ENCLOSURE 5

Laboratory Data Package

pace
INCORPORATED
THE ASSURANCE OF QUALITY

NOV 1 0 1992

Dear Valued Client:

Upon receipt of samples at a PACE laboratory, the laboratory's Sample Custodian completes a Sample and Analysis Data Entry Form (SADEF). This form is designed to acknowledge sample receipt and includes a short description of the samples (sample name and/or sample reference), the type of container, and a list of the analyses requested to be performed on each sample. A copy of this form is sent to the client (submitter).

Enclosed is a copy of the Sample and Analysis Data Entry Form relevant to the samples we recently received from you. Please review the information on the form to assure that it is consistent with your request. If there is any inconsistency or if you have any questions on your project, please call the PACE Contact indicated on the form. The PACE Contact has primary responsibility for monitoring the progress of your project through the laboratory.

It is also standard policy of PACE, Incorporated to return to the sample sponsor all samples that are potentially hazardous materials or potentially hazardous wastes at project completion.

Sincerely,

John G. Kroll
Manager, Client Services Dept.

JGK/cac

DRF.8

5930 McIntyre Street
Golden, CO 80403
TEL: 303-278-3400
800-879-3434
FAX: 303-278-2121

Offices Serving: Minneapolis, Minnesota
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Sample and Analysis Data Entry Form - New Sample(s)

Washington State Dept. of Ecology Client No : 617018
Ms. Billie Mauss : Client Contact
Department of Ecology
7601 W. Clearwater #102 : Address
Kennewick, WA. 99336

509-546-2993 : Telephone No

Project No: D21102.502 Due Date: 12/21/92 Client P.O. No:
Project Manager: ATT Project Name: CLP State of Washington Billie Ma
Manager's Name: Alexandra Trovas
Project Type: C
QC Level: 8 Report Style: S
Desc: R-3 & R-4: (Linton) (Carr)

Sample No: 65 018906.6 Collected Date: 10/29/92 Collected By: S. ARBOGAST
Lab Rec'd Date: 11/02/92 Checked-In By: DMB Priority: 4
Due Date: 12/21/92 Sample Desc: H 92077
Bottle Types: GN GN GN GN
Comnt: R-4 Matrix: SOLID

Analysis Abbr:	Name:
%TS	Solids, Percent Total
8150	CHLORINATED HERBICIDES
CLPBNA	ACID BASE NEUTRAL ANALYSIS
CLPPEST	PESTICIDE ANALYSIS
CLPVOA	Volatile Analysis
ICCL	Chloride
ICF	Fluoride
ICPO4	Phosphate
ICSO4	Sulfate
NO2-N	Nitrogen, Nitrite
NO3-N	Nitrogen, Nitrate
TALICP	TARGET ANALYTE LIST METALS - ICP
TALPREP	TARGET ANALYTE LIST METALS - PREPARATION
TEH-SL	EXTRACTABLE HYDROCARBONS AS DIESEL
TVH-SL	TOTAL VOLATILE HYDROCARBONS AS GASOLINE

Sample No: 65 018907.4 Collected Date: 10/29/92 Collected By: S. ARBOGAST
Lab Rec'd Date: 11/02/92 Checked-In By: DMB Priority: 4
Due Date: 12/21/92 Sample Desc: H 92078
Bottle Types: GN GN GN GN
Comnt: R-4 Matrix: SOLID

Analysis Abbr:	Name:
%TS	Solids, Percent Total
8150	CHLORINATED HERBICIDES
CLPBNA	ACID BASE NEUTRAL ANALYSIS
CLPPEST	PESTICIDE ANALYSIS
CLPVOA	Volatile Analysis
ICCL	Chloride
ICF	Fluoride

PACE, Inc. reserves the right to return all samples at its discretion.

DMB 11-2-92 4:30

Sample and Analysis Data Entry Form - New Sample(s)

Washington State Dept. of Ecology — Client No : 617018
Ms. Billie Mauss — : Client Contact
Project No: D21102.502 Due Date: 12/21/92 Client P.O. No:

Sample No: 65 018907.4 Collected Date: 10/29/92 Collected By: S. ARBOGAST
Lab Rec'd Date: 11/02/92 Checked-In By: DMB Priority: 4
Due Date: 12/21/92 Sample Desc: H 92078
Bottle Types: GN GN GN GN
Comnt: R-4 Matrix: SOLID

Analysis Abbr:	Name:
ICPO4	Phosphate
ICSO4	Sulfate
NO2-N	Nitrogen, Nitrite
NO3-N	Nitrogen, Nitrate
TALICP	TARGET ANALYTE LIST METALS - ICP
TALPREP	TARGET ANALYTE LIST METALS - PREPARATION
TEH-SL	EXTRACTABLE HYDROCARBONS AS DIESEL
TVH-SL	TOTAL VOLATILE HYDROCARBONS AS GASOLINE

Sample No: 65 018908.2 Collected Date: 10/29/92 Collected By: S. ARBOGAST
Lab Rec'd Date: 11/02/92 Checked-In By: DMB Priority: 4
Due Date: 12/21/92 Sample Desc: H 92089
Bottle Types: GV
Comnt: R-3 Matrix: SOLID

Analysis Abbr:	Name:
CLPVOA	Volatile Analysis

PACE, Inc. reserves the right to return all samples at its discretion.

SAMPLE CONDITION UPON RECEIPT CHECKLIST

Client: Washington State Dept. of Ecol
Project: D21102502
Date Received: 11/02/92
Samples Received By: DMB

1.	Is there a chain of custody (COC) or letter stating information contained on COC?	YES
2.	Is the date and time relinquished in agreement with that written on the letter or COC?	YES
3.	Do the samples received agree with the COC or accompanying paperwork (i.e. number of samples, matrices, sample tags, sample containers, analyses, etc.)?	YES
4.	Are all the samples within the holding times for requested analyses? Communicate any lapse of greater than 4 days beyond date of collection for VOA analysis.	YES
5.	Are all the sample containers intact (i.e., not broken, leaking, etc.)?	YES
6.	Are the sample at the proper temperature?	YES
7.	Is there enough sample to do all the analyses?	YES
8.	Are the samples preserved correctly?	YES
9.	Are the VOA vials head-space free?	YES

'NO' Items Explained:

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T.A. E 5446 / E 5945 > H92077

T.A.# E 5947 > H92078

61410

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: WASH. Dept. of Ecology
Address: 7601 W. ~~Clearwater~~ Clearwater #102
Kennewick, WA. 99336
Phone: 509) 546-2990

Report To: Billie Mauss
Bill To:
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager
Pace Project No.
*Requested Due Date:

Sampled By (PRINT): Steven L. Arbogast
Sampler Signature: [signature]
Date Sampled: 10-29-92

		TIME	MATRIX	PACE NO.	# OF CONTAINERS	PRESERVATIVES: PRESERVED	O_4	O_3	O_2	ANALYSES REQUEST: VOA	Semi-VOA	TAL-Metals	PCB-Pest.	Herb.	TPH	Anions	REMARKS
1	H92077	12:53	Soil		4	X				X	X	X	X	X	X	X	Military Cache
2	H92089		H_2O		1				X	X							TRIP BLANK
3	H92078	14:05	Soil		4	X				X	X	X	X	X	X	X	Homestead
4																	
5																	
6																	
7																	
8																	

		OUT / DATE	RETURNED / DATE	NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
				1,2,3	[signature] WDOE	[signature] WDOE	10-29-92	14:15
				1,2,3			10-30-92	12:50
				1,2,3	[signature] WDOE			

Additional Comments

SEE REVERSE SIDE FOR INSTRUCTIONS

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REPORT OF LABORATORY ANALYSIS

000334

March 4, 1993

MAR 1993
RECEIVED

Ms. Billie Mauss
Washington State Department of Ecology
7601 W. Clearwater #102
Kennewick, WA 99336

Dear Ms. Mauss:

Enclosed are the raw data and chromatograms for PACE Project D21102502. Included in this package is information pertaining to the metals analyses, and the anions. If you have any questions, please contact PACE at (303)278-3400.

Sincerely,

Alexandra Trovas

Alexandra Trovas
PACE, Incorporated

5930 McIntyre Street
Golden, CO 80403
TEL: 303-278-3400
800-878-3434
FAX: 303-278-2121

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T.A.# E 5946 / E 5945 > H92077

T.A.# E 5947 > H92078

61410

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client: WASH. DEPT. of Ecology
Address: 7601 W. ~~Clearwater~~ Clearwater #102
Kennewick, WA. 99336
Phone: (509) 546-2990

Report To: Billie Mauss
Bill To:
P.O. # / Billing Reference
Project Name / No.

Pace Client No.
Pace Project Manager: 617018
Pace Project No.: [illegible]
*Requested Due Date: 12-21

Sampled By (PRINT): Steven L. Arbogast
Sampler Signature: [signature]
Date Sampled: 10-29-92

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	UNPRESERVED	H_2SO_4	HNO_3	VOA		VOA	Semi-VOA	TAL-Metals	PCB-Pest.	Herb.	TPH	Anions	REMARKS
1	H92077	12:53	Soil	18906.6	4	X					X	X	X	X	X	X	X	Military Cashe ~~[illegible]~~
2	H92089		H_2O	18908.2	1				X		X							TRIP BLANK
3	H92078	14:05	Soil	18907.4	4	X					X	X	X	X	X	X	X	Homestead
4																		
5																		
6																		
7																		
8																		

COOLER NOS.	BAILERS	SHIPMENT METHOD OUT DATE	RETURNED DATE

Additional Comments

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
1,2,3	[signature] WDOE	[signature] WDOE	10-29-92	14:15
1,2,3	[signature]		10-30-92	12:50
1,2,3	[signature] WDOE			
		T.A. [illegible] PACE	[illegible]	

SEE REVERSE SIDE FOR INSTRUCTIONS

2000002

METALS PREPARATION/DIGESTION BENCHSHEET

PROJECT I.D.: D21102.502 –
D21104.501 –

ANALYST(S): MPM

BATCH #: 65 10785 N / 65 10786 U

REFERENCE: DN-I-001
(SOP)
DATE: 12-17-92

MATRIX: SOLID / CLP

REVIEWED BY: TC

	PACE Sample[1] I.D. #	Client Sample[1] I.D. #	ICP/AA Sample(g)	Prep Final(g)	GFAA Sample(g)	Prep Final(g)	Density[2]	Spike Verif.[3]	Notes
	LCS	N/A	1.0g	200g	1.0g	200g	N/A	N/A	Priority Pollutn T™/CLP soil PPS-46 Lot #214 (1.0g)
	LCS DUP	↓	↓	↓	↓	↓	↓	↓	↓
	PREP BLANK	↓	↓	↓	↓	↓	↓	↓	Blank
1.	D21102.502 18906.6	H92077	↓	↓	↓	↓	↓	↓	Tal Metals Fine, Tan
2.	18906.6 (D)	↓	↓	↓	↓	↓	↓	↓	↓
3.	18906.6 MS	↓	↓	↓	↓	↓	↓	↓	★, ✱
4.	18906.6 MSD	↓	↓	↓	↓	↓	↓	↓	★, ✱
5.	18907.4	H92078	↓	↓	↓	↓	↓	↓	Fine, Light Brown
6.	D21104.501 16946.4	H92072	↓	↓	↓	↓	↓	↓	Fine, Tan
7.	16947.2	H92073	↓	↓	↓	↓	↓	↓	↓
8.	16948.0	H92074	↓	↓	↓	↓	↓	↓	↓
9.	16948.0 (D)	↓	↓	↓	↓	↓	↓	↓	↓
10.	16948.0 MS	↓	↓	↓	↓	↓	↓	↓	★, ✱

ICP Spike Solution: 2.0 ml SCN# P920611-02
2.0 ml SCN# P920611-03
2.0 ml SCN# P920611-04

2.0 ml SCN# P920723-02

GFAA Spike Solution: 2.0 ml SCN# I-A-92012B-01

PCN# HCl: I-216-B PCN# H_2O_2: I-174-B

PCN# HNO_3: I-128-B

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

[2]Necessary for all liquid samples.

[3]Spike verfication should include initial and date of observer.

★ ICP SPIKE SOLUTION A,B,C,D (2.0ml)
✱ AGAA SPIKE + LCS SOLUTION (2.0ml)

PACE INCORPORATED -- DENVER REGIONAL OFFICE Pg 1 of 1

ICP Order of Analysis Benchsheet

0000003

Analysis Date: 12-18-92 CKW

Instrument ID: T/JA ICAP 61E

Run No.	Analysis Identification	
1	Profile	(✓)
2	STD1 (Blank)	(✓)
3	STD3 (Heavy Metals)	(✓)
4	STD4 (Cations)	(✓)
5	STD2 (Ag)	(✓)
6	ICVA1	(✓)
7	ICVB1	(✓)
8	ICB1	(✓)
9	CRI1	(✓)
10	ICSA1	(✓)
11	ICSAB1	(✓)
12	CCV1	(✓)
13	CCB1	(✓)
14	LCSS (Lot 214)	(✓)
15	PBS	(✓)
16	D21102.502/65-018906.6	(✓)
17	18906.6 D	(✓)
18	18906.6 S	(✓)
19	18906.6 SD	(✓)
20	18906.6 A	(✓)
21	18907.4	(✓)
22	18907.4 L (5x)	(✓)
23	D21104.501/65-016946.4	(✓)
24	CCV2	(✓)
25	CCB2	(✓)
26	16947.2	(✓)
27	16948.0	(✓)
28	16948.0 D	(✓)
29	16948.0 S	(✓)
30	16948.0 SD	(✓)
31	16948.0 A	(✓)
32	16949.9	(✓)
33	16949.9 L (5x)	(✓)
34	CRI2	(✓)
35	ICSA2	(✓)
36	CCV3	(✓)
37	CCB3	(✓)
38	ICSAB2	(✓)
39	CCV4	(✓)
40	CCB4	(✓)
41	D21015.506/LCSDupe	(✓)
42	D21217.301/RCSF	(✓)
43	DLCSF	(✓)
44	PBF	(✓)

Run No.	Analysis Identification	
45	65-017942.7	(✓)
46	17944.3	(✓)
47	17946.0	(✓)
48	17948.6	(✓)
49	17946.0 L (5x)	(✓)
50	PBS	(✓)
51	CCV5	(✓)
52	CCB5	(✓)
53	LCSS	(✓)
54	DLCSS	(✓)
55	D21124.503/65-019213.0	(✓)
56	19213.0 D	(✓)
57	D21130.500/65-017457.3	(✓)
58	17457.3 S	(✓)
59	D21130.501/65-017462.0	(✓)
60	D21203.501/65-017678.9	(✓)
61	17678.9 L (5x)	(✓)
62	CRI3	(✓)
63	CCV6	(✓)
64	CCB6	(✓)
65	ICSA3	(✓)
66	ICSAB3	(✓)
67	CCV7	(✓)
68	CCB7	(✓)
69		( )
70		( )
71		( )
72		( )
73		( )
74		( )
75		( )
76		( )
77		( )
78		( )
79		( )
80		( )
81		( )
82		( )
83		( )
84		( )
85		( )
86		( )
87		( )
88		( )

CKW 12-18-92

wppsdh27

SCN P921202-01

CKW

0000004

Method: PACE-DN1 Standard: STD1-Blank

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.9680	.0153	.0566	.0011	.0653	.0080	.0127
#1	.9780	.0160	.0056	.0001	.0660	.0100	.0100
#2	.9460	.0180	.1236	.0021	.0660	.0080	.0140
#3	.9800	.0120	.0407	.0010	.0640	.0060	.0140

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.0653	.0233	-.0287	.0575	.0000	.0580	-.0073
#1	.0660	.0240	-.0260	.0534	.0000	.0440	-.0060
#2	.0580	.0220	-.0380	.0597	.0000	.0760	-.0040
#3	.0720	.0240	-.0220	.0594	.0000	.0540	-.0120

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	-.0120	.0180	.1007	-.0877	.3073	-.1700	.7133
#1	-.0120	.0180	.0960	-.0765	.2460	-.1960	.6880
#2	-.0220	.0180	.1000	-.0864	.3420	-.1580	.7320
#3	-.0020	.0180	.1060	-.1001	.3340	-.1560	.7200

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.0847	.3502	.0020	.1353	.0280	-.0280	.2067
#1	-.0860	.3420	.0061	.1440	.0280	-.0320	.2040
#2	-.0840	.3518	.0019	.1080	.0240	-.0240	.2100
#3	-.0840	.3569	-.0019	.1540	.0320	-.0280	.2060

SCN P921029-01

Method: PACE-DN1 Standard: STD3

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	26.54	.6013	3.742	6.179	7.147	.7707	1.547
#1	26.56	.6040	3.754	6.170	7.148	.7800	1.544
#2	26.53	.6000	3.654	6.193	7.142	.7580	1.546
#3	26.53	.6000	3.818	6.173	7.152	.7740	1.550

Elem	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Mn2576	Mo2020
Avge	3.903	4.731	4.050	51.67	1.029	4.113	4.228
#1	3.918	4.744	4.056	51.62	1.026	4.112	4.236
#2	3.888	4.708	4.049	51.64	1.042	4.106	4.226
#3	3.904	4.740	4.044	51.76	1.020	4.122	4.222

Elem	Ni2316	Se1960	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	3.358	14.85	10.07	2.501	3.500	1.485	5.165
#1	3.387	14.87	10.06	2.448	3.492	1.486	5.136
#2	3.325	14.81	10.08	2.500	3.502	1.484	5.174
#3	3.363	14.88	10.06	2.556	3.506	1.484	5.186

SCN P920709-01

Method: PACE-DN1 Standard: STD4

Elem	Ca3179	Li6707	Mg2790	K_7664	Si2881	Na5895

0000005 2 CKW

Avge	515.2	442.2	84.84	45.25	236.5	177.0
#1	513.3	442.3	84.93	45.17	236.2	177.1
#2	515.6	444.0	85.03	45.26	236.9	177.5
#3	516.7	440.3	84.56	45.32	236.3	176.3

Method: PACE-DN1 Standard: STD2 CCN P92117-01

Elem	Ag3280
Avge	3.195
#1	3.176
#2	3.222
#3	3.186

Method: PACE-DN1 Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Al3082	308.215	STD3	STD1-Blank	.391083	-.378569	12/18/92 09:54:09
Sb2068	206.838	STD3	STD1-Blank	1.70648	-.026166	12/18/92 09:54:09
As1936	193.696	STD3	STD1-Blank	.271333	-.015369	12/18/92 09:54:09
Ba4934	493.409	STD3	STD1-Blank	.161864	-.000172	12/18/92 09:54:09
Be3130	313.042	STD3	STD1-Blank	.141203	-.009225	12/18/92 09:54:09
B_2496	249.678	STD3	STD1-Blank	1.31119	-.010490	12/18/92 09:54:09
Cd2288	228.802	STD3	STD1-Blank	.651891	-.008257	12/18/92 09:54:09
Ca3179	317.933	STD4	STD1-Blank	.194122	-.012683	12/18/92 09:54:09
Cr2677	267.716	STD3	STD1-Blank	.257732	-.006014	12/18/92 09:54:09
Co2286	228.606	STD3	STD1-Blank	.210113	.006023	12/18/92 09:54:09
Cu3247	324.754	STD3	STD1-Blank	.250492	-.014402	12/18/92 09:54:09
Fe2599	259.940	STD3	STD1-Blank	.193526	.000000	12/18/92 09:54:09
Pb2203	220.354	STD3	STD1-Blank	1.02951	-.059712	12/18/92 09:54:09
Li6707	670.784	STD4	STD1-Blank	.226134	.001658	12/18/92 09:54:09
Mg2790	279.078	STD4	STD1-Blank	1.17854	.014142	12/18/92 09:54:09
Mn2576	257.610	STD3	STD1-Blank	.244180	-.004395	12/18/92 09:54:09
Mo2020	202.030	STD3	STD1-Blank	.242287	-.024390	12/18/92 09:54:09
Ni2316	231.604	STD3	STD1-Blank	.290192	.025444	12/18/92 09:54:09
K_7664	766.491	STD4	STD1-Blank	2.22506	-.683834	12/18/92 09:54:09
Se1960	196.026	STD3	STD1-Blank	.665661	.113162	12/18/92 09:54:09
Si2881	288.158	STD4	STD1-Blank	.424163	-.302569	12/18/92 09:54:09
Ag3280	328.068	STD2	STD1-Blank	.304940	.025818	12/18/92 09:54:09
Na5895	589.592	STD4	STD1-Blank	.566207	-.198298	12/18/92 09:54:09
Sr4215	421.552	STD3	STD1-Blank	.099339	-.000201	12/18/92 09:54:09
Sn1899	189.989	STD3	STD1-Blank	.422654	-.057199	12/18/92 09:54:09
Ti3349	334.941	STD3	STD1-Blank	.288018	-.008065	12/18/92 09:54:09
V_2924	292.402	STD3	STD1-Blank	.661084	.018510	12/18/92 09:54:09
Zn2138	213.856	STD3	STD1-Blank	.201667	-.041678	12/18/92 09:54:09

Method: PACE-DN1 Sample Name: ICV1 Operator: CKW
Run Time: 12/18/92 09:56:05
Comment: PE PURE LOT NO 3-159/128-AS PCN I-00168/171
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	4.862	4.998	4.945	4.735	4.701	4.814	4.938

3 CKW

#1	4.874	5.008	4.976	4.763	4.713	4.848	4.934
#2	4.851	4.987	4.915	4.706	4.689	4.780	4.941
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	5.093	4.858	4.900	4.827	4.817	5.010	.0005
#1	5.094	4.858	4.902	4.845	4.816	4.998	.0008
#2	5.093	4.857	4.899	4.809	4.819	5.022	.0003
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	4.985	4.834	4.913	4.889	46.86	4.876	2.483
#1	5.002	4.835	4.921	4.890	46.72	4.905	2.485
#2	4.968	4.834	4.906	4.889	46.99	4.846	2.482
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	4.561	4.748	-.0004	.0068	4.801	5.007	4.697
#1	4.561	4.747	-.0004	.0047	4.815	5.020	4.695
#2	4.562	4.749	-.0004	.0088	4.787	4.994	4.699

Method: PACE-DN1 Sample Name: ICVB1 Operator: CKW
Run Time: 12/18/92 09:57:57
Comment: SCN I-P-00007
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.2148	4.979	5.100	.0026	.0001	4.896	.0156
#1	.2073	4.958	5.066	.0027	.0001	4.899	.0144
#2	.2223	4.999	5.135	.0024	.0001	4.893	.0168
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.0060	.0030	.0032	.0012	.0046	4.951	49.84
#1	.0041	.0022	.0028	.0009	.0042	4.969	49.86
#2	.0079	.0038	.0036	.0014	.0050	4.932	49.81
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	.0188	.0000	.0006	.0034	.1928	4.981	50.49
#1	.0178	.0005	.0057	.0006	.2151	4.934	50.45
#2	.0199	-.0005	-.0045	.0062	.1706	5.027	50.52
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0350	.1896	.1170	4.991	4.813	.0023	.0014
#1	.0356	.1788	.1166	4.968	4.812	.0017	.0014
#2	.0344	.2003	.1173	5.014	4.813	.0029	.0014

Method: PACE-DN1 Sample Name: ICB1 Operator: CKW
Run Time: 12/18/92 10:00:08
Comment: SCN P921202-01

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CKW

Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.0188	-.0040	.0054	.0002	-.0000	.0066	.0022
#1	.0110	-.0057	-.0028	.0005	.0001	.0105	.0035
#2	.0266	-.0022	.0136	-.0002	-.0002	.0026	.0008

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	-.0020	.0020	-.0005	.0003	.0012	.0042	.0003
#1	-.0041	.0027	.0010	.0001	.0008	.0124	.0003
#2	.0001	.0012	-.0020	.0004	.0015	-.0041	.0003

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	.0035	-.0000	-.0021	.0022	.0705	.0053	-.0616
#1	.0094	-.0000	-.0016	.0033	.0415	-.0013	-.0574
#2	-.0024	-.0000	-.0026	.0010	.0994	.0120	-.0659

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0005	-.0023	-.0005	.0159	-.0006	-.0007	.0005
#1	.0002	-.0049	-.0006	.0062	-.0006	-.0000	.0003
#2	.0008	.0003	-.0004	.0256	-.0006	-.0013	.0007

Method: PACE-DN1 Sample Name: CR11 Operator: CKW
Run Time: 12/18/92 10:02:13
Comment: SCN I-P-00003
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.1062	.1130	.2069	.0102	.0093	.0497	.0122
#1	.1070	.1180	.2083	.0104	.0093	.0497	.0122
#2	.1053	.1079	.2054	.0100	.0093	.0497	.0122

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.0421	.0200	.0936	.0506	.0511	.0682	.0543
#1	.0442	.0234	.0946	.0504	.0511	.0538	.0541
#2	.0399	.0167	.0925	.0508	.0511	.0826	.0546

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	.1074	.0318	.0464	.0841	2.262	.2255	-.0144
#1	.1121	.0318	.0444	.0900	1.968	.2421	-.0276
#2	.1027	.0318	.0483	.0782	2.556	.2088	-.0013

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0223	.1204	.0197	.0905	.0202	.1075	.0413
#1	.0211	.1289	.0199	.0804	.0208	.1075	.0401
#2	.0235	.1120	.0195	.1006	.0196	.1075	.0426

Method: PACE-DN1 Sample Name: ICSA1 Operator: CKW
Run Time: 12/18/92 10:04:13
Comment: SCN P920707-01
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	519.9	-.0146	-.1314	.0158	.0010	-.0985	.0031
#1	518.3	-.0197	-.1603	.0159	.0010	-.0933	.0038
#2	521.5	-.0094	-.1026	.0157	.0010	-.1036	.0024

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	516.8	.0058	.0027	.0085	182.7	-.1117	.0051
#1	513.8	.0053	.0018	.0082	181.7	-.0973	.0053
#2	519.7	.0064	.0035	.0087	183.7	-.1261	.0048

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	530.4	-.0043	.0135	-.0234	.1261	-.0370	-.1317
#1	528.1	-.0048	.0143	-.0483	.1172	-.0368	-.1238
#2	532.7	-.0037	.0127	.0014	.1350	-.0373	-.1396

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.0063	.1572	.0134	-.0652	.0043	-.0076	.0102
#1	-.0060	.1478	.0133	-.0620	.0046	-.0094	.0105
#2	-.0065	.1667	.0134	-.0684	.0040	-.0057	.0098

Method: PACE-DN1 Sample Name: ICSAB1 Operator: CKW
Run Time: 12/18/92 10:06:15
Comment: SCN P920707-02
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	494.8	-.0056	-.1427	.4972	.4601	-.0940	.9664
#1	495.2	.0012	-.1291	.4979	.4599	-.1098	.9573
#2	494.5	-.0124	-.1563	.4964	.4602	-.0781	.9756

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	490.4	.4696	.4473	.4924	174.2	.8078	.0041
#1	489.6	.4707	.4479	.4929	174.2	.8035	.0039
#2	491.1	.4686	.4467	.4918	174.2	.8120	.0044

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	503.8	.4394	.0060	.8607	.0438	-.0144	-.2012
#1	504.6	.4381	.0104	.8575	.1083	-.0444	-.1969
#2	503.1	.4406	.0016	.8639	-.0208	.0156	-.2054

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.9128	.1439	.0130	-.0573	.0039	.4782	.9395
#1	.9122	.1423	.0129	-.0620	.0045	.4769	.9394
#2	.9134	.1456	.0130	-.0525	.0033	.4795	.9397

Method: PACE-DN1 Sample Name: CCV1 Operator: CKW
Run Time: 12/18/92 10:08:29
Comment: SCN P921023-01
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	9.543	.9913	1.006	.9527	.9078	.9494	.9797
#1	9.528	.9931	1.014	.9485	.9058	.9416	.9803
#2	9.558	.9896	.9985	.9568	.9098	.9573	.9790

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	100.0	.9391	.9319	.9339	9.100	.9966	98.17
#1	99.93	.9378	.9298	.9322	9.083	.9780	97.94
#2	100.1	.9404	.9340	.9357	9.118	1.015	98.39

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	98.00	.9381	.9558	.9129	98.64	9.581	99.73
#1	97.81	.9364	.9497	.9320	98.57	9.593	99.53
#2	98.20	.9398	.9618	.8938	98.72	9.570	99.93

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	1.017	98.52	.9426	.9876	.9729	.9939	.9647
#1	1.014	98.33	.9404	.9828	.9695	.9932	.9619
#2	1.020	98.71	.9447	.9924	.9764	.9946	.9676

Method: PACE-DN1 Sample Name: CCB1 Operator: CKW
Run Time: 12/18/92 10:10:21
Comment: SCN P921202-01
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.0133	-.0057	-.0154	-.0000	.0001	-.0039	.0002
#1	.0149	-.0023	-.0221	.0002	.0001	-.0026	.0009
#2	.0118	-.0091	-.0088	-.0002	.0001	-.0052	-.0004

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.0023	.0015	.0006	.0012	.0019	.0196	.0019
#1	.0032	.0033	.0022	.0018	.0023	.0227	.0030
#2	.0013	-.0003	-.0011	.0007	.0015	.0165	.0008

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	-.0012	-.0000	-.0016	-.0085	.3108	.0020	-.0739
#1	.0024	.0000	.0008	-.0032	.4554	.0040	-.0438
#2	-.0048	-.0000	-.0040	-.0137	.1661	.0000	-.1040

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0020	-.0324	-.0003	.0045	-.0003	.0013	.0003

#1	.0033	-.0342	-.0003	.0121	-.0000	.0027	.0007
#2	.0008	-.0307	-.0004	-.0031	-.0006	-.0000	-.0001

Method: PACE-DN1 Sample Name: LCSS Operator: CKW
Run Time: 12/18/92 10:12:36
Comment: PROJECTS D21102.502, 1104.501 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	2622.	15.03	139.4	200.3	87.17	2.137	139.5
#1	2629.	12.30	147.1	200.8	87.37	2.925	140.0
#2	2614.	17.77	131.7	199.8	86.97	1.348	139.0
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	2081.	99.27	99.85	97.42	3932.	138.8	2.186
#1	2078.	98.80	99.51	97.68	3934.	142.1	2.141
#2	2085.	99.73	100.2	97.16	3929.	135.5	2.231
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	1639.	242.5	84.93	145.6	1883.	151.2	596.2
#1	1639.	242.7	84.83	142.6	1857.	152.3	625.8
#2	1639.	242.4	85.02	148.7	1909.	150.2	566.5
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	83.20	1045.	7.005	.4914	125.3	64.29	144.4
#1	83.63	1048.	6.994	.2672	126.2	64.42	144.5
#2	82.78	1042.	7.015	.7156	124.5	64.16	144.4

Method: PACE-DN1 Sample Name: PBS Operator: CKW
Run Time: 12/18/92 10:15:56
Comment: PROJECTS D21102.502, 1104.501 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	2.263	-1.129	-4.178	.0304	-.0361	-1.048	.1821
#1	3.126	-1.805	-7.901	.0304	-.0366	.5256	.1895
#2	1.399	-.4525	-.4541	.0304	-.0356	-2.623	.1748
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.6488	-.1203	-.1812	-.0186	.8516	.8234	.0603
#1	-.1267	-.2752	-.6431	-.1322	.9293	.8264	-.1206
#2	1.424	.0346	.2807	.0950	.7739	.8203	.2412
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	-.9521	.0487	-.4686	-1.992	18.54	-6.919	-23.86
#1	-2.381	-.0002	-1.196	-2.706	-24.62	-9.848	-24.03
#2	.4764	.0977	.2583	-1.278	61.71	-3.991	-23.70

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.1598	-16.94	-.1293	4.527	-.1732	-.4009	.3429
#1	.2827	-17.53	-.1388	5.286	-.2313	-.2752	.3054
#2	.0370	-16.34	-.1197	3.769	-.1150	-.5266	.3805

Method: PACE-DN1 Sample Name: 65-018906.6 Operator: CKW
Run Time: 12/18/92 10:20:12
Comment: PROJECTS D21102.502 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	10380.	-3.021	4.636	147.1	.5721	-1.116	-.3578
#1	10370.	-1.652	8.773	146.7	.5726	-4.280	-.1052
#2	10400.	-4.389	.4983	147.6	.5717	2.049	-.6104

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	18290.	15.28	10.74	22.75	19610.	10.57	14.67
#1	18240.	15.28	10.58	22.77	19560.	11.99	14.62
#2	18340.	15.28	10.91	22.73	19660.	9.159	14.71

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	8408.	558.1	.8197	12.61	2138.	4.143	1595.
#1	8371.	556.9	.8113	12.49	2154.	-.2813	1594.
#2	8444.	559.4	.8281	12.74	2121.	8.568	1596.

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.4496	445.9	52.34	2.284	622.1	31.44	54.75
#1	-.3282	444.6	52.22	3.780	621.0	31.32	54.92
#2	-.5709	447.2	52.46	.7887	623.2	31.57	54.59

Method: PACE-DN1 Sample Name: 650189066D Operator: CKW
Run Time: 12/18/92 10:22:28
Comment: PROJECTS D21102.502 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	9886.	-.6012	8.568	136.9	.5521	1.257	.0256
#1	9879.	-.9431	7.846	136.9	.5813	.9834	-.3642
#2	9893.	-.2592	9.289	136.9	.5228	1.530	.4154

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	18300.	14.77	10.58	21.16	18320.	10.49	14.04
#1	18290.	14.77	10.79	21.03	18300.	10.47	14.08
#2	18310.	14.77	10.37	21.29	18340.	10.51	13.99

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	8093.	492.2	1.296	14.77	2091.	7.385	1624.

#1	8095.	491.4	1.002	16.06	2086.	6.973	1615.
#2	8091.	492.9	1.590	13.49	2096.	7.797	1633.
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.7571	432.6	50.91	-1.070	595.5	29.39	51.69
#1	-.6978	430.9	50.89	-.2390	597.5	29.12	51.81
#2	-.8164	434.3	50.93	-1.902	593.5	29.65	51.57

Method: PACE-DN1 Sample Name: 650189066S Operator: CKW
Run Time: 12/18/92 10:24:42
Comment: PROJECTS D21102.502 MATRIX SPIKE PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	18810.	59.25	413.5	526.5	9.797	38.26	10.68
#1	18760.	59.59	397.7	524.9	9.740	39.84	10.85
#2	18860.	58.91	429.3	528.0	9.855	36.68	10.52
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	20790.	59.34	109.3	72.72	23470.	108.6	2016.
#1	20790.	59.70	109.5	72.59	23480.	109.5	2005.
#2	20790.	58.98	109.2	72.85	23460.	107.7	2027.
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	11600.	610.8	37.35	114.6	4362.	401.4	3795.
#1	11610.	611.2	37.69	114.7	4368.	412.7	3778.
#2	11600.	610.3	37.01	114.6	4357.	390.1	3813.
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	9.816	2523.	94.07	103.1	1021.	141.2	159.6
#1	9.817	2509.	93.81	99.54	1015.	141.4	159.3
#2	9.814	2536.	94.34	106.6	1026.	140.9	159.8

Method: PACE-DN1 Sample Name: 650189066SD Operator: CKW
Run Time: 12/18/92 10:29:06
Comment: PROJECTS D21102.502 MATRIX SPIKE DUPE PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	18230.	61.93	415.1	545.5	9.855	42.00	12.12
#1	18200.	61.61	420.0	544.6	9.854	42.76	11.85
#2	18260.	62.26	410.3	546.5	9.855	41.24	12.39
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	20400.	58.72	108.9	74.58	23020.	110.5	2095.
#1	20400.	58.15	108.7	74.38	22960.	110.3	2090.
#2	20410.	59.29	109.1	74.77	23080.	110.8	2100.

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CKW

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	11630.	713.3	37.62	112.7	4486.	400.8	4391.
#1	11630.	711.6	37.71	117.6	4454.	407.2	4385.
#2	11640.	715.1	37.53	107.9	4519.	394.4	4397.

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	9.856	2606.	95.67	100.1	1015.	140.8	157.8
#1	10.04	2599.	95.57	101.3	1014.	141.0	157.1
#2	9.672	2612.	95.77	98.83	1016.	140.7	158.5

Method: PACE-DN1 Sample Name: 650189066A Operator: CKW
Run Time: 12/18/92 10:33:56
Comment: PROJECTS D21102.502 ANALYTICAL SPIKE PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	10360.	99.58	411.4	527.8	9.696	37.51	10.56
#1	10340.	101.3	415.3	526.4	9.669	39.60	11.07
#2	10380.	97.86	407.5	529.2	9.724	35.41	10.04

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	19400.	53.57	107.9	70.37	18770.	107.5	2017.
#1	19360.	53.10	108.0	70.14	18760.	106.4	2017.
#2	19430.	54.03	107.9	70.60	18780.	108.6	2017.

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	10020.	623.3	38.55	112.4	4089.	392.3	3539.
#1	10000.	622.7	38.40	113.2	4116.	384.7	3530.
#2	10040.	623.9	38.70	111.7	4062.	399.8	3547.

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	8.828	2420.	88.96	101.8	633.1	130.9	148.9
#1	8.887	2418.	88.78	102.8	631.9	130.7	148.3
#2	8.769	2422.	89.14	100.9	634.2	131.2	149.5

Method: PACE-DN1 Sample Name: 65018907.4 Operator: CKW
Run Time: 12/18/92 10:36:16
Comment: PROJECTS D21102.502 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	5869.	.8660	5.578	93.90	.3200	.5681	.8142
#1	5888.	1.206	5.704	94.27	.3190	-.7292	.6835
#2	5851.	.5264	5.452	93.53	.3210	1.865	.9448

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	10060.	9.152	8.393	13.08	13120.	15.76	6.709

#1	10050.	9.306	8.601	13.20	13160.	15.39	6.573
#2	10070.	8.997	8.186	12.95	13080.	16.13	6.844
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	4438.	355.7	.5749	8.963	1688.	3.386	1296.
#1	4458.	356.8	.4846	11.18	1698.	7.802	1290.
#2	4418.	354.6	.6652	6.741	1678.	-1.030	1302.
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0819	71.92	24.60	.1749	559.3	23.79	36.17
#1	.0225	72.22	24.68	-1.575	560.4	24.05	36.12
#2	.1413	71.62	24.52	1.925	558.2	23.53	36.22

Method: PACE-DN1 Sample Name: 650189074L Operator: CKW
Run Time: 12/18/92 10:39:48
Comment: PROJECTS D21102.502 5X SER DIL PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 1000

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	5766.	-10.15	-4.947	92.17	.5653	1.115	3.485
#1	5743.	-23.79	-.1862	91.93	.5679	-.2019	3.476
#2	5789.	3.491	-9.707	92.41	.5627	2.432	3.495
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	9978.	11.76	10.16	13.30	13160.	15.46	7.538
#1	9995.	11.50	8.898	13.27	13150.	17.46	7.538
#2	9961.	12.02	11.42	13.33	13180.	13.45	7.538
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	4382.	354.4	-1.242	16.69	1601.	4.641	1124.
#1	4383.	353.9	-2.941	15.66	1399.	8.631	1123.
#2	4381.	354.9	.4565	17.73	1804.	.6505	1125.
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	1.525	17.41	23.95	-.2461	549.8	23.64	37.40
#1	.9100	9.142	23.85	4.403	549.5	22.97	37.21
#2	2.139	25.68	24.05	-4.895	550.1	24.31	37.60

Method: PACE-DN1 Sample Name: 650169464 Operator: CKW
Run Time: 12/18/92 10:42:23
Comment: PROJECT D21104.501 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	7225.	.1430	3.466	93.77	.3676	.0277	.6879
#1	7250.	-2.934	2.119	94.24	.3692	-.2351	.4298
#2	7201.	3.220	4.812	93.30	.3660	.2905	.9460

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	12750.	12.66	7.816	14.56	14790.	6.534	10.64
#1	12700.	12.50	7.645	14.51	14800.	3.508	10.64
#2	12800.	12.81	7.988	14.60	14790.	9.561	10.64

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	6009.	350.1	.8871	12.77	1673.	5.037	1212.
#1	6032.	350.0	1.227	13.54	1655.	6.236	1206.
#2	5986.	350.3	.5470	12.00	1690.	3.839	1217.

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.1454	221.9	40.46	1.001	578.6	26.05	38.94
#1	-.5750	223.7	40.69	.9736	580.5	25.65	38.94
#2	.2842	220.2	40.22	1.029	576.6	26.44	38.94

Method: PACE-DN1 Sample Name: CCV2 Operator: CKW
Run Time: 12/18/92 10:44:23
Comment: SCN P921023-01
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	9.815	1.029	1.019	.9773	.9296	.9742	.9829
#1	9.827	1.044	1.026	.9788	.9294	.9677	.9868
#2	9.802	1.013	1.012	.9758	.9297	.9808	.9790

Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	100.2	.9535	.9399	.9572	9.266	.9925	100.9
#1	99.79	.9517	.9369	.9589	9.265	.9811	101.1
#2	100.5	.9553	.9428	.9556	9.267	1.004	100.8

Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	99.33	.9467	.9624	.9361	101.5	9.808	100.7
#1	99.25	.9471	.9619	.9525	101.3	9.771	100.6
#2	99.40	.9462	.9628	.9197	101.7	9.845	100.9

Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	1.024	101.9	.9618	.9853	.9919	1.024	.9704
#1	1.021	102.0	.9627	.9776	.9902	1.024	.9669
#2	1.026	101.8	.9608	.9929	.9937	1.025	.9739

Method: PACE-DN1 Sample Name: CCB2 Operator: CKW
Run Time: 12/18/92 10:46:07
Comment: SCN P921202-01
Mode: CONC Corr. Factor: 1

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	.0345	.0046	.0108	.0003	.0001	.0026	.0008

#1	.0290	-.0057	.0160	.0003	.0001	.0079	.0008
#2	.0400	.0148	.0057	.0003	.0001	-.0026	.0009
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	.0077	.0022	.0031	.0014	.0023	.0238	.0026
#1	.0063	.0033	.0039	.0010	.0023	.0351	.0026
#2	.0090	.0012	.0022	.0018	.0023	.0124	.0026
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	.0200	-.0000	-.0011	.0001	.2129	-.0493	-.0833
#1	.0189	.0000	.0023	-.0016	.2640	-.0413	-.0641
#2	.0211	-.0000	-.0045	.0017	.1617	-.0572	-.1025
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	.0026	-.0363	-.0003	.0049	-.0000	.0007	.0025
#1	.0033	-.0296	-.0004	.0079	.0006	.0000	.0023
#2	.0020	-.0429	-.0003	.0019	-.0006	.0013	.0027

Method: PACE-DN1 Sample Name: 650169472 Operator: CKW
Run Time: 12/18/92 10:48:26
Comment: PROJECT D21104.501 PREPPED 1G/200G CLP
Mode: CONC Corr. Factor: 200

Elem	Al3082	Sb2068	As1936	Ba4934	Be3130	B_2496	Cd2288
Avge	7676.	.1385	23.55	106.2	.3947	-.8153	.6483
#1	7684.	-.8878	23.25	106.4	.4235	.7683	.6488
#2	7669.	1.165	23.84	105.9	.3660	-2.399	.6477
Elem	Ca3179	Cr2677	Co2286	Cu3247	Fe2599	Pb2203	Li6707
Avge	13300.	12.91	8.074	22.40	14760.	6.386	11.73
#1	13290.	12.91	8.073	22.43	14790.	3.105	11.55
#2	13320.	12.91	8.075	22.37	14730.	9.667	11.91
Elem	Mg2790	Mn2576	Mo2020	Ni2316	K_7664	Se1960	Si2881
Avge	6326.	335.8	.4953	15.32	1877.	2.124	1546.
#1	6345.	336.5	.6451	13.96	1878.	4.006	1540.
#2	6306.	335.1	.3455	16.67	1876.	.2427	1552.
Elem	Ag3280	Na5895	Sr4215	Sn1899	Ti3349	V_2924	Zn2138
Avge	-.2020	200.7	42.84	2.011	569.3	26.32	41.25
#1	-.0811	201.0	42.96	2.879	570.2	26.18	41.41
#2	-.3229	200.4	42.72	1.144	568.4	26.45	41.08

Method: PACE-DN1 Sample Name: 650169480 Operator: CKW
Run Time: 12/18/92 10:50:42
Comment: PROJECT D21104.501 PREPPED 1G/200G CLP

PACER

INCORPORATED

THE ASSURANCE OF QUALITY

0000017

GFAA ANALYTE COVER SHEET

DATE: 1-5-93

PROJECT ID: D21028.500
D21015.506 (RESIDUE)
D21202.501
D21203.502
D21102.502
D21104.501

ANALYTE: Hg

INSTRUMENT: 1-F

ANALYST: SES

REVIEWED BY: TC

DATA ASSESSMENT LOG

D21015.506 Had very low recovery on matrix spike duplicate on residue (20049.3).

CLP protocol was followed.

CLP -

Cold Vapor Atomic Absorption (CVAA) Benchsheet

0000013

Calibration Curve		
Standard	Concentration	Absorbance
S0	ZERO	0.000
S1	0.02 ug	0.019
S2	0.05	0.043
S3	0.08	0.079
S4	0.10	0.095
S5	0.20	0.178
S6	0.50 SES	0.424

Correlation Value: 0.9994
Reporting Limit 0.02 ug/TOTAL (0.2 ug/L)

Project Numbers

- D21028.500
- D21015.506 (RESIDUE)
- D21202.501
- D21203.502
- D21102.502
- D21104.501

Date: 12-31-92

Analyst: SES

Cal Std ID: PCN-I-00188

ICV Std ID: PI-HGS-05

Comments: CCV/ICV/MATRIX SPIKE @ 0.10 ug TOTAL
LCS SOLID #214 : TV = 4.88 mg/kg

Sample ID	Initial Absorb	Initial Conc	Initial Wt/Vol	Serial DF	Prep DF	Final Conc	Air Volume (Liters)	Conc in mg/M3	TV	Percent Rec
ICV	0.087	0.0970	10 ml	1	0.1		NA	NA	1.0 ug/L	97.0
ICB	-0.001	-0.0073								
CRA	0.015	0.0116							0.2 ug/L	
CCV1	0.085	0.0946							1.0 ug/L	94.6
CCB1	-0.002	-0.0085								
PB1	-0.004	-0.0109	SES		SES	ND 0.2 ug/L				
LCS1	0.365	0.4264	0.08594 gm		1	4.96 mg/kg	MDLX 0.2		4.88 mg/kg	101.6%
18876.0	0.000	-0.0061	0.19859			ND 0.1 mg/kg				
18876.0 dup	-0.002	-0.0085	0.19693			ND 0.1 mg/kg				
18877.9	0.002	-0.0037	0.20043			ND 0.1 mg/kg				
18877.9 spk	0.092	0.1029	0.19834			0.519 mg/kg	MDLX 0.1		0.504 mg/kg	103.0%
20049.3	-0.004	-0.0109	0.21018			ND 0.1 mg/kg				
20049.3 dup	-0.006	-0.0132	0.19910			ND 0.1 mg/kg				
20049.3 spk	0.076	0.0839	0.19620			0.428 mg/kg	MDLX 0.1		0.510 mg/kg	83.9%
20049.3 spk dup	0.006	0.0010	0.19627 SES		SES	ND 0.1 mg/kg			0.510 mg/kg	0%
CCV2	0.088	0.0981	10 ml		0.1				1.0 ug/L	98.1%
CCB2	-0.006	-0.0132								
BASELINE CORRECTION										
CCV3	0.082	0.0910							1.0 ug/L	91.0%
CCB3	0.001	-0.0050	SES	SES	SES		SES	SES		

D21028.500

D21015.506

65N060
TALPRE
GFA

TALPREP → CLPHGDIG-A
GFAA → HGCLP-A

0000013

CONTINUED RUN FROM PAGE 1.

Cold Vapor Atomic Absorption (CVAA) Benchsheet

Calibration Curve		
Standard	Concentration	Absorbance

Project Numbers

D21028.500
D21015.506 (RESIDUE)
D21202.501
D21203.502
D21102.502
D21104.501

Date: 12-31-92

Analyst: SES

Cal Std ID: PCN-I-00188

ICV Std ID: PI-HGS-05

Comments:

Correlation Value:

Reporting Limit

Sample ID	Initial Absorb	Initial Conc	Initial Wt/Vol	Serial DF	Prep DF	Final Conc	Air Volume (Liters)	Conc in mg/M3	TV	Percent Rec
PB2	0.000		10mg	1	0.1		NA	NA		
LCS2	0.368	0.4300	0.08066 gm		1	5.33 mg/kg	MDL= 0.2		4.88mg/kg	109.2%
19393.4	0.008	0.0033	0.20298			ND 0.1 mg/kg				
19394.2	0.008	0.0033	0.19582			ND 0.1 mg/kg				
19395.0	0.006	0.0010	0.20345			ND 0.1 mg/kg				
19396.9	0.023	0.0211	0.19622			0.11 mg/kg RL 0.1				
19397.7	0.015	0.0116	0.19865			ND 0.1 mg/kg				
19398.5	0.003	-0.0026	0.19722			ND 0.1 mg/kg				
19399.3	0.003	-0.0026	0.19839			ND 0.1 mg/kg				
19400.0	0.013	0.0093	0.19722 ↓SES		↓SES	ND 0.1 mg/kg				
CCV4	0.100	0.1124	10ml		SES ~~10ml~~ 0.1				1.0ug/L	112.4%
CCB4	0.001	-0.0050	↓SES		↓SES					
19401.9	0.003	-0.0026	0.19776 gm		1	ND 0.1 mg/kg				
19402.7	0.002	-0.0038	0.19748			ND 0.1 mg/kg				
19403.5	0.001	-0.0050	0.20003	↓SES	↓SES	ND 0.1 mg/kg				
17605.3 RR	0.074	0.0815	0.10820 ↓SES	12	1	9.04 mg/kg	MDL= 2.2			
CCV5	0.082	0.0910	10 ml	1	0.1				1.0ug/L	91.0%
CCB5	-0.001	-0.0073								
BASELINE CORRECTION										
CCV6	0.104	0.1171	↓SES	↓SES	↓SES		SES↓	↓SES	1.0ug/L	117.1

D2202.501

D21203.502

651105
HG-DIC
HG-SC

CONTINUED RUN FROM PAGE 2

Cold Vapor Atomic Absorption (CVAA) Benchsheet

0000020

Calibration Curve		
Standard	Concentration	Absorbance

Project Numbers

D21028.500
D21015.506 (RESIDUE)
D21202.501
D21203.502
D21102.502
D21104.501

Date: 12-31-92

Analyst: SES

Cal Std ID:

ICV Std ID:

Comments:

Correlation Value:

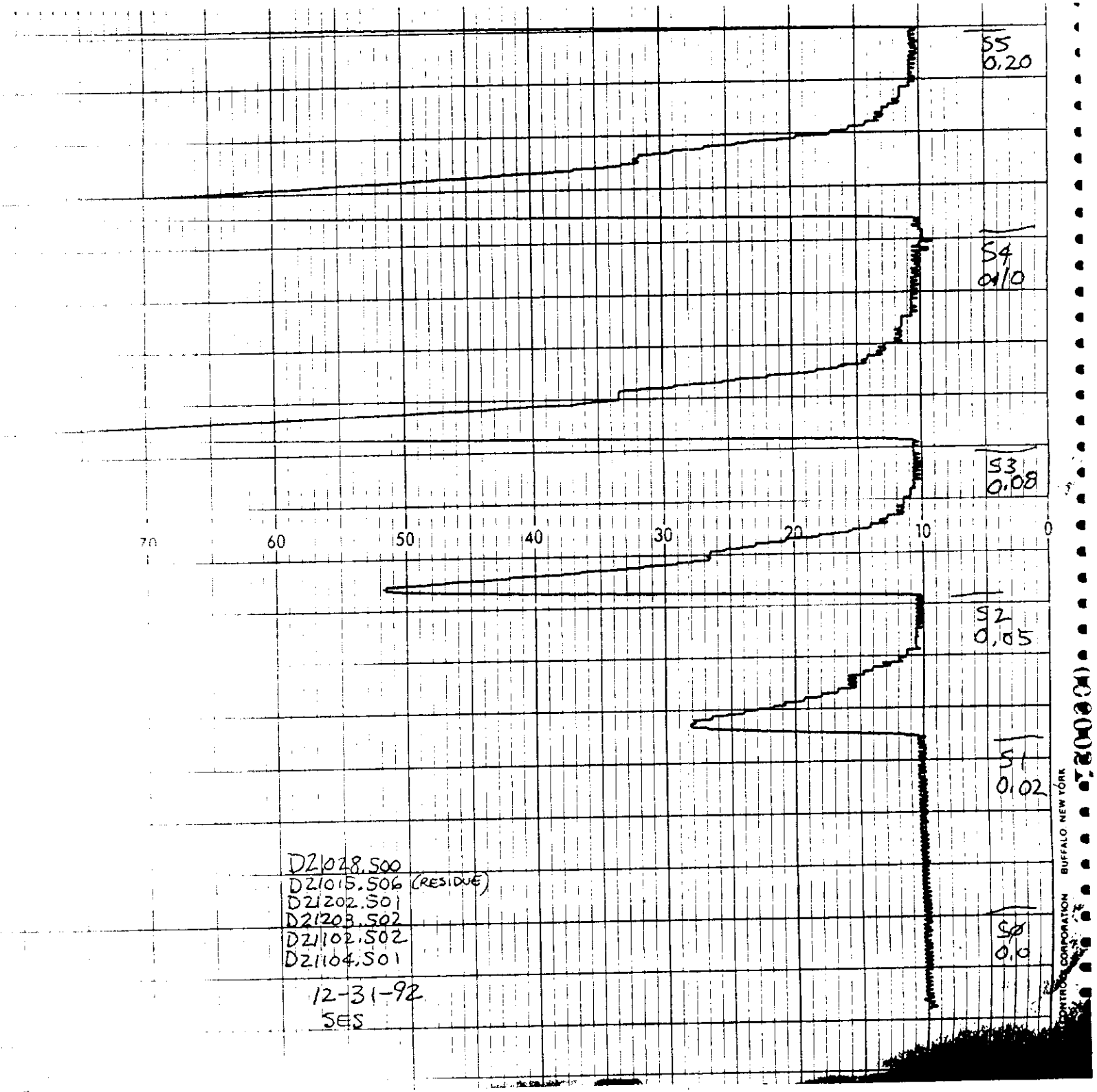
Reporting Limit

Sample ID	Initial Absorb	Initial Conc	Initial Wt/Vol	Serial DF	Prep DF	Final Conc	Air Volume (Liters)	Conc in mg/M3	TV	Percent Rec
CCB6	0.002	-0.0038	10 ml	1	0.1		NA	NA		
PB3	0.001	-0.0050	↓		↓SES					
LCS3	0.342	0.3991	0.08115		1	4.92 mg/kg	MDL 0.2		4.88 mg/kg	100.8%
18906.6	0.005	-0.0002	0.20366			ND 0.1 mg/kg				
18906.6 dup	0.005	-0.0002	0.20210			ND 0.1 mg/kg				
18906.6 spk	0.102	0.1147	0.19853			0.578 mg/kg	MDL 0.1		0.504 mg/kg	114.7%
18906.6 spk dup	0.094	0.1052	0.19684			0.534 mg/kg	MDL 0.1		0.508 mg/kg	105.1%
18907.4	0.003	-0.0026	0.19994			ND 0.1 mg/kg				
16946.4	0.002	-0.0038	0.19605			ND 0.1 mg/kg				
16947.2	0.001	-0.0050	0.19682		↓SES	ND 0.1 mg/kg				
CCV7	0.092	0.1029	10 ml		0.1				1.0 ug/L	102.9%
CCB7	0.000	-0.0061	↓SES		↓SES					
16948.0	0.002	-0.0038	0.19911		1	ND ~~0.10~~ 0.1 mg/kg				
16948.0 dup	0.002	-0.0038	0.19733			ND 0.1 mg/kg				
16948.0 spk	0.086	0.0958	0.19885			0.482 mg/kg	MDL 0.1		0.503 mg/kg	95.8%
16948.0 spk dup	0.095	0.1064	0.20410			0.521 mg/kg	MDL 0.1		0.490 mg/kg	106.3%
16949.9	0.002	-0.0038	0.19689		↓SES	ND 0.1 mg/kg				
CCV8	0.087	0.0970	10 ml		0.1				1.0 ug/L	97.0%
CCB8	0.000	-0.0061	↓SES	↓SES	↓SES		SES ↓	↓SES		

D21102.502

D21104.501

TAL PF EF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S0
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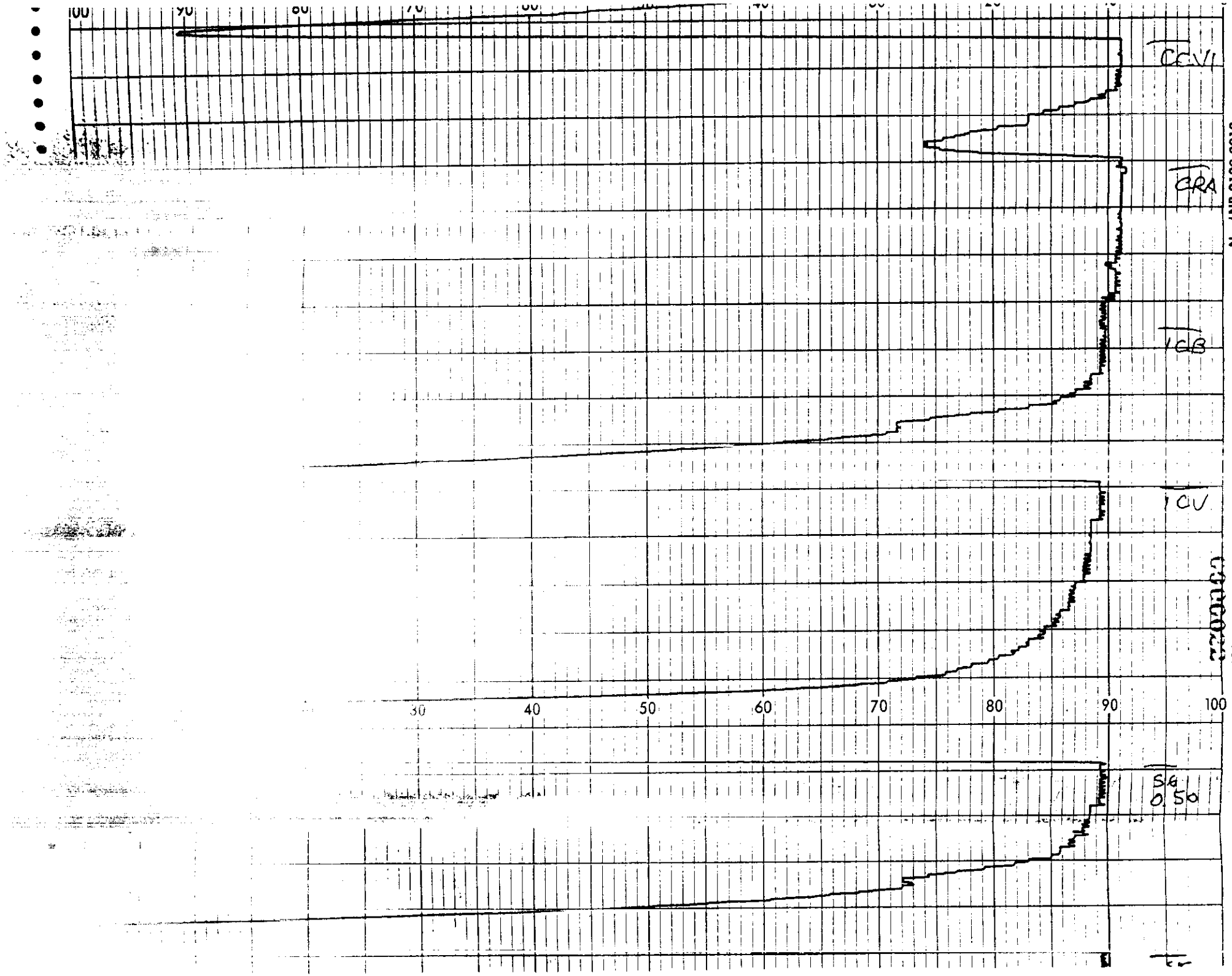
40
30
20
10
0
D21028.S00
D21015.S06 (RESIDUE)
D21202.S01
D21203.S02
D21102.S02
D21104.S01
12-31-92
SES
CONTROLS CORPORATION BUFFALO, NEW YORK



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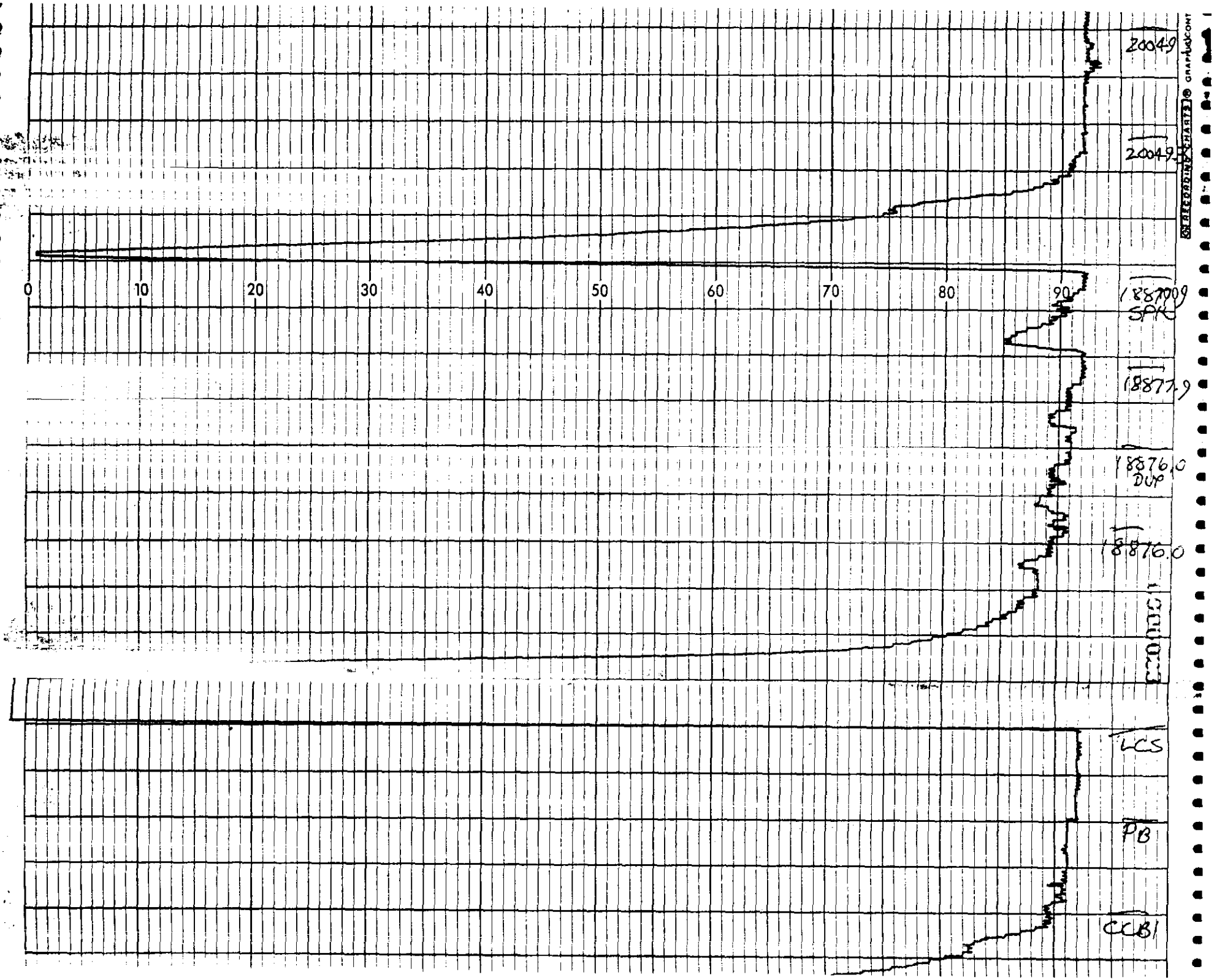
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PB
CCB1
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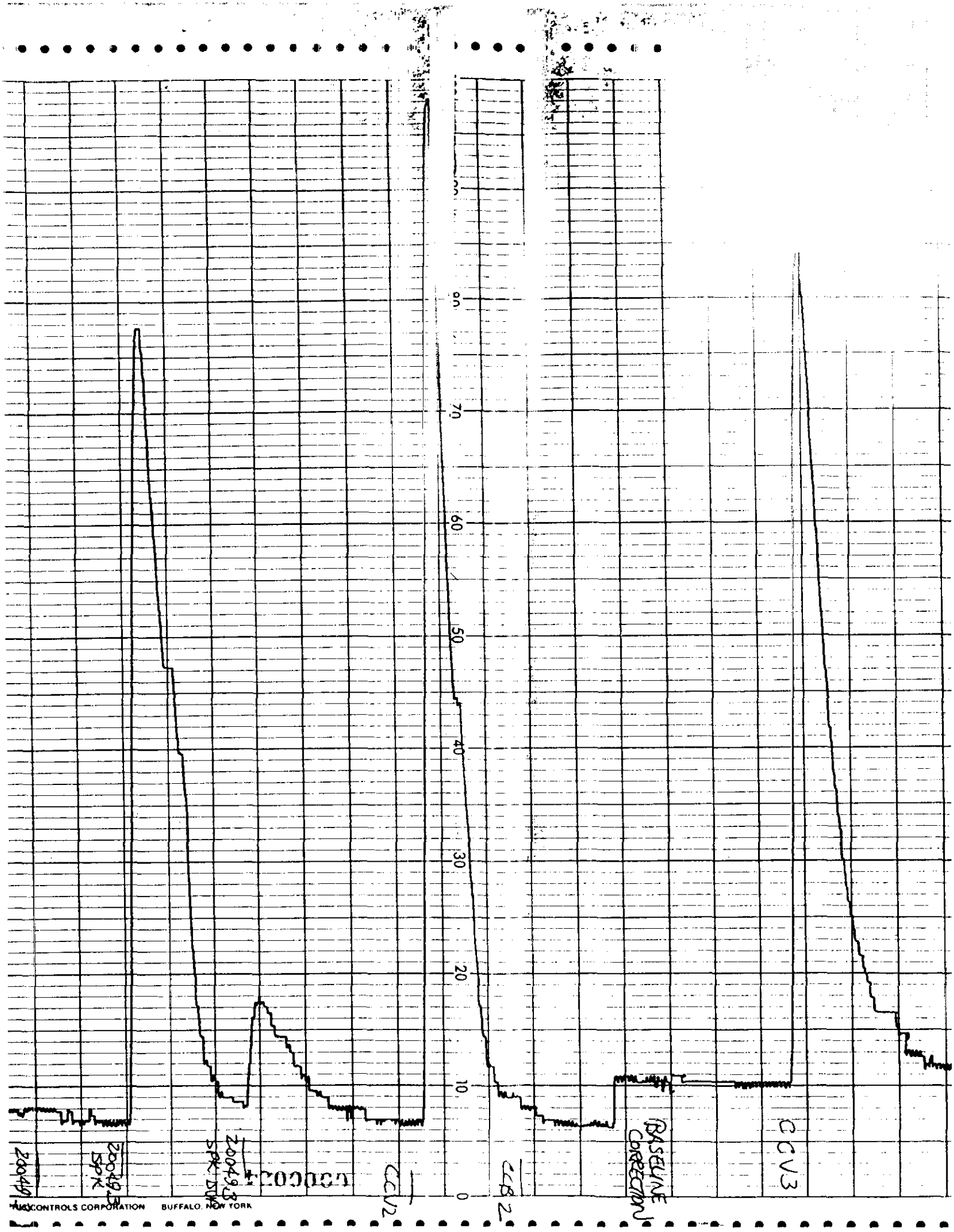
GRAPHIC CONT



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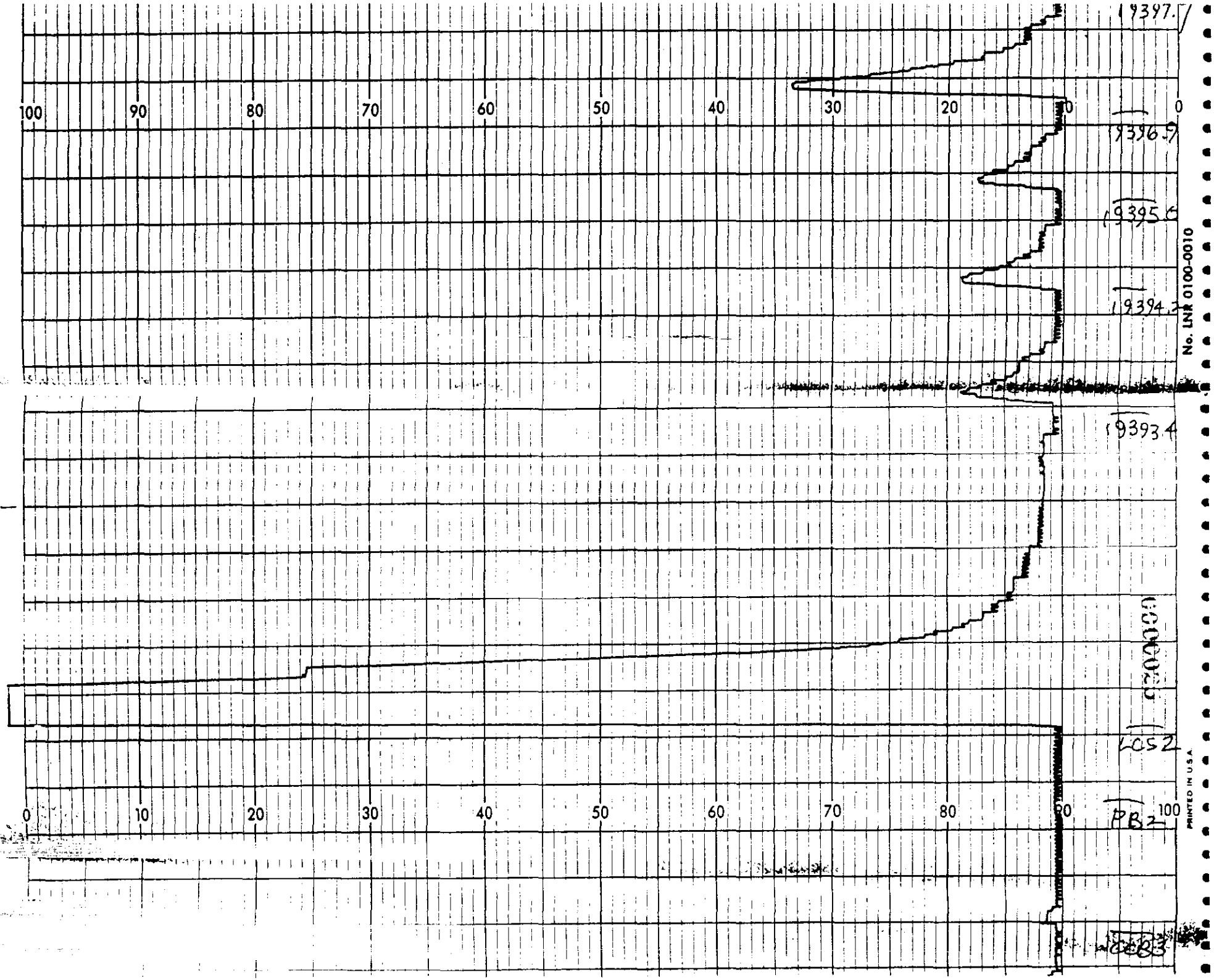
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PB2
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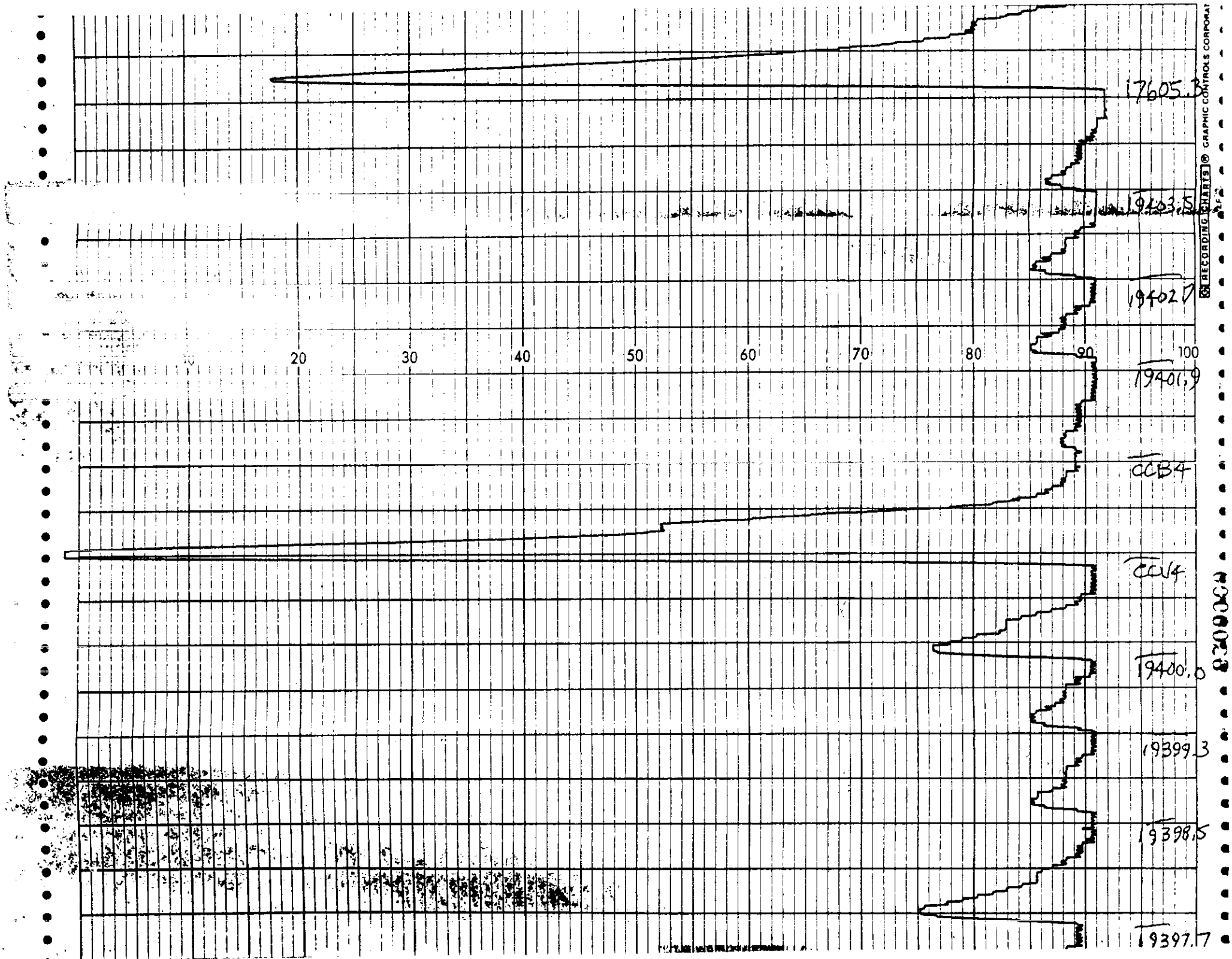
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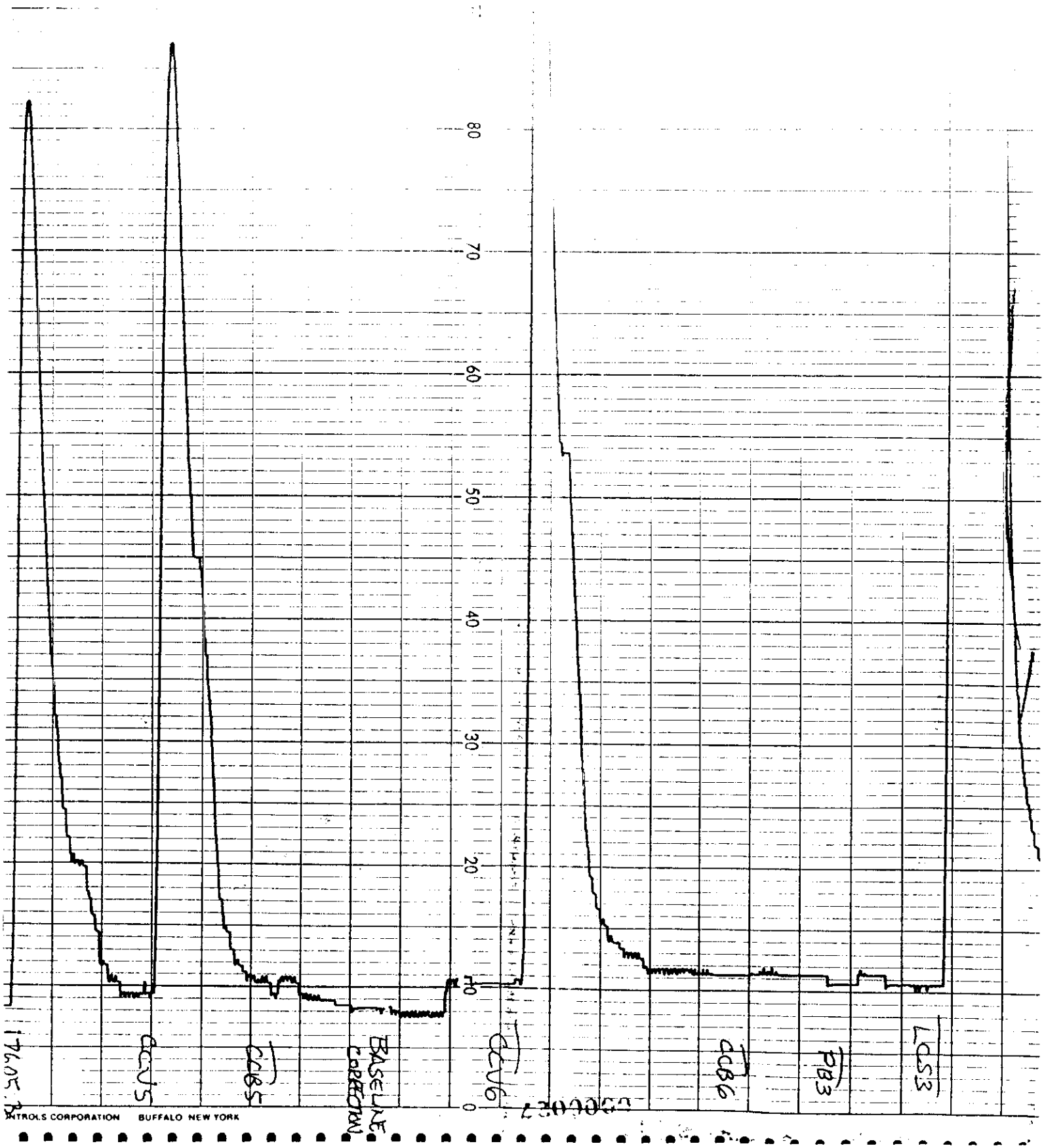
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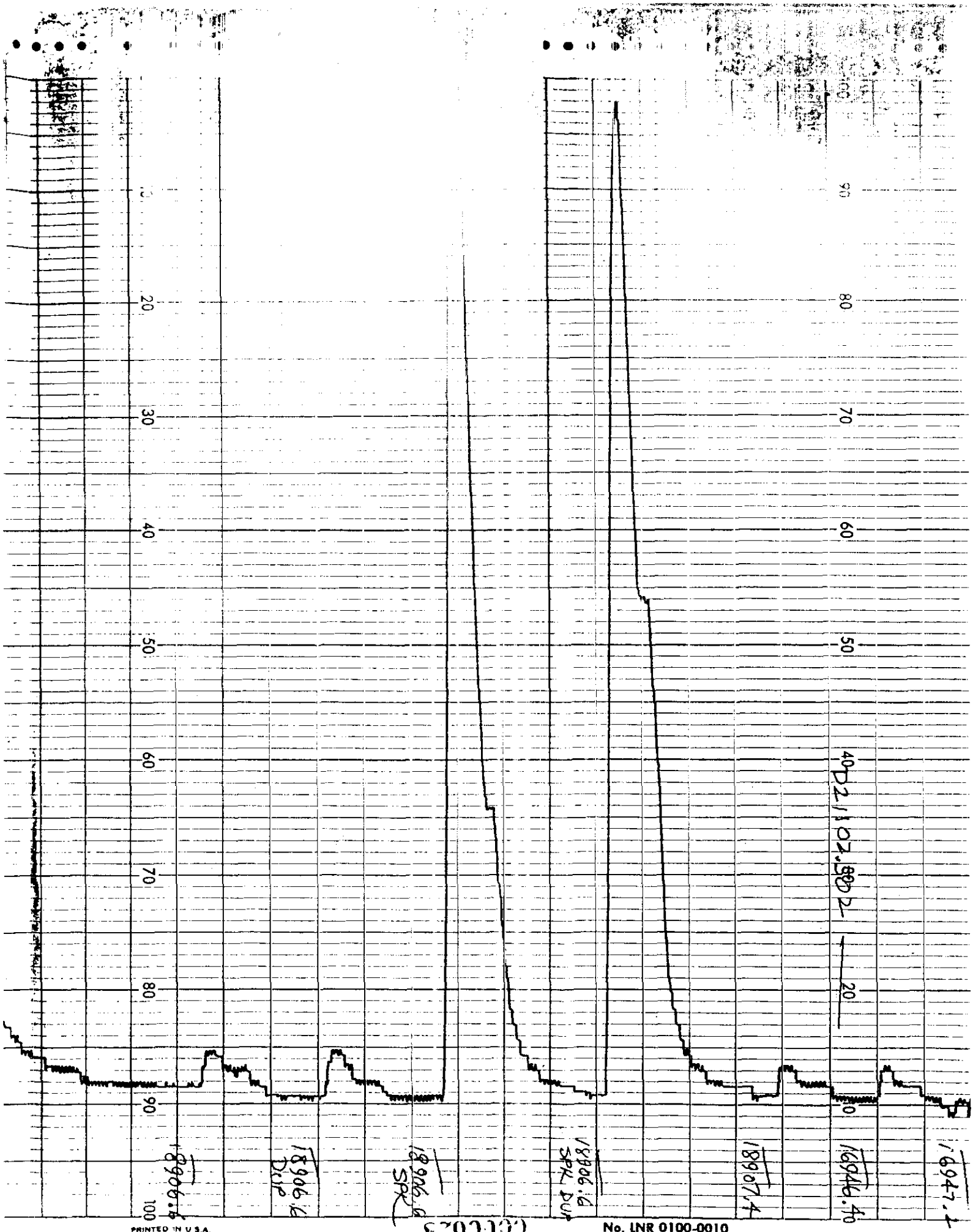
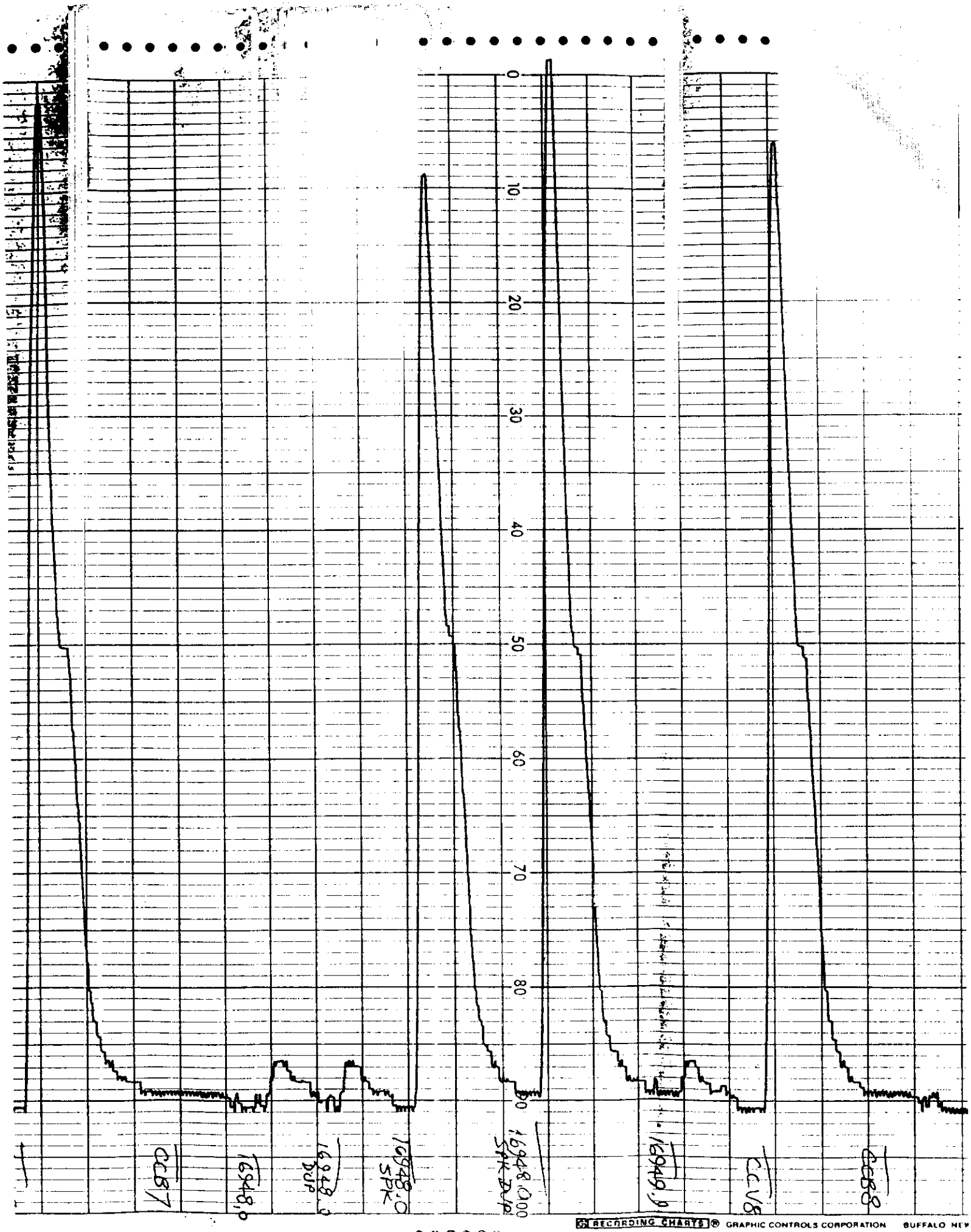


PRINTED IN U.S.A. 000023 No. LNR 0100-0010



GS RECORDING CHARTS® GRAPHIC CONTROLS CORPORATION BUFFALO NEW

PACER

INCORPORATED

THE ASSURANCE OF QUALITY

GFAA ANALYTE COVER SHEET

DATE: 12/30/92

PROJECT ID: D21104.501
D21102.502

ANALYTE: TL

INSTRUMENT: 1-A

ANALYST: MSR

REVIEWED BY: JC

DATA ASSESSMENT LOG

No problems.

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP)

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.102
Std.3	50.00	0.228
Std.4	100.00	0.409

Analyte: Tl

Project: D21104.501/D21102.502

Analyst: MSK

Inst.ID: 1-A

Date: 12/28/92

Matrix: Soil

Units: mg/Kg

Reviewed by:

Comments: A = 20 ug/L ICV = 50 ug/L IDL = 3.0 mg/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	53.3	53.1	53.2	0.3	1			106.4%R
2	ICB	-0.4	-0.4	-0.4	NC	1			
3	CRA	8.3	11.2	9.8	NC	1			98%R
4	CCV1	46.3	45.0	45.7	2.0	1			91.4%R
5	CCB1	-0.2	-0.2	-0.2	NC	1			
6	PBS	-0.4	-0.4	-0.4	NC	1	200	ND 0.6 mg/Kg	
7	PBSA	14.8	20.3	17.6	22.1				88%R
8	LCSS	14.8	14.8	14.8	0	20	200	59.2 mg/Kg	99.7%R
9	LCSSA	32.5	31.3	31.9	2.7				85.5%R
10	18906.6	0.6	0.7	0.6	NC	1	200	ND 0.6 mg/Kg	
11	18906.6A	20.9	22.6	21.8	5.5				109%R
12	18906.6 Dup	1.1	1.0	1.1	NC	1	200	ND 0.6 mg/Kg	
13	18906.6A Dup	21.5	22.6	22.1	3.5				110.5%R
14	CCV2	50.6	48.9	49.8	2.4	1			99.6%R
15	CCB2	-0.1	-0.3	-0.2	NC	1			
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

PACE INCORPORATED - [illegible] REGIONAL OFFICE

[illegible] Benchsheet (CLP)

Pg. 3 of 3 000003

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.099
Std.3	50.00	0.190
Std.4	100.00	0.309

Analyte: [illegible]
Project: D21104.501/D21102.502
Analyst: MSR
Inst. ID: I-A
Comments: A=20 ug/L ICV=50 ug/L IDL=3.0 ug/L
ICV: I-A-921216-02 CAL STD: I-A-921216-01

Date: 12/30/92
Matrix: Solid
Units: mg/Kg
Reviewed by:

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	49.5	49.1	49.3	0.6	1			98.6%R
2	ICB	-0.3	-0.3	-0.3	NC	1			
3	CRA	8.7	8.9	8.8	1.6	1			88%R
4	CCV1	52.1	49.7	50.9	3.3	1			101.8%R
5	CCB1	-0.5	-0.6	-0.6	NC	1			
6	16946.4	1.1	1.1	1.1	NC	1	200	ND 0.6 mg/Kg	
7	16946.4A	20.6	18.2	19.4	8.7				97%R
8	16948.0	1.5	0.7	1.1	NC	1	200	ND 0.6 mg/Kg	
9	16948.0A	20.5	20.1	20.3	1.4				101.5%R
10	16948.0 dup	1.8	0.7	1.3	NC	1	200	ND 0.6 mg/Kg	
11	16948.0A ↓ rec	19.7	19.2	19.4	1.8				97%R
12	16948.0 spk	49.7	49.8	49.8	0.1	1	200	9.96 mg/Kg	99.6%R
13	16948.0 dup ↓ rec	49.5	52.4	51.0	4.0	1	200	10.2 mg/Kg	102%R
14	16949.9	3.4	4.5	4.0	NC	1	200	0.8 mg/Kg (W)	
15	16949.9A	20.8	21.0	20.9	0.7				84.5%R
16	CCV2	52.7	53.7	53.2	1.3	1			106.4%R
17	CCB2	-0.8	-0.9	-0.9	NC	1			
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Not used MSR

PACE INCORPORATED - [illegible] REGIONAL OFFICE

[illegible] Benchsheet [illegible]

000033

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.088
Std.3	50.00	0.182
Std.4	100.00	0.304

Analyte: T

Project: D21104.501/D21102.502

Analyst: MSR

Inst. ID: 1-[illegible]

Date: 12/28/92

Matrix: Solid

Units: mg/Kg

Reviewed by:

Comments: A=20 ug/L ICV=50 ug/L IDL=3.0 ug/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	53.6	55.0	54.3	1.8	1			108.6%R
2	ICB	-0.4	-0.3	-0.3	NC	1			
3	CRA	11.7	10.9	11.3	5.0	1			113%R
4	CCV1	48.8	53.0	50.9	5.8	1			101.8%R
5	CCB1	-0.3	-0.1	-0.2	NC	1			
6	18906.6 spK	57.8	58.8	58.3	1.2	1	200	11.7 mg/Kg	116.6%R
7	18906.6 dup ↓ mr	56.3	59.5	57.9	3.9	1	200	11.6 mg/Kg	115.8%R
8	18907.4	5.4	8.2	7.3	17.4	1	200	1.5 mg/Kg	
9	18907.4A	25.1	24.6	24.9	1.4				88%R
10	16946.4	9.0	6.0	7.5	28.3	1	200	rerun RSD↑	
11	16946.4A	22.7	25.2	24.0	7.4				
12	16947.2	9.5	8.4	9.0	NC	1	200	1.8 mg/Kg	
13	16947.2A	26.5	25.8	26.2	1.9				86%R
14	CCV2	54.0	54.0	54.0	0	1			108%R
15	CCB2	0.7	0.7	0.7	NC	1			
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Not used MSR

50 - 190 ppb
100 - 309 ppb

TL pg 3
D21104.501
D21102.502
12/30/92
MSK

0.014		
0.000		
0.099		
20.0		I
38.4	C	
50.0		II
133.9	C	
100.0		III
49.5	1	
49.1		
-0.3	2	
-0.3		
8.7	3	
8.9		
52.1	4	
49.7		
-0.5	5	
-0.6		
1.1	6	
1.1		
20.6	7	
18.2		
1.5	8	
0.7		
20.5	9	
20.1		
1.8	10	
0.7		
19.7	11	
19.2		
49.7	12	
49.8		
49.5	13	
52.4		
3.4	14	
4.5		
20.8	15	
21.0		
52.7	16	
53.7		
-0.8	17	
-0.9		

TL pg
D21104.501
D21102.502
12/28/92
MSK

-0.001		
0.000		
0.102		
20.0		I
44.8	C	
50.0		II
69.8	C	
100.0		III
53.3	1	
53.1		
-0.4	2	
-0.4		
8.3	3	
11.2		
46.3	4	
45.0		
-0.2	5	
-0.2		
-0.4	6	
-0.4		
14.8	7	
20.3		
14.8	8	
14.8		
32.5	9	
31.3		
0.6	10	
0.7		
20.9	11	
22.6		
1.1	12	
1.0		
21.5	13	
22.6		
50.6	14	
48.9		
-0.1	15	
-0.3		
50.7	16	
50.7		
49.1	17	
51.2		
0.5	18	
0.5		
23.4	19	
22.2		
0.8	20	
0.6		
23.2	21	
21.9		
0.9	22	
0.9		
23.0		
23.2	23	
40.0	CCV out	

0.002		
0.000		
0.088		
20.0		I
41.3	C	
50.0		II
111.1	C	
100.0		III
53.6	1	
55.0		
-0.4	2	
-0.3		
11.7	3	
10.9		
48.8	4	
53.0		
-0.3	5	
-0.1		
57.8	6	
58.8		
56.3	7	
59.5		
6.4	8	
8.2		
25.1	9	
24.6		
9.0	10	
6.0		
22.7	11	
25.2		
9.5	12	
8.4		
26.5	13	
25.8		
54.0	14	
54.0		
0.7	15	
0.7		
10.3	16	
10.5		
25.5	17	
26.8		
11.7	18	
11.4		
27.0	19	
25.3		
61.3	20	
59.1		
64.4	21	
60.7		
11.6	22	
12.1		
26.5	23	
25.0		
53.6	24	
57.5		
1.5	25	
1.5		

Not used

CCV out

PACER

INCORPORATED

THE ASSURANCE OF QUALITY

0000035

GFAA ANALYTE COVER SHEET

DATE: 1/5/93

PROJECT ID: D21104.501
D21102.502

ANALYTE: As

INSTRUMENT: 1-A

ANALYST: MSR

REVIEWED BY: TC

DATA ASSESSMENT LOG

Encountered severe matrix interference which resulted in poor analytical spike recoveries. Samples were reanalyzed using MSA and dilutions as required by SOW.

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP)

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.067
Std.3	50.00	0.170
Std.4	100.00	0.322

Analyte: As

Date: 12/30/92

Project: D21104.501/D21102.502

Matrix: Solid

Analyst: MSR

Units: mg/Kg

Inst. ID: 1-A

Reviewed by: TC

Comments: A = 20 ug/L ICV = 50 ug/L IDL = 3 ug/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	48.5	49.5	49.0	1.4	1			98%R
2	ICB	-1.7	-0.9	-1.3	NC	1			
3	CRA	9.5	10.2	9.9	5.0	1			99%R
4	CCV1	51.6	50.0	50.8	2.2	1			101.6%R
5	CCB1	-1.6	-2.5	-2.1	NC	1			
6	PBS	-2.2	-0.7	-1.5	NC	1	200	ND 0.6 mg/Kg	
7	PBS A	18.7	16.9	17.8	7.1				89%R
8	LCSS	29.1	30.3	29.7	2.9	20	200	119 mg/Kg	82.5%R
9	LCSS A	48.8	46.1	47.5	4.0				89%R
10	18906.6	45.5	46.7	46.1	1.8	1	200	5X MSA	
11	18906.6A	55.5	57.9	56.7	3.0				53%R
12	18906.6 dup	52.7	49.8	51.3	4.0	1	200	5X RR	
13	18906.6A dup	59.2	58.8	59.0	0.5				38.5%R
14	CCV2	52.1	51.9	52.0	0.3	1			104%R
15	CCB2	1.7	1.2	1.5	NC	1			
16	18906.6 spK	29.5	72.4	51.0	59.4	1	200	5X RR	
17	18906.6 dup spK	76.1	74.2	75.2	1.8	1	200	5X RR	
18	18907.4	21.4	21.6	21.5	0.7	1	200	MSA	
19	18907.4A	31.5	30.9	31.2	1.4				48.5%R
20	~~18~~ 16946.4	35.9	38.2	37.1	4.4	1	200	2X MSA	
21	16946.4A	47.6	50.0	48.8	3.5				58.5%R
22	16947.2	89.1	89.1	89.1	0	1	200	5X RR	
23	16947.2A	101.5	99.7	100.6	1.3				
24	CCV3	47.8	48.8	48.3	1.5	1			96.6%R
25	CCB3	-0.1	1.2	0.6	NC	1			
26	16948.0	25.5	26.7	26.1	3.2	1	200	MSA	
27	16948.0A	37.2	37.1	37.2	0.2				55.5%R
28	16948.0 dup	~~47.0~~ 28.2	~~47.9~~ 26.4	27.3	4.7	1	200	MSA	
29	16948.0A dup	~~48.2~~ 37.2	~~48.2~~ 37.1	37.2	0.2				53.5%R
30	16948.0 spK	~~45.5~~ 47.0	~~45.4~~ 47.9	48.5	1.6	1	200	9.7 mg/Kg	36.3%R
31	16948.0 dup spK	~~55.9~~ 48.2	48.2	48.2	0	1	200	9.64 mg/Kg	35.5%R
32	16949.1	45.5	45.4	45.5	0.2	1	200	5X MSA	
33	16949.1A	55.4	55.9	55.7	0.6				51%R
34	CCV4	50.2	49.3	49.8	1.3	1			99.6%R
35	CCB4	0.0	0.6	0.3	NC	1			

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP)

000003

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.101
Std.3	50.00	0.210
Std.4	100.00	0.453

Analyte: As

Date: 12/31/92

Project: D21104.501/D21102.502

Matrix: Solid

Analyst: MSR

Units: mg/Kg

Inst.ID: I-A

Reviewed by:

Comments: A= ug/L ICV=50 ug/L IDL=

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	51.0	49.0	50.0	2.8	1			100%R
2	ICB	-1.6	-1.5	-1.6	NC	1			
3	CRA	7.1	8.1	7.6	NC	1			76%R
4	CCV1	46.9	51.3	49.1	6.3	1			98.2%R
5	CCB1	-2.5	-2.2	-2.4	NC	1			
6	18906.6 dup	10.3	10.2	10.2	0.7	5	200	10 mg/Kg	
7	18906.6A Fmc	26.3	28.6	27.5	5.9				86.5%R
8	18906.6 SpK	15.0	15.8	15.4	3.7	5	200	15 mg/Kg	62.5%R
9	18906.6dup+fmc	17.0	15.7	16.4	5.6	5	200	16 mg/Kg	75%R
10	16947.2	19.9	19.8	19.9	0.4	5	200	20 mg/Kg NA	
11	16947.2A	38.0	35.0	36.5	5.8				83%R
12	CCV2	50.7	49.0	49.9	2.4	1			99.8%R
13	CCB2	-0.3	0.3	0	NC	1			
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

Not used MSR

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP)

0000033

	Conc.	Abs.
d.1	0.00 ug/L	0.000
d.2	20.00	0.097
d.3	50.00	0.213
d.4	100.00	0.410

Analyte: As
Date: 12/31/92
Project: D21104.501/D21102.502
Matrix: Solid
Analyst: MSR
Units: mg/Kg
Inst.ID: I-A
Reviewed by:
Comments: A= ug/L ICV=50 ug/L IDL=
ICV: I-A-921216-02 CAL STD: I-A-921216-01

p	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
	ICV	49.2	N/A	N/A	N/A	1			98.4%R
	ICB	-0.1				1			
	CRA	9.5				1			95%R
	CCV1	50.0				1			100%R
	CCB1	-0.7				1			
	18906.6	8.9				5	200	10 mg/Kg	r=.999
	+15	20.6							x=10.4
	+30	31.9							y=8.5
	+45	46.9							m=0.82
0	18907.4	22.1				1	200	6.8 mg/Kg	r=.9999
1	+15	32.1							x=33.8
2	+30	42.0							y=22.2
3	+45	51.6							m=0.66
4	CCV2	47.8				1			95.6%R
5	CCB2	-1.3				1			
6	16946.4	15.6				2	200	7.9 mg/Kg	r=.9985
7	+15	29.7							x=18.8
8	+30	40.1							y=16.2
9	+45	53.1							m=0.82
20	16948.0	25.3				1	200	6.8 mg/Kg	r=.998
21	+15	39.0							x=34.2
22	+30	49.7							y=26.3
23	+45	60.1							m=0.77
24	CCV3	47.0				1			94%R
25	CCB3	-1.7				1			
26	16948.0dup	26.1				1	200	6.8 mg/Kg	r=.9995
27	+15	38.4							x=34.0
28	+30	48.9							y=26.3
29	+45	61.2							m=0.77
30	16949.9	7.3				5	200	9.4 mg/Kg	r=0.9996
31	+15	19.9							x=9.4
32	+30	30.8							y=7.5
33	+45	43.3							m=0.8
34	CCV4	47.8				1			95.6%R
35	CCB4	-0.9				1			

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP)

 0000039

	Conc.	Abs.
d.1	0.000 ug/L	0.000
d.2	20.00	0.082
d.3	50.00	0.188
d.4	100.00	0.324

Analyte: As
Project: D211 04.501 / D21102.502
Analyst: MSR
Inst.ID: 1-E
Comments: See page 1

Date: 1/5/93
Matrix: Solid
Units: mg/Kg
Reviewed by:

p	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
	ICV	47.1	N/A	N/A	N/A	1			94.2%R
	ICB	-1.6				1			
	CRA	11.5				1			115%R
	CCV1	47.0				1			94%R
	CCB1	-1.4				1			
	16947.2	20.6				5	200	22 mg/Kg	r=.9996
	+15	33.2							x=22.2
	+30	48.0							y=20.2
	+45	61.3							m=0.91
	CCV2	49.9				1			99.8%R
	CCB2	-2.5				1			
2									
3									
4									
5									
6									
7									
8									
9									
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
0									
1									
2									
3									
4									
5									

NOX

MSR

0 abs - 0.[illegible]
00 abs - 0.322

0.[illegible]

0000040

0.018
0.000
0.067
20.0 I
50.8 C
50.0 II
93.6 C
R III
48.5 1
49.5
-1.7 2
-0.9
9.5 3
10.2
51.6 4
50.0
-1.6 5
-2.5
-2.2 6
-0.7
18.7
16.9 7
29.1 8
30.3
48.8 9
46.1
45.5 10
46.7
55.5 11
57.9
52.7 12
49.8
59.2 13
58.8
52.1 14
51.9
1.7 15
1.2
29.5 16
S 236 248 242 MSR 72.4 R
76.1 R 17
74.2 R
21.4 18
21.6
31.5 19
30.9
35.9 20
38.2
47.6 21
50.0
BS .290 .290 .330 .324 MSR 89.1 R 22
89.1 R
101.5 R 23
99.7 R
47.8 24
48.8
-0.1 25
1.2
25.5 26
26.7
37.2 --

As ps 2
12/31/92 MSR

0.016
0.000
0.101
20.0 I
41.6 C
50.0 II
107.8 C
100.0 III
51.0
49.0
-1.6
-1.5
7.1
8.1
46.9
51.3
-2.5
-2.2
10.3
10.2
26.3
28.6
15.0
15.8
17.0
15.7
19.9 MSA
19.8
38.0
35.0
50.7
49.0
-0.3
0.3

As ps 4
D21104501
D21102502
+2/
1/5/93
MSR

1.025
0.015
0.000
0.082
20.0 I
45.9 C
50.0 II
86.1 C
100.0 III
47.1
-1.6
11.5
47.0
-1.4
20.6
33.2
48.0
61.3
49.9
-2.5

50 - .214
100 - 0.347

-0.005
0.000
0.097
20.0 I
43.9 C
50.0 II
96.3 C
100.0 III
49.2
2 -0.1
3 9.5
4 50.0
5 -0.7
6 8.9
7 20.6
8 31.9
9 45.9
10 22.1
11 32.1
12 42.0
13 51.6
14 47.8
15 -1.3
16 15.6
17 29.7
18 40.1
19 53.1
20 25.3
21 39.0
22 49.7

	30.3	
	48.8	9
	46.1	
	45.5	10
	46.7	
	55.5	11
	57.9	
	52.7	12
	49.8	
	59.2	13
	58.8	
	52.1	14
	51.9	
	1.7	15
	1.2	
	29.5	16
MSR	72.4	R
	76.1	R 17
	74.2	R
	21.4	18
	21.6	
	31.5	19
	30.9	
	35.9	20
	38.2	
	47.6	21
	50.0	
0 MSR	89.1	R 22
10	89.1	R
30	101.5	R 23
24	99.7	R
	47.8	24
	48.8	
	-0.1	25
	1.2	
	25.5	26
	26.7	
	37.2	27
	37.1	
	28.2	28
	26.4	
	37.2	29
	37.1	
	49.0	30
	47.9	
	48.2	31
	48.2	
	45.5	32
	45.4	
	55.4	33
	55.9	
	50.2	34
	49.3	
	0.0	38
	0.6	

	[illegible]
	[illegible]
	17.[illegible]
	15.[illegible]
	19.9 MSR
	19.8
	38.0
	35.0
	50.7
	49.0
	-0.3
	0.3

50 -.214
100 -0.347

	-0.005	
	0.000	
	0.097	
	20.0	I
	43.9	C
	50.0	II
	96.3	C
	100.0	II
	49.2	
2	-0.1	
3	9.5	
4	50.0	
5	-0.7	
6	8.9	
7	20.6	
8	31.9	
9	45.9	
10	22.1	
11	32.1	
12	42.0	
13	51.6	
14	47.8	
15	-1.3	
16	15.6	
17	29.7	
18	40.1	
19	53.1	
20	25.3	
21	39.0	
22	49.7	
23	60.1	
24	47.0	
25	-1.7	
26	26.1	
27	38.4	
28	48.9	
29	61.2	
30	7.3	
31	19.9	
32	30.8	
33	43.3	
34	47.8	
35	-0.9	

PACE

INCORPORATED

0000042

THE ASSURANCE OF QUALITY

GFAA ANALYTE COVER SHEET

DATE: 12/31/92

PROJECT ID: D21104.501
D21102.502

ANALYTE: Se

INSTRUMENT: 1-B

ANALYST: MSR

REVIEWED BY: TC

DATA ASSESSMENT LOG

Encountered severe matrix interference which resulted in poor analytical spike recoveries. Samples were diluted and re-analyzed.

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP) 000001 Pg. 1 of 3

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.081
Std.3	50.00	0.218
Std.4	100.00	0.429

Analyte: Se

Project: D21104.501

Analyst: D21102.502 / MSK

Inst. ID: 1-B

Date: 12/28/92

Matrix: Solid

Units: mg/Kg

Reviewed by:

Comments: A = 10 ug/L ICV = 50 ug/L IDL = 3.0 ug/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	49.4	9.2	1			98.8%R
2	ICB			-1.0	NC	1			
3	CRA			3.2	NC	1			64%R
4	CCV1			52.7	5.2	1			105.4%R
5	CCB1			-3.7	NC	1			
6	PBS			-1.0	NC	1		Not used	RSD4
7	PBSA			21.3	20.4			wrong spK	(20)
8	LCSS			39.1	0.8	20	200	1.56 mg/Kg	94.8%R
9	LCSS A			46.2	3.8				
10	18906.6			-13.3	NC	1	200	10X RR	
11	18906.6A			-3.9	NC				0%R
12	18906.6 Dup			-16.7	NC	1	200	10XRR	
13	18906.6 A ↓ mk			-6.7	NC				0%R
14	CCV2			50.8	0.3	1			101.6%R
15	CCB2			-0.9	NC	1			
16	18906.6 spK			-5.2	NC	1	200	ND 0.6 mg/L	0%R
17	18906.6 ↓ mk Dup			-6.9	NC	1	200	ND 0.6 mg/L	0%R
18	18907.4			-9.6	NC	1	200	10XRR	
19	18907.4A			-2.2	NC				0%R
20	16946.4			-9.9	NC	1	200	10XRR	
21	16946.4A			-2.7	NC				0%R
22	16947.2			-7.3	NC	1	200	10XRR	
23	16947.2A			-6.0	NC				0%R
24	CCV3			50.1	0.9	1			100.2%R
25	CCB3			-1.0	NC	1			
26	16948.0			-7.5	NC	1	200	10XRR	
27	16948.0A			-4.3	NC				0%R
28	16948.0 Dup			-11.7	NC	1	200	10XRR	
29	16948.0A ↓ mk			-2.1	NC				0%R
30	16948.0 spK			-8.4	NC	1	200	ND 0.6 mg/L	0%R
31	16948.0 Dup ↓ mk			-7.4	NC	1		ND 0.6 mg/L	0%R
32	16949.9			-14.6	NC	1	200	10XRR	
33	16949.9A			-5.7	NC				
34	CCV4			50.7	1.9	1			101.4%R
35	CCB4	↓ mk	↓ mk	-4.8	NC	1			

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP) 000041 Pg. 2 of 3

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.098
Std.3	50.00	0.232
Std.4	100.00	0.438

Analyte: Se

Date: 12/30/92

Project: D21104.501 / D2110202

Matrix: Solid

Analyst: MSR

Units: mg/Kg

Inst.ID: 1-B

Reviewed by:

Comments: A= ug/L ICV=50 ug/L IDL=

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	46.0	1.3	1			92%R
2	ICB			-0.8	NC	1			
3	CRA			5.0	NC	1			100%R
4	CCV1			48.8	3.1	1			93.6%R
5	CCB1			1.5	NC	1			
6	PBS			-0.2	NC	1	200	Not used	
7	PBS A			6.4	20.2				64%R
8	189066			-0.1	NC	10	200	ND 6mg/Kg	
9	189066A			6.5	0.0				65%R
10	189066 dup			-2.4	NC	10	200	ND 6mg/Kg	
11	189066A dup			4.7	NC				47%R
12	189074			-0.3	NC	10	200	ND 6mg/Kg	
13	189074A			6.2	2.3				62%R
14	CCV2			51.5	4.4	1			103%R
15	CCB2			-3.1	NC	1			
16	169464			0.6	NC	10	200	ND 6mg/Kg	
17	169464A			7.9	14.5				79%R
18	169480			-2.9	NC	10	200	ND 6mg/Kg	
19	169480A			6.4	15.7				64%R
20	169480 dup			-1.2	NC	10	200	ND 6mg/Kg	
21	169480A dup			6.7	0.0				67%R
22	169499			-2.5	NC	10	200	ND 6mg/Kg	
23	169499A			5.9	14.6				59%R
24	CCV3			51.5	0.8	1			103%R
25	CCB3	dup	dup	2.4	NC	1			
26									
27									
28									
29									
30					Not				
31						used			
32						MSR			
33									
34									
35									

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP) 000045 Pg. 3 of 3

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.095
Std.3	50.00	0.234
Std.4	100.00	0.468

Analyte: Se

Date: 12/31/92

Project: D2104.501/D2110250 2

Matrix: Solid

Analyst: MSR

Units: mg/Kg

Inst.ID: 1-B

Reviewed by:

Comments: A= ug/L ICV=50 ug/L IDL=

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	47.1	0.0	1			94.2%R
2	ICB			0.0	NC	1			
3	CRA			1.8	NC	1			60%R
4	CCV1			47.1	9.5	1			
5	CCB1			-0.7	NC	1			
6	PBS			-1.9	NC	1	200	ND 0.6mg/kg	
7	PBSA			11.0	12.1				110%R
8	CCV2			51.6	2.6	1			103.2%R
9	CCB2			-0.4	NC	1			
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
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29									
30									
31									
32									
33									
34									
35									

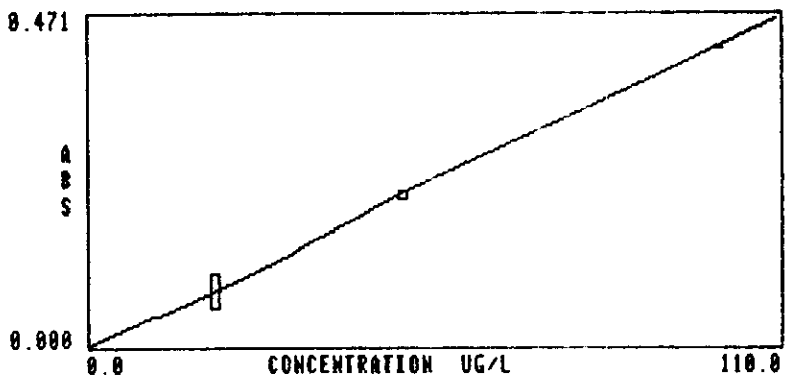
MSR

000046

Se pg 1
D21104.504
D21102.502
12/28/82
MSR

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		-0.001	0.000	-0.003
STANDARD 1	20.0	5.2	0.081	0.084	0.078
STANDARD 2	50.0	1.2	0.218	0.216	0.220
STANDARD 3	100.0	0.4	0.429	0.430	0.427



SAMPLE 1	49.4	9.2	0.215	0.201	0.229
SAMPLE 2	-1.0	99.9	-0.004	-0.001	-0.007
SAMPLE 3	3.2	0.0	0.013	0.013	0.013
SAMPLE 4	52.7	5.2	0.229	0.238	0.221
SAMPLE 5	-3.7	18.8	-0.015	-0.013	-0.017
SAMPLE 6	-1.0	70.7	-0.004	-0.002	-0.006
SAMPLE 7	21.3	20.4	0.086	0.074	0.099
SAMPLE 8	39.1	0.8	0.166	0.167	0.165
SAMPLE 9	46.2	3.8	0.199	0.194	0.205
SAMPLE 10	-13.3	18.3	-0.054	-0.061	-0.047
SAMPLE 11	-3.9	26.5	-0.016	-0.019	-0.013
SAMPLE 12	-16.7	5.2	-0.067	-0.070	-0.065
SAMPLE 13	-6.7	0.0	-0.027	-0.027	-0.027
SAMPLE 14	50.8	0.3	0.222	0.221	0.222
SAMPLE 15	-0.9	99.9	-0.003	0.002	-0.009
SAMPLE 16	-5.2	13.4	-0.021	-0.023	-0.019
SAMPLE 17	-6.9	10.1	-0.028	-0.026	-0.030
SAMPLE 18	-9.6	21.7	-0.039	-0.045	-0.033
SAMPLE 19	-2.2	94.2	-0.009	-0.015	-0.003
SAMPLE 20	-9.9	10.6	-0.040	-0.043	-0.037
SAMPLE 21	-2.7	77.1	-0.011	-0.005	-0.017
SAMPLE 22	-7.3	16.7	-0.029	-0.026	-0.033
SAMPLE 23	-6.0	37.5	-0.024	-0.018	-0.031
SAMPLE 24	50.1	0.9	0.218	0.217	0.220
SAMPLE 25	-1.0	99.9	-0.004	-0.001	-0.007
SAMPLE 26	-7.5	11.5	-0.030	-0.033	-0.028
SAMPLE 27	-4.3	12.1	-0.017	-0.016	-0.019
SAMPLE 28	-11.7	10.4	-0.047	-0.044	-0.051

SAMPLE	31	-7.4	4.7	-0.737	-0.729	-0.731

0010047

Se ps 1
D21104.501
D21102.502
12/28/92
MSK

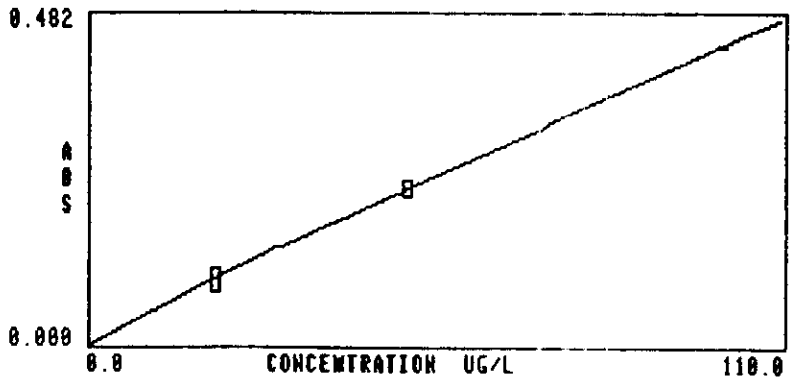
SAMPLE		CONC UG/L	%RSD	MEAN ABS		READINGS
SAMPLE	32	-14.6	14.3	-0.059	-0.053	-0.065
SAMPLE	33	-5.7	24.5	-0.023	-0.027	-0.019
SAMPLE	34	50.7	1.9	0.221	0.224	0.218
SAMPLE	35	-4.8	47.1	-0.019	-0.013	-0.026

000043

Se PS 2
D21104.501
D21102.502
12/30/92
MSK

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		-0.009	-0.009	-0.010
STANDARD 1	20.0	3.5	0.098	0.096	0.101
STANDARD 2	50.0	2.4	0.232	0.228	0.236
STANDARD 3	100.0	0.4	0.438	0.440	0.437



SAMPLE 1	46.0	1.3	0.215	0.217	0.213
SAMPLE 2	-0.8	99.9	-0.004	0.000	-0.008
SAMPLE 3	5.0	37.5	0.024	0.031	0.018
SAMPLE 4	48.8	3.1	0.227	0.232	0.222
SAMPLE 5	1.5	65.9	0.007	0.011	0.004
SAMPLE 6	-0.2	99.9	-0.001	0.000	-0.002
SAMPLE 7	6.4	20.2	0.031	0.036	0.027
SAMPLE 8	-0.1	99.9	-0.000	0.009	-0.010
SAMPLE 9	6.5	0.0	0.032	0.032	0.032
SAMPLE 10	-2.4	11.7	-0.012	-0.011	-0.013
SAMPLE 11	4.7	18.4	0.023	0.020	0.026
SAMPLE 12	-0.3	99.9	-0.001	0.000	-0.003
SAMPLE 13	6.2	2.3	0.030	0.030	0.031
SAMPLE 14	51.5	4.4	0.238	0.246	0.231
SAMPLE 15	-3.1	31.9	-0.015	-0.019	-0.012
SAMPLE 16	0.6	99.9	0.003	-0.003	0.009
SAMPLE 17	7.9	14.5	0.039	0.043	0.035
SAMPLE 18	-2.9	24.3	-0.014	-0.017	-0.012
SAMPLE 19	6.4	15.7	0.031	0.028	0.035
SAMPLE 20	-1.2	47.1	-0.006	-0.004	-0.008
SAMPLE 21	6.7	0.0	0.033	0.033	0.033
SAMPLE 22	-2.5	16.9	-0.013	-0.011	-0.014
SAMPLE 23	5.9	14.6	0.029	0.026	0.032
SAMPLE 24	51.5	0.8	0.238	0.237	0.240
SAMPLE 25	2.4	70.7	0.012	0.018	0.006

Se Pg 3
D21104.501
D21102.502
12/31/92
MSR

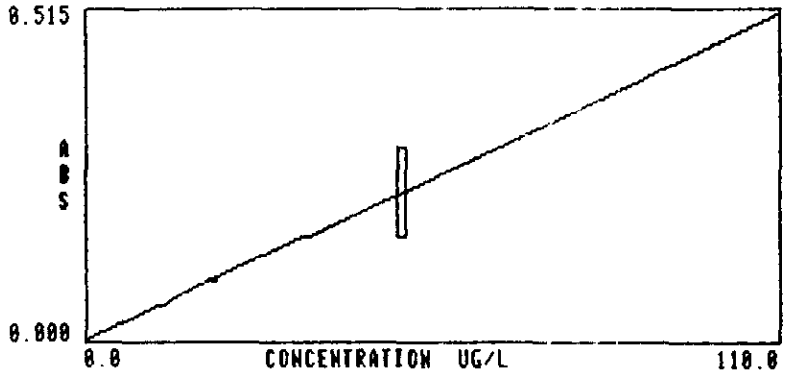
Varian DS-15 AA-1275/1475 Report

Pace, Inc.
5930 McIntyre St.
Golden, CO 80403

OPERATOR MSR 1215
DATE 12/31/92
BATCH Se D21102.502

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		0.067	0.065	0.069
STANDARD 1	20.0	0.7	0.095	0.096	0.095
STANDARD 2	50.0	13.9	0.234	0.257	0.211
STANDARD 3	100.0	0.0	0.468	0.468	0.468



SAMPLE 1	47.1	0.0	0.221	0.221	0.221
SAMPLE 2	0.0	99.9	0.000	-0.002	0.002
SAMPLE 3	1.8	58.2	0.009	0.005	0.012
SAMPLE 4	47.1	9.5	0.221	0.236	0.206
SAMPLE 5	-0.7	99.9	-0.003	-0.009	0.002
SAMPLE 6	-1.9	31.4	-0.009	-0.007	-0.011
SAMPLE 7	11.0	12.1	0.052	0.048	0.057
SAMPLE 8	51.6	2.6	0.241	0.237	0.246
SAMPLE 9	-0.4	70.7	-0.002	-0.003	-0.001

PACE R

INCORPORATED

THE ASSURANCE OF QUALITY

0000050

GFAA ANALYTE COVER SHEET

DATE: 12/30/92

PROJECT ID: D21104.501
D21102.502

ANALYTE: Pb

INSTRUMENT: 1-B

ANALYST: MSR

REVIEWED BY: TC

DATA ASSESSMENT LOG

No problems.

PACE INCORPORATED - [illegible] REGIONAL OFFICE

[illegible] Bench[illegible] (CLP) 000005 Pg. 1 of 3

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.039
Std.3	50.00	0.240
Std.4	100.00	0.455

Analyte: [illegible] Po
Project: D21105 S01, D21102 S02
Analyst: MSR
Inst. ID: 1-B
Comments: A=20 ug/L ICV=50 ug/L IDL=2.0 ug/L
ICV: I-A-921216-02 CAL STD: I-A-921216-01

Date: 12/28/92
Matrix: Solid
Units: mg/Kg
Reviewed by:

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	54.8	0.5	1			109.6%R
2	ICB			-0.4	NC	1			
3	CRA			4.3	0.0	1			143%R
4	CCV1			53.3	0.8	1			106.6%R
5	CCB1			0.7	NC	1			
6	PBS			0.6	NC	1	200	Not used	
7	PBSA			23.4	1.3				
8	LCSS			37.1	1.2	20	200	148 mg/Kg	125.8%R
9	LCSSA			54.1	3.8				85%R
10	18906.6			76.5	0.3	1	200	153 mg/Kg	
11	18906.6A			96.3	1.1				99%R
12	18906.6 dup			81.9	0.3	1	200	16 mg/Kg	
13	18906.6A			99.4	0.6				87.5%R
14	CCV2			53.9	1.0	1			107.8%R
15	CCB2			2.6	6.1	1			
16	18906.6 spK								
17	18906.6 spK dup								
18	18907.4								
19	18907.4A								
20	16946.4								
21	16946.4A								
22	16947.2								
23	16947.2A								
24	CCV3								
25	CCB3								
26	16948.0								
27	16948.0A								
28	16948.0 dup								
29	16948.0A ↓mr								
30	16948.0 spK								
31	16948.0 spK dup								
32	16949.9								
33	16949.9A								
34	CCV4								
35	CCB4	↓mr	↓mr						

NOT used MSR

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP) 0000053 Pg. 2 of

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.098
Std.3	50.00	0.242
Std.4	100.00	0.450

Analyte: Pb

Project: D21104,501/D21102,502

Analyst: MVR

Inst. ID: I-B

Date: 12/28/92

Matrix: Mg/Kg

Units: Solid

Reviewed by:

Comments: A=20 ug/L ICV=50 ug/L IDL=2.0 ug/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	53.8	0.0	1			107.6%R
2	ICB			-1.1	NC	1			
3	CRA			1.5	NC	1			
4	CCV1			51.5	0.8	1			
5	CCB1			-1.2	NC	1			
6	PBS			-1.0	NC	1	200	ND 0.4 mg/Kg	
7	PBSA			19.7	1.4				98.5%R
8	18906.6 spk			98.4	1.4	1	200	19.7 mg/Kg	110%R
9	18906.6 spk dup			99.6	0.6	1	200	19.9 mg/Kg	115%R
10	18907.4			73.3	0.2	1	200	15 mg/Kg	
11	18907.4A			93.6	0.4				101.5%R
12	18946.4			45.8	0.9	1	200	9.2 mg/Kg	
13	16946.4A			65.9	0.4				100.5%R
14	CCV2			54.1	4.5	1			108.2%R
15	CCB2			-1.2	NC	1			
16	16947.2								
17	16947.2A								
18	16948.0								
19	16948.0A								
20	16948.0 dup								
21	16948.0A ↓ MVR								
22	16948.0 spk								
23	16948.0 spk dup								
24	16949.9								
25	16949.9A								
26	CCV3								
27	CCB3	↓ MVR	↓ MVR						
28									
29									
30									
31									
32									
33									
34									
35									

not used MSK

PACE INCORPORATED - DENVER REGIONAL OFFICE

GFAA Benchsheet (CLP) 0000053 Pg. 3 of 3

	Conc.	Abs.
Std.1	0.00 ug/L	0.000
Std.2	20.00	0.116
Std.3	50.00	0.279
Std.4	100.00	0.499

Analyte: Pb

Project: D21104.501/D21102502

Analyst: MSR

Inst.ID: I-B

Date: 12/28/92

Matrix: Solid

Units: mg/Kg

Reviewed by:

Comments: A=20 ug/L ICV=50 ug/L IDL=2.0 ug/L

ICV: I-A-921216-02 CAL STD: I-A-921216-01

Cup ID	Sample ID	1st Burn (ppb)	2nd Burn (ppb)	Average (ppb)	CV	Serial DF	Prep DF	Final Concentration	Notes
1	ICV	See	printout	54.0	1.2	1			108%R
2	ICB			-0.5	NC	1			
3	CRA			3.2	3.8	1			106.7%R
4	CCV1			51.7	3.8	1			103.4%R
5	CCB1			0.3	NC	1			
6	16947.2			47.0	1.6	1	200	9.4 mg/Kg	
7	16947.2A			68.6	0.3				108%R
8	16948.0			27.3	4.0	1	200	5.5 mg/Kg	
9	16948.0A			47.2	1.6				99.5%R
10	16948.0Dup			25.0	0.4	1	200	5.0 mg/Kg	
11	16948.0A Vrnc			46.2	2.2				106%R
12	16948.0 Spk			47.3	1.3	1	200	9.5 mg/Kg	100%R
13	16948.0 Vrnc Dup			47.3	1.9	1	200	9.5 mg/Kg	100%R
14	16949.9			73.2	1.3	1	200	15 mg/Kg	
15	16949.9A			91.2	0.4				90%R
16	CCV3			51.8	1.5	1			103.6%R
17	CCB3	Vrnc	Vrnc	-0.9	NC	1			
18									
19									
20									
21									
22									
23									
24				200					
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									

MSR

Varian DS-15 AA-1275/1475 Report

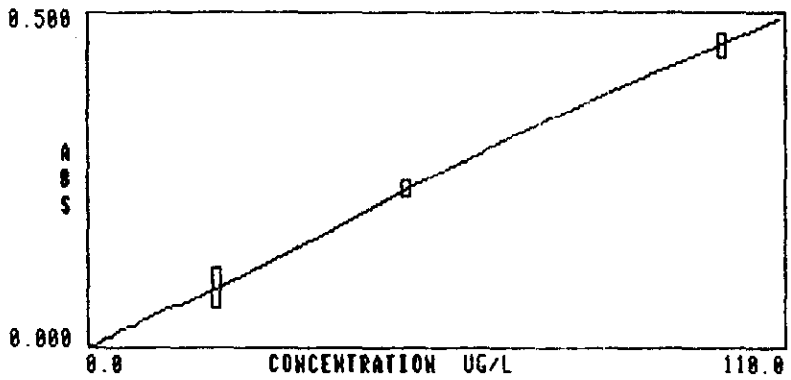
Pace, Inc.
5930 McIntyre St.
Golden, CO 80403

Pb 1
PS
D21184.581
D21102.502
12/28/92
MSR

OPERATOR MSR 1100
DATE 12/28/92
BATCH Pb D21102.502

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		-0.018	-0.020	-0.017
STANDARD 1	20.0	6.3	0.089	0.093	0.085
STANDARD 2	50.0	2.6	0.240	0.245	0.236
STANDARD 3	100.0	3.5	0.455	0.443	0.466

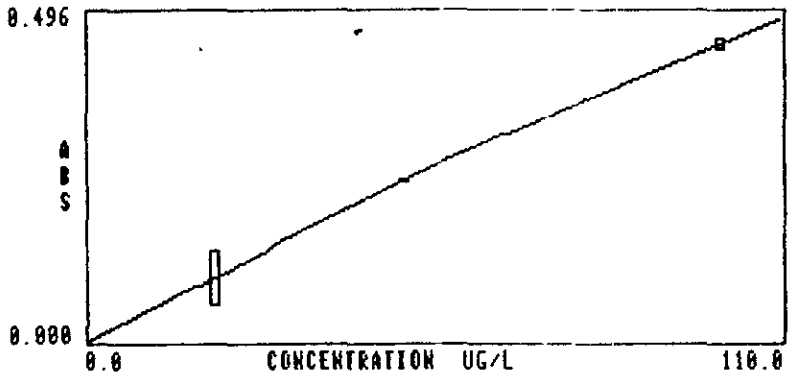


SAMPLE 1	54.8	0.5	0.262	0.263	0.261
SAMPLE 2	-0.4	99.9	-0.002	-0.004	0.000
SAMPLE 3	4.3	0.0	0.019	0.019	0.019
SAMPLE 4	53.3	0.8	0.255	0.254	0.257
SAMPLE 5	0.7	47.1	0.003	0.002	0.004
SAMPLE 6	0.6	28.2	0.002	0.003	0.002
SAMPLE 7	23.4	1.3	0.105	0.104	0.106
SAMPLE 8	37.1	1.2	0.172	0.171	0.174
SAMPLE 9	54.1	3.8	0.259	0.266	0.252
SAMPLE 10	76.5	0.3	0.357	0.356	0.358
SAMPLE 11	96.3	1.1	0.440	0.436	0.443
SAMPLE 12	81.9	0.3	0.380	0.379	0.381
SAMPLE 13	99.4	0.6	0.452	0.450	0.454
SAMPLE 14	53.9	1.0	0.258	0.256	0.260
SAMPLE 15	2.6	6.1	0.011	0.012	0.011
SAMPLE 16	98.2	0.6	0.447	0.445	0.449
SAMPLE 17	98.5	1.4	0.448	0.453	0.444
SAMPLE 18	74.2	1.2	0.347	0.344	0.350
SAMPLE 19	94.0	0.3	0.430	0.429	0.431

0000055 Pb pg 2
D21104.501
D21102.502
12/28/92
MSR

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS		READINGS
BLANK	0.0		0.024	0.029	0.020
STANDARD 1	20.0	7.8	0.098	0.093	0.104
STANDARD 2	50.0	0.2	0.242	0.242	0.243
STANDARD 3	100.0	1.4	0.450	0.446	0.455

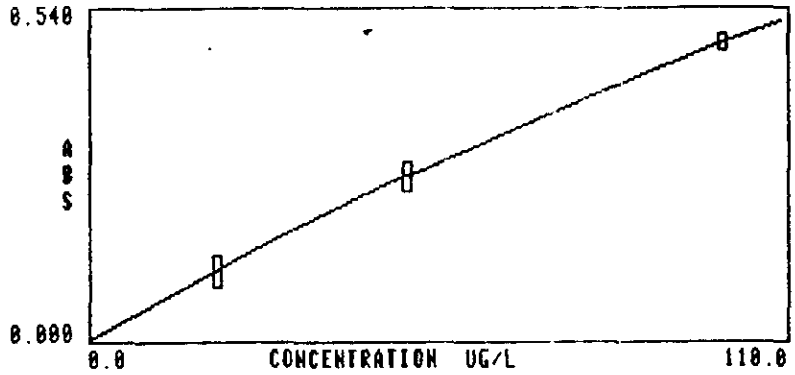


SAMPLE 1	53.8	0.0	0.260	0.260	0.260
SAMPLE 2	-1.1	64.2	-0.005	-0.003	-0.008
SAMPLE 3	1.5	9.4	0.007	0.007	0.008
SAMPLE 4	51.5	0.8	0.250	0.251	0.248
SAMPLE 5	-1.2	23.5	-0.006	-0.005	-0.007
SAMPLE 6	-1.0	0.0	-0.005	-0.005	-0.005
SAMPLE 7	19.7	1.4	0.097	0.096	0.098
SAMPLE 8	98.4	1.4	0.444	0.449	0.440
SAMPLE 9	99.6	0.6	0.449	0.451	0.447
SAMPLE 10	73.3	0.2	0.345	0.345	0.346
SAMPLE 11	93.6	0.4	0.427	0.428	0.425
SAMPLE 12	45.8	0.9	0.222	0.221	0.224
SAMPLE 13	65.9	0.4	0.314	0.313	0.315
SAMPLE 14	54.1	4.5	0.261	0.253	0.270
SAMPLE 15	-1.2	47.1	-0.006	-0.004	-0.008
SAMPLE 16	51.6	0.5	0.250	0.249	0.251
SAMPLE 17	73.7	0.0	0.347	0.347	0.347
SAMPLE 18	30.8	1.8	0.151	0.149	0.153
SAMPLE 19	51.4	0.5	0.249	0.248	0.250
SAMPLE 20	30.3	1.4	0.149	0.150	0.147
SAMPLE 21	50.8	0.0	0.246	0.246	0.246
SAMPLE 22	53.5	1.9	0.259	0.255	0.262
SAMPLE 23	51.4	0.0	0.249	0.249	0.249
SAMPLE 24	79.6	0.5	0.371	0.370	0.373
SAMPLE 25	101.7	0.3	0.457	0.456	0.458
SAMPLE 26	57.2	0.7	0.276	0.274	0.277
SAMPLE 27	-0.4	99.9	-0.002	0.000	-0.004

Pb pg 3
D21104.501
D21102.502
MSR

PROGRAM 6 Pb HNO3

SAMPLE	CONC UG/L	%RSD	MEAN ABS	READINGS	
BLANK	0.0		-0.023	-0.022	-0.024
STANDARD 1	20.0	4.8	0.116	0.112	0.120
STANDARD 2	50.0	4.4	0.270	0.279	0.262
STANDARD 3	100.0	2.4	0.490	0.499	0.482



SAMPLE 1	54.0	1.2	0.289	0.287	0.292
SAMPLE 2	-0.5	99.9	-0.003	0.000	-0.006
SAMPLE 3	3.2	26.7	0.018	0.015	0.022
SAMPLE 4	51.7	3.8	0.278	0.286	0.271
SAMPLE 5	0.3	99.9	0.001	0.003	0.000
SAMPLE 6	47.0	1.6	0.256	0.253	0.259
SAMPLE 7	68.6	0.3	0.357	0.358	0.356
SAMPLE 8	27.3	4.0	0.155	0.160	0.151
SAMPLE 9	47.2	1.6	0.257	0.260	0.254
SAMPLE 10	25.0	0.4	0.143	0.144	0.143
SAMPLE 11	46.2	2.2	0.252	0.256	0.248
SAMPLE 12	47.3	1.3	0.257	0.260	0.255
SAMPLE 13	47.3	1.9	0.257	0.254	0.261
SAMPLE 14	73.2	1.3	0.377	0.381	0.374
SAMPLE 15	91.2	0.4	0.455	0.456	0.453
SAMPLE 16	51.8	1.5	0.279	0.282	0.276
SAMPLE 17	-0.9	0.0	-0.005	-0.005	-0.005

Batch 6510301 pg 1 of 1

%TS

000057

~~TOTAL SUSPENDED SOLIDS/TOTAL DISSOLVED SOLIDS/OIL & GREASE~~ mom

PROJECT ID: CC SW METHOD: _____ UNITS: ~~Mg/l~~ % ANALYST: mom

DATE IN: 11/19/92 TIME IN: 1820 OVEN TEMP IN: 106°C

DATE OUT: 11/18/92 mom TIME OUT: 1700 OVEN TEMP OUT: 101°C

SAMPLE ID	ID #	ALIQUOT ~~ml~~ mom (g)	SPIKE ADDED	TARE WT (g)	DRY WT + TARE (g)	DRY WT SAMPLE (g)	DF	CONC	CALC
21028.500 650188 76.0	1	5.29	N/A	1.03	6.04	5.01	N/A	95%	
18877.9	2	5.30		1.00	6.07	5.07		96%	
21102.502 50 18906.6	3	5.02		1.00	5.76	4.76		95%	
18907.4	4	5.23		1.02	5.90	4.88		93%	
021104.501 650 16946.4	5	5.19		1.02	5.99	4.97		96%	
16947.2	6	5.74		1.02	6.51	5.49		96%	
16948.0	7	5.65		1.03	6.37	5.34		94%	
16949.9	8	6.03		1.03	6.78	5.75		95%	
16949.9 (2)	9	5.23		1.03	6.00	4.97		95%	0% RPD

calc: $\frac{\text{Dry wt. (g)}}{\text{aliquot (g)}} * 100 = \%TS$

LCS, LCS-DUPE, SPIKE, CCV WITH: N/A PCN: N/A LCS TV: N/A

THE NOMINAL DETECTION LIMIT IS 5 mg/l DUE TO BALANCE ACCURACY

COMMENTS: _____

REVIEWED BY: TC

0000053

PO4 by IC

PAGE 1 OF 2

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.502 / D21028.500 / D21102.502 / D21104.501

BATCH #: 1051052 8

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 1.000

REVIEWED BY: TC

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (~~ml~~) area	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
0.2 mg/l	—	N/A	31172	98%R					MOM 12/8/92
0.5			80780	93%R					
1.0			195148	109%R					
2.0			349073	97%R					
5.0			911500	100%R					
ICV			186824	1.05	1x	1x	1.05 (02)	—	TV = 1.0 mg/kg 105%R
ICV-D			204185	1.14			1.14 (02)		TV = 1.0 mg/kg 114%R
D21028.502 18825.6	H92083	1ml/20ml	no peak	Ø	20x	1x	ND (02)		Solid
D	H92083		no peak	Ø			ND		
2nd D	H92083		no peak	Ø			ND		
18826.4	H92070		no peak	Ø			ND		
S	H92070		172663	0.969			0.97	TV = 1.0 mg/kg 97%R	
18827.2	H92071		no peak	Ø			ND		
D21028.500 18876.0	H92068		no peak	Ø			ND		

Calc: $\frac{\left(\frac{mg}{l}\ PO_4\right)(0.001\ l)(20x)(1000)}{20g}$

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

20g of sample was mixed with 20mls of DI
1ml of sample was analyzed.

FORMS68

CCC053

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.500, D21028.500, D21102.502, D21104.501

BATCH #:

FINAL CONC. UNITS: mg/kg

ANALYST(S): MEM

CORR. COEF.: 1.000

REVIEWED BY: TC

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (~~ml~~ area)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 18877.9	H92069	1mg/20ml	no peak	Ø	20x	1x	ND (0.2)	—	solid
D21102.502 18906.6	H92077		no peak	Ø			ND		
18907.4	H92078		no peak	Ø			ND		
D21104.501 16946.4	H92072		no peak	Ø			ND		
16947.2	H92073		no peak	Ø			ND		
16948.0	H92074		no peak	Ø			ND		
CCV	N/A	N/A	191530	1.07	1x		1.07 (0.2)		N/A
CCB			no peak	Ø			ND (0.2)		
D21104.501 16949.9	H92075	1mg/20ml	no peak	Ø	20x		ND (0.2)	*	solid
CCV	N/A		221892	1.238	1x		1.24 (0.2)	—	N/A
CCB			no peak	Ø			ND (0.2)		
									MEM 12/8/92

* Result was accepted even though CCV did not come within range because sample was ND and all other samples before were ND.

[1] Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

C300000

NO_3 by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.502 D21028.500 D21102.502 D21104.501

BATCH #: 6510533

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.997

REVIEWED BY: TL

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (~~ml~~ area)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
~~0.2 mg/l~~		~~N/A~~	~~99421~~	DROPPED DUE TO POOR RECOVERY					
~~0.5~~			~~224900~~	DROPPED DUE TO POOR RECOVERY					
1.0			682261						MOM 12/8/92
2.0			1037627						
5.0			2748936						
ICV			670489	1.12	1x	1x	1.12 (1)	TV = 1.0 mg/kg 112% R	N/A
ICV-D			708202	1.19			1.19 (1)	TV = 1.0 mg/kg 119% R	
D21028.502 18825.6	H92083	1ml/20ml	59771	-0.0358	20x	1x	ND (1)		SOLID
Dup			77090	-0.003			ND (1)		
2nd Dup			80913	0.004			ND (1)	% RPD = NC	
D21028.502 18826.4	H92070		75656	-0.0058			ND (1)		
spk			548723	0.888			0.89 (1)	TV = 1.0 mg/kg 89% R	
18827.2	H92071		112004	0.062			ND (1)		
D21028.500 18876.0	H92068		117939	0.074			ND (1)		

Calc: $\frac{\left(\frac{mg}{l} NO_3\right)(0.001 l)(20x)(1000)}{20g}$

[1] Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

20g of sample was mixed with 20ml

FORMS68

NO_3 by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: _____

BATCH #: _____

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.997

REVIEWED BY: TC

ANALYST(S): MBM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading ~~(mg/L)~~ area	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 188779	H92069	1ml/20ml	132386	0.101	20x	1x	ND (1)		SOIL
D21102.502 18906.6	H92077		413252	0.632			ND (1)		
D21104.501 18907.4	H92078		276398	0.373			ND (1)		
D21104.501 16946.4	H92072		184738	0.200			ND (1)		
16947.2	H92073		228023	0.282			ND (1)		
16948.0	H92074		116674	0.071			ND (1)		
CCV	N/A	N/A	671590	1.12	1x		1.12 (1)	TV = 10 mg/kg 112% R	N/A
CCB			35426	-0.081			ND (1)		
16949.9			99891	0.039					
CCV			756475	1.28	CCV out of range				
CCB			139750	0.115	DO NOT USE				

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

230003

Cl by IC

WET CHEMISTRY WORKSHEET

D21028 502

PROJECT I.D.: D21028.500
D21102.502
D21104.501

BATCH #: 6510542

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.996

REVIEWED BY: TC

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (~~ml~~ area)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
0.2 mg/l	—	N/A	56311	~~80%R~~ MOM					MOM 12/8/92
0.5			92874						—
1.0			294683						
2.0			443895						
5.0			1093030						
ICV			275718	1.18	1x	1x	1.18 (0.2)	TV = 1.0 mg/kg 118%R	
ICV-D			278043	1.19	1x	1x	1.19 (0.2)	TV = 1.0 mg/kg 119%R	
D21028.502 188256	H92083	1ml/20ml	178722	0.728	20x	1x	0.7 (0.2)	—	Solid
Dup		1ml/20ml	194060	0.800	20x		0.8 (0.2)		
2nd Dup			196612	0.812			0.8 (0.2)		
188264	H92070		64034	0.195			0.2 (0.2)		
spk			241437	1.02			1.0 (0.2)	TV = 1.0 mg/kg 80%R	
188272	H92071		121305	0.462			0.5 (0.2)	—	
D21028.500 188760	H92068		230263	0.968			1.0 (0.2)		

Calc: $\frac{\text{mg/l of } Cl^- \times 0.001\,l \times \text{dilu factor} \times 1000}{20\text{g samp. amt.}}$

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

20g sample was mixed with 20mls of DI. 1ml of sample was analyzed.

FORMS68

Cl by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: _____

BATCH #: _____

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.996

REVIEWED BY: TC

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (ml)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 18877.9	H92069	1ml/20ml	144004	0.567	20x	1x	0.6 (0.2)	—	Solid
D21102.500 18906.6	H92077		66914	0.209			0.2 (0.2)		
18907.4	H92078		148160	0.586			0.6 (0.2)		
D21104.501 16946.4	H92072		492258	2.18			TC 2.2 ~~2.1~~ (0.2)		
16947.2	H92073		99012	0.358			0.4 (0.2)		
16948.0	H92074		71409	0.230			0.2 (0.2)		
CCV	N/A	N/A	259622	1.10			1.10 (0.2)	TV = 1.0 mg/kg 110%R	—
CCB			4709	-0.080			ND (0.2)	—	
D21104.501 16949.9	H92075	1ml/20ml	146922 ~~21928~~	0.581	20x	1x	0.6 (0.2)	TV = 1.0 mg/kg 118%R	
CCV	N/A	N/A	276569	1.18	1x	1x	1.18 (0.2)		
CCB			no peak	ND			ND (0.2)		

MOM 12/7/92

[1] Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

NO2 by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.502 / D21028.500 / D21102.502 / D21104.501

BATCH #: 6510539

FINAL CONC. UNITS: mg/kg

CORR. COEF.: ~~0.999~~ 1.000

REVIEWED BY: TC

ANALYST(S): MDM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (ml)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
~~0.8~~			~~144900~~	DROPPED	DUE	TO	POOR RECOVERY		—
0.5	—	N/A	266909					not 12/8/92	
1.0			551398						
2.0			1111338						
50			2983198						
ICV			466632	0.867	1x	1x	0.87 (0.5)	TV = 1.0 mg/kg 87%R	
ICB			12055	0.117			ND (0.5)	—	
D21028.502 188251	H92083	1ml/20ml	no peak	ND	20x	1x	ND (0.5)		solid
Dup			no peak	ND			ND		
2nd Dup			no peak	ND			ND		
188264	H92070		no peak	ND			ND		
~~spk~~								MDM	
188272	H92071		no peak	ND			ND		
D21028.500 188276	H92068		no peak	ND			ND		

Calc: $\frac{\frac{mg}{l} NO_2 \times 0.001 l \times D.F. \times 1000}{20g \text{ (samp. amt.)}}$

[1] Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

20g of sample was mixed with 20mls of DI
1ml of the 20mls was analyzed.

FORMS68

WET CHEMISTRY WORKSHEET

PROJECT I.D.: _____

BATCH #: _____

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 1.000

REVIEWED BY: TC

ANALYST(S): MDM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading ~~(ml)~~ area	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 18877.9	H92069	1ml/20ml	no peak	ND	20X	1X	ND (0.5)	—	Solid
D21102.502 18906.6	H92077	↓	81134	0.231	↓	↓	ND	↓	↓
18907.4	H92078	↓	no peak	ND	↓	↓	ND	↓	↓
D21104.501 16946.4	H92072	↓	no peak	ND	↓	↓	ND	↓	↓
16947.2	H92073	↓	no peak	ND	↓	↓	ND	↓	↓
16948.0	H92074	↓	no peak	ND	↓	↓	ND	↓	↓
16949.9	H92075	↓	no peak	ND	↓	↓	ND	↓	↓
CCV	N/A	N/A	526408	0.966	1X	1X	0.97 (0.5)	TV = 1.0 mg/kg 97% R	MDM
CCB	↓	↓	89578	0.245	↓	↓	ND (0.5)		

MDM 12/8/92

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

0000065

F by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.502, D21028.500, D21102.502, D21104.501

BATCH #: 6510541

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 1.000

REVIEWED BY: TC

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (area)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
0.2 mg/l	—	N/A	71445					not 12/8/92	—
0.5			151379						
1.0			337924						
2.0			716774						
5.0			1858513						
ICV			300708	0.871	1x	1x	0.87(0.2)	TV = 1.0 mg/kg 87% R	-
ICV-D			400593	1.14			1.14	TV = 1.0 mg/kg 114% R	
D21028.502 188256	H92083	1ml/20ml	22845	0.132	20x	1x	ND	—	solid
Dup			18764	0.121			ND		
2nd Dup			13024	0.106			ND	% RPD = NC	
D21028.502 188264	H92070		46391	0.195			ND		
spk			369024	1.05			1.05	TV = 1.0 mg/kg 105% R	
188272	H92071		66589	0.249			0.2	—	
D21028.500 188760	H92068		39628	0.177			ND		

Calc. $\frac{\text{mg/l of F}^- \times 0.001\,l \times \text{D.F.} \times 1000}{\text{20g samp. amt.}}$

[1] Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

20g sample was mixed with 20mls of DI. 1ml of the 20mls was analyzed

F by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: _____

BATCH #: _____

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 1.000

REVIEWED BY: TC

ANALYST(S): mom

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading ~~(ml)~~ area	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 18877.9	H92069	1ml/20ml	35121	0.165	20x	1x	ND(0.2)	—	Solid
D21102.502 18906.6	H92077		70276	0.258			0.2		
18907.4	H92078		42218	0.184			ND		
D21104.501 16946.4	H92072		33870	0.162			ND		
16947.2	H92073		44462	0.190			ND		
16948.0	H92074		46092	0.194			ND		
~~16949~~ mom		—	~~18794~~ mom	—	—	—	—		—
CCV	N/A	N/A	306080	0.885	1x	1x	0.88	TV = 1.0 mg/kg 88%R	—
CCB			no peak	ND			ND	—	—
D21104.501 16949.9	H92075	1ml/20ml	18794	0.121	20x		ND		Solid
CCV	N/A	N/A	397632	1.13	1x		1.13	TV = 1.0 mg/kg 113%R	—
CCB			no peak	ND			ND	—	—

mom 12/8/92

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

0000067

SO4 by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: D21028.502 D21028.500 D21102.502 D21104.501

BATCH #: 6510536

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.998

REVIEWED BY: IC

ANALYST(S): MOM

DATE: 12/3/92

METHOD: 300.0

PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading (~~ml~~ area)	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
~~0.2 mg/l~~		~~N/A~~	~~28755~~	DROPPED DUE TO POOR RECOVERY					
~~0.5~~			~~69523~~	DROPPED DUE TO POOR RECOVERY					
1.0	N/A		189265						
2.0			293977						
5.0			729256						
ICV	N/A		184145 ~~188473~~	1.06	1x	1x	1.06 (1)	TV = 1.0 mg/kg 106%R	
ICV-D			188473	1.10			1.10 (1)	TV = 1.0 mg/kg 110%R	
D21028.502 ~~IC~~ 18825.6	H92083	1ml/20ml	387251	2.54	20x	1x	2.5 (1)	—	solid
18825 (D)			418461	2.77			2.8 (1)	* This result reported	
2nd (D)			430263	2.85			2.8 (1)	0% RPD	
18826.4	H92070		120849	0.603			ND (1)	—	
(S)			228078	1.38			1.4 (1)	TV = 1.0 mg/kg ~~80%R~~ 140% 12/11/92	
18827.2	H92071		542685	3.67			3.7 (1)	—	
D21028.500 18876.0	H92068		660437	4.53			4.5 (1)		

calc: $\frac{\left(\frac{mg}{l}\ SO_4^{=}\right)(0.001\,l)(D.F.)(1000)}{20g\ samp.\ amt.}$

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

20g of sample was mixed with 20mls of DI
1 ml of the 20mls was analyzed.

FORMS68

SO4 by IC

WET CHEMISTRY WORKSHEET

PROJECT I.D.: _____

BATCH #: _____

FINAL CONC. UNITS: mg/kg

CORR. COEF.: 0.998

REVIEWED BY: JC

DATE ~~ANALYST(S)~~: 12/3/92

ANALYST ~~DATE~~: MEM

METHOD: 300.0

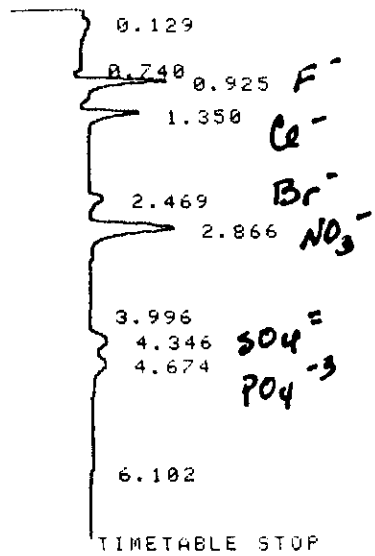
PACE Sample[1] I.D. #	Client Sample[1] I.D. #	Sample Size	Instrument Reading ~~(mL)~~ area	Aliquot Conc.	SER DF	PREP DF	FINAL CONC	COMMENT	MATRIX
D21028.500 18877.9	H92069	1mL/20mL	434342	2.88	20x	1x	2.9 (1)	—	solid
D21102.502 18906.6	H92077		63005	0.182			ND (1)		
18907.4	H92078		78822	0.297			ND (1)		
D21104.501 16946.4	H92072		473105	3.16			3.2 (1)		
16948.0	H92073		853943	off scale			—		
16947.2	H92074		3401634	off scale			—		
CCV	N/A	N/A	174965	0.997	1x	1x	1.0 (1)	TV = 1.0 mg/kg 100%R	—
CCB		1mL/20mL	no peak	ND			ND (1)	—	—
D21104.501 16947.2	H92074	1mL/20mL	318826	2.04	20x	10x	20 ~~20~~ (10)		solid
16948.0	H92073	1mL/20mL	402602	2.65	20x	2x	5.3 ~~2.6~~ (2)		
16949.9	H92075		484194	3.24	20x	1x	3.2 (1)		
CCV	N/A	N/A	200554	1.18	1x	1x	1.18 (1)	TV = 1.0 mg/kg 118%R	—
CCB			97994	0.437			ND (1)	—	—

[1]Always take I.D.s from the sample container (NOT SADEF) to support I.D. Validation. Client's ID from Client's label

FORMS68

* RUN # 271 DEC 3, 1992 11:05:01

START



0.2 mg/L

RUN # 271-002

RUN# 271 DEC 3, 1992 11:05:01

AREA%

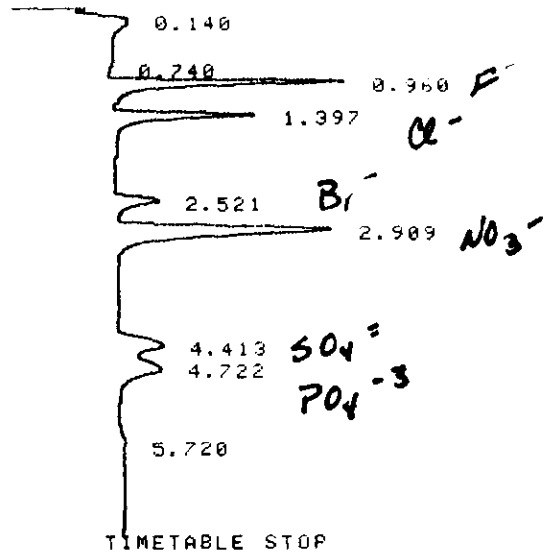
RT	AREA	TYPE	WIDTH	AREA%
.129	8654	BV	.152	2.54353
.740	14090	VP	.250	4.14124
.925	71445	PV	.110	20.99866
1.350	56311	VV	.128	16.55057
2.469	27394	VV	.182	8.05147
2.866	99421	VB	.162	29.22119
3.996	1478	PV	.211	.43440
4.346	28755	VV	.210	8.45149
4.674	31172	VV	.254	9.16188
6.102	1516	PB	.105	.44557

TOTAL AREA= 340236

000071

* RUN # 272 DEC 3, 1992 11:12:31

START



0.5mg/L

RUN# 272 DEC 3, 1992 11:12:31

AREA%

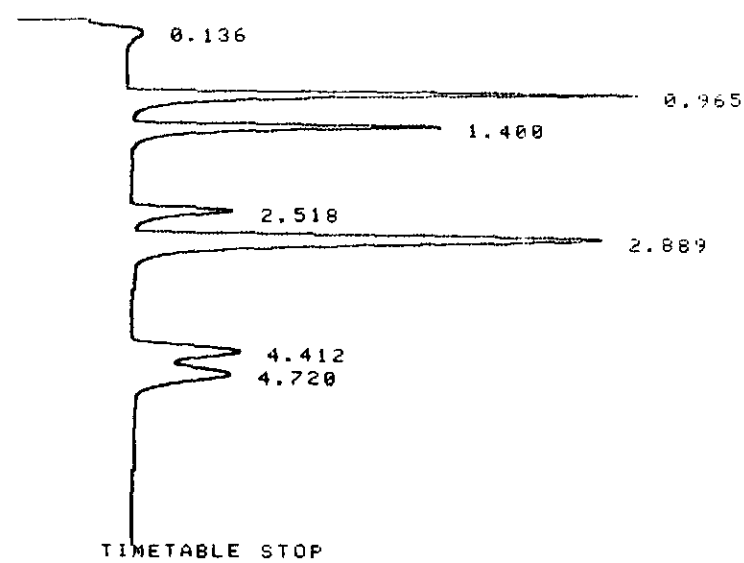
RT	AREA	TYPE	WIDTH	AREA%
.140	95097	BV	.265	11.36629
.740	46916	VV	.437	5.60755
.960	151379	VB	.091	18.09330
1.397	92874	BB	.095	11.10059
2.521	39827	PV	.127	4.76025
2.909	224900	VB	.153	26.88075
4.413	69523	VV	.205	8.30961
4.722	80780	VV	.249	9.65508
5.720	35362	VV	.470	4.22653

TOTAL AREA= 836658

MUL FACTOR=1.0000E+00

* RUN # 273 DEC 3, 1992 11:25:22

START



1.0mg/L

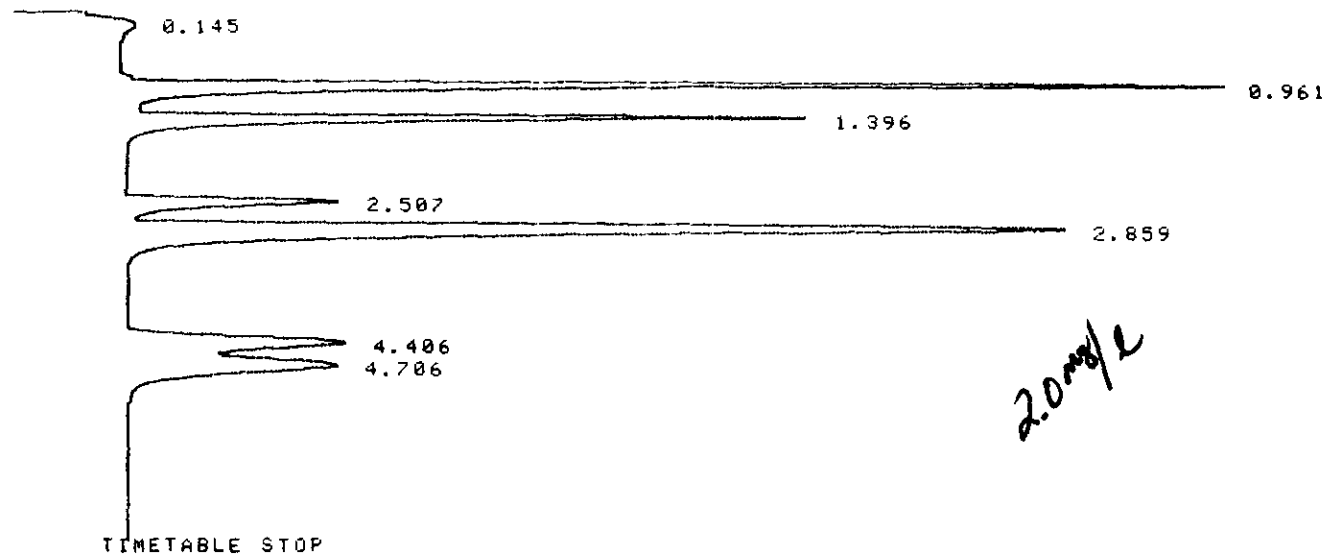
DNU

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.136	74681	BV	.252	4.92016
.965	330419	VB	.094	21.76877
1.400	195716	BB	.092	12.89423
2.518	91524	PV	.123	6.02981
2.889	503001	VB	.157	33.13886
4.412	151842	PV	.199	10.00370
4.720	170675	VV	.244	11.24446

TOTAL AREA=1517858
MUL FACTOR=1.0000E+00

* RUN # 274 DEC 3, 1992 11:58:41
START



2.0mg/L

RUN# 274 DEC 3, 1992 11:58:41

AREA%

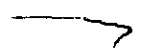
RT	AREA	TYPE	WIDTH	AREA%

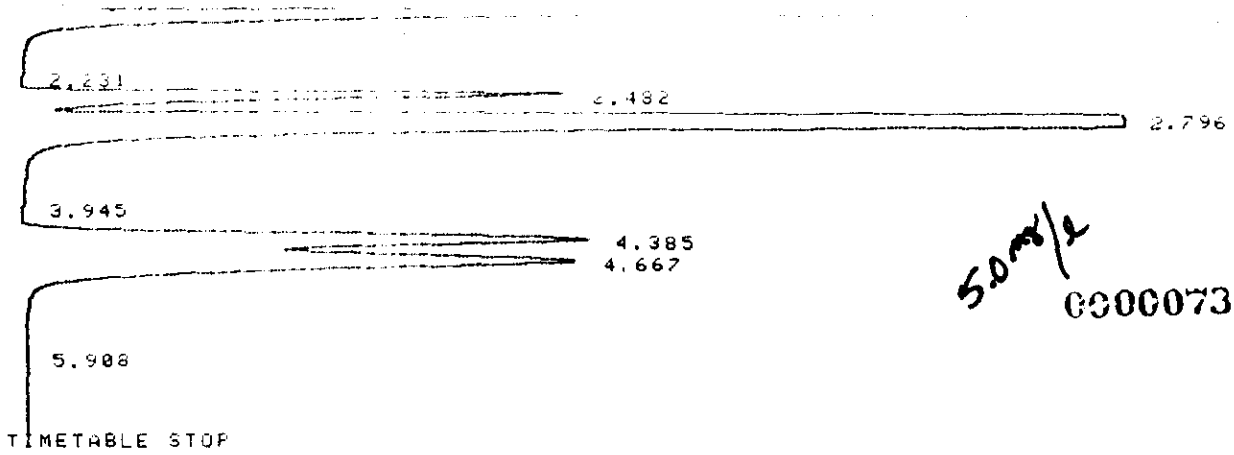
RUN # 274-002

.145	68480	BV	.279	2.21228
.961	716774	VV	.090	23.15578
1.396	443895	VB	.096	14.34028
2.507	185617	PV	.127	5.99646
2.859	1037627	VB	.163	33.52112
4.406	293977	PV	.196	9.49709
4.706	349073	VV	.242	11.27700

TOTAL AREA=3095443
MUL FACTOR=1.0000E+00

* RUN # 275 DEC 3, 1992 12:40:29
START





50 mg/l

0000073

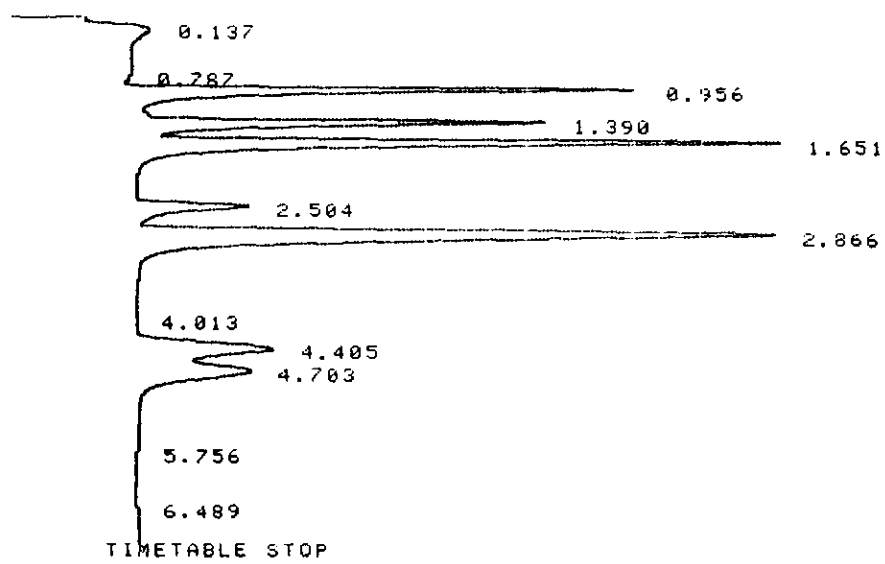
RUN# 275 DEC 3, 1992 12:40:29

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.122	56117	BV	.229	.71204
.600	6564	VV	.153	.08329
.954	1858513	VV	.086	23.58170
1.260	18963	VV	.067	.24061
1.385	1093030	VB	.091	13.86888
2.231	1062	PV	.129	.01348
2.482	454376	VV	.124	5.76534
2.796	2748936	VB	.178	34.87981
3.945	1563	PV	.163	.01983
4.385	729256	VV	.190	9.25315
4.667	911500	VB	.244	11.56554
5.908	1288	PP	.177	.01634

TOTAL AREA=7881168
MUL FACTOR=1.0000E+00

* RUN # 276 DEC 3, 1992 12:53:25
START



1.0 mg/l

RUN# 276 DEC 3, 1992 12:53:25

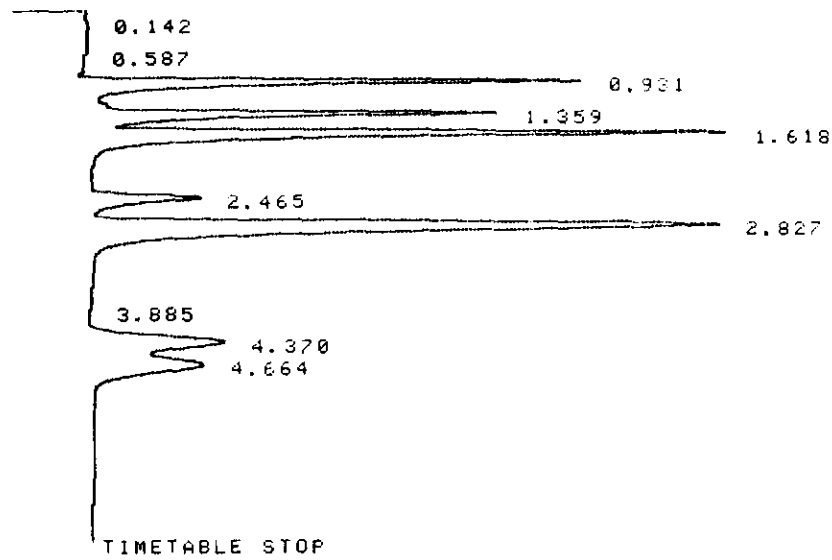
AREA%

.79[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
.956	3[illegible]	[illegible]	[illegible]	1[illegible]
1.39[illegible]	2[illegible]	[illegible]	[illegible]	1[illegible]
1.65[illegible]	46[illegible]	[illegible]	[illegible]	1[illegible]
2.504	99[illegible]	[illegible]	[illegible]	[illegible]
2.866	682261	[illegible]	[illegible]	27.68179
4.013	2457	PV	.136	.09969
4.405	189265	VV	.201	7.67916
4.703	195148	VV	.244	7.91786
5.756	10333	VV	.447	.41925
6.489	5836	VV	.355	.23679

TOTAL AREA=2464656
MUL FACTOR=1.0000E+00

0000074

* RUN # 277 DEC 3, 1992 13:07:26
START



TCV-[illegible]

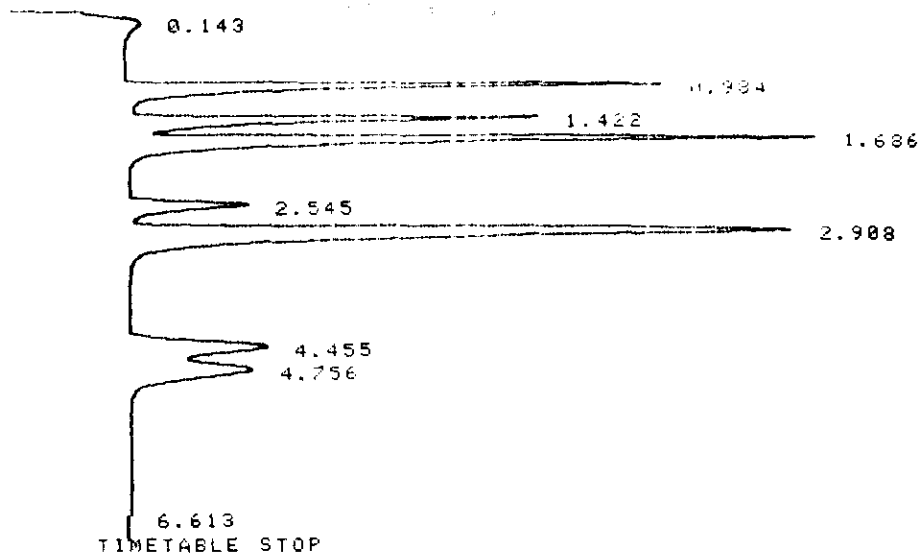
RUN# 277 DEC 3, 1992 13:07:26

AREA%

RUN # 277-002

RT	AREA	TYPE	WIDTH	AREA%
.142	7106	PV	.170	.32498
.587	12620	VV	.294	.57716
.931	300708	PV	.088	13.75243
1.359	275718	VV	.098	12.60956
1.618	451927	VB	.104	20.66822
2.465	96480	BV	.126	4.41237
2.827	670489	VB	.157	30.66382
3.885	563	PB	.084	.02575
4.370	184145	BV	.200	8.42160
4.664	186824	VV	.240	8.54412

TOTAL AREA=2186581
MUL FACTOR=1.0000E+00



ICV Dup

0000075

RUN# 278 DEC 3, 1992 13:18:17

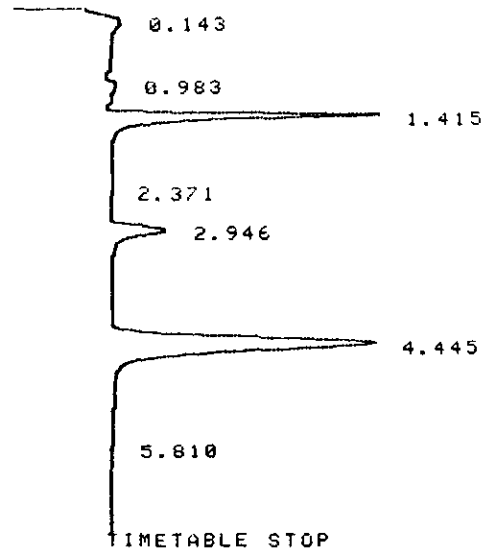
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.143	96243	BV	.299	3.88152
.984	400593	VV	.107	16.15608
1.422	278043	VV	.097	11.21359
1.686	498016	VB	.106	20.08520
2.545	103771	PV	.127	4.18513
2.908	708202	VB	.158	28.56209
4.455	188473	PV	.199	7.60120
4.756	204185	VV	.241	8.23487
6.613	1992	PV	.224	.08034

TOTAL AREA=2479518
MUL FACTOR=1.0000E+00

* RUN # 279 DEC 3, 1992 13:40:00
START

18825



RUN# 279 DEC 3, 1992 13:40:00

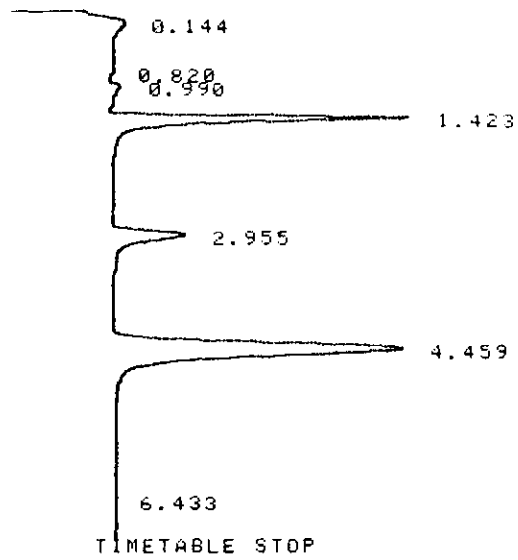
AREA%

.143	60057	BV	[illegible]	[illegible]
.98[illegible]	22845	[illegible]	[illegible]	[illegible]
1.415	[illegible]	[illegible]	[illegible]	[illegible]
2.371	1651	[illegible]	[illegible]	[illegible]
2.946	59[illegible]71	[illegible]	[illegible]	[illegible]
4.445	387251	[illegible]	.215	5[illegible].33632
5.810	2389	PV	.257	.33521

0000076

TOTAL AREA= 712686
MUL FACTOR=1.0000E+00

* RUN # 280 DEC 3, 1992 13:48:32
START



18825 Dup

RUN# 280 DEC 3, 1992 13:48:32

AREA%

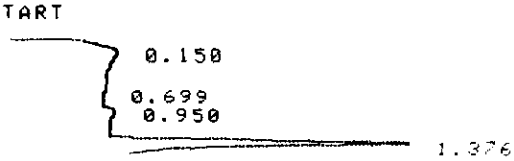
RT	AREA	TYPE	WIDTH	AREA%
.144	61000	BV	.273	7.64490
.820	26692	VV	.391	3.3452[illegible]
.990	18764	VV	.155	2.35162

RUN # 280-002

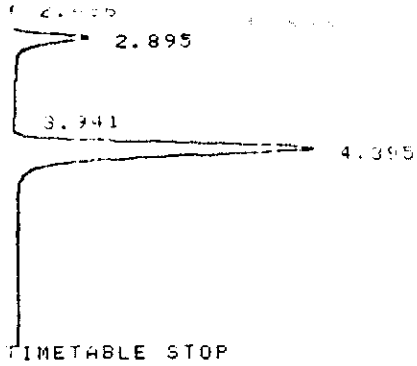
1.423	194060	PB	.095	24.32079
2.955	77090	PB	.153	9.66140
4.459	418461	PB	.213	52.44413
6.433	1851	PV	.180	.23198

TOTAL AREA= 797918
MUL FACTOR=1.0000E+00

* RUN # 281 DEC 3, 1992 13:57:25
START



~~I8825~~ 2nd Dup



C000077

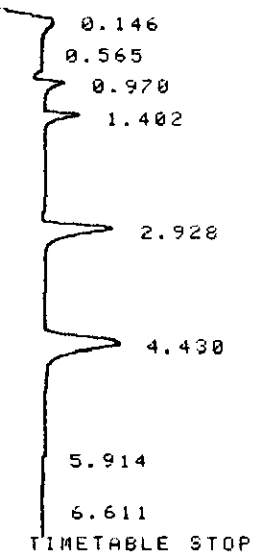
RUN# 281 DEC 3, 1992 13:57:25

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.150	38852	BV	.247	5.00504
.695	12217	VP	.323	1.57383
.950	13024	PV	.132	1.67780
1.376	196612	VB	.094	25.32822
2.486	1994	VP	.181	.25687
2.895	80913	PV	.156	10.42348
3.941	2382	PV	.248	.30686
4.395	430263	VB	.214	55.42792

TOTAL AREA= 776257
MUL FACTOR=1.0000E+00

* RUN # 282 DEC 3, 1992 14:08:50
START



18826

RUN# 282 DEC 3, 1992 14:08:50

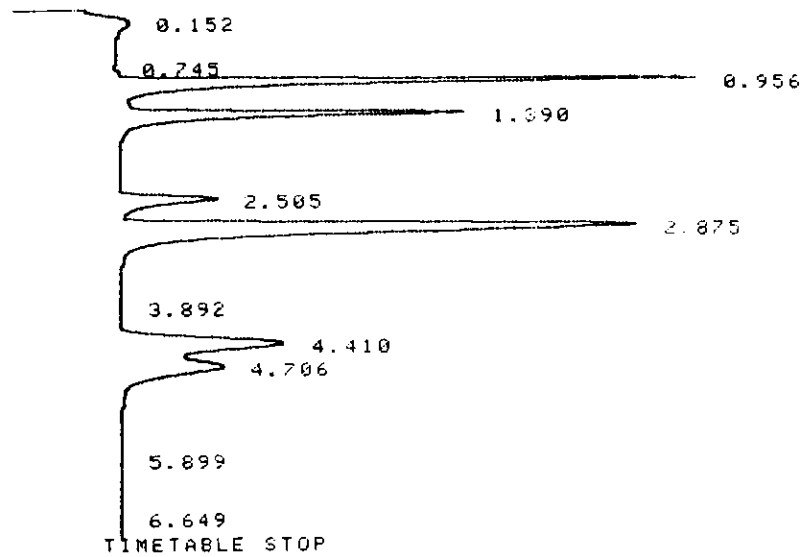
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.146	76573	BV	.292	18.05711
.565	28477	VV	.215	6.71532
.970	46391	VV	.167	10.93973
1.402	64034	VV	.182	15.10022
2.928	75656	BV	.154	17.84087
4.430	120849	VV	.225	28.49810
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TOTAL AREA= 424060
MUL FACTOR=1.0000E+00

000073

* RUN # 283 DEC 3, 1992 14:20:50
START



18826
1.0 spk

RUN# 283 DEC 3, 1992 14:20:50

AREA%

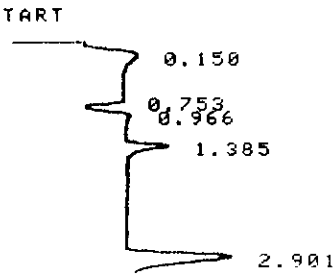
RT	AREA	TYPE	WIDTH	AREA%
.152	80341	BV	.297	4.58345
.745	9713	VV	.107	.55413
.956	369024	VV	.093	21.05381
1.390	241437	VB	.101	13.77398
2.505	87974	PV	.129	5.01892
2.875	548723	VB	.157	31.30462
3.892	4450	BV	.286	.25387
4.410	228078	VV	.204	13.01185
4.706	172663	VV	.240	9.85042
5.899	4962	VV	.307	.28308

RUN # 283-002

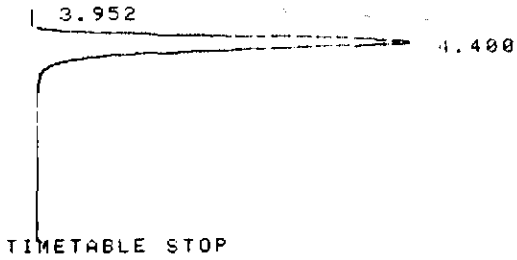
6.649	5484	VV	.360	.31286

TOTAL AREA=1752849
MUL FACTOR=1.0000E+00

* RUN # 284 DEC 3, 1992 14:28:33
START



18827



0000073

RUN# 284 DEC 3, 1992 14:28:33

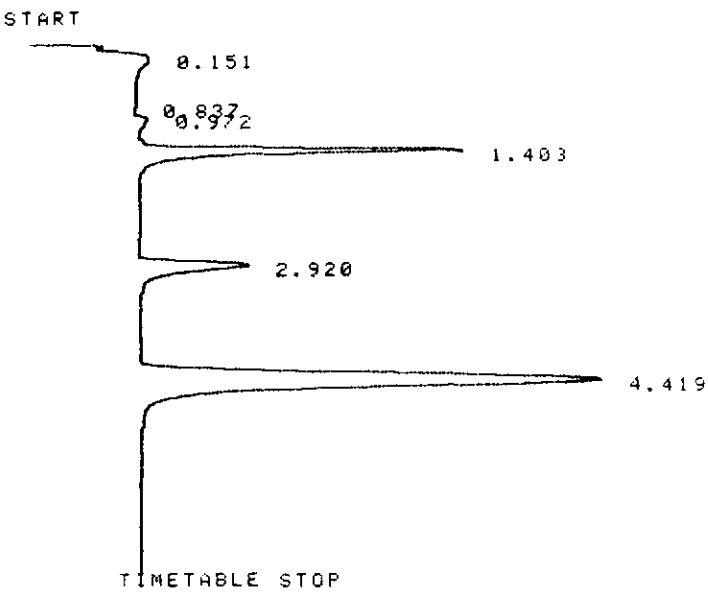
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.150	118707	BV	.343	11.91554
.753	33493	VP	.130	3.36195
.966	66589	PV	.222	6.68405
1.385	121305	VV	.249	12.17632
2.901	112004	VV	.153	11.24271
3.952	1454	PV	.169	.14595
4.400	542685	VB	.213	54.47349

TOTAL AREA= 996237
MUL FACTOR=1.0000E+00

18876

* RUN # 285 DEC 3, 1992 14:40:06



RUN# 285 DEC 3, 1992 14:40:06

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.151	115366	BV	.325	9.46974
.837	54626	VV	.410	4.48394
.972	39628	VV	.205	3.25284
1.403	230263	VB	.102	18.90099
2.920	117939	PV	.154	9.68095
4.419	660437	PB	.211	54.21155

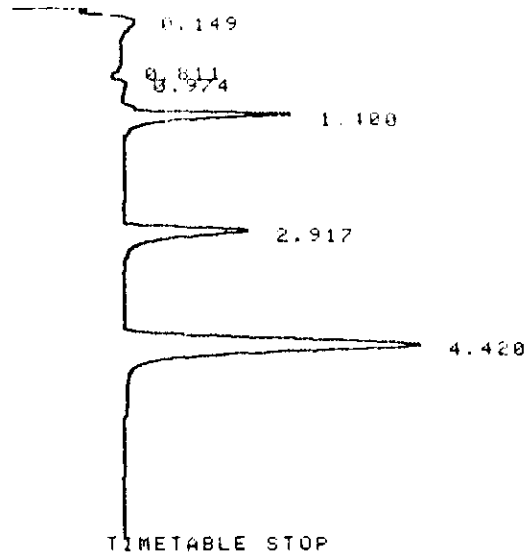
TOTAL AREA=1218259
MUL FACTOR=1.0000E+00

18877

0000080

* RUN # 285

START



RUN# 286 DEC 3, 1992 15:02:45

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.149	115720	BV	.313	12.93344
.811	33162	VV	.226	3.70635
.974	35121	VV	.208	3.92530
1.400	144004	VB	.117	16.09460
2.917	132386	PV	.153	14.79611
4.420	434342	VV	.215	48.54421

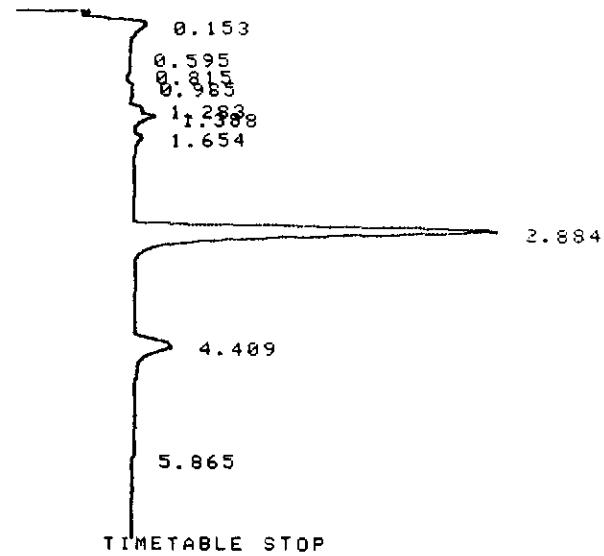
TOTAL AREA= 894735

MUL FACTOR=1.0000E+00

18906

* RUN # 287 DEC 3, 1992 15:13:07

START



RUN# 287 DEC 3, 1992 15:13:07

AREA%

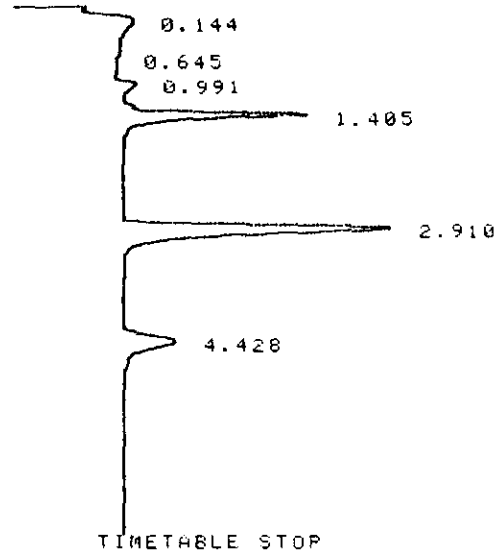
RT	AREA	TYPE	WIDTH	AREA%
.153	133990	BV	.294	13.57006

.815	57719	VV	[illegible]	[illegible]
.98[illegible]	70276	[illegible]	[illegible]	[illegible]
1.28[illegible]	43507	[illegible]	[illegible]	[illegible]
1.38[illegible]	66914	[illegible]	[illegible]	[illegible]
1.654	81134	VV	[illegible]	8.2601
2.884	413252	VB	[illegible]	42.0725[illegible]
4.409	63005	VV	.225	6.41445
5.865	1218	PV	.143	.12400

C00C082

TOTAL AREA= 982236
MUL FACTOR=1.0000E+00

* RUN # 288 DEC 3, 1992 15:20:52
START



18907

RUN# 288 DEC 3, 1992 15:20:52

AREA%

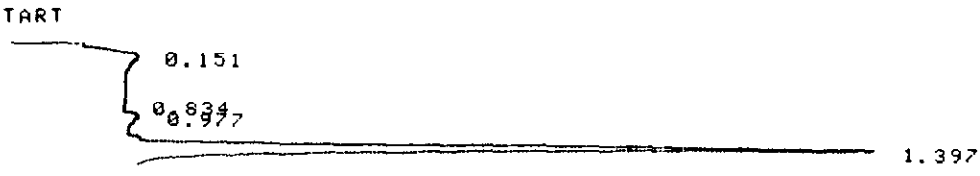
RT	AREA	TYPE	WIDTH	AREA%
.144	107671	BV	.297	15.51565
.645	40682	VV	.249	5.86237

RUN # 288-002

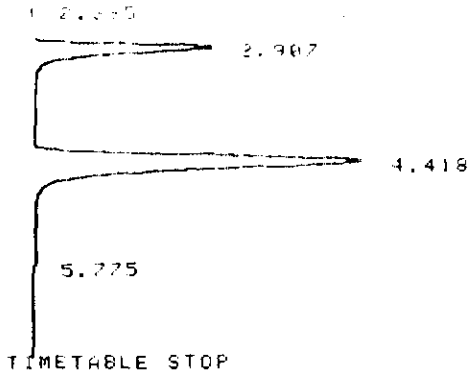
.991	42218	VV	.182	6.08372
1.405	148160	VB	.114	21.35022
2.910	276398	PB	.152	39.82960
4.428	78822	BB	.213	11.35844

TOTAL AREA= 693951
MUL FACTOR=1.0000E+00

* RUN # 289 DEC 3, 1992 15:28:21
START



~~18944~~ 16946



0000052

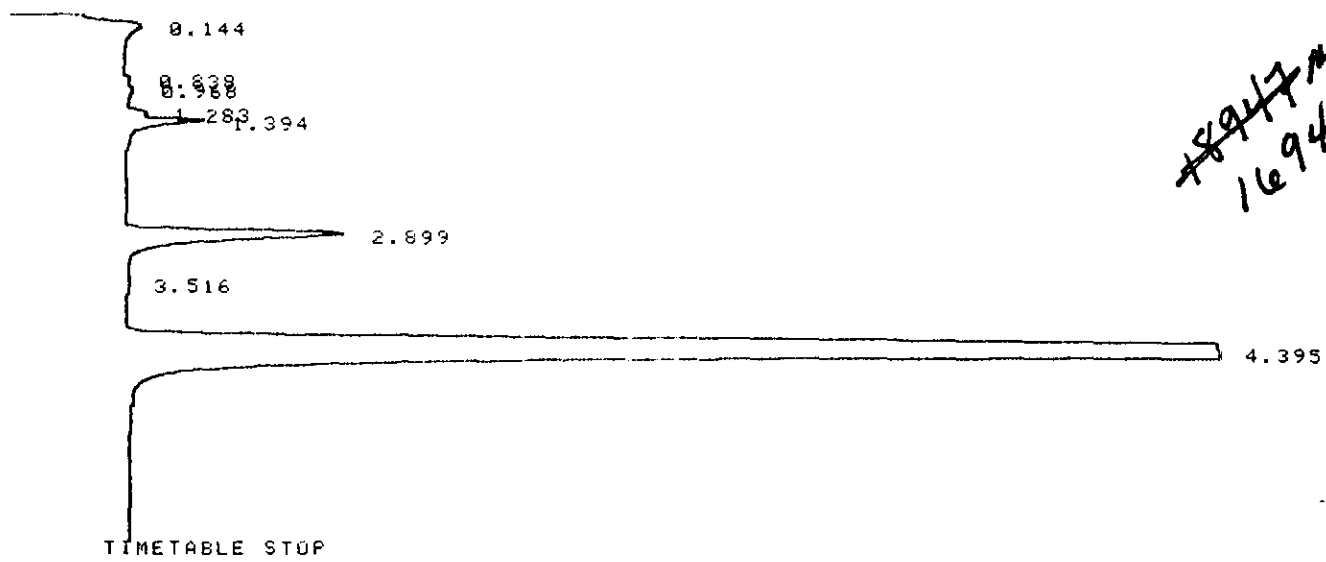
RUN# 289 DEC 3, 1992 15:28:21

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.151	96851	BV	.305	7.28026
.834	45595	VV	.382	3.42736
.977	33870	VV	.177	2.54600
1.397	492258	VB	.096	37.00286
2.395	2478	PV	.212	.18627
2.907	184738	PB	.151	13.88670
4.418	473105	BB	.212	35.56314
5.775	1429	BV	.140	.10742

TOTAL AREA=1330324
MUL FACTOR=1.0000E+00

* RUN # 290 DEC 3, 1992 15:36:07
START



~~18947~~ 16947

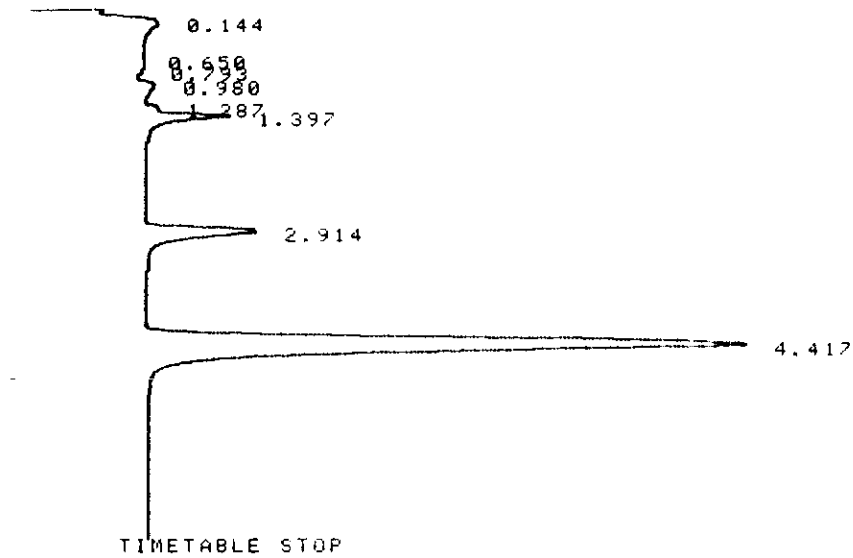
RUN# 290 DEC 3, 1992 15:36:07

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.144	99404	BV	.293	2.50631
.838	65589	VV	.326	1.65372
.968	44462	VV	.227	1.12103
1.283	24400	VV	.098	.61521
1.394	99012 I	VB	.157	2.49642
2.899	228023	PV	.153	5.74922

TOTAL AREA=3966157
MUL FACTOR=1.0000E+00

* RUN # 291 DEC 3, 1992 15:43:39
START



000C083

~~18948~~ 16948

RUN# 291 DEC 3, 1992 15:43:39

AREA%

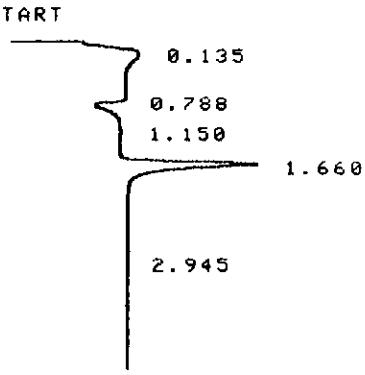
RT	AREA	TYPE	WIDTH	AREA%
.144	119415	BV	.297	9.21991
.650	46331	VV	.254	3.57717
.793	24087	VV	.147	1.85973
.980	46092	VV	.213	3.55872
1.287	17233	VV	.094	1.33054
1.397	71409	VB	.111	5.51342
2.914	116676	PV	.151	9.00844
4.417	853943	PB	.210	65.93210

TOTAL AREA=1295186

RUN # 291-002

MUL FACTOR=1.0000E+00

* RUN # 292 DEC 3, 1992 15:55:22
START



0.2 mg/l
NO2

TIMETABLE STOP

CCCCOS:

RUN# 292 DEC 3, 1992 15:55:22

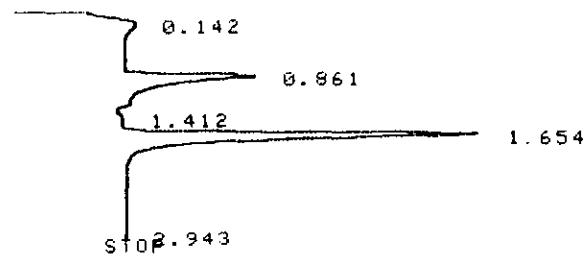
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.135	98786	BV	.300	28.80017
.788	41157	VP	.185	11.99895
1.150	56456	PV	.354	16.45924
1.660	144900	VB	.147	42.24423
2.945	1706	PP	.155	.49737

TOTAL AREA= 343005
MUL FACTOR=1.0000E+00

0.5 mg/l NO2

* RUN # 293 DEC 3, 1992 16:03:55
START



RUN# 293 DEC 3, 1992 16:03:55

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.142	68083	BV	.291	13.27040
.861	169574	VP	.171	33.05253

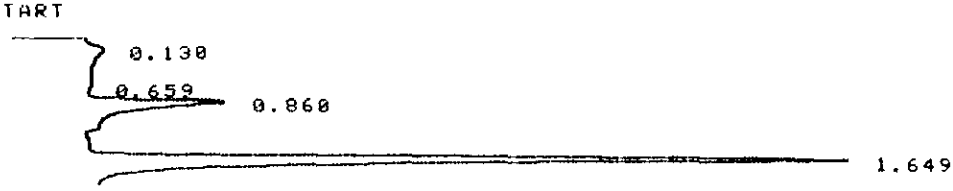
RUN # 293-002

1.412	5854	PV	.099	1.14103
1.654	266909	VB	.110	52.02456
2.943	2624	I PH	.122	.51146

TOTAL AREA= 513044
MUL FACTOR=1.0000E+00

1.0 mg/l NO2

* RUN # 294 DEC 3, 1992 16:07:27
START



RUN# 294 DEC 3, 1992 16:07:27

0000085

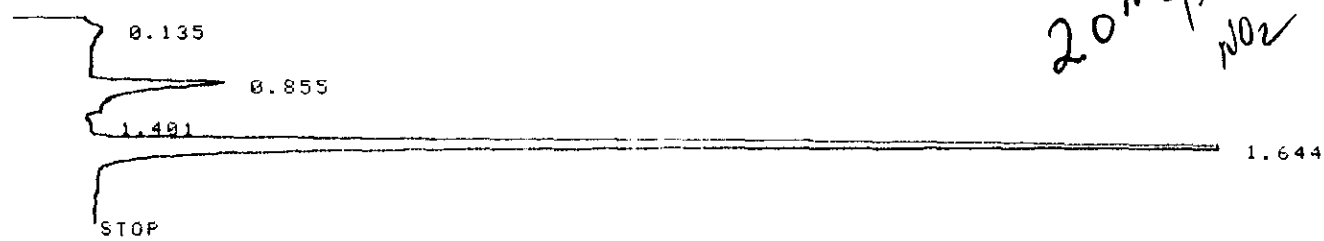
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.130	20486	BV	.182	2.81057
.659	5529	VV	.180	.75855
.860	151479	VP	.158	20.78209
1.649	551398	PB	.106	75.64880

TOTAL AREA= 728892
MUL FACTOR=1.0000E+00

* RUN # 295 DEC 3, 1992 16:10:40

START



20 mg/L NO2

RUN# 295 DEC 3, 1992 16:10:40

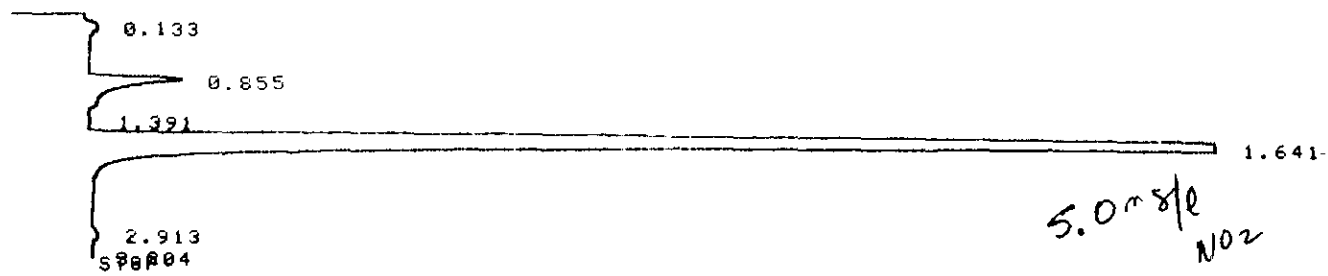
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.135	16989	BV	.172	1.33090
.855	144618	VV	.150	11.32922
1.401	3559	PV	.089	.27881
1.644	1111338	VB	.104	87.06106

TOTAL AREA=1276504
MUL FACTOR=1.0000E+00

* RUN # 296 DEC 3, 1992 16:13:55

START



5.0 mg/L NO2

RUN# 296 DEC 3, 1992 16:13:55

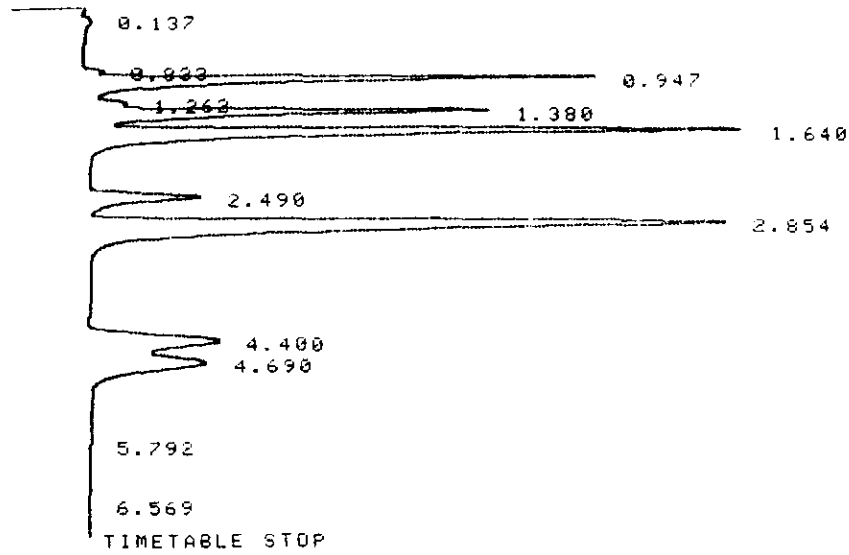
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.133	14485	BV	.155	.46494
.855	103953	VP	.152	3.33669
1.391	2928	PP	.094	.09398
1.641	2983198	PB	.103	95.75498

TOTAL AREA=3115450
MUL FACTOR=1.0000E+00

CCCCOSS

* RUN # 297 DEC 3, 1992 16:18:30
START



ICV/CCV
TV= 1.0 mg/L

RUN# 297 DEC 3, 1992 16:18:30

AREA%

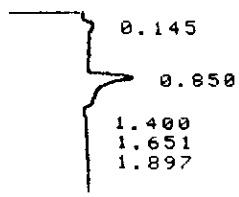
RT	AREA	TYPE	WIDTH	AREA%
.137	10276	PP	.136	.46533
.833	8311	VV	.062	.37635
.947	306080	VV	.087	13.86033
1.262	22871	VV	.081	1.03568
1.380	259622	VV	.095	11.75656
1.640	466632	VB	.105	21.13066
2.490	95014	BV	.124	4.30255
2.854	671590	VB	.156	30.41185
4.400	174965	BV	.196	7.92300
4.690	191530	VV	.239	8.67312

RUN # 297-002

5.792	1004	PV	.108	.04546
6.569	422	PB	.090	.01911

TOTAL AREA=2208317
MUL FACTOR=1.0000E+00

* RUN # 298 DEC 3, 1992 16:27:08
START



CCB

0000087

TIMETABLE STOP

RUN# 298 DEC 3, 1992 16:27:08

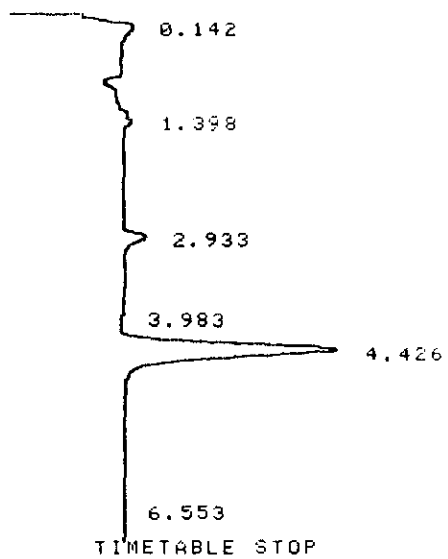
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.145	13068	PV	.180	7.40493
.850	71411	VP	.204	40.46477
1.400	4709	PV	.104	2.66834
1.651	12055	VV	.234	6.83092
1.897	39808	VV	.701	22.55705
2.927	35426	VV	.549	20.07401

TOTAL AREA= 176477
MUL FACTOR=1.0000E+00

16947
10X

* RUN # 299 DEC 3, 1992 16:35:21
START



TIMETABLE STOP

RUN# 299 DEC 3, 1992 16:35:21

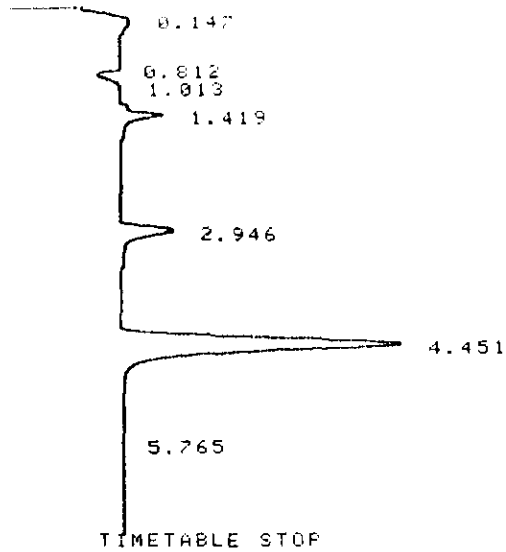
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.142	100021	BV	.318	18.84096
1.398	67494	VV	.439	12.71384
2.933	29657	PV	.163	5.58649
3.983	4155	VV	.252	.78268
4.426	318826	VV	.216	60.05728
6.553	10717	VV	.597	2.01876

TOTAL AREA= 530870
MUL FACTOR=1.0000E+00

* RUN # 300 DEC 3, 1992 16:[illegible]

START



16948.0
2X

0000083

RUN# 300 DEC 3, 1992 16:43:5[illegible]

AREA%

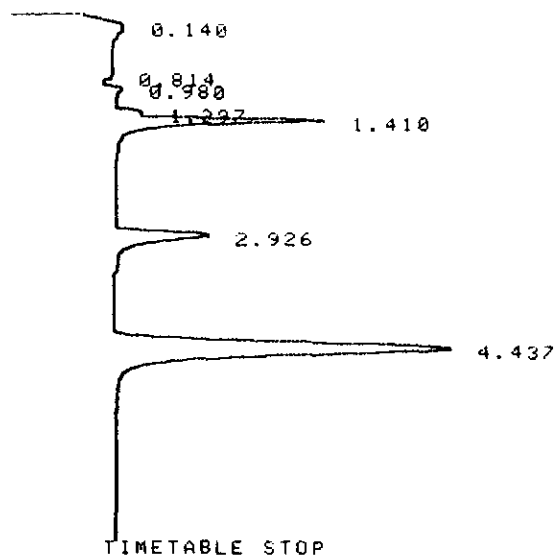
RT	AREA	TYPE	WIDTH	AREA%
.147	98555	BV	.349	13.72472
.812	53683	VP	.330	7.47587
1.013	29102	PV	.191	4.05273
1.419	74235	VB	.200	10.33792
2.946	56571	PV	.152	7.87805
4.451	402602	PB	.212	56.06613
5.765	3336	PV	.348	.46457

TOTAL AREA= 718084

MUL FACTOR=1.0000E+00

* RUN # 301 DEC 3, 1992 16:51:20

START



16949

RUN# 301 DEC 3, 1992 16:51:20

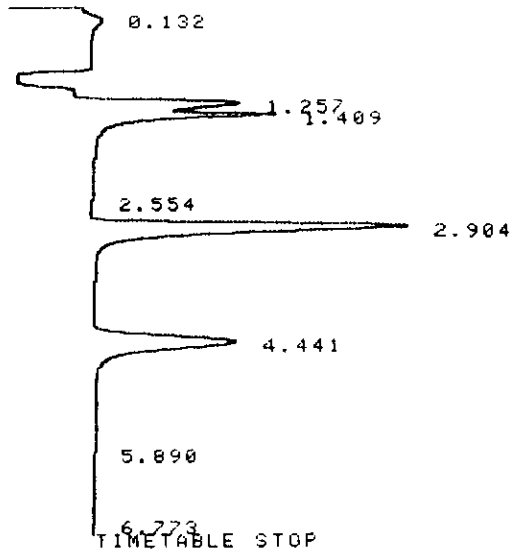
AREA%

.960	18794	PV	.137	2.17041
1.297	21928	VV	.04[illegible]	2.53[illegible]3
1.410	146922	[illegible]	.1[illegible]	16.9[illegible]0
2.926	99891	[illegible]	.1[illegible]	11.5[illegible]7[illegible]
4.437	484194	PB	.212	55.91[illegible]3[illegible]

TOTAL AREA= 865925
MUL FACTOR=1.0000E+00

0000083

* RUN # 302 DEC 3, 1992 16:59:22
START



17183
F

RUN# 302 DEC 3, 1992 16:59:02

AREA%

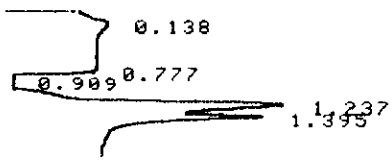
RT	AREA	TYPE	WIDTH	AREA%
.132	89691	BV	.474	7.93675
1.257	276134	PV	.191	24.43508
1.409	218939	VB	.139	19.37390
2.554	2555	PP	.234	.22609

RUN # 302-002

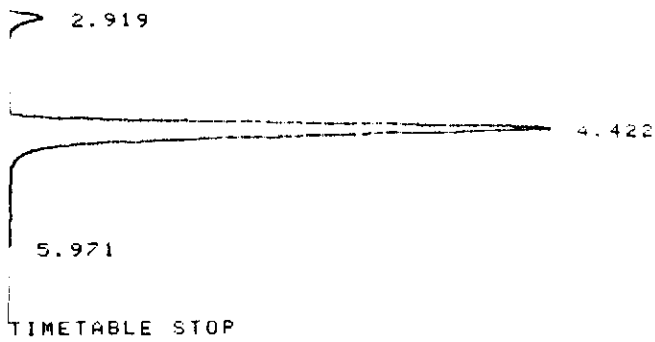
2.904	322560	PB	.151	28.54332
4.441	210803	PV	.214	18.65394
5.890	5856	VV	.269	.51820
6.773	3534 I	VH	.304	.31272

TOTAL AREA=1130072
MUL FACTOR=1.0000E+00

* RUN # 303 DEC 3, 1992 17:08:01
START



17183
B



0000090

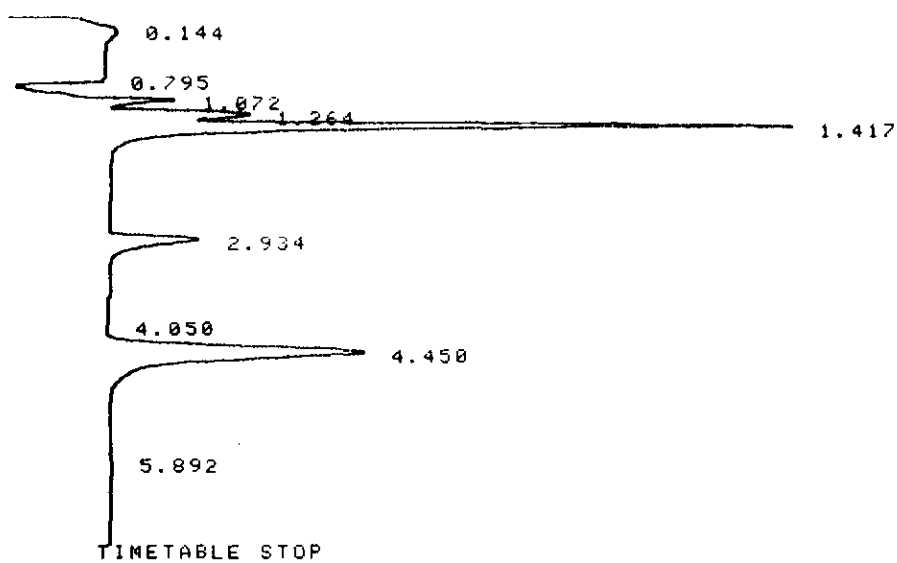
RUN# 303 DEC 3, 1992 17:08:01

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.138	101130	BV	.397	5.93917
.777	211498	VV	.277	12.42088
.909	17708	VP	.064	1.03996
1.237	336428	PV	.175	19.75778
1.395	230935	VB	.146	13.56238
2.919	36049	PP	.145	2.11704
4.422	763097	PB	.209	44.81525
5.971	5917	PP	.342	.34749

TOTAL AREA=1702762
MUL FACTOR=1.0000E+00

* RUN # 304 DEC 3, 1992 17:19:05
START



17786
F

RUN# 304 DEC 3, 1992 17:19:05

AREA%

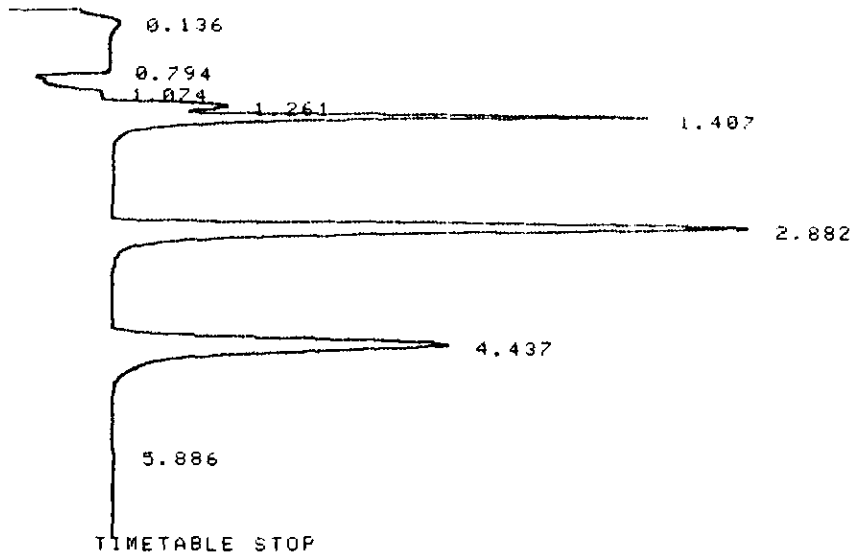
RT	AREA	TYPE	WIDTH	AREA%
.144	105367	BV	.414	6.68045
.795	194912	VP	.326	12.35776
1.072	127801	PV	.131	8.10281
1.264	169607	VV	.129	10.75338
1.417	482152	VB	.099	30.56929
2.934	93870	PV	.150	5.95152

5.892 14613 VV .310 .92643

TOTAL AREA=1577243
MUL FACTOR=1.0000E+00

0000002

* RUN # 305 DEC 3 1992 17:26:45
START



17186
B

RUN# 305 DEC 3, 1992 17:26:45

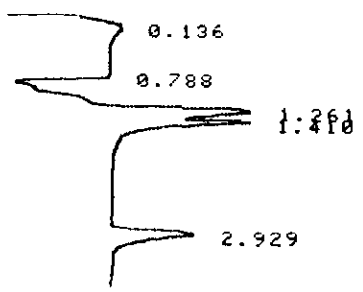
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.136	108130	BV	.410	5.37581
.794	146617	VP	.310	7.28924
1.074	41177	PV	.116	2.04716
1.261	144806	VV	.134	7.19920
1.407	389199	VB	.101	19.34947
2.882	661005	PB	.153	32.86262
4.437	506572	PV	.221	25.18462
5.886	13913	PV	.330	.69170

RUN # 305-002

TOTAL AREA=2011419
MUL FACTOR=1.0000E+00

* RUN # 306 DEC 3, 1992 17:34:14
START



17189
F

TIMETABLE STOP

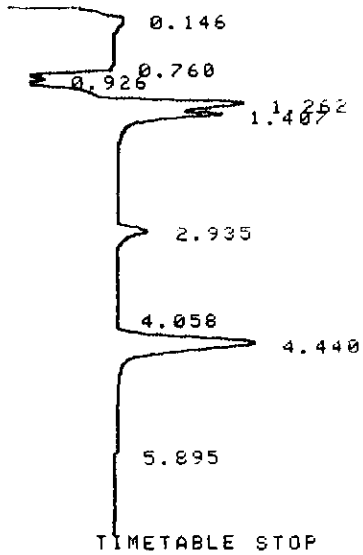
RUN# 306 DEC 3, 1992 17:34:14

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.136	107515	BV	.387	10.28843
.788	215402	VP	.340	20.61246
1.261	266013	PV	.189	25.45557
1.410	207560	VB	.159	19.86203
2.929	85213	BV	.146	8.15428
4.448	163306	PV	.215	15.62724

TOTAL AREA=1045009
MUL FACTOR=1.0000E+00

* RUN # 307 DEC 3, 1992 17:43:14
START



TIMETABLE STOP

17189
B

RUN# 307 DEC 3, 1992 17:43:14

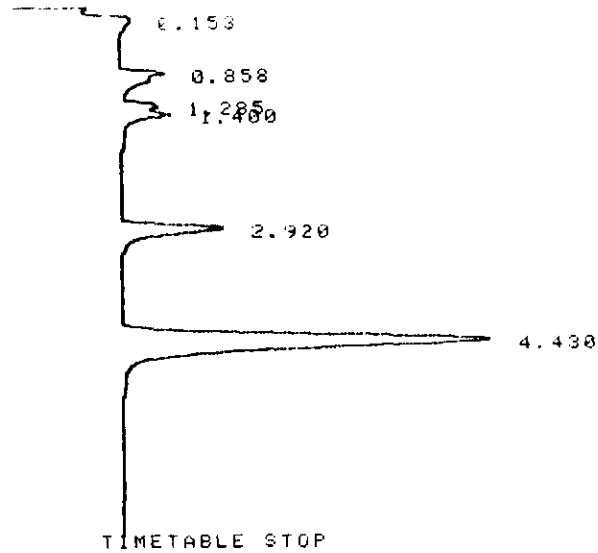
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.146	78218	BV	.291	8.31860
.760	162365	VP	.316	17.26774
.926	5933	PP	.050	.63098
1.262	235366	PV	.179	25.03151
1.407	210496	VB	.193	22.38655
2.935	32827	BP	.144	3.49120
4.058	1947	PV	.176	.20707
4.440	208042	VV	.215	22.12556
5.895	5085	PV	.377	.54080

TOTAL AREA= 940279
MUL FACTOR=1.0000E+00

* RUN # 308 [illegible]

START



0000003

18827

RUN# 308 DEC 3, 1992 17:50:41

AREA%

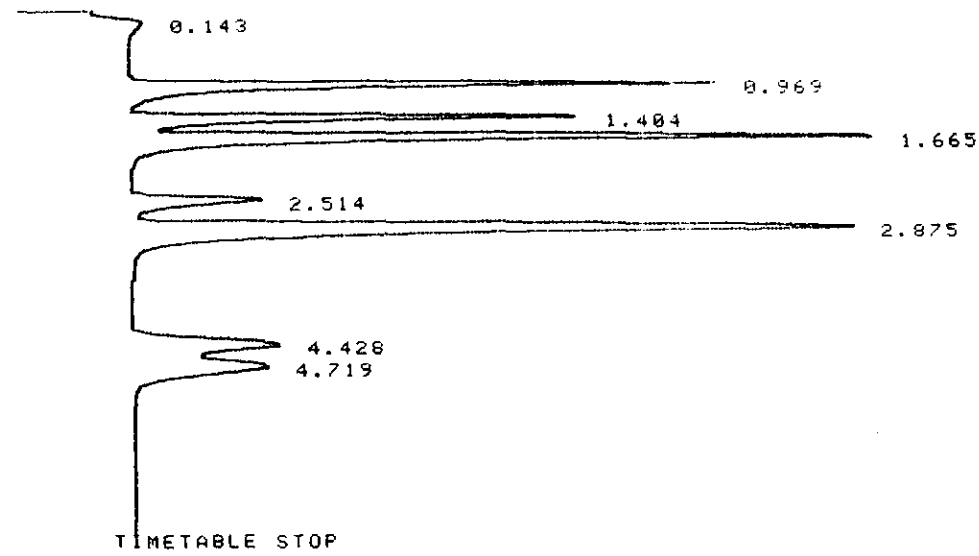
RT	AREA	TYPE	WIDTH	AREA%
.153	104151	BV	.305	9.86771
.858	176106	VV	.362	16.68503
1.285	47188	VV	.116	4.47079
1.400	94109	VV	.194	8.91629
2.920	106871	PP	.153	10.1254[illegible]
4.430	527048	PB	.212	49.9347[illegible]

TOTAL AREA=1055473

MUL FACTOR=1.0000E+00

* RUN # 309 DEC 3, 1992 17:58:08

START



CCV

RUN# 309 DEC 3, 1992 17:58:08

AREA%

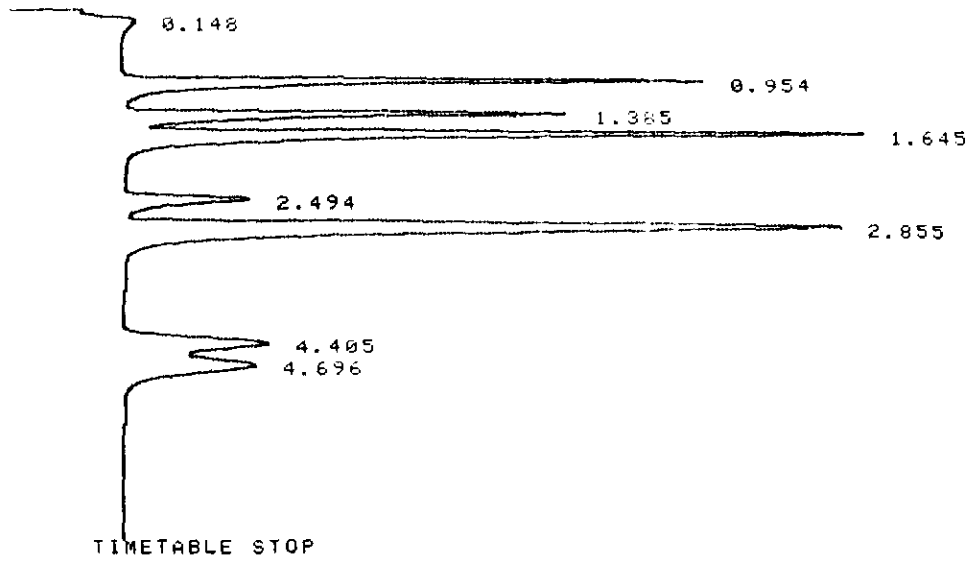
RT	AREA	TYPE	WIDTH	AREA%
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

1.404	276569	EV	.091	10.66537
1.665	526408	VB	.105	20.29[illegible]
2.514	113484	BV	.128	4.37[illegible]
2.875	771055	VB	.158	29.73433
4.428	200554	BV	.1[illegible]8	7.73403
4.719	226589	VV	.242	9.73799

TOTAL AREA=2593149
MUL FACTOR=1.0000E+00

000094

* RUN # 310 DEC 3, 1992 18:05:50
START



CCV

RUN# 310 DEC 3, 1992 18:05:50

AREA%

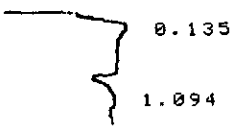
RT	AREA	TYPE	WIDTH	AREA%
.148	89499	BV	.262	3.54092
.954	360341	VB	.091	14.25648
1.385	269514	BV	.089	10.66301
1.645	515319	VB	.103	20.38800

RUN # 310-002

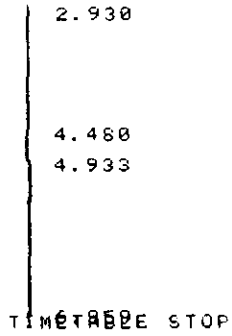
2.494	110421	PV	.126	4.36868
2.855	756475	VB	.156	29.92906
4.405	201117	PV	.200	7.95696
4.696	224874	VV	.242	8.89688

TOTAL AREA=2527560
MUL FACTOR=1.0000E+00

* RUN # 311 DEC 3, 1992 18:17:21
START



CCB



0000095

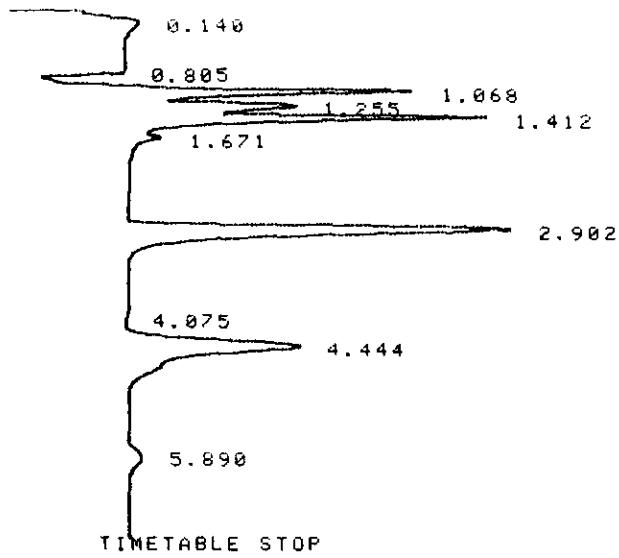
RUN# 311 DEC 3, 1992 18:17:21

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.135	112614	BV	.368	15.71551
1.094	75246	VV	.364	10.50072
1.663	89578	VV	.403	12.50078
2.930	139750	VV	.595	19.50239
4.480	97994	VV	.433	13.67526
4.933	80356	VV	.360	11.21384
6.959	121041	I VH	.531	16.89151

TOTAL AREA= 716579
MUL FACTOR=1.0000E+00

* RUN # 312 DEC 3, 1992 18:25:21
START



17206
F

RUN# 312 DEC 3, 1992 18:25:21

AREA%

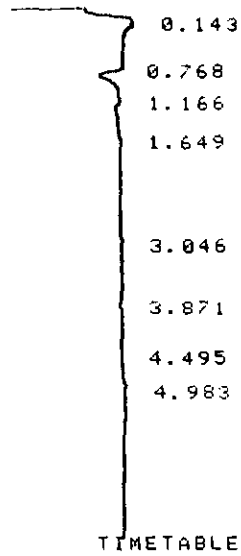
RT	AREA	TYPE	WIDTH	AREA%
.140	158741	BV	.404	4.91130
.805	79310	VP	.147	2.45378
1.068	292808	PV	.116	9.05920
1.255	239515	VV	.140	7.41036
1.412	386811	VV	.127	11.96756
1.671	246513	VV	.313	7.62688
2.902	714171	VV	.231	22.09577

5.890 315136 VV .736 [illegible]

TOTAL AREA=3232162
MUL FACTOR=1.0000E+00

0000093

* RUN # 313 DEC 3, 1992 18:34:47
START



TIMETABLE STOP

CCB

RUN# 313 DEC 3, 1992 18:34:47

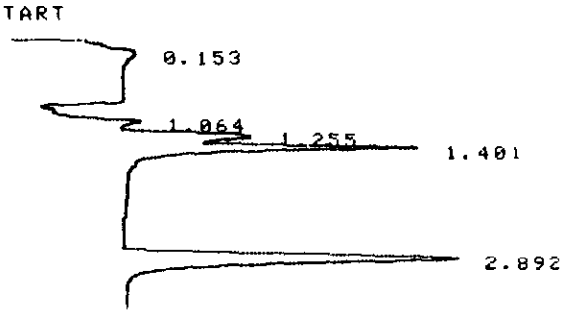
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.143	106197	BV	.359	41.93698
.768	44740	VP	.281	17.66774
1.166	40870	PV	.350	16.13948
1.649	31483	VV	.481	12.43257
3.046	4672	VP	.359	1.84496
3.871	5657	PV	.415	2.23394
4.495	4725	VV	.256	1.86589
4.983	14886	VV	.335	5.87845

RUN # 313-002

TOTAL AREA= 253230
MUL FACTOR=1.0000E+00

* RUN # 314 DEC 3, 1992 18:42:15
START



17206
~~17208~~
B

000097

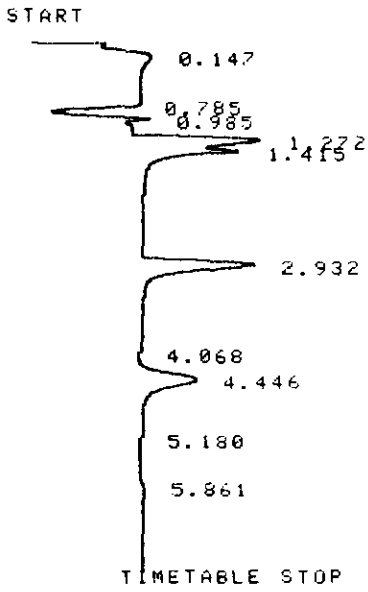
RUN# 314 DEC 3, 1992 18:42:13

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.153	133414	BV	.412	12.12156
1.064	77100	PV	.134	7.00506
1.255	154482	VV	.131	14.03573
1.401	250984	VB	.114	22.80358
2.892	337907	PB	.150	30.70113
4.425	133444	PV	.249	12.12429
5.862	13303	PV	.259	1.20867

TOTAL AREA=1100634
MUL FACTOR=1.0000E+00

* RUN # 315 DEC 3, 1992 18:51:47



17208 F

RUN# 315 DEC 3, 1992 18:51:47

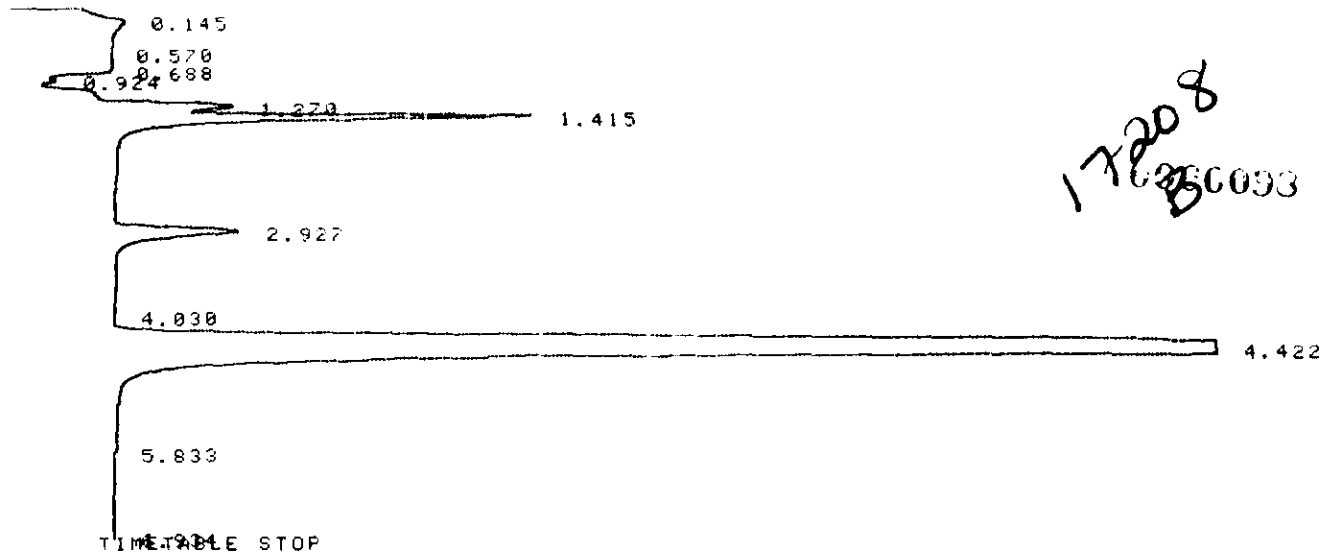
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.147	157730	BV	.377	12.90989
.785	135635	VP	.232	11.10145
.985	55410	PV	.079	4.53520
1.272	276787	VV	.203	22.65446
1.415	306914	VV	.260	25.12030
2.932	184490	VB	.203	15.10014
4.068	1736	PV	.184	.14209
4.446	89868	VP	.224	7.35551
5.180	2882	PV	.227	.23589
5.861	10325	PV	.253	.84508

TOTAL AREA=1221777
MUL FACTOR=1.0000E+00

* RUN # 316 DEC [illegible] 1992 18:59:17

START



17208
B 0093

RUN# 316 DEC 3, 1992 18:59:17

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.145	83562	BV	.317	2.10471
.570	72386	VV	.221	1.82322
.688	81749	VP	.216	2.05904
.924	4667	PP	.047	.11755
1.270	183867	PV	.163	4.63113
1.415	330299	VB	.108	8.31937
2.927	128755	BV	.149	3.24300
4.030	1128	PV	.089	.02841
4.422	3078272	VB	.207	77.53366
5.833	5128	PV	.318	.12916
6.934	426	I PP	.082	.01073

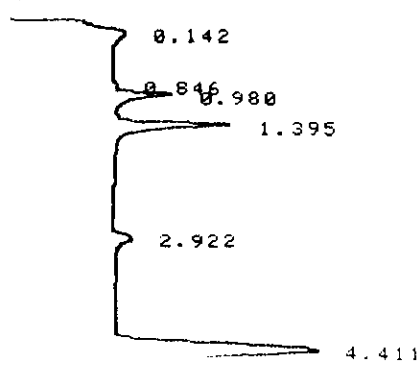
TOTAL AREA=3970238

MUL FACTOR=1.0000E+00

RUN # 316-002

* RUN # 317 DEC 3, 1992 19:10:01

START



17208
B
10X

TIMETABLE STOP

000003

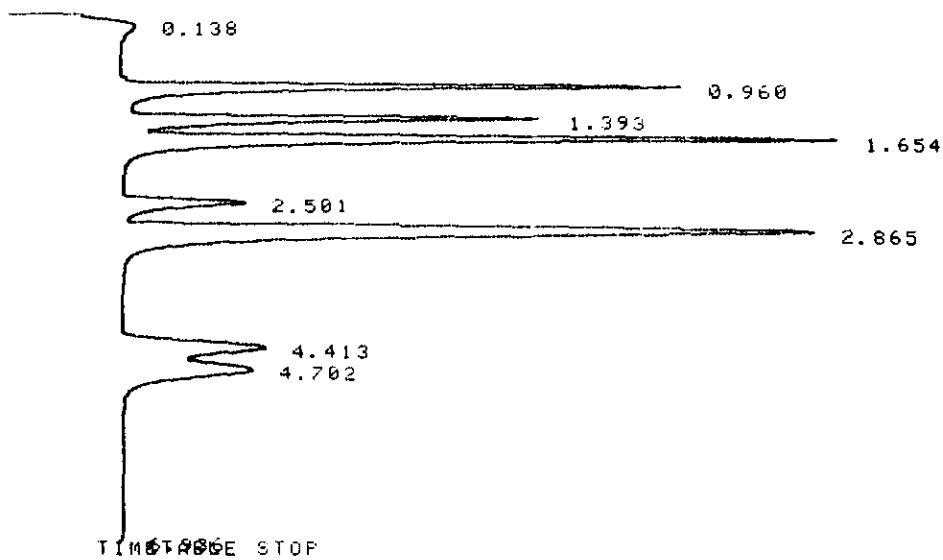
RUN# 317 DEC 3, 1992 19:10:0

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.142	55061	BV	.232	10.15326
.846	15666	VV	.143	2.88881
.980	56695	VV	.119	10.45457
1.395	92646	VB	.111	17.08393
2.922	22626	PV	.152	4.17224
4.411	299605	PB	.213	55.24720

TOTAL AREA= 542299
MUL FACTOR=1.0000E+00

* RUN # 318 DEC 3, 1992 19:17:26
START



TIMETABLE STOP

CCV

RUN # 318-002

RUN# 318 DEC 3, 1992 19:17:26

AREA%

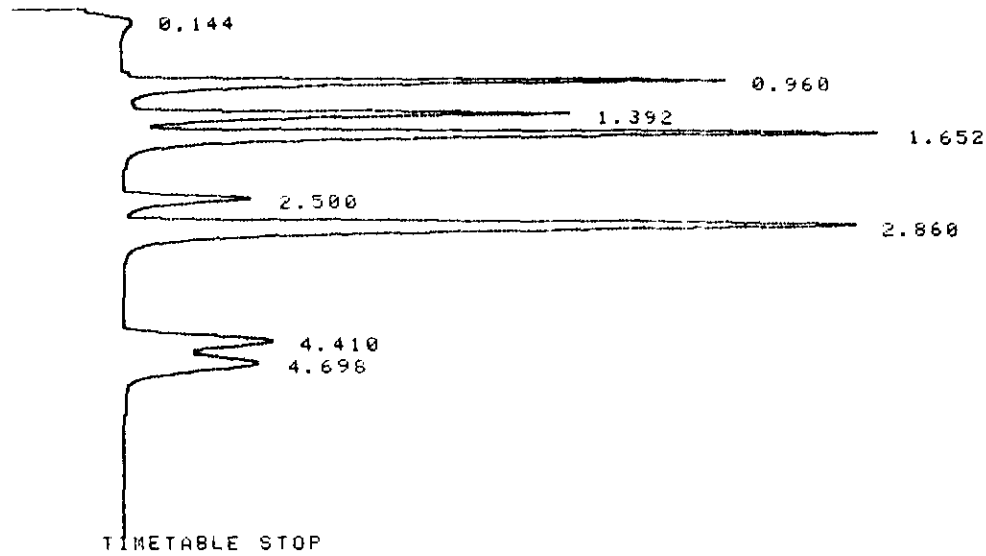
RT	AREA	TYPE	WIDTH	AREA%
.138	79014	BV	.270	3.12286
.960	386534	VV	.098	15.27694
1.393	285135	VV	.098	11.26936
1.654	511810	VB	.105	20.22821
2.501	108827	BV	.127	4.30116
2.865	734673	VB	.157	29.03639
4.413	197632	PV	.198	7.81099
4.702	221892	VV	.243	8.76981
6.936	4663	I VH	.307	.18430

MUL FACTOR=1.0000E+00

000100

* RUN # 319 DEC 3, 1992 19:25:11

START



CCV

RUN# 319 DEC 3, 1992 19:25:11

AREA%

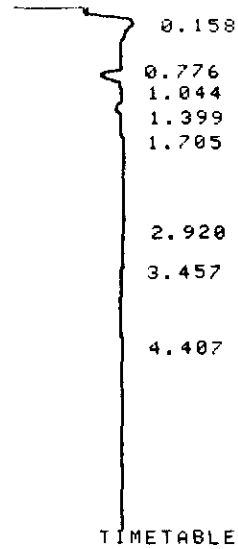
RT	AREA	TYPE	WIDTH	AREA%
.144	74986	BV	.279	2.81579
.960	412582	VV	.098	15.49279
1.392	304842	VV	.099	11.44707
1.652	542502	VB	.105	20.37139
2.500	114775	BV	.126	4.30989
2.860	779366	VB	.157	29.26584
4.410	205828	BV	.196	7.72901
4.698	228177	VV	.238	8.56823

TOTAL AREA=2663058

MUL FACTOR=1.0000E+00

* RUN # 320 DEC 3, 1992 19:33:01

START



CCB

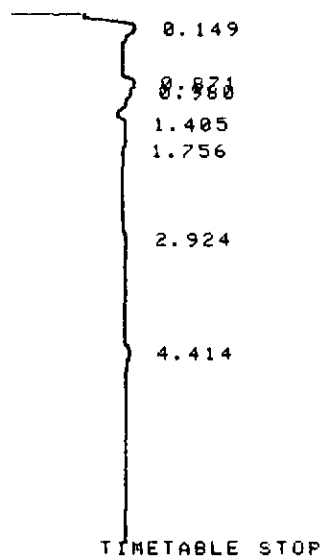
RUN# 320 DEC [illegible] 1992 [illegible]

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.158	136038	BV	.3[illegible]	16.8[illegible]
.776	36935	VV	.13[illegible]	4.56343
1.044	70056	VV	.24[illegible]	8.65564
1.399	46589	VV	.1[illegible]	5.75621
1.705	66500	VV	.239	8.21628
2.920	219993	VV	.735	27.18080
3.457	118982	VV	.421	14.70059
4.407	114276	VV	.391	14.11915

TOTAL AREA= 809369
MUL FACTOR=1.0000E+00

* RUN # 321 DEC 3, 1992 19:42:12
START



RUN# 321 DEC 3, 1992 19:42:12

RUN # 321-002

AREA%

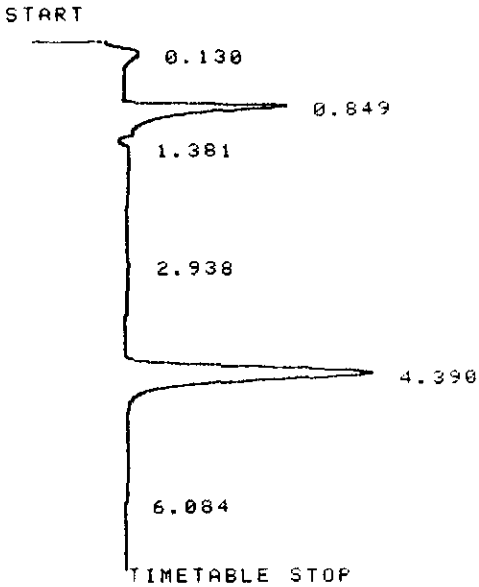
RT	AREA	TYPE	WIDTH	AREA%
.149	125000	BV	.338	19.52061
.871	112957	VV	.345	17.63991
.980	88930	VV	.296	13.88774
1.405	58184	VV	.247	9.08630
1.756	124488	VV	.610	19.44065
2.924	79539	VV	.468	12.42120
4.414	51251	VV	.480	8.00360

TOTAL AREA= 640349
MUL FACTOR=1.0000E+00

*

0000102

* RUN # 322 DEC 3, 1992 19:50:26



504

RUN # 322-002

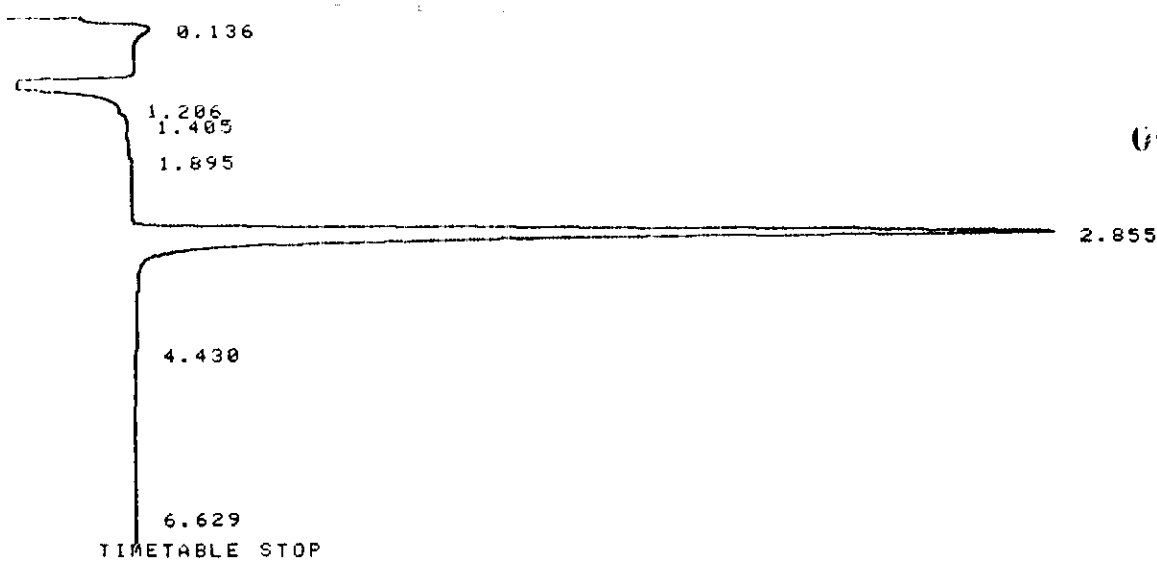
RUN# 322 DEC 3, 1992 19:50:26

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.130	48832	BV	.257	7.90112
.849	190946	VP	.162	30.89546
1.381	9661	PV	.128	1.56317
2.938	5047	BP	.139	.81662
4.390	360349	PB	.214	58.30523
6.084	3204	VV	.278	.51841

TOTAL AREA= 618039
MUL FACTOR=1.0000E+00

NO3



0000103

RUN# 323 DEC 3, 1992 20:04:00

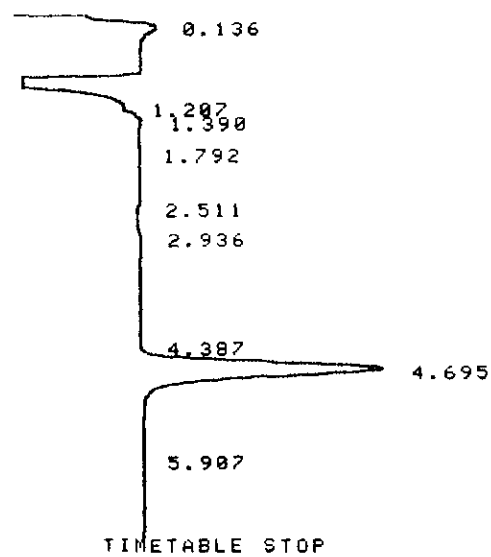
AREA%

RT	AREA	TYPE	WIDTH	AREA%
.136	335974	BV	.516	9.97142
1.206	591953	PV	.329	17.56866
1.405	442124	VV	.262	13.12186
1.895	634939	VV	.499	18.84445
2.855	1355375	VB	.204	40.22640
4.430	3950	VV	.225	.11723
6.629	5053	VV	.373	.14997

TOTAL AREA=3369368
MUL FACTOR=1.0000E+00

* RUN # 324 DEC 3, 1992 20:24:53
START

P04 .3



RUN# 324 DEC 3, 1992 20:24:53

AREA%

RT	AREA	TYPE	WIDTH	AREA%
[illegible]	443900	PV	.645	8.31909

1.792	662020	VV	344	13.15224
2.511	924151	VV	598	18.35995
2.936	891575	VV	567	17.71277
4.387	207978	VV	.378	4.13187
4.695	628650	VE	.314	12.48928
5.907	1824	BV	.167	03624

TOTAL AREA=5033514
MUL FACTOR=1.0000E+00

*