FORM VIII - IN ILM03.0

U.S. EPA - CLP

9
ICP SERIAL DILUTION

EPA SAMPLE NO.

43057L

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

Matrix (soil/water): SOIL_ Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum							NR
Antimony							NR
Arsenic	3.70	U	18.50	U			P
Barium							NR
Beryllium							NR
Cadmium	0.70	U	3.50	U			P
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead	220.28		203.43		7.6		P
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver	0.60	U	3.00	U			P
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

ICP ID Number: OPTIMA_____ Date: 04/12/96

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	188.98		10	3.7	P
Barium			200		NR
Beryllium			5		NR
Cadmium	226.50		5	0.7	P
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	220.35		3	2.1	P
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver	328.07		10	0.6	P
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

FORM X - IN ILM03.0

U.S. EPA - CLP

11A
ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

ICP ID Number: OPTIMA_____ Date: 03/08/96

Analyte	Wave-length (nm)	Interelement Correction Factors for : Al	Ca	Fe	Mg	___
Aluminum	396.15	0.0000000	0.0000110	-0.0000400	0.0000920	
Antimony	206.83	0.0000000	0.0000000	0.0000000	0.0000000	
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.11	0.0000000	0.0000000	0.0000000	0.0000000	
Cadmium	226.50	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	315.89	-0.0001420	0.0000000	0.0002150	0.0000260	
Chromium	205.55	0.0000000	0.0000000	0.0000000	0.0000000	
Cobalt	228.62	0.0000000	0.0000000	0.0000000	0.0000000	
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	259.94	0.0000250	0.0000190	0.0000000	0.0002540	
Lead	220.35	-0.0000520	0.0000010	0.0000000	0.0000040	
Magnesium	279.08	0.0000020	-0.0000300	0.0000220	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	
Zinc	213.86	0.0000000	0.0000000	0.0000000	0.0000000	

Comments:

U.S. EPA - CLP

12
ICP LINEAR RANGES (QUARTERLY)

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.: 43049_

ICP ID Number: OPTIMA_____ Date: 02/26/96

Analyte	Integ. Time (sec.)	Concentration (ug/L)	M
Aluminum	10.00	100000.0	P
Antimony	10.00	2000.0	P
Arsenic	10.00	10000.0	P
Barium	10.00	5000.0	P
Beryllium	10.00	1000.0	P
Cadmium	10.00	5000.0	P
Calcium	10.00	150000.0	P
Chromium	10.00	10000.0	P
Cobalt	10.00	10000.0	P
Copper	10.00	10000.0	P
Iron	10.00	250000.0	P
Lead	10.00	50000.0	P
Magnesium	10.00	150000.0	P
Manganese	10.00	10000.0	P
Mercury			NR
Nickel	10.00	10000.0	P
Potassium	10.00	50000.0	P
Selenium	10.00	10000.0	P
Silver	10.00	10000.0	P
Sodium	10.00	50000.0	P
Thallium	10.00	10000.0	P
Vanadium	10.00	10000.0	P
Zinc	10.00	10000.0	P

Comments:

U.S. EPA - CLP

13

PREPARATION LOG

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.:9600.789 SAS No.: _____ SDG No.:43049_

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
43049S	04/26/96	1.00	10
43050S	04/26/96	1.00	10
43051	04/26/96	1.00	10
43052	04/26/96	1.00	10
43053	04/26/96	1.00	10
43054	04/26/96	1.00	10
43055	04/26/96	1.00	10
43056	04/26/96	1.00	10
43057	04/26/96	1.00	10
43058	04/26/96	1.00	10
LCSS	04/26/96	1.00	10
PBS	04/26/96	1.00	10

FORM XIII - IN ILM03.0

U.S. EPA - CLP

14

ANALYSIS RUN LOG

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.:43049_

Instrument ID Number: OPTIMA_____ Method: P_

Start Date: 04/26/96 End Date: 04/26/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1027		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
S	1.00	1029		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
ICV	1.00	1034		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—
ICV	1.00	1039		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—
ICB	1.00	1045		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CRI	1.00	1050		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
ZZZZZZ	1.00	1053		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ICSAB	1.00	1055		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
LCSS	1.00	1058		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
PBS	1.00	1102		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCV	1.00	1105		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCB	1.00	1112		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
S0	1.00	1114		—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S	1.00	1116		—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CCV	1.00	1119		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCB	1.00	1123		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43049S	1.00	1125		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43050S	1.00	1130		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43051	1.00	1132		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43052	1.00	1137		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
ZZZZZZ	1.00	1140		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
43054	1.00	1142		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43055	1.00	1144		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43056	1.00	1147		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43057	1.00	1152		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43058	1.00	1156		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCV	1.00	1159		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCB	1.00	1203		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
S0	1.00	1206		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
S	1.00	1210		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCV	1.00	1212		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCB	1.00	1218		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
				—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

FORM XIV - IN ILM03.0

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: ECOLOGY_AND_ENVIRONMENT__ Contract: _____

Lab Code: EANDE_ Case No.: 9600.789 SAS No.: _____ SDG No.:43049_

Instrument ID Number: OPTIMA_____ Method: P_

Start Date: 04/26/96 End Date: 04/26/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1223		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
43053	1.00	1225		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
43057L	5.00	1231		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CRI	1.00	1233		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
ZZZZZZ	1.00	1235		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ICSAB	1.00	1238		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCV	1.00	1241		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—
CCB	1.00	1245		—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—

FORM XIV - IN ILM03.0

240

RAW DATA
4/26/96
JCM

Run #1

ϕ 9600.~~314~~ 789 Ag, As, Pb, Cd

ϕ PB, LCS 500

$$\frac{\mu g}{L} \times \frac{0.01\ L}{\text{filter}} = \frac{\mu g}{\text{filter}}$$

Interlock -

ANALYZE > MANUAL MODE

04/26/96
10:25:00

Method Name: 9604261024 Read Delay: 45 Rinse Time: 0 Dil:
Format Name: clpf Replicates: 2 Data Dsp: SPEC4 Wt/Vol:
Comments: Standard Condition Default Values

Command?

F6	F7	F8	F9	F10	F11	F12
Analysis Elements	Repli-cates	Read Delay	Dilution	Wt/Vol	Format Name	Calib Summary

04/26/96 10:26
blank

rep	1	AG	EM	-162.8
rep	1	AL	EM	8945.6
rep	1	AS	EM	1.5
rep	1	CA	EM	766.9
rep	1	CD	EM	13.5
rep	1	FE	EM	183.1
rep	1	MG	EM	-137.5
rep	1	PB	EM	88.5
rep	2	AG	EM	-146.8
rep	2	AL	EM	8909.1
rep	2	AS	EM	2.2
rep	2	CA	EM	790.6
rep	2	CD	EM	12.1
rep	2	FE	EM	179.4
rep	2	MG	EM	-137.6
rep	2	PB	EM	84.0

04/26/96 10:27
blank

AG	av	-154.80	EM	sd	11.360	%cv	7.34
AL	av	8927.33	EM	sd	25.819	%cv	0.29
AS	av	1.85	EM	sd	0.533	%cv	28.86
CA	av	778.74	EM	sd	16.731	%cv	2.15
CD	av	12.78	EM	sd	0.997	%cv	7.80
FE	av	181.26	EM	sd	2.571	%cv	1.42
MG	av	-137.55	EM	sd	0.065	%cv	0.05
PB	av	86.29	EM	sd	3.168	%cv	3.67

04/26/96 10:28
#1 standard

rep	1	AG	EM	75189.7
rep	1	AS	EM	1091.6
rep	1	CD	EM	49461.0
rep	1	PB	EM	6431.9
rep	2	AG	EM	76751.8
rep	2	AS	EM	1087.2
rep	2	CD	EM	50094.8
rep	2	PB	EM	6386.4

04/26/96 10:29
#1 standard

AG	av	75970.73	EM	sd	1104.595	%cv	1.45	conc	1000.0
AS	av	1089.42	EM	sd	3.066	%cv	0.28	conc	1000.0
CD	av	49777.91	EM	sd	448.132	%cv	0.90	conc	1000.0
PB	av	6409.14	EM	sd	32.167	%cv	0.50	conc	2000.0

04/26/96 10:34
ICV

rep	1	AL	EM	14168.6	
rep	1	AS	conc	992.30	ppb
rep	1	CA	EM	639384.9	
rep	1	CD	conc	490.84	ppb
rep	1	FE	EM	64391.1	
rep	1	MG	EM	59396.8	
rep	1	PB	conc	998.86	ppb

rep	2	AL	EM	14354.0	
rep	2	AS	conc	994.87	ppb
rep	2	CA	EM	629990.1	
rep	2	CD	conc	480.39	ppb
rep	2	FE	EM	63528.5	
rep	2	MG	EM	58545.8	
rep	2	PB	conc	984.45	ppb

04/26/96 10:34
ICV

AL	av	14261.30	EM	sd	131.164	%cv	0.92
AS	av	993.59	ppb	sd	1.819	%cv	0.18
CA	av	634687.5	EM	sd	6643.180	%cv	1.05
CD	av	485.62	ppb	sd	7.389	%cv	1.52
FE	av	63959.77	EM	sd	609.932	%cv	0.95
MG	av	58971.29	EM	sd	601.737	%cv	1.02
PB	av	991.66	ppb	sd	10.183	%cv	1.03

04/26/96 10:38
ICV AG

rep	1	AG	conc	189.90	ppb
rep	1	AL	EM	7871.5	
rep	1	CA	EM	872.3	
rep	1	FE	EM	178.2	
rep	1	MG	EM	-119.7	
rep	2	AG	conc	189.40	ppb
rep	2	AL	EM	7871.5	
rep	2	CA	EM	848.0	
rep	2	FE	EM	167.8	
rep	2	MG	EM	-119.4	

04/26/96 10:39
ICV AG

AG	av	189.65	ppb	sd	0.355	%cv	0.19
AL	av	7871.50	EM	sd	0.007	%cv	0.00
CA	av	860.13	EM	sd	17.173	%cv	2.00
FE	av	172.98	EM	sd	7.319	%cv	4.23
MG	av	-119.51	EM	sd	0.212	%cv	0.18

04/26/96 10:45
ICB

rep	1	AG	conc	-0.12	ppb
rep	1	AL	EM	7646.9	
rep	1	AS	conc	1.27	ppb
rep	1	CA	EM	975.6	
rep	1	CD	conc	0.08	ppb
rep	1	FE	EM	245.9	
rep	1	MG	EM	-116.5	
rep	1	PB	conc	-1.75	ppb
rep	2	AG	conc	-0.12	ppb
rep	2	AL	EM	7643.2	
rep	2	AS	conc	3.95	ppb
rep	2	CA	EM	1045.9	
rep	2	CD	conc	0.03	ppb
rep	2	FE	EM	243.4	
rep	2	MG	EM	-118.8	
rep	2	PB	conc	-3.39	ppb

04/26/96 10:45
ICB

AG	av	-0.12	ppb	sd	0.001	%cv	0.51
AL	av	7645.08	EM	sd	2.621	%cv	0.03
AS	av	2.61	ppb	sd	1.896	%cv	72.61
CA	av	1010.72	EM	sd	49.708	%cv	4.92
CD	av	0.06	ppb	sd	0.035	%cv	62.95
FE	av	244.63	EM	sd	1.765	%cv	0.72
MG	av	-117.67	EM	sd	1.642	%cv	1.40
PB	av	-2.57	ppb	sd	1.162	%cv	45.18

04/26/96 10:49
CRII

rep	1	AG	conc	19.68	ppb
rep	1	AL	EM	7578.0	
rep	1	AS	conc	16.62	ppb
rep	1	CA	EM	457.0	
rep	1	CD	conc	9.70	ppb
rep	1	FE	EM	64.3	
rep	1	MG	EM	-122.5	
rep	1	PB	conc	4.55	ppb
rep	2	AG	conc	19.10	ppb
rep	2	AL	EM	7533.5	
rep	2	AS	conc	21.11	ppb
rep	2	CA	EM	439.2	
rep	2	CD	conc	9.82	ppb
rep	2	FE	EM	108.1	
rep	2	MG	EM	-130.9	
rep	2	PB	conc	2.13	ppb

04/26/96 10:50
CRII

AG	av	19.39	ppb	sd	0.410	%cv	2.11
AL	av	7555.72	EM	sd	31.437	%cv	0.42
AS	av	18.87	ppb	sd	3.171	%cv	16.81
CA	av	448.14	EM	sd	12.589	%cv	2.81
CD	av	9.76	ppb	sd	0.085	%cv	0.87
FE	av	86.23	EM	sd	30.968	%cv	35.91
MG	av	-126.69	EM	sd	5.898	%cv	4.66
PB	av	3.34	ppb	sd	1.716	%cv	51.34

04/26/96 10:52
ICSAI

rep	1	AG	conc	-46.60	ppb
rep	1	AL	EM	3077103.8	
rep	1	AS	conc	6.11	ppb
rep	1	CA	EM	27174610.	
rep	1	CD	conc	20.03	ppb
rep	1	FE	EM	9123589.0	
rep	1	MG	EM	2741273.3	
rep	1	PB	conc	43.33	ppb
rep	2	AG	conc	-46.48	ppb
rep	2	AL	EM	2971531.3	
rep	2	AS	conc	-4.21	ppb
rep	2	CA	EM	26931774.	
rep	2	CD	conc	20.33	ppb
rep	2	FE	EM	9051510.0	
rep	2	MG	EM	2664460.8	

	rep	2	PB	conc	41.44	ppb		

04/26/96 10:53
ICSAI

AG	av	-46.54	ppb	sd	0.082	%cv	0.18
AL	av	3024317.	EM	sd	74651.03	%cv	2.47
AS	av	0.95	ppb	sd	7.300	%cv	767.6
CA	av	27053192	EM	sd	171710.9	%cv	0.63
CD	av	20.18	ppb	sd	0.214	%cv	1.06
FE	av	9087550.	EM	sd	50967.55	%cv	0.56
MG	av	2702867.	EM	sd	54314.64	%cv	2.01
PB	av	42.38	ppb	sd	1.339	%cv	3.16

04/26/96 10:55
ICSABI

rep	1	AG	conc	129.28	ppb
rep	1	AL	EM	3011432.8	
rep	1	AS	conc	80.25	ppb
rep	1	CA	EM	27758384.	
rep	1	CD	conc	826.49	ppb
rep	1	FE	EM	9347205.0	
rep	1	MG	EM	2694697.3	
rep	1	PB	conc	83.09	ppb
rep	2	AG	conc	130.10	ppb
rep	2	AL	EM	3088250.0	
rep	2	AS	conc	79.19	ppb
rep	2	CA	EM	27705162.	
rep	2	CD	conc	814.94	ppb
rep	2	FE	EM	9329348.0	
rep	2	MG	EM	2731288.3	
rep	2	PB	conc	80.48	ppb

04/26/96 10:55
ICSABI

AG	av	129.69	ppb	sd	0.580	%cv	0.45
AL	av	3049841.	EM	sd	54318.00	%cv	1.78
AS	av	79.72	ppb	sd	0.748	%cv	0.94
CA	av	27731772	EM	sd	37633.63	%cv	0.14
CD	av	820.72	ppb	sd	8.172	%cv	1.00
FE	av	9338276.	EM	sd	12626.80	%cv	0.14
MG	av	2712992.	EM	sd	25873.74	%cv	0.95
PB	av	81.78	ppb	sd	1.843	%cv	2.25

04/26/96 10:58
~~PB 500~~
LCS 500

rep	1	AG	conc	79.94	ppb
rep	1	AL	EM	16438.0	
rep	1	AS	conc	976.85	ppb
rep	1	CA	EM	777336.3	
rep	1	CD	conc	1030.78	ppb
rep	1	FE	EM	78668.3	
rep	1	MG	EM	62049.6	
rep	1	PB	conc	1044.47	ppb
rep	2	AG	conc	80.20	ppb
rep	2	AL	EM	16325.0	
rep	2	AS	conc	971.94	ppb
rep	2	CA	EM	764170.4	
rep	2	CD	conc	1008.98	ppb

rep	2	FE	EM	78015.1	
rep	2	MG	EM	61074.5	
rep	2	PB	conc	1026.92	ppb

[illegible] 4/26/96

04/26/96 10:59
~~PB 500~~ LCS 500

AG	av	80.07	ppb	sd	0.181	%cv	0.23
AL	av	16381.50	EM	sd	79.889	%cv	0.49
AS	av	974.39	ppb	sd	3.474	%cv	0.36
CA	av	770753.3	EM	sd	9309.680	%cv	1.21
CD	av	1019.88	ppb	sd	15.422	%cv	1.51
FE	av	78341.66	EM	sd	461.873	%cv	0.59
MG	av	61562.04	EM	sd	689.495	%cv	1.12
PB	av	1035.70	ppb	sd	12.409	%cv	1.20

04/26/96 11:01
PB 500

rep	1	AG	conc	0.51	ppb
rep	1	AL	EM	8554.7	
rep	1	AS	conc	-1.60	ppb
rep	1	CA	EM	27556.4	
rep	1	CD	conc	0.50	ppb
rep	1	FE	EM	11603.1	
rep	1	MG	EM	330.9	
rep	1	PB	conc	25.30	ppb
rep	2	AG	conc	0.74	ppb
rep	2	AL	EM	8632.7	
rep	2	AS	conc	-0.39	ppb
rep	2	CA	EM	28693.0	
rep	2	CD	conc	0.45	ppb
rep	2	FE	EM	12066.5	
rep	2	MG	EM	324.4	
rep	2	PB	conc	25.87	ppb

04/26/96 11:02
PB 500

mg filter

AG	av	0.63	ppb	<0.100	sd	0.165	%cv	26.23
AL	av	8593.70	EM		sd	55.098	%cv	0.64
AS	av	-1.00	ppb	<0.050	sd	0.850	%cv	85.38
CA	av	28124.71	EM		sd	803.706	%cv	2.86
CD	av	0.48	ppb	<0.050	sd	0.037	%cv	7.84
FE	av	11834.80	EM		sd	327.707	%cv	2.77
MG	av	327.65	EM		sd	4.603	%cv	1.40
PB	av	25.58	ppb	0.256	sd	0.405	%cv	1.58

04/26/96 11:04
CCV1

rep	1	AG	conc	466.15	ppb
rep	1	AL	EM	39782.4	
rep	1	AS	conc	476.51	ppb
rep	1	CA	EM	3090399.8	
rep	1	CD	conc	449.19	ppb
rep	1	FE	EM	303566.1	
rep	1	MG	EM	282532.6	
rep	1	PB	conc	933.46	ppb
rep	2	AG	conc	476.81	ppb
rep	2	AL	EM	40324.5	
rep	2	AS	conc	487.81	ppb

rep	2	CA	EM	3110901.0	
rep	2	CD	conc	446.73	ppb
rep	2	FE	EM	306712.8	
rep	2	MG	EM	284482.7	
rep	2	PB	conc	924.65	ppb

04/26/96 11:05
CCV1

AG	av	471.48	ppb	sd	7.536	%cv	1.60
AL	av	40053.48	EM	sd	383.351	%cv	0.96
AS	av	482.16	ppb	sd	7.986	%cv	1.66
CA	av	3100650.	EM	sd	14496.57	%cv	0.47
CD	av	447.96	ppb	sd	1.739	%cv	0.39
FE	av	305139.4	EM	sd	2225.110	%cv	0.73
MG	av	283507.6	EM	sd	1378.947	%cv	0.49
PB	av	929.06	ppb	sd	6.228	%cv	0.67

04/26/96 11:11
CCB

rep	1	AG	conc	0.05	ppb
rep	1	AL	EM	7700.3	
rep	1	AS	conc	1.09	ppb
rep	1	CA	EM	6276.8	
rep	1	CD	conc	0.36	ppb
rep	1	FE	EM	2011.7	
rep	1	MG	EM	300.9	
rep	1	PB	conc	-0.14	ppb
rep	2	AG	conc	0.29	ppb
rep	2	AL	EM	7697.1	
rep	2	AS	conc	0.76	ppb
rep	2	CA	EM	6247.2	
rep	2	CD	conc	0.26	ppb
rep	2	FE	EM	1927.0	
rep	2	MG	EM	293.5	
rep	2	PB	conc	-2.20	ppb

04/26/96 11:12
CCB

AG	av	0.17	ppb	sd	0.172	%cv	101.3
AL	av	7698.68	EM	sd	2.289	%cv	0.03
AS	av	0.92	ppb	sd	0.229	%cv	24.78
CA	av	6262.03	EM	sd	20.911	%cv	0.33
CD	av	0.31	ppb	sd	0.067	%cv	21.35
FE	av	1969.34	EM	sd	59.857	%cv	3.04
MG	av	297.24	EM	sd	5.247	%cv	1.77
PB	av	-1.17	ppb	sd	1.458	%cv	124.7

04/26/96 11:14
blank

rep	1	CD	EM	30.8
rep	2	CD	EM	24.4

Rslope Cd.
DEM 4/26/96

04/26/96 11:14
blank

CD	av	27.61	EM	sd	4.471	%cv	16.20

04/26/96 11:16
#1 standard

rep	1	CD	EM	48053.5	
rep	2	CD	EM	46961.9	

04/26/96 11:16
#1 standard

CD	av	47507.71	EM	sd	771.904	%cv	1.62	conc	1000.0

04/26/96 11:19
CCV2

rep	1	AG	conc	476.70	ppb
rep	1	AL	EM	40060.3	
rep	1	AS	conc	491.78	ppb
rep	1	CA	EM	3133530.5	
rep	1	CD	conc	477.11	ppb
rep	1	FE	EM	305978.5	
rep	1	MG	EM	286785.3	
rep	1	PB	conc	947.57	ppb
rep	2	AG	conc	497.76	ppb
rep	2	AL	EM	41551.5	
rep	2	AS	conc	498.69	ppb
rep	2	CA	EM	3228194.3	
rep	2	CD	conc	476.13	ppb
rep	2	FE	EM	317124.6	
rep	2	MG	EM	295540.2	
rep	2	PB	conc	943.30	ppb

04/26/96 11:19
CCV2

AG	av	487.23	ppb	sd	14.888	%cv	3.06
AL	av	40805.91	EM	sd	1054.412	%cv	2.58
AS	av	495.24	ppb	sd	4.885	%cv	0.99
CA	av	3180862.	EM	sd	66937.38	%cv	2.10
CD	av	476.62	ppb	sd	0.696	%cv	0.15
FE	av	311551.5	EM	sd	7881.500	%cv	2.53
MG	av	291162.6	EM	sd	6190.654	%cv	2.13
PB	av	945.43	ppb	sd	3.015	%cv	0.32

04/26/96 11:23
CCB2

rep	1	AG	conc	0.27	ppb
rep	1	AL	EM	7476.9	
rep	1	AS	conc	-2.57	ppb
rep	1	CA	EM	4604.6	
rep	1	CD	conc	0.12	ppb
rep	1	FE	EM	1236.1	
rep	1	MG	EM	156.7	
rep	1	PB	conc	-0.30	ppb
rep	2	AG	conc	0.49	ppb
rep	2	AL	EM	7470.7	
rep	2	AS	conc	3.35	ppb
rep	2	CA	EM	4436.2	
rep	2	CD	conc	0.12	ppb
rep	2	FE	EM	1209.4	
rep	2	MG	EM	147.3	
rep	2	PB	conc	-2.27	ppb

04/26/96 11:23

CCB2

AG	av	0.38	ppb	sd	0.155	%cv	41.08
AL	av	7473.77	EM	sd	4.409	%cv	0.06
AS	av	0.39	ppb	sd	4.184	%cv	1067.
CA	av	4520.38	EM	sd	119.115	%cv	2.64
CD	av	0.12	ppb	sd	0.002	%cv	1.66
FE	av	1222.77	EM	sd	18.848	%cv	1.54
MG	av	152.02	EM	sd	6.632	%cv	4.36
PB	av	-1.29	ppb	sd	1.391	%cv	108.0

04/26/96 11:25
43049

rep	1	AG	conc	6.25	ppb
rep	1	AL	EM	20261.6	
rep	1	AS	conc	2037.84	ppb
rep	1	CA	EM	36994.3	
rep	1	CD	conc	55.82	ppb
rep	1	FE	EM	90733.4	
rep	1	MG	EM	367.8	
rep	1	PB	conc	554.24	ppb
rep	2	AG	conc	6.72	ppb
rep	2	AL	EM	20310.7	
rep	2	AS	conc	2047.34	ppb
rep	2	CA	EM	37194.2	
rep	2	CD	conc	55.51	ppb
rep	2	FE	EM	90476.2	
rep	2	MG	EM	387.6	
rep	2	PB	conc	551.00	ppb

9600.789

04/26/96 11:25 MCEF-SA SPK
43049

AG	av	6.49	ppb 0.065	sd	0.332	%cv	5.12
AL	av	20286.18	EM	sd	34.694	%cv	0.17
AS	av	2042.59	ppb 20.4	sd	6.720	%cv	0.33
CA	av	37094.26	EM	sd	141.319	%cv	0.38
CD	av	55.67	ppb 0.557	sd	0.223	%cv	0.40
FE	av	90604.80	EM	sd	181.892	%cv	0.20
MG	av	377.68	EM	sd	14.001	%cv	3.71
PB	av	552.62	ppb 5.53	sd	2.295	%cv	0.42

04/26/96 11:29
42050

rep	1	AG	conc	7.14	ppb
rep	1	AL	EM	19993.9	
rep	1	AS	conc	2020.30	ppb
rep	1	CA	EM	18068.2	
rep	1	CD	conc	55.44	ppb
rep	1	FE	EM	82419.2	
rep	1	MG	EM	525.0	
rep	1	PB	conc	557.60	ppb
rep	2	AG	conc	7.10	ppb
rep	2	AL	EM	19957.8	
rep	2	AS	conc	2008.57	ppb
rep	2	CA	EM	18187.4	
rep	2	CD	conc	54.85	ppb
rep	2	FE	EM	81038.6	
rep	2	MG	EM	534.7	
rep	2	PB	conc	547.43	ppb

04/26/96 11:30
42050

MCEF-SB SPK

AG	av	7.12	ppb 0.071	sd	0.028	%cv	0.39
AL	av	19975.84	EM	sd	25.511	%cv	0.13
AS	av	2014.43	ppb 2.01	sd	8.293	%cv	0.41
CA	av	18127.80	EM	sd	84.302	%cv	0.47
CD	av	55.15	ppb 0.552	sd	0.419	%cv	0.76
FE	av	81728.92	EM	sd	976.255	%cv	1.19
MG	av	529.84	EM	sd	6.883	%cv	1.30
PB	av	552.52	ppb 5.52	sd	7.194	%cv	1.30

04/26/96 11:32
43051

rep	1	AG	conc	1.56	ppb
rep	1	AL	EM	8564.0	
rep	1	AS	conc	0.95	ppb
rep	1	CA	EM	22324.0	
rep	1	CD	conc	0.60	ppb
rep	1	FE	EM	361591.1	
rep	1	MG	EM	449.1	
rep	1	PB	conc	141.45	ppb
rep	2	AG	conc	0.32	ppb
rep	2	AL	EM	8610.0	
rep	2	AS	conc	3.13	ppb
rep	2	CA	EM	22600.7	
rep	2	CD	conc	0.73	ppb
rep	2	FE	EM	370087.3	
rep	2	MG	EM	464.4	
rep	2	PB	conc	140.58	ppb

04/26/96 11:32
43051

MCEF-LA

AG	av	0.94	ppb ~~<0.010~~ <0.100 JM 4/28/96	sd	0.882	%cv	93.81
AL	av	8587.03	EM	sd	32.524	%cv	0.38
AS	av	2.04	ppb <0.050	sd	1.538	%cv	75.41
CA	av	22462.37	EM	sd	195.690	%cv	0.87
CD	av	0.66	ppb	sd	0.092	%cv	13.81
FE	av	365839.1	EM	sd	6007.690	%cv	1.64
MG	av	456.77	EM	sd	10.813	%cv	2.37
PB	av	141.02	ppb 1.41	sd	0.614	%cv	0.44

04/26/96 11:37
43052

rep	1	AG	conc	0.64	ppb
rep	1	AL	EM	7895.5	
rep	1	AS	conc	0.16	ppb
rep	1	CA	EM	85221.1	
rep	1	CD	conc	0.52	ppb
rep	1	FE	EM	19404.7	
rep	1	MG	EM	825.5	
rep	1	PB	conc	78.10	ppb
rep	2	AG	conc	0.17	ppb
rep	2	AL	EM	7976.2	
rep	2	AS	conc	-2.11	ppb
rep	2	CA	EM	83026.0	
rep	2	CD	conc	0.42	ppb
rep	2	FE	EM	18995.4	

	rep	2	MG	EM	844.0			
	rep	2	PB	conc	77.33	ppb		

04/26/96 11:37
43052

MCEF-LB

AG	av	0.41	ppb	sd	0.329	%cv	81.10
AL	av	7935.82	EM	sd	57.040	%cv	0.72
AS	av	-0.98	ppb	sd	1.603	%cv	164.2
CA	av	84123.55	EM	sd	1552.221	%cv	1.85
CD	av	0.47	ppb	sd	0.074	%cv	15.61
FE	av	19200.03	EM	sd	289.441	%cv	1.51
MG	av	834.79	EM	sd	13.088	%cv	1.57
PB	av	77.71	ppb 0.778	sd	0.543	%cv	0.70

04/26/96 11:39
43053

rep	1	AG	conc	-0.19	ppb
rep	1	AL	EM	8056.6	
rep	1	AS	conc	-1.41	ppb
rep	1	CA	EM	29662.5	
rep	1	CD	conc	0.23	ppb
rep	1	FE	EM	16545.4	
rep	1	MG	EM	459.4	
rep	1	PB	conc	57.81	ppb
rep	2	AG	conc	-0.14	ppb
rep	2	AL	EM	7987.8	
rep	2	AS	conc	-1.55	ppb
rep	2	CA	EM	29196.7	
rep	2	CD	conc	0.34	ppb
rep	2	FE	EM	16249.5	
rep	2	MG	EM	252.9	
rep	2	PB	conc	30.19	ppb

04/26/96 11:40
43053

Reanalyze - capillary not in sample for entire read. See Pb %CV

AG	av	-0.17	ppb	sd	0.033	%cv	19.89
AL	av	8022.18	EM	sd	48.619	%cv	0.61
AS	av	-1.48	ppb	sd	0.098	%cv	6.63
CA	av	29429.00	EM	sd	329.316	%cv	1.12
CD	av	0.28	ppb	sd	0.076	%cv	26.74
FE	av	16397.47	EM	sd	209.243	%cv	1.28
MG	av	356.17	EM	sd	146.022	%cv	41.00
PB	av	44.00	ppb 0.440	sd	19.528	%cv	44.38

04/26/96 11:42
43054

rep	1	AG	conc	-0.22	ppb
rep	1	AL	EM	7647.1	
rep	1	AS	conc	2.71	ppb
rep	1	CA	EM	30062.8	
rep	1	CD	conc	0.15	ppb
rep	1	FE	EM	12731.4	
rep	1	MG	EM	503.2	
rep	1	PB	conc	23.89	ppb
rep	2	AG	conc	-0.47	ppb
rep	2	AL	EM	7622.0	
rep	2	AS	conc	7.15	ppb
rep	2	CA	EM	29883.4	

rep	2	CD	conc	0.10	ppb
rep	2	FE	EM	12734.4	
rep	2	MG	EM	478.0	
rep	2	PB	conc	23.96	ppb

04/26/96 11:42
43054

MCEF - FB

AG	av	-0.34	ppb	sd	0.174	%cv	50.50
AL	av	7634.56	EM	sd	17.722	%cv	0.23
AS	av	4.93	ppb 0.049	sd	3.140	%cv	63.75
CA	av	29973.07	EM	sd	126.873	%cv	0.42
CD	av	0.13	ppb	sd	0.036	%cv	27.94
FE	av	12732.92	EM	sd	2.145	%cv	0.02
MG	av	490.60	EM	sd	17.837	%cv	3.64
PB	av	23.93	ppb 0.239	sd	0.053	%cv	0.22

04/26/96 11:44
43055

rep	1	AG	conc	-0.31	ppb
rep	1	AL	EM	22964.9	
rep	1	AS	conc	0.10	ppb
rep	1	CA	EM	311301.8	
rep	1	CD	conc	2.40	ppb
rep	1	FE	EM	246594.0	
rep	1	MG	EM	5932.4	
rep	1	PB	conc	94.94	ppb
rep	2	AG	conc	-0.24	ppb
rep	2	AL	EM	22281.2	
rep	2	AS	conc	-3.79	ppb
rep	2	CA	EM	303435.4	
rep	2	CD	conc	2.45	ppb
rep	2	FE	EM	237971.2	
rep	2	MG	EM	5864.0	
rep	2	PB	conc	96.61	ppb

04/26/96 11:44
43055

STN1 - PB

AG	av	-0.27	ppb	sd	0.043	%cv	15.80
AL	av	22623.07	EM	sd	483.480	%cv	2.14
AS	av	-1.84	ppb	sd	2.748	%cv	149.1
CA	av	307368.6	EM	sd	5562.434	%cv	1.81
CD	av	2.42	ppb	sd	0.034	%cv	1.41
FE	av	242282.5	EM	sd	6097.271	%cv	2.52
MG	av	5898.20	EM	sd	48.317	%cv	0.82
PB	av	95.77	ppb 0.958	sd	1.181	%cv	1.23

04/26/96 11:47
43056

rep	1	AG	conc	3.74	ppb
rep	1	AL	EM	10362.4	
rep	1	AS	conc	-1.97	ppb
rep	1	CA	EM	130846.4	
rep	1	CD	conc	1.10	ppb
rep	1	FE	EM	63451.2	
rep	1	MG	EM	3323.7	
rep	1	PB	conc	388.64	ppb
rep	2	AG	conc	0.58	ppb
rep	2	AL	EM	10251.7	

rep	2	AS	conc	-2.11	ppb
rep	2	CA	EM	128045.2	
rep	2	CD	conc	1.44	ppb
rep	2	FE	EM	62296.4	
rep	2	MG	EM	3140.9	
rep	2	PB	conc	390.97	ppb

04/26/96 11:47
43056

STN2-PB

AG	av	2.16	ppb	sd	2.241	%cv	103.7
AL	av	10307.05	EM	sd	78.229	%cv	0.76
AS	av	-2.04	ppb	sd	0.098	%cv	4.80
CA	av	129445.8	EM	sd	1980.772	%cv	1.53
CD	av	1.27	ppb	sd	0.242	%cv	19.09
FE	av	62873.78	EM	sd	816.562	%cv	1.30
MG	av	3232.30	EM	sd	129.247	%cv	4.00
PB	av	389.81	ppb 3.90	sd	1.648	%cv	0.42

04/26/96 11:51
43057

rep	1	AG	conc	0.74	ppb
rep	1	AL	EM	8459.2	
rep	1	AS	conc	-0.49	ppb
rep	1	CA	EM	33917.5	
rep	1	CD	conc	0.14	ppb
rep	1	FE	EM	39046.7	
rep	1	MG	EM	585.6	
rep	1	PB	conc	221.33	ppb
rep	2	AG	conc	0.02	ppb
rep	2	AL	EM	8517.2	
rep	2	AS	conc	-0.21	ppb
rep	2	CA	EM	33949.3	
rep	2	CD	conc	0.33	ppb
rep	2	FE	EM	39106.7	
rep	2	MG	EM	582.7	
rep	2	PB	conc	219.23	ppb

04/26/96 11:52
43057

STN3-PB

AG	av	0.38	ppb	sd	0.508	%cv	132.6
AL	av	8488.19	EM	sd	40.985	%cv	0.48
AS	av	-0.35	ppb	sd	0.196	%cv	56.39
CA	av	33933.38	EM	sd	22.453	%cv	0.07
CD	av	0.24	ppb	sd	0.137	%cv	58.07
FE	av	39076.73	EM	sd	42.402	%cv	0.11
MG	av	584.12	EM	sd	2.056	%cv	0.35
PB	av	220.28	ppb 2.20	sd	1.483	%cv	0.67

04/26/96 11:56
43058

rep	1	AG	conc	0.30	ppb
rep	1	AL	EM	11500.8	
rep	1	AS	conc	-0.26	ppb
rep	1	CA	EM	86694.6	
rep	1	CD	conc	1.84	ppb
rep	1	FE	EM	122012.7	
rep	1	MG	EM	2634.6	
rep	1	PB	conc	800.12	ppb

rep	2	AG	conc	0.81	ppb
rep	2	AL	EM	11131.3	
rep	2	AS	conc	-2.29	ppb
rep	2	CA	EM	84166.9	
rep	2	CD	conc	1.75	ppb
rep	2	FE	EM	124022.6	
rep	2	MG	EM	2679.6	
rep	2	PB	conc	796.37	ppb

04/26/96 11:56
43058

STN4-PB

AG	av	0.55	ppb	sd	0.360	%cv	64.93
AL	av	11316.06	EM	sd	261.288	%cv	2.31
AS	av	-1.28	ppb	sd	1.439	%cv	112.8
CA	av	85430.74	EM	sd	1787.345	%cv	2.09
CD	av	1.79	ppb	sd	0.066	%cv	3.68
FE	av	123017.6	EM	sd	1421.213	%cv	1.16
MG	av	2657.11	EM	sd	31.836	%cv	1.20
PB	av	798.25	ppb 7.98	sd	2.652	%cv	0.33

04/26/96 11:58
CCV3

rep	1	AG	conc	448.10	ppb
rep	1	AL	EM	37826.1	
rep	1	AS	conc	470.79	ppb
rep	1	CA	EM	2923451.0	
rep	1	CD	conc	451.18	ppb
rep	1	FE	EM	287722.3	
rep	1	MG	EM	267731.7	
rep	1	PB	conc	898.75	ppb
rep	2	AG	conc	463.72	ppb
rep	2	AL	EM	38915.5	
rep	2	AS	conc	475.58	ppb
rep	2	CA	EM	3013955.5	
rep	2	CD	conc	453.80	ppb
rep	2	FE	EM	296173.8	
rep	2	MG	EM	275800.4	
rep	2	PB	conc	900.20	ppb

04/26/96 11:59
CCV3

AG	av	455.91	ppb	sd	11.051	%cv	2.42
AL	av	38370.78	EM	sd	770.338	%cv	2.01
AS	av	473.18	ppb	sd	3.389	%cv	0.72
CA	av	2968703.	EM	sd	63996.34	%cv	2.16
CD	av	452.49	ppb	sd	1.857	%cv	0.41
FE	av	291948.0	EM	sd	5976.113	%cv	2.05
MG	av	271766.0	EM	sd	5705.446	%cv	2.10
PB	av	899.48	ppb	sd	1.029	%cv	0.11

04/26/96 12:02
CCB3

rep	1	AG	conc	0.19	ppb
rep	1	AL	EM	7091.2	
rep	1	AS	conc	-1.64	ppb
rep	1	CA	EM	1629.0	
rep	1	CD	conc	-0.14	ppb
rep	1	FE	EM	413.8	
rep	1	MG	EM	-70.6	

rep	1	PB	conc	-1.81	ppb
rep	2	AG	conc	0.18	ppb
rep	2	AL	EM	7134.2	
rep	2	AS	conc	-1.36	ppb
rep	2	CA	EM	1632.6	
rep	2	CD	conc	-0.19	ppb
rep	2	FE	EM	398.0	
rep	2	MG	EM	-77.3	
rep	2	PB	conc	-2.90	ppb

04/26/96 12:03
CCB3

AG	av	0.19	ppb	sd	0.013	%cv	7.09
AL	av	7112.69	EM	sd	30.422	%cv	0.43
AS	av	-1.50	ppb	sd	0.196	%cv	13.05
CA	av	1630.81	EM	sd	2.588	%cv	0.16
CD	av	-0.16	ppb	sd	0.035	%cv	21.65
FE	av	405.86	EM	sd	11.189	%cv	2.76
MG	av	-73.95	EM	sd	4.801	%cv	6.49
PB	av	-2.36	ppb	sd	0.771	%cv	32.73

04/26/96 12:05
blank

rep	1	AG	EM	-142.1
rep	1	AL	EM	7137.5
rep	1	AS	EM	3.7
rep	1	CA	EM	1659.1
rep	1	CD	EM	14.8
rep	1	FE	EM	384.1
rep	1	MG	EM	-87.9
rep	1	PB	EM	81.0
rep	2	AG	EM	-168.7
rep	2	AL	EM	7129.3
rep	2	AS	EM	5.9
rep	2	CA	EM	1688.2
rep	2	CD	EM	16.5
rep	2	FE	EM	383.4
rep	2	MG	EM	-89.1
rep	2	PB	EM	84.9

Restope
DJM 4/26/96

04/26/96 12:06
blank

AG	av	-155.41	EM	sd	18.858	%cv	12.13
AL	av	7133.42	EM	sd	5.819	%cv	0.08
AS	av	4.81	EM	sd	1.600	%cv	33.24
CA	av	1673.64	EM	sd	20.581	%cv	1.23
CD	av	15.67	EM	sd	1.171	%cv	7.47
FE	av	383.74	EM	sd	0.527	%cv	0.14
MG	av	-88.51	EM	sd	0.807	%cv	0.91
PB	av	82.97	EM	sd	2.789	%cv	3.36

04/26/96 12:08
#1 standard

rep	1	AG	EM	73784.5
rep	1	AS	EM	1078.3
rep	1	CD	EM	47592.2
rep	1	PB	EM	6198.2

04/26/96 12:08
#1 standard

rep	2	AG	EM	72097.2
rep	2	CD	EM	46730.1

04/26/96 12:08
#1 standard

AG	av	72940.81	EM	sd	1193.105	%cv	1.64	conc 1000.0
CD	av	47161.16	EM	sd	609.556	%cv	1.29	conc 1000.0

04/26/96 12:09
#1 standard

rep	1	AG	EM	73382.5
rep	1	AS	EM	1084.2
rep	1	CD	EM	47245.3
rep	1	PB	EM	6184.9
rep	2	AG	EM	73375.0
rep	2	AS	EM	1089.5
rep	2	CD	EM	47255.1
rep	2	PB	EM	6149.8

04/26/96 12:10
#1 standard

AG	av	73378.75	EM	sd	5.331	%cv	0.01	conc 1000.0
AS	av	1086.88	EM	sd	3.735	%cv	0.34	conc 1000.0
CD	av	47250.23	EM	sd	6.961	%cv	0.01	conc 1000.0
PB	av	6167.35	EM	sd	24.779	%cv	0.40	conc 2000.0

04/26/96 12:12
CCV4

rep	1	AG	conc	487.62 ppb
rep	1	AL	EM	39168.7
rep	1	AS	conc	485.14 ppb
rep	1	CA	EM	3087642.3
rep	1	CD	conc	472.19 ppb
rep	1	FE	EM	300669.4
rep	1	MG	EM	282494.5
rep	1	PB	conc	969.13 ppb
rep	2	AG	conc	499.90 ppb
rep	2	AL	EM	40289.2
rep	2	AS	conc	482.92 ppb
rep	2	CA	EM	3151085.8
rep	2	CD	conc	471.18 ppb
rep	2	FE	EM	308775.6
rep	2	MG	EM	289126.0
rep	2	PB	conc	965.29 ppb

04/26/96 12:12
CCV4

AG	av	493.76	ppb	sd	8.684	%cv	1.76
AL	av	39728.98	EM	sd	792.321	%cv	1.99
AS	av	484.03	ppb	sd	1.574	%cv	0.33
CA	av	3119364.	EM	sd	44861.32	%cv	1.44
CD	av	471.68	ppb	sd	0.712	%cv	0.15
FE	av	304722.5	EM	sd	5731.962	%cv	1.88
MG	av	285810.2	EM	sd	4689.179	%cv	1.64
PB	av	967.21	ppb	sd	2.716	%cv	0.28

04/26/96 12:18
CCB4

rep	1	AG	conc	0.27	ppb
rep	1	AL	EM	7205.4	
rep	1	AS	conc	-4.16	ppb
rep	1	CA	EM	1476.5	
rep	1	CD	conc	0.20	ppb
rep	1	FE	EM	323.2	
rep	1	MG	EM	-103.4	
rep	1	PB	conc	-3.44	ppb
rep	2	AG	conc	0.03	ppb
rep	2	AL	EM	7171.7	
rep	2	AS	conc	0.44	ppb
rep	2	CA	EM	1466.9	
rep	2	CD	conc	0.19	ppb
rep	2	FE	EM	325.2	
rep	2	MG	EM	-111.8	
rep	2	PB	conc	-2.33	ppb

04/26/96 12:18
CCB4

AG	av	0.15	ppb	sd	0.166	%cv	112.0
AL	av	7188.57	EM	sd	23.878	%cv	0.33
AS	av	-1.86	ppb	sd	3.253	%cv	175.0
CA	av	1471.70	EM	sd	6.743	%cv	0.46
CD	av	0.19	ppb	sd	0.007	%cv	3.52
FE	av	324.17	EM	sd	1.438	%cv	0.44
MG	av	-107.62	EM	sd	5.911	%cv	5.49
PB	av	-2.89	ppb	sd	0.786	%cv	27.20

04/26/96 12:22
PB 500

rep	1	AL	EM	8267.6	
rep	1	CA	EM	26122.3	
rep	1	FE	EM	10882.1	
rep	1	MG	EM	106.6	
rep	1	PB	conc	28.73	ppb
rep	2	AL	EM	8292.5	
rep	2	CA	EM	26031.4	
rep	2	FE	EM	10799.1	
rep	2	MG	EM	108.7	
rep	2	PB	conc	26.44	ppb

04/26/96 12:23
PB 500

AL	av	8280.09	EM	sd	17.602	%cv	0.21
CA	av	26076.86	EM	sd	64.336	%cv	0.25
FE	av	10840.62	EM	sd	58.661	%cv	0.54
MG	av	107.61	EM	sd	1.497	%cv	1.39
PB	av	27.59	ppb	sd	1.616	%cv	5.86

04/26/96 12:25
43053

rep	1	AG	conc	-0.66	ppb
rep	1	AL	EM	8028.2	
rep	1	AS	conc	-3.37	ppb
rep	1	CA	EM	29516.9	
rep	1	CD	conc	0.42	ppb

rep	1	FE	EM	16407.0	
rep	1	MG	EM	449.4	
rep	1	PB	conc	62.01	ppb
rep	2	AG	conc	-0.19	ppb
rep	2	AL	EM	7987.4	
rep	2	AS	conc	-6.67	ppb
rep	2	CA	EM	29585.4	
rep	2	CD	conc	0.48	ppb
rep	2	FE	EM	16464.2	
rep	2	MG	EM	445.6	
rep	2	PB	conc	60.78	ppb

04/26/96 12:25 WS/filter MCEF- FA
43053

AG	av	-0.43	ppb	sd	0.328	%cv	76.96
AL	av	8007.78	EM	sd	28.865	%cv	0.36
AS	av	-5.02	ppb	sd	2.334	%cv	46.50
CA	av	29551.18	EM	sd	48.445	%cv	0.16
CD	av	0.45	ppb	sd	0.041	%cv	9.07
FE	av	16435.60	EM	sd	40.476	%cv	0.25
MG	av	447.47	EM	sd	2.691	%cv	0.60
PB	av	61.39	ppb 0.614	sd	0.873	%cv	1.42

04/26/96 12:30
43057L

rep	1	AG	conc	-0.29	ppb
rep	1	AL	EM	7411.2	
rep	1	AS	conc	-7.46	ppb
rep	1	CA	EM	7682.8	
rep	1	CD	conc	0.14	ppb
rep	1	FE	EM	7559.5	
rep	1	MG	EM	27.8	
rep	1	PB	conc	40.23	ppb
rep	2	AG	conc	0.11	ppb
rep	2	AL	EM	7415.8	
rep	2	AS	conc	-0.21	ppb
rep	2	CA	EM	7607.5	
rep	2	CD	conc	0.10	ppb
rep	2	FE	EM	7505.3	
rep	2	MG	EM	24.4	
rep	2	PB	conc	41.14	ppb

04/26/96 12:31
43057L

AG	av	-0.09	ppb	sd	0.288	%cv	322.5
AL	av	7413.49	EM	sd	3.289	%cv	0.04
AS	av	-3.83	ppb	sd	5.126	%cv	133.7
CA	av	7645.14	EM	sd	53.239	%cv	0.70
CD	av	0.12	ppb	sd	0.027	%cv	21.58
FE	av	7532.38	EM	sd	38.336	%cv	0.51
MG	av	26.12	EM	sd	2.370	%cv	9.08
PB	av	40.69	ppb	sd	0.639	%cv	1.57

04/26/96 12:33
CRIF

rep	1	AG	conc	19.49	ppb
rep	1	AL	EM	7141.4	
rep	1	AS	conc	16.10	ppb

rep	1	CA	EM	645.8	
rep	1	CD	conc	9.76	ppb
rep	1	FE	EM	132.1	
rep	1	MG	EM	-113.5	
rep	1	PB	conc	4.46	ppb
rep	2	AG	conc	19.69	ppb
rep	2	AL	EM	7129.2	
rep	2	AS	conc	15.87	ppb
rep	2	CA	EM	609.5	
rep	2	CD	conc	9.79	ppb
rep	2	FE	EM	133.3	
rep	2	MG	EM	-118.5	
rep	2	PB	conc	4.61	ppb

04/26/96 12:33
CRIF

AG	av	19.59	ppb	sd	0.141	%cv	0.72
AL	av	7135.30	EM	sd	8.574	%cv	0.12
AS	av	15.99	ppb	sd	0.164	%cv	1.03
CA	av	627.62	EM	sd	25.674	%cv	4.09
CD	av	9.77	ppb	sd	0.025	%cv	0.25
FE	av	132.70	EM	sd	0.792	%cv	0.60
MG	av	-116.00	EM	sd	3.500	%cv	3.02
PB	av	4.54	ppb	sd	0.106	%cv	2.34

04/26/96 12:35
ICSAF

rep	1	AG	conc	-46.68	ppb
rep	1	AL	EM	2920548.5	
rep	1	AS	conc	-4.81	ppb
rep	1	CA	EM	26358460.	
rep	1	CD	conc	20.73	ppb
rep	1	FE	EM	8931401.0	
rep	1	MG	EM	2593196.0	
rep	1	PB	conc	43.24	ppb
rep	2	AG	conc	-45.87	ppb
rep	2	AL	EM	2938836.0	
rep	2	AS	conc	-5.33	ppb
rep	2	CA	EM	26500820.	
rep	2	CD	conc	20.90	ppb
rep	2	FE	EM	8956389.0	
rep	2	MG	EM	2584782.5	
rep	2	PB	conc	43.06	ppb

04/26/96 12:35
ICSAF

AG	av	-46.27	ppb	sd	0.572	%cv	1.24
AL	av	2929692.	EM	sd	12931.21	%cv	0.44
AS	av	-5.07	ppb	sd	0.367	%cv	7.24
CA	av	26429640	EM	sd	100663.7	%cv	0.38
CD	av	20.81	ppb	sd	0.122	%cv	0.59
FE	av	8943895.	EM	sd	17669.18	%cv	0.20
MG	av	2588989.	EM	sd	5949.243	%cv	0.23
PB	av	43.15	ppb	sd	0.133	%cv	0.31

04/26/96 12:37
ICSABF

rep	1	AG	conc	131.35	ppb

rep	1	AL	EM	2929425.8	
rep	1	AS	conc	74.43	ppb
rep	1	CA	EM	27009268.	
rep	1	CD	conc	824.18	ppb
rep	1	FE	EM	9148326.0	
rep	1	MG	EM	2587772.0	
rep	1	PB	conc	86.68	ppb
rep	2	AG	conc	132.01	ppb
rep	2	AL	EM	3024079.8	
rep	2	AS	conc	75.94	ppb
rep	2	CA	EM	26703222.	
rep	2	CD	conc	847.83	ppb
rep	2	FE	EM	9057252.0	
rep	2	MG	EM	2656625.3	
rep	2	PB	conc	86.81	ppb

04/26/96 12:38
ICSABF

AG	av	131.68	ppb	sd	0.464	%cv	0.35
AL	av	2976752.	EM	sd	66930.48	%cv	2.25
AS	av	75.18	ppb	sd	1.063	%cv	1.41
CA	av	26856244	EM	sd	216407.2	%cv	0.81
CD	av	836.01	ppb	sd	16.729	%cv	2.00
FE	av	9102789.	EM	sd	64399.04	%cv	0.71
MG	av	2622198.	EM	sd	48686.60	%cv	1.86
PB	av	86.74	ppb	sd	0.091	%cv	0.10

04/26/96 12:40
CCV5

rep	1	AG	conc	491.50	ppb
rep	1	AL	EM	40020.3	
rep	1	AS	conc	474.75	ppb
rep	1	CA	EM	3107335.8	
rep	1	CD	conc	467.33	ppb
rep	1	FE	EM	305424.3	
rep	1	MG	EM	285035.1	
rep	1	PB	conc	958.25	ppb
rep	2	AG	conc	480.11	ppb
rep	2	AL	EM	39766.3	
rep	2	AS	conc	478.47	ppb
rep	2	CA	EM	3031494.3	
rep	2	CD	conc	468.23	ppb
rep	2	FE	EM	298454.2	
rep	2	MG	EM	277648.7	
rep	2	PB	conc	961.18	ppb

04/26/96 12:41
CCV5

AG	av	485.80	ppb	sd	8.054	%cv	1.66
AL	av	39893.30	EM	sd	179.663	%cv	0.45
AS	av	476.61	ppb	sd	2.632	%cv	0.55
CA	av	3069415.	EM	sd	53628.03	%cv	1.75
CD	av	467.78	ppb	sd	0.637	%cv	0.14
FE	av	301939.2	EM	sd	4928.579	%cv	1.63
MG	av	281341.8	EM	sd	5223.022	%cv	1.86
PB	av	959.71	ppb	sd	2.075	%cv	0.22

04/26/96 12:44

CCB5

rep	1	AG	conc	0.18	ppb
rep	1	AL	EM	7714.5	
rep	1	AS	conc	-4.07	ppb
rep	1	CA	EM	7895.3	
rep	1	CD	conc	0.17	ppb
rep	1	FE	EM	2611.1	
rep	1	MG	EM	457.1	
rep	1	PB	conc	0.54	ppb
rep	2	AG	conc	0.41	ppb
rep	2	AL	EM	7668.6	
rep	2	AS	conc	-10.62	ppb
rep	2	CA	EM	7711.2	
rep	2	CD	conc	0.19	ppb
rep	2	FE	EM	2495.3	
rep	2	MG	EM	416.1	
rep	2	PB	conc	-1.71	ppb

04/26/96 12:45
CCB5

AG	av	0.30	ppb	sd	0.164	%cv	55.28
AL	av	7691.56	EM	sd	32.408	%cv	0.42
AS	av	-7.34	ppb	sd	4.633	%cv	63.10
CA	av	7803.21	EM	sd	130.175	%cv	1.67
CD	av	0.18	ppb	sd	0.016	%cv	8.57
FE	av	2553.20	EM	sd	81.897	%cv	3.21
MG	av	436.57	EM	sd	29.001	%cv	6.64
PB	av	-0.58	ppb	sd	1.592	%cv	273.4

METALS DIGESTION/EXTRACTION CODES

01 E.P. TOX Extraction Metals
02 E.P. TOX Extraction Organics
03 E. P. TOX Extraction Miscellaneous
04 E.P. TOX Digestion ICP
05 TCLP Extraction Metals
06 TCLP Extraction Organics
07 TCLP ZHE Extraction Purgeables
08 TCLP Digestion ICP
09 California Wet Test Extraction Metals
10 California Wet Test Extraction Organics
11 California Wet Test Digestion/ICP
12 Metals Available ICP
13 E.P. TOX Cr +6
14 MMWEP Extraction Metals
15 MMWEP Extraction Wet Chem.
16 MMWEP Digestion ICP
17 MMWEP Digestion Furnace
18 Cal. Wet Test Cr +6
19 TCLP Cr +6
20
21 ICP/Flame
22 Furnace
23 CR +6
24 Total Recoverable ICP
25 Total Recoverable Furnace
26 Soluble Metals ICP
27 Soluble Metals Furnace
28 Metals on Air Filters
29 Miscellaneous

COLOR CODES

R Red
O Orange
G Green
Y Yellow
B Blue
BR Brown
BK Black
CL Clear

CLARITY CODES (LIQUID)

CL Cloudy
C Clear

TEXTURE CODES (SOLID)

H Homogeneous
M Mixture
F Fine Soil
G Granular Soil
SL Sludge
CY Clay
SD Sand

COMMENTS

1 Reactive
2 Effervescent
3 Phase Change
4 Precipitation
5 Other (Explain)

ARTIFACTS

1 Rocks
2 Sticks, Leaves
3 Shavings
4 Other (Explain)

F0131191

TITLE pcb in air

Project No.
Book No. 044

From Page No.

Test Performed: pcb in air
Date 4/25/96
Work Performed By: Kanally

0425302P

Job No.	ID No.		Solvent	FV	Date conc	Init
9606789	43059.01	3220	5.0mL	1.0mL	4/25/96	TC
	43059.01	3290	Hexane			
	43060.01	3220				
	43060.01	3290				
	43061.01	3220				
	43061.01	3290				
	43062.01	3200				
	43062.01	3210				
	43063.01	3200				
	43063.01	3210				
	43064.01	3200				
	43064.01	3210				
	43065.01	3200				
	43065.01	3210				
	43066.01	3200				
	43066.01	3210				
	43067.01	3200				
	43067.01	3210				
	43068.01	3200				
	43068.01	3210				
	43069.01	3200				
	43069.01	3210				
	43070.01	3200				
	43070.01	3210				
	43071.01	3200				
	43071.01	3210				

50ml 8081 surrogate (1034-120-1) added to all samples
100ml pcb air tube spk (1034-122-1) added to 43059.01 3220 3290 43060.01 3220 3290 and
43061.01 3220 3290

20

To Page No.

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

Project No.
Book No. 1089 TITLE ecology and environment, inc.

From Page No.

CAPILLARY GAS CHROMATOGRAPHY CONDITIONS

Lab Notebook: 1089 Page: 70
Method:
Job No: Case No: SDG:
Initial Calibration Date: 4/23/96
Initial Calibration Notebook: 1089 Page: 70
Operator: P. Atherton Initials: DG
Instrument: HP 5890 #1R Date: 4/23/96

Column
*Liquid Phase: RTX-5
*Length 30 M
*Diameter 0.53 mm
*Film Thickness 1.0 um

Carrier Gas He
*Head Pressure: — psig
*Flow Rate 4.2 ml/min.
*Linear Velocity — u

Makeup Gas: N2
*Flow Rate 80 ml/min.

Inj. Volume: 2.0 ul
Detector: ECD
Range:
Attn: 2
Solvent: Hexane

Temperature, C
*Det: 300 Inj.: 200
*Col. Initial: 150
*Initial Hold: 1 min.
*Col. Rate: 5 C/min.
*Col. Final: 280
*Final Hold 11 min.

CAPILLARY GAS CHROMATOGRAPHY CONDITIONS

Lab Notebook: 1089 Page: 70
Method:
Job No: Case No: SDG:
Initial Calibration Date: 4/23/96
Initial Calibration Notebook: 1089 Page: 70
Operator: Denise G. Initials: DG
Instrument: HP5890 #1R Date: 4/23/96

Column
*Liquid Phase: RTX-35
*Length 30 M
*Diameter 0.53 mm
*Film Thickness 0.5 um

Carrier Gas H2
*Head Pressure: — psig
*Flow Rate 4.2 ml/min.
*Linear Velocity u

Makeup Gas: N2
*Flow Rate 80 ml/min.

Inj. Volume: 2.0 ul
Detector: ECD
Range:
Attn: 2
Solvent: Hexane

Temperature, C
*Det: 300 Inj.: 200
*Col. Initial: 150
*Initial Hold: 1 min.
*Col. Rate: 5 C/min.
*Col. Final: 280
*Final Hold 0 min.

Test Performed: PCB - Air
Method Number:
Date: 4-25-96
Work Performed By: DG

Primary

Job No.	ID No.	Run #	Datafile	Dil	Analyst	Comments
	Hexane	1	5_0425-001		DG	—
	0.1 ng/ml AR1254	2	-002			445-154-1
	0.2	3	-003			445-154-2
	0.4	4	-004			445-154-3
	0.5	5	-005			445-154-4
	1.0	6	-006			445-154-5
5600.785	43055.01 3290	7	-007			(spikes AR1254) FU-1m
	43055.01 3220	8	-008			
	43060.01 3290	9	-009			
	43060.01 3220	10	-010			
	43061.01 3290	11	-011			
	43061.01 3220	12	-012			
	43062.01 3200	13	-013			Blind spike
	43062.01 3210	14	-014			

To Page No. 71

Witnessed & Understood by me, | Date | Invented by | Date
Recorded by

From Page No. 70

All parameters as per 1089-70

Test Performed: PCB
Method Number:
Date: 4-25-96
Work Performed By: D.

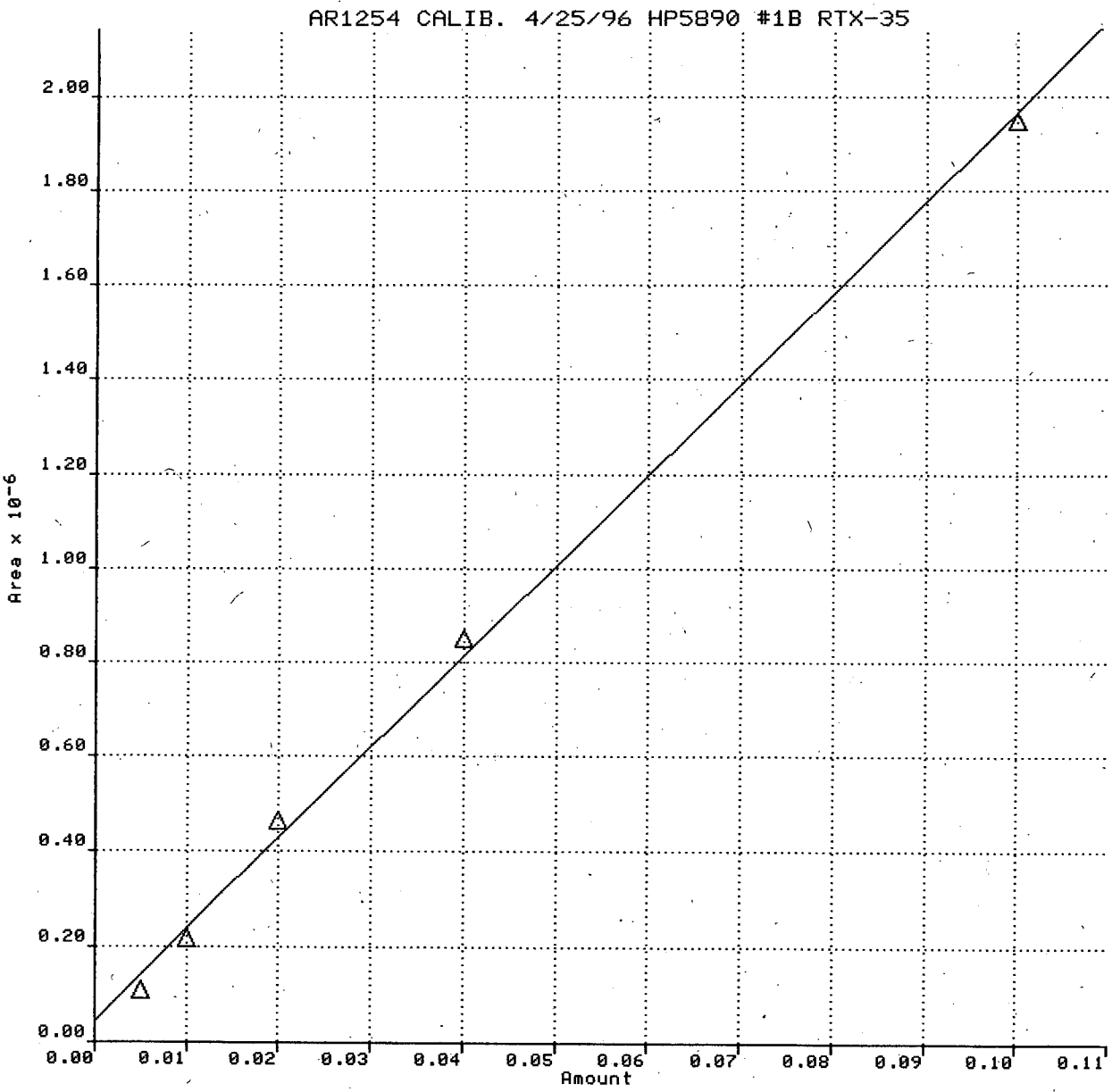
Job No.	ID No.	Run#	Datafile	Dil	Analyst	Comments
9600.785	43063.01 3200	15	6-0425-015		DG	Blind spike
	43063.01 3210	16	-016			
—	AR1254 0.4 mg/ml	17	-017			445-154-3
9600.785	43064.01 3200	18	-018			Blind spike
	43064.01 3210	19	-019			
	43065.01 3200	20	-020			Blank Tube
	43065.01 3210	21	-021			
	43066.01 3200	22	-022			
	43066.01 3210	23	-023			
	43067.01 3200	24	-024			
	43067.01 3210	25	-025			
	43068.01 3200	26	-026			30L → 1ml
	43068.01 3210	27	-027			
—	AR1254 0.4 mg/ml	28	-028			445-154-3
9600.785	43069.01 3200	29	-029			30L → 1ml
	43069.01 3210	30	-030			
	43070.01 3200	31	-031			
	43070.01 3210	32	-032			
	43071.01 3200	33	-033			
	43071.01 3210	34	-034			
—	AR1254 0.4 mg/ml	35	-035			445-154.3

To Page No.

Witnessed & Understood by me,	Date	Invented by	Date
		Recorded by	

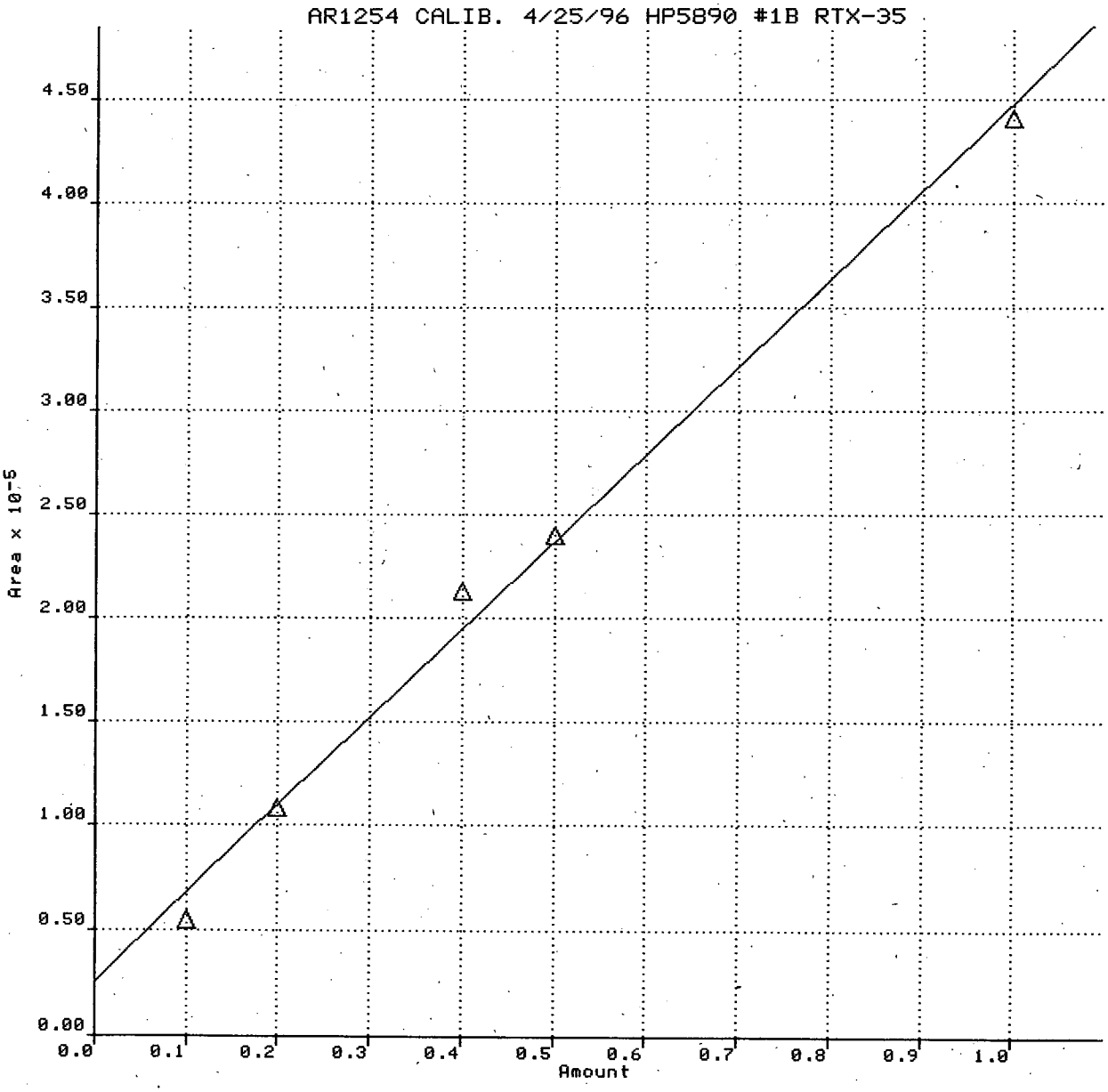
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: TCMX
Date: 29-APR-1996 12:47:01.83
Linear fit, Origin Treament....Ignore.
K0: 4.5070E+04 K1: 1.9200E+07
Coeff. of determination: 0.9980

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	107157	5.0000E-03	
0.2 AR1254	217425	1.0000E-02	
0.4 AR1254	463338	2.0000E-02	
0.5 AR1254	850520	4.0000E-02	
1.0 AR1254	1946865	0.10000	



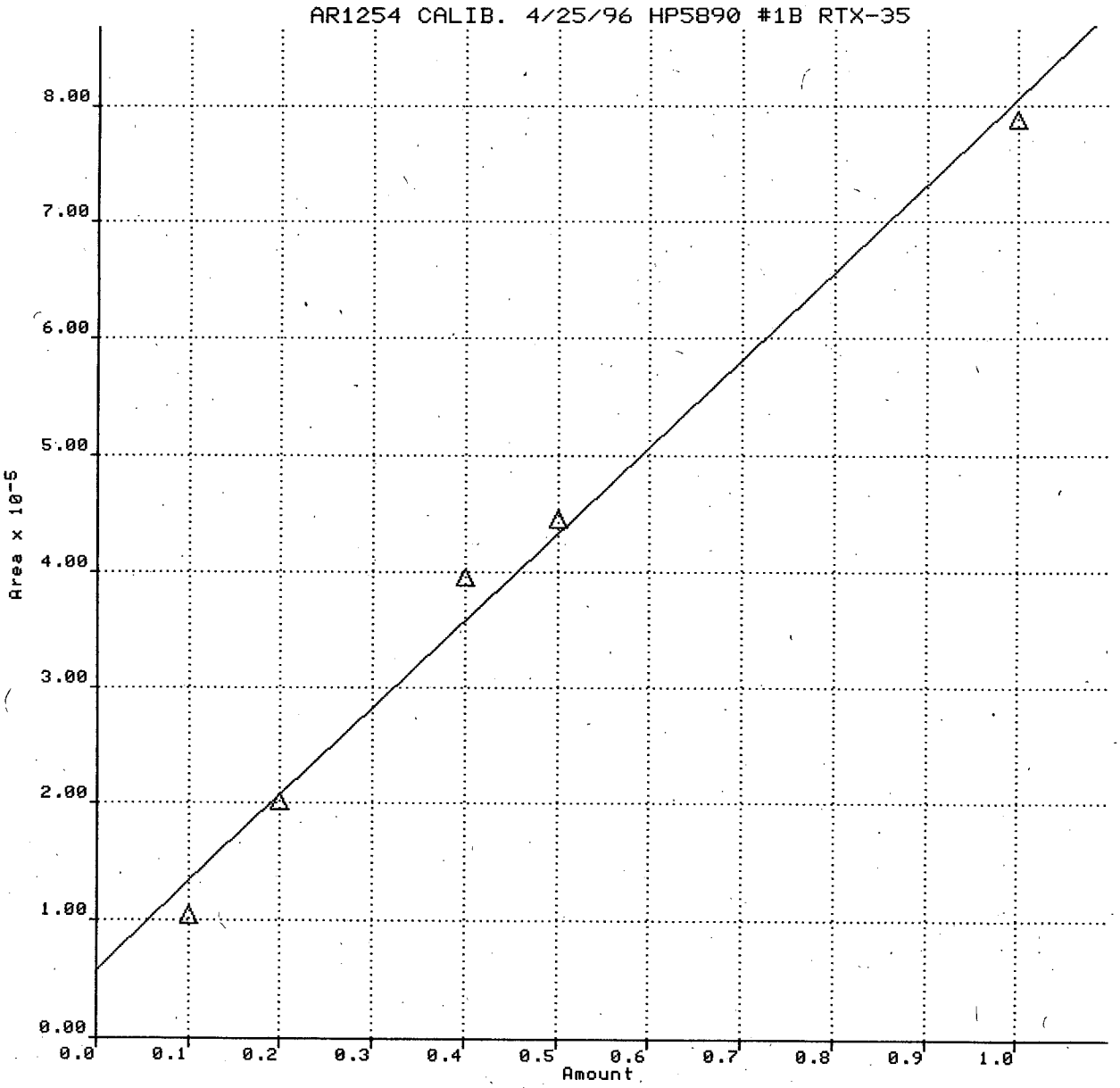
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: AROCLOR-1254
Date: 29-APR-1996 12:47:02.47
Linear fit, Origin Treament....Ignore.
K0: 2.5503E+04 K1: 4.2225E+05
Coeff. of determination: 0.9935

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	55007	0.10000	
0.2 AR1254	108439	0.20000	
0.4 AR1254	213041	0.40000	
0.5 AR1254	239576	0.50000	
1.0 AR1254	440392	1.0000	



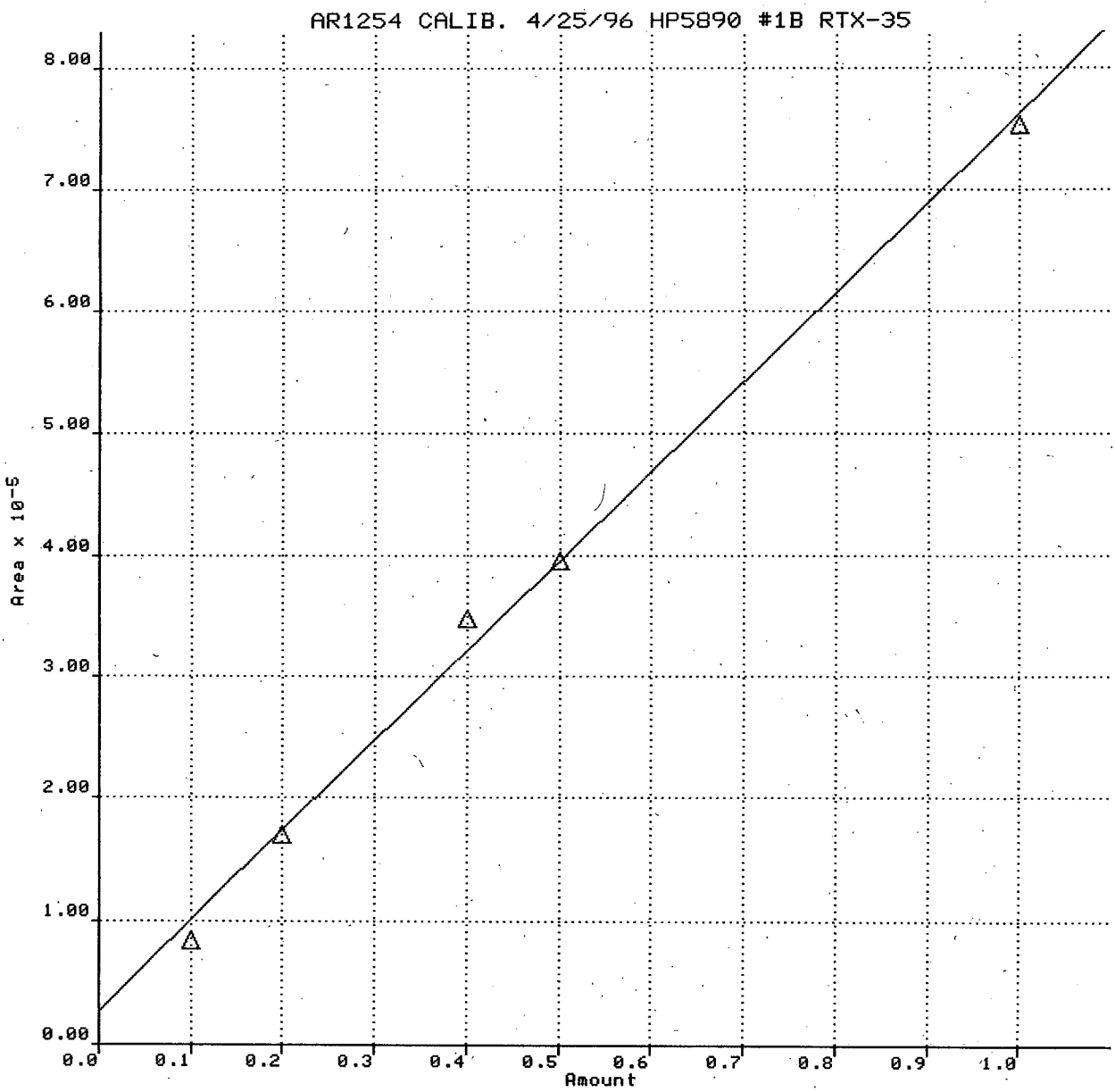
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: AROCLOR-1254-2
Date: 29-APR-1996 12:47:02.75
Linear fit, Origin Treament....Ignore.
K0: 5.7187E+04 K1: 7.4966E+05
Coeff. of determination: 0.9904

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	104916	0.10000	
0.2 AR1254	201496	0.20000	
0.4 AR1254	394888	0.40000	
0.5 AR1254	444634	0.50000	
1.0 AR1254	789249	1.0000	



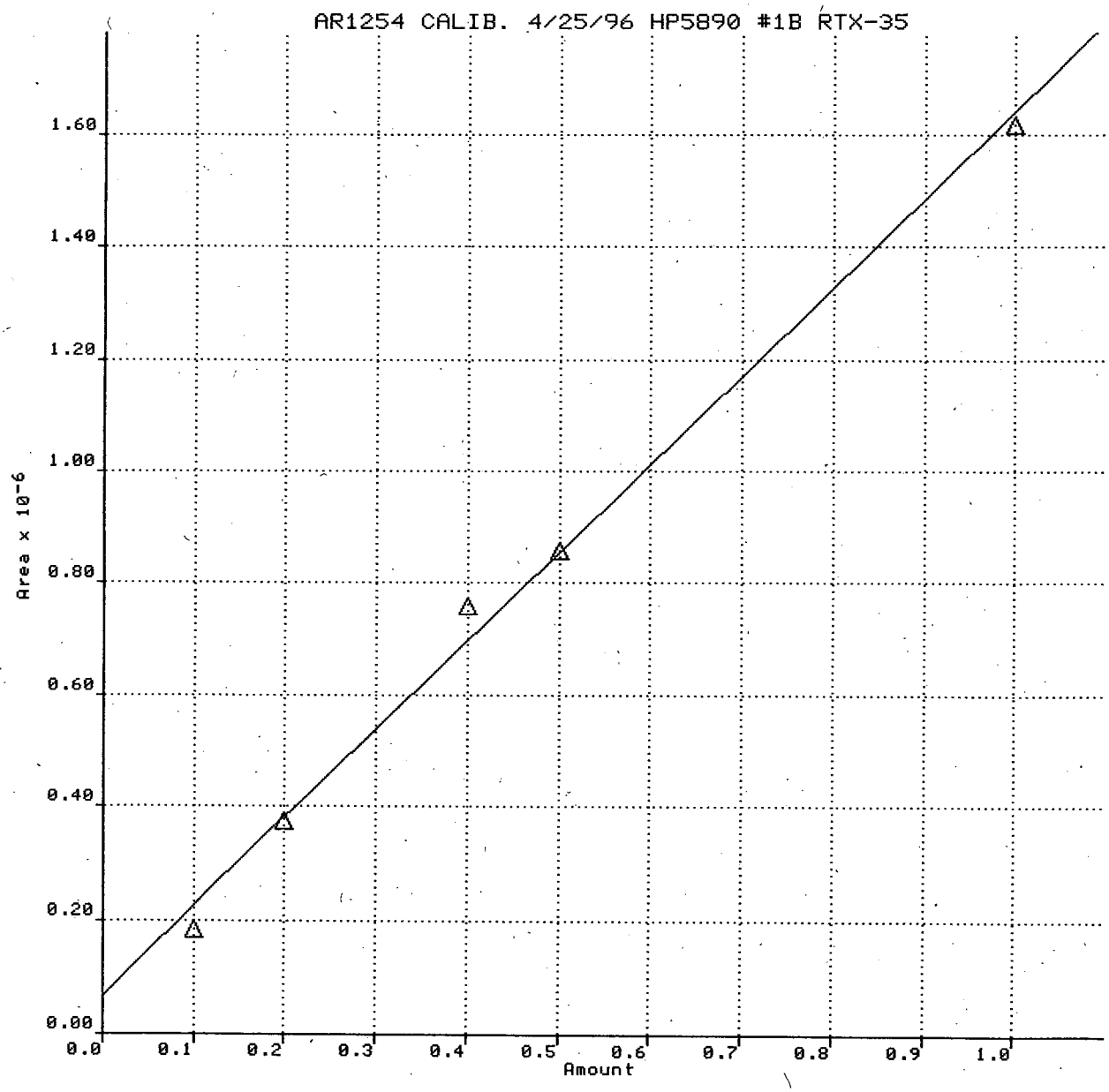
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: AROCLOR-1254-3
Date: 29-APR-1996 12:47:03.53
Linear fit, Origin Treament....Ignore.
K0: 2.6294E+04 K1: 7.3621E+05
Coeff. of determination: 0.9959

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	84680	0.10000	
0.2 AR1254	169424	0.20000	
0.4 AR1254	348239	0.40000	
0.5 AR1254	395450	0.50000	
1.0 AR1254	753341	1.0000	



Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: AROCLOR-1254-4
Date: 29-APR-1996 12:47:03.97
Linear fit, Origin Treament....Ignore.
K0: 6.6143E+04 K1: 1.5731E+06
Coeff. of determination: 0.9949

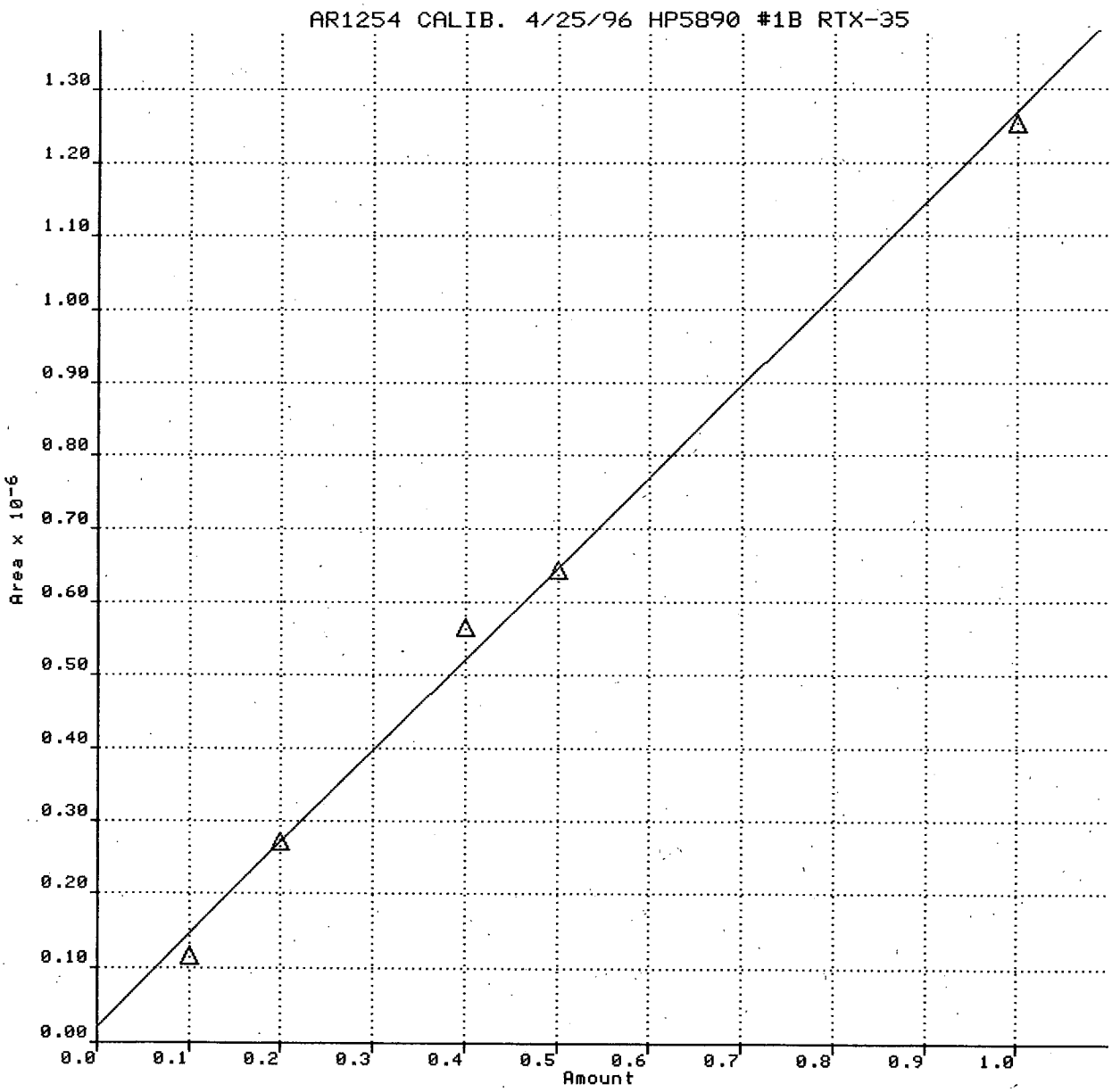
Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	184155	0.10000	
0.2 AR1254	373220	0.20000	
0.4 AR1254	759196	0.40000	
0.5 AR1254	858945	0.50000	
1.0 AR1254	1616052	1.0000	



294 997

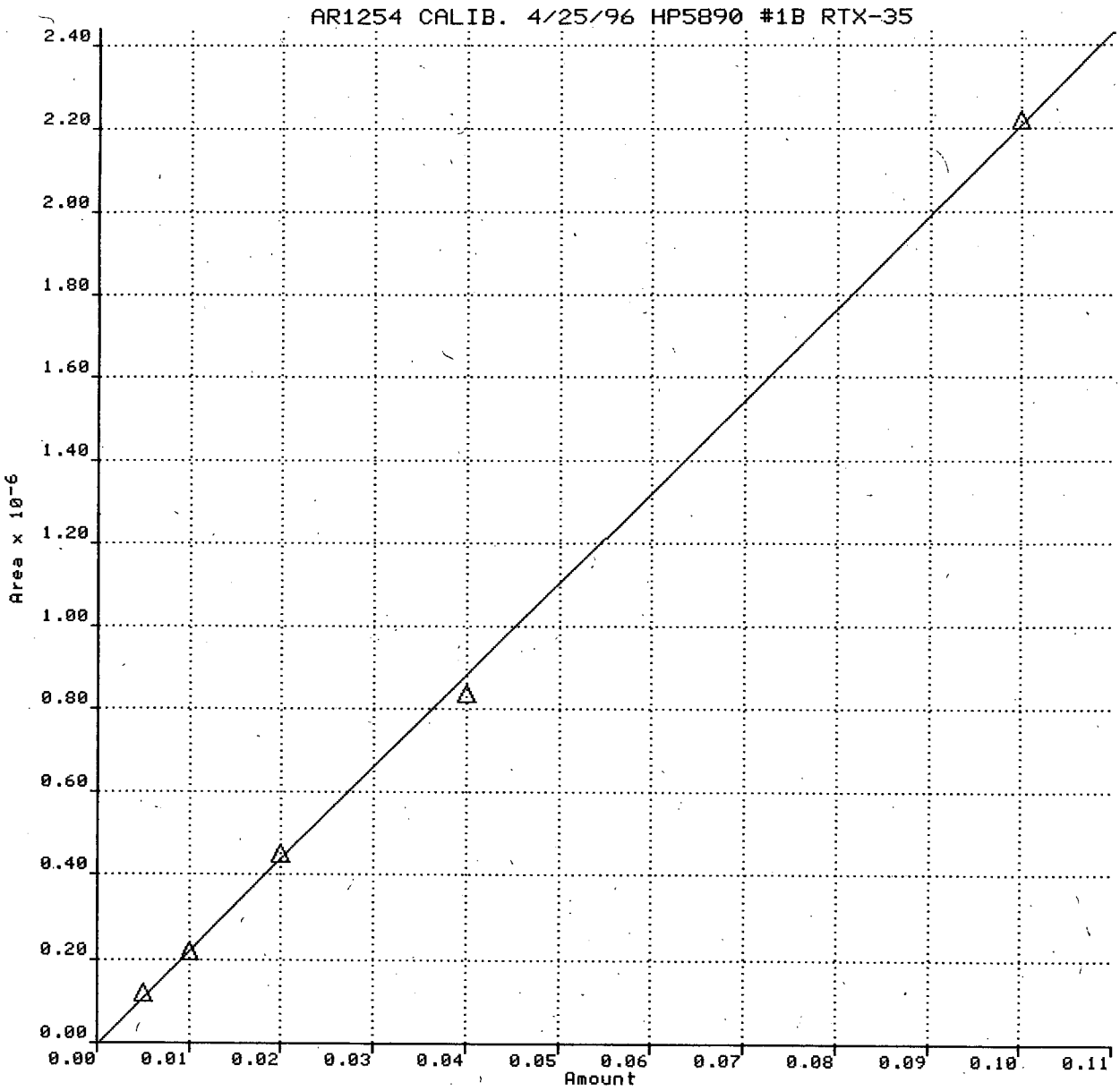
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: AROCLOR-1254-5
Date: 29-APR-1996 12:47:04.42
Linear fit, Origin Treament....Ignore.
K0: 2.1971E+04 K1: 1.2466E+06
Coeff. of determination: 0.9959

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	116735	0.10000	
0.2 AR1254	271629	0.20000	
0.4 AR1254	566171	0.40000	
0.5 AR1254	643861	0.50000	
1.0 AR1254	1253964	1.0000	



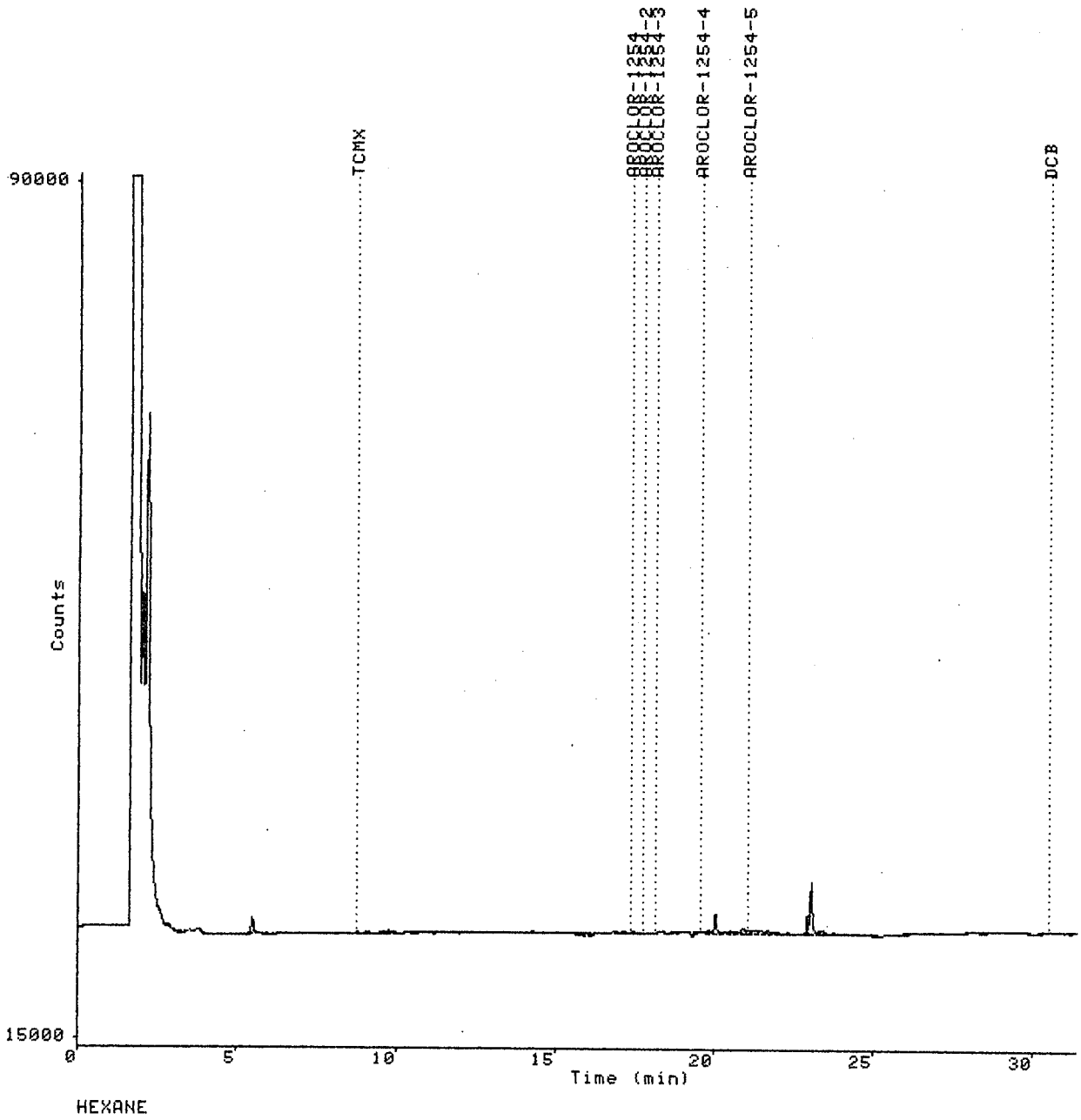
Method: DKB100:[LEWANDOWSKI]6_1254_0425.MET;13
Component: DCB
Date: 29-APR-1996 12:47:05.11
Linear fit, Origin Treament....Ignore.
K0: -4.1624E+03 K1: 2.2117E+07
Coeff. of determination: 0.9992

Standard Sample	Component Area	Component Mass	% Rel. St. Dev.
0.1 AR1254	119404	5.0000E-03	
0.2 AR1254	220371	1.0000E-02	
0.4 AR1254	451448	2.0000E-02	
0.5 AR1254	837197	4.0000E-02	
1.0 AR1254	2221189	0.10000	



Run Number..... 1
Sample Name..... HEXANE
Run Date..... 25-APR-1996 17:16:56
Raw File..... 6_0425_001
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: HEXANE
Datafile: 6_0425_001

Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Analysis Date: 25-APR-1996 17:16:56

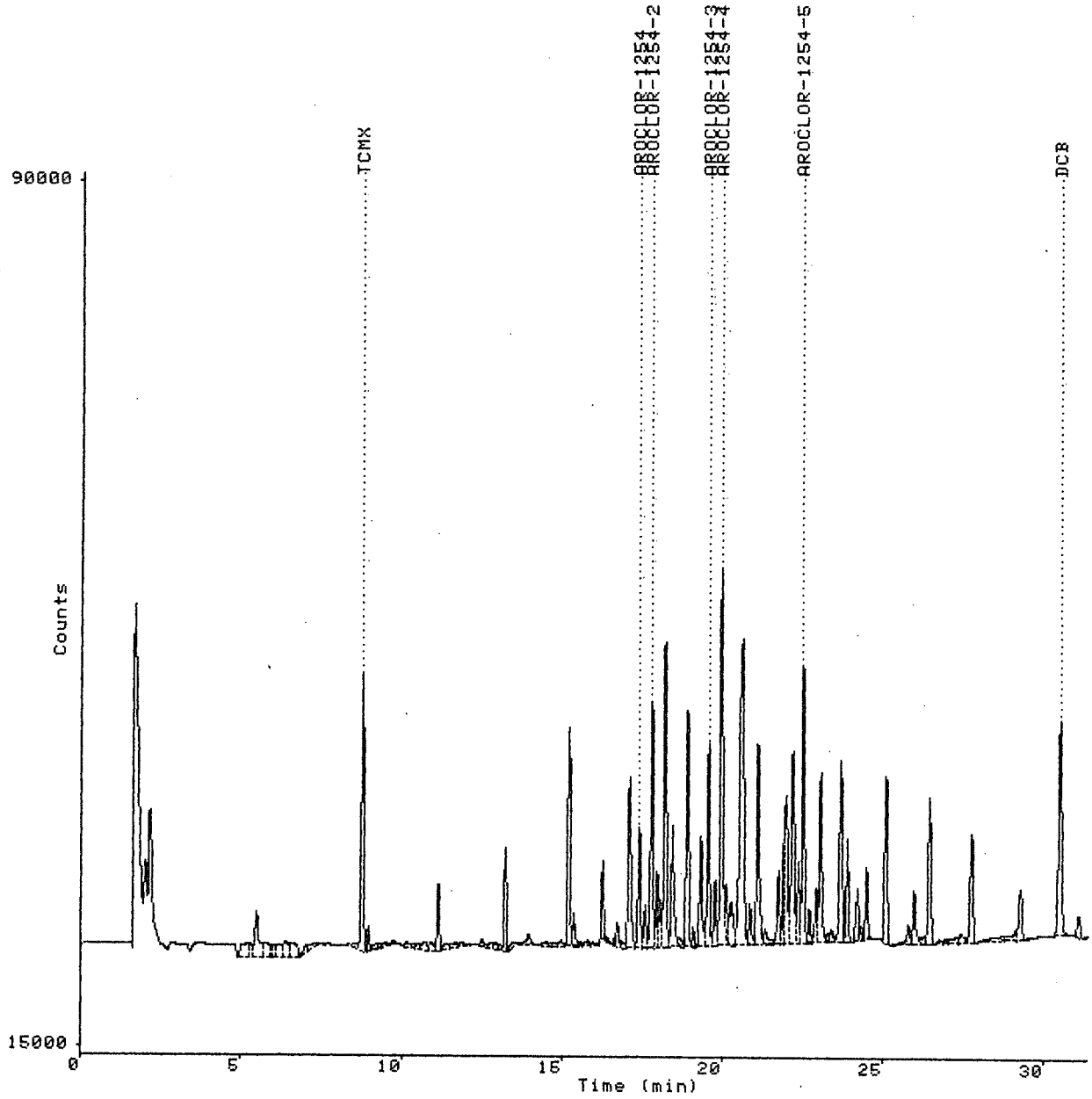
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.51		7131	BE	1
AROCLOR-1254-4	19.43	-0.0323	2538	BB	2
	20.00		7210	VE	3
	20.86		3732	VV	4
	21.24		3039	VV	5
	21.40		2984	VV	6
	21.66		2986	VV	7
	22.90		7337	BV	8
	23.01		22728	VE	9

Average result...-0.0580 UG/ML

Run Number..... 1 End of Report.

Run Number..... 2
Sample Name..... 0.1 AR1254
Run Date..... 25-APR-1996 17:59:26
Raw File..... 6_0425_002
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



0.1 AR1254

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: 0.1 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_002 Analysis Date: 25-APR-1996 17:59:26

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.13		18925	BV	1
	5.30		7695	VV	2
	5.50		36201	VV	3
	5.81		13170	VV	4
	5.99		5614	VV	5
	6.04		7773	VV	6
	6.22		12274	VV	7
	6.39		16565	VV	8
	6.67		17237	VB	9
	7.04		5872	VV	10
	7.21		6775	VE	11
	8.61		2504	BV	12
TCMX	8.76	0.00323	107157	VB	13
	8.97		8217	BB	14
	9.23		4971	BV	15
	9.51		5402	VV	16
	9.72		3146	VB	17
	10.16		3262	BV	18
	10.71		7023	VV	19
	10.91		7100	VB	20
	11.13		27499	BB	21
	11.41		5683	BV	22
	11.67		7333	VV	23
	11.86		4494	VV	24
	12.49		3462	BV	25
	12.78		3978	VV	26
	12.93		3121	VV	27
	13.04		2616	VB	28
	13.22		44229	BB	29
	13.42		2841	BB	30
	13.96		7983	VE	31
	14.51		2972	VV	32
	14.75		3098	VV	33
	14.96		4774	VB	34
	15.19		99806	BE	35
	15.35		14963	EV	36
	15.54		2670	VV	37
	15.76		6319	VV	38
	16.00		3693	VB	39
	16.26		27826	BE	40
	16.72		10646	VV	41
	16.82		4598	VB	42
	17.07		92166	BV	43
AROCLOR-1254	17.37	0.0699	55007	VV	44
	17.57		21299	VV	45
AROCLOR-1254-2	17.76	0.0637	104916	VV	46
	17.93		31564	VV	47
	18.03		17138	VV	48
	18.16		136573	VV	49
	18.39		64113	VE	50

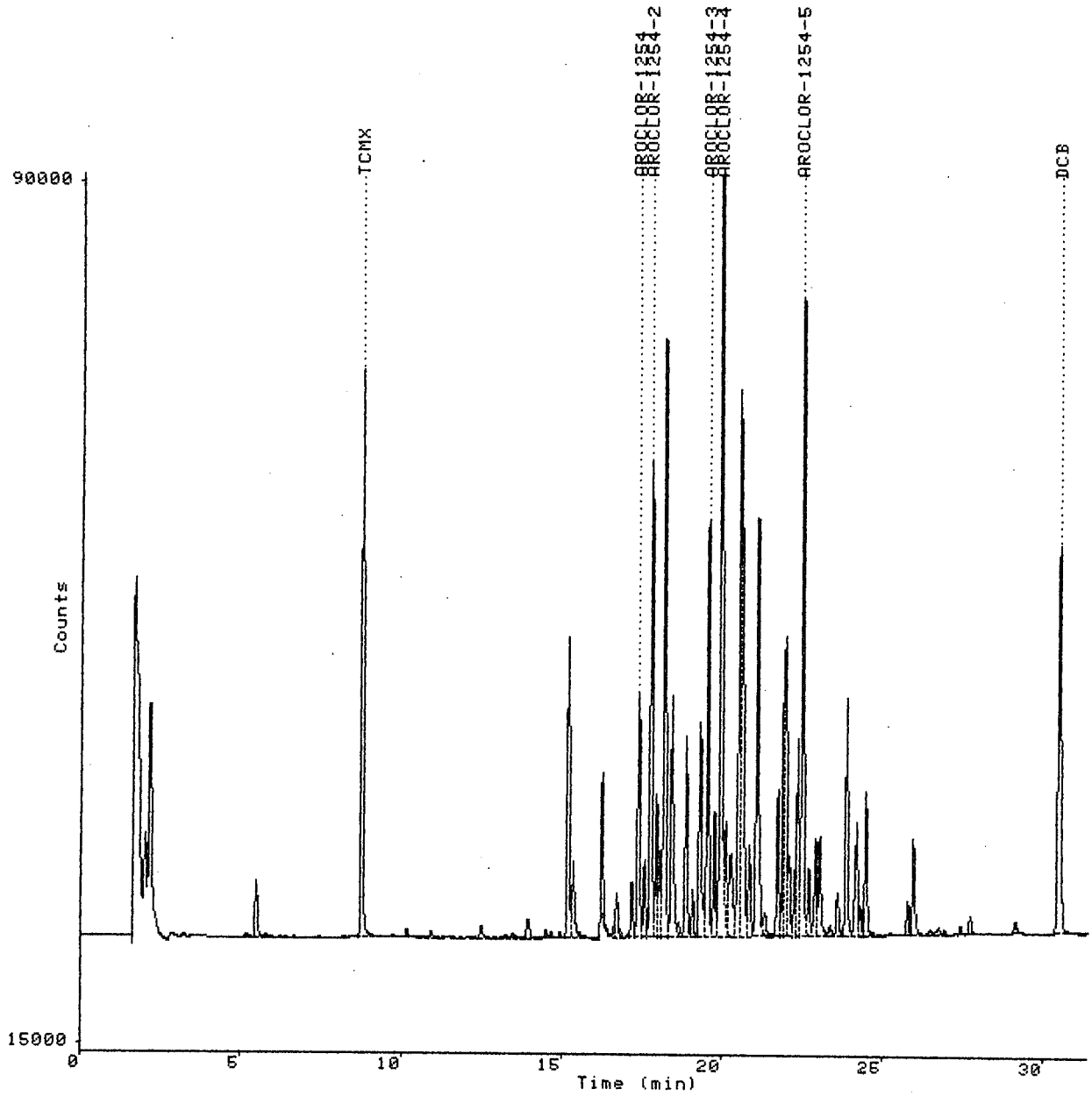
Sample ID: 0.1 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_002 Analysis Date: 25-APR-1996 17:59:26

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	18.62		5905	EV	51
	18.85		115628	VE	52
	19.06		7711	EV	53
	19.28		54208	VV	54
AROCLOR-1254-3	19.52	0.0793	84680	VV	55
	19.73		27962	VV	56
AROCLOR-1254-4	19.90	0.0750	184155	VE	57
	20.07		19195	EV	58
	20.23		32952	EV	59
	20.54		243905	VE	60
	20.80		19162	EV	61
	21.04		99594	VE	62
	21.29		12857	EV	63
	21.70		32899	VV	64
	21.89		46421	VV	65
	21.93		61938	VV	66
	22.13		112792	VV	67
	22.32		32295	VV	68
AROCLOR-1254-5	22.45	0.0760	116735	VE	69
	22.67		15328	EV	70
	22.88		23525	VV	71
	23.00		82547	VE	72
	23.26		4450	EV	73
	23.36		7900	EV	74
	23.63		97498	VV	75
	23.84		40444	VB	76
	24.16		27196	BV	77
	24.29		5476	VV	78
	24.46		31817	VE	79
	25.05		81893	BB	80
	25.76		16476	VV	81
	25.92		29570	VE	82
	26.23		6391	EV	83
	26.40		73656	VB	84
	26.74		3333	BV	85
	26.91		3475	VV	86
	27.27		8575	VV	87
	27.42		7133	VV	88
	27.56		2563	VV	89
	27.71		56056	VB	90
	28.40		14584	BV	91
	29.09		12375	VV	92
	29.22		30019	VB	93
	29.87		6044	BV	94
DCB	30.46	0.00559	119404	VB	95
	31.06		11387	BB	96
	31.56		3699	BV	97
	33.34		4040	BB	98

Average result...0.0728 UG/ML

Run Number..... 3
Sample Name..... 0.2 AR1254
Run Date..... 25-APR-1996 18:41:47
Raw File..... 6_0425_003
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



0.2 AR1254

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: 0.2 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_003 Analysis Date: 25-APR-1996 18:41:47

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.49		22832	BE	1
TCMX	8.76	0.00898	217425	VE	2
	10.15		2786	BB	3
	10.92		2911	VE	4
	12.49		5539	BV	5
	13.96		10599	VE	6
	14.50		2977	BV	7
	14.66		2524	VE	8
	15.18		128899	BV	9
	15.34		36810	VE	10
	16.25		51168	BB	11
	16.63		2863	BV	12
	16.71		18293	VE	13
	17.17		23420	VV	14
AROCLOR-1254	17.37	0.196	108439	VV	15
	17.56		33609	VV	16
AROCLOR-1254-2	17.75	0.192	201496	VV	17
	17.92		58151	VV	18
	18.03		30899	VV	19
	18.15		261745	VV	20
	18.39		121132	VE	21
	18.61		5720	EV	22
	18.84		84720	VV	23
	19.06		19322	VV	24
	19.28		103302	VV	25
AROCLOR-1254-3	19.51	0.194	169424	VV	26
	19.73		50923	VV	27
AROCLOR-1254-4	19.90	0.195	373220	VE	28
	20.07		34946	EV	29
	20.22		62065	EV	30
	20.48		249863	VV	31
	20.56		180782	VV	32
	20.80		42831	VV	33
	21.03		201916	VE	34
	21.29		14996	EV	35
	21.69		59563	VV	36
	21.88		100550	VV	37
	21.92		117607	VV	38
	22.05		32298	VV	39
	22.23		22197	VV	40
	22.31		82332	VV	41
AROCLOR-1254-5	22.45	0.200	271629	VE	42
	22.66		31071	EV	43
	22.88		44107	VV	44
	23.00		50075	VE	45
	23.34		7287	EV	46
	23.56		20408	VE	47
	23.84		101981	VV	48
	24.16		61207	VV	49
	24.29		11807	VV	50

Sample ID: 0.2 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_003 Analysis Date: 25-APR-1996 18:41:47

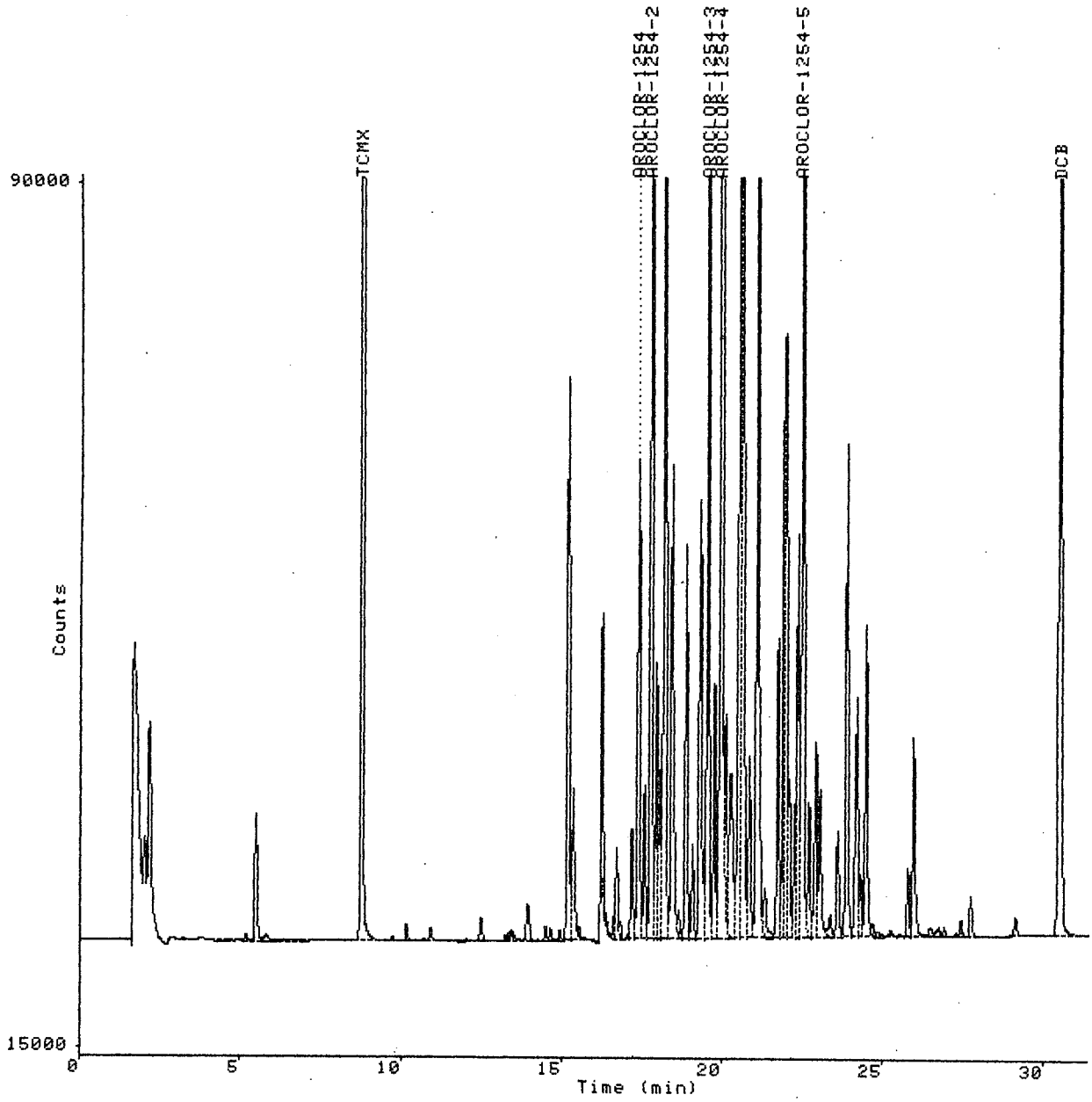
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	24.45		65347	VE	51
	25.76		13561	BV	52
	25.92		43747	VE	53
	26.72		4061	VV	54
	27.41		3114	VV	55
	27.70		8523	VE	56
	29.09		5944	BB	57
DCB	30.46	0.0102	220371	BE	58

Average result...0.196 UG/ML

Run Number..... 3 End of Report.

Run Number..... 4
Sample Name..... 0.4 AR1254
Run Date..... 25-APR-1996 19:24:17
Raw File..... 6_0425_004
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



0.4 AR1254

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: 0.4 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_004 Analysis Date: 25-APR-1996 19:24:17

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.19		3037	BV	1
	5.49		55157	VE	2
	5.82		6108	EV	3
TCMX	8.76	0.0218	463338	VE	4
	10.15		5910	BB	5
	10.92		5850	VE	6
	12.48		10951	BB	7
	13.37		3446	VV	8
	13.46		4452	VV	9
	13.95		21712	VE	10
	14.50		6212	BV	11
	14.66		5235	VE	12
	14.94		4107	VB	13
	15.18		247008	BV	14
	15.34		73239	VE	15
	15.54		3284	EV	16
	16.25		96614	BB	17
	16.38		2807	BB	18
	16.62		6033	BV	19
	16.71		37253	VE	20
	16.82		4966	EB	21
	17.17		46577	VV	22
AROCLOR-1254	17.36	0.444	213041	VV	23
	17.56		66106	VV	24
AROCLOR-1254-2	17.75	0.450	394888	VV	25
	17.92		114134	VV	26
	18.03		59555	VV	27
	18.15		511763	VV	28
	18.39		239042	VE	29
	18.61		11416	EV	30
	18.84		167701	VV	31
	19.05		39409	VV	32
	19.28		209866	VV	33
AROCLOR-1254-3	19.51	0.437	348239	VV	34
	19.72		102747	VV	35
AROCLOR-1254-4	19.90	0.441	759196	VE	36
	20.06		68175	EV	37
	20.22		123345	EV	38
	20.48		495998	VV	39
	20.55		365509	VV	40
	20.79		84017	VV	41
	21.03		404037	VE	42
	21.28		30923	EV	43
	21.69		119034	VV	44
	21.87		224155	VV	45
	21.92		224632	VV	46
	22.04		63084	VV	47
	22.23		45346	VV	48
	22.31		167330	VV	49
AROCLOR-1254-5	22.45	0.437	566171	VE	50

Sample ID: 0.4 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_004 Analysis Date: 25-APR-1996 19:24:17

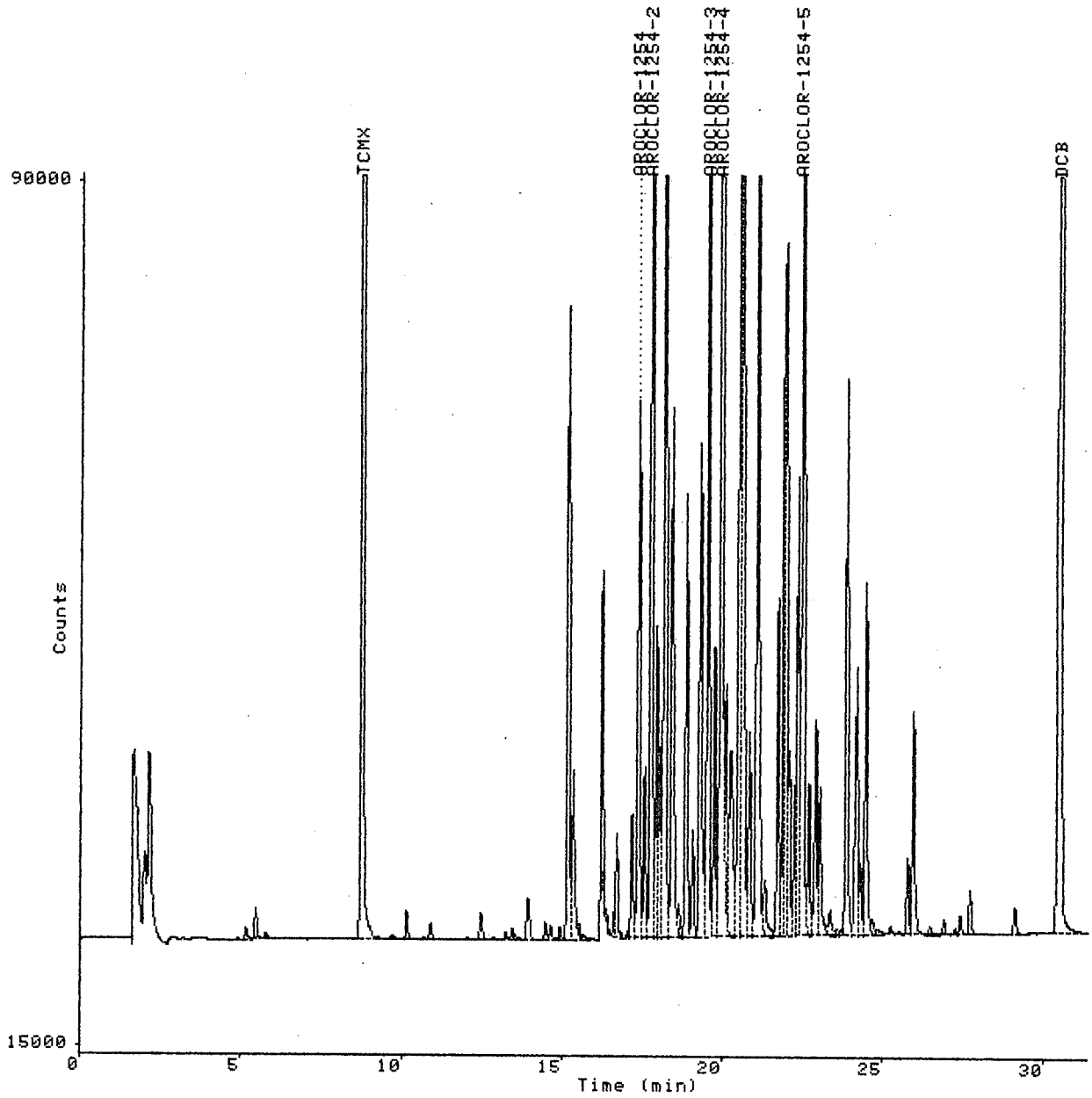
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	22.66		60072	EV	51
	22.87		88986	VV	52
	23.00		75958	VE	53
	23.34		12839	EV	54
	23.56		47882	VE	55
	23.83		210188	VV	56
	24.15		127348	VV	57
	24.29		25599	VV	58
	24.45		142016	VE	59
	24.67		7264	EV	60
	24.84		4928	EV	61
	25.24		5330	VV	62
	25.75		29007	VV	63
	25.92		92842	VE	64
	26.46		7211	EV	65
	26.71		7364	EV	66
	26.90		3828	VB	67
	27.41		6504	VB	68
	27.70		17271	BB	69
	29.08		8697	VE	70
DCB	30.46	0.0206	451448	BB	71

Average result...0.442 UG/ML

Run Number..... 4 End of Report.

Run Number..... 5
Sample Name..... 0.5 AR1254
Run Date..... 25-APR-1996 20:07:08
Raw File..... 6_0425_005
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



0.5 AR1254

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: 0.5 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_005 Analysis Date: 25-APR-1996 20:07:08

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.19		4968	BB	1
	5.49		12772	BV	2
	5.80		2876	VE	3
TCMX	8.76	0.0420	850520	VE	4
	10.15		10234	BB	5
	10.92		7333	VE	6
	12.49		13180	VV	7
	13.26		2945	VE	8
	13.47		4543	VV	9
	13.96		23760	BB	10
	14.50		7217	BV	11
	14.66		6436	VE	12
	14.94		5271	VV	13
	15.18		277801	VV	14
	15.34		83901	VE	15
	15.54		4428	EV	16
	15.68		4425	EV	17
	16.25		109891	BB	18
	16.39		3182	BB	19
	16.62		6812	BV	20
	16.71		41434	VE	21
	17.17		51945	VV	22
AROCLOR-1254	17.37	0.507	239576	VV	23
	17.56		74828	VV	24
AROCLOR-1254-2	17.75	0.517	444634	VV	25
	17.92		128683	VV	26
	18.03		67138	VV	27
	18.15		575251	VV	28
	18.39		269911	VE	29
	18.61		13353	EV	30
	18.84		189515	VV	31
	19.05		45050	VV	32
	19.28		238663	VV	33
AROCLOR-1254-3	19.51	0.501	395450	VV	34
	19.72		117023	VV	35
AROCLOR-1254-4	19.90	0.504	858945	VE	36
	20.06		75448	EV	37
	20.22		139945	EV	38
	20.48		564484	VV	39
	20.55		406997	VV	40
	20.80		96243	VV	41
	21.03		458017	VE	42
	21.29		36585	EV	43
	21.69		135495	VV	44
	21.88		242331	VV	45
	21.92		266606	VV	46
	22.05		72556	VV	47
	22.23		51234	VV	48
	22.31		190797	VV	49
AROCLOR-1254-5	22.45	0.499	643861	VE	50

Sample ID: 0.5 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_005 Analysis Date: 25-APR-1996 20:07:08

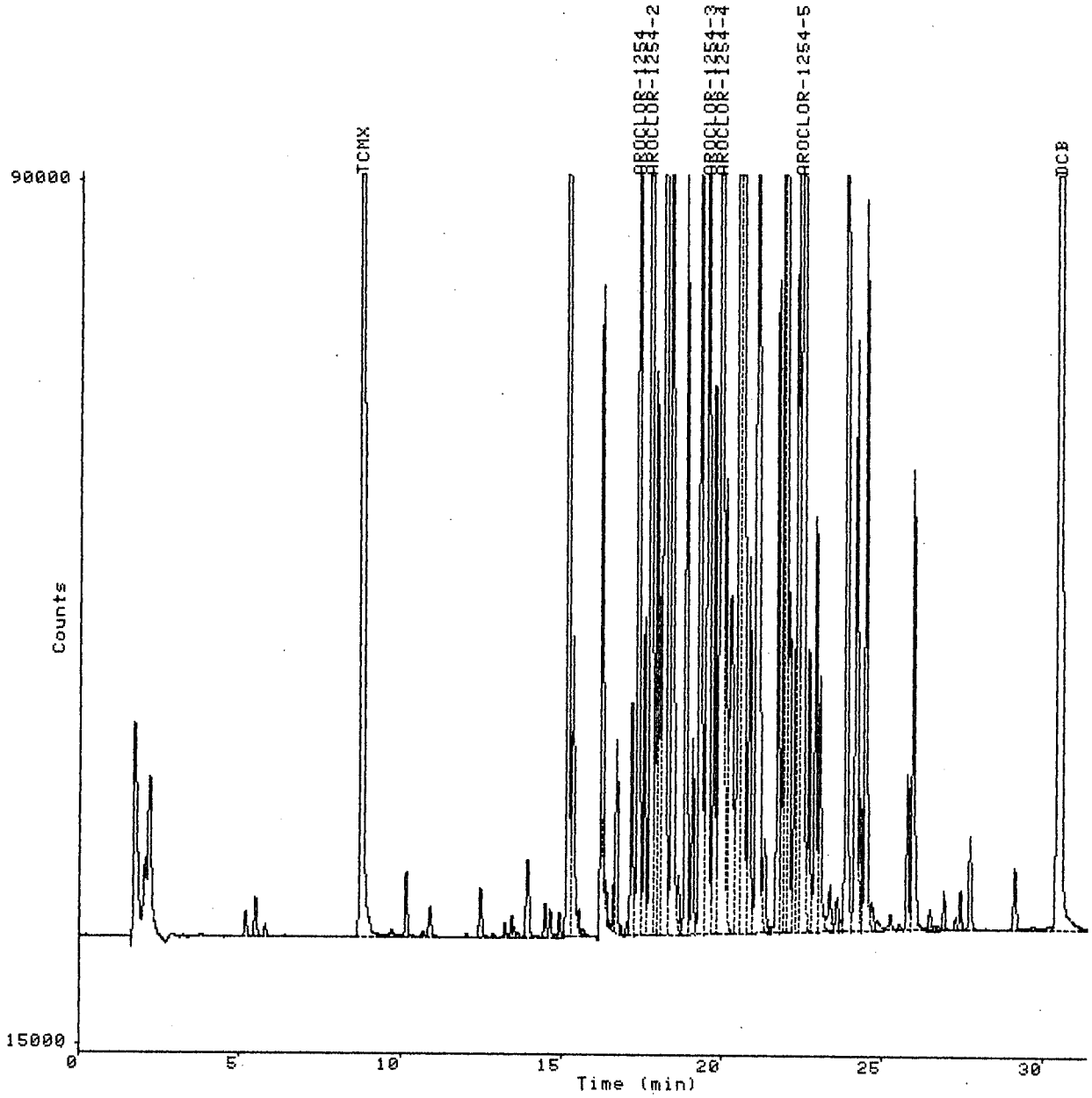
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	22.66		72138	EV	51
	22.88		93908	VV	52
	23.01		77042	VE	53
	23.34		16466	EV	54
	23.56		4607	VV	55
	23.70		2679	VV	56
	23.84		238512	VV	57
	24.16		144209	VV	58
	24.29		29402	VV	59
	24.45		162222	VE	60
	24.67		8511	EV	61
	24.84		6078	EV	62
	25.24		6101	VV	63
	25.52		2716	VV	64
	25.76		32576	VV	65
	25.92		105265	VE	66
	26.46		4955	EV	67
	26.90		6599	VV	68
	27.41		7473	VB	69
	27.70		19494	BB	70
	29.09		12504	BE	71
DCB	30.46	0.0380	837197	VB	72

Average result...0.506 UG/ML

Run Number..... 5 End of Report.

Run Number..... 6
Sample Name..... 1.0 AR1254
Run Date..... 25-APR-1996 20:49:30
Raw File..... 6_0425_006
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



1.0 AR1254

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: 1.0 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_006 Analysis Date: 25-APR-1996 20:49:30

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.21		11212	BB	1
	5.51		16936	BV	2
	5.82		5426	VB	3
TCMX	8.77	0.0991	1946865	VE	4
	9.71		4382	EV	5
	10.16		25636	VV	6
	10.92		14276	VE	7
	12.49		23133	BV	8
	13.26		5635	VV	9
	13.47		8515	VV	10
	13.55		3130	VV	11
	13.96		45257	BB	12
	14.50		13403	BV	13
	14.66		11205	VE	14
	14.95		8572	VB	15
	15.18		483080	BV	16
	15.34		145653	VE	17
	15.54		6650	EV	18
	15.68		2887	EV	19
	16.25		201809	BB	20
	16.39		5938	BB	21
	16.62		12972	BV	22
	16.71		76897	VE	23
	17.04		4375	BV	24
	17.17		97924	VV	25
AROCLOR-1254	17.37	0.983	440392	VV	26
	17.56		136867	VV	27
AROCLOR-1254-2	17.75	0.977	789249	VV	28
	17.92		233421	VV	29
	18.03		121541	VV	30
	18.15		1014722	VV	31
	18.39		483199	VE	32
	18.61		22451	EV	33
	18.84		341509	VV	34
	19.05		81794	VV	35
	19.28		434333	VV	36
AROCLOR-1254-3	19.51	0.988	753341	VV	37
	19.73		222420	VV	38
AROCLOR-1254-4	19.90	0.985	1616052	VE	39
	20.06		132659	EV	40
	20.22		257729	EV	41
	20.48		1083243	VV	42
	20.55		752315	VV	43
	20.80		170307	VV	44
	21.03		860803	VE	45
	21.28		46150	EV	46
	21.69		258826	VV	47
	21.87		550401	VV	48
	21.92		451020	VV	49
	22.05		129197	VV	50

Sample ID: 1.0 AR1254 Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_006 Analysis Date: 25-APR-1996 20:49:30

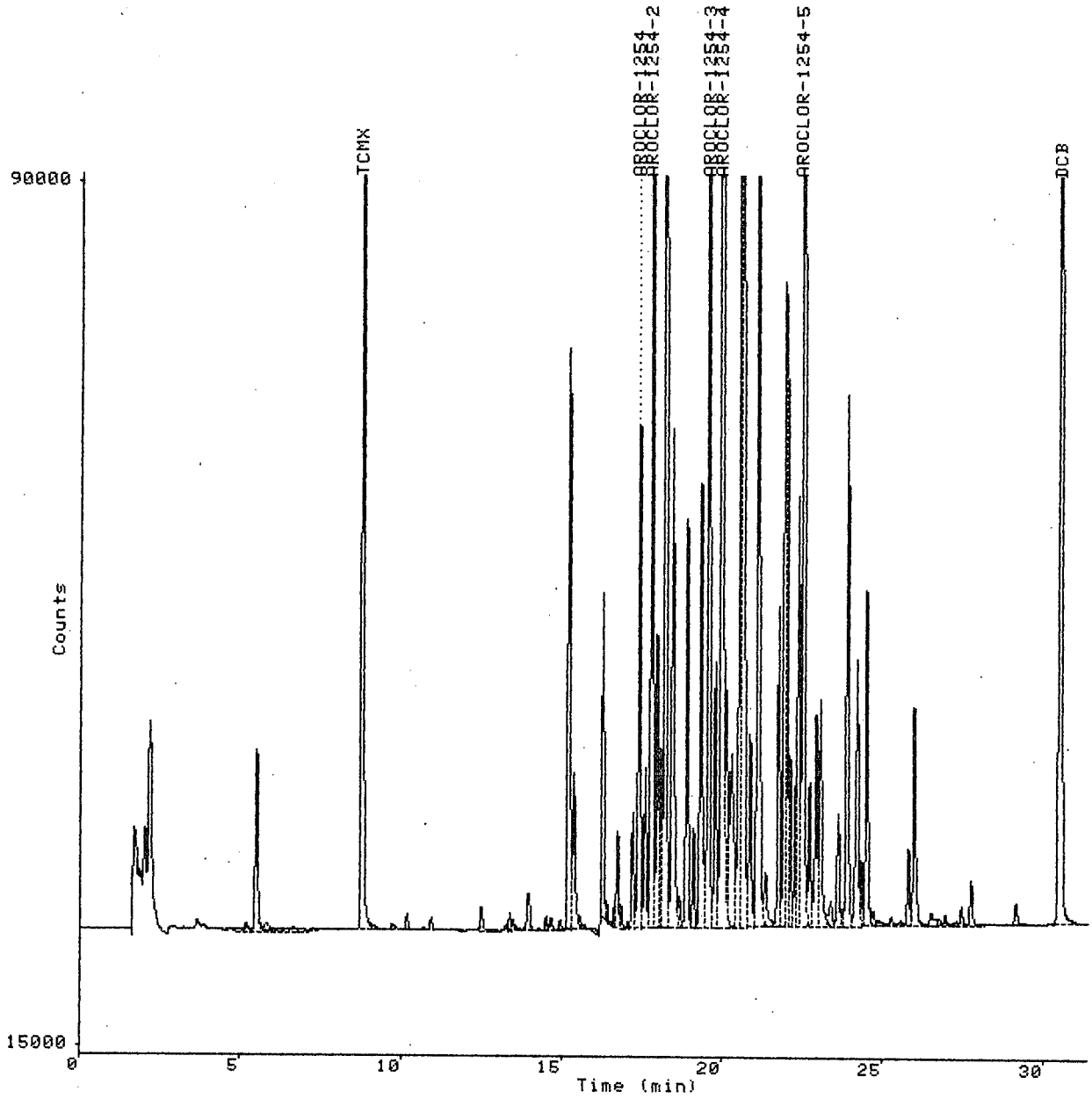
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	22.23		93741	VV	51
	22.31		374273	VV	52
AROCLOR-1254-5	22.45	0.988	1253964	VE	53
	22.66		126700	EV	54
	22.88		178797	VV	55
	23.01		125065	VE	56
	23.34		28310	EV	57
	23.56		17592	VV	58
	23.70		4393	VV	59
	23.84		475386	VV	60
	24.15		304249	VE	61
	24.29		44816	EV	62
	24.45		326335	VE	63
	24.67		14301	EV	64
	24.84		9250	EV	65
	25.24		11363	VV	66
	25.52		4453	VV	67
	25.75		64298	VV	68
	25.92		209300	VE	69
	26.45		10522	EV	70
	26.72		3023	EV	71
	26.90		15353	VB	72
	27.26		5035	BV	73
	27.41		15236	VV	74
	27.70		40449	VB	75
	29.08		30461	BE	76
	29.67		3649	EV	77
	30.21		4372	VV	78
DCB	30.46	0.101	2221189	VE	79
	31.41		3917	EV	80

Average result...0.984 UG/ML

Run Number..... 6 End of Report.

Run Number..... 17
Sample Name..... AR1254 MID
Run Date..... 26-APR-1996 04:36:26
Raw File..... 6_0425_017
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



AR1254 MID

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_017 Analysis Date: 26-APR-1996 04:36:26

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.21		3444	VV	1
	5.51		81956	VE	2
	5.84		9027	EV	3
	6.67		4135	VV	4
	6.95		3100	VB	5
TCMX	8.78	0.0226	479348	VE	6
	9.15		2768	EB	7
	9.73		3723	VB	8
	10.17		5965	BB	9
	10.93		5860	VE	10
	12.50		11547	BB	11
	13.39		8060	VV	12
	13.48		4500	VV	13
	13.97		22442	VE	14
	14.52		6236	BV	15
	14.68		5173	VB	16
	14.96		4166	VB	17
	15.20		263632	BV	18
	15.36		78281	VE	19
	15.55		3573	EV	20
	16.05		3073	BB	21
	16.27		127845	BE	22
	16.40		5118	EB	23
	16.64		5903	BV	24
	16.73		37760	VV	25
	16.84		8564	VB	26
	17.18		48414	VV	27
AROCLOR-1254	17.38	0.464	221459	VV	28
	17.58		69581	VV	29
AROCLOR-1254-2	17.77	0.473	411860	VV	30
	17.94		121826	VV	31
	18.04		64202	VV	32
	18.16		536338	VV	33
	18.40		252483	VE	34
	18.63		11868	EV	35
	18.85		174615	VV	36
	19.07		41048	VV	37
	19.29		215538	VV	38
AROCLOR-1254-3	19.53	0.460	364875	VV	39
	19.74		108582	VV	40
AROCLOR-1254-4	19.91	0.462	793463	VE	41
	20.08		72084	EV	42
	20.24		131124	EV	43
	20.49		533347	VV	44
	20.57		372372	VV	45
	20.81		88740	VV	46
	21.04		428010	VE	47
	21.30		33371	EV	48
	21.70		128888	VV	49
	21.89		242226	VV	50

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_017 Analysis Date: 26-APR-1996 04:36:26

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	21.93		233279	VV	51
	22.06		67823	VV	52
	22.24		45638	VV	53
	22.32		181370	VV	54
AROCLOR-1254-5	22.46	0.462	598209	VE	55
	22.68		64172	EV	56
	22.89		100328	VV	57
	23.02		116484	VE	58
	23.35		16384	EV	59
	23.57		51678	VE	60
	23.71		5092	EV	61
	23.85		225534	VV	62
	24.17		142694	VE	63
	24.30		22034	EV	64
	24.46		151167	VE	65
	24.68		7928	EV	66
	24.85		5735	EV	67
	25.25		7265	VV	68
	25.54		3415	VV	69
	25.77		32973	VV	70
	25.93		100970	VE	71
	26.47		10608	EV	72
	26.72		4904	VV	73
	26.91		5173	VE	74
	27.42		8128	VV	75
	27.72		20752	VB	76
	29.10		10076	BE	77
DCB	30.48	0.0226	494945	VB	78

plus peaks above

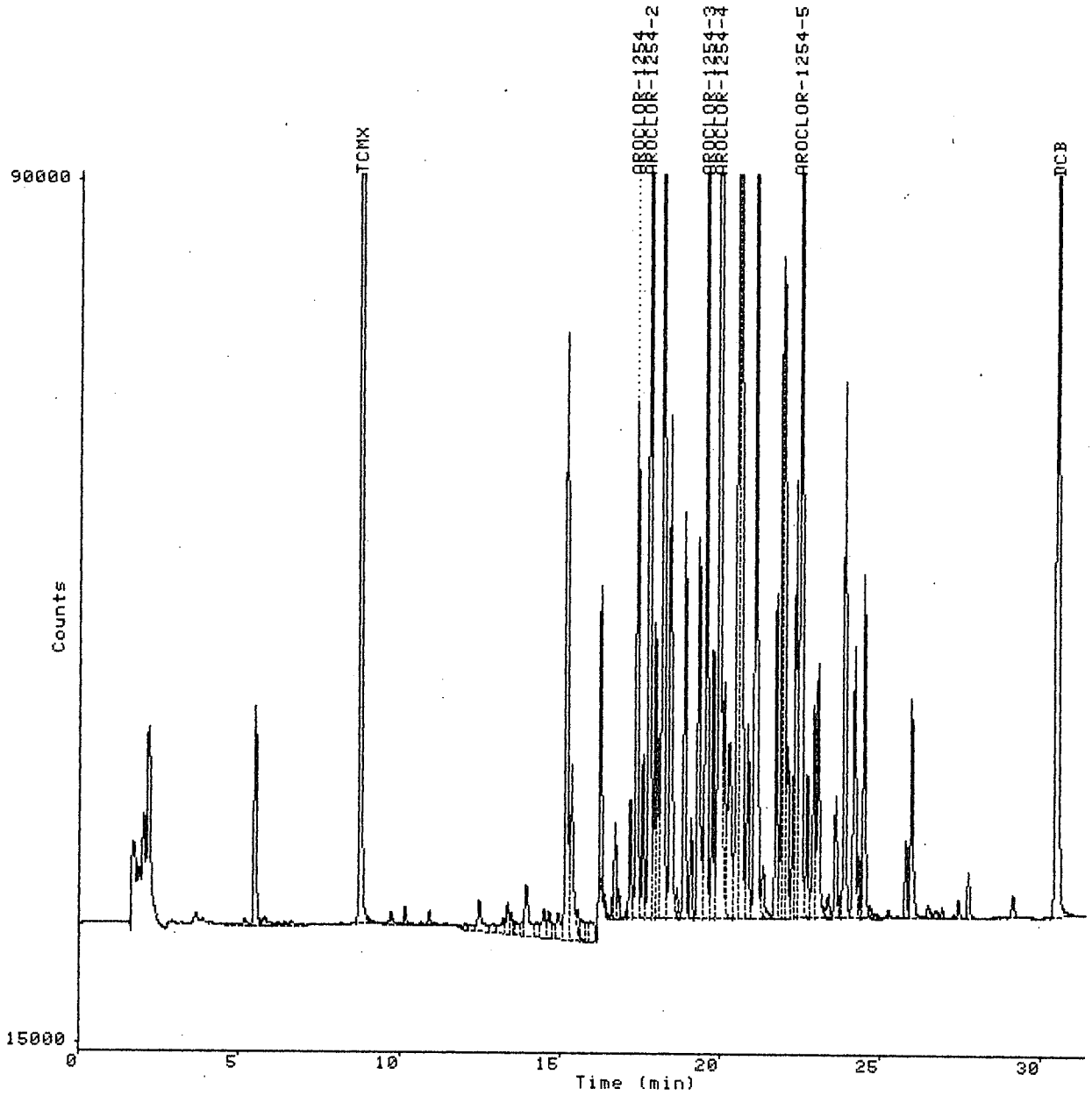
Average result...0.464 UG/ML 167.0

Run Number..... 17 End of Report.

$$\frac{0.464-0.4}{0.4} \times 100 \approx 16\%$$

Run Number..... 28
Sample Name..... AR1254 MID
Run Date..... 26-APR-1996 12:23:46
Raw File..... 6_0425_028
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



AR1254 MID

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_028 Analysis Date: 26-APR-1996 12:23:46

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.20		4299	VV	1
	5.50		98533	VE	2
	5.82		10376	EV	3
	6.23		2624	VV	4
	6.66		3571	VV	5
	6.91		3687	VB	6
TCMX	8.76	0.0230	487333	VE	7
	9.72		6409	VV	8
	10.15		6408	VE	9
	10.92		5775	BE	10
	12.05		3342	BV	11
	12.25		5513	VV	12
	12.49		25015	VV	13
	12.90		7961	VV	14
	13.26		13583	VV	15
	13.38		15095	VV	16
	13.46		8814	VV	17
	13.55		6216	VV	18
	13.67		7405	VV	19
	13.83		6493	VV	20
	13.96		41661	VV	21
	14.28		12296	VV	22
	14.50		19715	VV	23
	14.66		17419	VV	24
	14.82		7312	VV	25
	14.95		19341	VV	26
	15.18		286044	VV	27
	15.34		101654	VE	28
	15.54		11645	EV	29
	15.68		17709	EV	30
	15.87		8677	VV	31
	16.01		21727	VB	32
	16.25		108175	BB	33
	16.39		3021	BB	34
	16.63		6131	BV	35
	16.71		37760	VV	36
	16.83		10505	VB	37
	17.17		49564	VV	38
AROCLOR-1254	17.37	0.474	225682	VV	39
	17.56		70243	VV	40
AROCLOR-1254-2	17.75	0.477	414772	VV	41
	17.92		122903	VV	42
	18.03		64898	VV	43
	18.15		541068	VV	44
	18.39		253686	VE	45
	18.61		11505	EV	46
	18.84		175346	VV	47
	19.06		40776	VV	48
	19.28		192543	VV	49
AROCLOR-1254-3	19.51	0.465	368881	VV	50

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_028 Analysis Date: 26-APR-1996 12:23:46

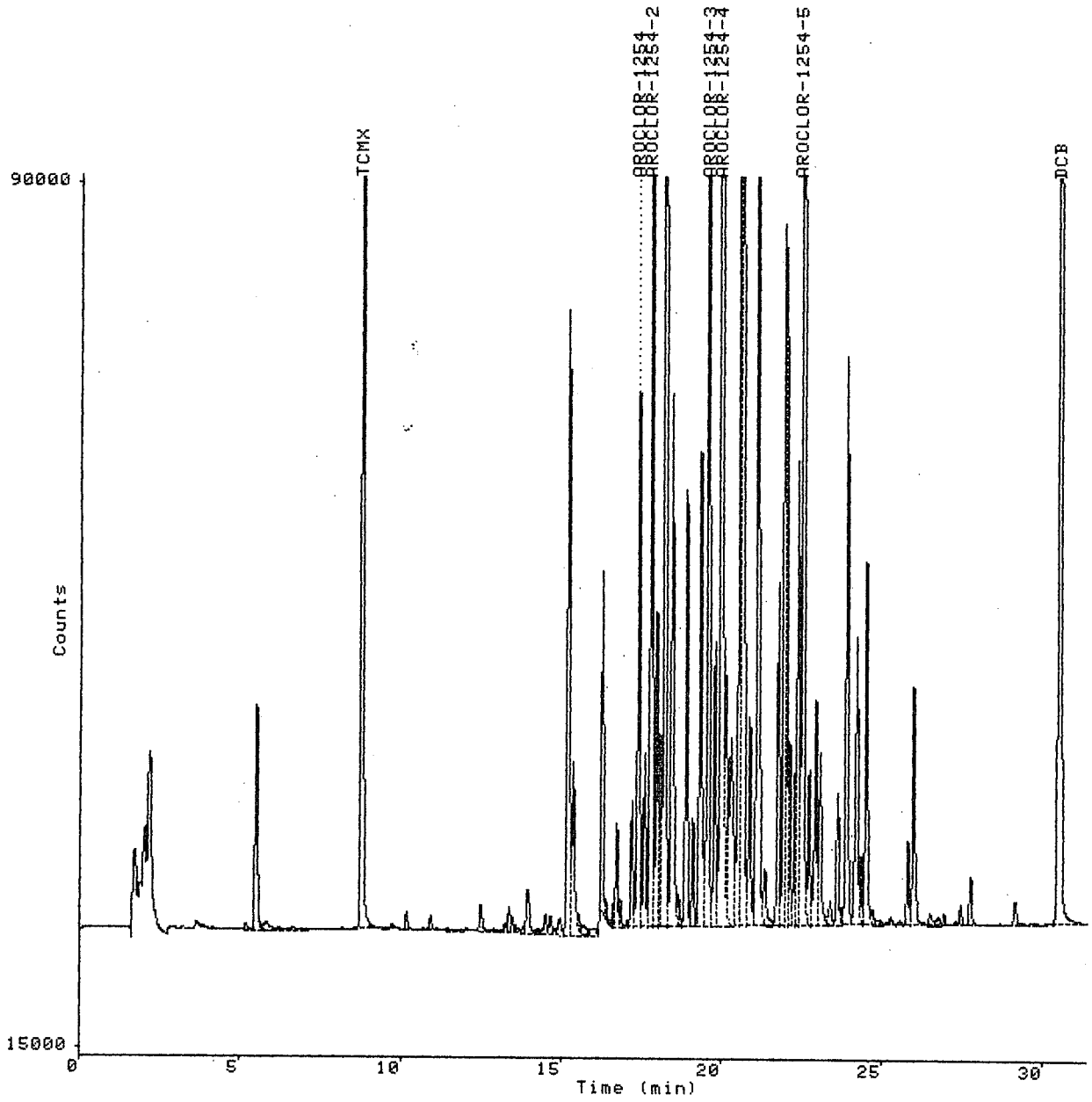
Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	19.73		109131	VV	51
AROCLOR-1254-4	19.90	0.470	805398	VE	52
	20.07		70987	EV	53
	20.22		131277	EV	54
	20.48		553217	VV	55
	20.56		369260	VV	56
	20.80		87733	VV	57
	21.03		432634	VE	58
	21.29		31870	EV	59
	21.69		129780	VV	60
	21.87		259177	VV	61
	21.92		225570	VV	62
	22.05		66364	VV	63
	22.23		46656	VV	64
	22.31		181794	VV	65
AROCLOR-1254-5	22.45	0.469	606102	VE	66
	22.66		63355	EV	67
	22.87		100389	VV	68
	23.00		128287	VE	69
	23.34		14752	EV	70
	23.56		54747	VE	71
	23.70		6932	EV	72
	23.84		225221	VV	73
	24.15		141102	VE	74
	24.29		21408	EV	75
	24.45		152321	VE	76
	24.67		6374	EV	77
	24.84		3248	EV	78
	25.24		5220	VV	79
	25.76		31872	VV	80
	25.92		101698	VE	81
	26.45		8214	EV	82
	26.72		5160	EV	83
	26.90		4264	VV	84
	27.41		7268	VB	85
	27.70		19719	BB	86
	29.08		10917	VE	87
DCB	30.46	0.0235	515771	VE	88

Average result...0.471 UG/ML 17 7.10

Run Number..... 28 End of Report.

Run Number..... 35
Sample Name..... AR1254 MID
Run Date..... 26-APR-1996 17:20:44
Raw File..... 6_0425_035
Method Name..... 6_1254_0425
Method Type..... Linear

58901B 30M 0.53mm RTX-35 2uL INJ



AR1254 MID

Volume Injected... 2.0uL
Standard Amount... 1.00 ML
Dilution Factor... 1

Entered Conversion Factor..1.00
Entered Sample Amount.....1.00

PCB ANALYSIS BY GC/ECD

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_035 Analysis Date: 26-APR-1996 17:20:44

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	5.21		3219	BV	1
	5.51		105088	VE	2
	5.85		9826	EV	3
	6.67		3707	VV	4
	6.92		3600	VB	5
TCMX	8.77	0.0237	500202	VE	6
	10.17		6476	BB	7
	10.93		6031	BE	8
	12.50		12398	BE	9
	13.27		3810	VV	10
	13.39		11311	VV	11
	13.47		5295	VV	12
	13.56		2635	VV	13
	13.97		27161	VE	14
	14.29		4027	EV	15
	14.52		9755	VV	16
	14.67		8602	VV	17
	14.96		8225	VV	18
	15.19		285608	VV	19
	15.36		90479	VE	20
	15.55		6512	EV	21
	15.70		6915	EV	22
	15.88		3665	VV	23
	16.03		6793	VB	24
	16.27		132774	BE	25
	16.40		5284	EB	26
	16.64		6284	BV	27
	16.72		40100	VV	28
	16.84		9651	VB	29
	17.18		51975	VV	30
AROCLOR-1254	17.38	0.499	236041	VV	31
	17.57		74186	VV	32
AROCLOR-1254-2	17.77	0.505	435498	VV	33
	17.93		129790	VV	34
	18.04		67929	VV	35
	18.16		566986	VV	36
	18.40		266935	VE	37
	18.62		12180	EV	38
	18.85		185466	VV	39
	19.07		43251	VV	40
	19.29		229915	VV	41
AROCLOR-1254-3	19.53	0.492	388664	VV	42
	19.74		115612	VV	43
AROCLOR-1254-4	19.91	0.496	846827	VE	44
	20.08		74701	EV	45
	20.24		139402	EV	46
	20.49		573278	VV	47
	20.57		394734	VV	48
	20.81		93238	VV	49
	21.04		456934	VE	50

Sample ID: AR1254 MID Instrument: 58901B 30M 0.53mm RTX-35 2uL INJ
Datafile: 6_0425_035 Analysis Date: 26-APR-1996 17:20:44

Peak Name	R.T.(min)	UG/ML	Peak Area	BL	PEAK NO.
	21.30		34074	EV	51
	21.71		137805	VV	52
	21.89		269716	VV	53
	21.94		241595	VV	54
	22.06		72066	VV	55
	22.24		49125	VV	56
	22.32		195628	VV	57
AROCLOR-1254-5	22.46	0.497	641376	VE	58
	22.67		68227	EV	59
	22.89		106111	VV	60
	23.02		87270	VE	61
	23.35		14370	EV	62
	23.57		59084	VE	63
	23.72		5450	EV	64
	23.85		239085	VV	65
	24.17		152417	VE	66
	24.30		23259	EV	67
	24.46		164385	VE	68
	24.68		8593	EV	69
	24.85		5419	EV	70
	25.25		7489	VV	71
	25.53		2769	VV	72
	25.77		34627	VV	73
	25.93		109671	VE	74
	26.47		9184	EV	75
	26.73		4911	EV	76
	26.91		4305	VB	77
	27.42		7972	VV	78
	27.72		21547	VB	79
	29.10		10382	VE	80
DCB	30.48	0.0253	555939	VE	81

Average result...0.498 UG/ML 24 7.0

Run Number..... 35 End of Report.