

677 572 *B*

File: 541.460.000n
C.H.



THE MEMPHIS DEPOT TENNESSEE

ADMINISTRATIVE RECORD COVER SHEET

AR File Number 677

PCB
CALIBRATION DATA

677 574

Report Date : 20-Feb-2001 08:10

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STL-Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2001 13:17
 End Cal Date : 19-FEB-2001 16:15
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Cal Date : 20-Feb-2001 08:08 eppingerd
 Curve Type : Average

Calibration File Names:

Level 1: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10488.D
 Level 2: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10489.D
 Level 3: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10490.D
 Level 4: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10491.D
 Level 5: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10492.D
 Level 6: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10493.D

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	0.20000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			
51 Chlordane(1)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(2)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(3)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
(4)	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
8 Aroclor-1221(1)	+++++	+++++	57478	+++++	+++++	+++++	57478	0.000
(2)	+++++	+++++	82574	+++++	+++++	+++++	82574	0.000
(3)	+++++	+++++	156254	+++++	+++++	+++++	156254	0.000
14 Aroclor-1232(1)	+++++	+++++	111038	+++++	+++++	+++++	111038	0.000
(2)	+++++	+++++	101590	+++++	+++++	+++++	101590	0.000
(3)	+++++	+++++	144312	+++++	+++++	+++++	144312	0.000
(4)	+++++	+++++	95658	+++++	+++++	+++++	95658	0.000
15 Aroclor-1242(1)	+++++	+++++	286876	+++++	+++++	+++++	286876	0.000
(2)	+++++	+++++	179048	+++++	+++++	+++++	179048	0.000
(3)	+++++	+++++	126428	+++++	+++++	+++++	126428	0.000
(4)	+++++	+++++	127632	+++++	+++++	+++++	127632	0.000
(5)	+++++	+++++	110062	+++++	+++++	+++++	110062	0.000
20 Aroclor-1016(1)	142130	130610	127782	121287	113768	106540	123686	10.246
(2)	277540	259855	247894	235882	220588	207143	241484	10.680
(3)	415120	394440	380894	369986	357928	337700	376011	7.258
(4)	258520	239325	235940	228019	218090	211361	231876	7.236
(5)	166080	156390	152824	148719	145028	136776	150969	6.644
21 Aroclor-1248(1)	+++++	+++++	193514	+++++	+++++	+++++	193514	0.000
(2)	+++++	+++++	180476	+++++	+++++	+++++	180476	0.000
(3)	+++++	+++++	203298	+++++	+++++	+++++	203298	0.000
(4)	+++++	+++++	186820	+++++	+++++	+++++	186820	0.000
(5)	+++++	+++++	190002	+++++	+++++	+++++	190002	0.000

62
HP6890SM
DB608

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STL-Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 19-FEB-2001 13:17
 End Cal Date : 19-FEB-2001 16:15
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Cal Date : 20-Feb-2001 08:08 eppingerd
 Curve Type : Average

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	0.20000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
33 Aroclor-1254(1)	+++++	+++++	204442	+++++	+++++	+++++	204442	0.000
(2)	+++++	+++++	245378	+++++	+++++	+++++	245378	0.000
(3)	+++++	+++++	358648	+++++	+++++	+++++	358648	0.000
(4)	+++++	+++++	245046	+++++	+++++	+++++	245046	0.000
(5)	+++++	+++++	217572	+++++	+++++	+++++	217572	0.000
36 Aroclor-1260(1)	321150	310405	301028	294661	283978	276788	298002	5.528
(2)	399880	379035	375776	377673	368354	356216	376156	3.819
(3)	312230	298940	304454	302252	296097	286594	300094	2.869
(4)	665320	666430	687564	701167	688748	686278	682584	2.052
(5)	297830	277265	286954	288669	289812	293275	288967	2.392
\$ 1 Tetrachloro-m-xylene	9594400	9269900	9270400	9131060	8749550	8385050	9066727	4.758
\$ 34 Decachlorobiphenyl	3246600	2960300	2991760	2971500	2981380	2957195	3018123	3.733

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7E HP68908m
DB68fData File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10700.D
Report Date: 26-Feb-2001 11:50

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc8.i Injection Date: 26-FEB-2001 11:16
 Lab File ID: H-A10700.D Init. Cal. Date(s): 19-FEB-2001 19-FEB-2001
 Analysis Type: Init. Cal. Times: 13:17 16:15
 Lab Sample ID: M1660 Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m

COMPOUND	RRF	RFO	MIN	%D	MAX
-----	-----	-----	-----	-----	-----
20 Aroclor-1016(1)	123686	129452	0.010	4.7	15.0
(2)	241484	250906	0.010	3.9	15.0
(3)	376011	388132	0.010	3.2	15.0
(4)	231876	235778	0.010	1.7	15.0
(5)	150969	153982	0.010	2.0	15.0
\$ 1 Tetrachloro-m-xylene	9066727	9288240	0.000	2.4	15.0
\$ 34 Decachlorobiphenyl	3018123	2967040	0.010	-1.7	15.0
36 Aroclor-1260(1)	298002	308452	0.010	3.5	15.0
(2)	376156	391716	0.010	4.1	15.0
(3)	300094	308872	0.010	2.9	15.0
(4)	682584	697198	0.010	2.1	15.0
(5)	288967	297192	0.010	2.8	15.0

7E HPC8908m
Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10802.D
Report Date: 28-Feb-2001 08:53

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc8.i Injection Date: 28-FEB-2001 04:12
Lab File ID: H-A10802.D Init. Cal. Date(s): 19-FEB-2001 19-FEB-2001
Analysis Type: Init. Cal. Times: 13:17 16:15
Lab Sample ID: M1660 Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m

COMPOUND	RRF	RFO	MIN	MAX
			RRF	%D %D
20 Aroclor-1016(1)	123686	138232	0.010	11.8 15.0
(2)	241484	265766	0.010	10.1 15.0
(3)	376011	414650	0.010	10.3 15.0
(4)	231876	254316	0.010	9.7 15.0
(5)	150969	162826	0.010	7.9 15.0
\$ 1 Tetrachloro-m-xylene	9066727	9934800	0.000	9.6 15.0
\$ 34 Decachlorobiphenyl	3018123	3191040	0.010	5.7 15.0
36 Aroclor-1260(1)	298002	317854	0.010	6.7 15.0
(2)	376156	415402	0.010	10.4 15.0
(3)	300094	320120	0.010	6.7 15.0
(4)	682584	734590	0.010	7.6 15.0
(5)	288967	315188	0.010	9.1 15.0

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Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10823.D
 Report Date: 28-Feb-2001 11:37

HP68908m
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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc8.i Injection Date: 28-FEB-2001 11:06
 Lab File ID: H-A10823.D Init. Cal. Date(s): 19-FEB-2001 19-FEB-2001
 Analysis Type: Init. Cal. Times: 13:17 16:15
 Lab Sample ID: M1660 Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m

COMPOUND	RRF	RFO	MIN	RRF	%D	MAX
-----	-----	-----	-----	-----	-----	-----
20 Aroclor-1016(1)	123686	126768	0.010	2.5	15.0	
(2)	241484	246654	0.010	2.1	15.0	
(3)	376011	384642	0.010	2.3	15.0	
(4)	231876	234056	0.010	0.9	15.0	
(5)	150969	152564	0.010	1.1	15.0	
\$ 1 Tetrachloro-m-xylene	9066727	9141520	0.000	0.8	15.0	
\$ 34 Decachlorobiphenyl	3018123	2956840	0.010	-2.0	15.0	
36 Aroclor-1260(1)	298002	299780	0.010	0.6	15.0	
(2)	376156	384486	0.010	2.2	15.0	
(3)	300094	306000	0.010	2.0	15.0	
(4)	682584	696104	0.010	2.0	15.0	
(5)	288967	296212	0.010	2.5	15.0	

7E HP68908m
Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10840.D DB608
Report Date: 01-Mar-2001 08:09

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc8.i Injection Date: 28-FEB-2001 16:42
Lab File ID: H-A10840.D Init. Cal. Date(s): 19-FEB-2001 19-FEB-2001
Analysis Type: Init. Cal. Times: 13:17 16:15
Lab Sample ID: M1660 Quant Type: ESTD
Method: \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m

COMPOUND	RRF	RF0	MIN	RRF	%D	MAX
20 Aroclor-1016(1)	123686	133406	0.010	7.9	15.0	
(2)	241484	251434	0.010	4.1	15.0	
(3)	376011	403510	0.010	7.3	15.0	
(4)	231876	242848	0.010	4.7	15.0	
(5)	150969	156768	0.010	3.8	15.0	
\$ 1 Tetrachloro-m-xylene	9066727	9365960	0.000	3.3	15.0	
\$ 34 Decachlorobiphenyl	3018123	3037920	0.010	0.7	15.0	
36 Aroclor-1260(1)	298002	307630	0.010	3.2	15.0	
(2)	376156	395206	0.010	5.1	15.0	
(3)	300094	309318	0.010	3.1	15.0	
(4)	682584	720668	0.010	5.6	15.0	
(5)	288967	307264	0.010	6.3	15.0	

677 580

8D
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: ,

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

GC Column: DB608

ID: 0.53 (mm) Init. Calib. Date(s): 02/19/01 02/19/01

Instrument ID: GC8

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION					
TCX: 1.68			DCB: 10.60		
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	M2154	02/19/01	1317	1.68	10.60
02	M1232	02/19/01	1337		
03	M1242	02/19/01	1357		
04	M1248	02/19/01	1416		
05	L1660	02/19/01	1436	1.68	10.60
06	ML1660	02/19/01	1456	1.68	10.60
07	M1660	02/19/01	1516	1.68	10.60
08	MH1660	02/19/01	1536	1.68	10.61
09	H1660	02/19/01	1555	1.68	10.61
10	XH1660	02/19/01	1615	1.68	10.61
11	2M2154	02/19/01	1635	1.68	
12	2M1232	02/19/01	1655		
13	2M1242	02/19/01	1714		
14	2M1248	02/19/01	1734		
15	2M1660	02/19/01	1754		10.61
16	M2154	02/26/01	0958	1.68	10.60
17	M1232	02/26/01	1017		
18	M1242	02/26/01	1037		
19	M1248	02/26/01	1057		
20	M1660	02/26/01	1116	1.68	10.60
21	M1660	02/28/01	0412	1.68	10.61
22	PBLK7556 DWMV81AA	02/28/01	1047	1.68	10.61
23	M1660	02/28/01	1106	1.68	10.61
24	LCS7556 DWMV81AC	02/28/01	1205	1.68	10.61
25	LCD7556 DWMV81AD	02/28/01	1225	1.68	10.60
26	DF/24-B/1053 DWJJM1AE	02/28/01	1245	1.67	10.61
27	DF/24-A/1053 DWJJ31AQ	02/28/01	1304	1.67	10.60
28	DF/24-A/1053 DWJKC1AQ	02/28/01	1324	1.67	10.60
29	M1660	02/28/01	1642	1.68	10.61
30					
31					
32					

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.05 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

677 581

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10484.D
Lab Smp Id: M2154
Inj Date : 19-FEB-2001 13:17
Operator : 010139
Smp Info : M2154,1141.b
Misc Info : 190-111-7
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:04 eppingerd
Cal Date : 19-FEB-2001 13:17
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061
Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10484.D
Calibration Sample, Level: 3
Compound Sublist: 2154.sub
Sample Matrix: None

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
..	=====	=====	=====	=====	=====	=====	=====
/							
8 Aroclor-1221				CAS #: 11104-28-2			
1.462	1.462	(0.000)	28739	0	0.50000	0.00- 0.00	0.00
1.986	1.986	(0.000)	41287	0	0.50000	116.57- 156.57	0.00
2.185	2.185	(0.000)	78127	0.50000	0.50000	66.04- 106.04	0.00
Average of Peak Amounts =				0.5			

\$ 1 Tetrachloro-m-xylene				CAS #: 877-09-8			
1.675	1.677	(-0.002)	208302	0	0.02500	0.025000	

\$ 34 Decachlorobiphenyl				CAS #: 2051-24-3			
10.599	10.602	(-0.003)	67714	0	0.02500	0.025000	

33 Aroclor-1254				CAS #: 11097-69-1			
4.373	4.373	(0.000)	102221	0	0.50000	0.00- 0.00	0.00(M)
4.449	4.449	(0.000)	122689	0.50000	0.50000	92.23- 132.23	0.00
5.249	5.249	(0.000)	179324	0.50000	0.50000	77.40- 117.40	0.00
5.425	5.425	(0.000)	122523	0.50000	0.50000	51.09- 91.09	0.00
5.641	5.641	(0.000)	108786	0.50000	0.50000	65.01- 105.01	0.00
Average of Peak Amounts =				0.5			

QC Flag Legend

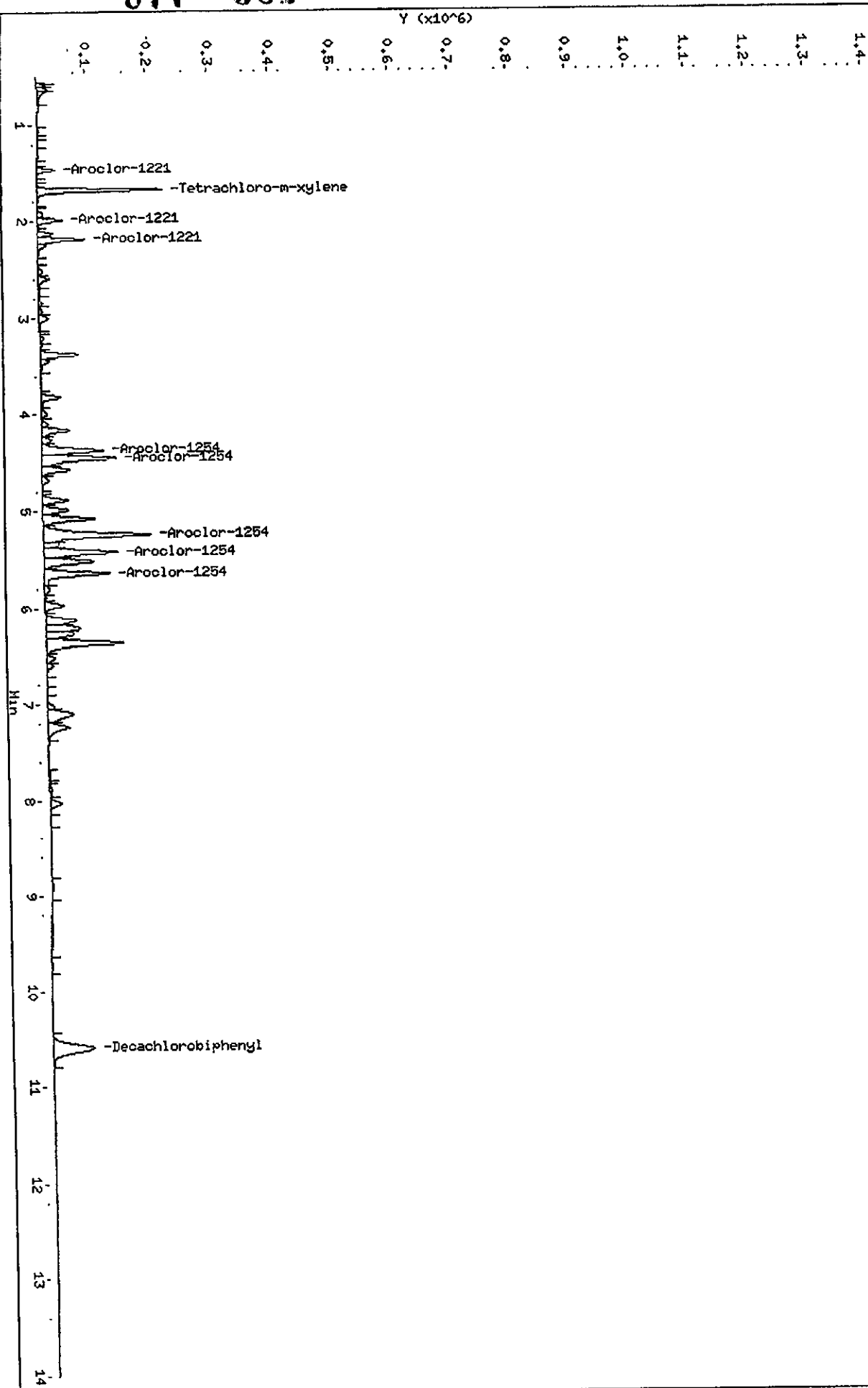
M - Compound response manually integrated.

677 582

Data File: \\qpltpa02\chem\gc08.1\1191.b\H-R10484.D
 Date: 19-FEB-2001 13:17
 Client ID:
 Sample Info: H2154,1141.b
 Column phase: DB608

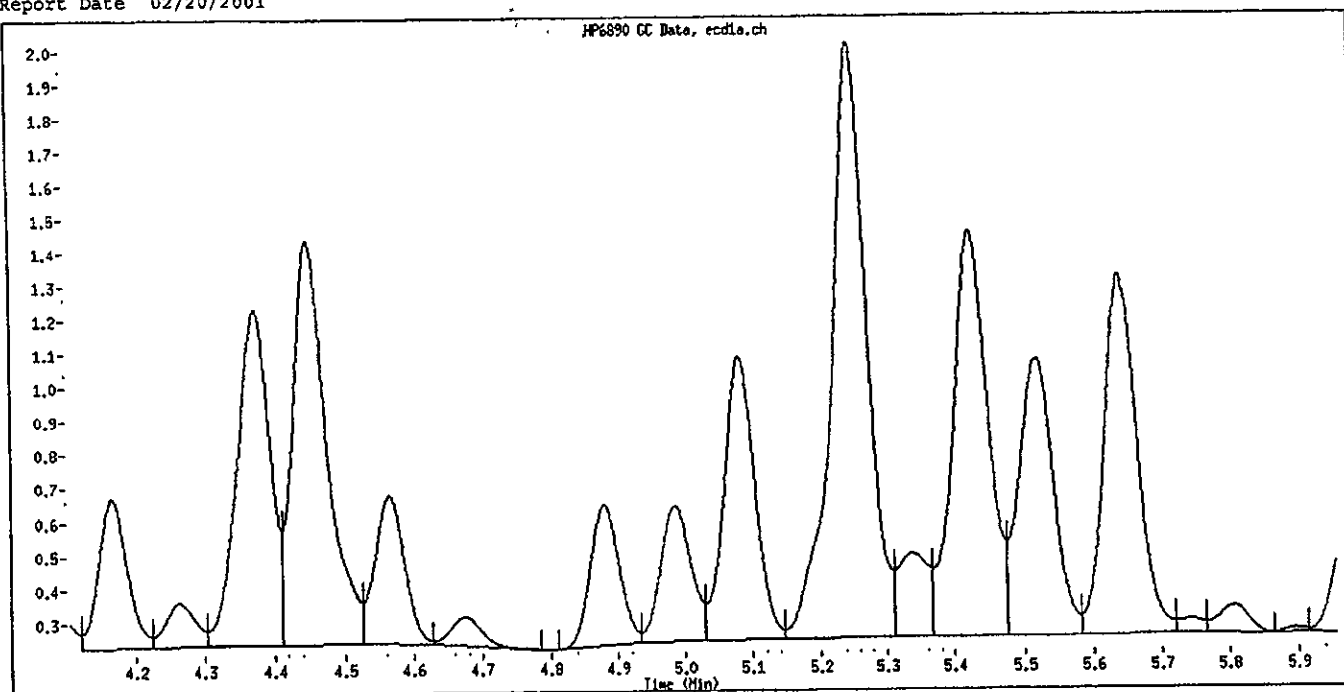
Instrument: gc08.1
 Operator: 010139
 Column diameter: 0.53

\\qpltpa02\chem\gc08.1\1191.b\H-R10484.D

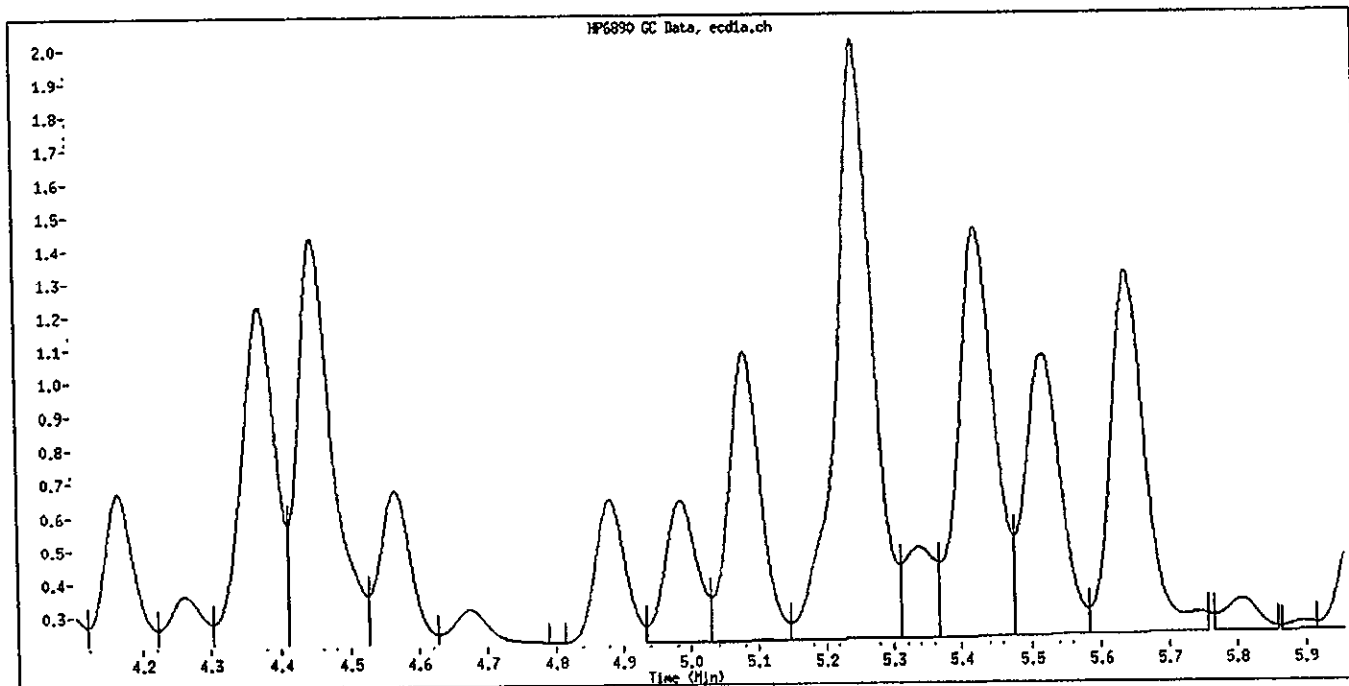


Data File Name H-A10484.D
Inj Date and Time: 19-FEB-2001 13.17
Instrument ID gc8.1
Client ID
Compound Name: Aroclor-1254
CAS #: 11097-69-1
Report Date 02/20/2001

677 583



Original Integration



Manual Integration

Manually Integrated By: EppingerD
Manual Integration Reason: Poor Chromatography

677 584

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10485.D
 Report Date: 20-Feb-2001 08:05

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STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10485.D
 Lab Smp Id: M1232
 Inj Date : 19-FEB-2001 13:37
 Operator : 010139
 Smp Info : M1232,1141.b
 Misc Info : 190-111-8
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:04 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 13:37 Cal File: H-A10485.D
 Als bottle: 3 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1232.sub
 Target Version: 4.04 Sample Matrix: None
 Processing Host: PITPC061

		AMOUNTS							
		CAL-AMT		ON-COL					
RT	EXP RT	DLT RT	RT	RESPONSE (ng)	(ng)	TARGET RANGE	RATIO		
..									
14 Aroclor-1232				CAS # 11141-16-5					
2.184	2.184	(0.000)	55519	0.50000	0.50000	0.00- 0.00	0.00		
2.597	2.597	(0.000)	50795	0.50000	0.50000	146.26- 186.26	0.00		
3.006	3.006	(0.000)	72156	0.50000	0.50000	65.99- 105.99	0.00		
3.375	3.375	(0.000)	47829	0.50000	0.50000	74.18- 114.18	0.00		
Average of Peak Amounts =				0.5					

Data File: \\ppitpa02\chem\gc8.1\1191.b\H-A10485.D

Date: 19-FEB-2001 13:37

Client ID:

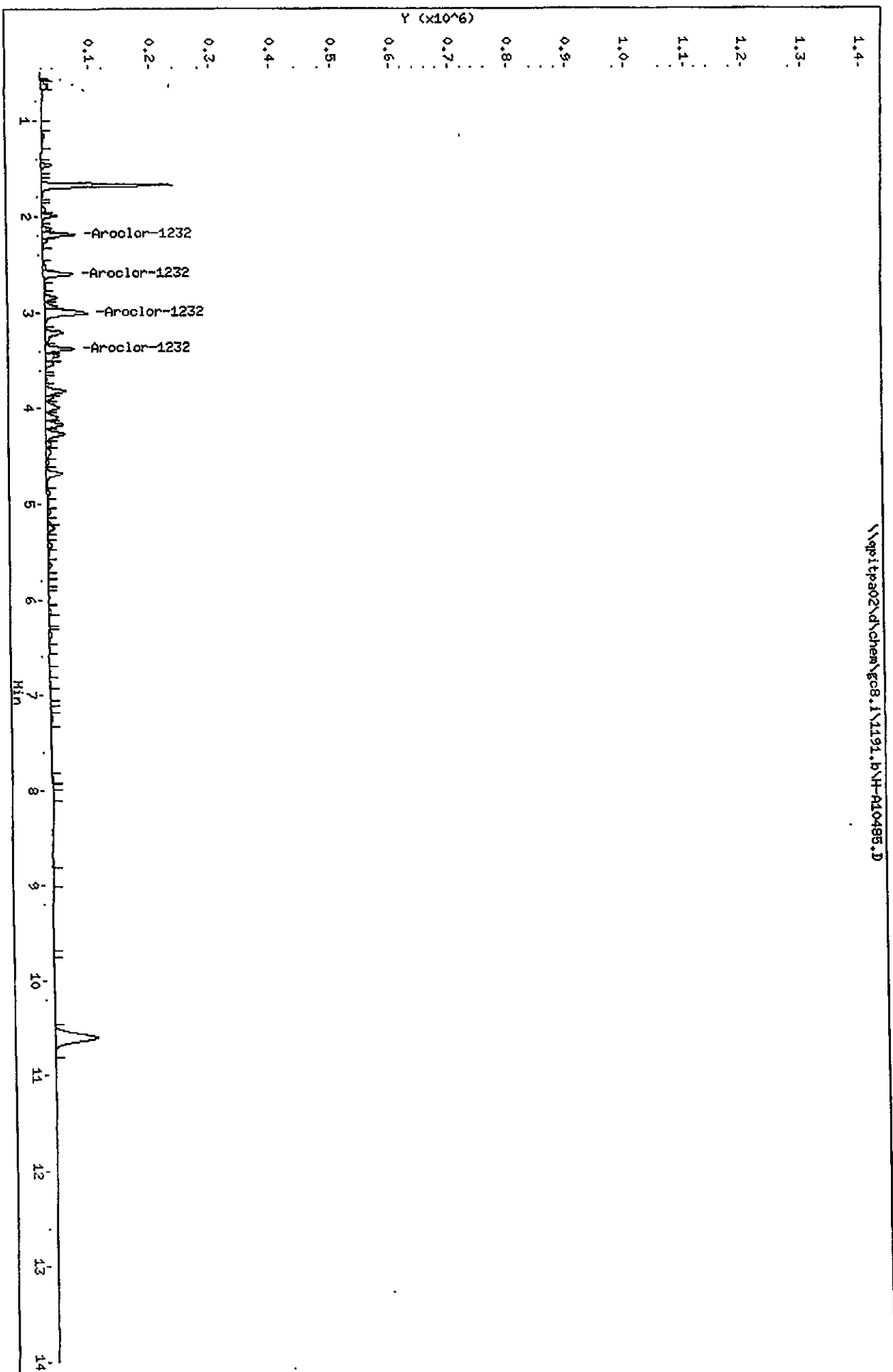
Sample Info: M232,1141.b

Column phase: DB608

Instrument: gc8.1

Operator: Q10139

Column diameter: 0.53



677 586

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10486.D
Lab Smp Id: M1242
Inj Date : 19-FEB-2001 13:57
Operator : 010139
Smp Info : M1242,1141.b
Misc Info : 190-111-9
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:05 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 13:57 Cal File: H-A10486.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1242.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RT	RESPONSE (ng)	(ng)	TARGET RANGE	RATIO

15 Aroclor-1242				CAS #: 53469-21-9			
3.008	3.008	(0.000)	143438	0.50000	0.50000	0.00- 0.00	0.00
3.376	3.376	(0.000)	89524	0.50000	0.50000	310.13- 350.13	0.00
3.817	3.817	(0.000)	63214	0.50000	0.50000	749.70- 789.70	0.00
4.267	4.267	(0.000)	63816	0.50000	0.50000	512.48- 552.48	0.00
4.682	4.682	(0.000)	55031	0.50000	0.50000	314.30- 354.30	0.00
Average of Peak Amounts =				0.5			

Data File: \\pp1tpa02\chem\gc8.i\1191.b\H-A10486.D

Date: 19-FEB-2001 13:57

Client ID:

Sample Info: H1242,1141.b

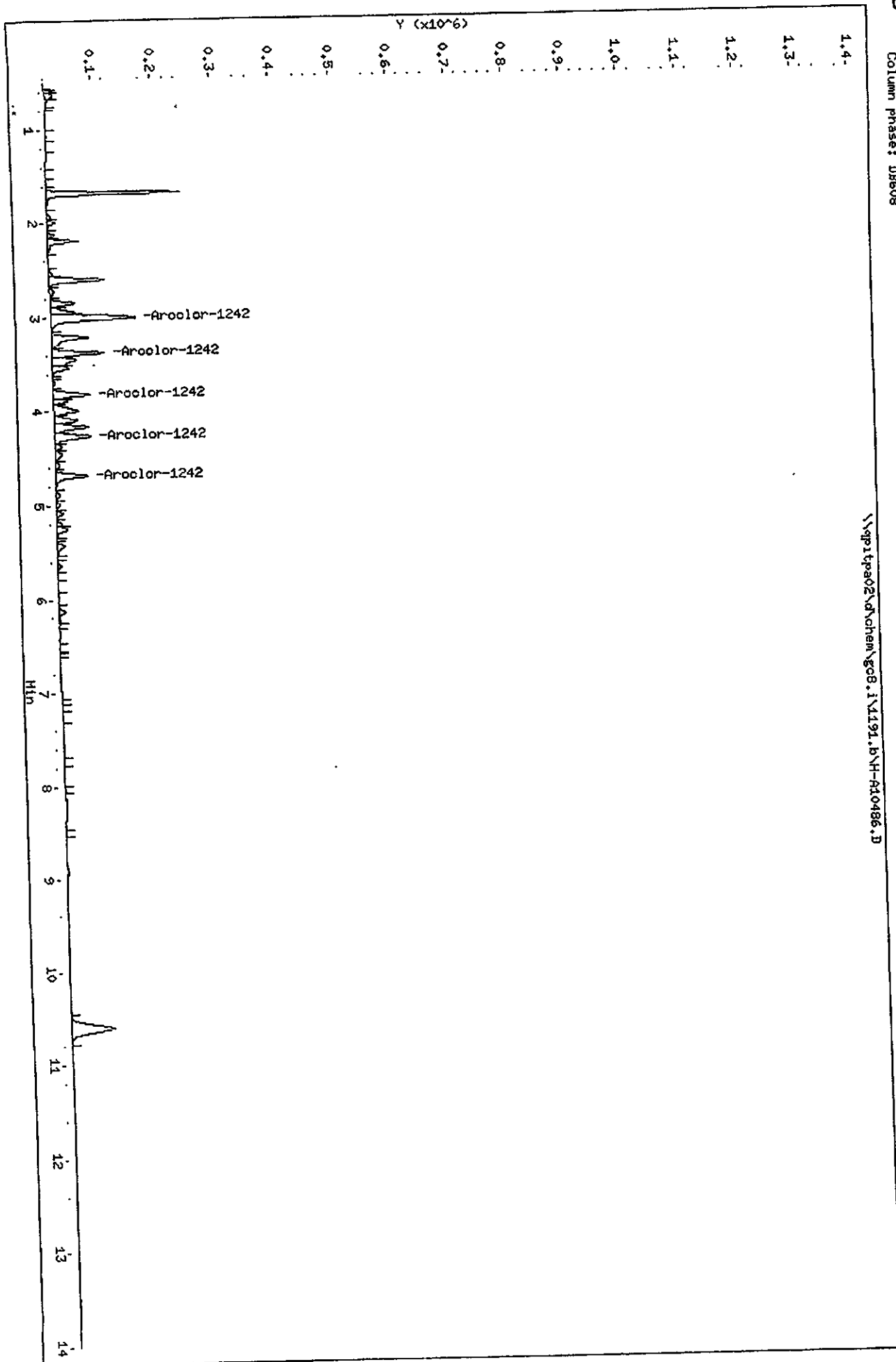
Column phase: DB608

Instrument: gc8.i

Operator: Q10139

Column diameter: 0.63

\\pp1tpa02\chem\gc8.i\1191.b\H-A10486.D



677 588

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10487.D
Lab Smp Id: M1248
Inj Date : 19-FEB-2001 14:16
Operator : 010139
Smp Info : M1248,1191.b
Misc Info : 190-111-10
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:05 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 14:16 Cal File: H-A10487.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1248.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
ng)							
21	Aracloer-1248				CAS #	12672-29-6	
3.377	3.377	(0.000)	96757	0.50000	0.50000	0.00- 0.00	0.00
3.818	3.818	(0.000)	90238	0.50000	0.50000	114.57- 154.57	0.00
4.168	4.168	(0.000)	101649	0.50000	0.50000	63.67- 103.67	0.00
4.268	4.268	(0.000)	93410	0.50000	0.50000	43.86- 83.86	0.00
4.682	4.682	(0.000)	95001	0.50000	0.50000	128.08- 168.08	0.00
Average of Peak Amounts =				0.5			

Data File: \\ppitpa02\chem\gc8.1\1191.b\H-R10487.D

Date: 19-FEB-2001 14:16

Client ID:

Sample Info: M1248,1191.b

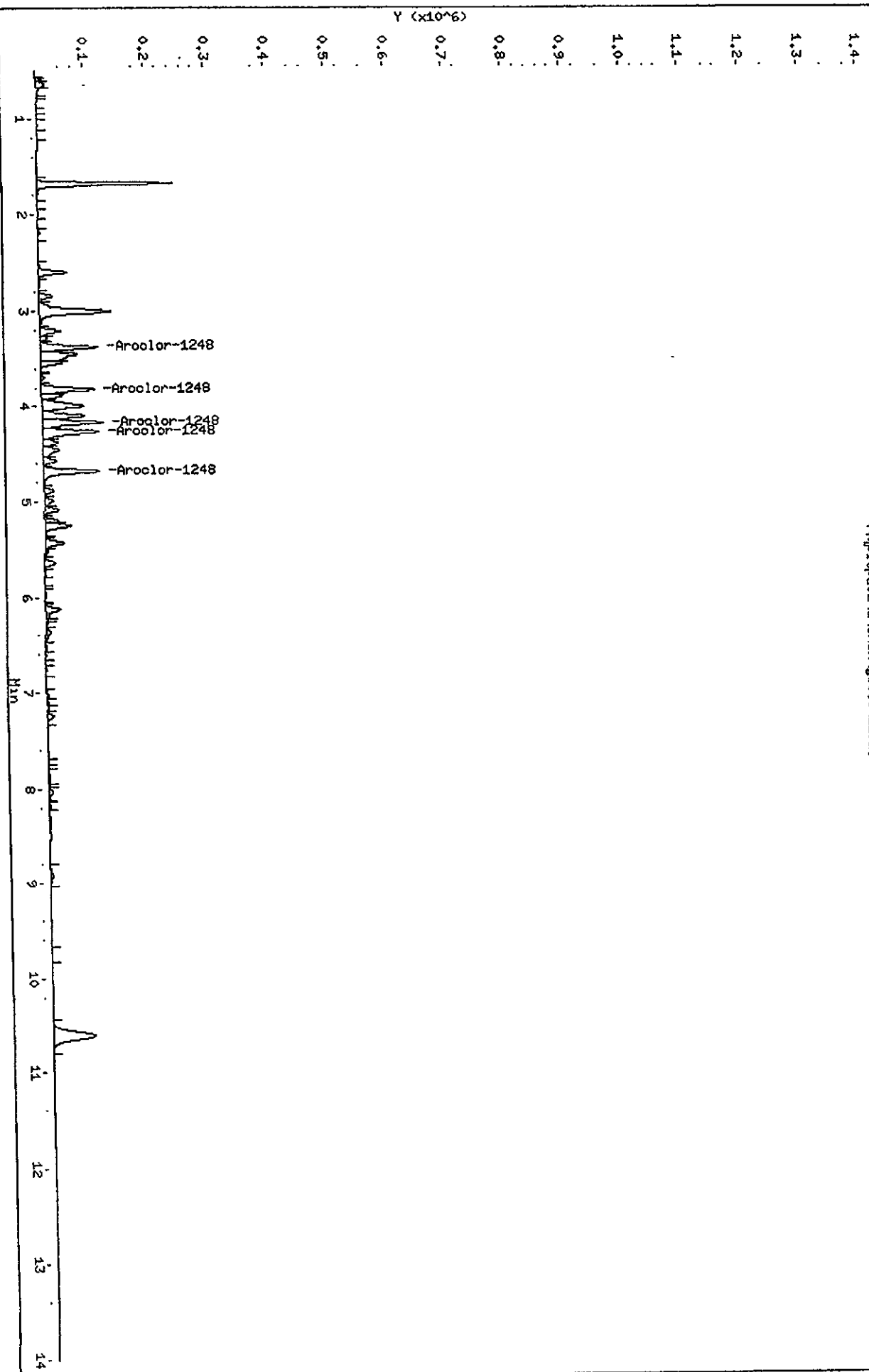
Column phase: DB608

Instrument: gc8.1

Operator: Q10139

Column diameter: 0.53

\\ppitpa02\chem\gc8.1\1191.b\H-R10487.D



677 590

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10488.D
Lab Smp Id: L1660
Inj Date : 19-FEB-2001 14:36
Operator : 010139
Smp Info : L1660,1191.b
Misc Info : 190-111-11
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:06 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 14:36 Cal File: H-A10488.D
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061
Compound Sublist: 1660.sub
Sample Matrix: None

AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE (ng)	(ng)	TARGET RANGE	RATIO
..	*****	*****	*****	*****	*****	*****
20 Aroclor-1016				CAS #: 12674-11-2		
2.187	2.187	(0.000)	14213	0.10000	0.10000 0.00- 0.00	0.00
2.599	2.601	(-0.002)	27754	0.10000	0.10000 80.00- 120.00	0.00
3.009	3.009	(0.000)	41512	0.10000	0.10000 203.51- 243.51	0.00
3.377	3.378	(-0.001)	25852	0.10000	0.10000 203.51- 243.51	0.00
3.819	3.819	(0.000)	16608	0.10000	0.10000 297.56- 337.56	0.00
Average of Peak Amounts =				0.1		

\$ 1 Tetrachloro-m-xylene				CAS #: 877-09-8		
1.676	1.677	(-0.001)	47972	0.00500	0.0053521	

\$ 34 Decachlorobiphenyl				CAS #: 2051-24-3		
10.604	10.602	(0.002)	16233	0.00500	0.0054517	

36 Aroclor-1260				CAS #: 11096-82-5		
5.522	5.524	(-0.002)	32115	0.10000	0.10000 0.00- 0.00	0.00(M)
5.648	5.649	(-0.001)	39988	0.10000	0.10000 95.86- 135.86	0.00
6.368	6.367	(0.001)	31223	0.10000	0.10000 116.91- 156.91	0.00
7.241	7.241	(0.000)	66532	0.10000	0.10000 120.00- 160.00	0.00
8.031	8.034	(-0.003)	29783	0.10000	0.10000 108.33- 148.33	0.00
Average of Peak Amounts =				0.1		

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10488.D
Report Date: 20-Feb-2001 08:06

Page 2

677 591

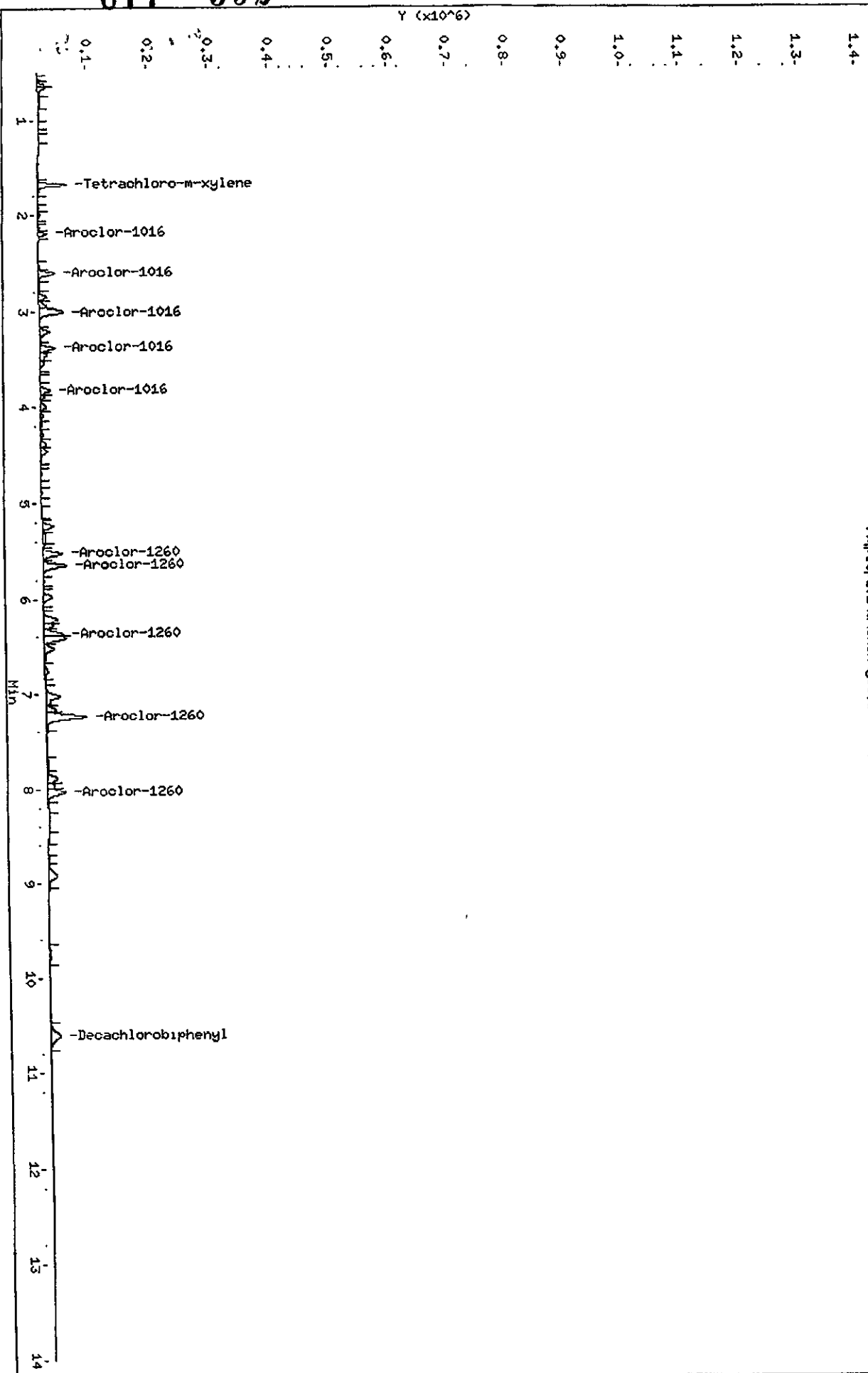
QC Flag Legend

M - Compound response manually integrated.

Data File: \\vp1tpa02\chem\g08.1\1191.b\H-610488.D
Date: 19-FEB-2001 14:36
Client ID:
Sample Info: L1660,1191.b
Column phase: DB608

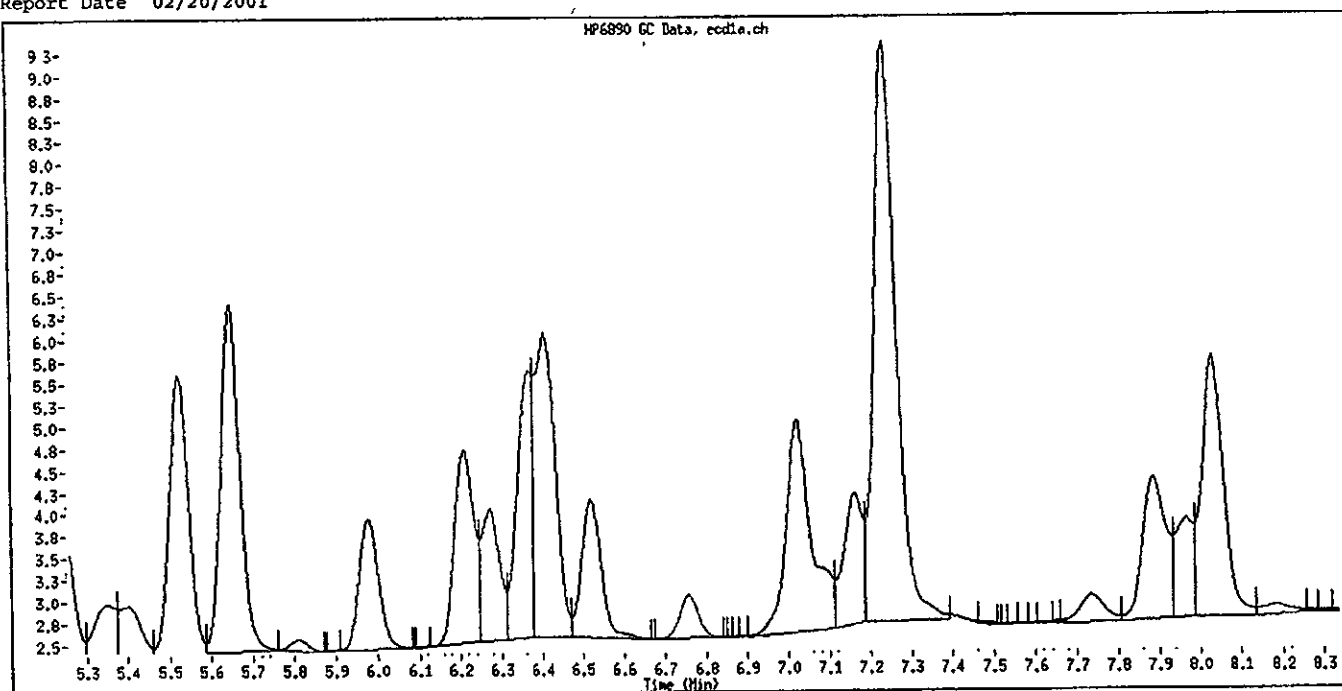
Instrument: g08.1
Operator: 010139
Column diameter: 0.53

\\vp1tpa02\chem\g08.1\1191.b\H-610488.D

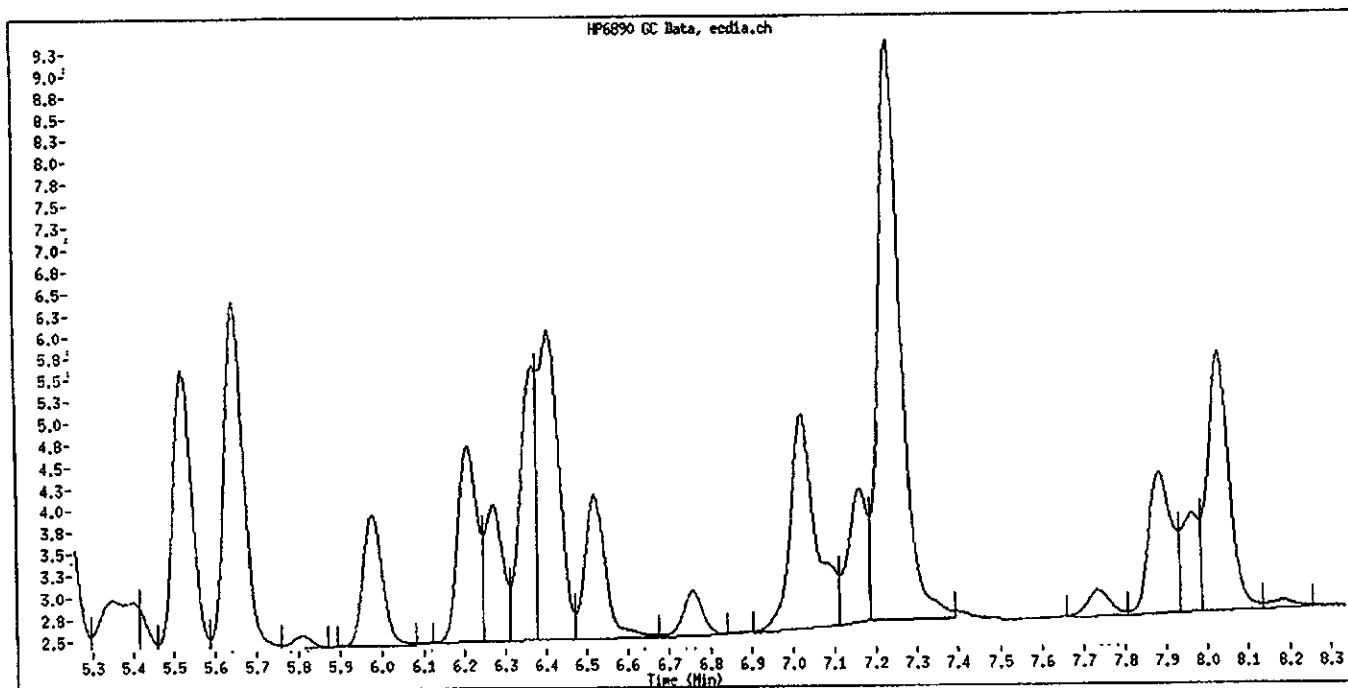


Data File Name: H-A10488.D
Inj Date and Time 19-FEB-2001 14:36
Instrument ID gc8 1
Client ID
Compound Name Aroclor-1260
CAS # 11096-82-5
Report Date 02/20/2001

677 593



Original Integration



Manual Integration

Manually Integrated By: EppingerD
Manual Integration Reason: Poor Chromatography

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10489.D

Lab Smp Id: ML1660

Inj Date : 19-FEB-2001 14:56

Operator : 010139

Inst ID: gc8.i

Smp Info : ML1660,1191.b

Misc Info : 190-111-12

Comment : 8082 PCB ANALYSIS

Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m

Meth Date : 20-Feb-2001 08:06 eppingerd Quant Type: ESTD

Cal Date : 19-FEB-2001 14:56

Cal File: H-A10489.D

Als bottle: 7

Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: Falcon

Compound Sublist: 1660.sub

Target Version: 4.04

Sample Matrix: None

Processing Host: PITPC061

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT RESPONSE (ng)	ON-COL (ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
20 Aroclor-1016			CAS #: 12674-11-2			
2.188	2.187	(0.001)	26122 0 20000	0.19155	0.00- 0.00	0.00
2.600	2.601	(-0.001)	51971 0 20000	0.19342	80.00- 120.00	0.00
3.009	3.009	(0.000)	78888 0 20000	0.19489	203.51- 243.51	0.00
3.378	3.378	(0.000)	47865 0 20000	0.19229	203.51- 243.51	0.00
3.820	3.819	(0.001)	31278 0.20000	0.19399	297.56- 337.56	0.00
Average of Peak Amounts =				0.19323		

\$ 1 Tetrachloro-m-xylene			CAS #: 877-09-8			
1.678	1.677	(0.001)	92699 0.01000	0.010226		

\$ 34 Decachlorobiphenyl			CAS #: 2051-24-3			
10.601	10.602	(-0.001)	29603 0.01000	0.0099612		

36 Aroclor-1260			CAS #: 11096-82-5			
5.525	5.524	(0.001)	62081 0 20000	0.19660	0.00- 0.00	0.00 (M)
5.649	5.649	(0.000)	75807 0 20000	0.19465	95.86- 135.86	0.00
6.370	6.367	(0.003)	59788 0 20000	0.19565	116.91- 156.91	0.00
7.240	7.241	(-0.001)	133286 0.20000	0.20017	120.00- 160.00	0.00
8.030	8.034	(-0.004)	55453 0 20000	0.19285	108.33- 148.33	0.00
Average of Peak Amounts =				0.19598		

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10489.D
Report Date: 20-Feb-2001 08:06

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677 595

QC Flag Legend

M - Compound response manually integrated.

Data File: \\ppitpa02\chem\gc08.1\1191.b\H-010489.D

Date: 19-FEB-2001 14:56

Client ID:

Sample Info: HL1660,1191.b

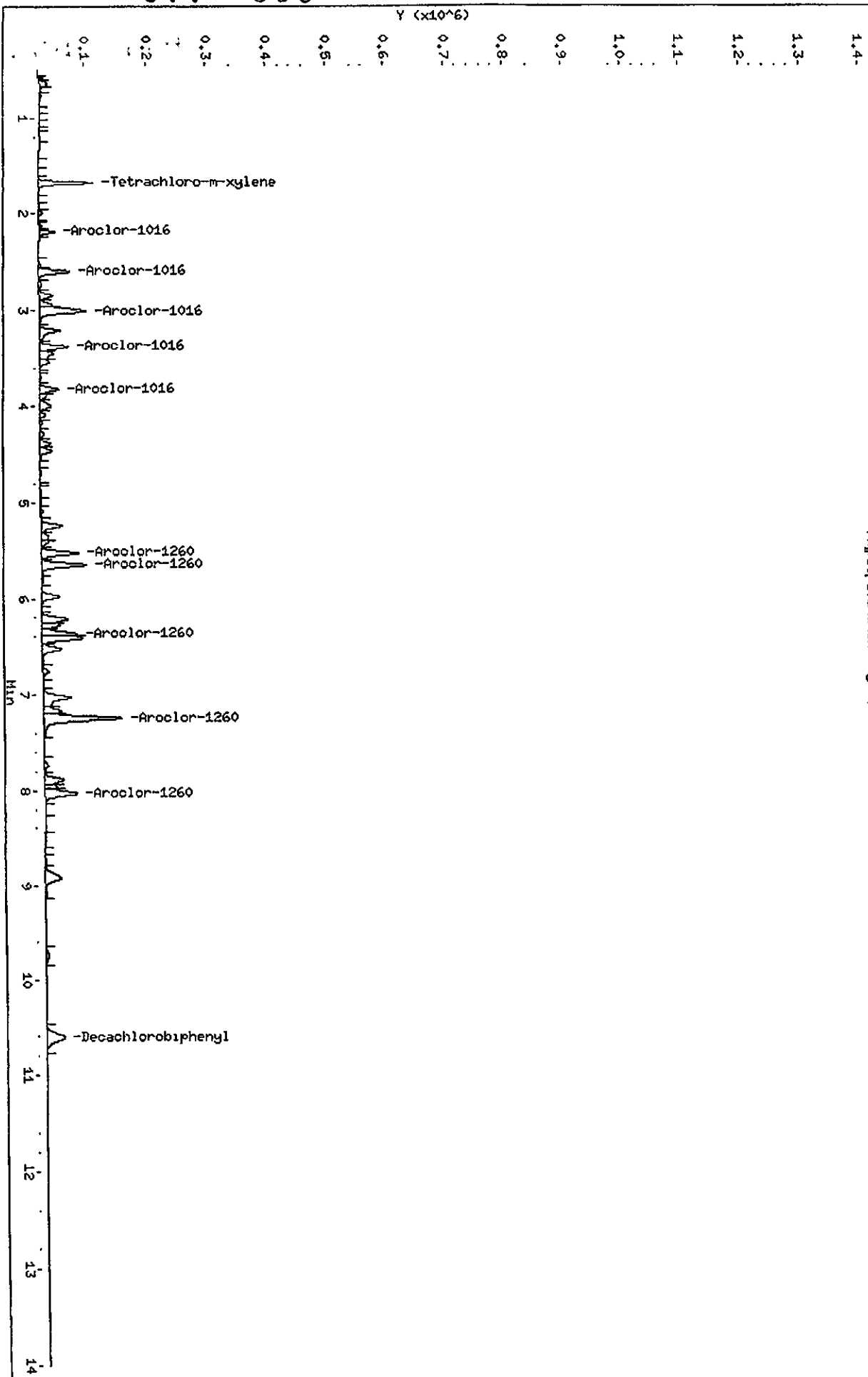
Column Phase: DB608

Instrument: gc08.i

Operator: 010139

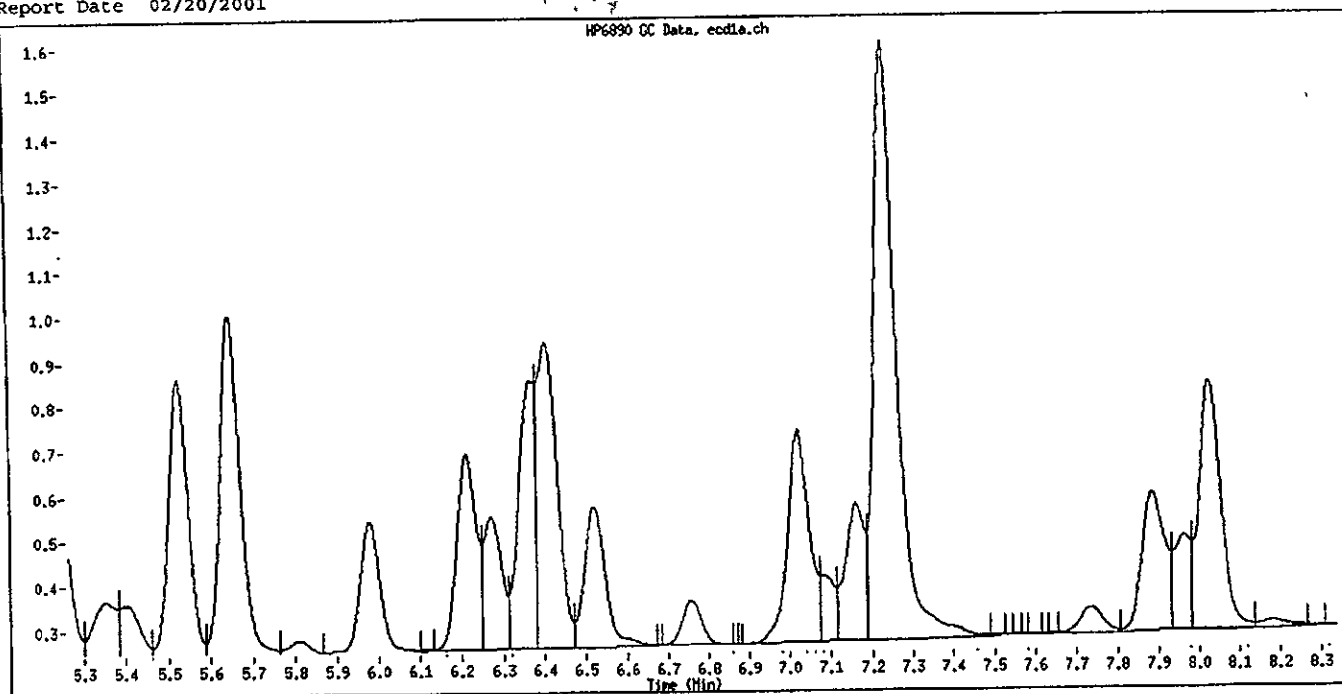
Column diameter: 0.53

\\ppitpa02\chem\gc08.1\1191.b\H-010489.D

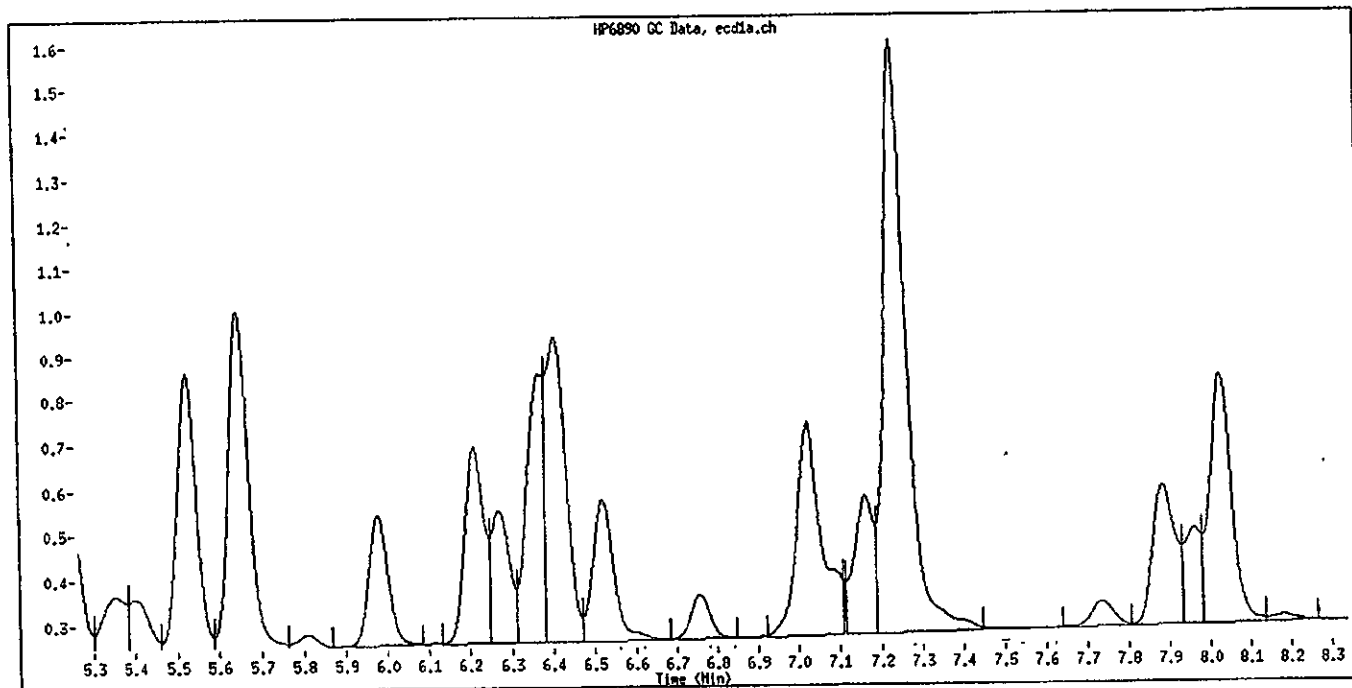


Data File Name: H-A10489 D
Inj Date and Time 19-FEB-2001 14:56
Instrument ID gc8.1
Client ID:
Compound Name: Aroclor-1260
CAS # 11096-82-5
Report Date 02/20/2001

677 597



Original Integration



Manual Integration

Manually Integrated By: EppingerD
Manual Integration Reason: Poor Chromatography

677 598

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10490.D
 Report Date: 20-Feb-2001 08:07

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STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10490.D
 Lab Smp Id: M1660
 Inj Date : 19-FEB-2001 15:16
 Operator : 010139
 Smp Info : M1660,1191.b
 Misc Info : 190-111-13
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:07 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 15:16 Cal File: H-A10490.D
 Als bottle: 8 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1660.sub
 Target Version: 4.04 Sample Matrix: None
 Processing Host: PITPC061

AMOUNTS							
RT	EXP RT	DLT RT	RESPONSE (	CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016					CAS #: 12674-11-2		
2.187	2.187	(0.000)	63891 0	50000	0.47856	0.00- 0.00	0 00
2.601	2.601	(0.000)	123947 0.50000		0.47351	80.00- 120.00	0.00
3.009	3.009	(0.000)	190447 0.50000		0.47994	203.51- 243.51	0 00
3.378	3.378	(0.000)	117970 0	50000	0.48231	203.51- 243.51	0.00
3.819	3.819	(0.000)	76412 0.50000		0.48230	297.56- 337.56	0.00
Average of Peak Amounts =					0.47932		

\$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
1.677	1.677	(0.000)	231760 0	02500	0.024712		

\$ 34 Decachlorobiphenyl					CAS #: 2051-24-3		
10.602	10.602	(0.000)	74794 0.02500		0.024393		

36 Aroclor-1260					CAS #: 11096-82-5		
5.524	5.524	(0.000)	150514 0.50000		0.48418	0.00- 0.00	0 00
5.649	5.649	(0.000)	187888 0.50000		0.48815	95.86- 135.86	0.00
6.367	6.367	(0.000)	152227 0	50000	0.49876	116.91- 156.91	0 00
7.241	7.241	(0.000)	343782 0.50000		0.51074	120.00- 160.00	0.00
8.034	8.034	(0.000)	143477 0	50000	0.49931	108.33- 148.33	0 00
Average of Peak Amounts =					0.49623		

677

599

Data File: \\pittpa02\chem\gc8.1\1191.b\H-A10490.D

Date: 19-FEB-2001 15:16

Client ID:

Sample Info: H1660.1191.b

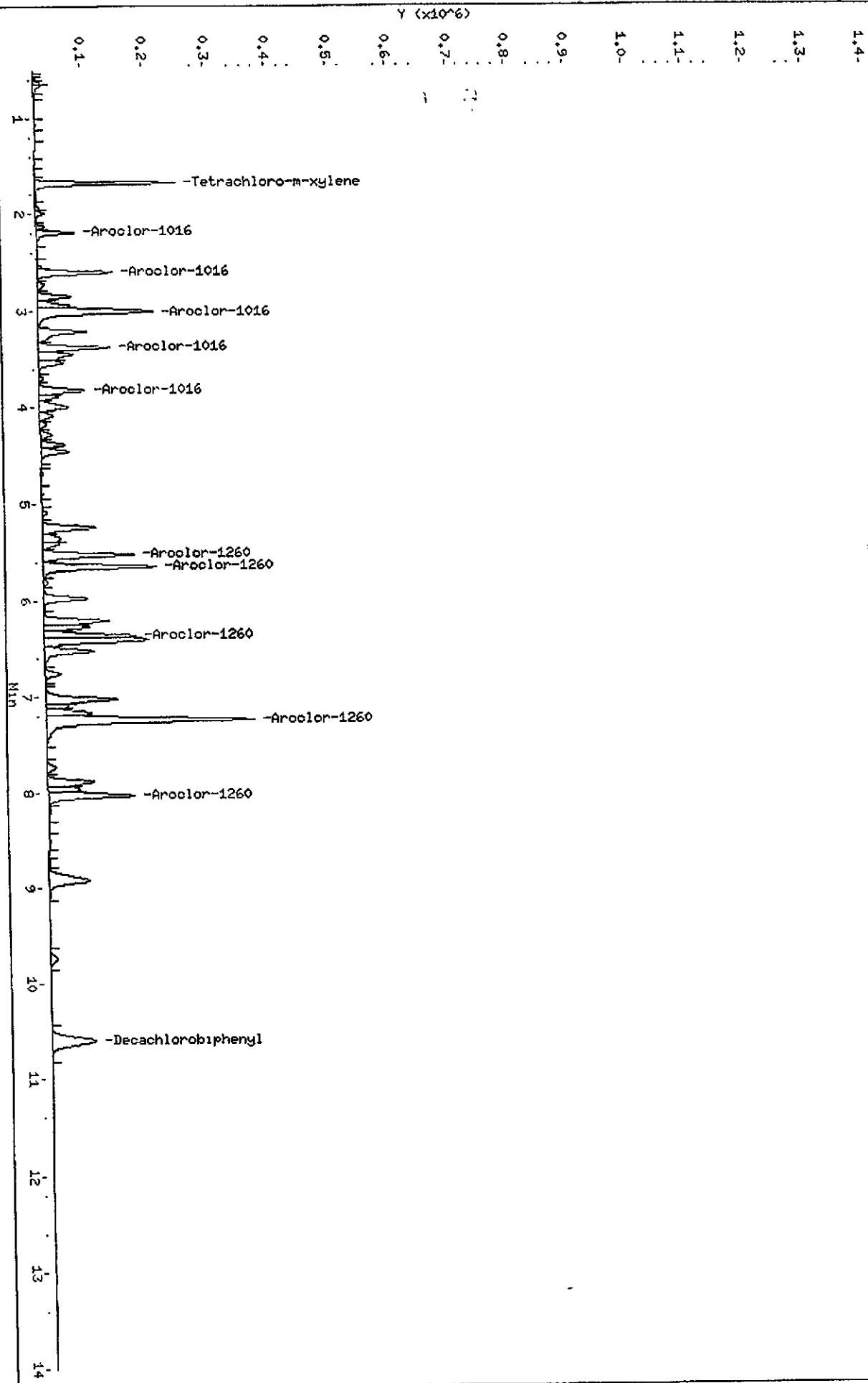
Column Phase: DB608

Instrument: gc8.1

Operator: 010139

Column diameter: 0.53

\\pittpa02\chem\gc8.1\1191.b\H-A10490.D



677 600

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10491.D
 Report Date: 20-Feb-2001 08:07

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STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10491.D
 Lab Smp Id: MH1660
 Inj Date : 19-FEB-2001 15:36
 Operator : 010139
 Smp Info : MH1660,1191.b
 Misc Info : 190-111-14
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:07 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 15:36 Cal File: H-A10491.D
 Als bottle: 9 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC061
 Compound Sublist: 1660.sub
 Sample Matrix: None

AMOUNTS							
RT	EXP RT	DLT RT	RESPONSE (	CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
ng	ng	ng	ng	ng	ng	ng	ng

20 Aroclor-1016					CAS #: 12674-11-2		
2 188	2.187	(0.001)	121287	1 00000	0 92974	0 00- 0.00	0.00
2 601	2 601	(0.000)	235882	1.00000	0 92397	80 00- 120.00	0 00
3 011	3.009	(0 002)	369986	1.00000	0 94841	203.51- 243 51	0.00
3 379	3.378	(0 001)	228019	1.00000	0.94830	203 51- 243 51	0.00
3.821	3 819	(0 002)	148719	1 00000	0.95331	297.56- 337 56	0.00
Average of Peak Amounts =					0.94075		

\$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
1 678	1.677	(0 001)	456553	0 05000	0.049005		

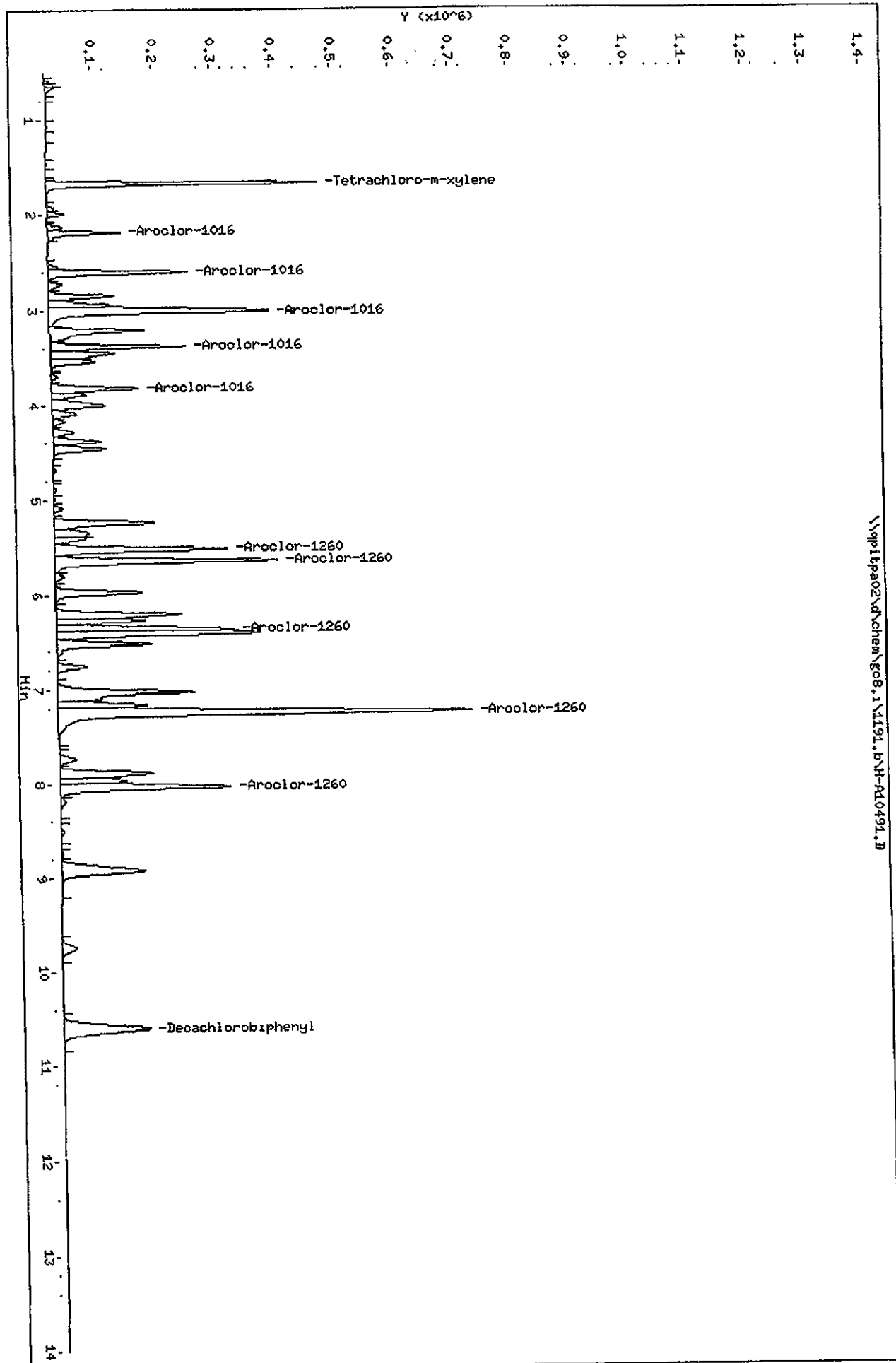
\$ 34 Decachlorobiphenyl					CAS # 2051-24-3		
10 609	10 602	(0.007)	148575	0 05000	0 048832		

36 Aroclor-1260					CAS # 11096-82-5		
5 524	5 524	(0 000)	294661	1 00000	0 96040	0.00- 0.00	0 00
5.647	5.649	(-0.002)	377673	1 00000	0 98586	95.86- 135 86	0.00
6.371	6 367	(0 004)	302252	1.00000	0 99272	116 91- 156.91	0 00
7 239	7.241	(-0.002)	701167	1.00000	1 0309	120.00- 160 00	0.00
8 036	8 034	(0.002)	288669	1.00000	1.0034	108 33- 148 33	0.00
Average of Peak Amounts =					0 99467		

Data File: \\pittpa02\chem\gc8.1\1191.b\H-410491.D
Date: 19-FEB-2001 15:36
Client ID:
Sample Info: MH1660.1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\pittpa02\chem\gc8.1\1191.b\H-410491.D



STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10492.D
 Lab Smp Id: H1660
 Inj Date : 19-FEB-2001 15:55
 Operator : 010139
 Smp Info : H1660,1191.b
 Misc Info : 190-112-1
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:08 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 15:55 Cal File: H-A10492.D
 Als bottle: 10 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1660.sub
 Target Version: 4.04 Sample Matrix: None
 Processing Host: PITPC061

AMOUNTS							
RT	EXP RT	DLT RT	CAL-AMT	ON-COL	TARGET RANGE	RATIO	
==	=====	=====	RESPONSE (ng)	(ng)	=====	=====	=====
20 Aroclor-1016				CAS #: 12674-11-2			
2 188	2 187	(0 001)	227535 2 00000	1.7900	0 00- 0 00	0.00	
2 601	2 601	(0 000)	441176 2.00000	1.7764	80.00- 120.00	0.00	
3 008	3 009	(-0 001)	715855 2 00000	1.8658	203.51- 243.51	0.00	
3 378	3 378	(0 000)	436180 2.00000	1.8484	203.51- 243 51	0.00	
3.819	3.819	(0 000)	290056 2 00000	1 8858	297.56- 337.56	0 00	
Average of Peak Amounts =				1.8333			

\$ 1 Tetrachloro-m-xylene				CAS #: 877-09-8			
1 678	1 677	(0 001)	874955 0.10000	0.095072			

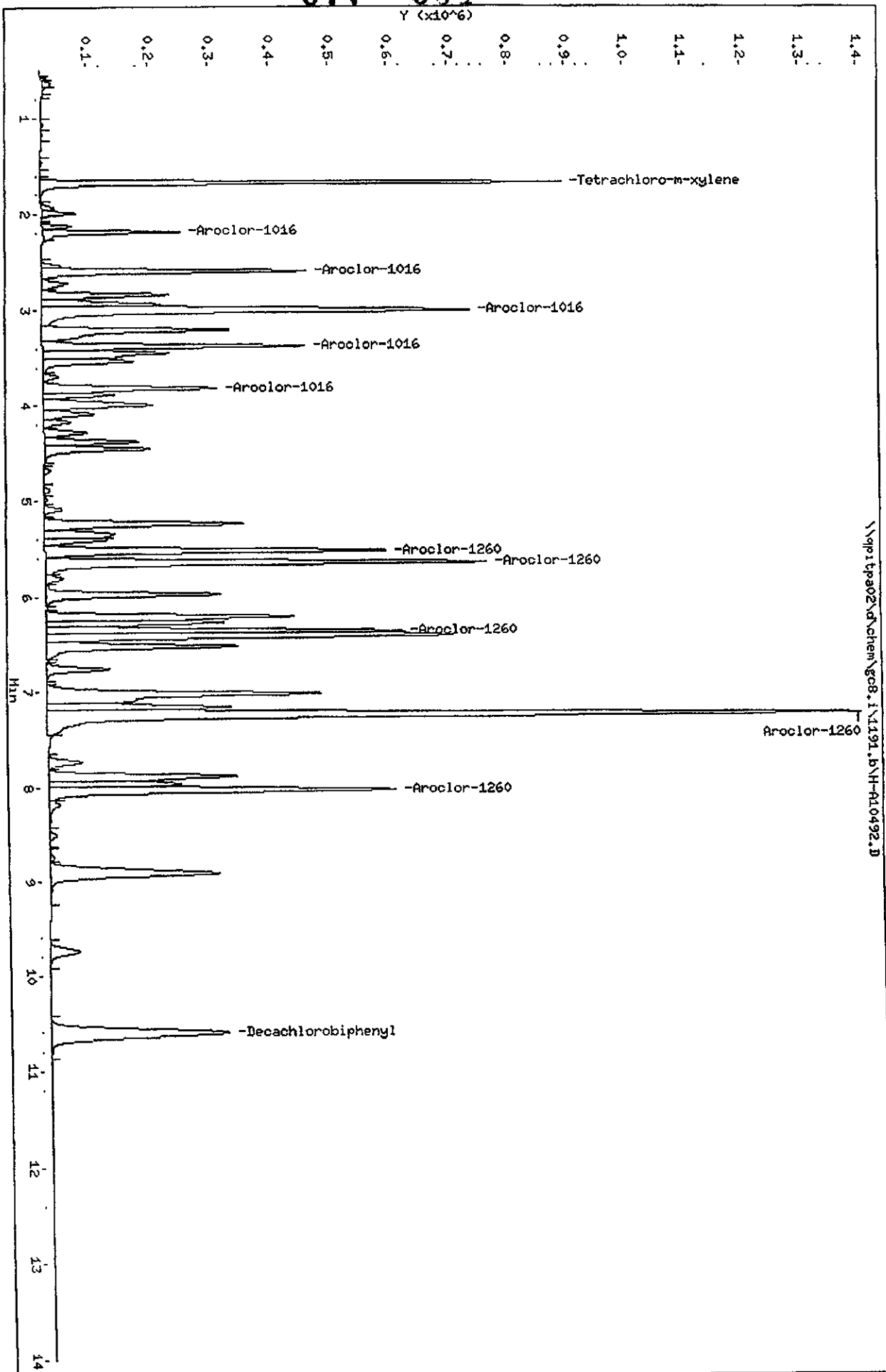
\$ 34 Decachlorobiphenyl				CAS #: 2051-24-3			
10 605	10 602	(0.003)	298138 0.10000	0.098385			

36 Aroclor-1260				CAS #: 11096-82-5			
5 525	5.524	(0 001)	567956 2 00000	1 8791	0.00- 0.00	0.00(M)	
5 650	5 649	(0.001)	736708 2 00000	1 9380	95.86- 135.86	0.00	
6 372	6.367	(0.005)	592194 2 00000	1 9558	116.91- 156.91	0.00	
7.241	7.241	(0 000)	1377495 2.00000	2.0202	120 00- 160.00	0 00	
8 033	8 034	(-0 001)	579623 2 00000	2 0118	108.33- 148 33	0 00	
Average of Peak Amounts =				1 961			

QC Flag Legend

M - Compound response manually integrated.

677 604

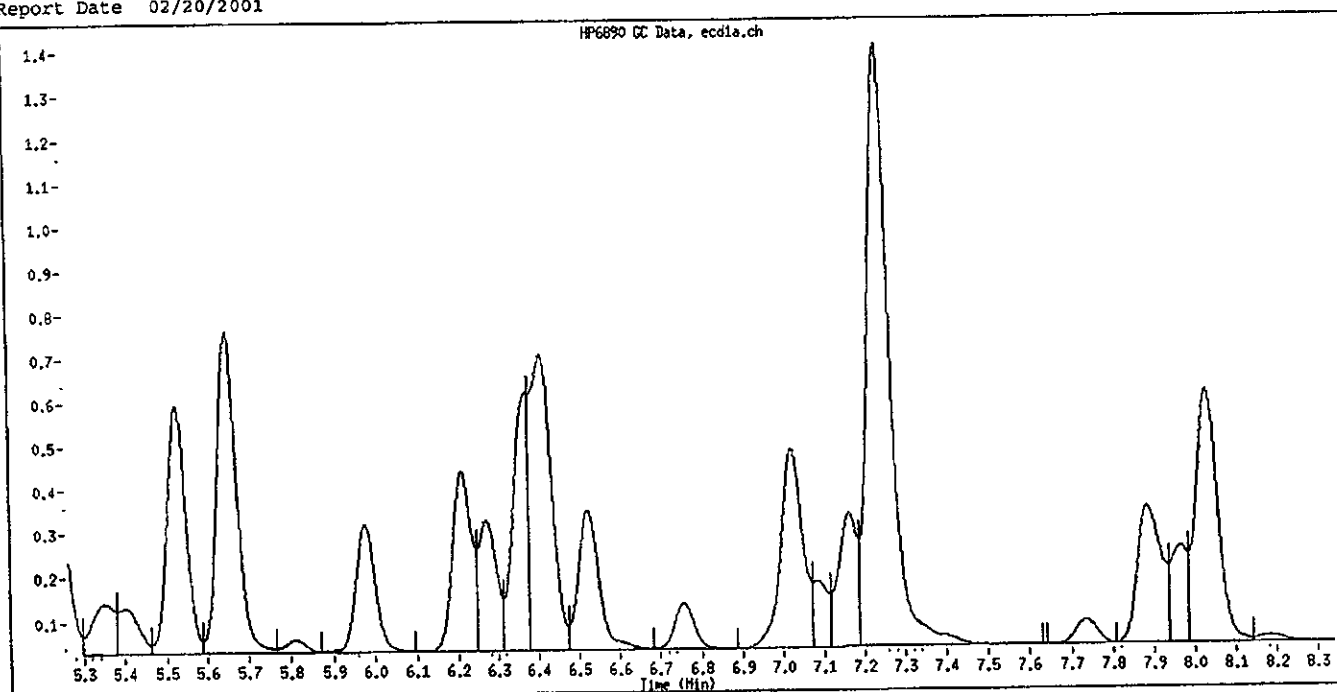


Data File: \\pp1tpa02\chem\gc8.1\1191.b\H-A10492.D
 Date : 19-FEB-2004 15:55
 Client ID:
 Sample Info: H4660,1191.b
 Column phase: DB608

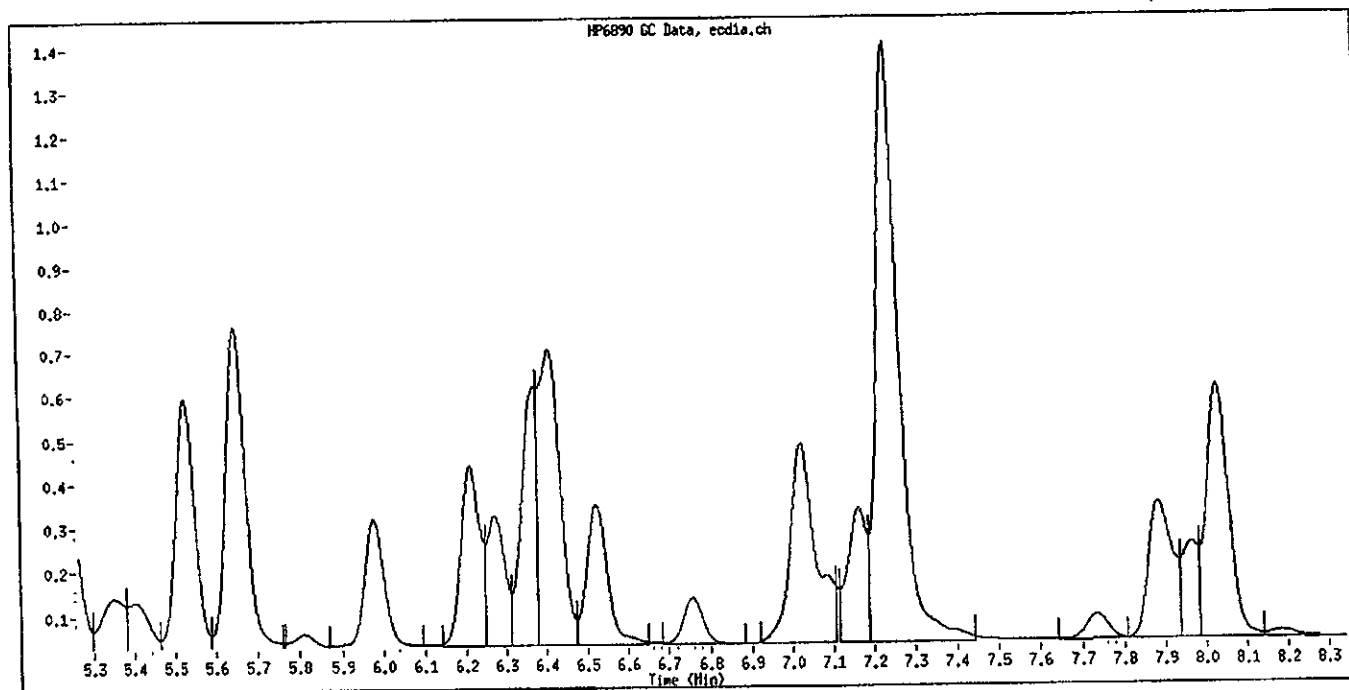
Instrument: gc8.1
 Operator: 010139
 Column diameter: 0.53

Data File Name H-A10492.D
Inj Date and Time 19-FEB-2001 15:55
Instrument ID gc8 i
Client ID
Compound Name Aroclor-1260
CAS # 11096-82-5
Report Date 02/20/2001

677 605



Original Integration



Manual Integration

Manually Integrated By EppingerD
Manual Integration Reason. Poor Chromatography

STL-Pittsburgh

Data file : \\gpitpa02\d\chem\gc8.i\1191.b\H-A10493.D
 Lab Smp Id: XH1660
 Inj Date : 19-FEB-2001 16:15
 Operator : 010139
 Smp Info : XH1660,1191.b
 Misc Info : 190-112-2
 Comment : 8082 PCB ANALYSIS
 Method : \\gpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:08 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
 Als bottle: 11 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1660.sub
 Target Version: 4.04 Sample Matrix: None
 Processing Host: PITPC061

AMOUNTS							
RT	EXP RT	DLT RT	RESPONSE (	CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016					CAS #: 12674-11-2		
2 188	2.187	(0.001)	426158	4.00000	3 4455	0.00- 0.00	0.00
2 600	2 601	(-0 001)	828572	4.00000	3.4312	80 00- 120.00	0.00
3 008	3 009	(-0 001)	1350799	4.00000	3.5924	203.51- 243 51	0.00
3.378	3.378	(0.000)	845443	4.00000	3.6461	203 51- 243.51	0.00
3 820	3 819	(0 001)	547103	4.00000	3.6239	297 56- 337 56	0.00
Average of Peak Amounts =					3.5478		

\$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8		
1 679	1.677	(0 002)	1677010	0.20000	0.18496		

\$ 34 Decachlorobiphenyl					CAS # 2051-24-3		
10 605	10 602	(0 003)	591439	0.20000	0.19596		

36 Aroclor-1260					CAS # 11096-82-5		
5 526	5.524	(0 002)	1107152	4 00000	3 7152	0.00- 0 00	0 00
5 649	5 649	(0 000)	1424863	4.00000	3.7880	95.86- 135.86	0 00
6 364	6.367	(-0 003)	1146375	4 00000	3.8200	116 91- 156.91	0.00
7.241	7 241	(0.000)	2745113	4 00000	4 0216	120.00- 160.00	0.00
8 031	8 034	(-0 003)	1173099	4.00000	4 0596	108.33- 148.33	0 00
Average of Peak Amounts =					3.8809		

Data File: \\pp1tpa02\chem\gc8.1\1191.b\H-810493.D

Date: 19-FEB-2001 16:15

Client ID:

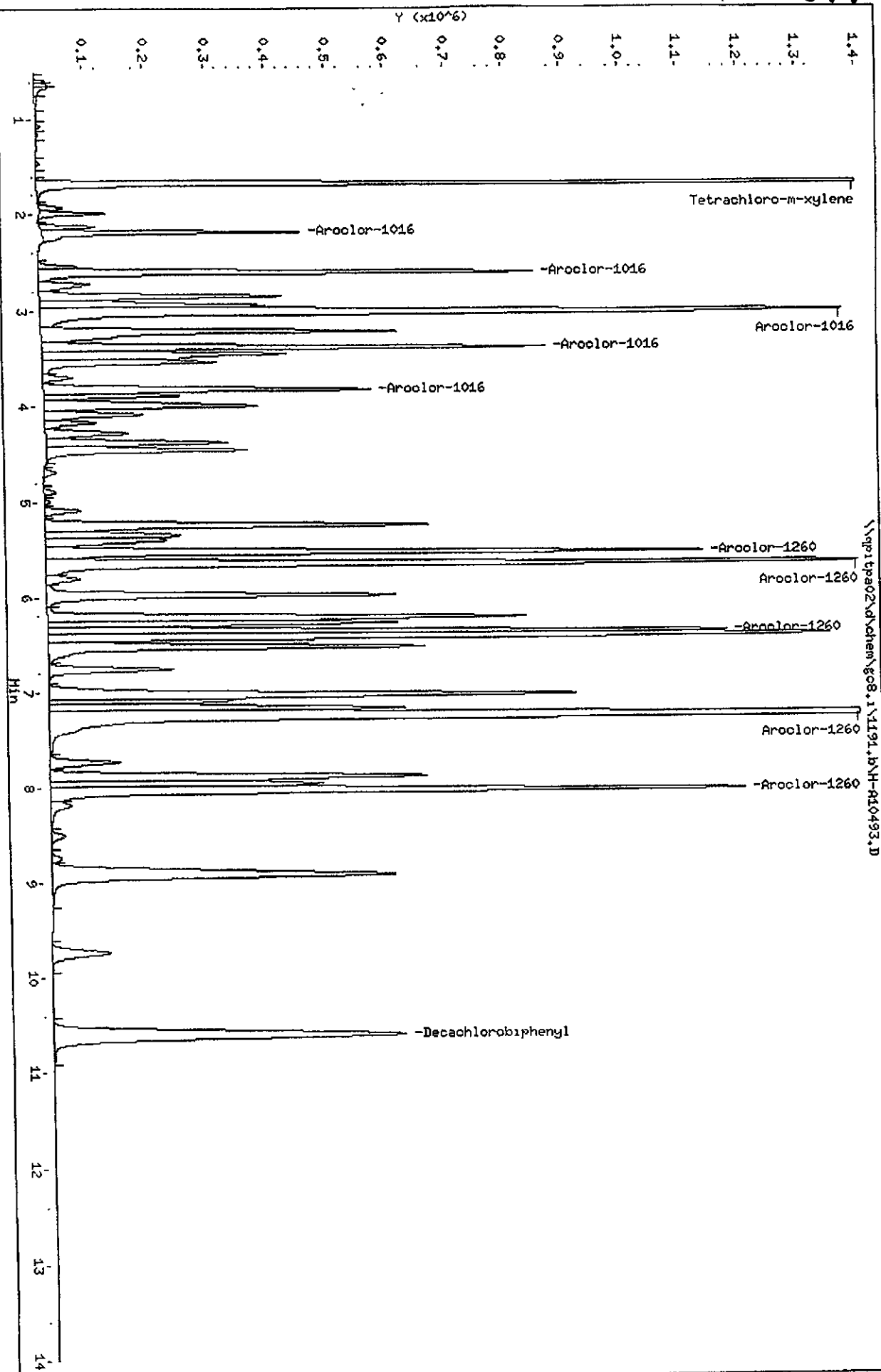
Sample Info: KH0660,1191.b

Column phase: DB608

Instrument: gc8.1

Operator: 010139

Column diameter: 0.53



677 608

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10494.D
Report Date: 20-Feb-2001 08:16

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STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10494.D
Lab Smp Id: 2M2154
Inj Date : 19-FEB-2001 16:35
Operator : 010139
Smp Info : 2M2154,1191.b
Misc Info : 190-120-10
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:14 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 12 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061

AMOUNTS									
RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO		
==	=====	=====	=====	=====	=====	=====	=====		
8 Aroclor-1221					CAS #: 11104-28-2				
1 465	1 462	(0.003)	31186	0 50000	0 54257	0.00- 0.00	0 00		
1 990	1 986	(0.004)	42457	0 50000	0 51417	116.57- 156 57	0 00		
2.189	2 185	(0.004)	85367	0 50000	0.54633	66 04- 106 04	0.00		
Average of Peak Amounts =					0.53436	6.99.D			

\$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8				
1 678	1 677	(0 001)	9123	0.02500	0.0010062				

\$ 34 Decachlorobiphenyl					CAS #: 2051-24-3				
Compound Not Detected									

33 Aroclor-1254					CAS # 11097-69-1				
4 378	4 373	(0.005)	113275	0 50000	0 55407	0 00- 0 00	0.00		
4 454	4 449	(0.005)	135727	0 50000	0 55313	92.23- 132 23	0.00		
5.255	5.249	(0.006)	202556	0 50000	0 56478	77.40- 117.40	0.00		
5 434	5 425	(0.009)	143246	0 50000	0.58457	51 09- 91.09	0.00		
5 647	5 641	(0.006)	113843	0 50000	0 52324	65 01- 105.01	0.00		
Average of Peak Amounts =					0.55596	11.79.D			

2nd
SOURCE

Data File: \\ap1tpa02\chem\gc8.1\1191.b\H-010494.D

Date: 13-FEB-2004 16:36

Client ID:

Sample Info: 2H2154,1191.b

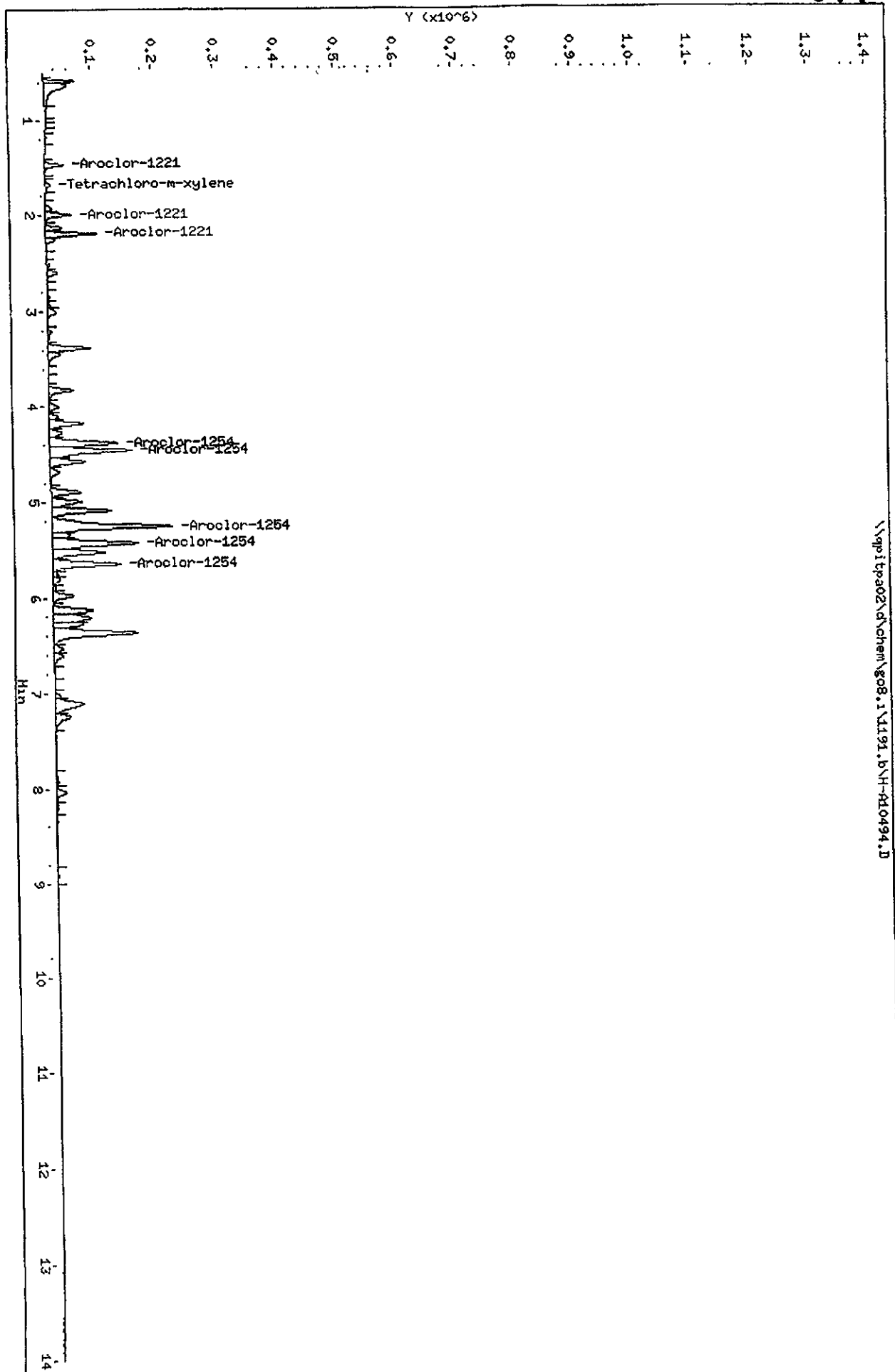
Column phase: DB608

Instrument: gc8.1

Operator: 010139

Column diameter: 0.53

\\ap1tpa02\chem\gc8.1\1191.b\H-010494.D



677 610

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10495.D
 Report Date: 20-Feb-2001 08:16

Page 1

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10495.D
 Lab Smp Id: 2M1232
 Inj Date : 19-FEB-2001 16:55
 Operator : 010139
 Smp Info : 2M1232,1191.b
 Misc Info : 190-120-11
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 20-Feb-2001 08:14 eppingerd
 Cal Date : 19-FEB-2001 16:15
 Als bottle: 13
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC061

Inst ID: gc8.i
 Quant Type: ESTD
 Cal File: H-A10493.D
 Continuing Calibration Sample
 Compound Sublist: 1232.sub
 Sample Matrix: None

AMOUNTS						
RT	EXP RT	DLT RT	CAL-AMT RESPONSE (ng)	ON-COL (ng)	TARGET RANGE	RATIO
14 Aroclor-1232						
CAS #: 11141-16-5						
2 190	2 184	(0.006)	75488 0.50000	0.67984	0 00- 0 00	0.00
2 601	2 597	(0.004)	59998 0.50000	0.59059	146 26- 186.26	0.00
3 010	3 006	(0.004)	84945 0.50000	0.58862	65 99- 105 99	0.00
3 380	3.375	(0.005)	49639 0.50000	0.51892	74 18- 114.18	0.00
Average of Peak Amounts =			0.59449			

18.97-D

2nd
 savecs

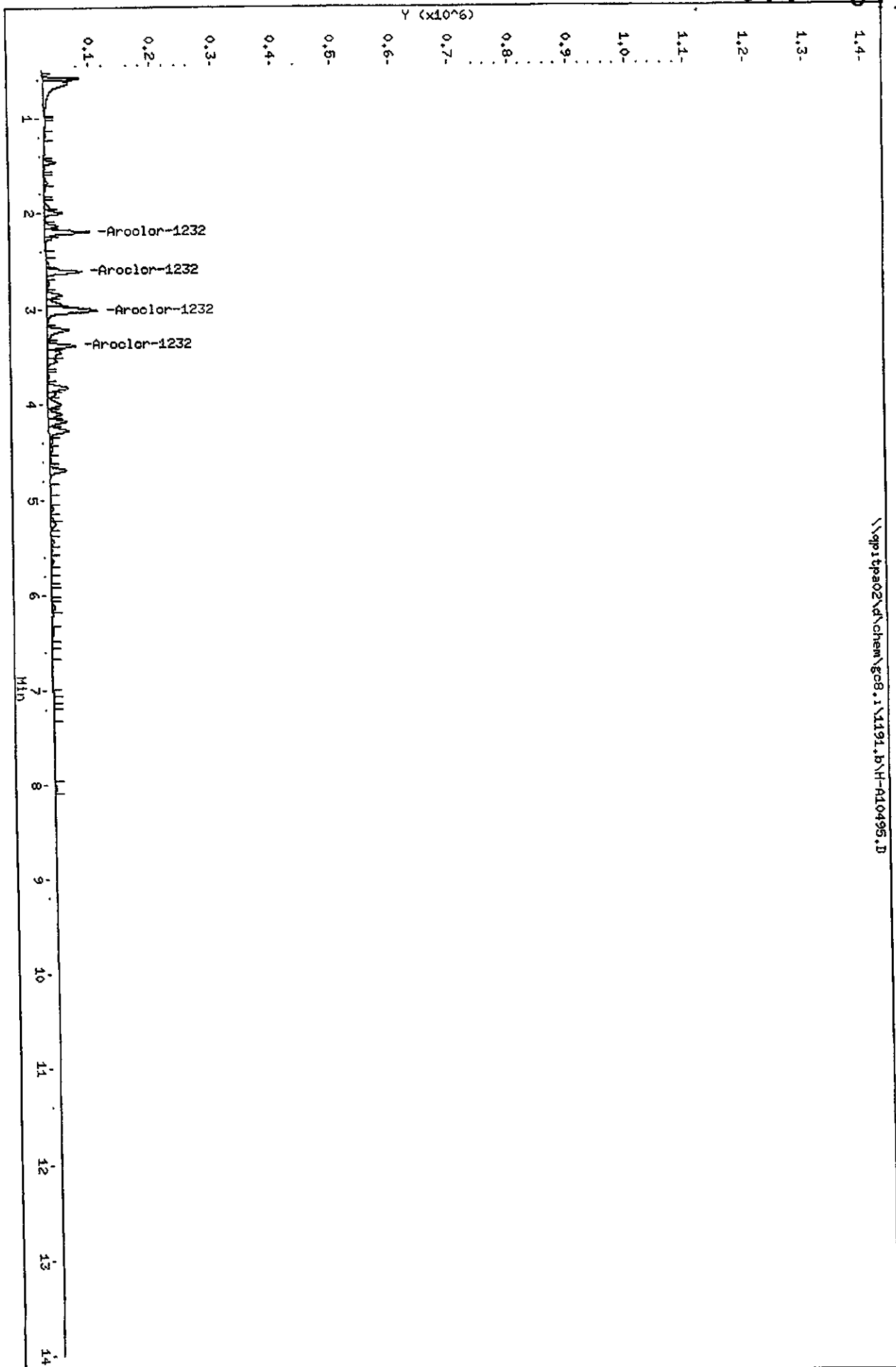
Data File: \\pp1tpa02\chem\gc8.1\1191.b\H-A10495.D
 Date: 19-FEB-2001 16:55
 Client ID:
 Sample Info: 2H1232,1191.b

Column phase: DB608

Instrument: gc8.i
 Operator: 010139
 Column diameter: 0.53

\\pp1tpa02\chem\gc8.1\1191.b\H-A10495.D

677 611



677 612

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10496.D
Report Date: 20-Feb-2001 08:16

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STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10496.D
Lab Smp Id: 2M1242
Inj Date : 19-FEB-2001 17:14
Operator : 010139
Smp Info : 2M1242,1191.b
Misc Info : 190-120-12
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:14 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 14 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	DLT RT	RT	RESPONSE (ng)	(ng)	TARGET RANGE	RATIO		
--	-----	-----	-----	-----	-----	-----	-----		
15 Aroclor-1242					CAS #: 53469-21-9				
3 008	3 008	(0 000)	153487	0.50000	0 53503	0 00- 0 00	0.00		
3.379	3 376	(0 003)	94662	0.50000	0 52870	310.13- 350.13	0.00		
3 818	3.817	(0 001)	68498	0 50000	0.54179	749.70- 789 70	0.00		
4 267	4 267	(0 000)	69032	0.50000	0.54087	512 48- 552 48	0.00		
4 683	4 682	(0.001)	59499	0.50000	0.54060	314 30- 354.30	0 00		
Average of Peak Amounts =					0.5374	7.57-D			

2nd
source

Data File: \\qpitpa02\chem\gc8.1\1191.B\H-R10496.D

Date: 19-FEB-2001 17:14

Client ID:

Sample Info: 2M1242,1191.b

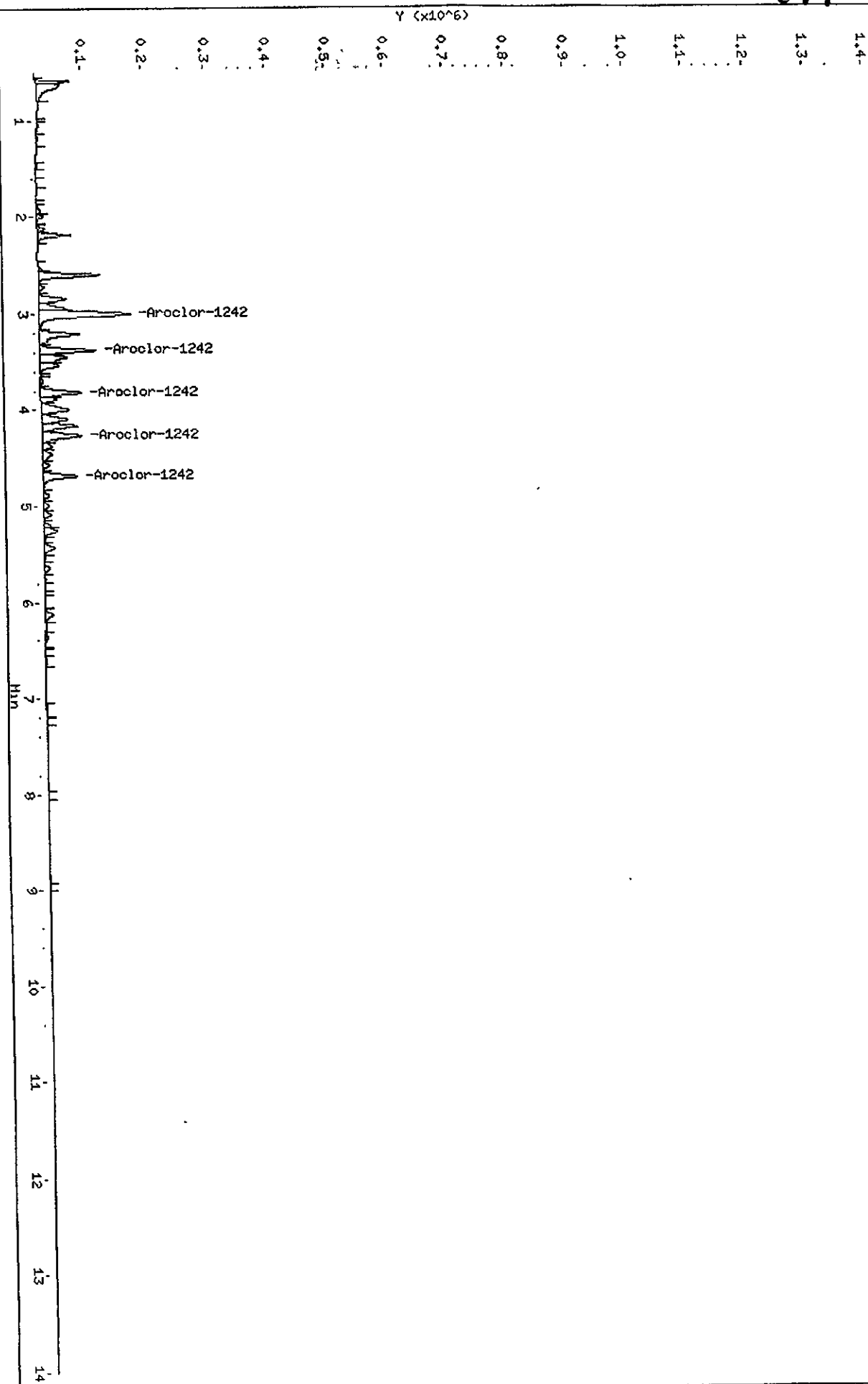
Column phase: DB608

Instrument: gc8.1

Operator: 010139

Column diameter: 0.53

\\qpitpa02\chem\gc8.1\1191.B\H-R10496.D



677 614

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10497.D
Report Date: 20-Feb-2001 08:16

Page 1

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10497.D
Lab Smp Id: 2M1248
Inj Date : 19-FEB-2001 17:34
Operator : 010139
Smp Info : 2M1248,1191.b
Misc Info : 190-120-13
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:14 eppingerd
Cal Date : 19-FEB-2001 16:15
Als bottle: 15
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061

Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10493.D
Continuing Calibration Sample
Compound Sublist: 1248.sub
Sample Matrix: None

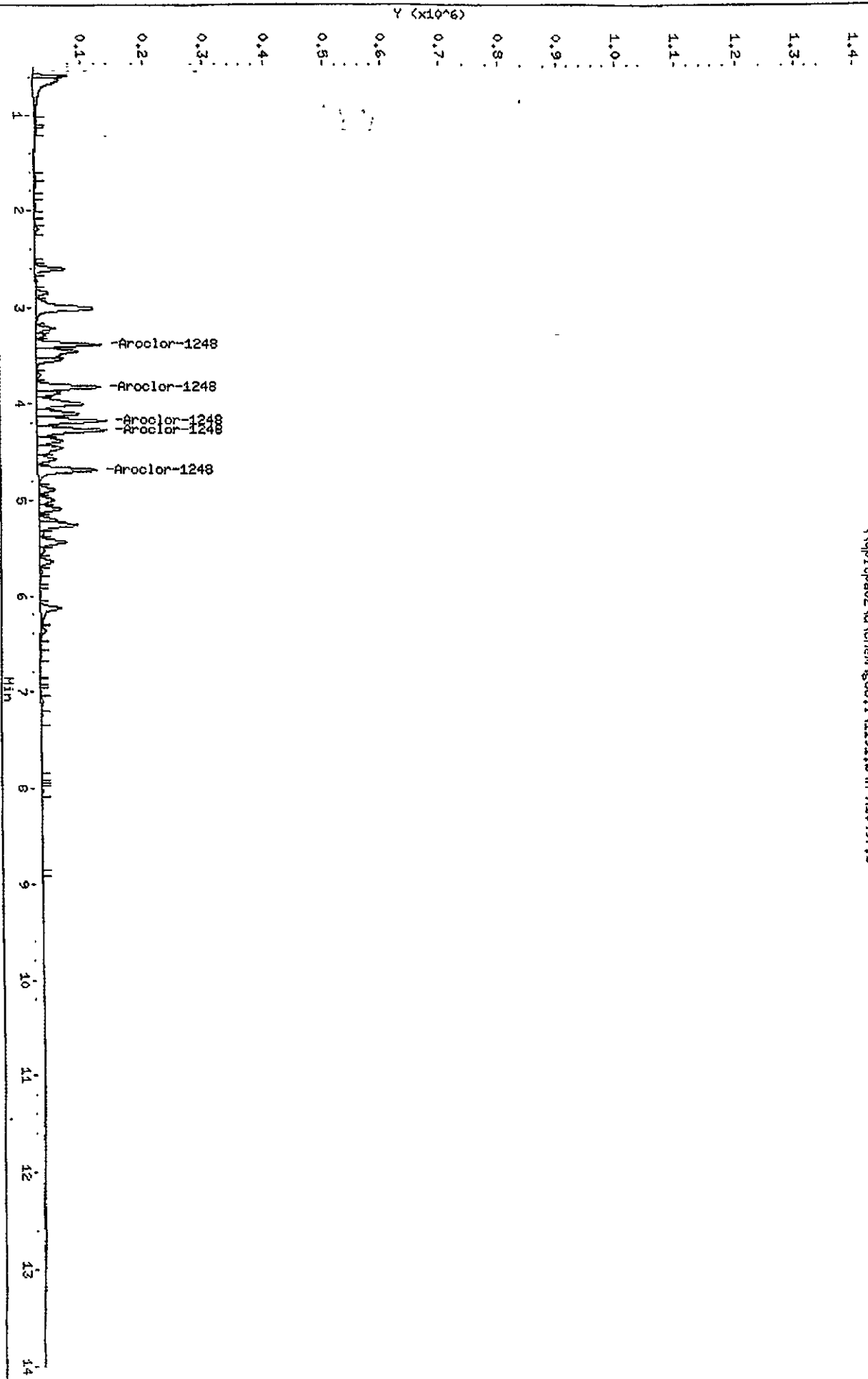
AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
ng)					ng)		
21 Aroclor-1248							
3 379	3 377	(0.002)	110002	0.50000	0.56844	0 00- 0.00	0.00
3.821	3.818	(0.003)	106479	0.50000	0.58999	114.57- 154.57	0.00
4 170	4.168	(0.002)	116228	0.50000	0 57171	63 67- 103 67	0.00
4.269	4 268	(0 001)	115268	0 50000	0 61700	43 86- 83 86	0.00
4 684	4 682	(0.002)	97563	0.50000	0.51348	128.08- 168.08	0.00
Average of Peak Amounts =				0.57213	144% ^{2D}		

2nd
SOURCE

Data File: \\qpltpa02\chem\gc8.1\1191.b\H-R10497.D
Date: 19-FEB-2001 17:34
Client ID:
Sample Info: 2H1248,1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\qpltpa02\chem\gc8.1\1191.b\H-R10497.D



677 616

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10498.D
Lab Smp Id: 2M1660
Inj Date : 19-FEB-2001 17:54
Operator : 010139
Smp Info : 2M1660,1191.b
Misc Info : 190-120-14
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 20-Feb-2001 08:14 eppingerd
Cal Date : 19-FEB-2001 16:15
Als bottle: 16
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061
Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10493.D
Continuing Calibration Sample
Compound Sublist: 1660.sub
Sample Matrix: None

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016				CAS #: 12674-11-2			
2.189	2.187	(0.002)	66835	0.50000	0.54036	0.00- 0.00	0.00
2.601	2.601	(0.000)	130497	0.50000	0.54040	80.00- 120.00	0.00
3.009	3.009	(0.000)	199877	0.50000	0.53157	203.51- 243.51	0.00
3.380	3.378	(0.002)	124205	0.50000	0.53565	203.51- 243.51	0.00
3.821	3.819	(0.002)	81499	0.50000	0.53984	297.56- 337.56	0.00
Average of Peak Amounts =				0.53756	7.57-D		

\$ 1 Tetrachloro-m-xylene				CAS # 877-09-8			
Compound Not Detected							

\$ 34 Decachlorobiphenyl				CAS #: 2051-24-3			
10.607	10.602	(0.005)	1293	0.02500	0.00042841		

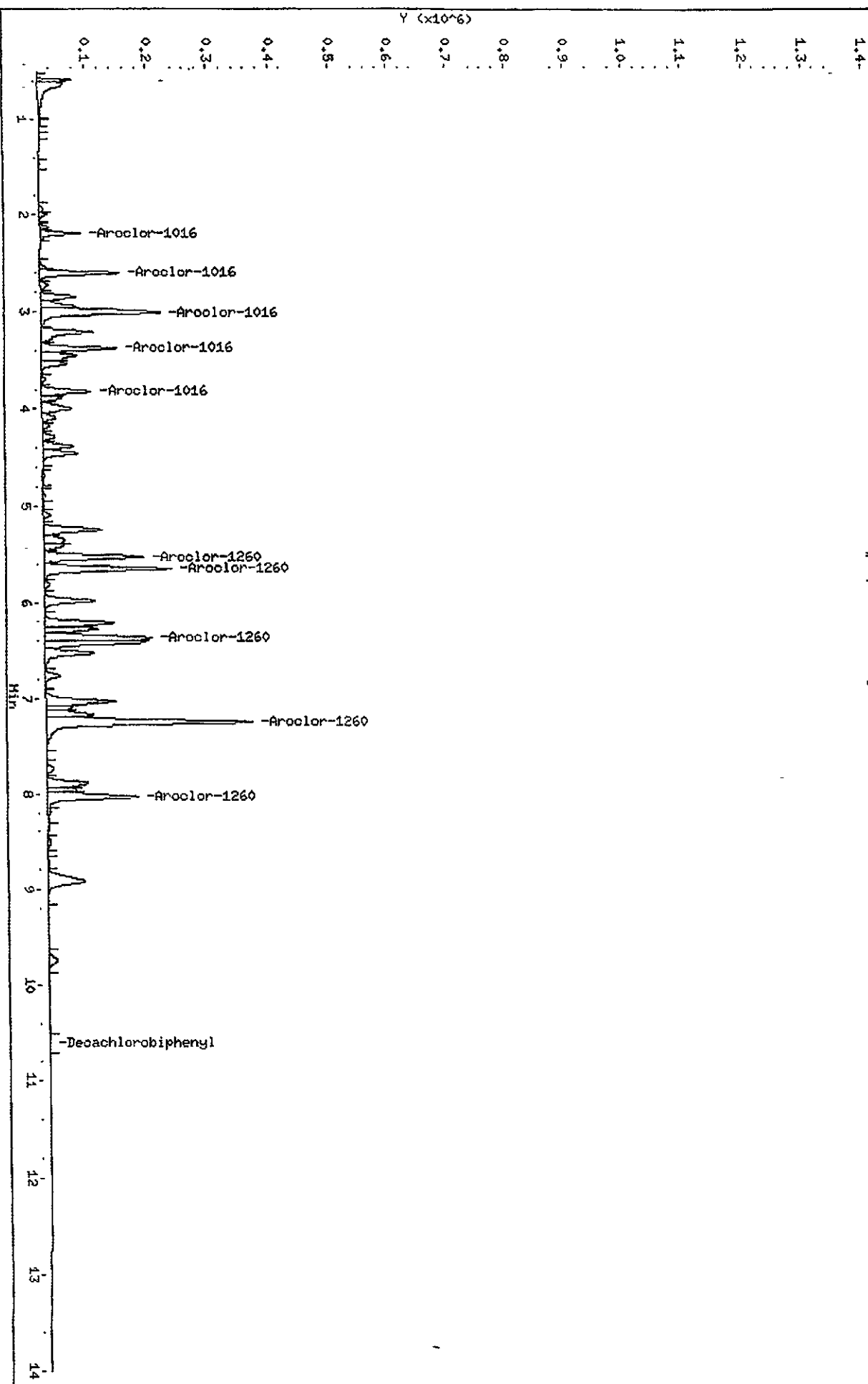
36 Aroclor-1260				CAS #: 11096-82-5			
5.526	5.524	(0.002)	166704	0.50000	0.55941	0.00- 0.00	0.00
5.649	5.649	(0.000)	213656	0.50000	0.56800	95.86- 135.86	0.00
6.369	6.367	(0.002)	178933	0.50000	0.59626	116.91- 156.91	0.00
7.241	7.241	(0.000)	341458	0.50000	0.50024	120.00- 160.00	0.00
8.032	8.034	(-0.002)	152923	0.50000	0.52920	108.33- 148.33	0.00
Average of Peak Amounts =				0.55062	10.17-D		

2nd
SOURCE

Data File: \\p1tpa02\chem\gc8.1\1191.b\H-810498.D
Date: 19-FEB-2001 17:54
Client ID:
Sample Info: 2M1660,1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\p1tpa02\chem\gc8.1\1191.b\H-810498.D



677 618

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10696.D
Lab Smp Id: M2154
Inj Date : 26-FEB-2001 09:58
Operator : 010139
Smp Info : M2154,1191.b
Misc Info : 190-111-7
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 26-Feb-2001 11:47 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 2154.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
8 Aroclor-1221			CAS # 11104-28-2				
1.466	1.462	(0.004)	28832 0	50000	0 50162	0.00- 0.00	0.00
1 988	1.986	(0 002)	41959 0.50000		0.50814	116 57- 156.57	0.00
2.187	2 185	(0 002)	80415 0.50000		0 51464	66.04- 106 04	0.00
Average of Peak Amounts =					0.50813	1.67-D	

\$ 1 Tetrachloro-m-xylene			CAS #: 877-09-8				
1 678	1 677	(0 001)	211354 0	02500	0 023311		

\$ 34 Decachlorobiphenyl			CAS #: 2051-24-3				
10 599	10.602	(-0 003)	70679 0	02500	0.023418		

33 Aroclor-1254			CAS #: 11097-69-1				
4 377	4 373	(0 004)	106210 0.50000		0.51951	0.00- 0.00	0 00
4.450	4 449	(0.001)	127437 0.50000		0.51935	92.23- 132 23	0 00
5 250	5 249	(0 001)	188851 0.50000		0.52656	77 40- 117 40	0 00
5.427	5 425	(0.002)	129873 0	50000	0 52999	51 09- 91.09	0.00
5 642	5 641	(0 001)	115549 0.50000		0 53108	65.01- 105.01	0.00
Average of Peak Amounts =					0 5253	5.17-D	

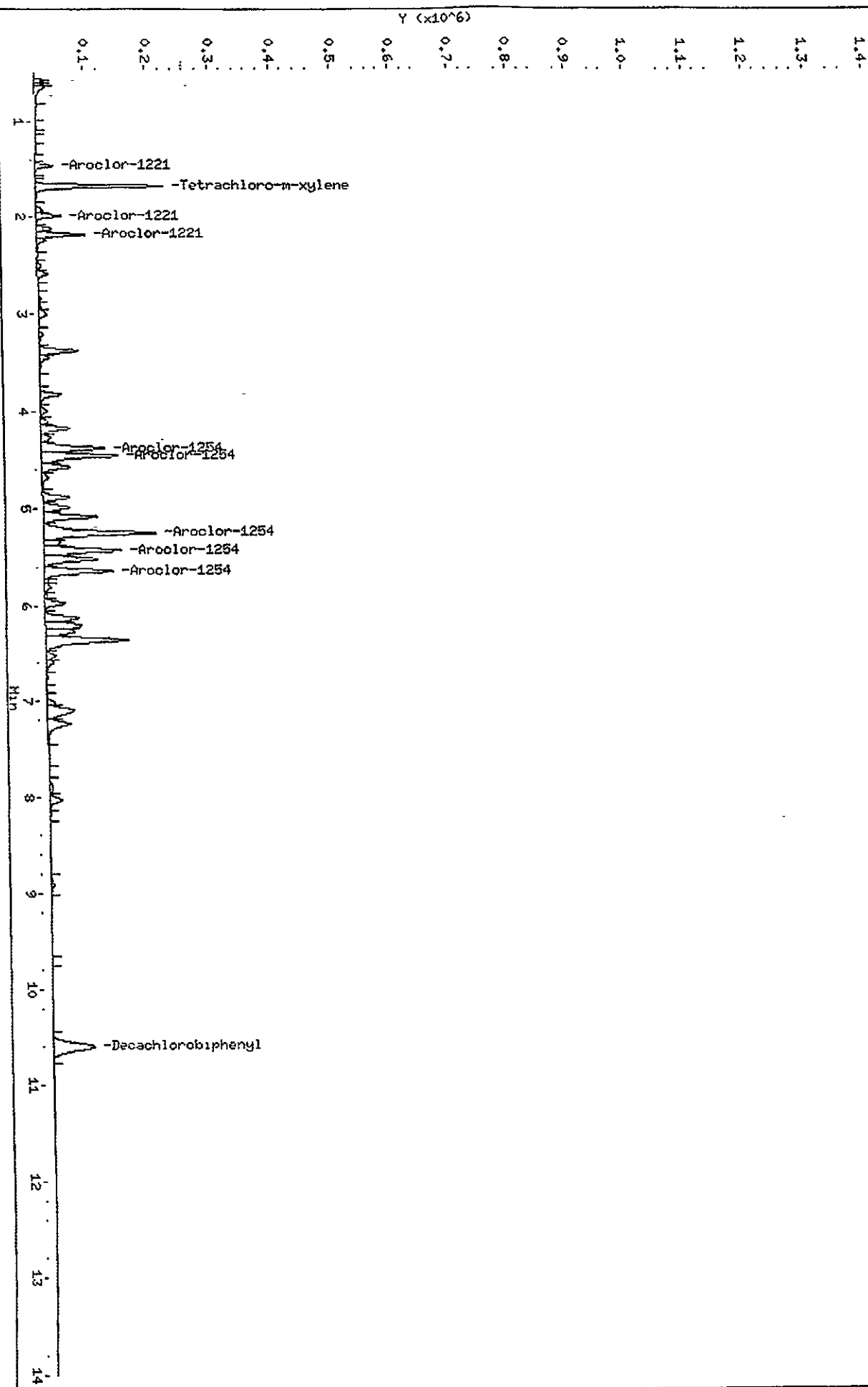
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Data File: \\pittpa02\chem\gc8.1\1191.b\H-410696.D
Date: 26-FEB-2001 09:58
Client ID:
Sample Info: H2154.1191.b

Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\pittpa02\chem\gc8.1\1191.b\H-410696.D



677 620

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10697.D
Lab Smp Id: M1232
Inj Date : 26-FEB-2001 10:17
Operator : 010139
Smp Info : M1232,1191.b
Misc Info : 190-111-8
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 26-Feb-2001 11:47 eppingerd
Cal Date : 19-FEB-2001 16:15
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061
Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10493.D
Continuing Calibration Sample
Compound Sublist: 1232.sub
Sample Matrix: None

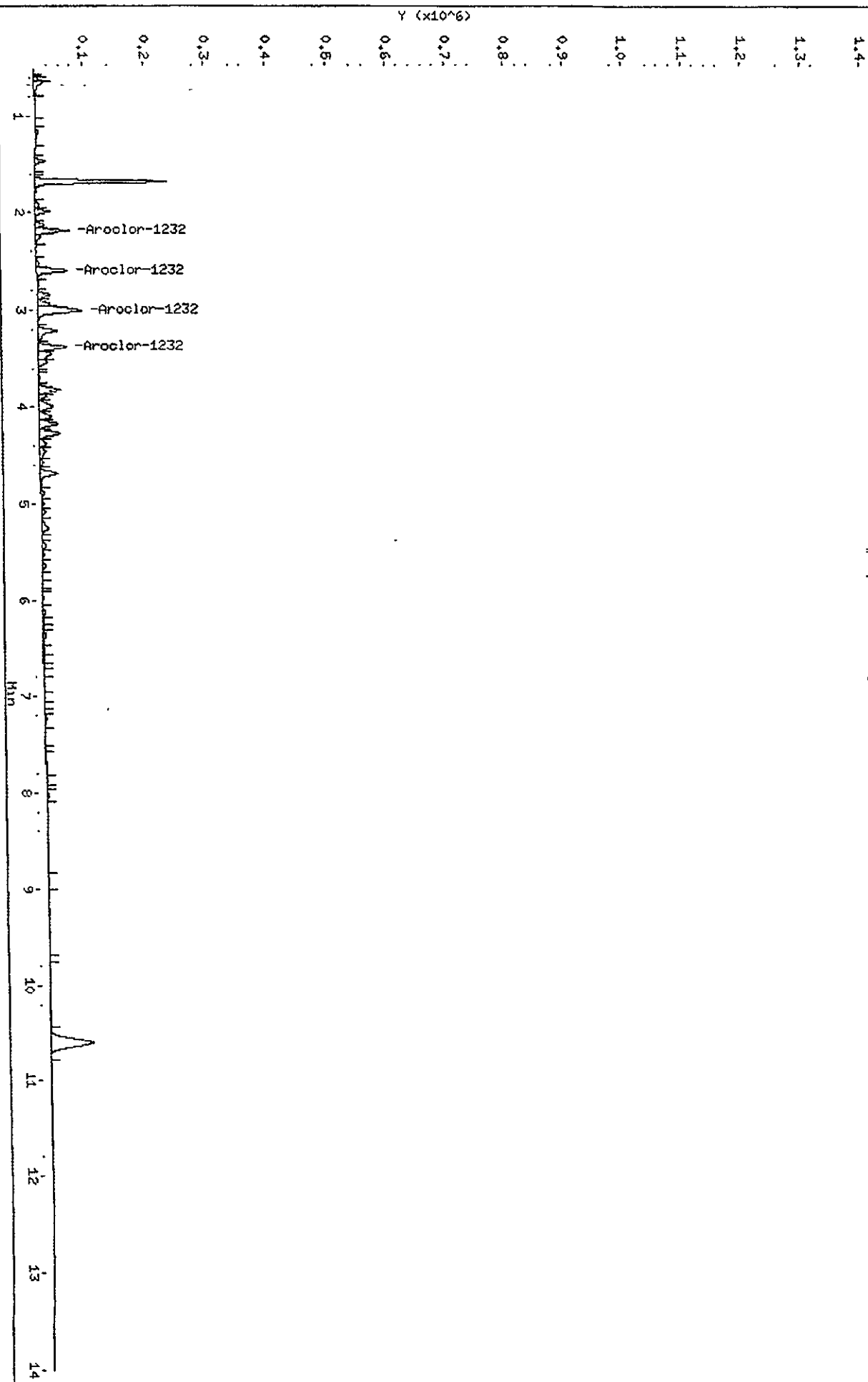
AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
ng)							
14	Aroclor-1232				CAS #	11141-16-5	
2.188	2.184	(0 004)	56809	0.50000	0.51162	0 00- 0 00	0 00
2 598	2 597	(0 001)	51895	0.50000	0.51083	146.26- 186 26	0 00
3 007	3.006	(0 001)	74236	0.50000	0.51441	65.99- 105 99	0.00
3 376	3.375	(0 001)	49084	0.50000	0.51312	74 18- 114.18	0.00
Average of Peak Amounts =				0.51249			

CCAL

Data File: \\pptpa02\chem\gc8.1\1191.b\H-A10697.D
Date: 26-FEB-2004 10:17
Client ID:
Sample Info: H1232,1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\pptpa02\chem\gc8.1\1191.b\H-A10697.D



677 622

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10698.D
Lab Smp Id: M1242
Inj Date : 26-FEB-2001 10:37
Operator : 010139
Smp Info : M1242,1191.b
Misc Info : 190-111-9
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 26-Feb-2001 11:47 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1242.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS

RT	EXP RT	DLT RT	CAL-AMT	ON-COL	RESPONSE (ng)	TARGET RANGE	RATIO

15 Aroclor-1242			CAS #: 53469-21-9				
3.007	3.008	(-0.001)	147718	0.50000	0.51492	0.00~ 0.00	0.00
3.379	3.376	(0.003)	92049	0.50000	0.51410	310.13- 350.13	0.00
3.817	3.817	(0.000)	66155	0.50000	0.52326	749.70- 789.70	0.00
4.266	4.267	(-0.001)	66646	0.50000	0.52217	512.48- 552.48	0.00
4.683	4.682	(0.001)	57929	0.50000	0.52633	314.30- 354.30	0.00

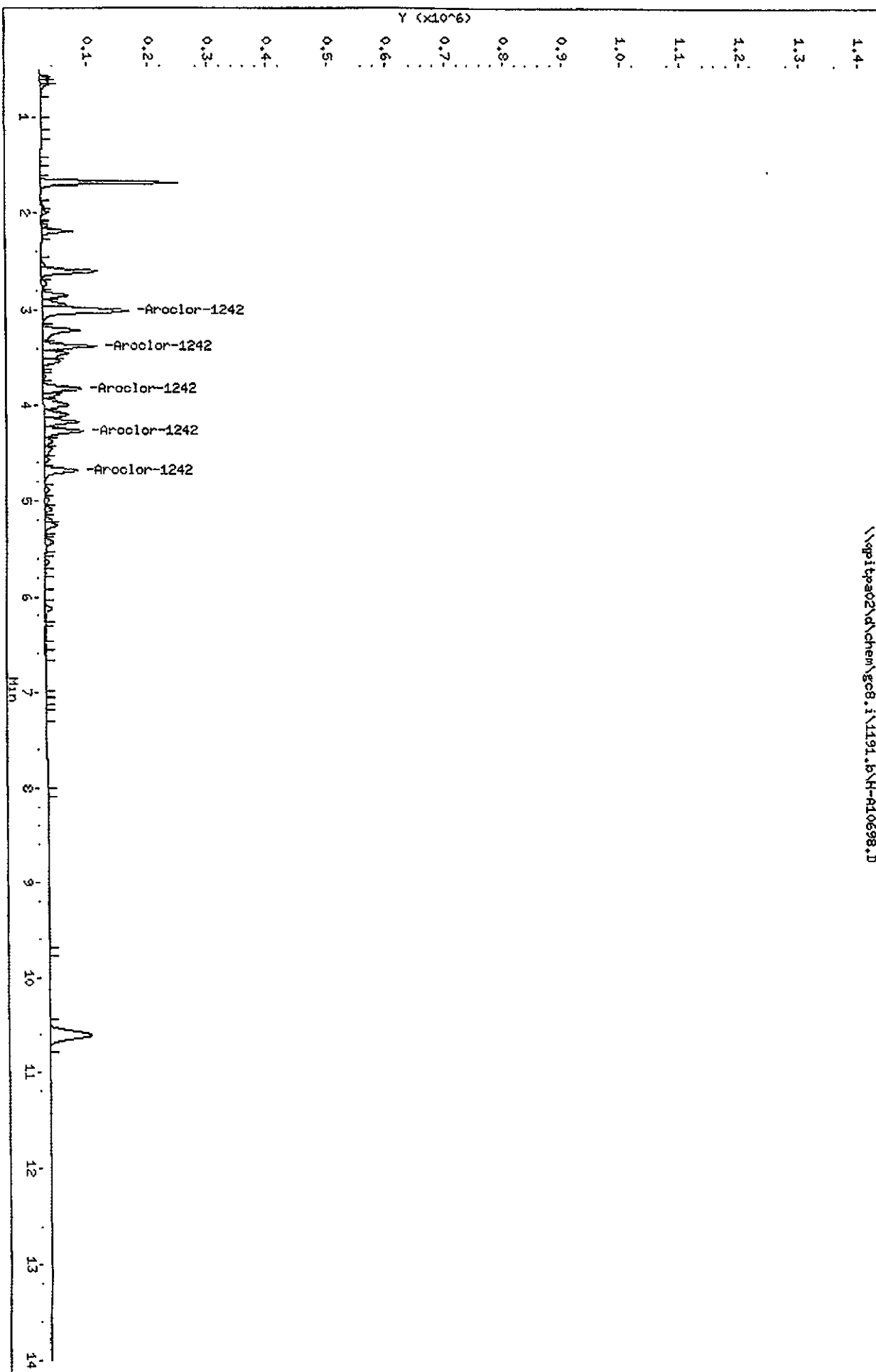
Average of Peak Amounts = 0.52016 4.07-D

CCAL

Data File: \\spitpa02\chem\gc8.1\1191.b\H-A10698.D
Date: 26-FEB-2001 10:37
Client ID:
Sample Info: H1242,1191.b
Column Phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\spitpa02\chem\gc8.1\1191.b\H-A10698.D



677 624

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10699.D
Lab Smp Id: M1248
Inj Date : 26-FEB-2001 10:57
Operator : 010139
Smp Info : M1248,1191.b
Misc Info : 190-111-10
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 26-Feb-2001 11:47 eppingerd
Cal Date : 19-FEB-2001 16:15
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061
Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10493.D
Continuing Calibration Sample
Compound Sublist: 1248.sub
Sample Matrix: None

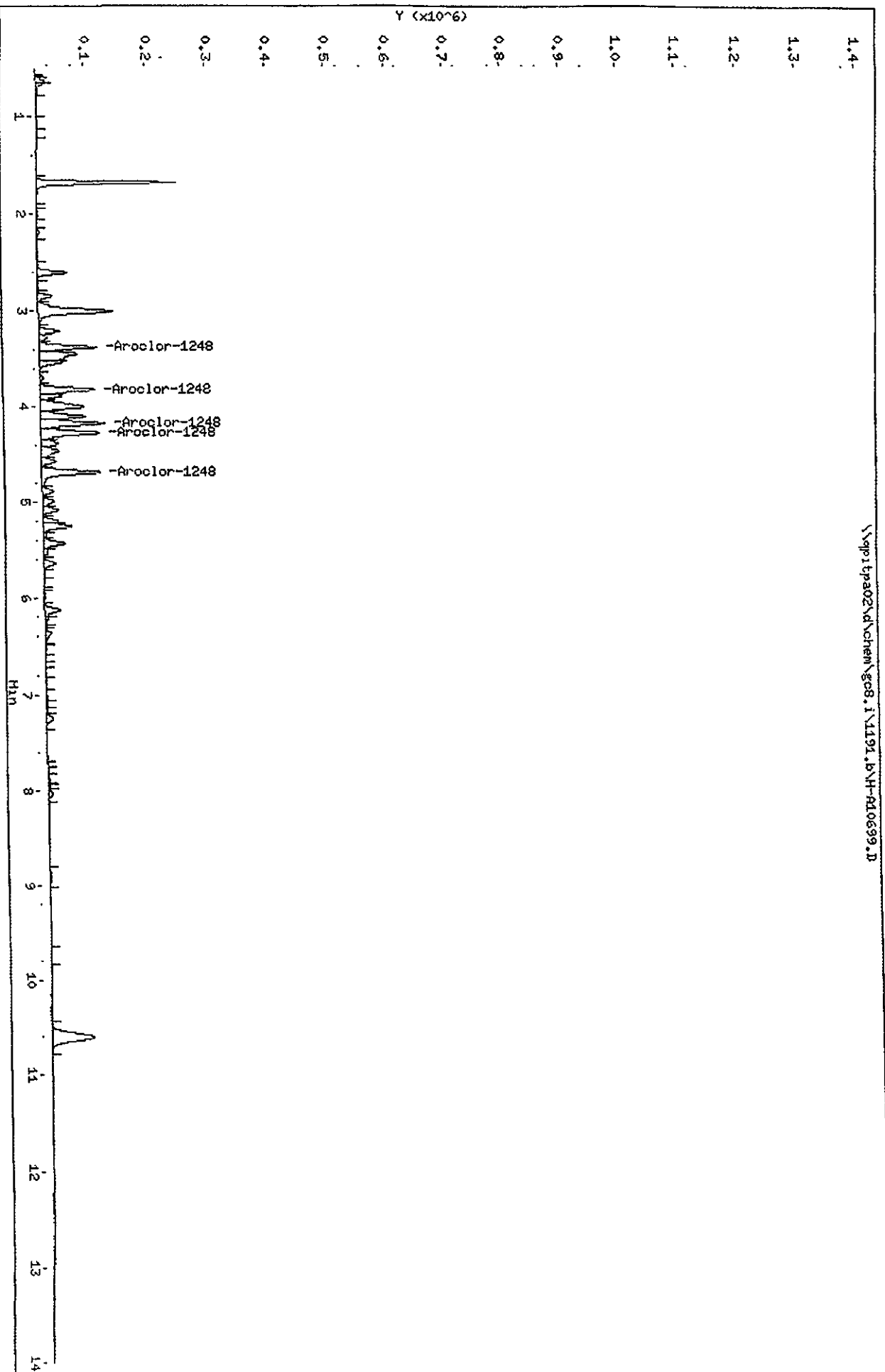
AMOUNTS						
			CAL-AMT	ON-COL		
RT	EXP RT	DLT RT	RESPONSE (ng)	(ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====
21 Aroclor-1248			CAS #: 12672-29-6			
3.377	3.377	(0.000)	98400	0.50000	0.50849 0.00- 0.00	0.00
3.819	3.818	(0.001)	93714	0.50000	0.51926 114.57- 154.57	0.00
4.166	4.168	(-0.002)	107709	0.50000	0.52981 63.67- 103.67	0.00
4.267	4.268	(-0.001)	100221	0.50000	0.53646 43.86- 83.86	0.00
4.681	4.682	(-0.001)	99036	0.50000	0.52124 128.08- 168.08	0.00
Average of Peak Amounts =			0.52305		4.67-D	

CEAL

Data File: \\pp1tpa02\chem\gc8.i\1191.b\H-A10699.D
Date : 26-FEB-2001 10:57
Client ID:
Sample Info: H1248,1191.b
Column Phase: DB608

Instrument: gc8.i
Operator: 010139
Column diameter: 0.53

\\pp1tpa02\chem\gc8.i\1191.b\H-A10699.D



677 626

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10700.D
Lab Smp Id: M1660
Inj Date : 26-FEB-2001 11:16
Operator : 010139
Smp Info : M1660,1191.b
Misc Info : 190-111-13
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 26-Feb-2001 11:47 eppingerd
Cal Date : 19-FEB-2001 16:15
Als bottle: 6
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC061

Inst ID: gc8.i
Quant Type: ESTD
Cal File: H-A10493.D
Continuing Calibration Sample
Compound Sublist: 1660.sub
Sample Matrix: None

AMOUNTS									
			CAL-AMT		ON-COL				
RT	EXP RT	DLT RT	RESPONSE (ng)		(ng)		TARGET RANGE		RATIO
---	-----	-----	-----	-----	-----	-----	-----	-----	-----
20 Aroclor-1016					CAS #		12674-11-2		
2.188	2.187	(0.001)	64726	0.50000	0.52331	0.00-	0.00	0.00	
2.601	2.601	(0.000)	125453	0.50000	0.51951	80.00-	120.00	0.00	
3.008	3.009	(-0.001)	194066	0.50000	0.51612	203.51-	243.51	0.00	
3.379	3.378	(0.001)	117889	0.50000	0.50841	203.51-	243.51	0.00	
3.817	3.819	(-0.002)	76991	0.50000	0.50998	297.56-	337.56	0.00	
Average of Peak Amounts =					0.51547				

\$ 1 Tetrachloro-m-xylene					CAS #:		877-09-8		
1.679	1.677	(0.002)	232206	0.02500	0.025611				

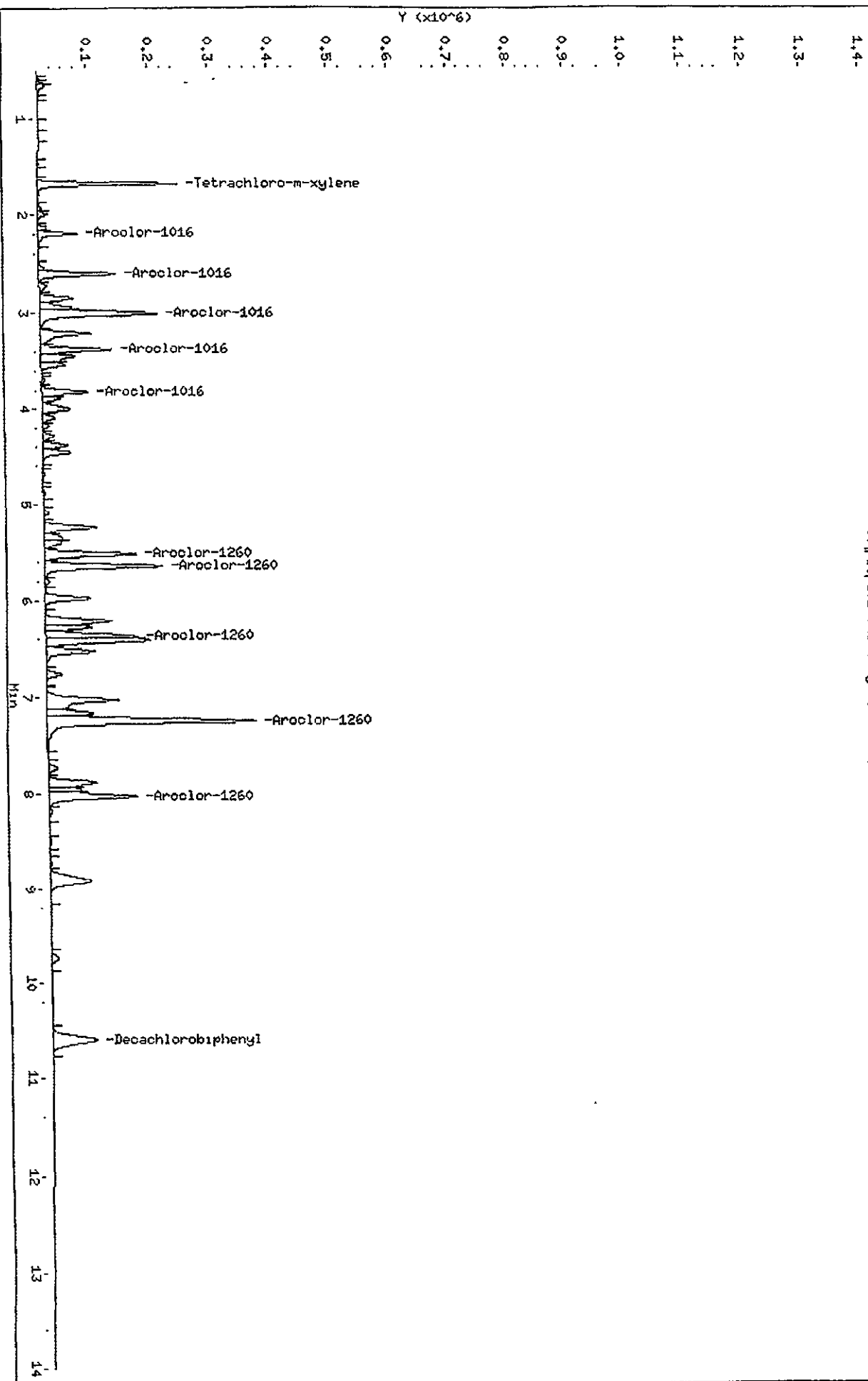
\$ 34 Decachlorobiphenyl					CAS #		2051-24-3		
10.603	10.602	(0.001)	74176	0.02500	0.024577				

36 Aroclor-1260					CAS #.		11096-82-5		
5.523	5.524	(-0.001)	154226	0.50000	0.51753	0.00-	0.00	0.00	
5.650	5.649	(0.001)	195858	0.50000	0.52068	95.86-	135.86	0.00	
6.372	6.367	(0.005)	154436	0.50000	0.51462	116.91-	156.91	0.00	
7.239	7.241	(-0.002)	348599	0.50000	0.51070	120.00-	160.00	0.00	
8.032	8.034	(-0.002)	148596	0.50000	0.51423	108.33-	148.33	0.00	
Average of Peak Amounts =					0.51556				

Data File: \\pittpa02\chem\gc8.i\1191.b\H-010700.D
Date: 26-FEB-2004 11:16
Client ID:
Sample Info: M1660,1191.b
Column phase: DB608

Instrument: gc8.i
Operator: 010139
Column diameter: 0.53

\\pittpa02\chem\gc8.i\1191.b\H-010700.D



677 628

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10802.D
Lab Smp Id: M1660
Inj Date : 28-FEB-2001 04:12
Operator : 010139
Smp Info : M1660,1191.b
Misc Info : 190-111-13
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 28-Feb-2001 08:53 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 44 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS								
			CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016					CAS #: 12674-11-2			
2 189	2 187	(0.002)	69116	0.50000	0 55880	0 00-	0 00	0.00
2 602	2.601	(0 001)	132883	0 50000	0.55028	80.00-	120 00	0.00
3 010	3.009	(0.001)	207325	0 50000	0.55138	203.51-	243.51	0.00
3.380	3 378	(0 002)	127158	0 50000	0.54839	203 51-	243.51	0.00
3 820	3.819	(0 001)	81413	0 50000	0.53927	297.56-	337.56	0.00
Average of Peak Amounts =					0.54962			

\$ 1 Tetrachloro-m-xylene					CAS #: 877-09-8			
1 678	1 677	(0 001)	248370	0.02500	0.027394			

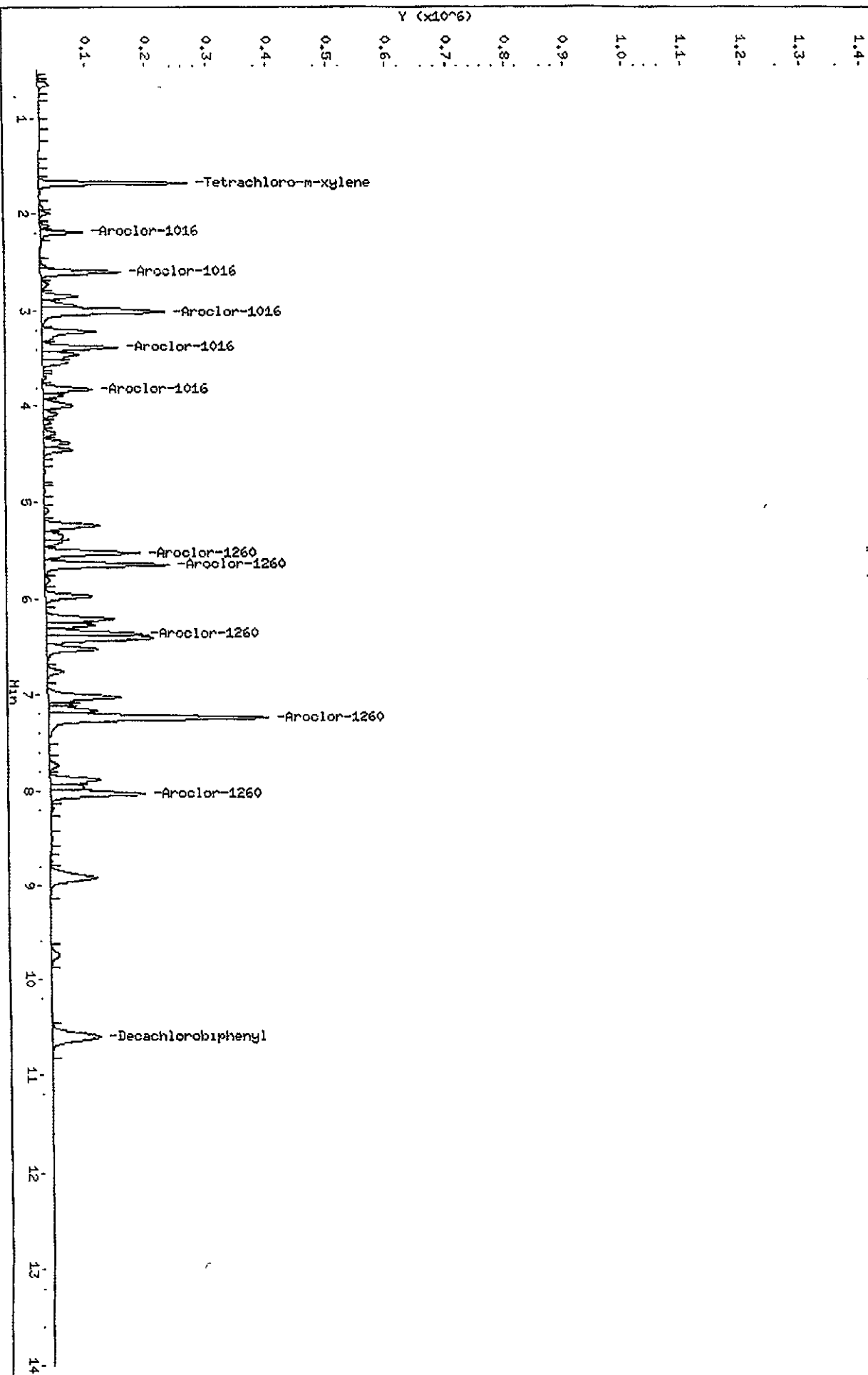
\$ 34 Decachlorobiphenyl					CAS #: 2051-24-3			
10 605	10 602	(0 003)	79776	0.02500	0 026432			

36 Aroclor-1260					CAS # 11096-82-5			
5 526	5.524	(0.002)	158927	0.50000	0.53331	0 00-	0 00	0.00
5 650	5 649	(0 001)	207701	0.50000	0.55217	95.86-	135.86	0.00
6 368	6 367	(0 001)	160060	0.50000	0 53336	116 91-	156.91	0.00
7 243	7.241	(0 002)	367295	0.50000	0.53809	120 00-	160.00	0.00
8 032	8 034	(-0 002)	157594	0.50000	0.54537	108.33-	148 33	0 00
Average of Peak Amounts =					0.54046			

Data File: \\spitpa02\chem\gc8.1\1191.b\H-A10802.D
Date: 28-FEB-2001 04:12
Client ID:
Sample Info: M1660,1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53

\\spitpa02\chem\gc8.1\1191.b\H-A10802.D



677 630

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10823.D
Lab Smp Id: M1660
Inj Date : 28-FEB-2001 11:06
Operator : 010139
Smp Info : M1660,1191.b
Misc Info : 190-111-13
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 28-Feb-2001 11:37 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 65 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS							
		CAL-AMT		ON-COL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016				CAS # 12674-11-2			
2 190	2 187	(0.003)	63384	0.50000	0 51246	0.00- 0.00	0.00
2 602	2 601	(0.001)	123327	0.50000	0 51070	80 00- 120.00	0.00
3 009	3.009	(0.000)	192321	0.50000	0.51148	203.51- 243.51	0 00
3.380	3.378	(0.002)	117028	0.50000	0.50470	203 51- 243 51	0.00
3.822	3.819	(0.003)	76282	0.50000	0.50528	297.56- 337.56	0.00
Average of Peak Amounts =				0.50892			

\$ 1 Tetrachloro-m-xylene				CAS # 877-09-8			
1 680	1 677	(0 003)	228538	0.02500	0 025206		

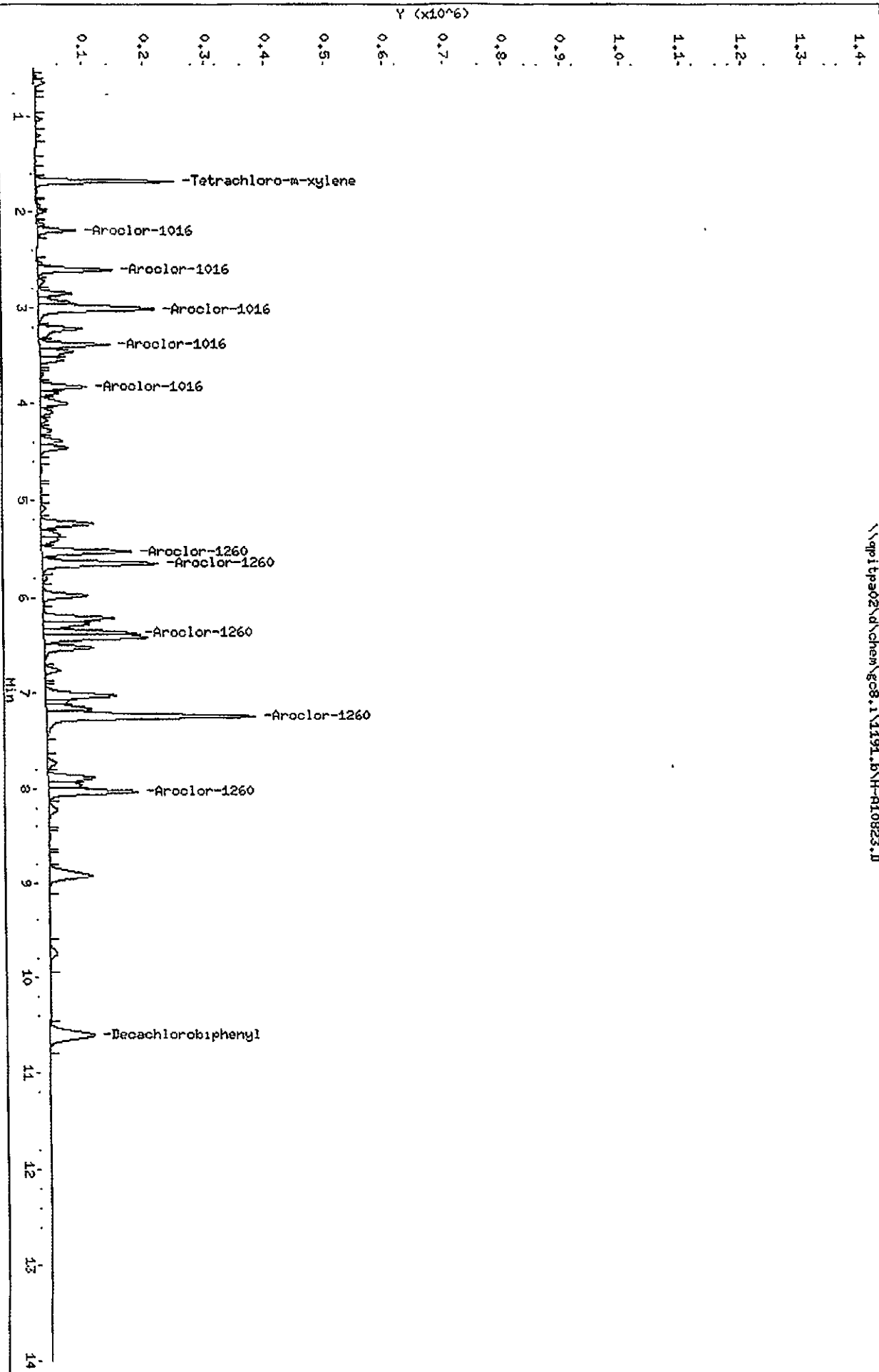
\$ 34 Decachlorobiphenyl				CAS # 2051-24-3			
10 605	10 602	(0 003)	73921	0.02500	0.024492		

36 Aroclor-1260				CAS # 11096-82-5			
5 526	5 524	(0 002)	149890	0.50000	0.50298	0 00- 0 00	0.00
5.650	5 649	(0.001)	192243	0.50000	0.51107	95 86- 135.86	0.00
6.371	6.367	(0 004)	153000	0.50000	0.50984	116 91- 156.91	0.00
7 241	7 241	(0 000)	348052	0.50000	0 50990	120 00- 160.00	0.00
8 035	8 034	(0 001)	148106	0 50000	0.51254	108 33- 148 33	0.00
Average of Peak Amounts =				0.50927			

Data File: \\pp1tpa02\chem\gc8.1\1191.b\H-A10823.D
 Date : 28-FEB-2001 11:06
 Client ID:
 Sample Info: H1660,1191.b
 Column phase: DB608

Instrument: gc8.1
 Operator: 010139
 Column diameter: 0.53

\\pp1tpa02\chem\gc8.1\1191.b\H-A10823.D



677 632

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10840.D
Lab Smp Id: M1660
Inj Date : 28-FEB-2001 16:42
Operator : 010139
Smp Info : M1660,1191.b
Misc Info : 190-111-13
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 01-Mar-2001 08:10 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 82 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 1660.sub
Target Version: 4.04 Sample Matrix: None
Processing Host: PITPC061

AMOUNTS								
		CAL-AMT		ON-COL				
RT	EXP RT	DLT RT	RESPONSE (	ng)	(	ng)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====	=====
20 Aroclor-1016			CAS # 12674-11-2					
2 189	2.187	(0.002)	66703	0.50000	0.53929	0.00-	0 00	0.00
2 601	2 601	(0 000)	125717	0 50000	0.52060	80 00-	120.00	0 00
3 010	3.009	(0 001)	201755	0 50000	0.53657	203 51-	243.51	0.00
3 380	3 378	(0 002)	121424	0.50000	0.52366	203.51-	243.51	0.00
3.820	3.819	(0.001)	78384	0 50000	0.51920	297.56-	337.56	0.00
Average of Peak Amounts =					0.52787			

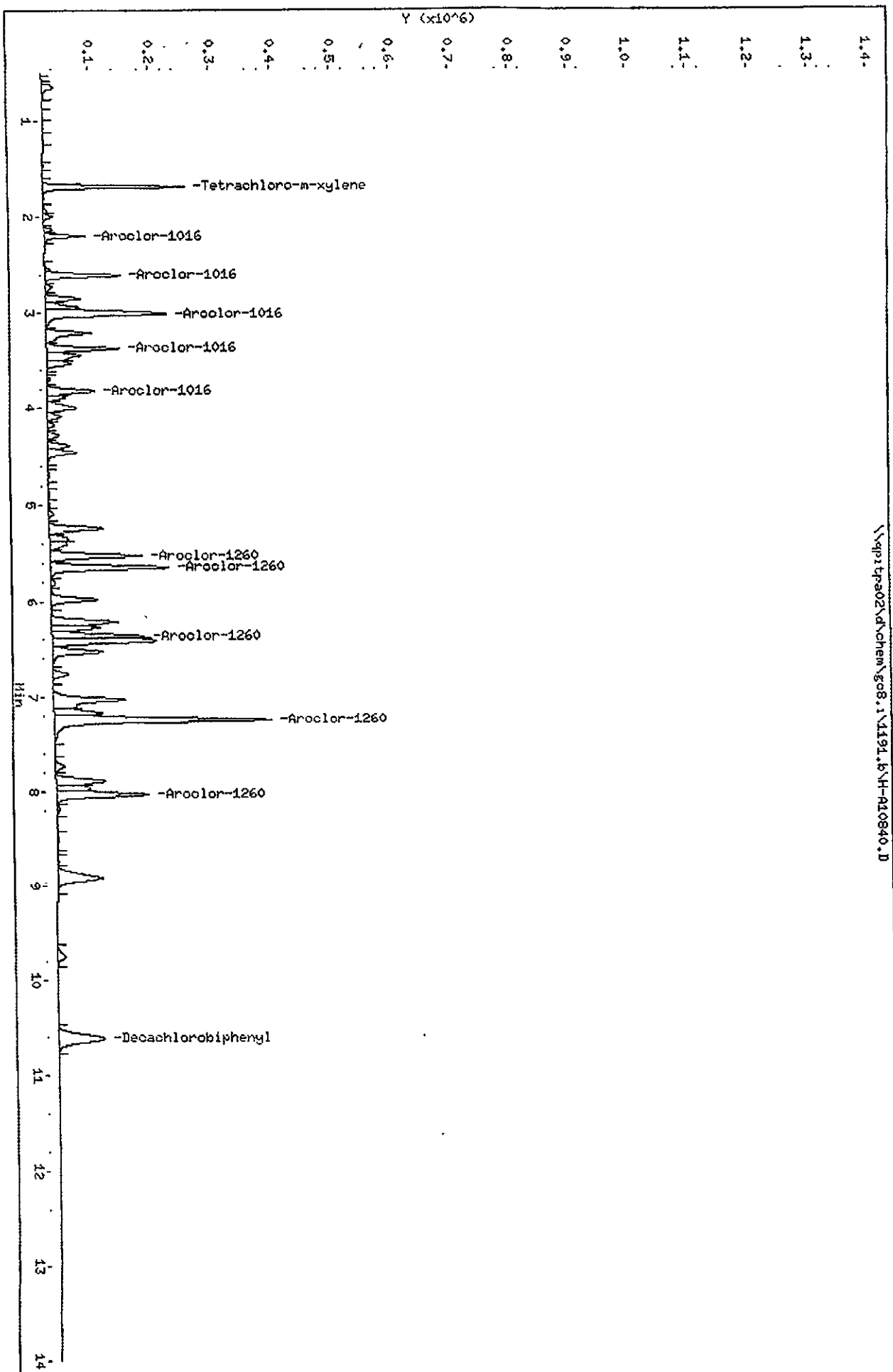
\$ 1 Tetrachloro-m-xylene			CAS # 877-09-8					
1 679	1 677	(0 002)	234149	0.02500	0.025825			

\$ 34 Decachlorobiphenyl			CAS # 2051-24-3					
10 606	10 602	(0.004)	75948	0 02500	0.025164			

36 Aroclor-1260			CAS #: 11096-82-5					
5.526	5 524	(0 002)	153815	0.50000	0.51615	0.00-	0 00	0.00
5 648	5.649	(-0.001)	197603	0.50000	0 52532	95 86-	135.86	0.00
6 371	6 367	(0 004)	154659	0.50000	0.51537	116 91-	156 91	0.00
7 241	7 241	(0 000)	360334	0.50000	0.52790	120 00-	160 00	0 00
8 034	8 034	(0 000)	153632	0 50000	0.53166	108.33-	148 33	0.00
Average of Peak Amounts =					0.52328			

Data File: \\qpltpa02\chem\gc8.1\1191.b\H-A10840.D
Date : 28-FEB-2001 16:42
Client ID:
Sample Info: M1660,1191.b
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53



677 634

PCB
QC DATA

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER Lab Sample ID: C1B260000 556
Method: SW846 8082
PCBs (8082)Sample WT/Vol: 1000 / mL Date Received: 02/23/01
Work Order: DWMV81AA Date Extracted: 02/26/01
Dilution factor: 1 Date Analyzed: 02/28/01
Moisture %: NA

QC Batch: 1057556

Client Sample Id: INTRA-LAB BLANK

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	1.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

677 636

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10822.D
Lab Smp Id: DWMV81AA Client Smp ID: PBLK7556
Inj Date : 28-FEB-2001 10:47
Operator : 010139 Inst ID: gc8.i
Smp Info : DWMV81AA,1191.b
Misc Info : 230148BLK
Comment : 8082 PCB ANALYSIS
Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
Meth Date : 28-Feb-2001 08:53 eppingerd Quant Type: ESTD
Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
Als bottle: 64 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCB.sub
Target Version: 4.04 Sample Matrix: WATER
Processing Host: PITPC061

Concentration Formula: Amt * DF * Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

		CONCENTRATIONS			
		ON-COL	FINAL		
RT	EXP RT DLT RT	RESPONSE (ng)	(ug/L)	TARGET RANGE	RATIO
1	680 1 677 (0.003)	178536	0 01969	0 19691	

\$ 1 Tetrachloro-m-xylene CAS # 877-09-8

8 Aroclor-1221 CAS #. 11104-28-2

Peaks not detected for Quant or Qual signal(s)

14 Aroclor-1232 CAS # 11141-16-5

Peaks not detected for Quant. or Qual signal(s)

677 637

		CONCENTRATIONS					
		ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE (	ng)	(ug/L)	TARGET RANGE	RATIO
==	=====	=====	=====	=====	=====	=====	=====

15 Aroclor-1242 CAS #: 53469-21-9

Peaks not detected for Quant. or Qual. signal(s)

20 Aroclor-1016 CAS #: 12674-11-2

Peaks not detected for Quant or Qual signal(s)

21 Aroclor-1248 CAS #: 12672-29-6

Peaks not detected for Quant. or Qual. signal(s)

33 Aroclor-1254 CAS #: 11097-69-1

Peaks not detected for Quant or Qual. signal(s).

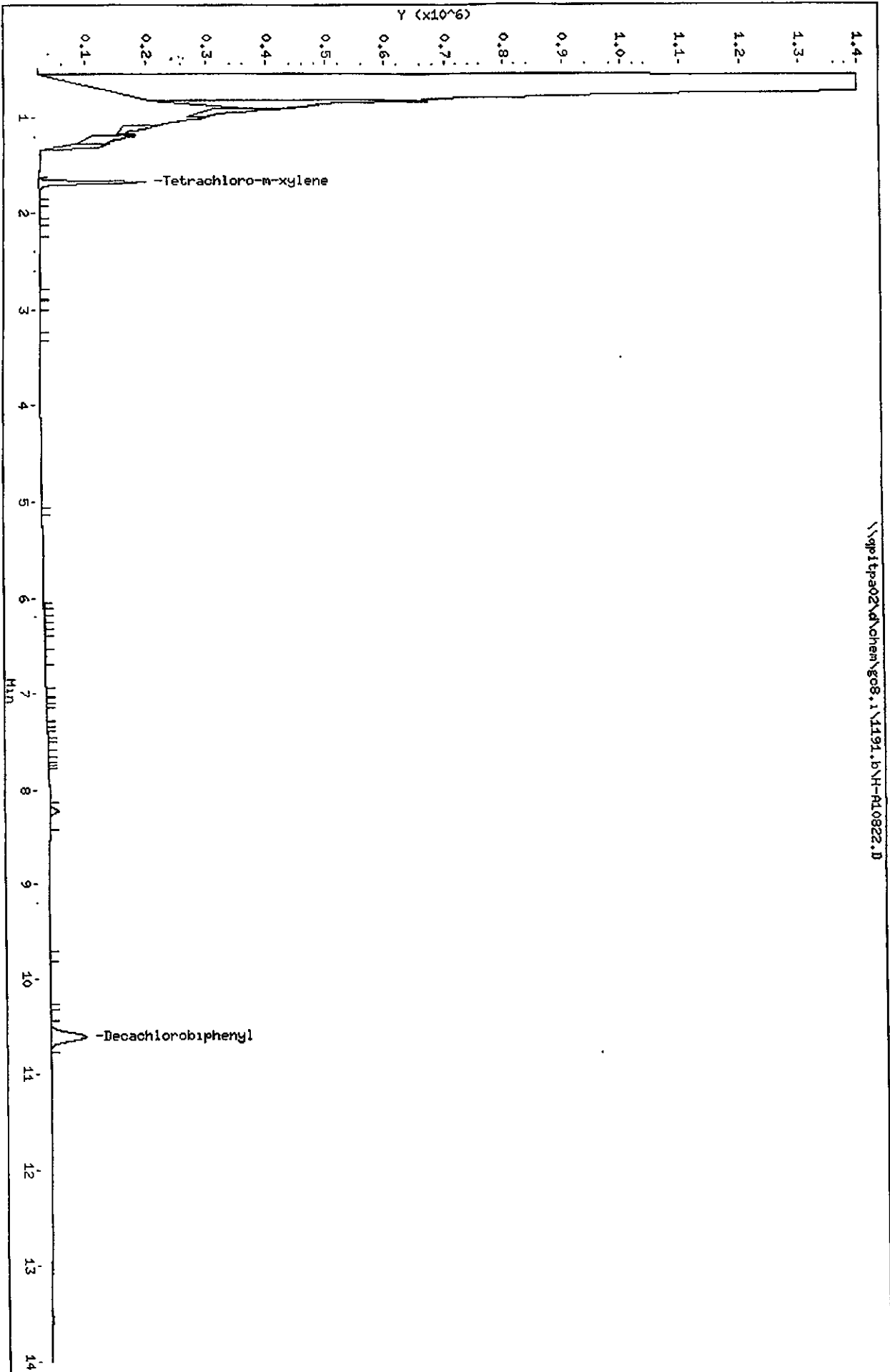
\$ 34 Decachlorobiphenyl CAS # 2051-24-3
10.608 10.602 (0.006) 60530 0.02006 0.20056

36 Aroclor-1260 CAS # 11096-82-5

Peaks not detected for Quant. or Qual. signal(s).

Data File: \\p1tpa02\chem\gc8.1\1191.b\H-A10822.D
Date: 28-FEB-2001 10:47
Client ID: PBLK7556
Sample Info: DMN814A,1191.b
Volume Injected (ul): 1.0
Column phase: DB608

Instrument: gc8.1
Operator: 010139
Column diameter: 0.53



UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER
Method: SW846 8082
PCBs (8082)

Lab Sample ID: C1B260000 556

Sample WT/Vol: 1000 / mL
Work Order: DWMV81AC
Dilution factor: 1
Moisture %: NADate Received: 02/23/01
Date Extracted: 02/26/01
Date Analyzed: 02/28/01

QC Batch: 1057556

Client Sample Id: CHECK SAMPLE

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
12674-11-2	Aroclor 1016	9.46	
11096-82-5	Aroclor 1260	10.1	

677 640

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10826.D
 Report Date: 28-Feb-2001 13:37

Page 1

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10826.D
 Lab Smp Id: DWMV81AC Client Smp ID: LCS7556
 Inj Date : 28-FEB-2001 12:05
 Operator : 010139 Inst ID: gc8.i
 Smp Info : DWMV81AC,1191.b
 Misc Info : 230148LCS
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 28-Feb-2001 11:37 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
 Als bottle: 68 QC Sample: LCS
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1660.sub
 Target Version: 4.04 Sample Matrix: WATER
 Processing Host: PITPC061

Concentration Formula: Amt * DF * Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

CONCENTRATIONS							
		ON-COL	FINAL				
RT	EXP RT	DLT RT	RESPONSE (ng)	(ug/L)	TARGET RANGE	RATIO	
==	=====	=====	=====	=====	=====	=====	
20 Aroclor-1016				CAS #: 12674-11-2			
2 188	2.187	(0.001)	115547 0 93420	9.3420	0.00- 0.00	0.00	
2 602	2.601	(0.001)	226654 0 93859	9.3859	80.00- 120.00	0.00	
3 008	3.009	(-0.001)	358415 0.95320	9.5320	203.51- 243.51	0.00	
3 379	3.378	(0.001)	221361 0.95465	9.5465	203.51- 243.51	0.00	
3 819	3.819	(0.000)	143286 0 94911	9.4910	297.56- 337.56	0.00	
Average of Peak Concentrations =				9.4595			

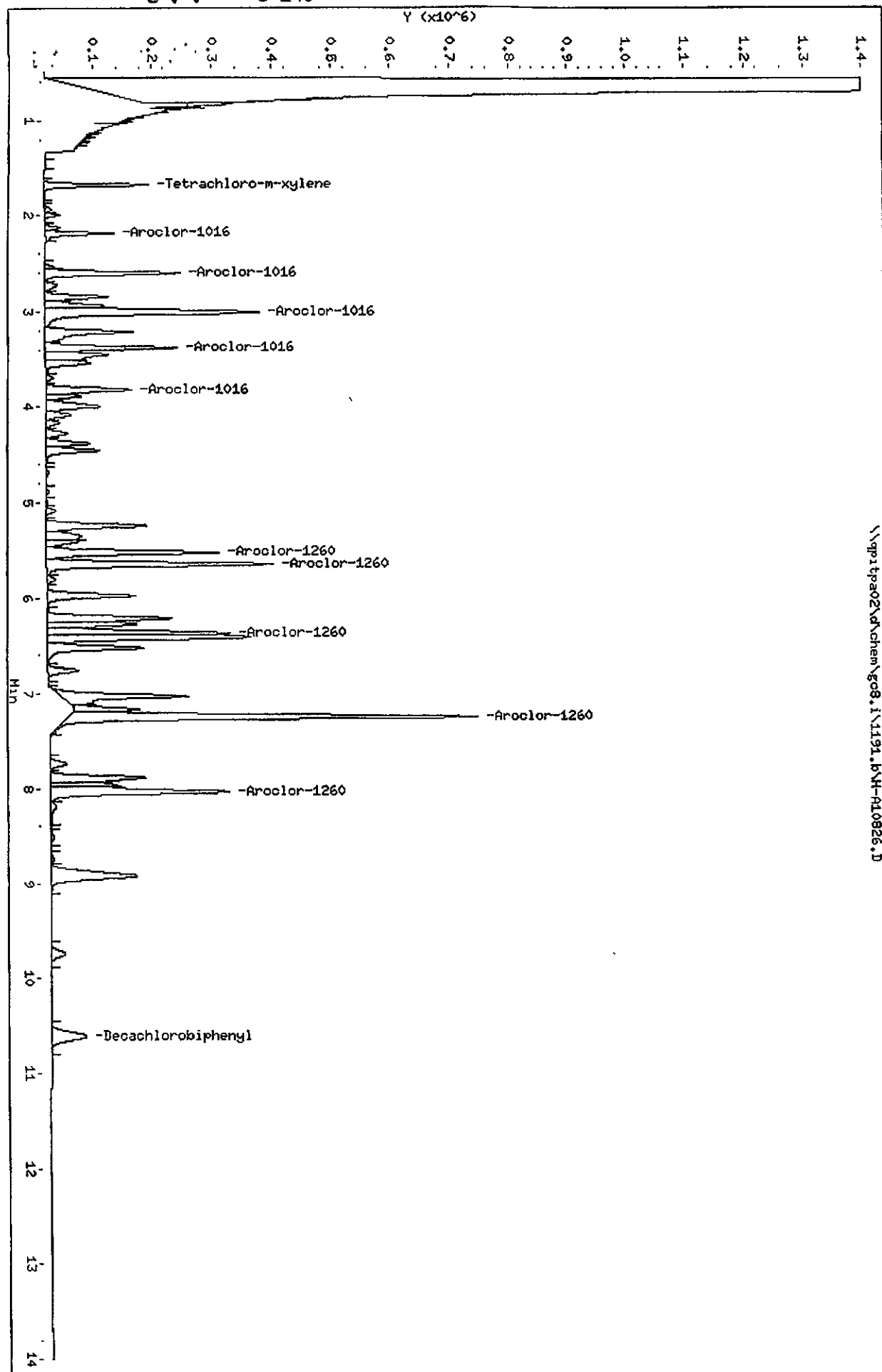
\$ 1 Tetrachloro-m-xylene				CAS # 877-09-8			
1 679	1.677	(0.002)	175465 0.01935	0.19353			

\$ 34 Decachlorobiphenyl				CAS #: 2051-24-3			
10 606	10.602	(0.004)	59908 0.01985	0.19849			

677 641

CONCENTRATIONS						
RT	EXP RT	DLT RT	ON-COL	FINAL	TARGET RANGE	RATIO
==	=====	=====	RESPONSE (ng)	(ug/L)	=====	=====
36 Aroclor-1260				CAS # 11096-82-5		
5.524	5.524	{0.000}	288874 0.96937	9.6937	0.00- 0.00	0.00
5.647	5.649	{-0.002}	379419 1.00868	10.087	95.86- 135.86	0.00
6.371	6.367	{0.004}	304685 1.01530	10.153	116.91- 156.91	0.00
7.241	7.241	{0.000}	685634 1.00447	10.045	120.00- 160.00	0.00
8.034	8.034	{0.000}	299439 1.03624	10.362	108.33- 148.33	0.00
Average of Peak Concentrations =				10.068		

677 642



Data File: \\pittpa02\chem\gc8.i\1191.b\H-010826.D
 Date : 28-FEB-2001 12:05
 Client ID: LCS7556
 Sample Info: DMH81AC,1191.b
 Volume Injected (uL): 1.0
 Column phase: DB608

Instrument: gc8.i
 Operator: 010139
 Column diameter: 0.53

\\pittpa02\chem\gc8.i\1191.b\H-010826.D

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER
Method: SW846 8082
PCBs (8082)

Lab Sample ID: C1B260000 556

Sample WT/Vol: 1000 / mL
Work Order: DWMV81AD
Dilution factor: 1
Moisture %: NADate Received: 02/23/01
Date Extracted: 02/26/01
Date Analyzed: 02/28/01

QC Batch: 1057556

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
12674-11-2	Aroclor 1016	9.49	
11096-82-5	Aroclor 1260	10.1	

677 644

Data File: \\qpitpa02\d\chem\gc8.i\1191.b\H-A10827.D
 Report Date: 28-Feb-2001 13:37

Page 1

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc8.i\1191.b\H-A10827.D
 Lab Smp Id: DWMV81AD Client Smp ID: LCD7556
 Inj Date : 28-FEB-2001 12:25
 Operator : 010139 Inst ID: gc8.i
 Smp Info : DWMV81AD,1191.b
 Misc Info : 230148LCD
 Comment : 8082 PCB ANALYSIS
 Method : \\qpitpa02\d\chem\gc8.i\1191.b\PCBA.m
 Meth Date : 28-Feb-2001 11:37 eppingerd Quant Type: ESTD
 Cal Date : 19-FEB-2001 16:15 Cal File: H-A10493.D
 Als bottle: 69 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: 1660.sub
 Target Version: 4.04 Sample Matrix: WATER
 Processing Host: PITPC061

Concentration Formula: Amt * DF * Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

		CONCENTRATIONS							
RT	EXP RT	DLT RT	ON-COL	FINAL	RESPONSE (ng)	(ug/L)	TARGET RANGE	RATIO	
20 Aroclor-1016									
CAS # 12674-11-2									
2.188	2.187	(0.001)	116223	0.93966	9.3966	0.00-	0.00	0.00	
2.600	2.601	(-0.001)	225836	0.93520	9.3520	80.00-	120.00	0.00	
3.007	3.009	(-0.002)	361341	0.96098	9.6098	203.51-	243.51	0.00	
3.377	3.378	(-0.001)	221558	0.95550	9.5550	203.51-	243.51	0.00	
3.818	3.819	(-0.001)	144335	0.95605	9.5605	297.56-	337.56	0.00	
Average of Peak Concentrations = 9.4948									

\$ 1 Tetrachloro-m-xylene									
CAS # 877-09-8									
1.678	1.677	(0.001)	178455	0.01968	0.19682				

\$ 34 Decachlorobiphenyl									
CAS #: 2051-24-3									
10.598	10.602	(-0.004)	59727	0.01979	0.19789				

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645

CONCENTRATIONS							
		ON-COL		FINAL			
RT	EXP RT	DLT RT	RESPONSE (	ng)	(ug/L)	TARGET RANGE	RATIO
=====							
36 Aroclor-1260				CAS # 11096-82-5			
5 523	5 524	(-0 001)	291561	0.97839	9 7839	0.00- 0.00	0.00
5 648	5 649	(-0 001)	376202	1 00012	10 001	95 86- 135.86	0.00
6 368	6.367	(0 001)	301054	1 00320	10 032	116 91- 156 91	0 00
7 239	7 241	(-0 002)	694322	1 01720	10.172	120.00- 160 00	0 00
8 032	8.034	(-0 002)	297369	1 02907	10 291	108.33- 148.33	0 00
Average of Peak Concentrations =				10.056			

Instrument: g08.1
Operator: 010139
Column diameter: 0.53



PCB
MISCELLANEOUS

Head # 100 1000
Head # 105 7556
Sensory F

Separator Funnel Extraction Worksheet

Logbook ID: OP43

1097

Start Date	Date Completed	Parameter	Method	Solvent	Solvent Lot	Solvent Mfg	Cleanup Method			
2-26-01	2-26-01	Pest/PBB	3510C	MELG	V0AE02	Baker	N/A			
Lot Number	Sample ID	Client ID	Sample Volume (mL)	Final Volume (mL)	pH	Surrogate #	Surv Vol (mL)	Matrix Spike Lot #	MS Vol (mL)	Cleanup Date
1. P1B3330148	BEE	NA	1000		5	190-1214	1.0	NA	NA	NA
2.	LPS	2 Part			5			190-115-13	0.5	
3.	LPS Dups				5					
4.	LPS	2 PB			5			190-110-7	1.0	
5.	LPS Dups				5					
6.	DOS				7			NA	NA	
7.	DOZ				7					
8.	DOZ				7					
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										
21.										
22.										
23.										
Analyst:	py	py	py	py	py	py	py	py	py	py
Extract(s)										
Extract(s) Received										
Extract(s) Relinquished										
Date	Time	Analyst	Location	Date	Time	Analyst	Location			
2-26-01	2310	P. Guadalupe	Lab 1-C	2-26-01	2330	P. Guadalupe	Lab 1-C			
2-27-01	1500	DOZ	Lab 1-C	2-27-01	1530	DOZ	Lab 1-C			
Sodium Sulfate MOI Lot Number 130666 TY 3641				Reviewed by: Brian O'Pine				Date: 2-26-01		

677 649

M

Created: DE 2-19-01
Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	1	8082 ANALYSIS
2	2	190-111-7 484
3	3	190-111-8
4	<u>4</u>	190-111-9
5	5	190-111-10
6	6	190-111-11
7	<u>7</u>	190-111-12
8	<u>8</u>	190-111-13 490
9	9	190-111-14
10	10	190-112-1
11	11	190-112-2
12	12	190-120-10
13	13	190-120-11 495
14	14	190-120-12
15	15	190-120-13
16	16	190-120-14
17	<u>17</u>	090250001
18	18	090250001S 800
19	19	090250001D
20	20	090135001
21	21	~~090249001~~ XI0
22	22	~~090249002~~ XI0
23	23	090250BLK 505
24	24	090250LCS
25	25	140141001

677 650

Line Vial# Vial Information

Line	Vial#	Vial Information
26	26	140141004
27	27	140141004S
28	28	140141004D 510
29	29	140141012
30	30	140141013
31	31	140141014
32	32	140141015
33	33	140141016 515
34	34	~~140241002~~ 10X
35	35	140141BLK
36	36	140141LCS
37	37	190-111-13
38	38	140241003 520
39	39	140241004
40	40	140241005
41	41	140241006
42	42	140241007
43	43	140241008 525
44	44	150173001
45	45	150173001S
46	46	150173001D
47	47	150173002
48	48	150173003 530
49	49	150173005
50	50	150173006
51	51	150173007
52	52	150173008
53	53	150173009 535

Line	Vial	Vial Information
====	====	=====
54	54	150173010
55	55	150173011
56	56	150173BLK
57	57	150173LCS
58	58	190-111-13 540
59	59	150173013
60	60	150173014
61	61	160273001
62	62	~~160273015~~ 2X
63	63	160273016 545
64	<u>64</u>	160273017
65	65	160273018
66	<u>66</u>	140241002 X10
67	<u>67</u>	090249001
68	68	090249002 550
69	69	140241001
70	70	140137BLK
71	71	140137LCS
72	72	140137LCD
73	<u>73</u>	160273019 555
74	74	160273020
75	75	160273021
76	76	160273022
77	77	160273BLK
78	78	160273LCS 560
79	79	190-111-13
80	80	160273022S
81	81	160273022D

Line Vial Vial Information 677 652

Line	Vial	Vial Information
82	82	160273023
83	83	140137001 565
84	84	140137002
85	85	140137003
86	86	140137004
87	87	140137005
88	88	160273002 570
89	89	160273003
90	90	160273004
91	91	~~160273005~~ 2X
92	92	160273006
93	93	160273007 575
94	94	160273008
95	95	160273009
96	96	160273010
97	97	160273BLK
98	98	160273LCS 580
99	99	160273LCD
100	100	190-111-13
101	1	160273011
102	2	160273012
103	3	160273013 585
104	4	160273015 X2
105	5	190-111-13

Sequence Table (Back Injector):

No entries - empty table!

Created: DE 2-26-01

677 653

M

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
=====	=====	=====
1	1	8082 ANALYSIS
2	2	190-111-7 <i>696</i>
3	3	190-111-8
4	4	190-111-9
5	5	190-111-10
6	<u>6</u>	190-111-13 <i>700</i>
7	7	210262014 X4
8	8	220246001
9	9	220246002
10	10	220246003
11	11	220246003S <i>705</i>
12	12	220246003D
13	13	220246004
14	14	220246005
15	15	220246006
16	16	220246007 <i>710</i>
17	<u>17</u>	220246008
18	18	220246009
19	19	220246010
20	20	220246011
21	<u>21</u>	220246012 <i>715</i>
22	22	220246013
23	23	220246014
24	24	220246015
25	25	220246BLK1

677 654

Line Vial Vial Information

Line	Vial	Vial Information
26	26	220246LCS1 720
27	27	190-111-13
28	28	220246016
29	29	220246017
30	30	220246018
31	31	220246019 725
32	32	220246020
33	33	220246021
34	34	220246022
35	35	220246023
36	36	220246024 730
37	37	220246025
38	38	220246026
39	39	220246026S
40	40	220246026D
41	41	220246027 735
42	42	220246028
43	43	220246029
44	44	220246030
45	45	220246031
46	46	220246BLK2 740
47	47	220246LCS2
48	48	190-111-13
49	49	210102016 #1
50	50	210102016 #2
51	51	210102BLK 745
52	52	210102LCS
53	53	210102LCD

Line	Vial	Vial Information
====	====	=====
54	54	240132001
55	55	240132001S
56	56	240132001D <i>750</i>
57	57	240132002
58	58	240132003
59	59	240135001
60	60	240135002
61	61	240135003 <i>755</i>
62	62	240132BLK
63	63	240132LCS
64	64	190-111-13 <i>758</i>

Sequence Table (Back Injector):

No entries - empty table!

Created: DE 27-01

Sequence Table (Front Injector):

Vial Information Part:

Line Vial Vial Information

Line	Vial	Vial Information
1	1	8082 ANALYSIS
2	2	190-111-13 760
3	3	230278001
4	4	230278002
5	5	230278003
6	6	230278004
7	7	230278004S 765
8	8	230278004D
9	9	230278005
10	<u>10</u>	230278006
11	11	230278007
12	12	230278008 770
13	13	230278009
14	14	230278010
15	15	230278011
16	16	230278035
17	17	230278012 775
18	18	~~230278013~~ 50X
19	19	~~230278014~~ ZX
20	20	230278015
21	21	230278BLK1
22	22	230278LCS1 780
23	23	190-111-13
24	24	230278016
25	25	230278017

677 657

Line	Vial	Vial Information
====	====	=====
26	26	230278018
27	27	230278019 <i>785</i>
28	28	230278020
29	29	230278020S
30	30	230278020D
31	31	230278021
32	32	230278022 <i>790</i>
33	33	230278023
34	34	230278024
35	35	230278025
36	36	230278026
37	37	230278027 <i>795</i>
38	38	230278028
39	39	230278029
40	40	230278030
41	41	230278031
42	42	230278BLK2 <i>800</i>
43	43	230278LCS2
44	44	190-111-13
45	45	230278032
46	46	230278034
47	47	210119001 <i>805</i>
48	48	210119002
49	49	210119003
50	50	210119004
51	51	210119005
52	52	210119006 <i>810</i>
53	53	210119007

677

658

Line Vial Vial Information

Line	Vial	Vial Information
54	54	210119008
55	55	220250001
56	56	210119BLK
57	57	210119LCS 815
58	58	210119LCD
59	59	200199001
60	<u>60</u>	200199002
61	61	200199BLK
62	62	200199LCS 820
63	63	200199LCD
64	<u>64</u>	230148BLK
65	<u>65</u>	190-111-13
66	66	230278013 X50
67	<u>67</u>	230278014 X2 825
68	68	230148LCS
69	69	230148LCD
70	70	230148001
71	<u>71</u>	230148002
72	72	230148003 830
73	73	220121001
74	74	220121002
75	<u>75</u>	220121003
76	76	220121004
77	77	220121005 835
78	<u>78</u>	220121005S
79	79	220121005D
80	80	220121BLK
81	81	220121LCS

Line	Vial	Vial Information

====	====	=====

82	82	190-111-13 840

83	83	~~260163001~~

84	84	~~260163001S~~

85	85	~~260163001D~~

86	86	260163002

87	87	260163003 845

88	88	~~260163004~~ ZX

89	89	260163005

90	90	~~260163006~~ ZX

91	91	~~260163007~~ SX

92	92	260163008 850

93	93	260163BLK

94	94	260163LCS

95	95	190-111-13

Sequence Table (Back Injector):

No entries - empty table!

677 660

PSR024 2/26/01 13:39 02 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY YUSHINSC

METHOD QH PCBs (8082)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
		CNTR#								RCVD	REQD
3A	DWJJM-1-AE	___	316239	399411	I-09-QH	C1B230148	001		WATER	0	13 1
3A	DWJJ3-1-AQ	___	316240	399411	I-09-QH	C1B230148	002		WATER	0	13 1
3A	DWJKC-1-AQ	___	316241	399411	I-09-QH	C1B230148	003		WATER	0	13 1

Used 1 liter per sample, and
empty bottles were thrown
away!

P. Yushinski
2-26-01

RELINQUISHED BY

RECEIVED BY

DATE/TIME

P. Yushinski	P. Yushinski	2-26-01 1525
P. Yushinski	P. Yushinski	2-26-01 2330

***** END OF REPORT *****

HERBICIDE DATA

677 662

HERBICIDE
QC SUMMARY

2E
WATER PESTICIDE SURROGATE RECOVERY

677 663

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

GC Column(1): RTX-50

ID: 0.53 (mm)

GC Column(2): DB1701

ID: 0.53 (mm)

	EPA SAMPLE NO.	S1 1 %REC #	S1 2 %REC #	S2 1 %REC #	S2 2 %REC #	S3 1 %REC #	S3 2 %REC #	TOT OUT
01	DF/24-B/1053	57	341*					1
02	DF/24-A/1053	93	228*					1
03	DF/24-A/1053	88	227*					1
04	LCS8437	73						0
05	LCD8437	67						0
06	PBLK8437	72	74					0
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS
(53-119)

S1 = DCAA

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

677 664

SW846 8151A CHECK SAMPLE RECOVERY

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: STLPIIT

SDG No:

Lot #: C1B270000

WO #: DWPDGLAC

BATCH: 1058437

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	16.0	10.0	62	46- 124	
2,4,5-TP (Silvex)	4.00	2.74	68	53- 127	

NOTES(S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

FORM III

Lab Name: Severn Trent Laboratories, Inc.

Client: UXB INTERNATIONAL

Lab Code: STLPIT

SDG No:

Lot #: C1B270000

WO #: DWPDG1AD

BATCH: 1058437

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENT. (ug/L)	% REC	QC LIMITS REC	QUAL
=====	=====	=====	=====	=====	=====
2,4-D	16.0	9.11	57	46 - 124	
2,4,5-TP (Silvex)	4.00	2.51	63	53 - 127	

NOTES (S) :

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

COMMENTS:

677 666

4C

EPA SAMPLE NO.

PESTICIDE METHOD BLANK SUMMARY

PBLK8437

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

Lab Sample ID: DWPDGLAA

Lab File ID: A-A00030

Matrix (soil/water) WATER

Extraction: (SepF/Cont/Sonc) SW846 8151A

Sulfur Cleanup (Y/N) N

Date Extracted: 02/27/01

Date Analyzed (1): 03/02/01

Date Analyzed (2): 03/02/01

Time Analyzed (1): 1115

Time Analyzed (2): 1144

Instrument ID (1): GC1

Instrument ID (2): GC1

GC Column (1): RTX-50

ID: 0.53 (mm)

GC Column (2): DB1701

ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	DF/24-B/1053	DWJJM1CC	03/02/01	03/02/01
02	DF/24-A/1053	DWJJ31CC	03/02/01	03/02/01
03	DF/24-A/1053	DWJJ31CC	03/02/01	03/02/01
04	LCS8437	DWPDGLAC	03/02/01	
05	LCD8437	DWPDGLAD	03/02/01	
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

HERBICIDE
SAMPLE DATA

677 668

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) WATER

Lab Sample ID: C1B230148 001

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 1000 / mL

Date Received: 02/23/01

Work Order: DWUJMI1CC

Date Extracted: 02/27/01

Dilution factor: 1

Date Analyzed: 03/02/01

Moisture %: NA

QC Batch: 1058437

Client Sample Id: DF/24-B/1053/IDW/001

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/kg)	ug/L	
94-75-7	2,4-D	3.0		J P
93-72-1	2,4,5-TP (Silvex)	2.1		

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00025.D
 Report Date: 02-Mar-2001 11:01

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00025.D
 Lab Smp Id: DWJJM1CC Client Smp ID: DF/24-B/1053/IDW/00
 Inj Date : 02-MAR-2001 08:49
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWJJM1CC,1221.b
 Misc Info : 230148001
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.387	4.399	-0.012	42291886	1.97866	395.7
\$ 2 DCAA	12.476	12.486	-0.010	1621037	0.02834	5.669
3 MCPP	13.113	13.116	-0.003	994218	12.5906	2518
4 DICAMBA	13.313	13.305	0.008	390384	0.00981	1.962
5 MCPA	Compound Not Detected.					
6 DICHLOROPROP	Compound Not Detected.					
7 2,4-D	17.053	17.088	-0.035	1208049	0.07914	15.83 (M) ✓
8 PENTACHLOROPHENOL	17.992	17.994	-0.002	2245797	0.00964	1.928
9 2,4,5-TP (SILVEX)	18.385	18.398	-0.013	3134752	0.01069	2.139
10 2,4,5-T	19.178	19.172	0.006	1478900	0.00594	1.188
11 DINOSEB	19.532	19.469	0.043	5857441	0.02864	5.727
12 2,4-DB	19.628	19.643	-0.015	12131488	0.40124	80.25

677 670

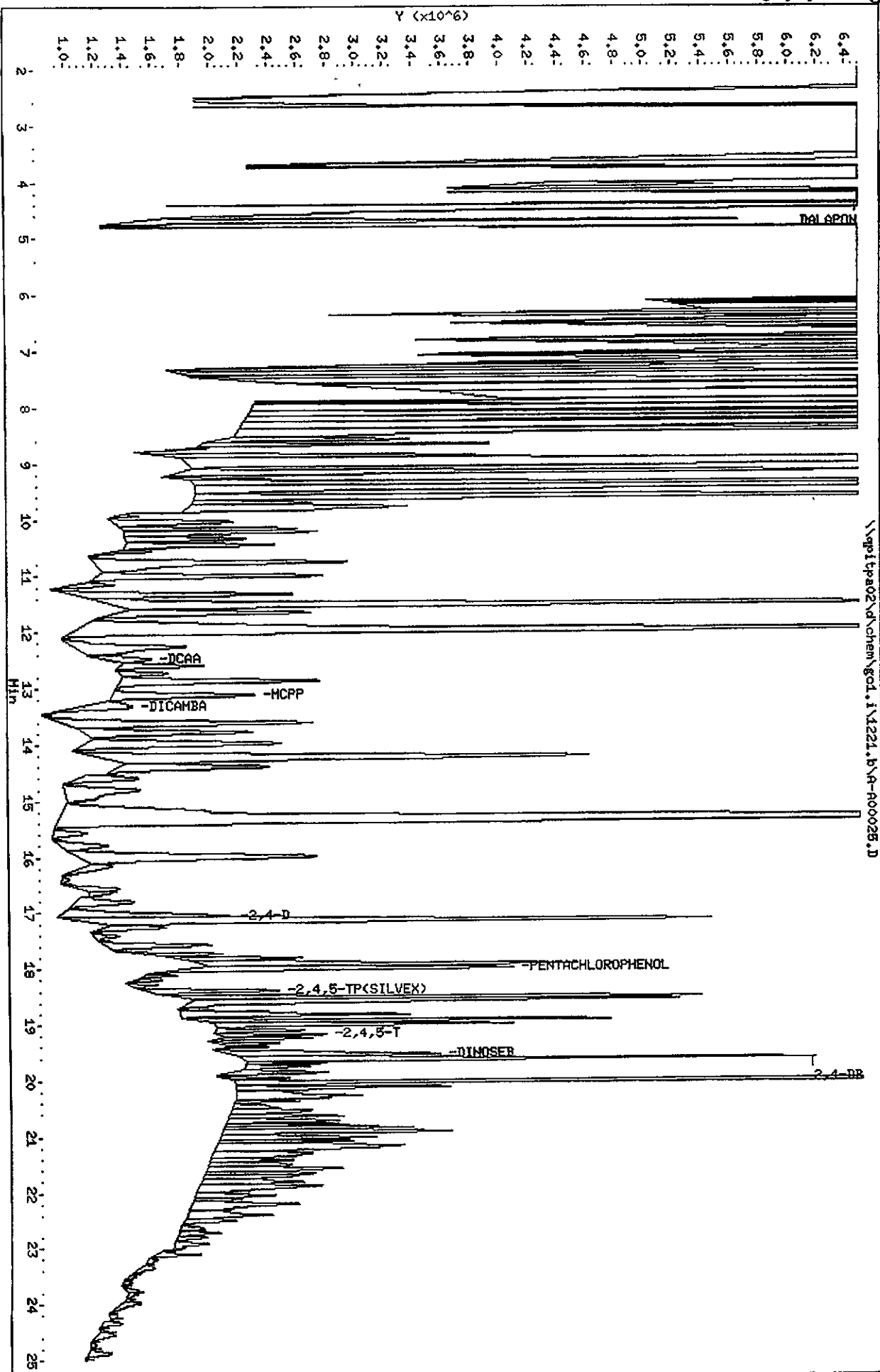
Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00025.D
Report Date: 02-Mar-2001 11:01

QC Flag Legend

M - Compound response manually integrated.

Data File: \\pittpa02\chem\gcl.i\1221.b\A-A00025.D
Date: 02-MAR-2001 08:49
Client ID: DF/24-B/1053/IDM/00
Sample Info: DMJCHIC,1221.b
Volume Injected (uL): 1.0
Column Phase: RTX-50

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



677 672

Data File Name: A-A00025.D

Inj. Date and Time: 02-MAR-2001 08:49

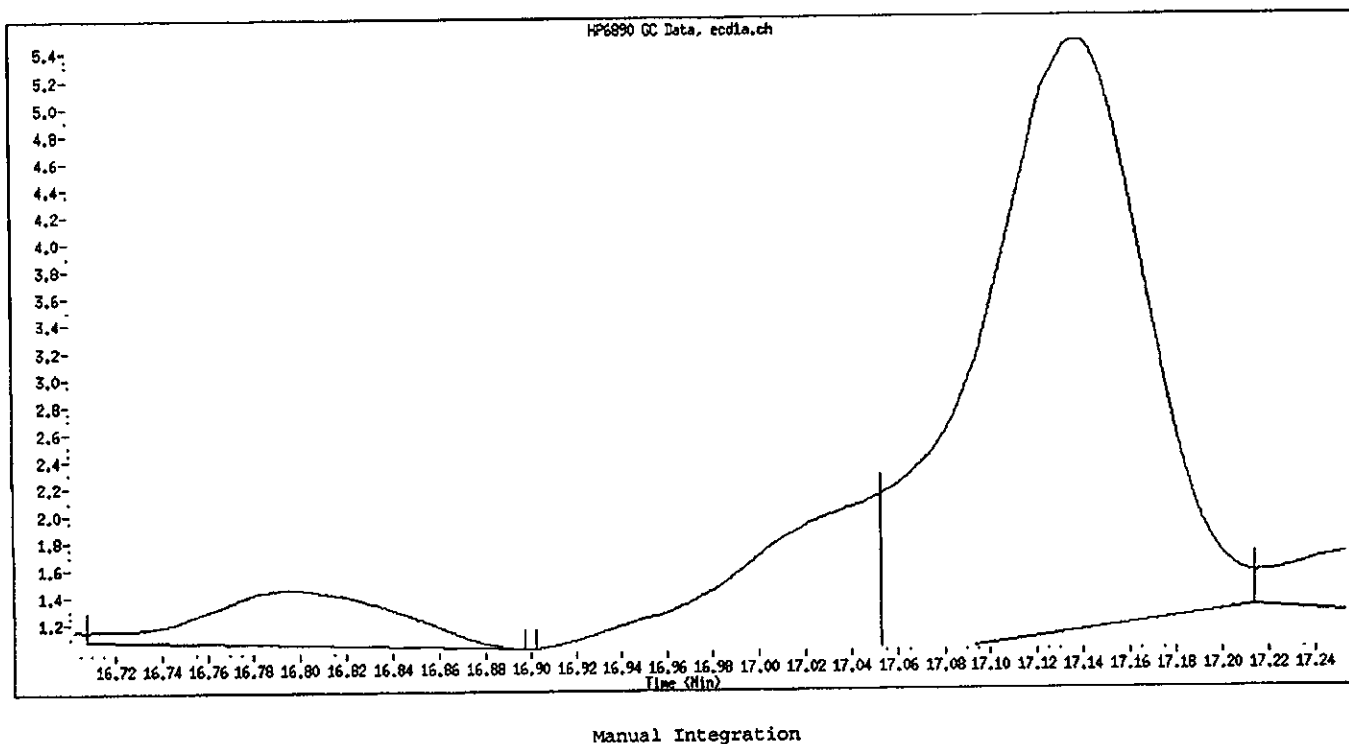
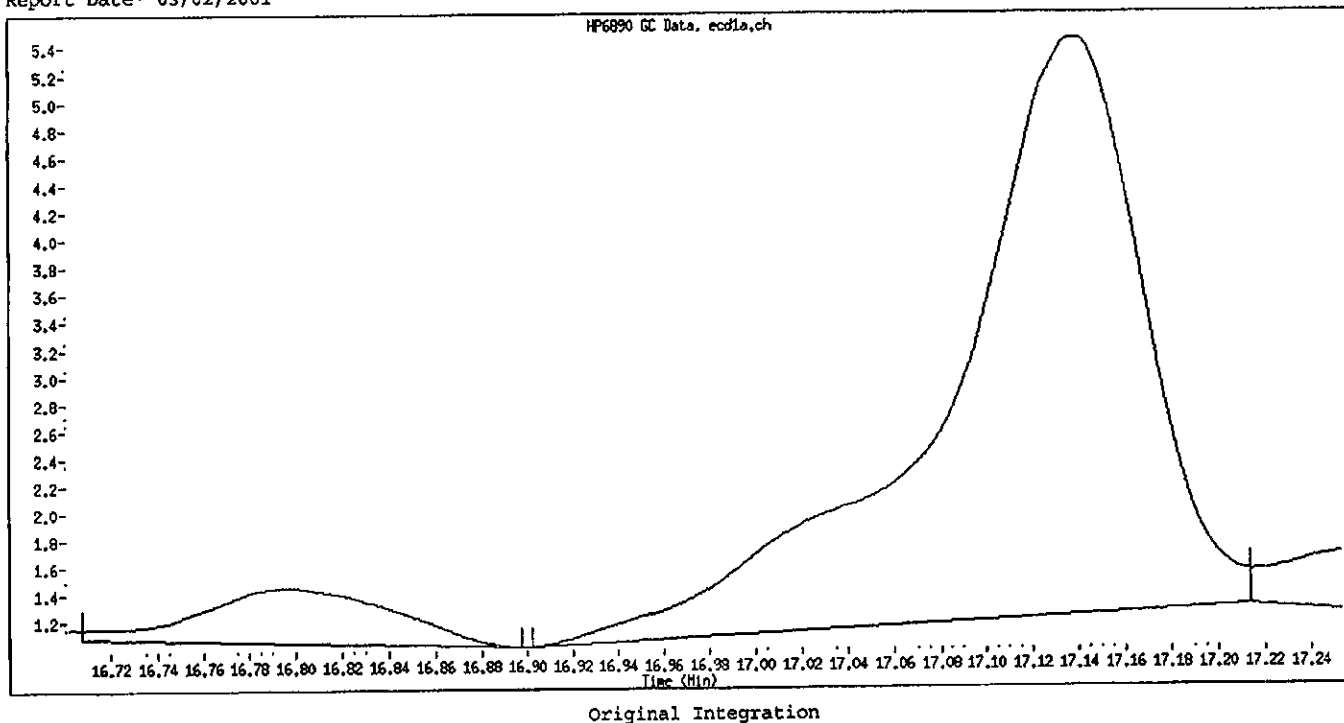
Instrument ID: gc1.1

Client ID: DF/24-B/1053/IDW/00

Compound Name: 2,4-D

CAS #: 94-75-7

Report Date: 03/02/2001



Manually Integrated By: MorganW

Manual Integration Reason: Poor Chromatography

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00028.D
Report Date: 02-Mar-2001 10:45

677 673

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00028.D
Lab Smp Id: DWJJM1CC Client Smp ID: DF/24-B/1053/IDW/00
Inj Date : 02-MAR-2001 09:18
Operator : 01797 Inst ID: gc1.i
Smp Info : DWJJM1CC,1221A.b
Misc Info : 230148001
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
Meth Date : 02-Mar-2001 10:13 morganw Quant Type: ESTD
Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.272	4 264	0.008	623678728	30 4311	6086
\$ 2 DCAA	11 161	11.120	0 041	7216835	0.17065	34 13(R)
3 DICAMBA	11.685	11.715	-0.030	557319	0.01469	2 938
4 MCPP	12 101	12.153	-0.052	461097	12 5992	2520
5 MCFA	13.044	13.027	0.017	433163	8.87758	1776
6 DICHLOROPROP	14.221	14 169	0.052	162612	0.02061	4 122
7 2,4-D	15 658	15.659	-0.001	123496	0.01523	3 047 ✓
8 PENTACHLOROPHENOL	Compound Not Detected.					
9 2,4,5-TP(SILVEX)	17 761	17 776	-0 015	1109191	0.01314	2 628
10 2,4,5-T	18.526	18 549	-0.023	153927	0.00169	0.3385
11 2,4-DB	19 119	19 125	-0.006	825833	0.06037	12 07
12 DINOSEB	19 805	19 831	-0.026	1614134	0.01835	3 669

677 674

Data File: \\gpitpa02\d\chem\gc1.i\1221A.b\A-B00028.D
Report Date: 02-Mar-2001 10:45

QC Flag Legend

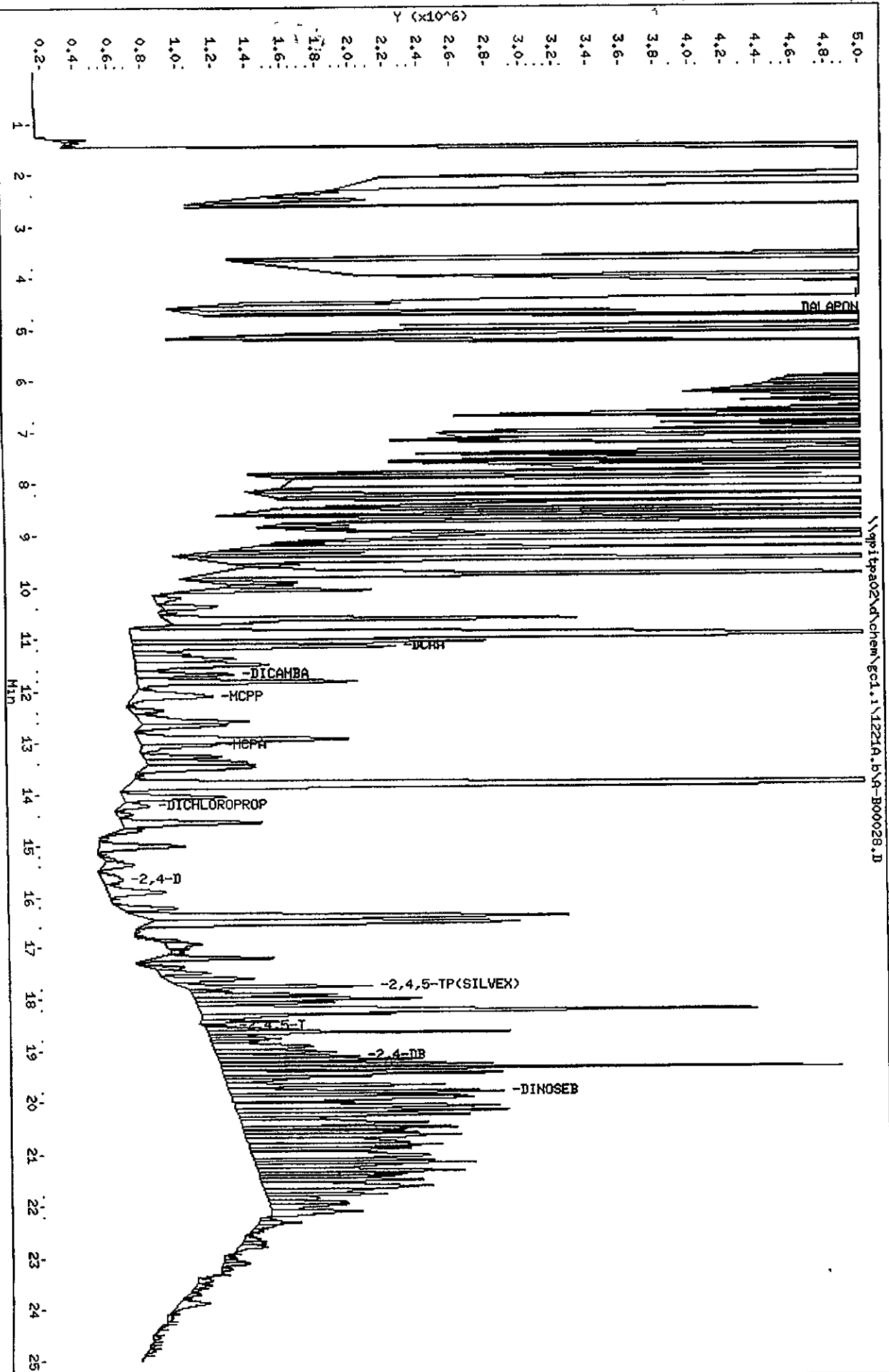
R - Spike/Surrogate failed recovery limits.

677

675

Data File: \\gpi1tpa02\chem\gcl.1\1221A.b\A-B00028.D
Date : 02-MAR-2001 09:18
Client ID: DF/24-B/1053/1BM/00
Sample Info: DMJMHCC,1221A.b
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gcl.1
Operator: 04797
Column diameter: 0.53



677 676

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTESDF/24-B/1
053/IDW/00

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

Lab Sample ID: DWJJM1CC

Date(s) Analyzed: 03/02/01 03/02/01

Instrument ID (1): GC1

Instrument ID (2): GC1

GC Column(1): RTX-50

ID: 0.53 (mm)

GC Column(2): DB1701

ID: 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4-D	1	17.05	17.04	17.14	15.83	
	2	15.66	15.59	15.73	3.047	419.5
2,4,5-TP (SILVEX)	1	18.39	18.35	18.45	2.139	
	2	17.76	17.71	17.85	2.628	22.9
~~2,4,5-T~~	1	~~19.18~~	~~19.12~~	~~19.22~~	1.188	
	2	18.53	18.48	18.62	0.3385	251.0
2,4-DB	1	19.63	19.59	19.69	80.25	
	2	19.12	19.06	19.20	12.07	564.9
DALAPON	1	4.39	4.35	4.45	395.7	
	2	4.27	4.19	4.33	6086	999.9
DICAMBA	1	13.31	13.26	13.36	1.962	
	2	11.69	11.65	11.79	2.938	49.7
DINOSEB	1	19.53	19.44	19.54	5.727	
	2	19.81	19.76	19.90	3.669	56.1
MCPP	1	13.11	13.07	13.17	2518	
	2	12.10	12.08	12.22	2520	0.1

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER

Lab Sample ID: C1B230148 002

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 1000 / mL

Date Received: 02/23/01

Work Order: DWJJ31CC

Date Extracted: 02/27/01

Dilution factor: 1

Date Analyzed: 03/02/01

Moisture %: NA

QC Batch: 1058437

Client Sample Id: DF/24-A/1053/IDW/002

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
94-75-7	2,4-D	4.0	U
93-72-1	2,4,5-TP (Silvex)	3.6	

677 678

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00026.D
 Report Date: 02-Mar-2001 11:01

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00026.D
 Lab Smp Id: DWJJ31CC Client Smp ID: DF/24-A/1053/IDW/00
 Inj Date : 02-MAR-2001 09:18
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWJJ31CC,1221.b
 Misc Info : 230148002
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.366	4.399	-0.033	622237605	29.1120	5822
\$ 2 DCAA	12.463	12.486	-0.023	2663736	0.04658	9.315 (M)
3 MCPP	13.115	13.116	-0.001	2025818	25.6545	5131
4 DICAMBA	13.322	13.305	0.017	709062	0.01782	3.565
5 MCPA				Compound Not Detected.		
6 DICHLOROPROP				Compound Not Detected.		
7 2,4-D				Compound Not Detected.		
8 PENTACHLOROPHENOL	18.014	17.994	0.020	1994790	0.00856	1.713
9 2,4,5-TP(SILVEX)	18.387	18.398	-0.011	5346146	0.01824	3.647
10 2,4,5-T	19.181	19.172	0.009	803586	0.00323	0.6455
11 DINOSEB	19.537	19.489	0.048	6886660	0.03367	6.733
12 2,4-DB	19.637	19.643	-0.006	1609436	0.05323	10.65

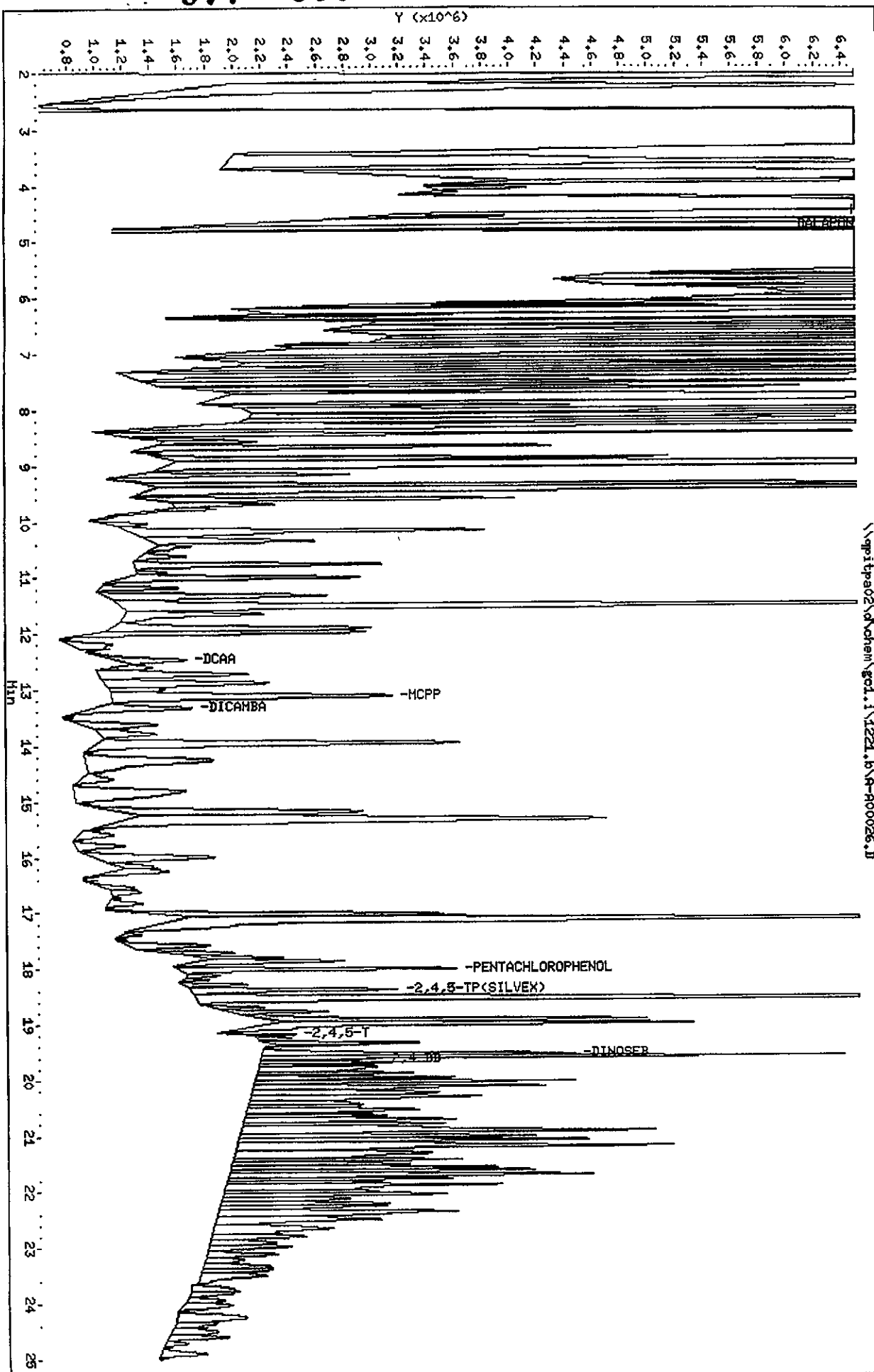
Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00026.D
Report Date: 02-Mar-2001 11:01

677 679

QC Flag Legend

M - Compound response manually integrated.

677 680

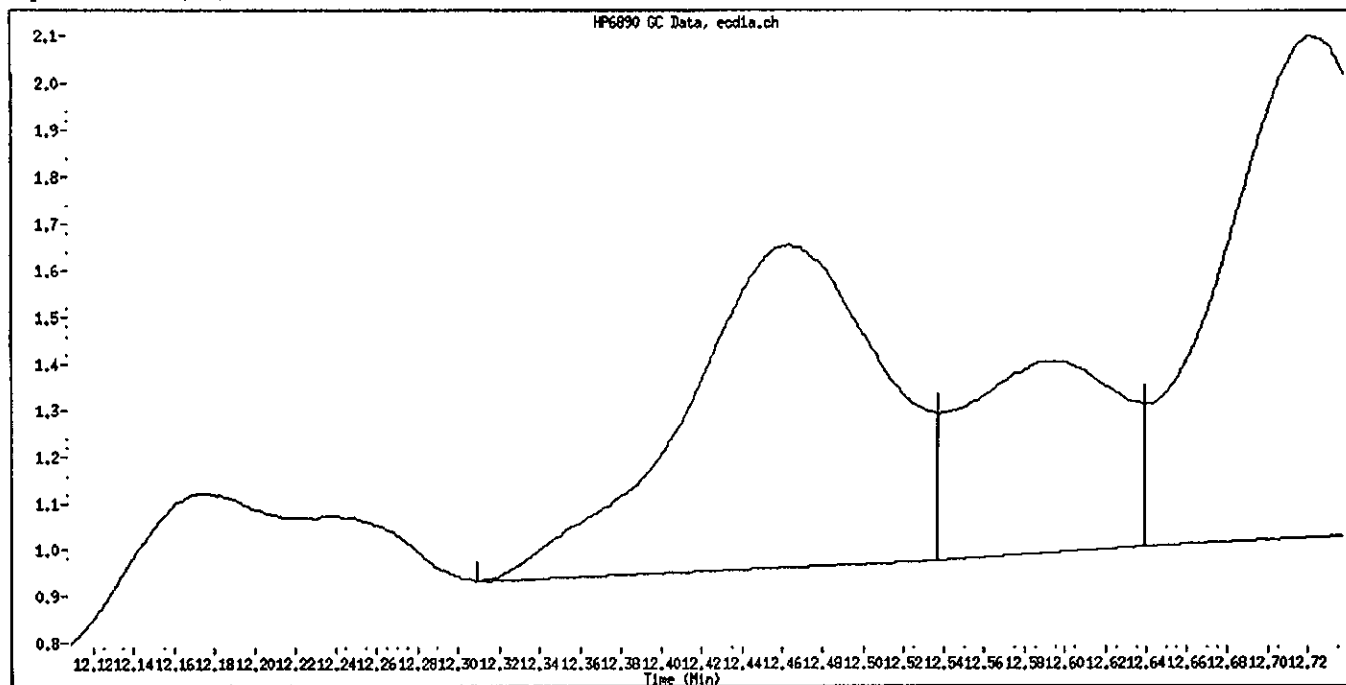


Data File: \\qpitpa02\chem\gc1.i\1221.b\A-A00026.D
 Date : 02-MAR-2001 09:18
 Client ID: DF/24-A/1053/IDH/00
 Sample Info: DMJ131CC,1221.b
 Volume injected (ul): 1.0
 Column phase: RTX-50

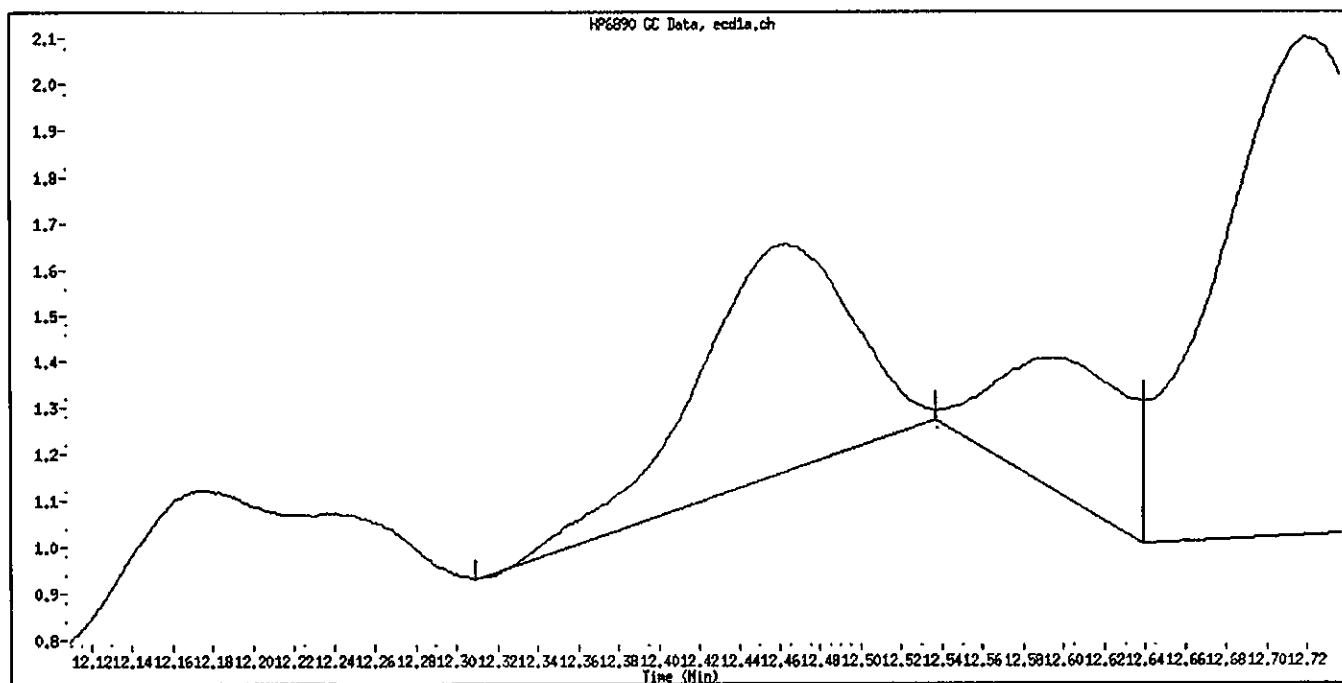
Instrument: gc1.i
 Operator: 01797
 Column diameter: 0.53

Data File Name: A-A00026.D
Inj Date and Time 02-MAR-2001 09:18
Instrument ID: gc1.1
Client ID: DF/24-A/1053/IDW/00
Compound Name: DCAA
CAS #: 19719-28-9
Report Date: 03/02/2001

677 681



Original Integration



Manual Integration

Manually Integrated By: MorganW
Manual Integration Reason: Poor Chromatography

677 682

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00029.D
 Report Date: 02-Mar-2001 10:45

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00029.D
 Lab Smp Id: DWJJ31CC Client Smp ID: DF/24-A/1053/IDW/00
 Inj Date : 02-MAR-2001 09:47
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWJJ31CC,1221A.b
 Misc Info : 230148002
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 02-Mar-2001 10:13 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.268	4.264	0.004	458085639	22 3513	4470
\$ 2 DCAA	11.163	11.120	0.043	4812204	0.11379	22.76(R)
3 DICAMBA	11 680	11.715	-0 035	491060	0.01294	2.589
4 MCPP	12.103	12.153	-0.050	514476	14.0578	2812
5 MCPA	13.058	13 027	0 031	751476	15 4013	3080
6 DICHLOROPROP	14.217	14.169	0 048	316400	0.04011	8.021
7 2,4-D	15.676	15.659	0.017	258216	0.03185	6.370
8 PENTACHLOROPHENOL	Compound Not Detected.					
9 2,4,5-TP(SILVEX)	17.763	17.776	-0 013	2073598	0.02456	4.913
10 2,4,5-T	18.531	18 549	-0.018	323668	0.00356	0.7118
11 2,4-DB	19.119	19.125	-0 006	491893	0.03596	7.191
12 DINOSEB	19.813	19 831	-0 018	3712101	0 04219	8 438

Data File: \\gpitpa02\d\chem\gc1.i\1221A.b\A-B00029.D
Report Date: 02-Mar-2001 10:45

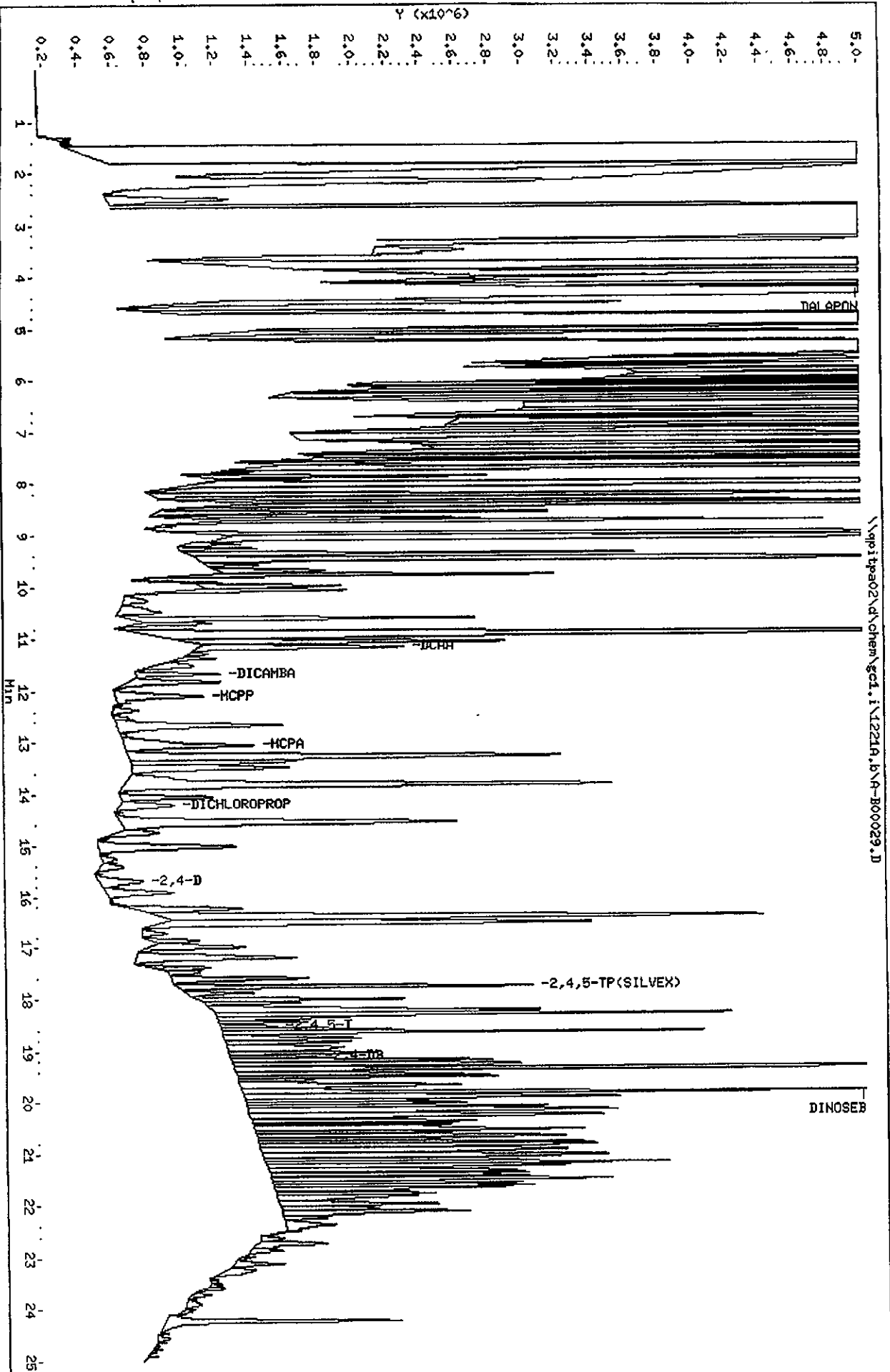
677 683

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: \\pittpa02\chem\gcl.i\1221a.b\A-B00029.D
 Date: 02-MAR-2001 09:47
 Client ID: DF/24-A/1053/IDM/00
 Sample Info: DMJ31CC,1221A.b
 Volume Injected (uL): 1.0
 Column phase: DB1701

Instrument: gcl.i
 Operator: 01797
 Column diameter: 0.53



10A **677 685**

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

DF/24-A/1
053/IDW/00

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

Lab Sample ID: DWJJ31CC

Date(s) Analyzed: 03/02/01 03/02/01

Instrument ID (1): GC1

Instrument ID (2): GC1

GC Column(1): RTX-50

ID: 0.53 (mm)

GC Column(2): DB1701

ID: 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
=====	=====	=====	=====	=====	=====	=====
2,4,5-TP (SILVEX)	1	18.39	18.35	18.45	3.647	
	2	17.76	17.71	17.85	4.913	34.7
~~2,4,5-T~~	~~1~~	~~19.18~~	~~19.12~~	~~19.22~~	~~0.6455~~	<del></del>
	2	18.53	18.48	18.62	0.7118	10.3
2,4-DB	1	19.64	19.59	19.69	10.65	
	2	19.12	19.06	19.20	7.191	48.1
DALAPON	1	4.37	4.35	4.45	5822	
	2	4.27	4.20	4.34	4470	30.2
DICAMBA	1	13.32	13.26	13.36	3.565	
	2	11.68	11.65	11.79	2.589	37.7
DINOSEB	1	19.54	19.44	19.54	6.733	
	2	19.81	19.76	19.90	8.438	25.3
MCPP	1	13.12	13.07	13.17	5131	
	2	12.10	12.09	12.23	2812	82.5
	1					
	2					

677 686

UXB INTERNATIONAL

Lab Name: Severn Trent Laboratories, Inc.

SDG Number:

Matrix: (soil/water) WATER

Lab Sample ID: C1B230148 003

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 1000 / mL

Date Received: 02/23/01

Work Order: DWJKC1CC

Date Extracted: 02/27/01

Dilution factor: 1

Date Analyzed: 03/02/01

Moisture %: NA

QC Batch: 1058437

Client Sample Id: DF/24-A/1053/IDW/003

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
94-75-7	2,4-D	4.0	U
93-72-1	2,4,5-TP (Silvex)	0.56	J

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00027.D
 Report Date: 02-Mar-2001 11:01

677 687

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00027.D
 Lab Smp Id: DWJKC1CC Client Smp ID: DF/24-A/1053/IDW/00
 Inj Date : 02-MAR-2001 09:47
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWJKC1CC,1221.b
 Misc Info : 230148003
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

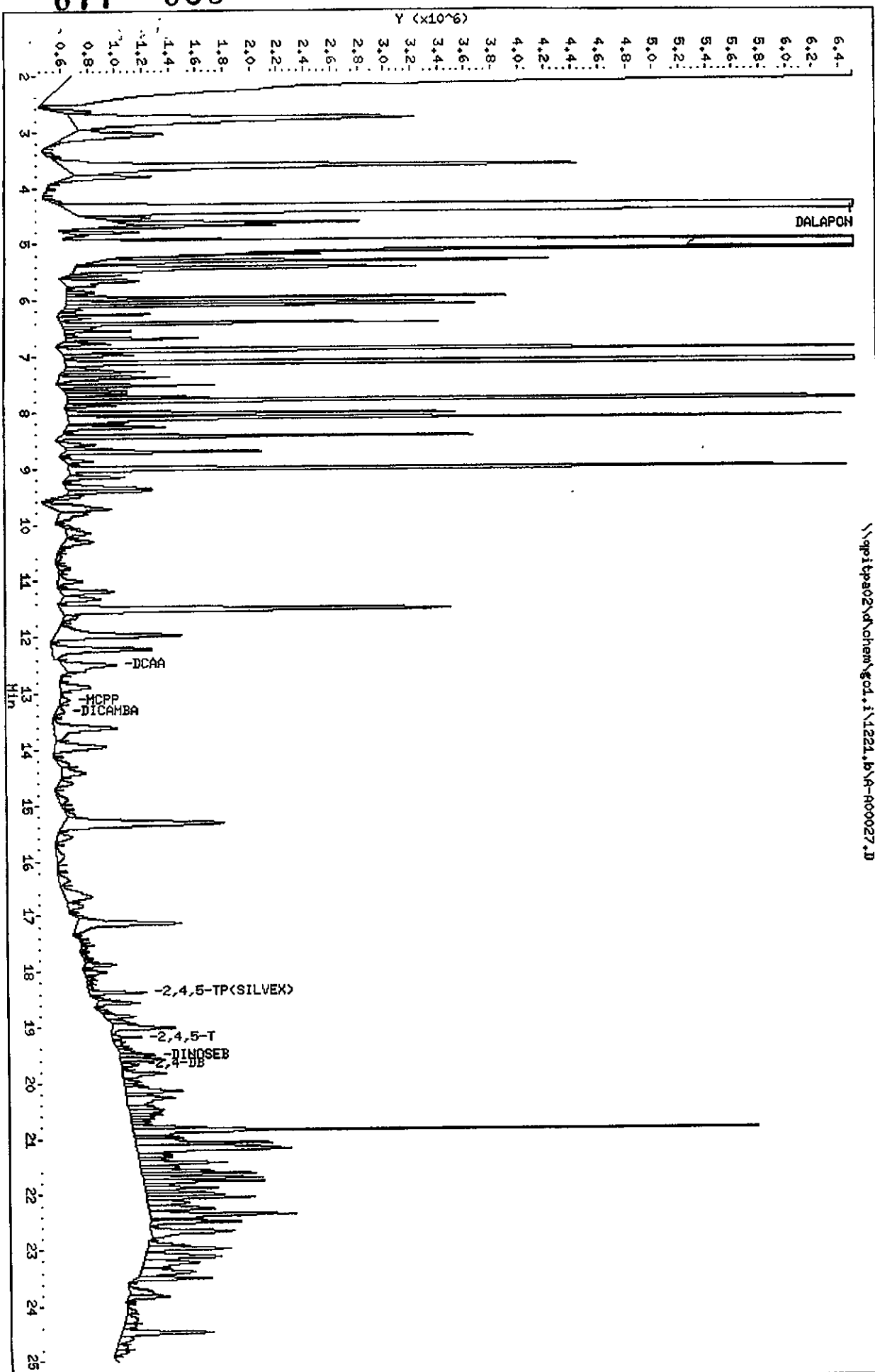
Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.350	4.399	-0.049	55624886	2.60246	520.5
\$ 2 DCAA	12.493	12.486	0.007	2507389	0.04384	8.768
3 MCPP	13.110	13.116	-0.006	66143	0.83762	167.5
4 DICAMBA	13.309	13.305	0.004	56754	0.00143	0.2853
5 MCPA				Compound Not Detected.		
6 DICHLOROPROP				Compound Not Detected.		
7 2,4-D				Compound Not Detected.		
8 PENTACHLOROPHENOL				Compound Not Detected.		
9 2,4,5-TP (SILVEX)	18.369	18.398	-0.029	1154025	0.00394	0.7873
10 2,4,5-T	19.184	19.172	0.012	472734	0.00190	0.3797
11 DINOSEB	19.506	19.489	0.017	818050	0.00400	0.7998
12 2,4-DB	19.665	19.643	0.022	390556	0.01292	2.583

Data File: \\ppitpa02\chem\gcl.1\1221.b\A-A00027.D
 Date: 02-MAR-2001 09:47
 Client ID: DF/24-R/1053/IDM/00
 Sample Info: DMKCLIC, 1221.b
 Volume Injected (ul): 1.0
 Column phase: RTX-50

Instrument: gcl.1
 Operator: 04797
 Column diameter: 0.53



STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00030.D
 Lab Smp Id: DWJKC1CC Client Smp ID: DF/24-A/1053/IDW/00
 Inj Date : 02-MAR-2001 10:17
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWJKC1CC,1221A.b
 Misc Info : 230148003
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 02-Mar-2001 10:13 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds					CONCENTRATIONS	
	RT	EXP RT	DLT RT	RESPONSE	ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.263	4.264	-0.001	50854445	2.48134	496 3
\$ 2 DCAA	11.138	11.120	0 018	4795761	0 11340	22.68 (R)
3 DICAMBA	11.692	11.715	-0.023	41309	0 00109	0.2178
4 MCPP	12 157	12.153	0.004	70750	1.93321	386 6
5 MCPA	Compound Not Detected.					
6 DICHLOROPROP	14.190	14.169	0.021	10542	0.00134	0 2672
7 2,4-D	15.711	15.659	0.052	33735	0 00416	0.8323
8 PENTACHLOROPHENOL	Compound Not Detected.					
9 2,4,5-TP(SILVEX)	17.756	17.776	-0.020	238028	0.00282	0.5639
10 2,4,5-T	18.562	18.549	0.013	234635	0.00258	0 5160
11 2,4-DB	19 114	19 125	-0.011	159724	0.01168	2.335
12 DINOSEB	19.810	19.831	-0.021	443017	0 00504	1 007

677 690

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00030.D
Report Date: 02-Mar-2001 10:45

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

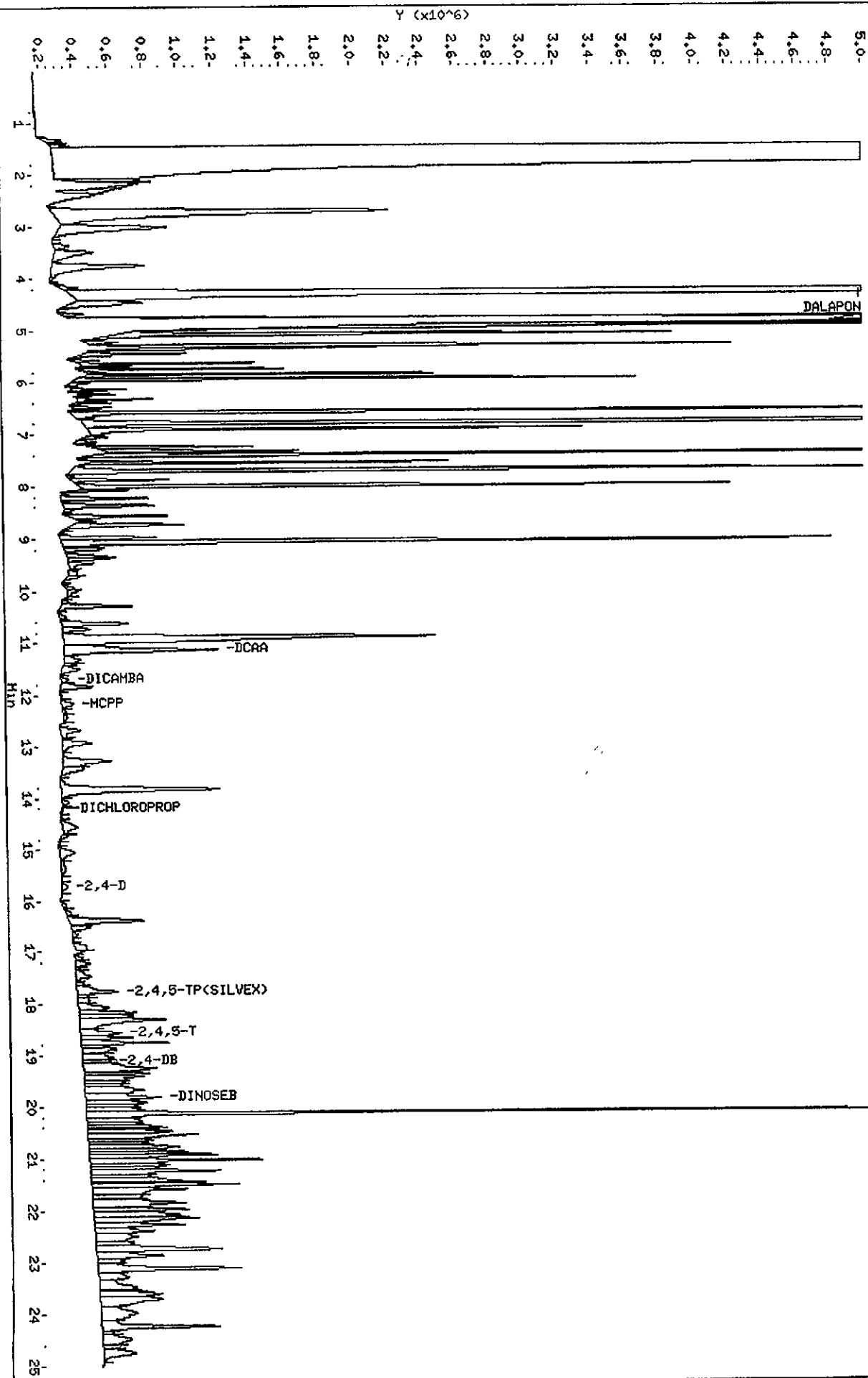
677

691

Data File: \\pp1tpa02\chem\gc1.i\1221a.b\A-B00030.D
Date: 02-MAR-2001 10:17
Client ID: DF/24-A/1053/11M/00
Sample Info: DMKCLIC/1221a.b
Volume Injected (uL): 1.0
Column phase: DB1701

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53

\\pp1tpa02\chem\gc1.i\1221a.b\A-B00030.D



677 692

10A

EPA SAMPLE NO.

PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTESDF/24-A/1
053/IDW/00

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

Lab Sample ID: DWJKC1CC

Date(s) Analyzed: 03/02/01 03/02/01

Instrument ID (1): GC1

Instrument ID (2): GC1

GC Column(1): RTX-50

ID: 0.53 (mm)

GC Column(2): DB1701

ID: 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
2,4,5-TP (SILVEX)	1	18.37	18.35	18.45	0.7873	
	2	17.76	17.71	17.85	0.5639	39.6
2,4,5-T	1	19.18	19.12	19.22	0.3797	
	2	18.56	18.48	18.62	0.5160	35.9
2,4-DB	1	19.67	19.59	19.69	2.583	
	2	19.11	19.06	19.20	2.335	10.6
DALAPON	1	4.35	4.35	4.45	520.5	
	2	4.26	4.20	4.34	496.3	4.9
DICAMBA	1	13.31	13.26	13.36	0.2853	
	2	11.69	11.65	11.79	0.2178	31.0
DINOSEB	1	19.51	19.44	19.54	0.7998	
	2	19.81	19.76	19.90	1.007	25.9
MCPP	1	13.11	13.07	13.17	167.5	
	2	12.16	12.09	12.23	386.6	130.8
	1					
	2					

HERBICIDE
CALIBRATION DATA

677 694
Report Date : 23-Feb-2001 07:17

60
H768901H
RTX-50

STL-Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
Quant Method : ESTD Target Version : 4.04
Last Update : 23-Feb-2001 07:15 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
Initial:Start Threshold	376.000000
Initial:End Threshold	188.000000
Initial:Area Threshold	3760.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	9.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

Compound	RT	RT Window	RF
1 DALAPON	4.400	4.350-4.450	2.14e+007
\$ 2 DCAA	12.485	12.435-12.535	5.72e+007
3 MCPP	13.112	13.062-13.162	7.90e+004
4 DICAMBA	13.300	13.250-13.350	3.98e+007
5 MCPA	14.455	14.405-14.505	9.27e+004
6 DICHLOROPROP	15.455	15.405-15.505	8.90e+006
7 2,4-D	17.083	17.033-17.133	1.53e+007
8 PENTACHLOROPHENOL	17.992	17.942-18.042	2.33e+008
9 2,4,5-TP (SILVEX)	18.395	18.345-18.445	2.93e+008
10 2,4,5-T	19.170	19.120-19.220	2.49e+008
11 DINOSEB	19.486	19.436-19.536	2.05e+008
12 2,4-DB	19.640	19.590-19.690	3.02e+007

Report Date : 02-Mar-2001 10:11

STL-Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
Quant Method : ESTD Target Version : 4.04
Last Update : 02-Mar-2001 10:10 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events	Values
-----	-----
Initial:Start Threshold	376.000000
Initial:End Threshold	188.000000
Initial:Area Threshold	3760.000000
Initial:P-P Resolution	1.000000
Initial:Bunch Factor	9.000000
Initial:Negative Peaks	ON
Initial:Tension	0.200000

Compound	RT	RT Window	RF
1 DALAPON	4.399	4.349-4.449	2.14e+007
\$ 2 DCAA	12.487	12.437-12.537	5.72e+007
3 MCPP	13.117	13.067-13.167	7.90e+004
4 DICAMBA	13.306	13.256-13.356	3.98e+007
5 MCPA	14.461	14.411-14.511	9.27e+004
6 DICHLOROPROP	15.461	15.411-15.511	8.90e+006
7 2,4-D	17.088	17.038-17.138	1.53e+007
8 PENTACHLOROPHENOL	17.995	17.945-18.045	2.33e+008
9 2,4,5-TP (SILVEX)	18.398	18.348-18.448	2.93e+008
10 2,4,5-T	19.172	19.122-19.222	2.49e+008
11 DINOSEB	19.490	19.440-19.540	2.05e+008
12 2,4-DB	19.643	19.593-19.693	3.02e+007

677 696

CE
Hp6890A
RTX-50

Report Date : 23-Feb-2001 07:16

STL-Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2001 17:17
 End Cal Date : 22-FEB-2001 19:13
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Cal Date : 23-Feb-2001 07:15 MorganW
 Curve Type : Average

Calibration File Names:

Level 1: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01111.D
 Level 2: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01112.D
 Level 3: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01113.D
 Level 4: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01114.D
 Level 5: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01115.D

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
Level 1	Level 2	Level 3	Level 4	Level 5			
1 DALAPON	23956636	21496955	20999522	20290376	20126261	21373950	7.232
3 MCPP	122950	97188	76110	56401	42178	78965	40.728 <-
4 DICAMBA	43690849	39994883	39769365	38105217	37356994	39783462	6.159
5 MCPA	145575	112761	87840	66025	51303	92701	40.532 <-
6 DICHLOROPROP	10250849	9343939	8957901	8198665	7728466	8895964	11.085
7 2,4-D	17445545	15420612	15311093	14324165	13818274	15263938	9.125
8 PENTACHLOROPHENOL	237247744	226294549	232608177	228828336	239694501	232934661	2.403
9 2,4,5-TP(SILVEX)	310018857	288795048	291161943	285163397	290582738	293144397	3.316
10 2,4,5-T	264510626	246470857	246615308	241157393	246168460	248984529	3.605
11 DINOSEB	223403470	205731181	202062992	195026732	196540039	204552883	5.563
12 2,4-DB	32890142	30132749	29424817	28805018	29923822	30235310	5.192
\$ 2 DCAA	66082488	59779788	57294089	52722706	50074544	57190723	10.933

12.2% Avg RSD

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00024.D
 Report Date: 02-Mar-2001 10:10

ME
 Hp 68901A
 RTX-50

677 697

STL-Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 02-MAR-2001 08:20
 Lab File ID: A-A00024.D Init. Cal. Date(s): 22-FEB-2001 22-FEB-2001
 Analysis Type: Init. Cal. Times: 17:17 19:13
 Lab Sample ID: MHERB Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m

COMPOUND	RRF	RFO	MIN	MAX
-----	-----	-----	-----	-----
1 DALAPON	21373950	21003531	0.010	-1.7 15.0
\$ 2 DCAA	57190723	58645452	0.010	2.5 15.0
3 MCPP	78965	79069	0.010	0.1 15.0
4 DICAMBA	39783462	40315553	0.010	1.3 15.0
5 MCPA	92701	91244	0.010	-1.6 15.0
6 DICHLOROPROP	8895964	9021344	0.010	1.4 15.0
7 2,4-D	15263938	15200952	0.010	-0.4 15.0
8 PENTACHLOROPHENOL	232934661	243936278	0.010	4.7 15.0
9 2,4,5-TP (SILVEX)	293144397	299893270	0.010	2.3 15.0
10 2,4,5-T	248984529	255808863	0.010	2.7 15.0
11 DINOSEB	204552883	214409921	0.010	4.8 15.0
12 2,4-DB	30235310	29677349	0.010	-1.8 15.0

677 698

76
H₂ 66901A
RTx-50Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00031.D
Report Date: 02-Mar-2001 11:47

STL-Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 02-MAR-2001 11:44
 Lab File ID: A-A00031.D Init. Cal. Date(s): 22-FEB-2001 22-FEB-2001
 Analysis Type: Init. Cal. Times: 17:17 19:13
 Lab Sample ID: MHERB Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m

COMPOUND	RRF	RF0	MIN	%D	MAX
1 DALAPON	21373950	22059863	0.010	3.2	15.0
\$ 2 DCAA	57190723	60886028	0.010	6.5	15.0
3 MCPP	78965	79719	0.010	1.0	15.0
4 DICAMBA	39783462	41898518	0.010	5.3	15.0
5 MCPA	92701	92285	0.010	-0.4	15.0
6 DICHLOROPROP	8895964	9483078	0.010	6.6	15.0
7 2,4-D	15263938	16429295	0.010	7.6	15.0
8 PENTACHLOROPHENOL	232934661	256377726	0.010	10.1	15.0
9 2,4,5-TP (SILVEX)	293144397	325116161	0.010	10.9	15.0
10 2,4,5-T	248984529	277207725	0.010	11.3	15.0
11 DINOSEB	204552883	230311890	0.010	12.6	15.0
12 2,4-DB	30235310	33252864	0.010	10.0	15.0

8D
PESTICIDE ANALYTICAL SEQUENCE

677 699

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

GC Column: RTX-50 ID: 0.53 (mm) Init. Calib. Date(s): 02/22/01 02/22/01

Instrument ID: GC1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 12.49					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	LHERB	02/22/01	1717	12.49	
02	MLHERB	02/22/01	1746	12.48	
03	MHERB	02/22/01	1815	12.48	
04	MHERB	02/22/01	1844	12.48	
05	HHERB	02/22/01	1913	12.48	
06	2ND HERB	02/22/01	1942	12.48	
07	MHERB	03/02/01	0820	12.49	
08	DF/24-B/1053 DWJJM1CC	03/02/01	0849	12.48	
09	DF/24-A/1053 DWJJ31CC	03/02/01	0918	12.46	
10	DF/24-A/1053 DWJKC1CC	03/02/01	0947	12.49	
11	LCS8437 DWPDG1AC	03/02/01	1017	12.49	
12	LCD8437 DWPDG1AD	03/02/01	1046	12.49	
13	PBLK8437 DWPDG1AA	03/02/01	1115	12.49	
14	MHERB	03/02/01	1144	12.49	
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					

S1 = DCAA

QC LIMITS
(+/- 0.05 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

677 700

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01111.D
 Report Date: 23-Feb-2001 07:36

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01111.D
 Lab Smp Id: LHERB
 Inj Date : 22-FEB-2001 17:17
 Operator : 01797
 Smp Info : LHERB,1221.b
 Misc Info : 190-107-1
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 17:17
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01111.D
 Calibration Sample, Level: 1
 Compound Sublist: all.sub

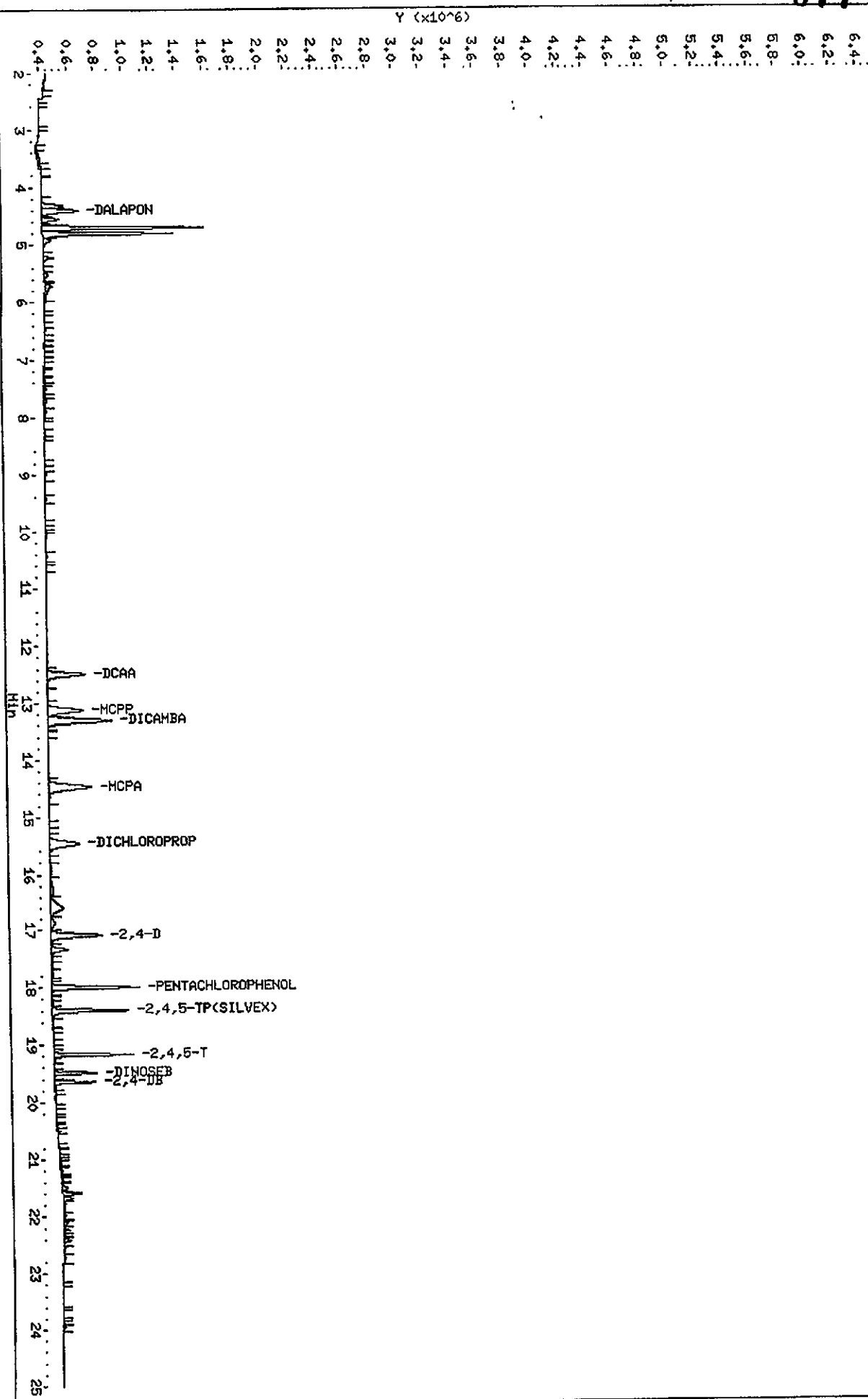
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.401	4.400	0.001	263523	0.01100	0.01100
\$ 2 DCAA	12.486	12.484	0.002	1407557	0.02130	0.02130
3 MCPP	13.116	13.112	0.004	260654	2.12000	2.120
4 DICAMBA	13.303	13.299	0.004	463123	0.01060	0.01060
5 MCPA	14.459	14.455	0.004	311530	2.14000	2.140
6 DICHLOROPROP	15.456	15.454	0.002	217318	0.02120	0.02120
7 2,4-D	17.088	17.082	0.006	368101	0.02110	0.02110
8 PENTACHLOROPHENOL	17.993	17.992	0.001	631079	0.00266	0.002660
9 2,4,5-TP (SILVEX)	18.395	18.394	0.001	1627599	0.00525	0.005250
10 2,4,5-T	19.170	19.169	0.001	1393971	0.00527	0.005270
11 DINOSEB	19.486	19.486	0.000	708189	0.00317	0.003170
12 2,4-DB	19.641	19.639	0.002	693982	0.02110	0.02110

701

Data File: \\p1tpa02\chem\gc1.1\1221.b\A-R01111.D
Date: 22-FEB-2001 17:17
Client ID:
Sample Info: LHERB,1221.b
Column Phase: RTX-50

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

\\p1tpa02\chem\gc1.1\1221.b\A-R01111.D



677 702

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01112.D
 Report Date: 23-Feb-2001 07:36

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01112.D
 Lab Smp Id: MLHERB
 Inj Date : 22-FEB-2001 17:46
 Operator : 01797
 Smp Info : MLHERB,1221.b
 Misc Info : 190-107-2
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 17:46
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

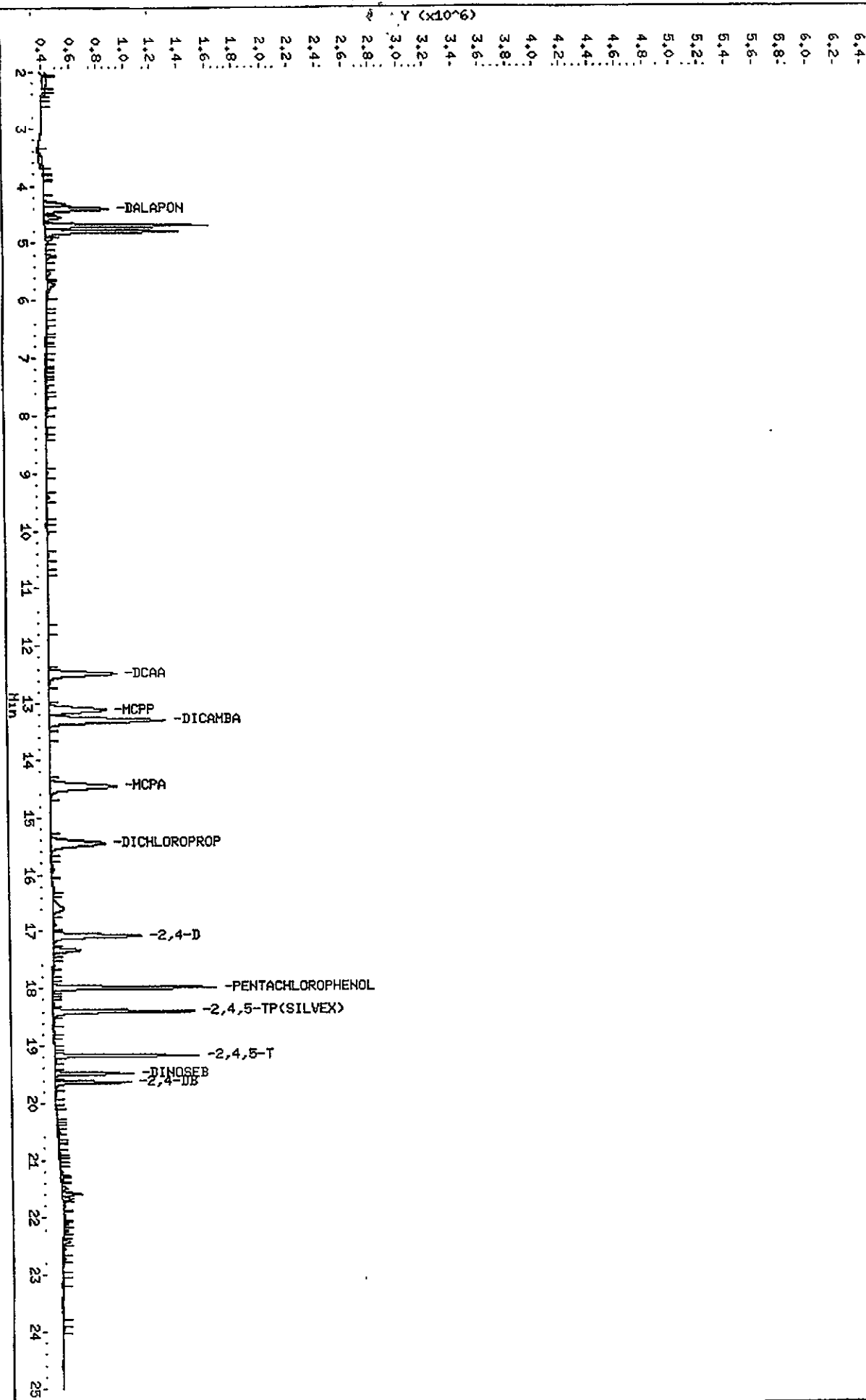
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01112.D
 Calibration Sample, Level: 2
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.400	4.400	0.000	472933	0.02200	0.02081
\$ 2 DCAA	12.482	12.484	-0.002	2540641	0.04250	0.04037
3 MCPP	13.113	13.112	0.001	414023	4.26000	3.761
4 DICAMBA	13.298	13.299	-0.001	851891	0.02130	0.02036
5 MCPA	14.455	14.455	0.000	482619	4.28000	3.736
6 DICHLOROPROP	15.454	15.454	0.000	396183	0.04240	0.04044
7 2,4-D	17.081	17.082	-0.001	655376	0.04250	0.03988
8 PENTACHLOROPHENOL	17.991	17.992	-0.001	1203887	0.00532	0.005194
9 2,4,5-TP (SILVEX)	18.395	18.394	0.001	3032348	0.01050	0.01013
10 2,4,5-T	19.171	19.169	0.002	2587944	0.01050	0.01013
11 DINOSEB	19.486	19.486	0.000	1306393	0.00635	0.006088
12 2,4-DB	19.641	19.639	0.002	1271602	0.04220	0.04035

Data File: \\pptp02\chem\gc1.i\1221.b\A-R01112.D
Date: 22-FEB-2001 17:46
Client ID:
Sample Info: HLHERB,1221.b
Column phase: RTX-50

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53

\\pptp02\chem\gc1.i\1221.b\A-R01112.D



Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01113.D
 Report Date: 23-Feb-2001 07:36

677 704

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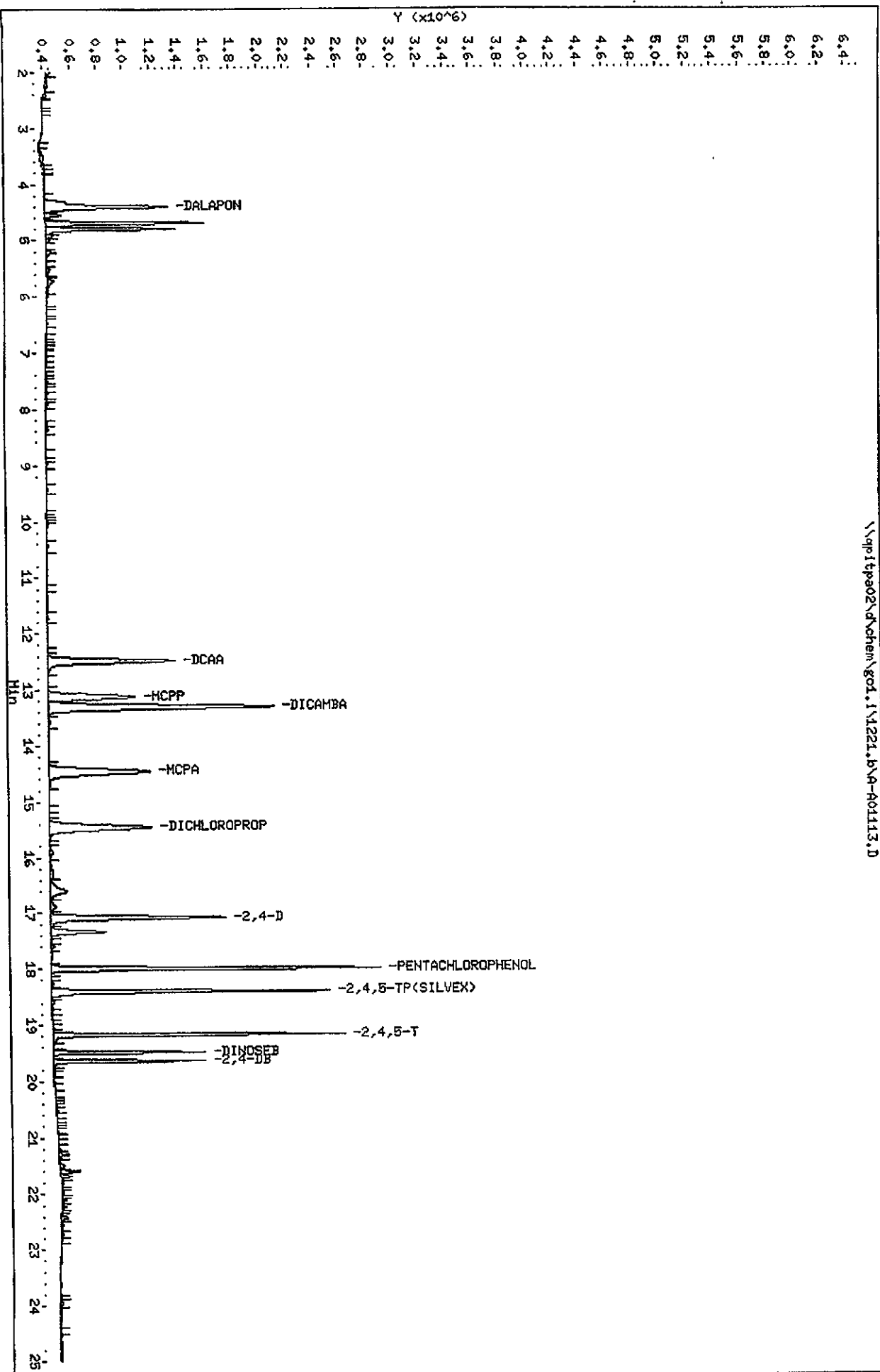
Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01113.D
 Lab Smp Id: MHERB
 Inj Date : 22-FEB-2001 18:15
 Operator : 01797
 Smp Info : MHERB,1221.b
 Misc Info : 190-107-3
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 18:15
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01113.D
 Calibration Sample, Level: 3
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.400	4.400	0.000	921879	0.04390	0.04162
\$ 2 DCAA	12.484	12.484	0.000	4875727	0.08510	0.07986
3 MCPP	13.112	13.112	0.000	648453	8.52000	6.567
4 DICAMBA	13.299	13.299	0.000	1690198	0.04250	0.04107
5 MCPA	14.455	14.455	0.000	751913	8.56000	6.516
6 DICHLOROPROP	15.454	15.454	0.000	759630	0.08480	0.07981
7 2,4-D	17.082	17.082	0.000	1302974	0.08510	0.08114
8 PENTACHLOROPHENOL	17.992	17.992	0.000	2474951	0.01064	0.01066
9 2,4,5-TP(SILVEX)	18.394	18.394	0.000	6143517	0.02110	0.02071
10 2,4,5-T	19.169	19.169	0.000	5203583	0.02110	0.02060
11 DINOSEB	19.486	19.486	0.000	2566200	0.01270	0.01220
12 2,4-DB	19.639	19.639	0.000	2486397	0.08450	0.08068

Data File: \\qpltpa02\chem\gc1.1\1221.b\A-A01113.D
Date: 22-FEB-2001 18:15
Client ID:
Sample Info: HHERB.1221.b
Column phase: RTX-50

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



677 706

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01114.D
 Report Date: 23-Feb-2001 07:37

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01114.D
 Lab Smp Id: MHHERB
 Inj Date : 22-FEB-2001 18:44
 Operator : 01797
 Smp Info : MHHERB,1221.b
 Misc Info : 190-107-4
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 18:44
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

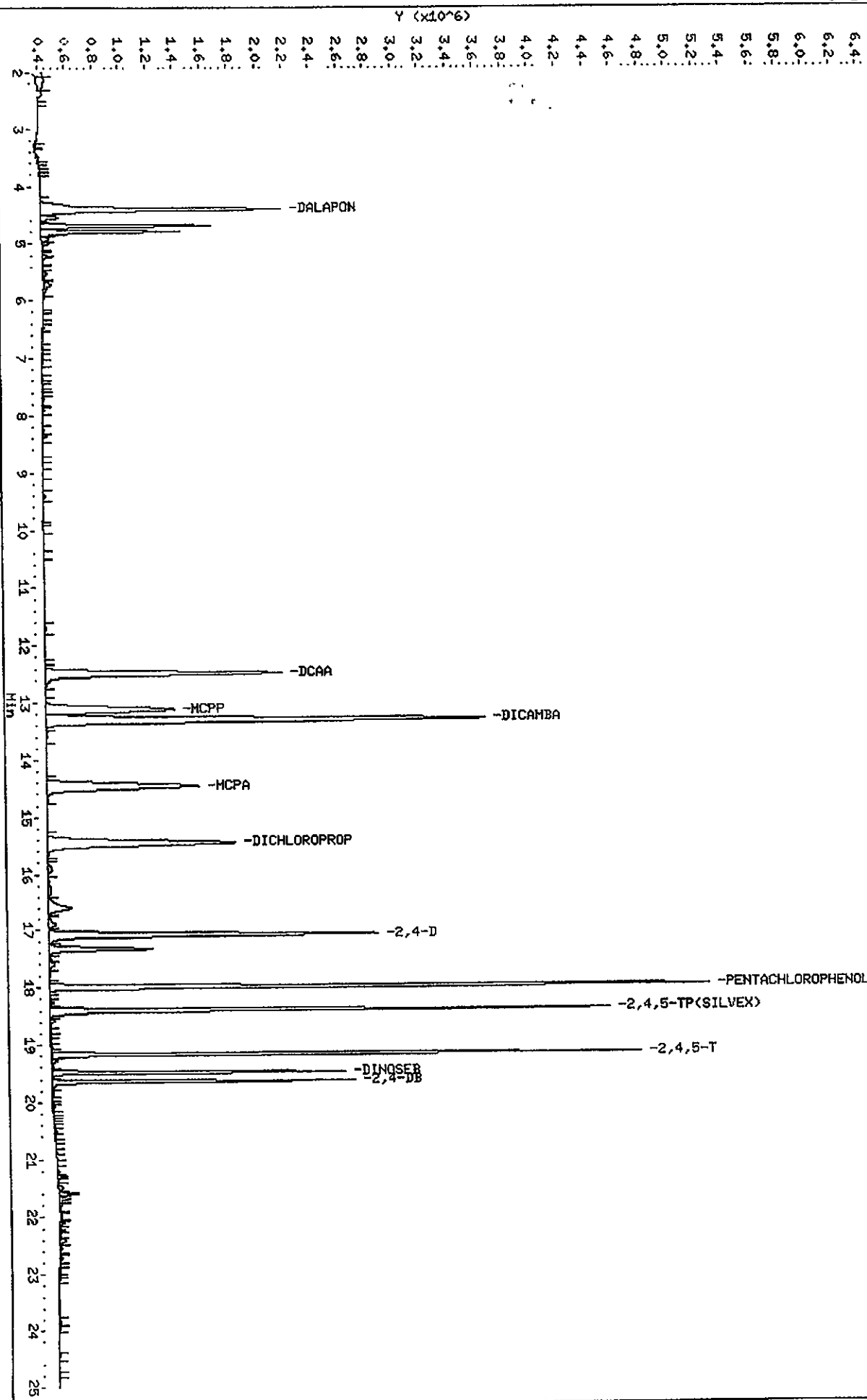
Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01114.D
 Calibration Sample, Level: 4
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.401	4.400	0.001	1781495	0.08780	0.08215
\$ 2 DCAA	12.483	12.484	-0.001	8962860	0.17000	0.1520
3 MCPP	13.115	13.112	0.003	958813	17.0000	10.88
4 DICAMBA	13.298	13.299	-0.001	3242754	0.08510	0.08028
5 MCPA	14.457	14.455	0.002	1129029	17.1000	10.96
6 DICHLOROPROP	15.452	15.454	-0.002	1393773	0.17000	0.1517
7 2,4-D	17.081	17.082	-0.001	2435108	0.17000	0.1558
8 PENTACHLOROPHENOL	17.991	17.992	-0.001	4869467	0.02128	0.02106
9 2,4,5-TP(SILVEX)	18.394	18.394	0.000	12005379	0.04210	0.04086
10 2,4,5-T	19.169	19.169	0.000	10176842	0.04220	0.04076
11 DINOSEB	19.487	19.486	0.001	4953679	0.02540	0.02398
12 2,4-DB	19.639	19.639	0.000	4868048	0.16900	0.1606

Data File: \\ppitpa02\chem\gc1.1\1221.b\A-601114.D
Date: 22-FEB-2001 18:44
Client ID:
Sample Info: MHHERB.1221.b
Column phase: RTX-50

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

\\ppitpa02\chem\gc1.1\1221.b\A-601114.D



677 708

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01115.D
 Report Date: 23-Feb-2001 07:37

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01115.D
 Lab Smp Id: HHERB
 Inj Date : 22-FEB-2001 19:13
 Operator : 01797
 Smp Info : HHERB,1221.b
 Misc Info : 190-107-5
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 19:13
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01115.D
 Calibration Sample, Level: 5
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.399	4.400	-0.001	3542222	0.17600	0.1657
\$ 2 DCAA	12.480	12.484	-0.004	17025345	0.34000	0.2977
3 MCPP	13.113	13.112	0.001	1438270	34.1000	18.21
4 DICAMBA	13.298	13.299	-0.001	6350689	0.17000	0.1596
5 MCPA	14.453	14.455	-0.002	1744317	34.0000	18.82
6 DICHLOROPROP	15.448	15.454	-0.006	2619950	0.33900	0.2945
7 2,4-D	17.078	17.082	-0.004	4698213	0.34000	0.3078
8 PENTACHLOROPHENOL	17.990	17.992	-0.002	10199001	0.04255	0.04378
9 2,4,5-TP (SILVEX)	18.393	18.394	-0.001	24408950	0.08400	0.08326
10 2,4,5-T	19.167	19.169	-0.002	20776618	0.08440	0.08344
11 DINOSEB	19.485	19.486	-0.001	9984234	0.05080	0.04881
12 2,4-DB	19.638	19.639	-0.001	10114252	0.33800	0.3345

Data File: \\ppitpa02\chem\gcl.i\1221.b\A-401115.D

Date: 22-FEB-2001 19:13

Client ID:

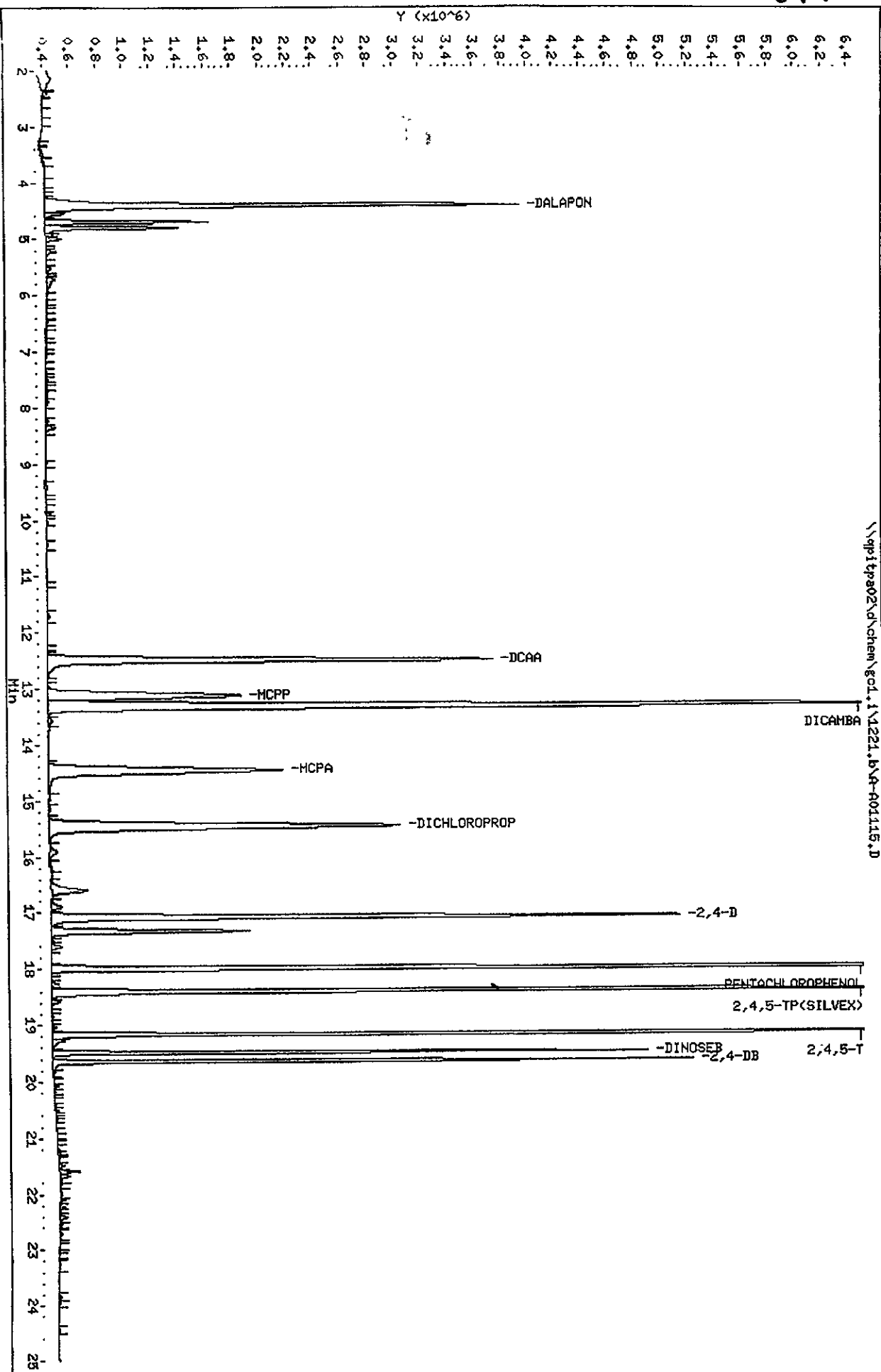
Sample Info: HHERB,1221.b

Column phase: RTX-50

Instrument: gcl.i

Operator: 01797

Column diameter: 0.53



677 710

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A01116.D
 Report Date: 23-Feb-2001 07:37

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A01116.D
 Lab Smp Id: 2ND HERB
 Inj Date : 22-FEB-2001 19:42
 Operator : 01797
 Smp Info : 2ND HERB,1221.b
 Misc Info : 190-119-8
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 23-Feb-2001 07:23 MorganW
 Cal Date : 22-FEB-2001 19:13
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-A01115.D
 Continuing Calibration Sample
 Compound Sublist: all.sub

Compounds					AMOUNTS		
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)	
*****	==	=====	=====	=====	=====	=====	
1 DALAPON	4.400	4.400	0.000	456505	0.04390	0.02136	105%
\$ 2 DCAA	12.483	12.484	-0.001	736303	0.08510	0.01287	
3 MCPP	13.112	13.112	0.000	611510	8.52000	7.744	96%
4 DICAMBA	13.297	13.299	-0.002	1570822	0.04250	0.03948	98%
5 MCPA	14.455	14.455	0.000	713824	8.56000	7.700	96%
6 DICHLOROPROP	15.451	15.454	-0.003	363715	0.08480	0.04088	103%
7 2,4-D	17.082	17.082	0.000	637479	0.08510	0.04176	105%
8 PENTACHLOROPHENOL	17.990	17.992	-0.002	2401575	0.01064	0.01031	100%
9 2,4,5-TP(SILVEX)	18.394	18.394	0.000	10914660	0.02110	0.03723	93%
10 2,4,5-T	19.168	19.169	-0.001	9444722	0.02110	0.03793	95%
11 DINOSEB	19.485	19.486	-0.001	7540389	0.01270	0.03686	93%
12 2,4-DB	19.639	19.639	0.000	1173719	0.08450	0.03882	98%

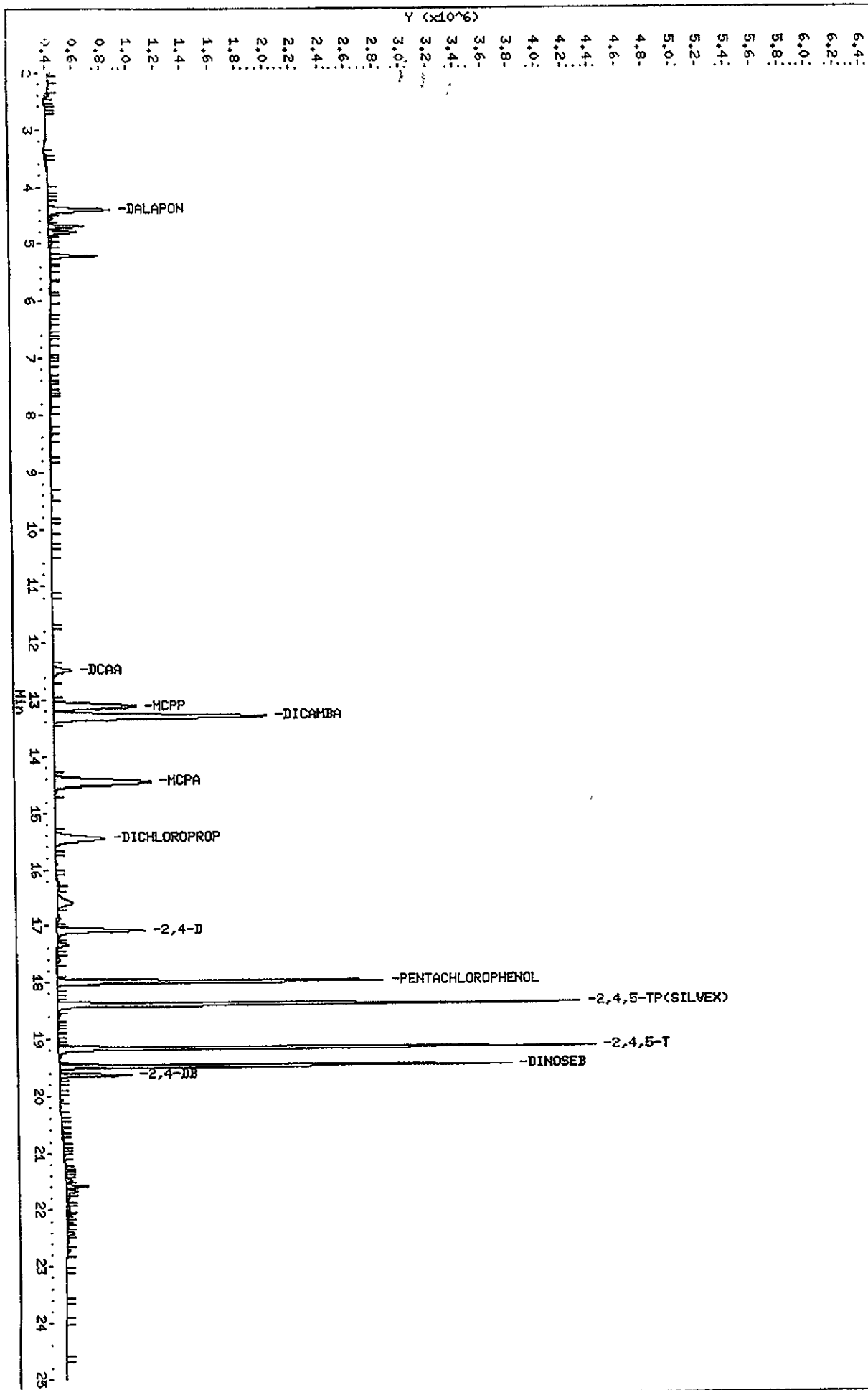
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Data File: \\pp1tpa02\chem\col.1\1221.b-A01116.D
Date: 22-FEB-2001 19:42
Client ID:
Sample Info: 2ND HERB, 1221.b
Column phase: RTX-50

Instrument: col.1
Operator: 01797
Column diameter: 0.53

\\pp1tpa02\chem\col.1\1221.b-A01116.D



677 712

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00024.D
Report Date: 02-Mar-2001 10:14

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00024.D
Lab Smp Id: MHERB
Inj Date : 02-MAR-2001 08:20
Operator : 01797
Smp Info : MHERB,1221.b
Misc Info : 190-107-3
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
Meth Date : 02-Mar-2001 10:11 morganw
Cal Date : 22-FEB-2001 19:13
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC003

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A01115.D
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.399	4.399	0.000	922055	0.04390	0.04314
\$ 2 DCAA	12.486	12.486	0.000	4990728	0.08510	0.08726
3 MCPP	13.116	13.116	0.000	673671	8.52000	8.531
4 DICAMBA	13.305	13.305	0.000	1713411	0.04250	0.04307
5 MCPA	14.460	14.460	0.000	781048	8.56000	8.425
6 DICHLOROPROP	15.460	15.460	0.000	765010	0.08480	0.08600
7 2,4-D	17.088	17.088	0.000	1293601	0.08510	0.08475
8 PENTACHLOROPHENOL	17.994	17.994	0.000	2595482	0.01064	0.01114
9 2,4,5-TP(SILVEX)	18.398	18.398	0.000	6327748	0.02110	0.02158
10 2,4,5-T	19.172	19.172	0.000	5397567	0.02110	0.02168
11 DINOSEB	19.489	19.489	0.000	2723006	0.01270	0.01331
12 2,4-DB	19.643	19.643	0.000	2507736	0.08450	0.08294

Data File: \\ppitpa02\dl\chem\gcl.i\1221.b\A-R00024.D

Date: 02-MAR-2001 08:20

Client ID:

Sample Info: HERB.1221.b

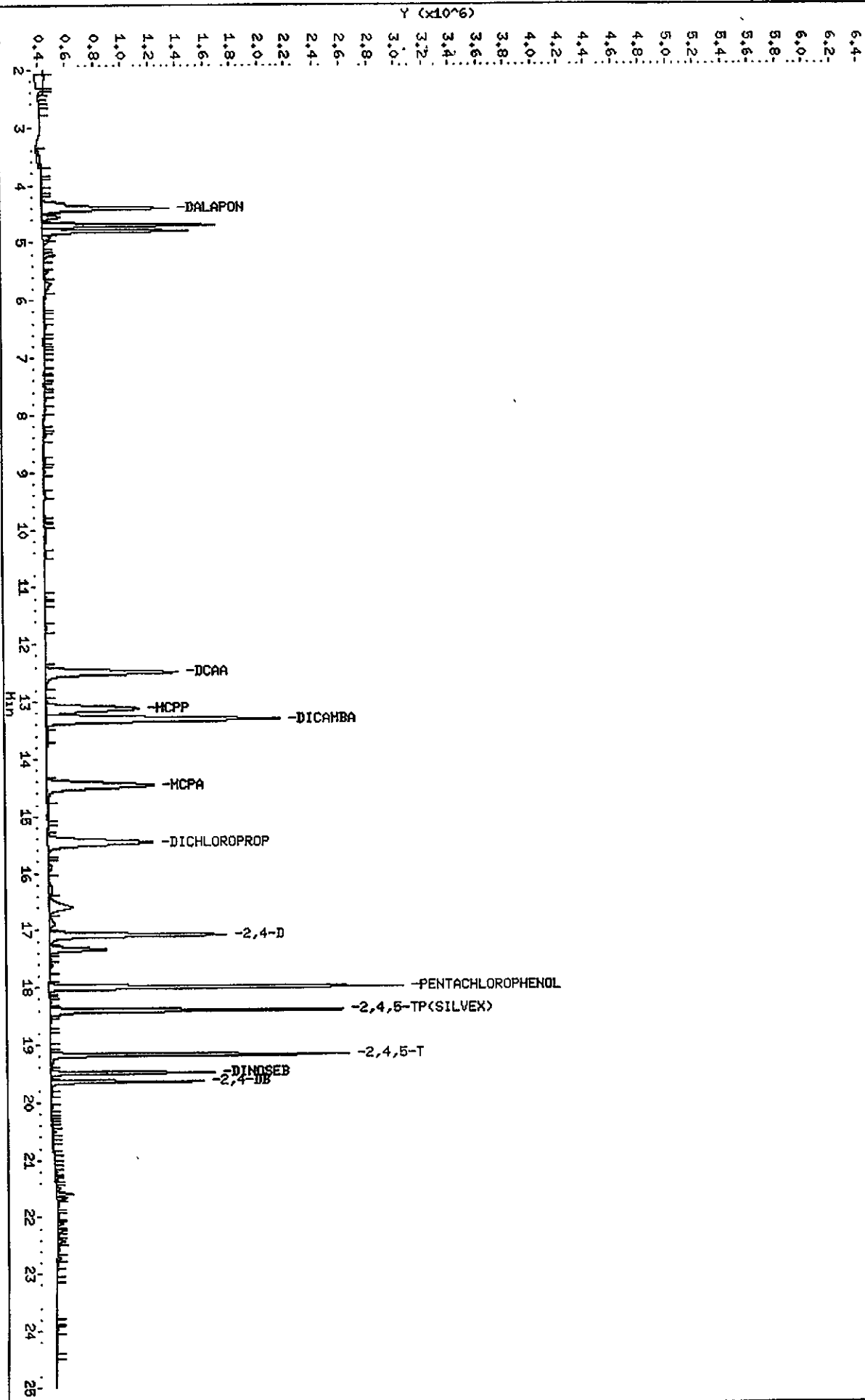
Column phase: RTX-50

Instrument: gcl.i

Operator: 01797

Column diameter: 0.53

\\ppitpa02\dl\chem\gcl.i\1221.b\A-R00024.D



677 714

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00031.D
Report Date: 02-Mar-2001 11:48

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00031.D
Lab Smp Id: MHERB
Inj Date : 02-MAR-2001 11:44
Operator : 01797
Smp Info : MHERB,1221.b
Misc Info : 190-107-3
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
Meth Date : 02-Mar-2001 11:47 MorganW
Cal Date : 22-FEB-2001 19:13
Als bottle: 9
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC003

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-A01115.D
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.403	4.399	0.004	968428	0.04390	0.04531
\$ 2 DCAA	12.489	12.486	0.003	5181401	0.08510	0.09060
3 MCPP	13.118	13.116	0.002	679203	8.52000	8.601
4 DICAMBA	13.303	13.305	-0.002	1780687	0.04250	0.04476
5 MCPA	14.463	14.460	0.003	789962	8.56000	8.522
6 DICHLOROPROP	15.462	15.460	0.002	804165	0.08480	0.09040
7 2,4-D	17.089	17.088	0.001	1398133	0.08510	0.09160
8 PENTACHLOROPHENOL	17.997	17.994	0.003	2727859	0.01064	0.01171
9 2,4,5-TP(SILVEX)	18.398	18.398	0.000	6859951	0.02110	0.02340
10 2,4,5-T	19.172	19.172	0.000	5849083	0.02110	0.02349
11 DINOSEB	19.489	19.489	0.000	2924961	0.01270	0.01430
12 2,4-DB	19.642	19.643	-0.001	2809867	0.08450	0.09293

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Data File: \\qpitpa02\chem\gc1.i\1221.b\4-400031.D

Date: 02-MAR-2001 11:44

Client ID:

Sample Info: MHERB.1221.b

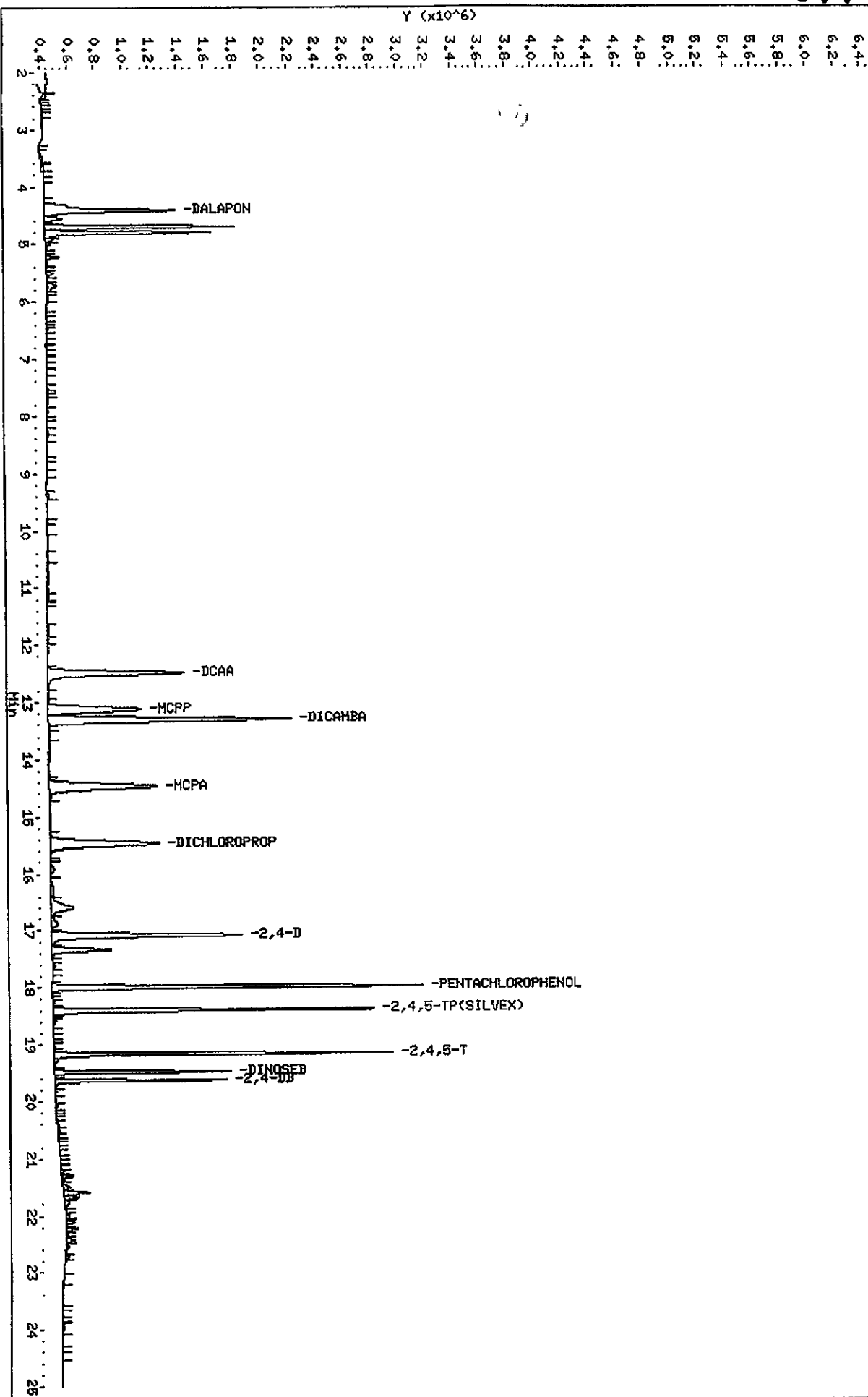
Column Phase: RTX-50

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

\\qpitpa02\chem\gc1.i\1221.b\4-400031.D



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DB1701

Report Date : 23-Feb-2001 06:48

STL-Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
Quant Method : ESTD
Last Update : 23-Feb-2001 06:47
Data Type : GC MULTI COMP

Target Version : 4.04
Number of Cpnds : 12

Global Integrator : Falcon

Chromat Events

Values

Initial:Start Threshold 449.000000
Initial:End Threshold 224.500000
Initial:Area Threshold 4490.000000
Initial:P-P Resolution 1.000000
Initial:Bunch Factor 8.000000
Initial:Negative Peaks ON
Initial:Tension 0.200000

Compound	RT	RT Window	RF
1 DALAPON	4.266	4.196-4.336	2.05e+007
\$ 2 DCAA	11.123	11.053-11.193	4.23e+007
3 DICAMBA	11.718	11.648-11.788	3.79e+007
4 MCPP	12.159	12.089-12.229	3.66e+004
5 MCPA	13.030	12.960-13.100	4.88e+004
6 DICHLOROPROP	14.168	14.098-14.238	7.89e+006
7 2,4-D	15.661	15.591-15.731	8.11e+006
8 PENTACHLOROPHENOL	16.100	16.030-16.170	1.07e+008
9 2,4,5-TP (SILVEX)	17.780	17.710-17.850	8.44e+007
10 2,4,5-T	18.548	18.478-18.618	9.09e+007
11 2,4-DB	19.125	19.055-19.195	1.37e+007
12 DINOSEB	19.833	19.763-19.903	8.80e+007

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08/70j

677 717

Report Date : 02-Mar-2001 10:13

STL-Pittsburgh

COMPOUND LISTING

Method file : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
Quant Method : ESTD Target Version : 4.04
Last Update : 02-Mar-2001 10:12 Number of Cpnds : 12
Data Type : GC MULTI COMP

Global Integrator : Falcon

Chromat Events

Values

Initial:Start Threshold 449.000000
Initial:End Threshold 224.500000
Initial:Area Threshold 4490.000000
Initial:P-P Resolution 1.000000
Initial:Bunch Factor 8.000000
Initial:Negative Peaks ON
Initial:Tension 0.200000

Compound	RT	RT Window	RF
1 DALAPON	4.265	4.195-4.335	2.05e+007
\$ 2 DCAA	11.121	11.051-11.191	4.23e+007
3 DICAMBA	11.716	11.646-11.786	3.79e+007
4 MCPP	12.154	12.084-12.224	3.66e+004
5 MCPA	13.027	12.957-13.097	4.88e+004
6 DICHLOROPROP	14.170	14.100-14.240	7.89e+006
7 2,4-D	15.660	15.590-15.730	8.11e+006
8 PENTACHLOROPHENOL	16.096	16.026-16.166	1.07e+008
9 2,4,5-TP (SILVEX)	17.776	17.706-17.846	8.44e+007
10 2,4,5-T	18.550	18.480-18.620	9.09e+007
11 2,4-DB	19.126	19.056-19.196	1.37e+007
12 DINOSEB	19.831	19.761-19.901	8.80e+007

677 718

6E
HP689018
DB1701

Report Date : 23-Feb-2001 06:48

STL-Pittsburgh

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-2001 17:46
 End Cal Date : 22-FEB-2001 19:42
 Quant Method : ESTD
 Origin : Disabled
 Target Version : 4.04
 Integrator : Falcon
 Method file : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Cal Date : 23-Feb-2001 06:47 MorganW
 Curve Type : Average

Calibration File Names:

Level 1: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00588.D
 Level 2: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00589.D
 Level 3: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00590.D
 Level 4: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00591.D
 Level 5: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00592.D

Compound	0.00500	0.01000	0.02500	0.05000	0.10000	RRF	% RSD
	Level 1	Level 2	Level 3	Level 4	Level 5		
1 DALAPON	22973364	20543727	20124214	19445797	19386790	20494778	7.159
3 DICAMBA	41951792	38466667	38316706	36001105	34954859	37938226	7.120
4 MCPP	55355	41910	33787	27674	24260	36597	34.013 <-
5 MCPA	71159	54832	45410	38049	34513	48793	30.182 <-
6 DICHLOROPROP	9140896	8317547	7940731	7252047	6793867	7889018	11.615
7 2,4-D	8686825	8193153	8287615	7847300	7518471	8106673	5.482
8 PENTACHLOROPHENOL	106966917	103525188	108066823	106403148	108756263	106743668	1.893
9 2,4,5-TP (SILVEX)	89428952	83343714	86718009	82806318	79794476	84418294	4.414
10 2,4,5-T	89727135	88637810	92263934	91775166	92298341	90940477	1.829
11 2,4-DB	13882701	13314171	13710556	13527604	13965728	13680152	1.936
12 DINOSEB	88809779	85551024	89291732	87014882	89254705	87984424	1.873
\$ 2 DCAA	49505211	44628000	42405311	38631976	36276397	42289379	12.235

10.0% Ave RSD

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00027.D
 Report Date: 02-Mar-2001 10:12

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 08701

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STL-Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gc1.i Injection Date: 02-MAR-2001 08:49
 Lab File ID: A-B00027.D Init. Cal. Date(s): 22-FEB-2001 22-FEB-2001
 Analysis Type: Init. Cal. Times: 17:46 19:42
 Lab Sample ID: MHERB Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m

COMPOUND	RRF	RFO	MIN	%D	MAX
-----	-----	-----	-----	-----	-----
1 DALAPON	20494778	20730524	0.010	1.2	15.0
\$ 2 DCAA	42289379	43670259	0.010	3.3	15.0
3 DICAMBA	37938226	39242494	0.010	3.4	15.0
4 MCPP	36597	34658	0.010	-5.3	15.0
5 MCPA	48793	46786	0.010	-4.1	15.0
6 DICHLOROPROP	7889018	8132748	0.010	3.1	15.0
7 2,4-D	8106673	8203361	0.010	1.2	15.0
8 PENTACHLOROPHENOL	106743668	110951692	0.010	3.9	15.0
9 2,4,5-TP (SILVEX)	84418294	87793839	0.010	4.0	15.0
10 2,4,5-T	90940477	90906730	0.010	-0.0	15.0
11 2,4-DB	13680152	13643669	0.010	-0.3	15.0
12 DINOSEB	87984424	96476614	0.010	9.7	15.0

677 720

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HP68901B
03/701Data File: \\qpitpa02\d\chem\gcl.i\1221A.b\A-B00034.D
Report Date: 02-Mar-2001 11:42

STL-Pittsburgh

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcl.i Injection Date: 02-MAR-2001 12:13
 Lab File ID: A-B00034.D Init. Cal. Date(s): 22-FEB-2001 22-FEB-2001
 Analysis Type: Init. Cal. Times: 17:46 19:42
 Lab Sample ID: MHERB Quant Type: ESTD
 Method: \\qpitpa02\d\chem\gcl.i\1221A.b\LONGHB.m

COMPOUND	RRF	RFO	MIN	MAX
			RRF	%D
1 DALAPON	20494778	21487882	0.010	4.8
\$ 2 DCAA	42289379	45173043	0.010	6.8
3 DICAMBA	37938226	40602400	0.010	7.0
4 MCPP	36597	34804	0.010	-4.9
5 MCPA	48793	47226	0.010	-3.2
6 DICHLOROPROP	7889018	8431285	0.010	6.9
7 2,4-D	8106673	8750952	0.010	7.9
8 PENTACHLOROPHENOL	106743668	115718609	0.010	8.4
9 2,4,5-TP (SILVEX)	84418294	91353886	0.010	8.2
10 2,4,5-T	90940477	97315450	0.010	7.0
11 2,4-DB	13680152	14119432	0.010	3.2
12 DINOSEB	87984424	100113701	0.010	13.8

8D
PESTICIDE ANALYTICAL SEQUENCE

677 721

Lab Name:

Contract:

Lab Code:

Case No.:

SAS No.:

SDG No.: C1B230148

GC Column: DB1701 ID: 0.53 (mm) Init. Calib. Date(s): 02/22/01 02/22/01

Instrument ID: GC1

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS,
SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION S1 : 11.12					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	LHERB	02/22/01	1746	11.13	
02	MLHERB	02/22/01	1815	11.12	
03	MHERB	02/22/01	1844	11.12	
04	MHERB	02/22/01	1913	11.12	
05	HHERB	02/22/01	1942	11.12	
06	2ND HERB	02/22/01	2011	11.13	
07	MHERB	03/02/01	0849	11.12	
08	DF/24-B/1053 DWJJM1CC	03/02/01	0918	11.16	
09	DF/24-A/1053 DWJJ31CC	03/02/01	0947	11.16	
10	DF/24-A/1053 DWJKC1CC	03/02/01	1017	11.14	
11	PBLK8437 DWPDG1AA	03/02/01	1144	11.13	
12	MHERB	03/02/01	1213	11.13	
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
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30					
31					
32					

S1 = DCAA

QC LIMITS
(+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

677 722

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00588.D
 Report Date: 23-Feb-2001 06:59

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00588.D
 Lab Smp Id: LHERB
 Inj Date : 22-FEB-2001 17:46
 Operator : 01797
 Smp Info : LHERB,1221A.b
 Misc Info : 190-107-1
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 23-Feb-2001 06:55 MorganW
 Cal Date : 22-FEB-2001 17:46
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B00588.D
 Calibration Sample, Level: 1
 Compound Sublist: all.sub

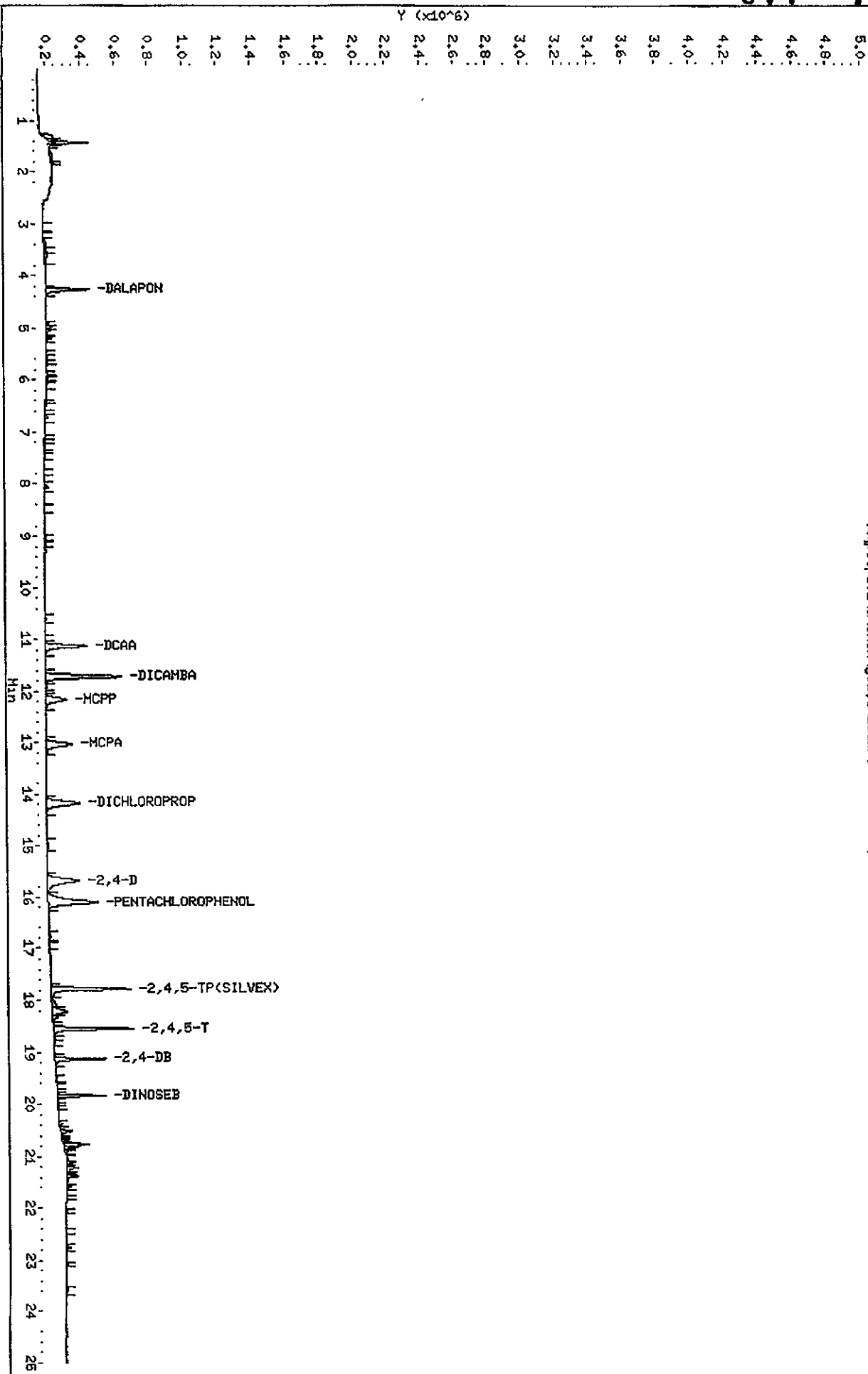
Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.266	4.266	0.000	252707	0.01100	0.01100
\$ 2 DCAA	11.126	11.122	0.004	1054461	0.02130	0.02130
3 DICAMBA	11.717	11.717	0.000	444689	0.01060	0.01060
4 MCPP	12.157	12.158	-0.001	117352	2.12000	2.120
5 MCPA	13.032	13.029	0.003	152281	2.14000	2.140
6 DICHLOROPROP	14.172	14.167	0.005	193787	0.02120	0.02120
7 2,4-D	15.670	15.661	0.009	183292	0.02110	0.02110
8 PENTACHLOROPHENOL	16.096	16.099	-0.003	284532	0.00266	0.002660
9 2,4,5-TP(SILVEX)	17.778	17.779	-0.001	469502	0.00525	0.005250
10 2,4,5-T	18.551	18.547	0.004	472862	0.00527	0.005270
11 2,4-DB	19.128	19.125	0.003	292925	0.02110	0.02110
12 DINOSEB	19.832	19.832	0.000	281527	0.00317	0.003170

Data File: \\pp1cpa02\chem\gc1.1\1221a.b\A-B00588.D
Date : 22-FEB-2001 17:46
Client ID:
Sample Info: LHERB,1221a.b

Column phase: DB1701

Instrument: gc1.1
Operator: 01797
Column diameter: 0.53

\\pp1cpa02\chem\gc1.1\1221a.b\A-B00588.D



677 724
 Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00589.D
 Report Date: 23-Feb-2001 06:59

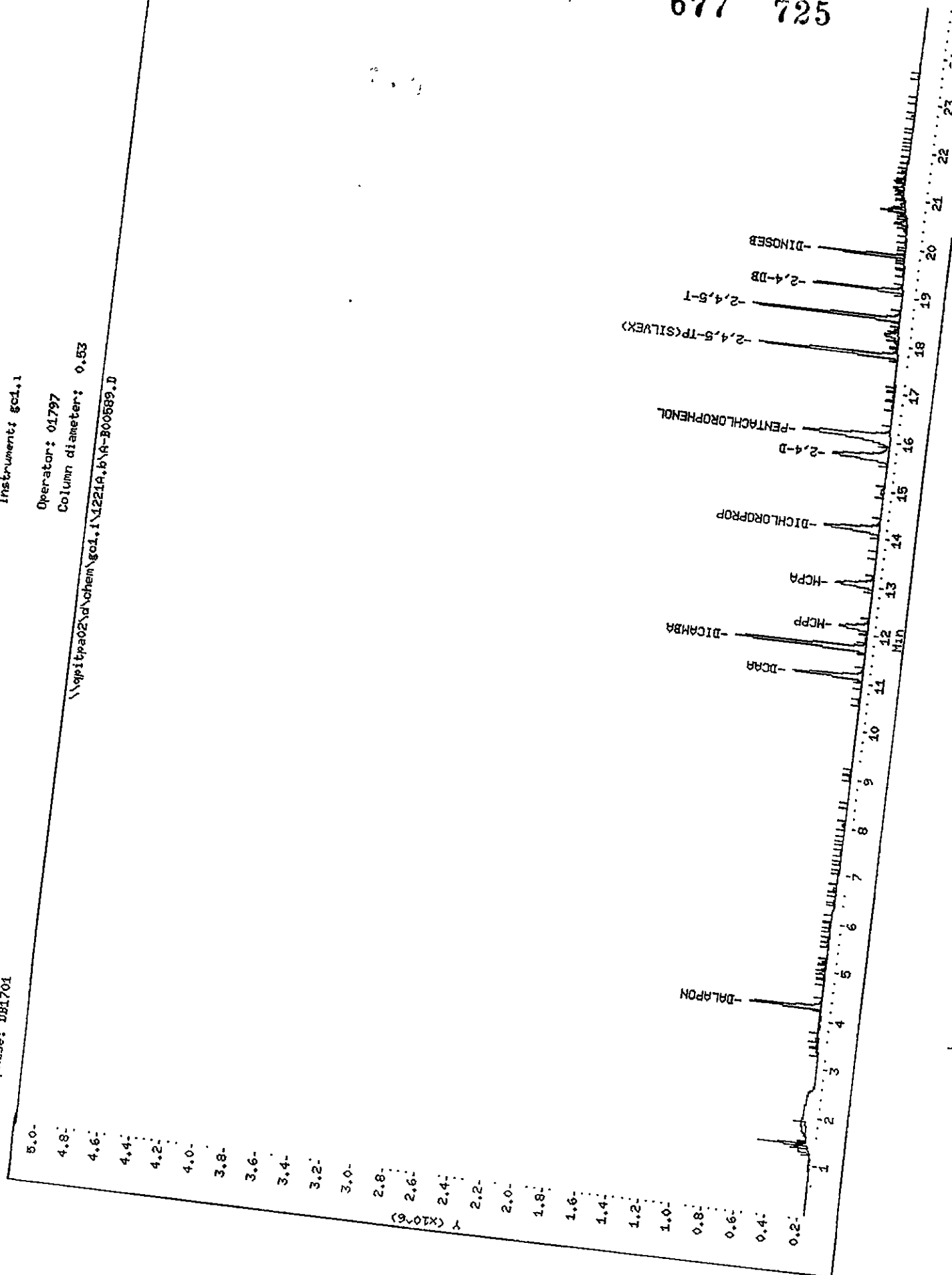
STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00589.D
 Lab Smp Id: MLHERB
 Inj Date : 22-FEB-2001 18:15
 Operator : 01797 Inst ID: gc1.i
 Smp Info : MLHERB,1221A.b
 Misc Info : 190-107-2
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 23-Feb-2001 06:55 MorganW Quant Type: ESTD
 Cal Date : 22-FEB-2001 18:15 Cal File: A-B00589.D
 Als bottle: 3 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.266	4.266	0.000	451962	0.02200	0.02077
\$ 2 DCAA	11.122	11.122	0.000	1896690	0.04250	0.04030
3 DICAMBA	11.716	11.717	-0.001	819340	0.02130	0.02038
4 MCPP	12.156	12.158	-0.002	178538	4.26000	3.671
5 MCPA	13.027	13.029	-0.002	234683	4.28000	3.725
6 DICHLOROPROP	14.172	14.167	0.005	352664	0.04240	0.04040
7 2,4-D	15.662	15.661	0.001	348209	0.04250	0.04126
8 PENTACHLOROPHENOL	16.093	16.099	-0.006	550754	0.00532	0.005233
9 2,4,5-TP(SILVEX)	17.777	17.779	-0.002	875109	0.01050	0.01013
10 2,4,5-T	18.549	18.547	0.002	930697	0.01050	0.01044
11 2,4-DB	19.127	19.125	0.002	561858	0.04220	0.04132
12 DINOSEB	19.832	19.832	0.000	543249	0.00635	0.006231

Date : 22-FEB-2001 18:15
 Client ID:
 Sample Info: MLHERB,1221A,b
 Column phase: DB1701

Instrument: gc1.1
 Operator: 01797
 Column diameter: 0.53
 \\vpitpa02\chem\gc1.1\1221A,b\A-B00589.D



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677 726

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00590.D
 Report Date: 23-Feb-2001 06:59

STL-Pittsburgh

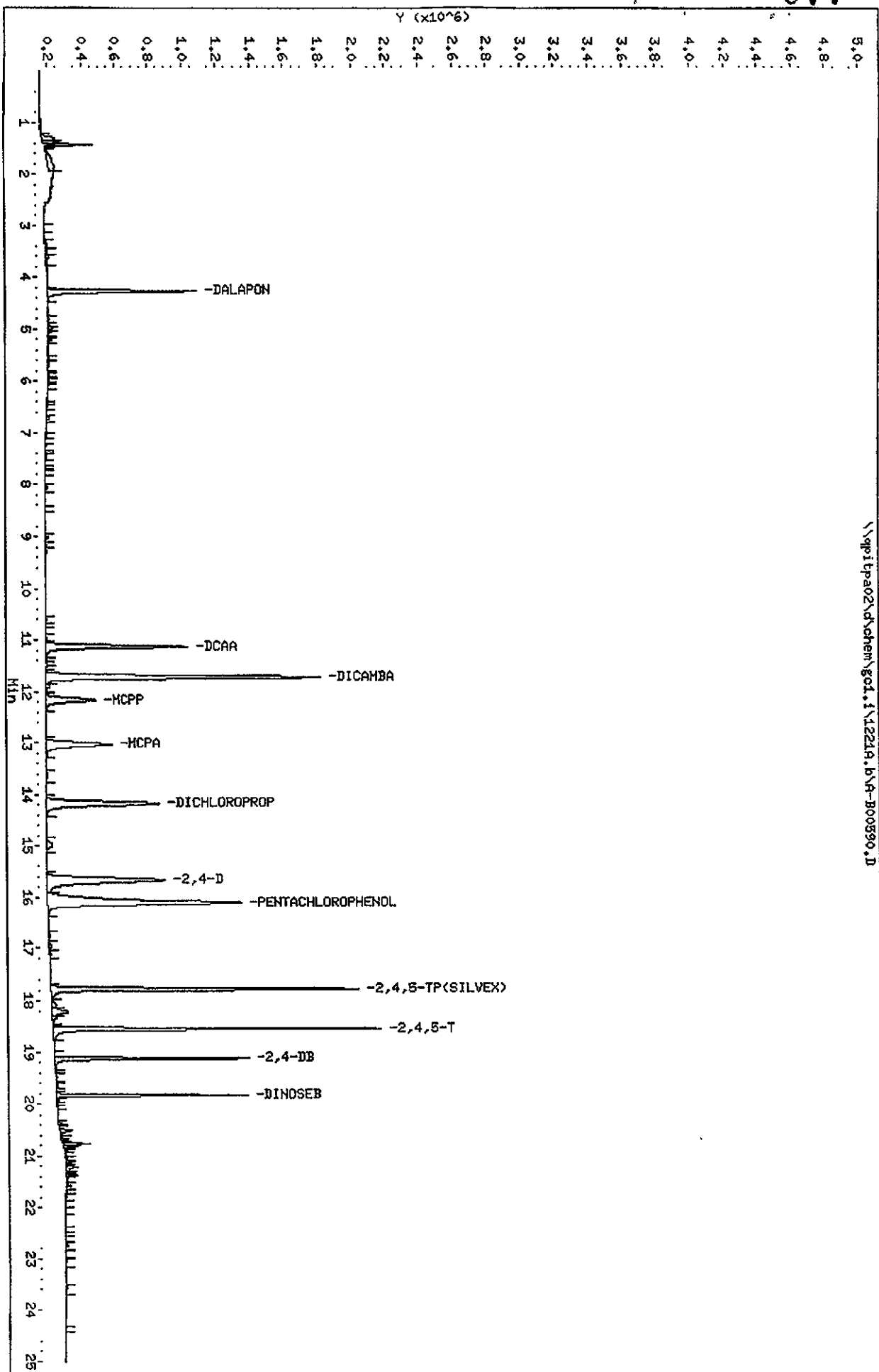
Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00590.D
 Lab Smp Id: MHERB
 Inj Date : 22-FEB-2001 18:44
 Operator : 01797
 Smp Info : MHERB,1221A.b
 Misc Info : 190-107-3
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 23-Feb-2001 06:55 MorganW
 Cal Date : 22-FEB-2001 18:44
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B00590.D
 Calibration Sample, Level: 3
 Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS	
					CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.266	4.266	0.000	883453	0.04390	0.04164
\$ 2 DCAA	11.122	11.122	0.000	3608692	0.08510	0.07929
3 DICAMBA	11.717	11.717	0.000	1628460	0.04250	0.04114
4 MCPP	12.158	12.158	0.000	287869	8.52000	6.590
5 MCPA	13.029	13.029	0.000	388713	8.56000	6.804
6 DICHLOROPROP	14.167	14.167	0.000	673374	0.08480	0.07953
7 2,4-D	15.661	15.661	0.000	705276	0.08510	0.08407
8 PENTACHLOROPHENOL	16.099	16.099	0.000	1149831	0.01064	0.01083
9 2,4,5-TP(SILVEX)	17.779	17.779	0.000	1829750	0.02110	0.02115
10 2,4,5-T	18.547	18.547	0.000	1946769	0.02110	0.02158
11 2,4-DB	19.125	19.125	0.000	1158542	0.08450	0.08496
12 DINOSEB	19.832	19.832	0.000	1134005	0.01270	0.01290

Data File: \\pippa02\chem\gc1.1\1221A.b\A-B00590.D
Date: 22-FEB-2001 18:44
Client ID:
Sample Info: HHERB,1221A.b
Column phase: DB1701

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53



677 728

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00591.D
Report Date: 23-Feb-2001 06:59

STL-Pittsburgh

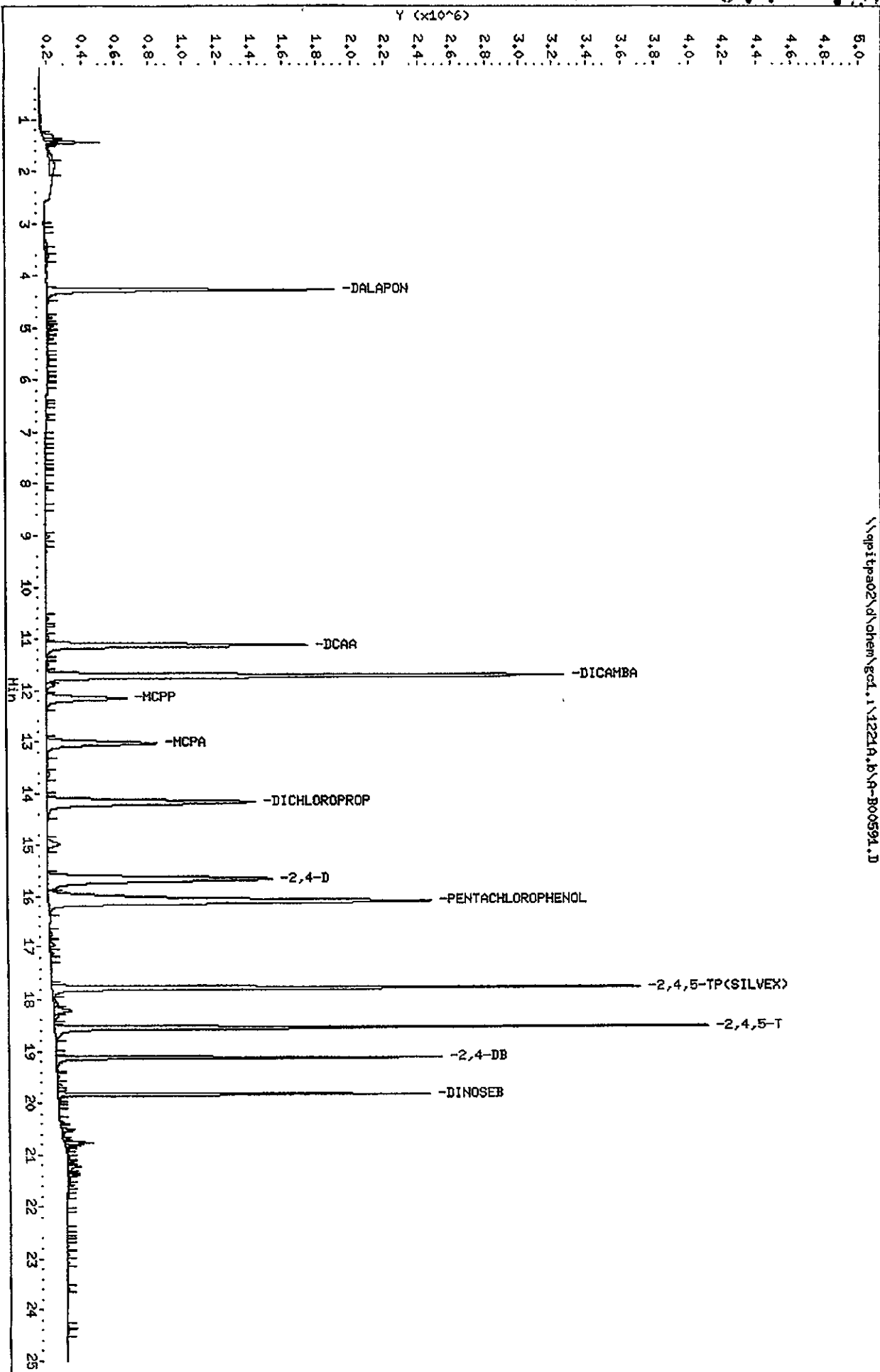
Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00591.D
Lab Smp Id: MHHERB
Inj Date : 22-FEB-2001 19:13
Operator : 01797
Smp Info : MHHERB,1221A.b
Misc Info : 190-107-4
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
Meth Date : 23-Feb-2001 06:55 MorganW
Cal Date : 22-FEB-2001 19:13
Als bottle: 5
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC003

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-B00591.D
Calibration Sample, Level: 4
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON- COL (ng)
1 DALAPON	4.265	4.266	-0.001	1707341	0.08780	0.08220
\$ 2 DCAA	11.118	11.122	-0.004	6567436	0.17000	0.1500
3 DICAMBA	11.715	11.717	-0.002	3063694	0.08510	0.07920
4 MCPP	12.153	12.158	-0.005	470459	17.0000	11.86
5 MCPA	13.026	13.029	-0.003	650642	17.1000	12.42
6 DICHLOROPROP	14.167	14.167	0.000	1232848	0.17000	0.1510
7 2,4-D	15.652	15.661	-0.009	1334041	0.17000	0.1616
8 PENTACHLOROPHENOL	16.094	16.099	-0.005	2264259	0.02128	0.02131
9 2,4,5-TP(SILVEX)	17.774	17.779	-0.005	3486146	0.04210	0.04074
10 2,4,5-T	18.545	18.547	-0.002	3872912	0.04220	0.04275
11 2,4-DB	19.123	19.125	-0.002	2286165	0.16900	0.1680
12 DINOSEB	19.831	19.832	-0.001	2210178	0.02540	0.02521

Data File: \\qptipa02\chem\gcl.1\1221A.b\A-B00591.D
Date: 22-FEB-2001 19:13
Client ID:
Sample Info: MHHERB,1221A.b
Column phase: DB1701

Instrument: gcl.i
Operator: 01797
Column diameter: 0.53



677 730

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00592.D
 Report Date: 23-Feb-2001 06:59

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00592.D
 Lab Smp Id: HHERB
 Inj Date : 22-FEB-2001 19:42
 Operator : 01797 Inst ID: gc1.i
 Smp Info : HHERB,1221A.b
 Misc Info : 190-107-5
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 23-Feb-2001 06:55 MorganW Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
 Als bottle: 6 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.265	4.266	-0.001	3412075	0.17600	0.1665
\$ 2 DCAA	11.118	11.122	-0.004	12333975	0.34000	0.2916
3 DICAMBA	11.715	11.717	-0.002	5942326	0.17000	0.1566
4 MCPP	12.155	12.158	-0.003	827253	34 1000	22.60
5 MCPA	13.030	13.029	0.001	1173446	34.0000	24 05
6 DICHLOROPROP	14.166	14 167	-0.001	2303121	0.33900	0.2919
7 2,4-D	15.647	15.661	-0.014	2556280	0.34000	0 3153
8 PENTACHLOROPHENOL	16.096	16.099	-0.003	4627579	0.04255	0.04335
9 2,4,5-TP(SILVEX)	17.775	17.779	-0.004	6702736	0.08400	0.07940
10 2,4,5-T	18.544	18.547	-0 003	7789980	0.08440	0.08566
11 2,4-DB	19.120	19.125	-0.005	4720416	0.33800	0.3450
12 DINOSEB	19.831	19.832	-0.001	4534139	0.05080	0.05153

677

731

Data File: \\spitpa02\chem\gc1.1\1221A.b\A-B00592.D

Date: 22-FEB-2001 13:42

Client ID:

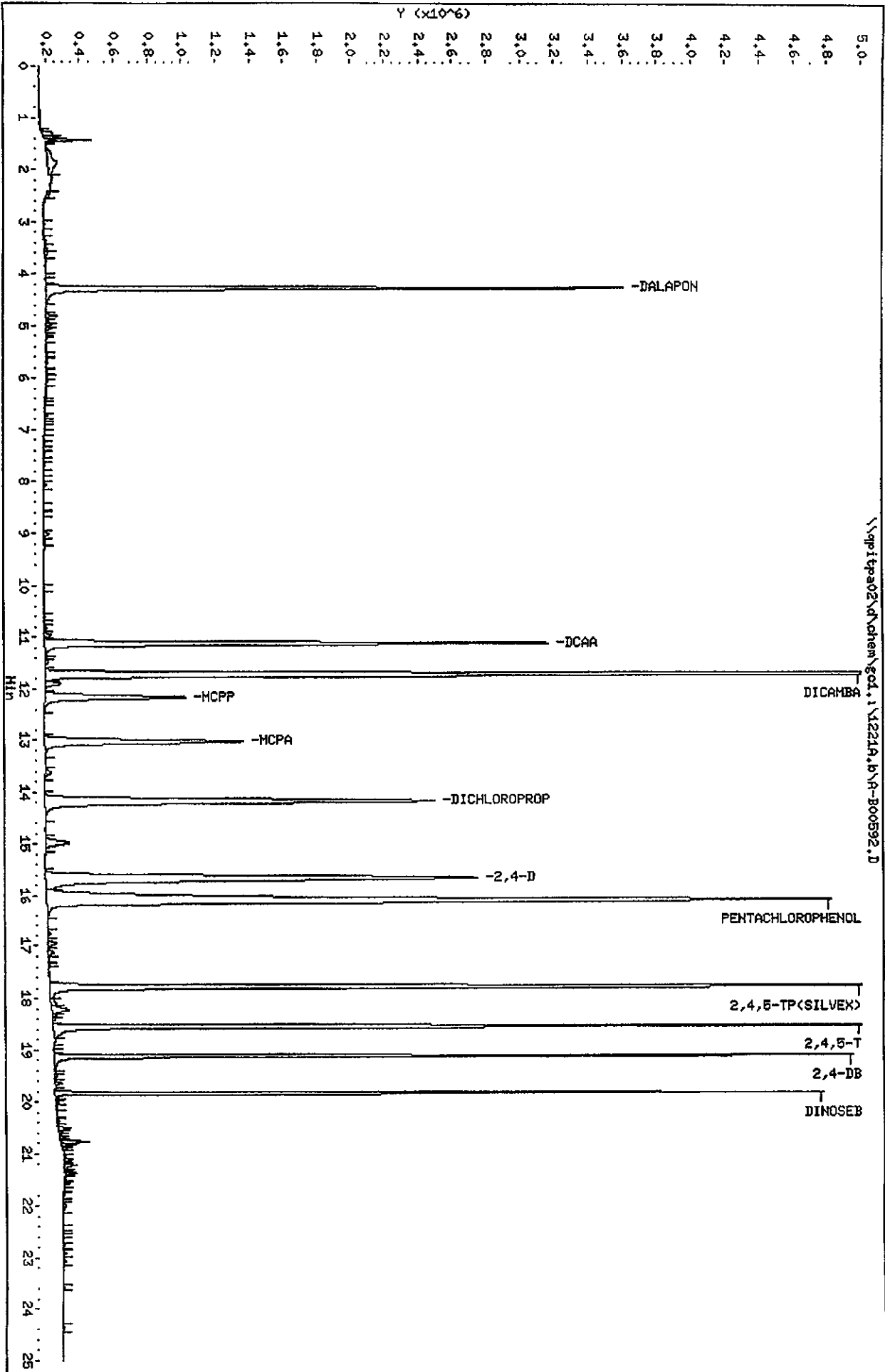
Sample Info: HHERB,1221A.b

Column phase: DB1.701

Instrument: gc1.1

Operator: 01797

Column diameter: 0.53



677 732
 Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00593.D
 Report Date: 23-Feb-2001 07:00

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00593.D
 Lab Smp Id: 2ND HERB
 Inj Date : 22-FEB-2001 20:11
 Operator : 01797 Inst ID: gc1.i
 Smp Info : 2ND HERB,1221A.b
 Misc Info : 190-119-8
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 23-Feb-2001 06:55 MorganW Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
 Als bottle: 7 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Compounds	RT	EXP RT	DLT RT	RESPONSE	AMOUNTS		
					CAL-AMT (ng)	ON-COL (ng)	
1 DALAPON	4.265	4.266	-0.001	451267	0.04390	0.02202	110%
\$ 2 DCAA	11.126	11.122	0.004	507374	0.08510	0.01200	
3 DICAMBA	11.717	11.717	0.000	1501067	0.04250	0.03957	100%
4 MCPP	12.154	12.158	-0.004	266116	8.52000	7.271	91%
5 MCPA	13.027	13.029	-0.002	362538	8.56000	7.430	93%
6 DICHLOROPROP	14.169	14.167	0.002	322148	0.08480	0.04083	103%
7 2,4-D	15.664	15.661	0.003	336469	0.08510	0.04150	105%
8 PENTACHLOROPHENOL	16.097	16.099	-0.002	1095996	0.01064	0.01027	100%
9 2,4,5-TP(SILVEX)	17.777	17.779	-0.002	3253884	0.02110	0.03854	98%
10 2,4,5-T	18.545	18.547	-0.002	3573421	0.02110	0.03929	98%
11 2,4-DB	19.126	19.125	0.001	541981	0.08450	0.03962	100%
12 DINOSEB	19.831	19.832	-0.001	3422285	0.01270	0.03890	95%

Data File: \\qpltpa02\chem\gc1.1\1221a.b\A-B00593.D

Date: 22-FEB-2001 20:11

Client ID:

Sample Info: 2ND HERB, 1221a.b

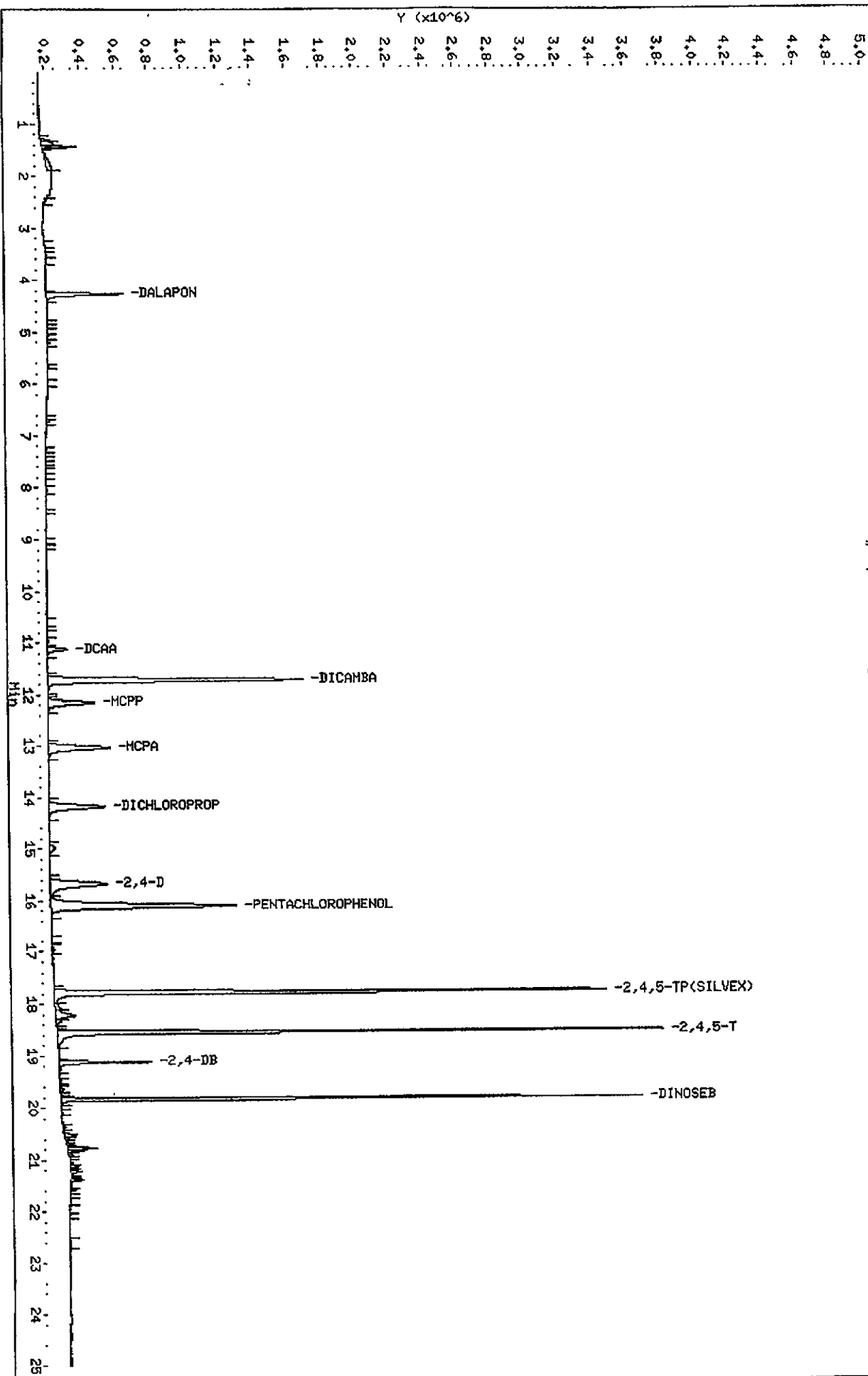
Column phase: DB1701

Instrument: gc1.i

Operator: 01797

Column diameter: 0.53

\\qpltpa02\chem\gc1.1\1221a.b\A-B00593.D



STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00027.D
Lab Smp Id: MHERB
Inj Date : 02-MAR-2001 08:49
Operator : 01797
Smp Info : MHERB,1221A.b
Misc Info : 190-107-3
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
Meth Date : 02-Mar-2001 10:13 morganw
Cal Date : 22-FEB-2001 19:42
Als bottle: 2
Dil Factor: 1.00000
Integrator: Falcon
Target Version: 4.04
Processing Host: PITPC003

Inst ID: gc1.i
Quant Type: ESTD
Cal File: A-B00592.D
Continuing Calibration Sample
Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*****	..	*****	*****	*****	*****	*****
1 DALAPON	4.264	4.264	0.000	910070	0.04390	0.04440
§ 2 DCAA	11.120	11.120	0.000	3716339	0.08510	0.08788
3 DICAMBA	11.715	11.715	0.000	1667806	0.04250	0.04396
4 MCPP	12.153	12.153	0.000	295282	8.52000	8.068
5 MCPA	13.027	13.027	0.000	400489	8.56000	8.208
6 DICHLOROPROP	14.169	14.169	0.000	689657	0.08480	0.08742
7 2,4-D	15.659	15.659	0.000	698106	0.08510	0.08611
8 PENTACHLOROPHENOL	16.095	16.095	0.000	1180526	0.01064	0.01106
9 2,4,5-TP(SILVEX)	17.776	17.776	0.000	1852450	0.02110	0.02194
10 2,4,5-T	18.549	18.549	0.000	1918132	0.02110	0.02109
11 2,4-DB	19.125	19.125	0.000	1152890	0.08450	0.08427
12 DINOSEB	19.831	19.831	0.000	1225253	0.01270	0.01392

Data File: \\qpltpa02\chem\col.1\1221A.b\A-B00027.D

Date: 02-MAR-2001 08:49

Client ID:

Sample Info: MHERB,1221A.b

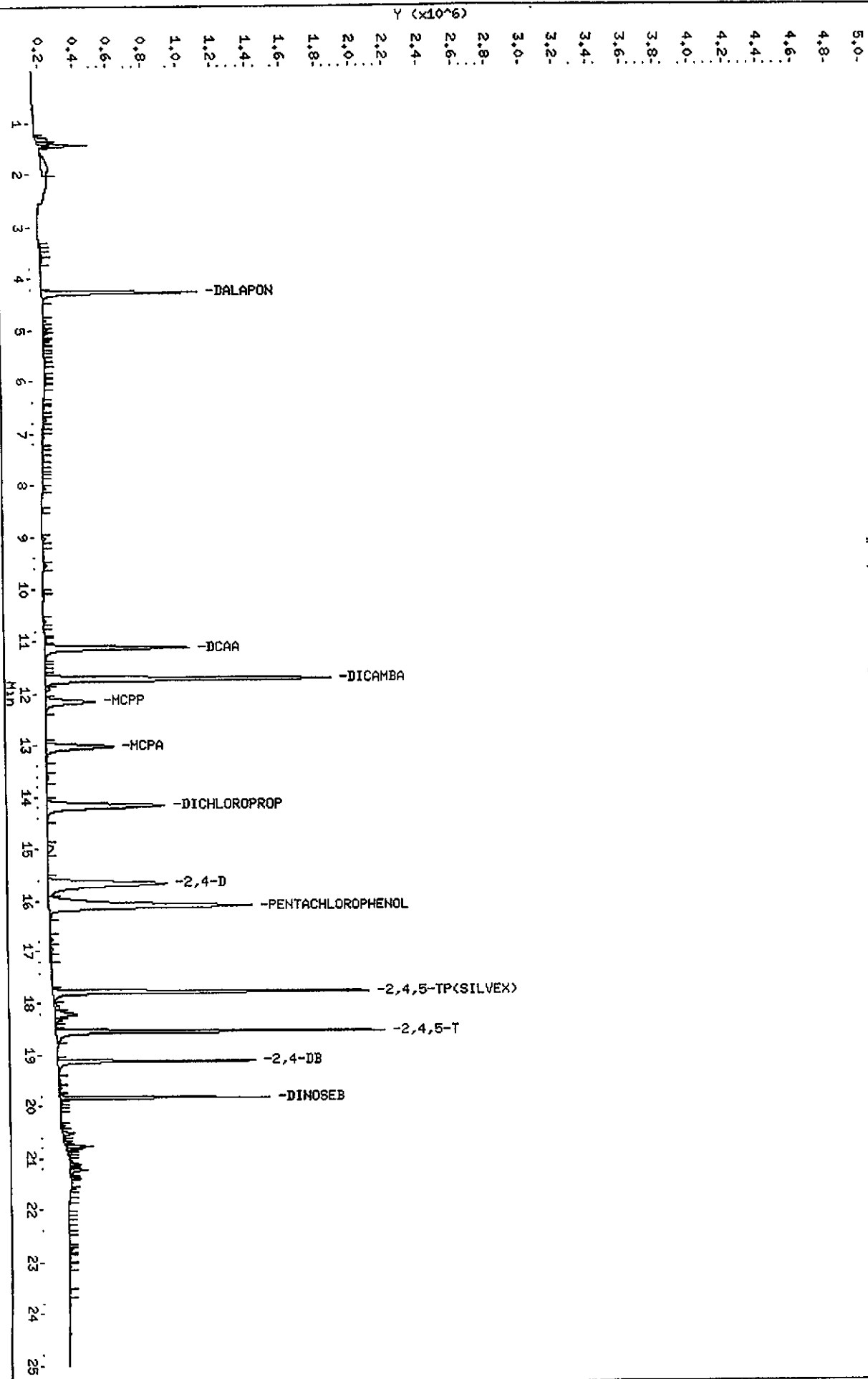
Column phase: DB1701

Instrument: col.1

Operator: 01797

Column diameter: 0.53

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677 736

Data File: \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00034.D
 Report Date: 02-Mar-2001 11:42

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221A.b\A-B00034.D
 Lab Smp Id: MHERB
 Inj Date : 02-MAR-2001 12:13
 Operator : 01797
 Smp Info : MHERB,1221A.b
 Misc Info : 190-107-3
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 02-Mar-2001 11:42 MorganW
 Cal Date : 22-FEB-2001 19:42
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: Falcon
 Target Version: 4.04
 Processing Host: PITPC003

Inst ID: gc1.i
 Quant Type: ESTD
 Cal File: A-B00592.D
 Continuing Calibration Sample
 Compound Sublist: all.sub

Compounds	AMOUNTS					
	RT	EXP RT	DLT RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
1 DALAPON	4.268	4.264	0.004	943318	0.04390	0.04603
\$ 2 DCAA	11.127	11.120	0.007	3844226	0.08510	0.09090
3 DICAMBA	11.723	11.715	0.008	1725602	0.04250	0.04548
4 MCPP	12.164	12.153	0.011	296532	8.52000	8.102
5 MCPA	13.035	13.027	0.008	404257	8.56000	8.285
6 DICHLOROPROP	14.179	14.169	0.010	714973	0.08480	0.09063
7 2,4-D	15.670	15.659	0.011	744706	0.08510	0.09186
8 PENTACHLOROPHENOL	16.106	16.095	0.011	1231246	0.01064	0.01153
9 2,4,5-TP (SILVEX)	17.783	17.776	0.007	1927567	0.02110	0.02283
10 2,4,5-T	18.551	18.549	0.002	2053356	0.02110	0.02258
11 2,4-DB	19.128	19.125	0.003	1193092	0.08450	0.08721
12 DINOSEB	19.835	19.831	0.004	1271444	0.01270	0.01445

Data File: \\ppitpa02\chem\col.1\1221A.b\A-B00034.D

Date : 02-MAR-2001 12:13

Client ID:

Sample Info: MHERB,1221A.b

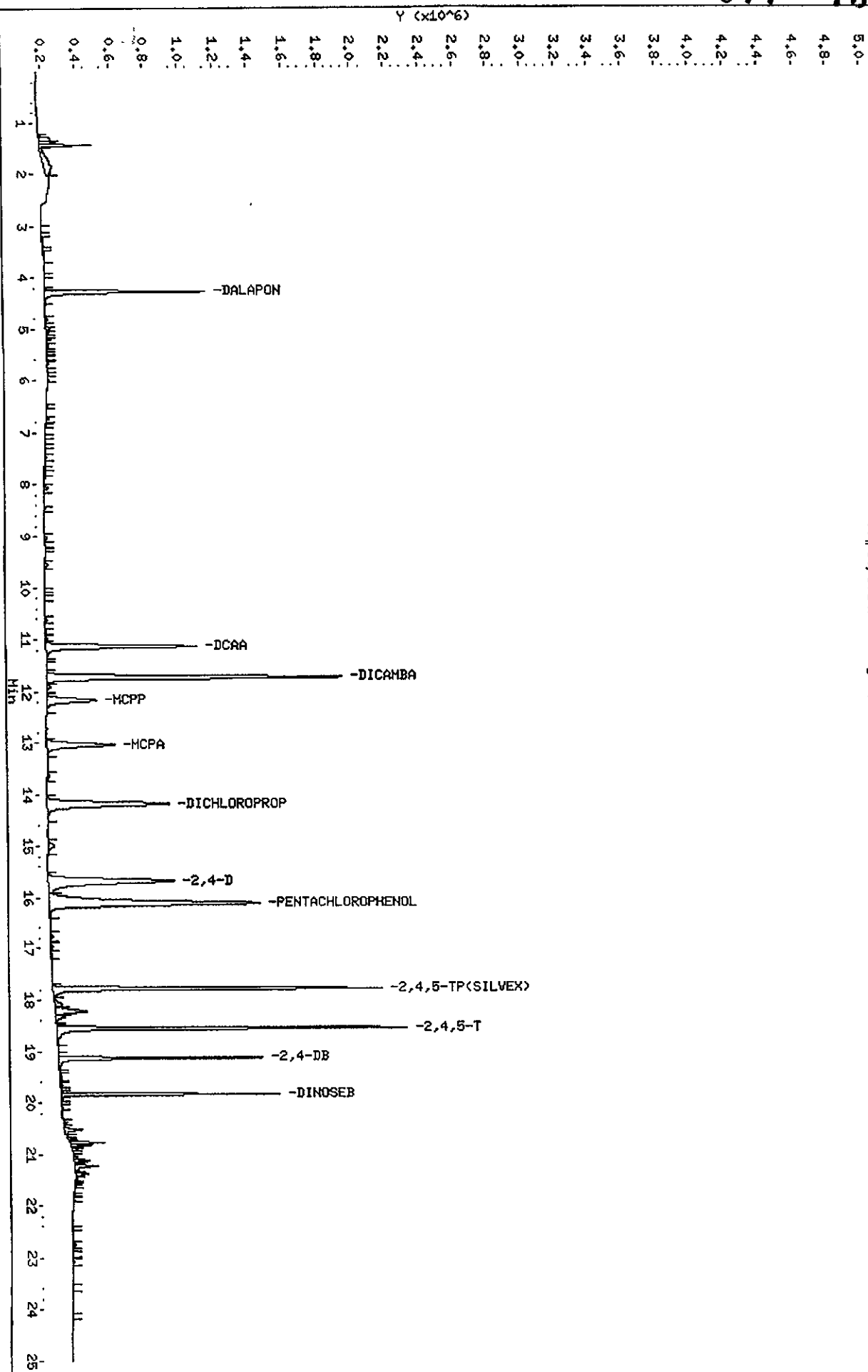
Column phase: DB1701

Instrument: col.1

Operator: 01797

Column diameter: 0.53

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677 738

HERBICIDE
QC DATA

UXB INTERNATIONAL
METHOD BLANK COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:
Matrix: (soil/water) WATER Lab Sample ID: C1B270000 437
Method: SW846 8151A
Herbicides (8151A)
Sample WT/Vol: 1000 / mL Date Received: 02/23/01
Work Order: DWPDG1AA Date Extracted: 02/27/01
Dilution factor: 1 Date Analyzed: 03/02/01
Moisture %: NA QC Batch: 1058437
Client Sample Id: INTRA-LAB BLANK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
94-75-7	2,4-D	4.0	U
93-72-1	2,4,5-TP (Silvex)	1.0	U

677 740

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00030.D
 Report Date: 02-Mar-2001 11:01

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00030.D
 Lab Smp Id: DWPDG1AA Client Smp ID: PBLK8437
 Inj Date : 02-MAR-2001 11:15
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWPDG1AA,1221.b
 Misc Info : 230148BLK
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
 Als bottle: 8 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

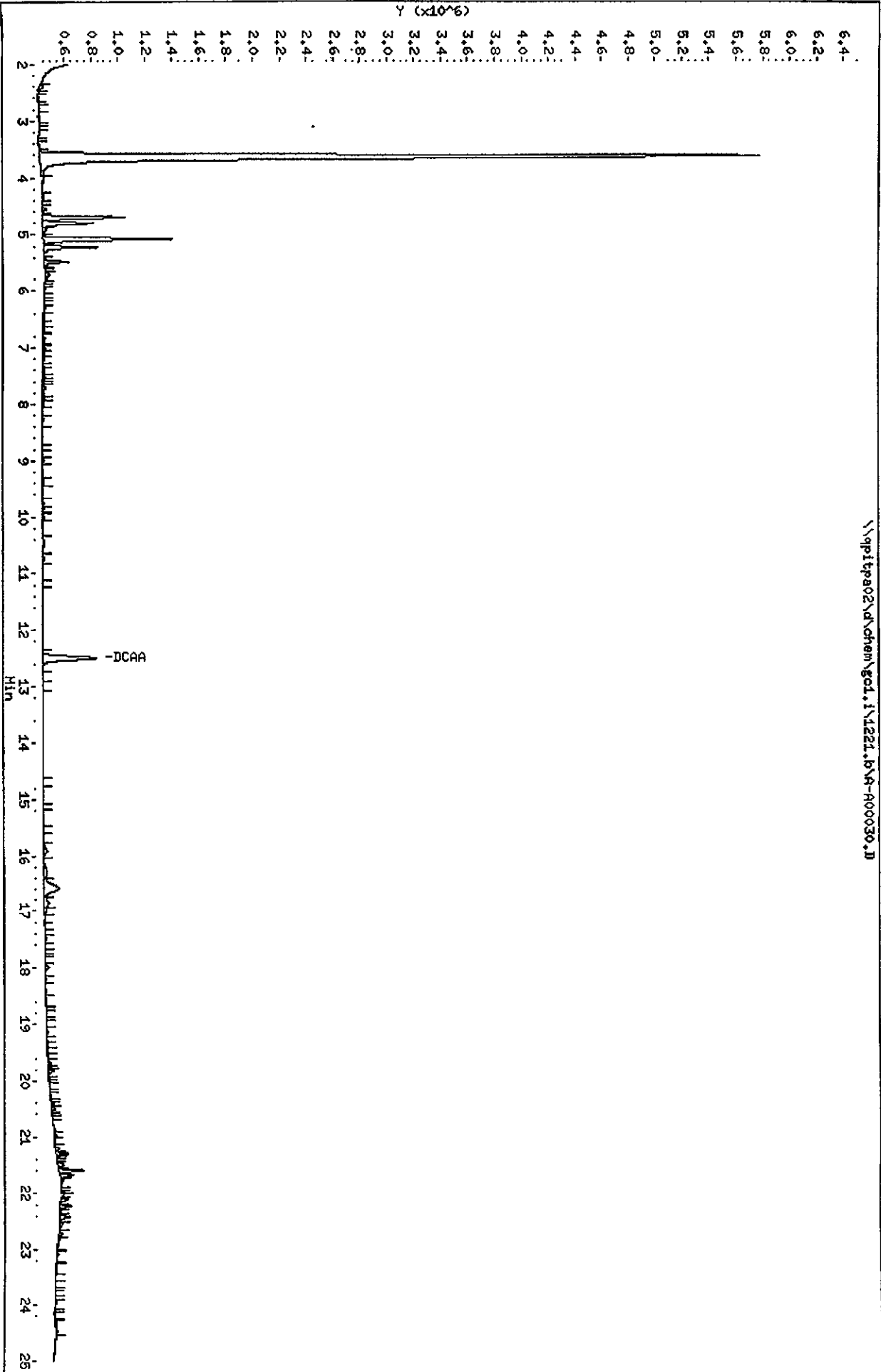
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON						
\$ 2 DCAA	12.488	12.486	0.002	2072391	0 03624	7.247
3 MCPP						
4 DICAMBA						
5 MCPA						
6 DICHLOROPROP						
7 2,4-D						
8 PENTACHLOROPHENOL						
9 2,4,5-TP (SILVEX)						
10 2,4,5-T						
11 DINOSEB						
12 2,4-DB						

677 741

Data File: \\qpltpa02\chem\gcl.1\1221.b\A-A00030.D
 Date : 02-MAR-2001 11:15
 Client ID: PELK8437
 Sample Info: DMPDG1A0,1221.b
 Volume Injected (uL): 1.0
 Column Phase: RTX-50

Instrument: gcl.1
 Operator: 01797
 Column diameter: 0.53



677 742

Data File: \\gpitpa02\d\chem\gc1.i\1221A.b\A-B00033.D
 Report Date: 02-Mar-2001 11:28

STL-Pittsburgh

Data file : \\gpitpa02\d\chem\gc1.i\1221A.b\A-B00033.D
 Lab Smp Id: DWPDG1AA Client Smp ID: PBLK8437
 Inj Date : 02-MAR-2001 11:44
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWPDG1AA,1221A.b
 Misc Info : 230148BLK
 Comment : 8151/515 ANALYSIS
 Method : \\gpitpa02\d\chem\gc1.i\1221A.b\LONGHB.m
 Meth Date : 02-Mar-2001 10:13 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:42 Cal File: A-B00592.D
 Als bottle: 8 QC Sample: BLANK
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: $\text{Amt} * \text{DF} * 20 * \text{Vt} / \text{Vo} / \text{Vi}$

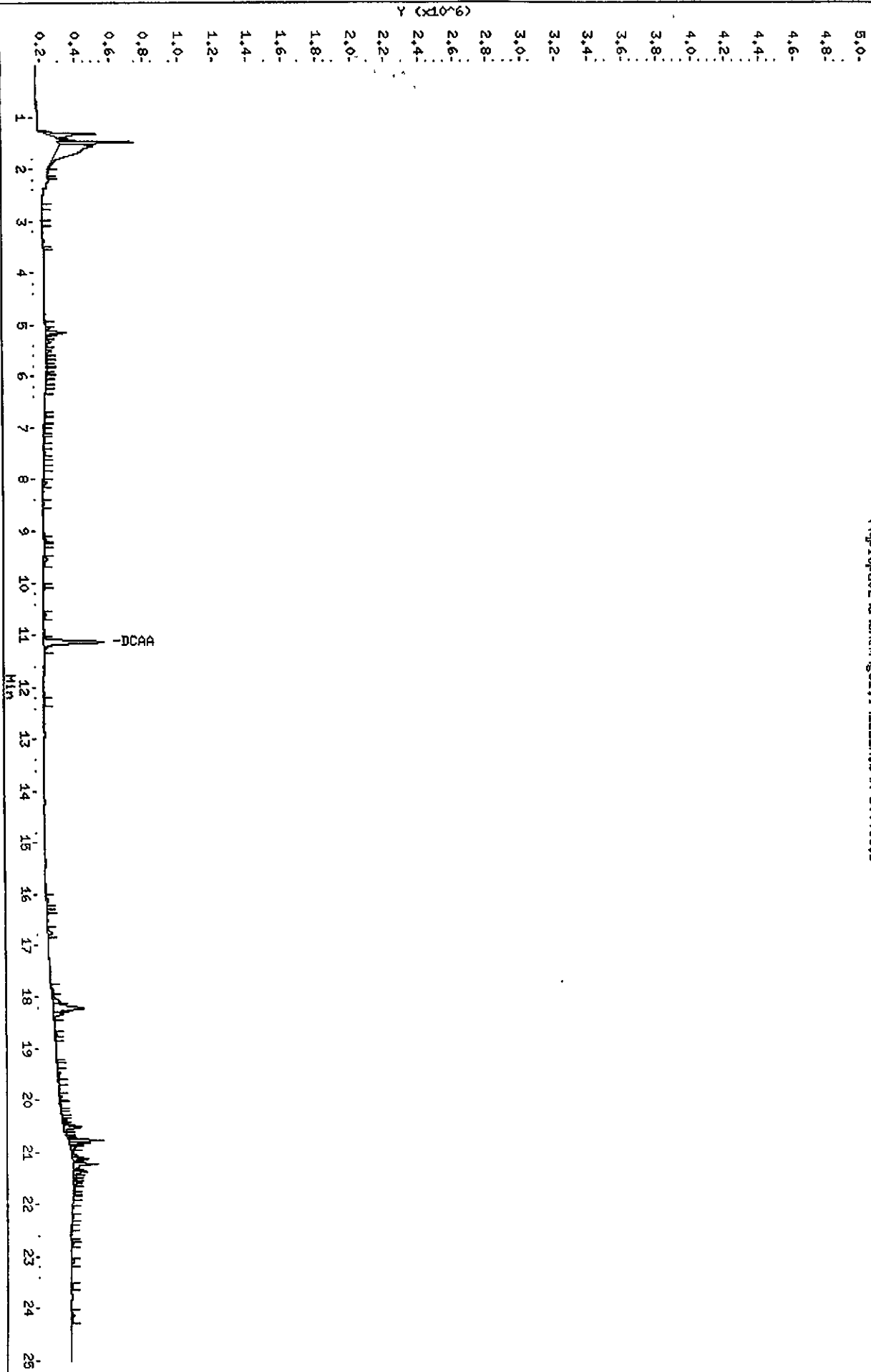
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON						
\$ 2 DCAA	11.129	11.120	0.009	1560314	0 03690	7 379
3 DICAMBA						
4 MCPP						
5 MCPA						
6 DICHLOROPROP						
7 2,4-D						
8 PENTACHLOROPHENOL						
9 2,4,5-TP(SILVEX)						
10 2,4,5-T						
11 2,4-DB						
12 DINOSEB						

Data File: \\pittpa02\chem\gc1.1\1221a.b\A-B00033.D
 Date : 02-MAR-2001 11:44
 Client ID: PBLK8437
 Sample Info: DMPD64A0,1221a.b
 Volume Injected (uL): 1.0
 Column phase: DB1701

Instrument: gc1.i
 Operator: 01797
 Column diameter: 0.53

\\pittpa02\chem\gc1.1\1221a.b\A-B00033.D



677 744

UXB INTERNATIONAL
CHECK SAMPLE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER

Lab Sample ID: C1B270000 437

Method: SW846 8151A

Herbicides (8151A)

Sample WT/Vol: 1000 / mL

Date Received: 02/23/01

Work Order: DWPDG1AC

Date Extracted: 02/27/01

Dilution factor: 1

Date Analyzed: 03/02/01

Moisture %: NA

QC Batch: 1058437

Client Sample Id: CHECK SAMPLE

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
94-75-7	2,4-D	10.0	
93-72-1	2,4,5-TP (Silvex)	2.74	

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00028.D
Report Date: 02-Mar-2001 11:01

677 745

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00028.D
Lab Smp Id: DWPDG1AC Client Smp ID: LCS8437
Inj Date : 02-MAR-2001 10:17
Operator : 01797 Inst ID: gc1.i
Smp Info : DWPDG1AC,1221.b
Misc Info : 230148LCS
Comment : 8151/515 ANALYSIS
Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
Als bottle: 6 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 4.04
Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

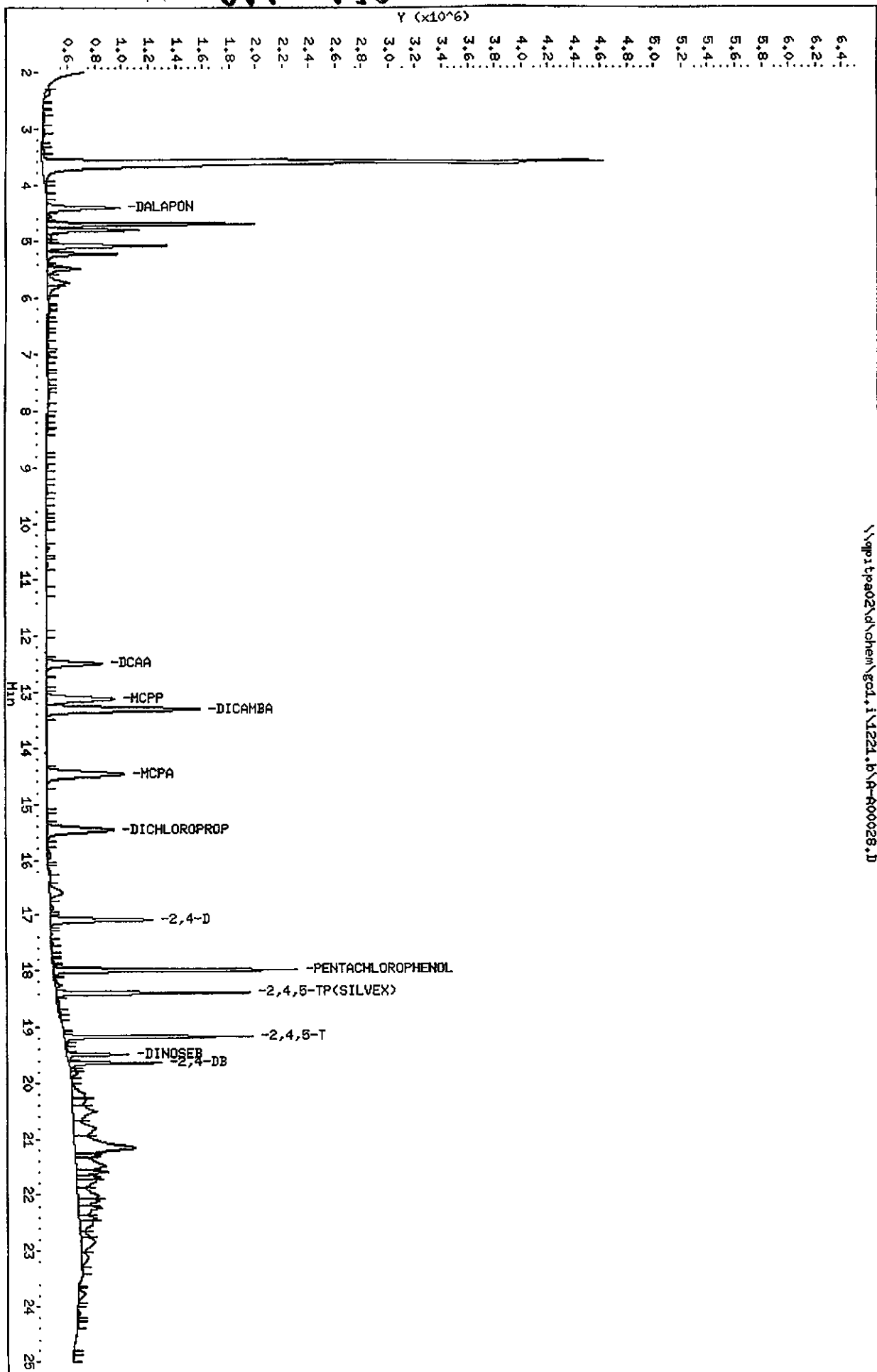
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.404	4.399	0.005	548016	0.02564	5.128
\$ 2 DCAA	12.491	12.486	0.005	2084621	0.03645	7.290
3 MCPP	13.118	13.116	0.002	507719	6.42964	1286
4 DICAMBA	13.305	13.305	0.000	1141853	0.02870	5.740
5 MCPA	14.465	14.460	0.005	577477	6.22946	1246
6 DICHLOROPROP	15.464	15.460	0.004	496914	0.05586	11.17
7 2,4-D	17.088	17.088	0.000	762960	0.04998	9.997
8 PENTACHLOROPHENOL	17.995	17.994	0.001	1828618	0.00785	1.570
9 2,4,5-TP(SILVEX)	18.398	18.398	0.000	4012051	0.01369	2.737
10 2,4,5-T	19.172	19.172	0.000	3391959	0.01362	2.725
11 DINOSEB	19.489	19.489	0.000	1092464	0.00534	1.068
12 2,4-DB	19.642	19.643	-0.001	1644599	0.05439	10.88

677 746

Data File: \\pp1tpa02\chem\ec1.1\1221.b\A-R00028.D
 Date: 02-Mar-2001 10:17
 Client ID: LCS8437
 Sample Info: DMPDGLAC.1221.b
 Volume Injected (uL): 1.0
 Column phase: RTX-50

Instrument: ec1.1
 Operator: 01797
 Column diameter: 0.53



677 747

UXB INTERNATIONAL
CHECK SAMPLE DUPLICATE COMPOUNDS

Lab Name: Severn Trent Laboratories, Inc. SDG Number:

Matrix: (soil/water) WATER Lab Sample ID: C1B270000 437
Method: SW846 8151A
Herbicides (8151A)

Sample WT/Vol: 1000 / mL Date Received: 02/23/01
Work Order: DWPDG1AD Date Extracted: 02/27/01
Dilution factor: 1 Date Analyzed: 03/02/01
Moisture %: NA QC Batch: 1058437

Client Sample Id: DUPLICATE CHECK

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/kg) ug/L	Q
94-75-7	2,4-D	9.11	
93-72-1	2,4,5-TP (Silvex)	2.51	

677 743

Data File: \\qpitpa02\d\chem\gc1.i\1221.b\A-A00029.D
 Report Date: 02-Mar-2001 11:01

STL-Pittsburgh

Data file : \\qpitpa02\d\chem\gc1.i\1221.b\A-A00029.D
 Lab Smp Id: DWPDG1AD Client Smp ID: LCD8437
 Inj Date : 02-MAR-2001 10:46
 Operator : 01797 Inst ID: gc1.i
 Smp Info : DWPDG1AD,1221.b
 Misc Info : 230148LCD
 Comment : 8151/515 ANALYSIS
 Method : \\qpitpa02\d\chem\gc1.i\1221.b\LONGH.m
 Meth Date : 02-Mar-2001 10:11 morganw Quant Type: ESTD
 Cal Date : 22-FEB-2001 19:13 Cal File: A-A01115.D
 Als bottle: 7 QC Sample: LCSD
 Dil Factor: 1.00000
 Integrator: Falcon Compound Sublist: all.sub
 Target Version: 4.04
 Processing Host: PITPC003

Concentration Formula: Amt * DF * 20*Vt/Vo/Vi

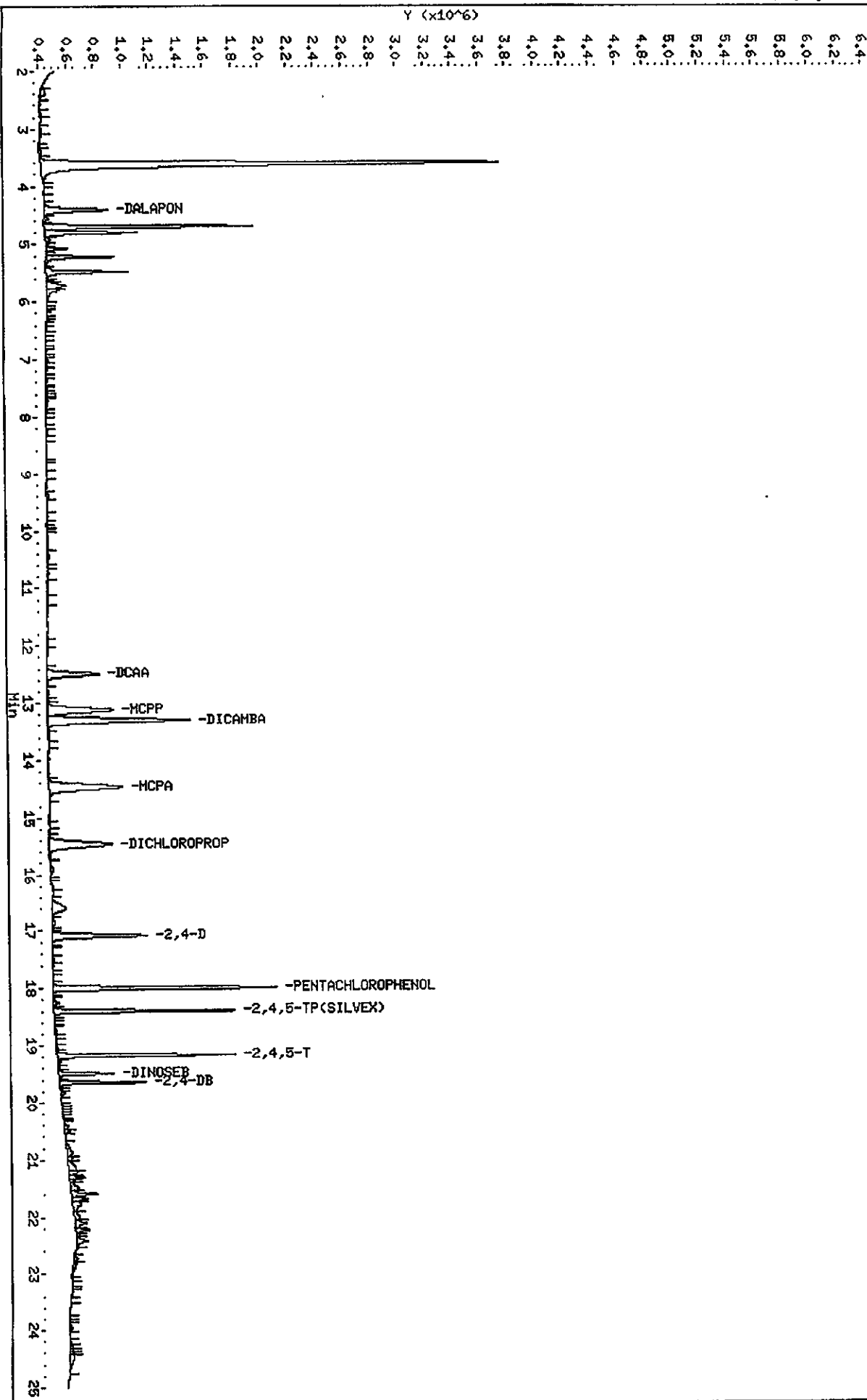
Name	Value	Description
DF	1.000	Dilution Factor
Vt	10000.000	Volume of final extract (uL)
Vo	1000.000	Volume of sample extracted (mL)
Vi	1.000	Volume injected

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ng)	FINAL (ug/L)
1 DALAPON	4.402	4.399	0.003	463582	0.02169	4.338
\$ 2 DCAA	12.489	12.486	0.003	1909258	0.03338	6.677
3 MCPFP	13.120	13.116	0.004	475866	6.02626	1205
4 DICAMBA	13.304	13.305	-0.001	1038026	0.02609	5.218
5 MCPA	14.465	14.460	0.005	542825	5.85565	1171
6 DICHLOROPROP	15.460	15.460	0.000	457052	0.05138	10.28
7 2,4-D	17.088	17.088	0.000	695305	0.04555	9.110
8 PENTACHLOROPHENOL	17.995	17.994	0.001	1640876	0.00704	1.409
9 2,4,5-TP(SILVEX)	18.397	18.398	-0.001	3681115	0.01256	2.511
10 2,4,5-T	19.172	19.172	0.000	3119492	0.01253	2.506
11 DINOSEB	19.488	19.489	-0.001	949195	0.00464	0.9281
12 2,4-DB	19.642	19.643	-0.001	1420976	0.04700	9.399

Data File: \\qpitpa02\chem\gc1.i\1221.b\A-R00029.D
Date: 02-MAR-2001 10:46
Client ID: LCD8437
Sample Info: DHPDGLAD-1221.b
Volume Injected (uL): 1.0
Column phase: RTX-50

Instrument: gc1.i
Operator: 01797
Column diameter: 0.53

\\qpitpa02\chem\gc1.i\1221.b\A-R00029.D



677 750

HERBICIDE
MISCELLANEOUS

STL - Pittsburgh

B# 1058437

677 751

Logbook ID: OP43

Separatory Funnel Extraction Worksheet

HEXANE

137307

BAKER

102003/CA330 Baker/155 NA

Start Date 2-27-01 Date Completed 3-2-01 Parameter New-(8151A) 3510 Method MEQ/CHY

Lot Number	Sample ID	Client ID	Sample Volume (mL)	Final Volume (mL)	pH	Surrogate #	Surrogate (mL)	Matrix Spike Lot #	MS Vol (mL)	Cleanup Date
1. B230148 BRR	NA	NA	1000	10.0	5.13	190-131-1	1.0	NA	NA	NA
2. LPS					5.13			190-122-3	1.0	
3. LPS DEP					5.13			NA	NA	
4. 001					5.13			NA	NA	
5. 002					5.13			NA	NA	
6. 003					5.13			NA	NA	
7. 004					5.13			NA	NA	
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										
21.										
22.										
23.										

P. Yushinskiy 3-27-01

Analyst	Extract(s)	Date	Time	Location	Analyst	Extract(s)	Date	Time	Location
ADL ABOUR	PY	2-27-01	2030	P. Yushinskiy	PY	2-27-01	2030	P. Yushinskiy	Ref 128
ALL ABOUR	PY	3-2-01	0500	Jane Miller	PY	3-2-01	0735	Jane Miller	Ref 128

Sodium Sulfate Mfg Lot Number: Baker TY3641

Reviewed by: Jane Miller Date: 3-2-01

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information	created: 2-23-01 umm	A
====	====	=====	=====	=====
1	1	8151/515 HERB ANALYSIS		
2	2 1111	190-107-1		
3	3 1112	190-107-2		
4	4 1113	190-107-3		
5	5 1114	190-107-4		
6	6 1115	190-107-5		
7	7 1116	190-119-8		
8	8 1117	200140001		
9	9 1118	200140002		
10	10 1119	~~200140002MS~~		
11	11 1120	200140002MSD		
12	12 1121	200140003		
13	13	8151 HERB ANALYSIS		
14	14 1123	200140004		
15	15	8151 HERB ANALYSIS		
16	16 1125	200140005		
17	17	8151 HERB ANALYSIS		
18	18 1126	200140LCS		
19	19 1127	200140BLK		
20	20 1128	190-107-3		

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	100	8151/515 HERB ANALYSIS
2	1	8151/515 HERB ANALYSIS

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	1	8151/515 HERB ANALYSIS
2	2 ~~24~~	190-107-3
3	3 ~~25~~	230148001
4	4 ~~26~~	230148002
5	5 ~~27~~	230148003
6	6 ~~28~~	230148LCS
7	7 ~~29~~	230148LCD
8	8 ~~30~~	230148BLK
9	9 ~~31~~	190-107-3
~~10~~	<del>10 ~~32~~</del>	~~210103003~~
11	11 ~~33~~	210103004
12	12 ~~34~~	210103LCS
13	13 ~~35~~	210103LCD
14	14 ~~36~~	210103BLK
~~15~~	<del>15 ~~37~~</del>	~~190-107-3~~

created: 3-2-01 wmm A

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	100	8151/515 HERB ANALYSIS
2	1	8151/515 HERB ANALYSIS
3	2	190-107-3
4	3	230148001
5	4	230148002
6	5	230148003
7	6	230148LCS

3 2 588 190-107-1
4 3 589 190-107-2
5 4 590 190-107-3
6 5 591 190-107-4
7 6 592 190-107-5
8 7 593 190-119-8
9 8 594 200140001
10 9 595 200140002
11 10 596 ~~200140002MS~~
12 11 597 200140002MSD
13 12 598 200140003
14 13 599 8151 HERB ANALYSIS
15 14 600 200140004
16 15 601 8151 HERB ANALYSIS
17 16 602 200140005
18 17 603 8151 HERB ANALYSIS
19 18 604 ~~200140LCS~~
20 19 605 200140BLK
21 20 606 ~~190-107-3~~ continued 1231, B sequence

677 754

✓
DE
2-23-01

677 755

Sequence Table (Front Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	1	8151/515 HERB ANALYSIS
2	2	190-107-3
3	3	230148001
4	4	230148002
5	5	230148003
6	6	230148LCS
7	7	230148LCD
8	8	230148BLK
9	9	190-107-3
10	10	210103003
11	11	210103004
12	12	210103LCS
13	13	210103LCD
14	14	210103BLK
15	15	190-107-3

Sequence Table (Back Injector):

Vial Information Part:

Line	Vial	Vial Information
====	====	=====
1	100	8151/515 HERB ANALYSIS
2	1	8151/515 HERB ANALYSIS
3	27	190-107-3
4	3 28	230148001
5	4 29	230148002
6	5 30	230148003
7	6 31	230148LCS

677 756

8 7 32 ~~230148LCD~~

9 8 33 230148BLK

~~10 9 34 190-107-3~~ OK
ann
3-2-01

~~11 10 35 210103003~~

12 11 36 210103004

13 12 37 210103LCS

14 13 38 210103LCD

15 14 39 210103BLK

~~16 15 40 190-107-3~~

REQUESTED BY- PINOB

METHOD. QS Herbicides (8151A)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3A	DWJJM-1-CC	___	316516	399411	I-0A-QS	C1B230148	001		WATER	0 13	1
3A	DWJJ3-1-CC	___	316517	399411	I-0A-QS	C1B230148	002		WATER	0 13	1
3A	DWJKC-1-CC	___	316518	399411	I-0A-QS	C1B230148	003		WATER	0 13	1

RELINQUISHED BYRECEIVED BYDATE/TIME

P. Yushinski
P. Yushinski

P. Yushinski
P. Yushinski

2-27-01 1546
2-27-01 2306

***** END OF REPORT *****

677 758

METALS DATA

STL-Pittsburgh

Cover Page - Inorganic Analysis Data Package

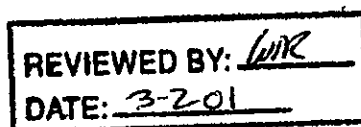
Client ID	Lab Sample ID:
DF/24-A/1053/IDW/002	DWJJ3
DF/24-A/1053/IDW/003	DWJKC
DF/24-B/1053/IDW/001	DWJJM
DF/24-B/1053/IDW/001S	DWJJMS
DF/24-B/1053/IDW/001SD	DWJJMD

Comments: UXB, DUNN FIELD
C1B230148
METALS ANALYSIS
6010B, 7470A

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

Signature: _____ Name: _____
Date: _____ Title: _____

Version 4.10.2



Cover Page Equivalent

677 760

**METALS
RESULTS**

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJJ3 Client ID: DF/24-A/1053/IDW/002
Matrix: Water Units: ug/L Prep Date: 2/24/01 Prep Batch: 1054355
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.054	0.20	0.29		1	CVAA	2/24/01	10:34

Comments: Lot #: C1B230148 Sample #: 2

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

677 762

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJJM Client ID: DF/24-B/1053/IDW/001
Matrix: Water Units: ug/L Prep Date: 2/24/01 Prep Batch: 1054355
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.054	0.20	0.16	B	1	CVAA	2/24/01	10:32

Comments: Lot #: C1B230148 Sample #: 1

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJKC Client ID: DF/24-A/1053/IDW/003
Matrix: Water Units: ug/L Prep Date: 2/24/01 Prep Batch: 1054355
Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.054	0.20	0.081	B	1	CVAA	2/24/01	10:39

Comments: Lot #: C1B230148 Sample #: 3

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 1 Equivalent

677 764

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJJ3 Client ID: DF/24-A/1053/IDW/002
 Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180
 Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	12.7	200	252	N	1	ICP	2/27/01	18:07
Antimony	220.35	1.5	10.0	9.5	B	1	ICPST	3/1/01	11:36
Arsenic	189.04	2.6	10.0	50.9		1	ICPST	3/1/01	11:36
Barium	493.41	0.41	200	99.4	B	1	ICP	2/27/01	18:07
Beryllium	313.04	0.071	5.0	0.071	U	1	ICP	2/27/01	18:07
Cadmium	226.50	0.49	5.0	1.1	B	1	ICPST	3/1/01	11:36
Calcium	317.93	37.9	5000	47800		1	ICP	2/27/01	18:07
Chromium	267.72	1.0	10.0	87.4		1	ICPST	3/1/01	11:36
Cobalt	228.62	3.2	50.0	3.2	U	1	ICP	2/27/01	18:07
Copper	324.75	2.2	25.0	25.0	B	1	ICP	2/27/01	18:07
Iron	259.94	8.8	100	332		1	ICP	2/27/01	18:07
Lead	220.35	1.9	3.0	2.5	B	1	ICPST	3/1/01	11:36
Magnesium	279.08	19.9	5000	10800		1	ICP	2/27/01	18:07
Manganese	257.61	0.87	15.0	187		1	ICP	2/27/01	18:07
Nickel	231.60	6.1	40.0	11.3	B	1	ICP	2/27/01	18:07
Potassium	766.49	496	5000	4460	B	1	ICP	2/27/01	18:07
Selenium	220.35	2.1	5.0	2.9	B	1	ICPST	3/1/01	11:36
Silver	328.07	0.94	10.0	1.5	B	1	ICPST	3/1/01	11:36
Sodium	589	72.5	25000	794000		5	ICP	2/28/01	11:26
Thallium	190.86	3.9	10.0	3.9	U	1	ICPST	3/1/01	11:36
Vanadium	292.40	1.8	50.0	5.1	B	1	ICP	2/27/01	18:07
Zinc	213.86	3.1	20.0	121		1	ICP	2/27/01	18:07

Comments: Lot #: C1B230148 Sample #: 2

Version 4.10 2

U Result is less than the MDL
 B Result is between MDL and RL

Form 1 Equivalent

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJJM Client ID: DF/24-B/1053/IDW/001
 Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180
 Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	12.7	200	2670	N	1	ICP	2/27/01	17:54
Antimony	220.35	1.5	10.0	7.2	B	1	ICPST	3/1/01	11:19
Arsenic	189.04	2.6	10.0	5.3	B	1	ICPST	3/1/01	11:19
Barium	493.41	0.41	200	93.8	B	1	ICP	2/27/01	17:54
Beryllium	313.04	0.071	5.0	0.071	U	1	ICP	2/27/01	17:54
Cadmium	226.50	0.49	5.0	0.49	U	1	ICPST	3/1/01	11:19
Calcium	317.93	37.9	5000	42000		1	ICP	2/27/01	17:54
Chromium	267.72	1.0	10.0	51.2		1	ICPST	3/1/01	11:19
Cobalt	228.62	3.2	50.0	3.2	U	1	ICP	2/27/01	17:54
Copper	324.75	2.2	25.0	23.2	B	1	ICP	2/27/01	17:54
Iron	259.94	8.8	100	2950		1	ICP	2/27/01	17:54
Lead	220.35	1.9	3.0	5.6		1	ICPST	3/1/01	11:19
Magnesium	279.08	19.9	5000	7310		1	ICP	2/27/01	17:54
Manganese	257.61	0.87	15.0	291		1	ICP	2/27/01	17:54
Nickel	231.60	6.1	40.0	7.7	B	1	ICP	2/27/01	17:54
Potassium	766.49	496	5000	5720		1	ICP	2/27/01	17:54
Selenium	220.35	2.1	5.0	2.7	B	1	ICPST	3/1/01	11:19
Silver	328.07	0.94	10.0	1.3	B	1	ICPST	3/1/01	11:19
Sodium	589	72.5	25000	1420000		5	ICP	2/28/01	11:07
Thallium	190.86	3.9	10.0	3.9	U	1	ICPST	3/1/01	11:19
Vanadium	292.40	1.8	50.0	7.4	B	1	ICP	2/27/01	17:54
Zinc	213.86	3.1	20.0	61.9		1	ICP	2/27/01	17:54

Comments: Lot #: C1B230148 Sample #: 1

Version 4.10.2

U Result is less than the MDL
 B Result is between MDL and RL

Form 1 Equivalent

677 766

STL-Pittsburgh

Metals Data Reporting Form

Sample Results

Lab Sample ID: DWJKC Client ID: DF/24-A/1053/IDW/003

Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180

Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.22	12.7	200	355	N	1	ICP	2/27/01	18:10
Antimony	220.35	1.5	10.0	18.6		1	ICPST	3/1/01	11:41
Arsenic	189.04	2.6	10.0	20.2		1	ICPST	3/1/01	11:41
Barium	493.41	0.41	200	72.5	B	1	ICP	2/27/01	18:10
Beryllium	313.04	0.071	5.0	0.080	B	1	ICP	2/27/01	18:10
Cadmium	226.50	0.49	5.0	0.98	B	1	ICPST	3/1/01	11:41
Calcium	317.93	37.9	5000	36500		1	ICP	2/27/01	18:10
Chromium	267.72	1.0	10.0	20.3		1	ICPST	3/1/01	11:41
Cobalt	228.62	3.2	50.0	3.2	U	1	ICP	2/27/01	18:10
Copper	324.75	2.2	25.0	32.1		1	ICP	2/27/01	18:10
Iron	259.94	8.8	100	587		1	ICP	2/27/01	18:10
Lead	220.35	1.9	3.0	1.9	U	1	ICPST	3/1/01	11:41
Magnesium	279.08	19.9	5000	9030		1	ICP	2/27/01	18:10
Manganese	257.61	0.87	15.0	516		1	ICP	2/27/01	18:10
Nickel	231.60	6.1	40.0	12.5	B	1	ICP	2/27/01	18:10
Potassium	766.49	496	5000	3500	B	1	ICP	2/27/01	18:10
Selenium	220.35	2.1	5.0	2.1	U	1	ICPST	3/1/01	11:41
Silver	328.07	0.94	10.0	0.94	U	1	ICPST	3/1/01	11:41
Sodium	589	14.5	5000	389000		1	ICP	2/27/01	18:10
Thallium	190.86	3.9	10.0	3.9	U	1	ICPST	3/1/01	11:41
Vanadium	292.40	1.8	50.0	5.0	B	1	ICP	2/27/01	18:10
Zinc	213.86	3.1	20.0	5270		1	ICP	2/27/01	18:10

Comments: Lot #: C1B230148 Sample #: 3

Version 4.10.2

U Result is less than the MDL
 B Result is between MDL and RL

Form 1 Equivalent

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRNAcceptable Range: 80% - 120%Standard Source: UltraStandard ID: 0087-100-14

Element	WL/ Mass	True Conc	ICV5-1 2/24/01 8:55 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	2.5	2.51	100.4								

677 763

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J10227C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-036-1

Element	WL/ Mass	True Conc	ICV2-1 2/27/01 4:20 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Aluminum	308.215	25000.0	25461.89	101.8								
Barium	493.409	1000.0	982.15	98.2								
Beryllium	313.042	1000.0	971.34	97.1								
Calcium	317.933	25000.0	25508.33	102.0								
Cobalt	228.616	1000.0	992.39	99.2								
Copper	324.754	1000.0	980.23	98.0								
Iron	259.94	25000.0	26383.30	105.5								
Magnesium	279.079	25000.0	25532.90	102.1								
Manganese	257.61	1000.0	996.00	99.6								
Nickel	231.604	1000.0	993.67	99.4								
Potassium	766.491	25000.0	25390.21	101.6								
Sodium	588.995	25000.0	25319.74	101.3								
Vanadium	292.402	1000.0	994.25	99.4								
Zinc	213.856	1000.0	991.55	99.2								

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPUnits: ug/LChart Number: J10228A.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-036-1

Element	WL/ Mass	True Conc	ICV2-1 2/28/01 10:04 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Sodium	588.995	25000.0	25159.97	100.6								

677 770

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Verification Standard

Instrument: ICPSTUnits: ug/LChart Number: T10301B.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-035-16

Element	WL/ Mass	True Conc	ICV3-1 3/1/01 10:49 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	220.353	250.0	261.86	104.7								
Arsenic	189.042	250.0	257.92	103.2								
Cadmium	226.502	250.0	252.49	101.0								
Chromium	267.716	1000.0	1039.08	103.9								
Lead	220.353	250.0	257.15	102.9								
Selenium	220.353	250.0	262.02	104.8								
Silver	328.068	500.0	517.95	103.6								
Thallium	190.864	500.0	511.81	102.4								

Continuing Calibration Verification

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRNAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0087-100-15

Element	WL/ Mass	True Conc	CCV5-1 2/24/01 8:58 AM		CCV5-2 2/24/01 9:17 AM		CCV5-3 2/24/01 9:37 AM		CCV5-4 2/24/01 9:56 AM		CCV5-5 2/24/01 10:16 AM	
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	5.05	101.0	5.08	101.6	5.03	100.6	4.92	98.4	4.99	99.8

677 772

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRNAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0087-100-15

Element	WL/ Mass	True Conc	CCV5-6 2/24/01 10:36 AM		CCV5-7 2/24/01 10:49 AM							
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Mercury	253.7	5.0	4.89	97.8	4.89	97.8						

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J10227C.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-072-1

Element	WL/ Mass	True Conc	CCV2-1 2/27/01 5:00 PM		CCV2-2 2/27/01 5:38 PM		CCV2-3 2/27/01 6:16 PM					
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Aluminum	308.215	50000.0	49959.64	99.9	50672.40	101.3	50590.96	101.2				
Barium	493.409	5000.0	4751.36	95.0	4830.58	96.6	4816.38	96.3				
Beryllium	313.042	5000.0	4767.75	95.4	4815.15	96.3	4794.83	95.9				
Calcium	317.933	50000.0	50989.88	102.0	51440.92	102.9	51188.20	102.4				
Cobalt	228.616	5000.0	4834.88	96.7	4865.19	97.3	4846.05	96.9				
Copper	324.754	5000.0	4766.30	95.3	4841.88	96.8	4831.44	96.6				
Iron	259.94	50000.0	51548.57	103.1	52033.89	104.1	51814.03	103.6				
Magnesium	279.079	50000.0	50022.27	100.0	50534.10	101.1	50512.86	101.0				
Manganese	257.61	5000.0	4828.12	96.6	4860.50	97.2	4847.28	96.9				
Nickel	231.604	5000.0	4824.63	96.5	4841.33	96.8	4818.59	96.4				
Potassium	766.491	50000.0	49084.31	98.2	49874.40	99.7	50054.74	100.1				
Sodium	588.995	50000.0	49273.30	98.5	50364.69	100.7	50267.55	100.5				
Vanadium	292.402	5000.0	4814.02	96.3	4870.57	97.4	4850.41	97.0				
Zinc	213.856	5000.0	4903.16	98.1	4922.01	98.4	4910.63	98.2				

STL-Pittsburgh

677 774

Metals Data Reporting Form

Continuing Calibration Verification

Instrument: ICPUnits: ug/LChart Number: J10228A.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-072-1

Element	WL/ Mass	True Conc	CCV2-1 2/28/01 10:42 AM		CCV2-2 2/28/01 11:20 AM		CCV2-3 2/28/01 11:58 AM			
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Sodium	588.995	50000.0	49722.94	99.4	51320.09	102.6	50589.52	101.2		

Continuing Calibration Verification

Instrument: ICPSTUnits: ug/LChart Number: T10301B.ARCAcceptable Range: 90% - 110%Standard Source: Inorganic VenturesStandard ID: 0087-076-2

Element	WL/ Mass	True Conc	CCV3-1 3/1/01 11:45 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	220.353	500.0	512.82	102.6								
Arsenic	189.042	500.0	511.12	102.2								
Cadmium	226.502	500.0	488.98	97.8								
Chromium	267.716	2000.0	2045.33	102.3	2048.80	102.4	2053.93	102.7				
Lead	220.353	500.0	501.77	100.4								
Selenium	220.353	500.0	517.67	103.5								
Silver	328.068	1000.0	1032.19	103.2								
Thallium	190.864	1000.0	1017.97	101.8								

677 776

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICB1 2/24/01 8:57 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Mercury	253.7	0.2	0.1	U						

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J10227C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 2/27/01 4:24 PM		Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q								
Aluminum	308.215	200	12.7	U								
Barium	493.409	200	0.4	U								
Beryllium	313.042	5	0.3	B								
Calcium	317.933	5000	-40.0	B								
Cobalt	228.616	50	3.2	U								
Copper	324.754	25	2.2	U								
Iron	259.94	100	8.8	U								
Magnesium	279.079	5000	19.9	U								
Manganese	257.61	15	0.9	U								
Nickel	231.604	40	6.1	U								
Potassium	766.491	5000	496.0	U								
Sodium	588.995	5000	14.5	U								
Vanadium	292.402	50	1.8	U								
Zinc	213.856	20	3.1	U								

677 778

STL-Pittsburgh

Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J10228A.ARC

Standard Source: _____

Standard ID: _____

			ICB1 2/28/01 10:07 AM					
Element	WL/ Mass	Report Limit	Found	Q	Found	Q	Found	Q
Sodium	588.995	5000	14.5	U				

: Metals Data Reporting Form

Initial Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T10301B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	ICBI 3/1/01 10:54 AM		Found	Q	Found	Q	Found	Q	Found	Q	Found	Q
			Found	Q										
Antimony	220.353	10	1.9	B										
Arsenic	189.042	10	2.6	U										
Cadmium	226.502	5	0.5	U										
Chromium	267.716	10	1.0	U										
Lead	220.353	3	1.9	U										
Selenium	220.353	5	2.1	U										
Silver	328.068	10	0.9	U										
Thallium	190.864	10	-6.4	B										

677 780

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 2/24/01 9:00 AM	CCB2 2/24/01 9:18 AM	CCB3 2/24/01 9:39 AM	CCB4 2/24/01 9:59 AM	CCB5 2/24/01 10:18 AM
			Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: CVAAUnits: ug/LChart Number: 0224HGA.PRN

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB6 2/24/01 10:37 AM	CCB7 2/24/01 10:51 AM			
			Found Q	Found Q	Found Q	Found Q	Found Q
Mercury	253.7	0.2	0.1 U	0.1 U			

677 782

STL-Pittsburgh

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J10227C.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 2/27/01 5:03 PM		CCB2 2/27/01 5:41 PM		CCB3 2/27/01 6:19 PM			
			Found	Q	Found	Q	Found	Q	Found	Q
Aluminum	308.215	200	12.7	U	12.7	U	12.7	U		
Barium	493.409	200	1.0	B	0.9	B	0.9	B		
Beryllium	313.042	5	0.8	B	0.3	B	0.8	B		
Calcium	317.933	5000	-55.0	B	-60.0	B	-52.0	B		
Cobalt	228.616	50	3.2	U	3.2	U	3.2	U		
Copper	324.754	25	2.2	U	2.2	U	2.3	B		
Iron	259.94	100	8.8	U	8.8	U	8.8	U		
Magnesium	279.079	5000	21.2	B	19.9	U	25.4	B		
Manganese	257.61	15	0.9	U	1.3	B	1.0	B		
Nickel	231.604	40	6.1	U	6.1	U	6.1	U		
Potassium	766.491	5000	496.0	U	496.0	U	496.0	U		
Sodium	588.995	5000	24.5	B	14.5	U	14.5	U		
Vanadium	292.402	50	1.8	U	1.8	U	1.8	U		
Zinc	213.856	20	-3.6	B	-4.6	B	-3.4	B		

Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPUnits: ug/LChart Number: J10228A.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 2/28/01 10:45 AM	CCB2 2/28/01 11:23 AM	CCB3 2/28/01 12:01 PM		
			Found Q	Found Q	Found Q	Found Q	Found Q
Sodium	588.995	5000	23.9 B	14.5 U	14.5 U		

677 784

STL-Pittsburgh
Metals Data Reporting Form

Continuing Calibration Blank Results

Instrument: ICPSTUnits: ug/LChart Number: T10301B.ARC

Standard Source: _____

Standard ID: _____

Element	WL/ Mass	Report Limit	CCB1 3/1/01 11:50 AM							
			Found	Q	Found	Q	Found	Q	Found	Q
Antimony	220.353	10	1.8	B						
Arsenic	189.042	10	2.6	U						
Cadmium	226.502	5	0.5	U						
Chromium	267.716	10	1.0	U	1.0	U	1.0	U		
Lead	220.353	3	1.9	U						
Selenium	220.353	5	2.1	U						
Silver	328.068	10	0.9	U						
Thallium	190.864	10	3.9	U						

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DWKC1BMatrix: Water Units: ug/L Prep Date: 2/24/01 Prep Batch: 1054355Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Mercury	253.7	0.054	0.20	0.054	U	1	CVAA	2/24/01	10:21

Comments. Lot #: C1B230148

Version 4.10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 3 Equivalent

677 786

STL-Pittsburgh

Metals Data Reporting Form

Preparation Blank Results

Lab Sample ID: DWL0XBMatrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MDL	Report Limit	Conc	Q	DF	Instr	Anal Date	Anal Time
Aluminum	308.215	12.7	200	12.7	U	1	ICP	2/27/01	17:48
Antimony	220.353	1.5	10.0	1.5	U	1	ICPST	3/1/01	11:10
Arsenic	189.042	2.6	10.0	2.6	U	1	ICPST	3/1/01	11:10
Barium	493.409	0.41	200	1.3	B	1	ICP	2/27/01	17:48
Beryllium	313.042	0.071	5.0	0.080	B	1	ICP	2/27/01	17:48
Cadmium	226.502	0.49	5.0	0.49	U	1	ICPST	3/1/01	11:10
Calcium	317.933	37.9	5000	-57	B	1	ICP	2/27/01	17:48
Chromium	267.716	1.0	10.0	1.0	U	1	ICPST	3/1/01	11:10
Cobalt	228.616	3.2	50.0	3.2	U	1	ICP	2/27/01	17:48
Copper	324.754	2.2	25.0	2.2	U	1	ICP	2/27/01	17:48
Iron	259.94	8.8	100	9.2	B	1	ICP	2/27/01	17:48
Lead	220.353	1.9	3.0	1.9	U	1	ICPST	3/1/01	11:10
Magnesium	279.079	19.9	5000	20.6	B	1	ICP	2/27/01	17:48
Manganese	257.61	0.87	15.0	0.87	U	1	ICP	2/27/01	17:48
Nickel	231.604	6.1	40.0	6.1	U	1	ICP	2/27/01	17:48
Potassium	766.491	496	5000	496	U	1	ICP	2/27/01	17:48
Selenium	220.353	2.1	5.0	4.1	B	1	ICPST	3/1/01	11:10
Silver	328.068	0.94	10.0	0.94	U	1	ICPST	3/1/01	11:10
Sodium	588.995	14.5	5000	34.7	B	1	ICP	2/27/01	17:48
Thallium	190.864	3.9	10.0	-4.2	B	1	ICPST	3/1/01	11:10
Vanadium	292.402	1.8	50.0	2.1	B	1	ICP	2/27/01	17:48
Zinc	213.856	3.1	20.0	-4.9	B	1	ICP	2/27/01	17:48

Comments: Lot #: C1B230148

Version 4 10.2

U Result is less than the MDL

B Result is between MDL and RL

Form 3 Equivalent

Interference Check Standard A

Instrument: ICPUnits: ug/LChart Number: J10227C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0087-076-3

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 2/27/01 4:27 PM	Found	Found	Found	Found	Found
				Found					
Aluminum	308.215		500000	497000					
Barium	493.409	200		2					
Beryllium	313.042	5		0					
Calcium	317.933		500000	482000					
Cobalt	228.616	50		14					
Copper	324.754	25		2					
Iron	259.94		200000	184000					
Magnesium	279.079		500000	482000					
Manganese	257.61	15		10					
Nickel	231.604	40		1					
Potassium	766.491	5000		636					
Sodium	588.995	5000		6					
Vanadium	292.402	50		5					
Zinc	213.856	20		-2					

677 788

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard A

Instrument: ICPUnits: ug/LChart Number: J10228A.ARCAcceptable Range: 0% - 0%Standard Source: Inorganic VenturesStandard ID: 0087-076-3

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 2/28/01 10:10 AM				
				Found	Found	Found	Found	Found
Sodium	588.995	5000		10				

STL-Pittsburgh
Metals Data Reporting Form

677 789

Interference Check Standard A: _____

Instrument: ICPST

Units: ug/L

Chart Number: T10301B.ARC

Acceptable Range: 0% - 0%

Standard Source: Inorganic Ventures

Standard ID: 0087-076-3

Element	WL/ Mass	Reporting Limit	True Conc	ICSA 3/1/01 10:58 AM	Found	Found	Found	Found
				Found				
Antimony	220.353	10		7				
Arsenic	189.042	10		1				
Cadmium	226.502	5		0				
Chromium	267.716	10		0				
Lead	220.353	3		2				
Selenium	220.353	5		9				
Silver	328.068	10		0				
Thallium	190.864	10		5				

677 790

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J10227C.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0087-012-2 W² 2-01

Element	WL/ Mass	True Conc	ICSAB 2/27/01 4.32 PM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Aluminum	308.215	500000	496082.2	99.2								
Barium	493.409	500	457.8	91.6								
Beryllium	313.042	500	448.8	89.8								
Calcium	317.933	500000	481804.6	96.4								
Cobalt	228.616	500	447.8	89.6								
Copper	324.754	500	477.5	95.5								
Iron	259.94	200000	184153.5	92.1								
Magnesium	279.079	500000	478990.0	95.8								
Manganese	257.61	500	453.8	90.8								
Nickel	231.604	1000	855.1	85.5								
Potassium	766.491	10000	10241.1	102.4								
Sodium	588.995	10000	10052.7	100.5								
Vanadium	292.402	500	453.4	90.7								
Zinc	213.856	1000	923.0	92.3								

Interference Check Standard AB

Instrument: ICPUnits: ug/LChart Number: J10228A.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0057-188-11 WPC-2-01

Element	WL/ Mass	True Conc	ICSAB 2/28/01 10:13 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Sodium	588.995	10000	10038.7	100.4								

677 792

STL-Pittsburgh

Metals Data Reporting Form

Interference Check Standard AB

Instrument: ICPSTUnits: ug/LChart Number: T10301B.ARCAcceptable Range: 80% - 120%Standard Source: Inorganic VenturesStandard ID: 0087-081-6

Element	WL/ Mass	True Conc	ICSAB 3/1/01 11:02 AM									
			Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec	Found	% Rec
Antimony	220.353	1000	1008.1	100.8								
Arsenic	189.042	1000	978.0	97.8								
Cadmium	226.502	1000	889.0	88.9								
Chromium	267.716	500	491.6	98.3								
Lead	220.353	1000	950.8	95.1								
Selenium	220.353	1000	1003.3	100.3								
Silver	328.068	1000	1066.5	106.7								
Thallium	190.864	1000	980.0	98.0								

Metals Data Reporting Form

Matrix Spike Sample Results

Spike Sample ID: DWJJMS

Original Sample ID: DWJJM Client ID: DF/24-B/1053/IDW/001S

Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180

Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MS Conc	Q	Spike Level	% Rec	OS DF	MS DF	Instr	OS Anal Date	OS Anal Time	MS Anal Date	MS Anal Time
Aluminum	308.2	2670		5420	N	2000	137.6	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Antimony	220.4	7.2	B	523		500	103.2	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Arsenic	189.0	5.3	B	2070		2000	103.3	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Barium	493.4	93.8	B	1930		2000	91.9	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Beryllium	313.0	0.071	U	47.1		50	94.2	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Cadmium	226.5	0.49	U	46.6		50	93.3	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Calcium	317.9	42000		91700		50000	99.3	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Chromium	267.7	51.2		259		200	103.7	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Cobalt	228.6	3.2	U	474		500	94.9	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Copper	324.8	23.2	B	272		250	99.3	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Iron	259.9	2950		3980		1000	103.3	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Lead	220.4	5.6		509		500	100.6	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Magnesium	279.1	7310		55400		50000	96.2	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Manganese	257.6	291		759		500	93.5	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Nickel	231.6	7.7	B	473		500	93.1	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Potassium	766.5	5720		58600		50000	105.8	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Selenium	220.4	2.7	B	2060		2000	102.8	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Silver	328.1	1.3	B	54.6		50	106.7	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Sodium	589	1420000		1480000	NC	50000		5	5	ICP	2/28/01	11:07	2/28/01	11:14
Thallium	190.9	3.9	U	2220		2000	110.8	1	1	ICPST	3/1/01	11:19	3/1/01	11:27
Vanadium	292.4	7.4	B	482		500	94.9	1	1	ICP	2/27/01	17:54	2/27/01	18:00
Zinc	213.9	61.9		555		500	98.5	1	1	ICP	2/27/01	17:54	2/27/01	18:00

Comments: Lot #. C1B230148 Sample #: 1

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form SA Equivalent

677 794

STL-Pittsburgh

Metals Data Reporting Form

Matrix Spike Duplicate Sample Results

Spike Sample ID: DWJJMD

Original Sample ID: DWJJM Client ID: DF/24-B/1053/IDW/001SD

Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180

Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	MSD Conc	Q	Spike Level	% Rec	OS DF	MSD DF	Instr	OS Anal Date	OS Anal Time	MSD Anal Date	MSD Anal Time
Aluminum	308.2	2670	N	5330	N	2000	132.9	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Antimony	220.4	7.2	B	525		500	103.6	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Arsenic	189.0	5.3	B	2070		2000	103.2	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Barium	493.4	93.8	B	1910		2000	91.0	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Beryllium	313.0	0.071	U	45.8		50	91.7	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Cadmium	226.5	0.49	U	47.1		50	94.1	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Calcium	317.9	42000		85500		50000	87.0	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Chromium	267.7	51.2		259		200	104.1	1	1	ICPST	3/1/01	11:19	3/1/01	13:14
Cobalt	228.6	3.2	U	449		500	89.9	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Copper	324.8	23.2	B	270		250	98.9	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Iron	259.9	2950		3860		1000	91.5	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Lead	220.4	5.6		516		500	102.1	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Magnesium	279.1	7310		54000		50000	93.4	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Manganese	257.6	291		722		500	86.1	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Nickel	231.6	7.7	B	450		500	88.3	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Potassium	766.5	5720		58200		50000	105.0	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Selenium	220.4	2.7	B	2080		2000	103.9	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Silver	328.1	1.3	B	56.4		50	110.3	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Sodium	589	1420000		1500000	NC	50000		5	5	ICP	2/28/01	11:07	2/28/01	11:17
Thallium	190.9	3.9	U	2220		2000	110.8	1	1	ICPST	3/1/01	11:19	3/1/01	11:32
Vanadium	292.4	7.4	B	461		500	90.7	1	1	ICP	2/27/01	17:54	2/27/01	18:03
Zinc	213.9	61.9		530		500	93.7	1	1	ICP	2/27/01	17:54	2/27/01	18:03

Comments: Lot #: C1B230148 Sample #: 1

Version 4.10.2

U Result is less than the MDL

B Result is between MDL and RL

N Spike recovery failed

NC Percent recovery was not calculated

* Duplicate analysis RPD was not within limits

Form SA Equivalent

Metals Data Reporting Form

Matrix Spike Duplicate RPD Report

Matrix Spike Duplicate Sample ID: DWJJMDMatrix Spike Sample ID: DWJJMS Client ID: DF/24-B/1053/IDW/001SDMatrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	MS Conc	Q	MSD Conc	Q	RPD	MS DF	MSD DF	Instr	MS Anal Date	MS Anal Time	MSD Anal Date	MSD Anal Time
Aluminum	308.215	5420	N	5330	N	3.4 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Antimony	220.353	523		525		0.4 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Arsenic	189.042	2070		2070		0.1 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Barium	493.409	1930		1910		1.0 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Beryllium	313.042	47.1		45.8		2.7 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Cadmium	226.502	46.6		47.1		0.9 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Calcium	317.933	91700		85500		13.2 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Chromium	267.716	259		259		0.3 %	1	1	ICPST	3/1/01	11:27	3/1/01	13:14
Cobalt	228.616	474		449		5.4 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Copper	324.754	272		270		0.4 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Iron	259.94	3980		3860		12.1 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Lead	220.353	509		516		1.5 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Magnesium	279.079	55400		54000		2.9 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Manganese	257.61	759		722		8.2 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Nickel	231.604	473		450		5.2 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Potassium	766.491	58600		58200		0.8 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Selenium	220.353	2060		2080		1.0 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Silver	328.068	54.6		56.4		3.3 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Sodium	588.995	1480000	NC	1500000	NC		5	5	ICP	2/28/01	11:14	2/28/01	11:17
Thallium	190.864	2220		2220		0.0 %	1	1	ICPST	3/1/01	11:27	3/1/01	11:32
Vanadium	292.402	482		461		4.5 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03
Zinc	213.856	555		530		5.1 %	1	1	ICP	2/27/01	18:00	2/27/01	18:03

Comments: Lot #: C1B230148 Sample #: 1

Version 4.10.2

- U Result is less than the MDL
 B Result is between MDL and RL
 N Spike recovery failed
 NC Percent recovery was not calculated
 * Duplicate analysis RPD was not within limits

Form 6 Equivalent

677 796

STL-Pittsburgh

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DWKCICMatrix: Water Units: ug/L Prep Date: 2/24/01 Prep Batch: 1054355Weight: NA Volume: 100 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Mercury	253.7	2.5	2.5	98.4		80-120	1	CVAA	2/24/01	10:23

Comments: Lot # C1B230148

Version 4 10.2

U Result is less than the MDL
B Result is between MDL and RL

Form 7 Equivalent

Metals Data Reporting Form

Laboratory Control Sample Results

Lab Sample ID: DWL0XCMatrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	Spike Level	Conc	Percent Recovery	Q	Range	DF	Instr	Anal Date	Anal Time
Aluminum	308.215	2000	1970	98.3		80-120	1	ICP	2/27/01	17:51
Antimony	220.353	500	505	100.9		80-120	1	ICPST	3/1/01	11:14
Arsenic	189.042	2000	1990	99.7		80-120	1	ICPST	3/1/01	11:14
Barium	493.409	2000	1910	95.5		80-120	1	ICP	2/27/01	17:51
Beryllium	313.042	50.0	47.6	95.3		80-120	1	ICP	2/27/01	17:51
Cadmium	226.502	50.0	47.3	94.6		80-120	1	ICPST	3/1/01	11:14
Calcium	317.933	50000	49300	98.5		80-120	1	ICP	2/27/01	17:51
Chromium	267.716	200	205	102.3		80-120	1	ICPST	3/1/01	11:14
Cobalt	228.616	500	472	94.4		80-120	1	ICP	2/27/01	17:51
Copper	324.754	250	239	95.6		80-120	1	ICP	2/27/01	17:51
Iron	259.94	1000	1050	104.8		80-120	1	ICP	2/27/01	17:51
Lead	220.353	500	496	99.2		80-120	1	ICPST	3/1/01	11:14
Magnesium	279.079	50000	49400	98.8		80-120	1	ICP	2/27/01	17:51
Manganese	257.61	500	475	95.0		80-120	1	ICP	2/27/01	17:51
Nickel	231.604	500	463	92.6		80-120	1	ICP	2/27/01	17:51
Potassium	766.491	50000	48900	97.7		80-120	1	ICP	2/27/01	17:51
Selenium	220.353	2000	1990	99.6		80-120	1	ICPST	3/1/01	11:14
Silver	328.068	50.0	51.0	101.9		80-120	1	ICPST	3/1/01	11:14
Sodium	588.995	50000	49700	99.4		80-120	1	ICP	2/27/01	17:51
Thallium	190.864	2000	2060	102.9		80-120	1	ICPST	3/1/01	11:14
Vanadium	292.402	500	476	95.1		80-120	1	ICP	2/27/01	17:51
Zinc	213.856	500	467	93.5		80-120	1	ICP	2/27/01	17:51

Comments: Lot #. C1B230148

Version 4.10.2

U Result is less than the MDL

Form 7 Equivalent

B Result is between MDL and RL

677 798

STL-Pittsburgh
Metals Data Reporting Form

Serial Dilution RPD Report

Serial Dilution Sample ID: DWJJMPOriginal Sample ID: DWJJM Client ID: DF/24-B/1053/IDW/001Matrix: Water Units: ug/L Prep Date: 2/26/01 Prep Batch: 1057180Weight: NA Volume: 50 Percent Moisture: NA

Element	WL/ Mass	OS Conc	Q	Serial Dilution Conc	Q	Percent Diff	OS DF	Ser Dil DF	Instr	OS Anal Date	OS Anal Time	Ser Dil Anal Date	Ser Dil Anal Time
Aluminum	308.215	2670	N	2630		1.6 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Antimony	220.353	7.2	B	16.3	B		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Arsenic	189.042	5.3	B	12.8	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Barium	493.409	93.8	B	97.6	B	4.0 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Beryllium	313.042	0.071	U	0.36	U		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Cadmium	226.502	0.49	U	2.5	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Calcium	317.933	42000		42000		0.1 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Chromium	267.716	51.2		50.0	B	2.5 %	1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Cobalt	228.616	3.2	U	16.1	U		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Copper	324.754	23.2	B	13.9	B		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Iron	259.94	2950		3030		2.8 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Lead	220.353	5.6		9.5	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Magnesium	279.079	7310		7610	B	4.0 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Manganese	257.61	291		299		2.5 %	1	5	ICP	2/27/01	17:54	2/27/01	17:57
Nickel	231.604	7.7	B	30.7	U		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Potassium	766.491	5720		7160	B		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Selenium	220.353	2.7	B	10.5	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Silver	328.068	1.3	B	4.7	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Sodium	588.995	1420000		1500000		6.1 %	5	25	ICP	2/28/01	11:07	2/28/01	11:10
Thallium	190.864	3.9	U	19.4	U		1	5	ICPST	3/1/01	11:19	3/1/01	11:23
Vanadium	292.402	7.4	B	8.9	U		1	5	ICP	2/27/01	17:54	2/27/01	17:57
Zinc	213.856	61.9		45.4	B		1	5	ICP	2/27/01	17:54	2/27/01	17:57

Comments: _____

Version 4.10.2

U Result is less than the MDL

Form 9 Equivalent

B Result is between MDL and RL

E Serial dilution percent difference not within limits

Metals Data Reporting Form

Instrument Detection Limits

Instrument: CVAAUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Mercury	253.70	0.2	0.054	1/24/01

677 800

STL-Pittsburgh
Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Aluminum	308.21	200	12.7	4/1/00
Barium	493.41	200	0.41	4/1/00
Beryllium	313.04	5	0.071	4/1/00
Calcium	317.93	5000	37.9	4/1/00
Cobalt	228.62	50	3.2	4/1/00
Copper	324.75	25	2.2	4/1/00
Iron	259.94	100	8.8	4/1/00
Magnesium	279.08	5000	19.9	4/1/00
Manganese	257.61	15	0.87	4/1/00
Nickel	231.60	40	6.1	4/1/00
Potassium	766.49	5000	496	4/1/00
Sodium	589.00	5000	14.5	4/1/00
Vanadium	292.40	50	1.8	4/1/00
Zinc	213.86	20	3.1	4/1/00

Metals Data Reporting Form

Instrument Detection Limits

Instrument: ICPSTUnits: ppb

Element	Wavelength /Mass	Reporting Limit	MDL	Date of MDL
Antimony	220.35	10	1.5	4/1/00
Arsenic	189.04	10	2.6	4/1/00
Cadmium	226.50	5	0.49	4/1/00
Chromium	267.72	10	1.0	4/1/00
Lead	220.35	3	1.9	4/1/00
Selenium	220.35	5	2.1	4/1/00
Silver	328.07	10	0.94	4/1/00
Thallium	190.86	10	3.9	4/1/00

677 802

STL-Pittsburgh
Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICP Date of IEC's: 9/20/00

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	As(0.007861), Mn(0.000018), Pb(0.000719)
Antimony	206.838	Ni(-0.000528), Pb(-0.001408), Sn(-0.004161)
Arsenic	193.696	Cd(0.011217)
Barium	493.402	Co(0.000449)
Beryllium	313.042	Cd(0.008648)
Cadmium	228.802	Co(0.002996)
Chromium	267.716	Pb(-0.000767), Sb(0.009005), V(-0.002296)
Cobalt	228.616	Al(-0.013948), B(0.00168), Cd(-0.004424), Cu(-0.000974), Pb(-0.026155), Sb(-0.004281), Tl(0.008568)
Copper	324.754	Zn(0.00414)
Iron	259.94	Ag(-0.000242), As(0.001058), B(-0.001884), Cd(-0.000046), Cu(-0.000114), Mn(-0.00029), Mo(-0.000129), Pb(0.00019), Se(-0.003038), Sn(-0.000176), Tl(0.011416), Zn(0.000091)
Manganese	257.61	Ag(0.000185), Tl(-0.007608)
Molybdenum	202.03	Al(0.009881), Cr(-0.000204), Mn(-0.000334), Sb(0.005016), V(-0.013194)
Nickel	231.604	Cd(-0.000482), Sb(-0.01006), Zn(0.00326)
Tin	189.989	Sb(0.002501)
Titanium	334.941	Co(0.001561), Fe(-0.003248), Sb(0.001256), Sn(0.003314)
Vanadium	292.402	Ag(-0.004417), Al(0.014581), As(0.015197), Be(0.002162), Cd(0.000076), Cr(0.000544), Sb(-0.002921), Si(-0.011682), Tl(0.006485), Zn(-0.0046)

Metals Data Reporting Form

Inter-Element Correction Factors

Instrument: ICPSTDate of IEC's: 1/9/01

Interfering Element	Wavelength /Mass	Correction Factor(s)
Aluminum	308.215	Pb(-0.000163)
Aluminum	308.215	Pb(0.000539)
Chromium	267.716	Sb(0.007445)
Chromium	267.716	As(-0.003079), Sb(0.013117)
Cobalt	228.616	Pb(0.000043), Se(-0.000467)
Cobalt	228.616	Cd(-0.000073), Fe(0.086957), Ni(-0.000735), Pb(0.000049), Se(0.000496), Tl(0.002407)
Iron	271.441	Cd(0.000118), Pb(0.000082), Sb(0.000025), Se(-0.00001), Tl(0.000006), V(-0.000341), Zn(0.000124)
Iron	271.441	Pb(0.000048), Se(-0.000347)
Magnesium	279.078	Fe(-0.00058)
Manganese	257.61	Se(-0.000214), Tl(-0.005174)
Manganese	257.61	Se(0.000533)
Molybdenum	202.03	As(-0.000927), Pb(-0.000446), Sb(-0.002435), Tl(-0.000488)
Molybdenum	202.03	Pb(-0.000742), Sb(-0.011507), Se(0.000246)
Nickel	231.604	Pb(0.000124)
Nickel	231.604	Pb(0.000274), Sb(-0.00125), Zn(0.005251)
Vanadium	292.402	Al(0.020017), Be(-0.008152), Cr(-0.00015), Fe(0.009334), Sb(-0.008099), Se(0.000269), Tl(0.001468)
Vanadium	292.402	Pb(-0.000307), Se(0.000106)

677 804

STL-Pittsburgh
Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: CVAA

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Mercury	253.70	10	1/24/01

Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPUnits: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Aluminum	308.21	600000	1/15/01
Barium	493.41	100000	1/15/01
Beryllium	313.04	15000	1/15/01
Calcium	317.93	600000	1/15/01
Cobalt	228.62	100000	1/15/01
Copper	324.75	100000	1/15/01
Iron	259.94	400000	1/15/01
Magnesium	279.08	600000	1/15/01
Manganese	257.61	100000	1/15/01
Nickel	231.60	100000	1/15/01
Potassium	766.49	1000000	1/15/01
Sodium	589.00	400000	1/15/01
Vanadium	292.40	100000	1/15/01
Zinc	213.86	100000	1/15/01

677 806

STL-Pittsburgh
Metals Data Reporting Form

Linear Dynamic Ranges

Instrument: ICPST

Units: ppb

Element	Wavelength /Mass	Linear Range	Date of Linear Range
Antimony	220.35	10000	1/11/01
Arsenic	189.04	10000	1/11/01
Cadmium	226.50	5000	1/11/01
Chromium	267.72	20000	1/11/01
Lead	220.35	5000	1/11/01
Selenium	220.35	10000	1/11/01
Silver	328.07	2000	1/11/01
Thallium	190.86	10000	1/11/01

STL-Pittsburgh
Metals Data Reporting Form

677 807

Preparation Log

Preparation Batch: 1054355 Instrument: CVAA Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DWKC1B	2/24/01	NA	100	NA
DWKC1C	2/24/01	NA	100	NA
DWJJ3	2/24/01	NA	100	NA
DWJJM	2/24/01	NA	100	NA
DWJKC	2/24/01	NA	100	NA

677 808

STL-Pittsburgh
Metals Data Reporting Form

Preparation Log

Preparation Batch: 1057180 Instrument: ICP Matrix: Water

Sample ID	Prep Date	Weight (g)	Volume (ml)	% Moisture
DWL0XB	2/26/01	NA	50	NA
DWL0XC	2/26/01	NA	50	NA
DWJJ3	2/26/01	NA	50	NA
DWJJM	2/26/01	NA	50	NA
DWJJMD	2/26/01	NA	50	NA
DWJJMS	2/26/01	NA	50	NA
DWJKC	2/26/01	NA	50	NA

STL-Pittsburgh
Metals Data Reporting Form

677 809

Instrument Runlog

Instrument: CVAA

Chart Number: 0224HGA.PRN

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
Std1Rep1		2/24/01	8:45
Std2Rep1		2/24/01	8:46
Std3Rep1		2/24/01	8:48
Std4Rep1		2/24/01	8:49
Std5Rep1		2/24/01	8:51
Std6Rep1		2/24/01	8:53
ICV5-1		2/24/01	8:55
ICB1		2/24/01	8:57
CCV5-1		2/24/01	8:58
CCB1		2/24/01	9:00
ZZZZZZ		2/24/01	9:01
ZZZZZZ		2/24/01	9:03
ZZZZZZ		2/24/01	9:04
ZZZZZZ		2/24/01	9:06
ZZZZZZ		2/24/01	9:08
ZZZZZZ		2/24/01	9:09
ZZZZZZ		2/24/01	9:11
ZZZZZZ		2/24/01	9:12
ZZZZZZ		2/24/01	9:14
ZZZZZZ		2/24/01	9:16
CCV5-2		2/24/01	9:17
CCB2		2/24/01	9:18
ZZZZZZ		2/24/01	9:20
ZZZZZZ		2/24/01	9:22
ZZZZZZ		2/24/01	9:23
ZZZZZZ		2/24/01	9:25
ZZZZZZ		2/24/01	9:26
ZZZZZZ		2/24/01	9:28
ZZZZZZ		2/24/01	9:30
ZZZZZZ		2/24/01	9:32
ZZZZZZ		2/24/01	9:34
ZZZZZZ		2/24/01	9:35
CCV5-3		2/24/01	9:37
CCB3		2/24/01	9:39
ZZZZZZ		2/24/01	9:41
ZZZZZZ		2/24/01	9:42
ZZZZZZ		2/24/01	9:44
ZZZZZZ		2/24/01	9:46
ZZZZZZ		2/24/01	9:47

STL-Pittsburgh

677 810

Metals Data Reporting Form

Instrument Runlog

Instrument: CVAAChart Number: 0224HGA.PRN

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		2/24/01	9:48
ZZZZZZ		2/24/01	9:50
ZZZZZZ		2/24/01	9:52
ZZZZZZ		2/24/01	9:53
ZZZZZZ		2/24/01	9:55
CCV5-4		2/24/01	9:56
CCB4		2/24/01	9:59
ZZZZZZ		2/24/01	10:01
ZZZZZZ		2/24/01	10:03
ZZZZZZ		2/24/01	10:04
ZZZZZZ		2/24/01	10:06
ZZZZZZ		2/24/01	10:07
ZZZZZZ		2/24/01	10:09
ZZZZZZ		2/24/01	10:10
ZZZZZZ		2/24/01	10:12
ZZZZZZ		2/24/01	10:13
ZZZZZZ		2/24/01	10:15
CCV5-5		2/24/01	10:16
CCB5		2/24/01	10:18
ZZZZZZ		2/24/01	10:19
DWKC1B		2/24/01	10:21
DWKC1C		2/24/01	10:23
ZZZZZZ		2/24/01	10:24
ZZZZZZ		2/24/01	10:26
ZZZZZZ		2/24/01	10:28
ZZZZZZ		2/24/01	10:29
ZZZZZZ		2/24/01	10:31
DWJ1M	DF/24-B/1053/IDW/001	2/24/01	10:32
DWJ1J	DF/24-A/1053/IDW/002	2/24/01	10:34
CCV5-6		2/24/01	10:36
CCB6		2/24/01	10:37
DWJ1C	DF/24-A/1053/IDW/003	2/24/01	10:39
ZZZZZZ		2/24/01	10:40
ZZZZZZ		2/24/01	10:42
ZZZZZZ		2/24/01	10:44
ZZZZZZ		2/24/01	10:45
ZZZZZZ		2/24/01	10:47
CCV5-7		2/24/01	10:49
CCB7		2/24/01	10:51

STL-Pittsburgh
Metals Data Reporting Form

677 811

Instrument Runlog

Instrument: ICP

Chart Number: J10227C.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		2/27/01	15:00
ZZZZZZ		2/27/01	15:03
ZZZZZZ		2/27/01	15:06
ZZZZZZ		2/27/01	15:10
ZZZZZZ		2/27/01	15:13
ZZZZZZ		2/27/01	15:16
ZZZZZZ		2/27/01	15:21
ZZZZZZ		2/27/01	15:25
ZZZZZZ		2/27/01	15:28
ZZZZZZ		2/27/01	15:31
ZZZZZZ		2/27/01	15:37
ZZZZZZ		2/27/01	15:40
ZZZZZZ		2/27/01	15:43
ZZZZZZ		2/27/01	15:53
ZZZZZZ		2/27/01	15:57
ZZZZZZ		2/27/01	16:00
ZZZZZZ		2/27/01	16:03
ZZZZZZ		2/27/01	16:07
STD1		2/27/01	16:11
STD5A		2/27/01	16:14
STD5B		2/27/01	16:17
ICV2-1		2/27/01	16:20
ICB1		2/27/01	16:24
ICSA		2/27/01	16:27
ICSAB		2/27/01	16:32
ZZZZZZ		2/27/01	16:35
ZZZZZZ		2/27/01	16:38
ZZZZZZ		2/27/01	16:41
ZZZZZZ		2/27/01	16:44
ZZZZZZ		2/27/01	16:47
ZZZZZZ		2/27/01	16:51
ZZZZZZ		2/27/01	16:54
ZZZZZZ		2/27/01	16:57
CCV2-1		2/27/01	17:00
CCB1		2/27/01	17:03
ZZZZZZ		2/27/01	17:06
ZZZZZZ		2/27/01	17:10
ZZZZZZ		2/27/01	17:13
ZZZZZZ		2/27/01	17:16

677 812

STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog**Instrument:** ICP**Chart Number:** J10227C.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		2/27/01	17:19
ZZZZZZ		2/27/01	17:22
ZZZZZZ		2/27/01	17:25
ZZZZZZ		2/27/01	17:29
ZZZZZZ		2/27/01	17:32
ZZZZZZ		2/27/01	17:35
CCV2-2		2/27/01	17:38
CCB2		2/27/01	17:41
ZZZZZZ		2/27/01	17:44
DWL0XB		2/27/01	17:48
DWL0XC		2/27/01	17:51
DWJJM	DF/24-B/1053/IDW/001	2/27/01	17:54
DWJMP	DF/24-B/1053/IDW/001	2/27/01	17:57
DWJMS	DF/24-B/1053/IDW/001S	2/27/01	18:00
DWJMD	DF/24-B/1053/IDW/001SD	2/27/01	18:03
DWJJ3	DF/24-A/1053/IDW/002	2/27/01	18:07
DWJKC	DF/24-A/1053/IDW/003	2/27/01	18:10
ZZZZZZ		2/27/01	18:13
CCV2-3		2/27/01	18:16
CCB3		2/27/01	18:19
ZZZZZZ		2/27/01	18:22
ZZZZZZ		2/27/01	18:25
ZZZZZZ		2/27/01	18:29
ZZZZZZ		2/27/01	18:32
ZZZZZZ		2/27/01	18:35
ZZZZZZ		2/27/01	18:38
ZZZZZZ		2/27/01	18:41

STL-Pittsburgh
Metals Data Reporting Form

677 813

Instrument Runlog

Instrument: ICP

Chart Number: J10228A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		2/28/01	8:59
ZZZZZZ		2/28/01	9:03
ZZZZZZ		2/28/01	9:06
ZZZZZZ		2/28/01	9:09
ZZZZZZ		2/28/01	9:12
ZZZZZZ		2/28/01	9:15
ZZZZZZ		2/28/01	9:20
ZZZZZZ		2/28/01	9:24
ZZZZZZ		2/28/01	9:28
ZZZZZZ		2/28/01	9:31
ZZZZZZ		2/28/01	9:34
ZZZZZZ		2/28/01	9:40
ZZZZZZ		2/28/01	9:43
ZZZZZZ		2/28/01	9:47
ZZZZZZ		2/28/01	9:50
STD1		2/28/01	9:54
STD5A		2/28/01	9:57
STD5B		2/28/01	10:01
ICV2-1		2/28/01	10:04
ICB1		2/28/01	10:07
ICSA		2/28/01	10:10
ICSAB		2/28/01	10:13
ZZZZZZ		2/28/01	10:17
ZZZZZZ		2/28/01	10:20
ZZZZZZ		2/28/01	10:23
ZZZZZZ		2/28/01	10:26
ZZZZZZ		2/28/01	10:29
ZZZZZZ		2/28/01	10:32
ZZZZZZ		2/28/01	10:36
ZZZZZZ		2/28/01	10:39
CCV2-1		2/28/01	10:42
CCB1		2/28/01	10:45
ZZZZZZ		2/28/01	10:48
ZZZZZZ		2/28/01	10:51
ZZZZZZ		2/28/01	10:55
ZZZZZZ		2/28/01	10:58
ZZZZZZ		2/28/01	11:01
ZZZZZZ		2/28/01	11:04
DWJIM	DF/24-B/1053/IDW/001	2/28/01	11:07

677 814

STL-Pittsburgh
Metals Data Reporting Form

Instrument Runlog

Instrument: ICPChart Number: J10228A.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
DWJJMP	DF/24-B/1053/IDW/001	2/28/01	11:10
DWJJMS	DF/24-B/1053/IDW/001S	2/28/01	11:14
DWJJMD	DF/24-B/1053/IDW/001SD	2/28/01	11:17
CCV2-2		2/28/01	11:20
CCB2		2/28/01	11:23
DWJJ3	DF/24-A/1053/IDW/002	2/28/01	11:26
ZZZZZZ		2/28/01	11:29
ZZZZZZ		2/28/01	11:33
ZZZZZZ		2/28/01	11:36
ZZZZZZ		2/28/01	11:39
ZZZZZZ		2/28/01	11:42
ZZZZZZ		2/28/01	11:45
ZZZZZZ		2/28/01	11:48
ZZZZZZ		2/28/01	11:52
ZZZZZZ		2/28/01	11:55
CCV2-3		2/28/01	11:58
CCB3		2/28/01	12:01
ZZZZZZ		2/28/01	12:04
ZZZZZZ		2/28/01	12:07
ZZZZZZ		2/28/01	12:11
ZZZZZZ		2/28/01	12:14
ZZZZZZ		2/28/01	12:17
ZZZZZZ		2/28/01	12:20
ZZZZZZ		2/28/01	12:23
ZZZZZZ		2/28/01	12:26
ZZZZZZ		2/28/01	12:30
ZZZZZZ		2/28/01	12:33
ZZZZZZ		2/28/01	12:36
ZZZZZZ		2/28/01	12:39
ZZZZZZ		2/28/01	12:42
ZZZZZZ		2/28/01	12:47
ZZZZZZ		2/28/01	12:50
ZZZZZZ		2/28/01	12:53
ZZZZZZ		2/28/01	12:56
ZZZZZZ		2/28/01	12:59
ZZZZZZ		2/28/01	13:02

STL-Pittsburgh
Metals Data Reporting Form

677 815

Instrument Runlog

Instrument: ICPST

Chart Number: T10301B.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
STD1		3/1/01	10:36
STD6		3/1/01	10:41
STD7		3/1/01	10:45
ICV3-1		3/1/01	10:49
ICB1		3/1/01	10:54
ICSA		3/1/01	10:58
ICSAB		3/1/01	11:02
DWL0XB		3/1/01	11:10
DWL0XC		3/1/01	11:14
DWJJM	DF/24-B/1053/IDW/001	3/1/01	11:19
DWJJMP	DF/24-B/1053/IDW/001	3/1/01	11:23
DWJJMS	DF/24-B/1053/IDW/001S	3/1/01	11:27
DWJJMD	DF/24-B/1053/IDW/001SD	3/1/01	11:32
DWJJ3	DF/24-A/1053/IDW/002	3/1/01	11:36
DWJKC	DF/24-A/1053/IDW/003	3/1/01	11:41
CCV3-1		3/1/01	11:45
CCB1		3/1/01	11:50
ZZZZZZ		3/1/01	11:54
ZZZZZZ		3/1/01	11:58
ZZZZZZ		3/1/01	12:03
ZZZZZZ		3/1/01	12:07
ZZZZZZ		3/1/01	12:12
ZZZZZZ		3/1/01	12:16
ZZZZZZ		3/1/01	12:21
ZZZZZZ		3/1/01	12:25
ZZZZZZ		3/1/01	12:29
ZZZZZZ		3/1/01	12 34
CCV3-2		3/1/01	12:38
CCB2		3/1/01	12:43
ZZZZZZ		3/1/01	12:48
ZZZZZZ		3/1/01	12:52
ZZZZZZ		3/1/01	12:57
ZZZZZZ		3/1/01	13:01
ZZZZZZ		3/1/01	13:06
ZZZZZZ		3/1/01	13.10
DWJJMD	DF/24-B/1053/IDW/001SD	3/1/01	13:14
CCV3-3		3/1/01	13:19
CCB3		3/1/01	13:23
ZZZZZZ		3/1/01	13:30

STL-Pittsburgh

Metals Data Reporting Form

677 816

Instrument Runlog

Instrument: ICPST

Chart Number: T10301B.ARC

Lab Sample Name	Client Sample Name	Date of Analysis	Time of Analysis
ZZZZZZ		3/1/01	13:35
ZZZZZZ		3/1/01	13:39
ZZZZZZ		3/1/01	13:44
ZZZZZZ		3/1/01	13:48
ZZZZZZ		3/1/01	13:52
ZZZZZZ		3/1/01	13:57
ZZZZZZ		3/1/01	14:01
ZZZZZZ		3/1/01	14:06
ZZZZZZ		3/1/01	14:10
ZZZZZZ		3/1/01	14:15
ZZZZZZ		3/1/01	14:24
ZZZZZZ		3/1/01	14:29
ZZZZZZ		3/1/01	14:33
ZZZZZZ		3/1/01	14:38
ZZZZZZ		3/1/01	14:42
ZZZZZZ		3/1/01	14:47
ZZZZZZ		3/1/01	14:51

677 817

**METALS
RAW DATA**

CIB230148

677

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Analysis Report 6010B Averages

02/28/01 08:27:33 AM

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William J. Henderson 2-28-01

#	Sample Name	AL	BA	BE	CA	CO	CU
1	STD1	.00964	.00002	.00249	.01806	.00009	.00029
2	STD5A		4.63866	16.2194		1.3348	2.40199
3	STD5B	11.3956			25.5799		
4	ICV2-1 0087-036-1	25.462	.98215	.97134	25.508	.99239	.98023
5	ICB1	.00477	.00025	.00030	-.03985	.00000	.00000
6	ICSA 0087-076-3	496.96	.00243	.00011	482.41	.01397	.00173
7	ICSAB 0087-012-2	496.08	.45776	.44884	481.80	.44776	.47746
8	DWLX9B	.01268	.00017	.00005	-.04563	.00149	.00124
9	DWLX9C	1.9970	1.9416	.04846	49.506	.47564	.23893
10	DV868	-.00098	.00109	.00002	22.942	-.00038	.00083
11	DV87E	1.2869	1.9992	.24481	-.04903	.89919	.82169
12	DV87EP5	.25879	.39893	.04962	-.06336	.18630	.16056
13	DV87ES	3.1381	3.7360	.28236	47.141	1.3020	.99711
14	DV87ED	3.1831	3.8206	.28606	47.605	1.3121	1.0173
15	DWL9GBT	.01223	.00469	.00000	.39292	.00037	.00374
16	CCV2-1 0087-072-1	49.960	4.7514	4.7678	50.990	4.8349	4.7663
17	CCB1	.00602	.00098	.00077	-.05533	.00037	.00208
18	DWM3KBT	.00428	.00038	.00002	-.05715	-.00075	.00103
19	DWM3KCT	1.8866	1.7608	.04422	L.45062	.45237	.23099
20	DWH38T	3.2019	.25293	.00034	36.302	.04664	.21346
21	DWH4AT	1.1762	.08828	.00013	9.0443	.00065	.00627
22	DWF7GT	.39414	.22147	.00009	6.6898	.02329	.05697
23	DV7NNT	.05653	.51438	.00017	H855.40	.00135	.00686
24	DV7NPT	.05044	.41438	.00017	H827.33	.00102	.00187
25	DWHKTT	.44075	.41783	.00064	271.10	.02431	.00312
26	DWHKTP5T	.07244	.08755	.00021	55.382	.00297	.00085
27	DWHKTST	.43289	43.101	.00067	269.45	.03023	.01225
28	CCV2-2	50.672	4.8306	4.8152	51.441	4.8652	4.8419
29	CCB2	.00741	.00086	.00027	-.05983	-.00075	.00083
30	DWHKTD	.47028	43.057	.00070	295.67	.02944	.00622
31	DWL0XB	.00566	.00131	.00008	-.05670	.00037	.00083
32	DWL0XC	1.9668	1.9110	.04763	49.263	.47191	.23892
33	DWJJM	2.6720	.09378	.00004	41.990	.00099	.02321
34	DWJJMP5	.52607	.01951	.00003	8.4087	.00071	.00277
35	DWJJMS	5.4237	1.9327	.04709	91.663	.47444	.27149
36	DWJJMD	5.3305	1.9138	.04584	85.500	.44929	.27042
37	DWJJJ3	.25151	.09938	.00005	47.749	.00294	.02499
38	DWJKC	.35514	.07254	.00008	36.479	.00183	.03209
39	DWLQFBT	-.00440	.00038	.00003	-.04199	-.00114	.00020
40	CCV2-3	50.591	4.8164	4.7948	51.188	4.8461	4.8314
41	CCB3	.00297	.00092	.00083	-.05244	.00149	.00228
42	DWLQFCT	1.9841	1.9642	.04837	L-.05264	.49106	.24102
43	DWCX7T	.34743	.03923	.00020	H954.98	.01210	.82779
44	DWCX7P5T	.06273	.00847	.00014	203.22	.00376	.17201
45	DWCX7ST	2.2945	1.7628	.04250	H979.21	.43888	1.0889
46	DWCX7DT	2.2182	1.7135	.04179	H948.00	.43326	1.0411
47	CCV2-4	51.420	4.8966	4.8943	53.181	4.9961	4.8659
48	CCB4	.00476	.00072	.00064	-.04124	-.00038	.00166

						677	819
#	Sample Name	FE	K	MG	MN	NA	NI
1	STD1	.0032	-.02685	-.00075	.00004	.06395	-.00045
2	STD5A				1.93875		1.63933
3	STD5B	28.6874	2.302	7.2965		51.8469	
4	ICV2-1 0087-036-1	26.383	25.390	25.533	.99600	25.320	.99367
5	ICB1	.00244	.24260	.01987	.00026	.00782	.00407
6	ICSA 0087-076-3	183.58	.63550	482.13	.01037	.00588	.00089
7	ICSAB 0087-012-2	184.15	10.241	478.99	.45378	10.053	.85507
8	DWLX9B	.00523	.47018	.02740	-.00025	-.00038	.00637
9	DWLX9C	1.0418	49.344	50.035	.48090	50.761	.48037
10	DV868	.00836	23.507	12.311	.00026	50.992	.00749
11	DV87E	1.0749	.75573	-.01164	.93347	.68082	1.0112
12	DV87EP5	.21543	.25334	.00479	.19138	.13952	.21020
13	DV87ES	2.0004	46.991	47.089	1.3426	48.551	1.4108
14	DV87ED	2.0221	48.161	48.065	1.3566	50.056	1.4141
15	DWL9GBT	.01638	.80511	.06920	.00103	\$766.41	.00077
16	CCV2-1 0087-072-1	51.549	49.084	50.022	4.8281	49.273	4.8246
17	CCB1	.00366	.43583	.02124	.00077	.02452	.00120
18	DWM3KBT	-.00121	.71065	.02261	-.00025	.01515	.00493
19	DWM3KCT	.98050	L.66985	L.07948	.45323	S-.12349	.44392
20	DWH38T	11.283	7.9395	2.4550	.34225	S-.12349	.28164
21	DWH4AT	.31516	1.8829	.50361	.02482	S-.12349	.00920
22	DWF7GT	16.148	.79653	.46524	.15344	S-.12349	.02145
23	DV7NNT	.01535	6.1296	43.762	10.887	S-.12349	.01566
24	DV7NPT	.00123	5.8248	30.805	9.0909	S-.12349	.00910
25	DWHKTT	18.129	1.7240	10.940	7.2350	\$766.25	.02797
26	DWHKTP5T	3.8385	.39075	2.3228	1.5176	243.83	.00971
27	DWHKTST	17.866	1.6231	10.840	7.1354	\$2299.6	.03222
28	CCV2-2	52.034	49.874	50.534	4.8605	50.365	4.8413
29	CCB2	-.00156	.32204	.01027	.00128	.01419	.00212
30	DWHKTD	19.784	1.5029	11.688	7.7666	S-.12349	.02412
31	DWL0XB	.00924	.36498	.02055	.00000	.03466	-.00338
32	DWL0XC	1.0482	48.867	49.417	.47523	49.681	.46316
33	DWJJM	2.9448	5.7196	7.3137	.29137	S-.12349	.00773
34	DWJJMP5	.60559	1.4320	1.5218	.05972	290.89	.00310
35	DWJJMS	3.9773	58.600	55.395	.75884	S-.12349	.47323
36	DWJJMD	3.8599	58.196	54.029	.72192	S-.12349	.44947
37	DWJJ3	.33173	4.4571	10.830	.18649	\$3074.1	.01134
38	DWJKC	.58710	3.5017	9.0315	.51631	388.51	.01253
39	DWLQFBT	.00191	.30487	.02055	.00025	.15613	.00344
40	CCV2-3	51.814	50.055	50.513	4.8473	50.268	4.8186
41	CCB3	.00296	.47233	.02535	.00103	.00926	.00312
42	DWLQFCT	1.0617	L.28125	L.00479	.49116	L.00347	.49080
43	DWCX7T	.06466	11.675	15.822	1.5446	S-.12349	.06205
44	DWCX7P5T	.04528	2.9800	3.4253	.33414	271.14	.01704
45	DWCX7ST	1.0200	11.718	16.181	2.0190	S-.12349	.48011
46	DWCX7DT	.95992	11.718	15.546	1.9553	S-.12349	.47269
47	CCV2-4	53.220	50.222	51.237	4.9944	50.241	4.9769
48	CCB4	.00836	.58183	.02192	.00026	.03533	.00404

Na average; dilution
will be analyzed on a
future run.

wre

2-28-01

#	Sample Name	V_	ZN
1	STD1	0	.00085
2	STD5A	1.638	1.27402
3	STD5B		
4	ICV2-1 0087-036-1	.99425	.99155
5	ICB1	.00007	-.00228
6	ICSA 0087-076-3	.00515	-.00174
7	ICSAB 0087-012-2	.45341	.92302
8	DWLX9B	.00305	-.00110
9	DWLX9C	.47950	.47320
10	DV868	.00426	-.00424
11	DV87E	3.8126	1.8162
12	DV87EP5	.77188	.37441
13	DV87ES	4.0949	2.2136
14	DV87ED	4.1405	2.2323
15	DWL9GBT	.00038	.02347
16	CCV2-1 0087-072-1	4.8140	4.9032
17	CCB1	.00106	-.00362
18	DWM3KBT	.00130	-.00228
19	DWM3KCT	.45487	.50216
20	DWH38T	.02568	1.0029
21	DWH4AT	.25251	.31648
22	DWF7GT	.00077	2.9596
23	DV7NNT	.00606	.06446
24	DV7NPT	.00510	.02514
25	DWHKTT	.00242	.25505
26	DWHKTP5T	.00125	.04759
27	DWHKTST	.00381	.24926
28	CCV2-2	4.8706	4.9220
29	CCB2	-.00023	-.00455
30	DWHKTDt	.00149	.30128
31	DWL0XB	.00213	-.00491
32	DWL0XC	.47551	.46731
33	DWJJM	.00743	.06189
34	DWJJMP5	-.00053	.00907
35	DWJJMS	.48187	.55459
36	DWJJMD	.46078	.53017
37	DWJJ3	.00508	.12138
38	DWJKC	.00495	5.2659
39	DWLQFBT	.00000	-.00228
40	CCV2-3	4.8504	4.9106
41	CCB3	.00016	-.00340
42	DWLQFCT	.49308	.48047
43	DWCX7T	.00512	1.7039
44	DWCX7P5T	.00605	.35242
45	DWCX7ST	.44609	2.2070
46	DWCX7DT	.43559	2.1369
47	CCV2-4	4.9799	5.0075
48	CCB4	.00008	-.00458

WNC 2-28-01

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J10227C	QUANMET	02/27/01	16:11		X	IR
2	STD5A	J10227C	QUANMET	02/27/01	16:14		X	IR
3	STD5B	J10227C	QUANMET	02/27/01	16:17		X	IR
4	ICV2-1 0087-036-1	J10227C	QUANMET	02/27/01	16:20	WTR	S	CONC
5	ICB1	J10227C	QUANMET	02/27/01	16:24	WTR	S	CONC
6	ICSA 0087-076-3	J10227C	QUANMET	02/27/01	16:27	WTR	Q	CONC
7	ICSAB 0087-012-2	J10227C	QUANMET	02/27/01	16:32	WTR	Q	CONC
8	DWLX9B	J10227C	QUANMET	02/27/01	16:35	WTR	S	CONC
9	DWLX9C	J10227C	QUANMET	02/27/01	16:38	WTR	S	CONC
10	DV868	J10227C	QUANMET	02/27/01	16:41	WTR	S	CONC
11	DV87E	J10227C	QUANMET	02/27/01	16:44	WTR	S	CONC
12	DV87EP5	J10227C	QUANMET	02/27/01	16:47	WTR	S	CONC
13	DV87ES	J10227C	QUANMET	02/27/01	16:51	WTR	S	CONC
14	DV87ED	J10227C	QUANMET	02/27/01	16:54	WTR	S	CONC
15	DWL9GBT	J10227C	QUANMET	02/27/01	16:57	WTR	S	CONC
16	CCV2-1 0087-072-1	J10227C	QUANMET	02/27/01	17:00	WTR	S	CONC
17	CCB1	J10227C	QUANMET	02/27/01	17:03	WTR	S	CONC
18	DWM3KBT	J10227C	QUANMET	02/27/01	17:06	WTR	S	CONC
19	DWM3KCT	J10227C	QUANMET	02/27/01	17:10	WTR	S	CONC
20	DWH38T	J10227C	QUANMET	02/27/01	17:13	WTR	S	CONC
21	DWH4AT	J10227C	QUANMET	02/27/01	17:16	WTR	S	CONC
22	DWF7GT	J10227C	QUANMET	02/27/01	17:19	WTR	S	CONC
23	DV7NNT	J10227C	QUANMET	02/27/01	17:22	WTR	S	CONC
24	DV7NPT	J10227C	QUANMET	02/27/01	17:25	WTR	S	CONC
25	DWHKTT	J10227C	QUANMET	02/27/01	17:29	WTR	S	CONC
26	DWHKTP5T	J10227C	QUANMET	02/27/01	17:32	WTR	S	CONC
27	DWHKTST	J10227C	QUANMET	02/27/01	17:35	WTR	S	CONC
28	CCV2-2	J10227C	QUANMET	02/27/01	17:38	WTR	S	CONC
29	CCB2	J10227C	QUANMET	02/27/01	17:41	WTR	S	CONC
30	DWHKTD	J10227C	QUANMET	02/27/01	17:44	WTR	S	CONC
31	DWL0XB	J10227C	QUANMET	02/27/01	17:48	WTR	S	CONC
32	DWL0XC	J10227C	QUANMET	02/27/01	17:51	WTR	S	CONC
33	DWJJM	J10227C	QUANMET	02/27/01	17:54	WTR	S	CONC
34	DWJJMP5	J10227C	QUANMET	02/27/01	17:57	WTR	S	CONC
35	DWJJMS	J10227C	QUANMET	02/27/01	18:00	WTR	S	CONC
36	DWJJMD	J10227C	QUANMET	02/27/01	18:03	WTR	S	CONC
37	DWJJJ3	J10227C	QUANMET	02/27/01	18:07	WTR	S	CONC
38	DWJKC	J10227C	QUANMET	02/27/01	18:10	WTR	S	CONC
39	DWLQFBT	J10227C	QUANMET	02/27/01	18:13	WTR	S	CONC
40	CCV2-3	J10227C	QUANMET	02/27/01	18:16	WTR	S	CONC
41	CCB3	J10227C	QUANMET	02/27/01	18:19	WTR	S	CONC
42	DWLQFCT	J10227C	QUANMET	02/27/01	18:22	WTR	S	CONC
43	DWCX7T	J10227C	QUANMET	02/27/01	18:25	WTR	S	CONC
44	DWCX7P5T	J10227C	QUANMET	02/27/01	18:29	WTR	S	CONC
45	DWCX7ST	J10227C	QUANMET	02/27/01	18:32	WTR	S	CONC
46	DWCX7DT	J10227C	QUANMET	02/27/01	18:35	WTR	S	CONC
47	CCV2-4	J10227C	QUANMET	02/27/01	18:38	WTR	S	CONC
48	CCB4	J10227C	QUANMET	02/27/01	18:41	WTR	S	CONC

Method: QUANMET Standard: STD1

Run Time: 02/27/01 16:11:25

Elem	AG	AL	AS	B_	BA	BE	CA
Avge	-.00080	.00965	.00130	.00000	.00002	.00250	.01807
SDev	.00033	.00057	.00096	.00000	.00013	.00012	.00157
%RSD	40.825	5.9529	73.782	.00000	640.36	4.6188	8.6759

#1	-.00040	.01000	.00120	.00000	.00020	.00260	.02013
#2	-.00080	.01000	.00180	.00000	.00000	.00240	.01718
#3	-.00120	.00880	.00000	.00000	.00000	.00240	.01658
#4	-.00080	.00980	.00220	.00000	-.00012	.00260	.01839

Elem	CD	CO	CR	CU	FE	K_	LI
Avge	-.00013	.00010	.00015	.00030	.00320	-.02685	-.00064
SDev	.00018	.00012	.00079	.00035	.00059	.01427	.00048
%RSD	142.20	115.47	526.34	115.47	18.400	53.151	74.624

#1	.00012	.00020	.00080	.00080	.00400	-.00580	-.00012
#2	-.00020	.00020	.00080	.00000	.00300	-.03020	-.00108
#3	-.00012	.00000	-.00020	.00020	.00260	-.03560	-.00100
#4	-.00032	.00000	-.00080	.00020	.00320	-.03580	-.00035

Elem	MG	MN	MO	NA	NI	PB	SB
Avge	-.00075	.00005	.00000	.06395	-.00046	.00005	-.00010
SDev	.00072	.00010	.00016	.00328	.00112	.00010	.00035
%RSD	95.839	200.00	.00000	5.1222	246.05	200.00	346.41

#1	.00020	.00000	.00000	.06420	-.00194	.00020	.00000
#2	-.00060	.00020	.00000	.06080	-.00071	.00000	.00020
#3	-.00120	.00000	.00020	.06240	.00042	.00000	.00000
#4	-.00140	.00000	-.00020	.06840	.00040	.00000	-.00060

Elem	SE	SI	SN	SR	TI	TL	V_
Avge	.00090	.00000	-.00100	.00009	.00170	.00005	.00000
SDev	.00151	.00000	.00059	.00041	.00038	.00084	.00065
%RSD	167.77	.00000	58.878	453.93	22.528	1677.3	.00000

#1	.00300	.00000	-.00180	.00060	.00200	-.00080	.00080
#2	-.00020	.00000	-.00080	.00000	.00160	.00120	.00000
#3	.00100	.00000	-.00040	-.00040	.00120	.00000	-.00080
#4	-.00020	.00000	-.00100	.00016	.00200	-.00020	.00000

Elem	ZN
Avge	.00086
SDev	.00020
%RSD	23.175

#1	.00084
#2	.00084
#3	.00112
#4	.00064

Method: QUANMET Standard: STD5A

Run Time: 02/27/01 16:14:37

0087-031-4

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Elem	AG	AS	B	BA	BE	CD	CO
Avge	.27565	.44270	.56314	4.6387	16.219	.80576	1.3348
SDev	.00062	.00549	.00291	.0230	.049	.00350	.0052
%RSD	.22461	1.2397	.51669	.49493	.30040	.43398	.38900

#1	.27480	.44680	.56084	4.6262	16.173	.80222	1.3276
#2	.27620	.44600	.56720	4.6707	16.287	.80498	1.3358
#3	.27560	.44320	.56125	4.6187	16.200	.81059	1.3400
#4	.27600	.43480	.56328	4.6390	16.217	.80526	1.3358

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.6555	2.4020	4.3847	1.9388	.33940	1.6393	.22360
SDev	.0167	.0121	.0340	.0074	.00162	.0074	.00121
%RSD	.45733	.50378	.77462	.38177	.47631	.44857	.54162

#1	3.6340	2.3984	4.3738	1.9288	.33720	1.6471	.22240
#2	3.6630	2.4172	4.4189	1.9432	.33920	1.6419	.22380
#3	3.6730	2.3882	4.3423	1.9454	.34040	1.6387	.22300
#4	3.6518	2.4042	4.4040	1.9376	.34080	1.6296	.22520

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.16270	.41840	.34090	.78420	8.9975	6.4858	.28030
SDev	.00106	.00222	.00076	.01221	.0394	.0195	.00213
%RSD	.65432	.53086	.22211	1.5575	.43797	.30062	.76072

#1	.16200	.41860	.33980	.77320	8.9700	6.4642	.28240
#2	.16340	.41980	.34140	.78560	9.0526	6.5116	.28180
#3	.16380	.42000	.34100	.80080	8.9681	6.4842	.27900
#4	.16160	.41520	.34140	.77720	8.9992	6.4834	.27800

Elem	V	ZN
Avge	1.6380	1.2740
SDev	.0061	.0047
%RSD	.37369	.37013

#1	1.6304	1.2673
#2	1.6446	1.2759
#3	1.6408	1.2782
#4	1.6362	1.2747

Method: QUANMET . Standard: STD5B
Run Time: 02/27/01 16:17:48

0087-032-1

Elem	AL	CA	FE	K	MG	NA
Avge	11.396	25.580	28.687	2.3020	7.2965	51.847
SDev	.146	.182	.241	.0413	.0818	1.041
%RSD	1.2785	.71131	.83965	1.7958	1.1204	2.0074
#1	11.309	25.470	28.545	2.2928	7.2470	51.186
#2	11.597	25.610	28.967	2.3566	7.4086	53.332
#3	11.406	25.824	28.800	2.3020	7.3044	51.799
#4	11.271	25.416	28.437	2.2566	7.2260	51.069

Method: QUANMET

Slope = Conc(SIR)/IR

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Element	Wavelength	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.08148	.005665	02/27/01 04:17:48
AL	308.215	STD5B	STD1	8.78275	-.084754	02/27/01 04:17:48
AS	193.696	STD5A	STD1	22.9995	-.029899	02/27/01 04:17:48
B ₁	249.600	STD5A	STD1	17.7874	.000000	02/27/01 04:17:48
BA	493.409	STD5A	STD1	2.15580	-.000044	02/27/01 04:17:48
BE	313.042	STD5A	STD1	.617972	-.001545	02/27/01 04:17:48
CA	317.933	STD5B	STD1	3.91208	-.070682	02/27/01 04:17:48
CD	228.802	STD5A	STD1	12.5952	.001630	02/27/01 04:17:48
CO	228.616	STD5A	STD1	7.52982	-.000753	02/27/01 04:17:48
CR	267.716	STD5A	STD1	2.73668	-.000411	02/27/01 04:17:48
CU	324.754	STD5A	STD1	4.15966	-.001248	02/27/01 04:17:48
FE	259.940	STD5B	STD1	3.48623	-.011156	02/27/01 04:17:48
K ₁	766.491	STD5B	STD1	42.9396	1.15293	02/27/01 04:17:48
LI	670.789	STD5A	STD1	2.28030	.001455	02/27/01 04:17:48
MG	279.079	STD5B	STD1	13.7038	.010278	02/27/01 04:17:48
MN	257.610	STD5A	STD1	5.15638	-.000258	02/27/01 04:17:48
MO	202.030	STD5A	STD1	29.4638	.000000	02/27/01 04:17:48
NA	588.995	STD5B	STD1	1.93114	-.123496	02/27/01 04:17:48
NI	231.604	STD5A	STD1	6.09512	.002779	02/27/01 04:17:48
PB	220.353	STD5A	STD1	43.4655	-.002173	02/27/01 04:17:48
SB	206.838	STD5A	STD1	61.4567	.006146	02/27/01 04:17:48
SE	196.026	STD5A	STD1	23.9521	-.021557	02/27/01 04:17:48
SI	288.158	STD5A	STD1	28.9914	.000000	02/27/01 04:17:48
SN	189.989	STD5A	STD1	12.7248	.012725	02/27/01 04:17:48
SR	409.552	STD5A	STD1	1.11143	-.000101	02/27/01 04:17:48
TI	334.941	STD5A	STD1	1.54222	-.002622	02/27/01 04:17:48
TL	190.864	STD5A	STD1	71.6305	-.003582	02/27/01 04:17:48
V ₁	292.402	STD5A	STD1	6.01044	.000000	02/27/01 04:17:48
ZN	213.856	STD5A	STD1	7.87641	-.006741	02/27/01 04:17:48

Analysis Report


 Z-28-01

02/27/01 04:24:06 PM

page 1

Method: QUANMET Sample Name: ICV2-1 0087-036-1 Operator: WTR

Run Time: 02/27/01 16:20:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 677 826

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51020	25.462	.98960	1.0145	.98216	.97134	25.508
SDev	.00297	.144	.03365	.0281	.00683	.00595	.142
%RSD	.58188	.56546	3.4007	2.7655	.69569	.61290	.55685
#1	.50771	25.493	.95490	.99359	.98402	.97060	25.390
#2	.50764	25.250	1.0261	.99127	.97220	.96320	25.385
#3	.51343	25.547	1.0095	1.0224	.98772	.97591	25.595
#4	.51201	25.558	.96796	1.0509	.98470	.97566	25.663
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99543	.99240	1.0003	.98024	26.383	25.390	.98180
SDev	.01003	.00797	.0054	.00971	.154	.310	.00864
%RSD	1.0073	.80286	.54133	.99061	.58536	1.2190	.88039
#1	.99629	.98825	1.0003	.98688	26.320	25.766	.98864
#2	.98100	.98380	.99322	.97189	26.194	25.010	.96975
#3	1.0018	1.0018	1.0014	.99024	26.501	25.422	.98746
#4	1.0027	.99576	1.0063	.97194	26.517	25.362	.98134
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.533	.99600	.97424	25.320	.99367	1.0262	.99818
SDev	.183	.00394	.01006	.225	.01299	.0279	.00619
%RSD	.71533	.39508	1.0331	.88885	1.3077	2.7144	.62000
#1	25.521	.99315	.96981	25.506	.99523	1.0370	1.0013
#2	25.288	.99209	.97569	24.994	.97530	.98491	1.0011
#3	25.721	.99939	.98751	25.414	.99853	1.0373	.98890
#4	25.601	.99939	.96395	25.365	1.0056	1.0458	1.0014
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95671	1.0336	1.0102	.97427	.96936	5.0494	.99425
SDev	.02693	.0029	.0214	.00667	.00563	.1559	.00524
%RSD	2.8146	.28273	2.1194	.68417	.58058	3.0885	.52742
#1	.96490	1.0321	1.0007	.97623	.96774	4.9892	.99600
#2	.92619	1.0320	.99302	.96455	.96219	4.8905	.98644

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#3	.98941	1.0322	1.0413	.97970	.97484	5.0587	.99743
#4	.94634	1.0379	1.0058	.97659	.97268	5.2591	.99713
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem	ZN
Units	ppm
Avge	.99155
SDev	.00479
%RSD	.48336

#1	.99445
#2	.98445
#3	.99442
#4	.99289

Errors	LC Pass
High	1.1000
Low	.90000

Method: QUANMET Sample Name: ICB1

Operator: WTR

Run Time: 02/27/01 16:24:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00477	-.01499	.00801	.00026	.00031	-.03986
SDev	.00178	.00587	.06222	.01600	.00015	.00014	.00678
%RSD	167.74	122.98	415.04	199.81	56.327	46.188	17.013

#1	.00142	.00302	-.00692	.03201	.00013	.00019	-.04325
#2	-.00142	-.00219	-.03908	-.00001	.00013	.00019	-.04762
#3	.00283	.00648	.06664	.00001	.00039	.00043	-.03290
#4	.00142	.01177	-.08060	.00002	.00039	.00043	-.03566

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00232	-.00001	.00096	.00000	.00244	.24261	.00022
SDev	.00258	.00150	.00202	.00048	.00604	.29972	.00067
%RSD	111.47	19885.	211.07	177780.	247.38	123.54	303.92

#1	.00423	.00074	.00014	.00042	-.00139	.56036	.00062
#2	.00355	.00074	.00014	-.00042	-.00349	-.05797	-.00074
#3	.00296	.00074	.00397	.00042	.00488	.43154	.00073
#4	-.00148	-.00226	-.00041	-.00042	.00976	.03650	.00027

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01987	.00026	.00589	.00782	.00407	-.00217	.00611
SDev	.00354	.00060	.00481	.00931	.00558	.00005	.01004
%RSD	17.807	229.67	81.653	119.00	137.07	2.1376	164.43

#1	.02398	-.00026	.00589	.00010	.00249	-.00216	-.00617
#2	.02124	-.00026	-.00000	.00048	-.00195	-.00214	.00610
#3	.01850	.00078	.01179	.01941	.01146	-.00213	.01843
#4	.01576	.00078	.00589	.01130	.00429	-.00223	.00608

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01436	.01305	.01593	.00032	.00031	.00356	.00008
SDev	.04537	.02609	.00815	.00021	.00053	.07530	.00007
%RSD	315.86	199.99	51.183	65.677	173.21	2118.2	83.979

#1	.02634	.00000	.01015	.00060	.00046	.01075	.00008
#2	-.07905	.00000	.01275	.00012	-.00046	-.10383	.00000

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#3	-.00717	.05218	.01280	.00034	.00077	.03934	.00016
#4	.00243	.00000	.02802	.00021	.00046	.06796	.00008

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	-.00228
SDev	.00162
%RSD	70.816

#1	-.00267
#2	-.00043
#3	-.00428
#4	-.00175

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET

Sample Name: ICSA 0087-076-3

Operator: WTR

Run Time: 02/27/01 16:27:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

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Elem Units	AG ppm	AL ppm	AS ppm	B_ ppm	BA ppm	BE ppm	CA ppm
Avge	.00165	496.96	.29091	-.05252	.00243	.00011	482.41
SDev	.00183	3.66	.04584	.00814	.00022	.00007	2.53
%RSD	110.70	.73556	15.757	15.497	8.8542	59.059	.52533
#1	.00344	495.92	.30705	-.05785	.00254	.00016	483.50
#2	-.00090	499.62	.22311	-.06094	.00211	.00006	478.87
#3	.00184	492.23	.30923	-.04715	.00254	.00018	482.48
#4	.00223	500.05	.32424	-.04412	.00254	.00005	484.77
Errors Value Range	NOCHECK	QC Pass 500.00 20.000	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass 500.00 20.000
Elem Units	CD ppm	CO ppm	CR ppm	CU ppm	FE ppm	K_ ppm	LI ppm
Avge	-.00578	.01398	.00191	.00173	183.58	.63551	.00230
SDev	.00374	.00257	.00298	.00140	.68	.50958	.00106
%RSD	64.677	18.371	155.50	80.619	.36827	80.186	46.262
#1	-.00625	.01737	.00615	.00298	183.55	.83518	.00290
#2	-.01038	.01135	-.00041	.00046	183.35	.22543	.00301
#3	-.00127	.01434	.00013	.00291	182.90	1.2646	.00256
#4	-.00523	.01284	.00178	.00059	184.50	.21685	.00073
Errors Value Range	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass 200.00 20.000	NOCHECK	NOCHECK
Elem Units	MG ppm	MN ppm	MO ppm	NA ppm	NI ppm	PB ppm	SB ppm
Avge	482.13	.01038	.00310	.00589	.00089	.00793	-.04279
SDev	2.43	.00066	.00762	.00420	.00842	.02697	.02658
%RSD	.50374	6.3633	245.40	71.231	943.97	340.22	62.128
#1	481.71	.01013	.00605	.00512	-.00842	.02400	-.03076
#2	483.44	.01001	.01191	.00512	-.00099	.01245	-.07963
#3	478.92	.01000	-.00582	.01168	.01195	.02671	-.01793
#4	484.47	.01136	.00028	.00164	.00104	-.03145	-.04282
Errors Value Range	QC Pass 500.00 20.000	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Elem Units	SE ppm	SI ppm	SN ppm	SR ppm	TI ppm	TL ppm	V_ ppm
Avge	-.16992	.14066	-.06332	.01358	-.01866	.78732	.00515
SDev	.08360	.02897	.04759	.00000	.00000	.32349	.00344
%RSD	49.198	20.597	75.160	.00000	.00000	41.088	66.705
#1	-.23706	.15666	-.00347	.01358	-.01866	.40789	.00971
#2	-.12271	.09858	-.10041	.01358	-.01866	.85442	.00136

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#3	-.07620	.14501	-.10278	.01358	-.01866	.70194	.00473
#4	-.24371	.16240	-.04661	.01358	-.01866	1.1850	.00482

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	-.00174
SDev	.00034
%RSD	19.446

#1	-.00144
#2	-.00147
#3	-.00212
#4	-.00194

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0087-012-2 Operator: WTR

Run Time: 02/27/01 16:32:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **677 832**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96288	496.08	1.1091	.89675	.45777	.44884	481.80
SDev	.00217	2.84	.1957	.00924	.00291	.00200	2.32
%RSD	.22516	.57336	17.643	1.0306	.63506	.44487	.48163

#1	.96447	499.78	Q1.2713	.90584	.46175	.45156	482.53
#2	.95980	493.18	.83286	.89837	.45529	.44675	478.42
#3	.96433	494.73	Q1.2197	.89892	.45597	.44847	483.69
#4	.96291	496.64	1.1126	.88386	.45805	.44859	482.57

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94816	.44776	.43739	.47746	184.15	10.241	.97117
SDev	.00673	.00143	.00161	.00741	.68	.186	.00704
%RSD	.71017	.31964	.36807	1.5515	.37177	1.8198	.72488

#1	.94765	.44663	.43903	.48856	184.84	9.9641	.98048
#2	.94705	.44665	.43520	.47424	183.21	10.308	.96610
#3	.94081	.44817	.43794	.47353	184.28	10.368	.96535
#4	.95714	.44962	.43739	.47353	184.28	10.325	.97273

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	478.99	.45378	.87530	10.053	.85508	.89737	.95897
SDev	1.92	.00272	.00588	.081	.00884	.03194	.03818
%RSD	.40083	.59900	.67205	.80224	1.0338	3.5595	3.9817

#1	481.37	.45727	.87834	10.158	.86357	.86849	.97746
#2	476.73	.45073	.87813	9.9737	.86184	.92569	.96531
#3	478.55	.45410	.86648	10.009	.84704	.92433	.90364
#4	479.30	.45304	.87827	10.070	.84787	.87095	.98947

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	Q.76600	1.0548	.88919	.91223	.86827	9.7420	.45342
SDev	.08004	.0082	.07922	.00587	.00471	.1564	.00225
%RSD	10.449	.77679	8.9092	.64366	.54302	1.6054	.49558

#1	.83040	1.0606	.86837	.91998	.87429	9.6590	.45497
#2	Q.68164	1.0605	.81972	.90672	.86287	9.5630	.45015

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#3	Q.71369	1.0548	.86545	.90882	.86719	9.8802	.45481
#4	.83825	1.0432	1.0032	.91339	.86873	9.8659	.45376
Errors	QC Fail	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	ZN
Units	ppm
Avge	.92303
SDev	.00749
%RSD	.81192

#1	.93321
#2	.91514
#3	.92207
#4	.92169

Errors	QC Pass
Value	1.0000
Range	20.000

Method: QUANMET Sample Name: DWLX9B

Operator: WTR

Run Time: 02/27/01 16:35:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00249	.01268	-.04845	.00801	.00017	.00006	-.04563
SDev	.00292	.00824	.03502	.01601	.00018	.00001	.00272
%RSD	117.05	64.946	72.288	199.84	104.41	8.3263	5.9534

#1	.00002	.00292	-.02080	.00001	.00039	.00005	-.04716
#2	.00567	.02239	-.07150	.03203	.00013	.00006	-.04325
#3	.00427	.01535	-.01630	.00000	-.00004	.00005	-.04868
#4	.00001	.01007	-.08520	.00001	.00021	.00006	-.04344

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00355	.00149	.00328	.00125	.00523	.47019	.00048
SDev	.00229	.00194	.00104	.00000	.00090	.08716	.00053
%RSD	64.571	130.04	31.589	.14476	17.230	18.537	111.21

#1	.00188	.00225	.00342	.00125	.00488	.53460	.00027
#2	H.00644	.00073	.00397	.00125	.00628	.42296	.00092
#3	.00435	.00375	.00178	.00125	.00419	.37143	-.00018
#4	.00155	-.00076	.00397	.00125	.00558	.55177	.00089

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02741	-.00026	.00295	-.00039	.00637	-.00212	.01529
SDev	.00906	.00000	.00589	.00255	.00103	.00710	.02099
%RSD	33.040	.79312	199.95	660.16	16.140	334.88	137.23

#1	.02124	-.00025	.01179	-.00222	.00738	.00660	.01838
#2	.01850	-.00026	.00000	.00319	.00581	-.00211	.04295
#3	.03769	-.00026	.00000	-.00222	.00521	-.01079	-.00618
#4	.03220	-.00026	.00000	-.00029	.00708	-.00219	.00603

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.04430	.02903	.04142	.00023	.00077	.02498	.00305
SDev	.01630	.03031	.01472	.00022	.00067	.04219	.00213
%RSD	36.808	104.42	35.540	96.764	86.410	168.91	69.672

#1	-.06466	.00006	.02553	.00034	.00015	-.03234	.00497
#2	-.03112	.00581	.03835	.00030	.00170	.02498	.00121

Analysis Report

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#3	-.03112	.05224	.04069	-.00010	.00077	.03928	.00481
#4	-.05028	.05800	.06110	.00038	.00046	.06798	.00121

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	-.00110
SDev	.00108
%RSD	98.087

#1	-.00017
#2	-.00203
#3	-.00016
#4	-.00204

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWLX9C

Operator: WTR

Run Time: 02/27/01 16:38:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04796	1.9970	1.9010	.96168	1.9416	.04846	49.506
SDev	.00137	.0198	.0522	.02376	.0138	.00044	.506
%RSD	2.8627	.99272	2.7462	2.4706	.70961	.90323	1.0227
#1	.04756	1.9783	1.9749	.96313	1.9244	.04799	48.932
#2	.04904	2.0114	1.8640	.97235	1.9513	.04870	49.791
#3	.04619	1.9817	1.8643	.92820	1.9365	.04822	49.254
#4	.04904	2.0167	1.9007	.98304	1.9540	.04895	50.049
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04625	.47564	.19068	.23893	1.0418	49.344	.98792
SDev	.00411	.00636	.00169	.00001	.0115	.313	.00554
%RSD	8.8847	1.3370	.88885	.00311	1.1014	.63527	.56070
#1	.04287	.46815	.19219	.23892	1.0280	49.194	.98113
#2	.05069	.48164	.18836	.23894	1.0469	49.546	.99272
#3	.04264	.47265	.19164	.23893	1.0378	48.979	.99215
#4	.04879	.48014	.19054	.23894	1.0546	49.658	.98569
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.035	.48090	.95918	50.761	.48038	.47890	.49055
SDev	.407	.00470	.01307	.240	.01186	.03088	.00622
%RSD	.81391	.97636	1.3624	.47361	2.4689	6.4491	1.2681
#1	49.486	.47471	.94297	50.413	.47688	.47872	.49370
#2	50.273	.48400	.97244	50.966	.49122	.43558	.49367
#3	49.977	.47987	.95476	50.815	.46519	.49620	.48122
#4	50.405	.48503	.96655	50.849	.48821	.50508	.49361
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9505	9.7337	1.8874	.95898	.95471	1.9258	.47950
SDev	.0532	.0880	.0308	.00706	.00834	.0974	.00696
%RSD	2.7290	.90457	1.6321	.73661	.87345	5.0572	1.4520
#1	1.8882	9.6596	1.8518	.95018	.94369	1.8293	.46968
#2	2.0128	9.7816	1.9078	.96405	.95911	1.9865	.48448

#3	1.9313	9.6597	1.8721	.95640	.95325	2.0297	.47945
#4	1.9697	9.8337	1.9180	.96529	.96281	1.8575	.48441

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.47321
SDev	.00512
%RSD	1.0813

#1	.46759
#2	.47706
#3	.47017
#4	.47800

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DV868

Operator: WTR

Run Time: 02/27/01 16:41:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	-.00099	-.05871	.01984	.00110	.00002	22.942
SDev	.00071	.00167	.01853	.01001	.00011	.00012	.212
%RSD	65.222	168.29	31.558	50.447	9.8096	543.81	.92470
#1	.00002	-.00230	-.05756	.02241	.00100	-.00007	22.730
#2	.00143	-.00228	-.08515	.02596	.00107	.00005	23.207
#3	.00143	-.00058	-.04836	.00504	.00107	-.00007	22.820
#4	.00144	.00120	-.04379	.02596	.00125	.00017	23.010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00214	-.00038	.00164	.00083	.00836	23.507	.00052
SDev	.00199	.00225	.00207	.00083	.00127	.335	.00059
%RSD	92.688	590.86	125.98	100.07	15.231	1.4265	114.84
#1	.00123	-.00226	-.00041	-.00042	.00906	23.172	.00046
#2	.00512	.00224	.00451	.00125	.00976	23.954	.00108
#3	.00113	-.00226	.00123	.00125	.00697	23.550	-.00029
#4	.00109	.00075	.00123	.00125	.00767	23.353	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	12.311	.00026	.00442	50.992	.00749	.05432	-.00305
SDev	.083	.00060	.00295	.208	.00405	.00509	.01840
%RSD	.67258	227.70	66.649	.40704	54.036	9.3733	603.10
#1	12.264	-.00026	.00000	50.939	.00420	.04988	-.03065
#2	12.434	.00078	.00589	51.186	.01117	.05875	.00615
#3	12.261	.00078	.00589	51.119	.01081	.04993	.00617
#4	12.283	-.00025	.00589	50.723	.00379	.05871	.00613
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02393	.04934	.01144	.00612	-.00100	-.02161	.00427
SDev	.02667	.02571	.01541	.00000	.00030	.08940	.00067
%RSD	111.46	52.111	134.67	.00000	29.459	413.74	15.673
#1	-.05027	.01165	-.01030	.00612	-.00077	-.07533	.00481
#2	-.03590	.06962	.02548	.00612	-.00077	-.07536	.00369

#3	-.02154	.05803	.01785	.00612	-.00139	.11095	.00369
#4	.01200	.05804	.01276	.00612	-.00108	-.04669	.00489
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge -.00425
SDev .00052
%RSD 12.149

#1 -.00488
#2 -.00426
#3 -.00361
#4 -.00424

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DV87E

Operator: WTR.

Run Time: 02/27/01 16:44:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.25947	1.2869	.69324	.48260	1.9992	.24482	-.04904
SDev	.00138	.0080	.04846	.00773	.0087	.00081	.00203
%RSD	.53074	.62474	6.9898	1.6023	.43450	.33003	4.1482

#1	.25764	1.2788	.75216	.47366	1.9932	.24386	-.04703
#2	.26053	1.2874	.64150	.47868	1.9975	.24457	-.04951
#3	.26054	1.2838	.71050	.48978	1.9943	.24506	-.04795
#4	.25918	1.2978	.66879	.48831	2.0120	.24578	-.05167

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.28721	.89919	.42014	.82170	1.0749	.75574	-.00017
SDev	.00623	.00370	.00223	.00280	.0027	.23281	.00077
%RSD	2.1686	.41191	.53070	.34116	.25151	30.806	460.12

#1	.29254	.89617	.41851	.82086	1.0717	1.0327	-.00101
#2	.28078	.90373	.41796	.82254	1.0780	.59471	-.00056
#3	.29255	.89617	.42179	.81837	1.0738	.86094	.00017
#4	.28297	.90070	.42233	.82503	1.0759	.53460	.00073

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01165	.93347	.41558	.68082	1.0112	1.9557	.66735
SDev	.01415	.00304	.00340	.00503	.0108	.0166	.01544
%RSD	121.51	.32525	.81870	.73894	1.0687	.85130	2.3135

#1	.00480	.93038	.41263	.68372	1.0106	1.9774	.68885
#2	-.01713	.93348	.41852	.67484	1.0177	1.9601	.65207
#3	-.00617	.93244	.41852	.68604	.99620	1.9426	.66409
#4	-.02809	.93760	.41263	.67870	1.0203	1.9427	.66439

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.65241	.50695	.00663	.18635	.23743	.39577	3.8126
SDev	.04083	.00301	.00632	.00076	.00122	.05546	.0113
%RSD	6.2585	.59293	95.298	.40743	.51284	14.014	.29738

#1	.65240	.50245	-.00027	.18557	.23642	.37441	3.7990
#2	.59494	.50839	.00720	.18646	.23796	.33124	3.8111

#3	.67636	.50841	.00471	.18602	.23642	.41728	3.8135
#4	.68595	.50857	.01489	.18735	.23889	.46015	3.8266

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	1.8162
SDev	.0034
%RSD	.18642

#1	1.8180
#2	1.8127
#3	1.8141
#4	1.8199

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV87EP5

Operator: WTR

Run Time: 02/27/01 16:47:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05406	.25880	.11020	.11393	.39893	.04962	-.06336
SDev	.00135	.00861	.04357	.00000	.00285	.00021	.00150
%RSD	2.4993	3.3257	39.533	.00298	.71369	.42158	2.3670

#1	.05582	.26937	.05264	.11393	.40035	.04956	-.06226
#2	.05301	.25880	.15385	.11393	.40225	.04992	-.06557
#3	.05299	.24829	.10341	.11393	.39665	.04956	-.06295
#4	.05441	.25873	.13092	.11394	.39647	.04944	-.06267

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06185	.18630	.08745	.16056	.21543	.25334	.00020
SDev	.00258	.00194	.00230	.00080	.00192	.31782	.00075
%RSD	4.1776	1.0405	2.6268	.49552	.89166	125.45	372.92

#1	.06151	.18856	.08731	.15952	.21770	.06226	.00119
#2	.06437	.18704	.08512	.16119	.21351	-.03220	.00017
#3	.05840	.18405	.08676	.16035	.21421	.30272	-.00064
#4	.06314	.18555	.09059	.16118	.21630	.68059	.00009

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00480	.19139	.08695	.13952	.21020	.40482	.15747
SDev	.01073	.00130	.00564	.00692	.00864	.05823	.00013
%RSD	223.76	.67741	6.4892	4.9570	4.1126	14.385	.08361

#1	-.00069	.19268	.08842	.14300	.19948	.35923	.15733
#2	-.00617	.19164	.08253	.12948	.22021	.35920	.15765
#3	.01850	.19164	.08253	.14068	.20845	.41998	.15745
#4	.00754	.18959	.09431	.14493	.21268	.48086	.15745

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.11563	.16267	.02217	.03735	.04796	.09268	.77189
SDev	.02229	.00748	.01184	.00022	.00044	.05894	.00236
%RSD	19.278	4.5974	53.438	.59509	.90946	63.601	.30609

#1	.08929	.15396	.03362	.03724	.04858	.08907	.77070
#2	.14197	.15981	.01326	.03769	.04796	.10342	.77543

#3	.12282	.16556	.03107	.03724	.04765	.16077	.77062
#4	.10845	.17136	.01072	.03724	.04765	.01746	.77079

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.37441
SDev	.00263
%RSD	.70126

#1	.37326
#2	.37136
#3	.37573
#4	.37729

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV87ES

Operator: WTR

Run Time: 02/27/01 16:51:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.29486	3.1381	2.4996	1.3736	3.7360	.28237	47.141
SDev	.00248	.0127	.0382	.0020	.0041	.00048	.331
%RSD	.83984	.40434	1.5297	.14477	.10990	.16920	.70226
#1	.29447	3.1563	2.5398	1.3756	3.7421	.28266	46.910
#2	.29596	3.1365	2.4477	1.3727	3.7334	.28238	47.386
#3	.29739	3.1314	2.5075	1.3748	3.7349	.28274	47.461
#4	.29160	3.1279	2.5034	1.3712	3.7336	.28169	46.805
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.32837	1.3020	.57931	.99711	2.0004	46.991	.93414
SDev	.00468	.0091	.00363	.00105	.0128	.263	.00782
%RSD	1.4254	.70016	.62727	.10551	.63753	.55963	.83736
#1	.32369	1.3110	.57726	.99857	1.9929	47.210	.94097
#2	.32616	1.2975	.58382	.99607	2.0083	47.201	.92729
#3	.33458	1.3080	.58053	.99691	2.0139	46.669	.92745
#4	.32906	1.2915	.57563	.99689	1.9867	46.884	.94086
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	47.089	1.3426	1.3084	48.551	1.4108	2.3284	1.1048
SDev	.096	.0063	.0083	.274	.0151	.0400	.0061
%RSD	.20459	.47105	.63683	.56360	1.0677	1.7159	.54828
#1	47.118	1.3383	1.3026	48.797	1.4030	2.3699	1.1017
#2	47.146	1.3476	1.3085	48.318	1.4184	2.2826	1.1016
#3	47.146	1.3486	1.3026	48.309	1.4278	2.3525	1.1021
#4	46.946	1.3362	1.3202	48.778	1.3942	2.3086	1.1139
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.4529	9.6339	1.8196	1.0915	1.1378	2.2669	4.0949
SDev	.0374	.0279	.0544	.0012	.0022	.0817	.0131
%RSD	1.5255	.28969	2.9910	.10582	.19344	3.6030	.31908
#1	2.4612	9.6265	1.8310	1.0928	1.1380	2.2669	4.0888
#2	2.4852	9.6557	1.8895	1.0912	1.1395	2.3385	4.1045

677 845

#3	2.4661	9.6557	1.7954	1.0921	1.1389	2.3097	4.1068
#4	2.3989	9.5974	1.7623	1.0901	1.1346	2.1526	4.0794

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.2136
SDev	.0050
%RSD	.22367

#1	2.2177
#2	2.2174
#3	2.2120
#4	2.2073

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV87ED

Operator: WTR

Run Time: 02/27/01 16:54:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.29648	3.1831	2.5848	1.3906	3.8206	.28607	47.605
SDev	.00317	.0502	.0277	.0206	.0626	.00311	.218
%RSD	1.0711	1.5761	1.0730	1.4804	1.6398	1.0859	.45826
#1	.29772	3.2426	2.6159	1.4047	3.8932	.28963	47.617
#2	.30028	3.1698	2.5484	1.3727	3.7849	.28469	47.534
#3	.29484	3.1971	2.5888	1.4119	3.8497	.28743	47.896
#4	.29307	3.1228	2.5860	1.3733	3.7544	.28253	47.375
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.32706	1.3121	.58545	1.0173	2.0221	48.161	.96729
SDev	.00984	.0075	.00536	.0176	.0184	.854	.02127
%RSD	3.0080	.57123	.91638	1.7325	.91092	1.7734	2.1989
#1	.31333	1.3200	.58652	1.0377	2.0391	48.739	.99178
#2	.32656	1.3125	.58217	1.0102	2.0167	47.193	.96066
#3	.33468	1.3139	.59255	1.0244	2.0342	49.005	.97501
#4	.33366	1.3020	.58054	.99690	1.9985	47.708	.94172
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.065	1.3566	1.3232	50.056	1.4141	2.3308	1.1141
SDev	.590	.0101	.0156	.995	.0129	.0475	.0363
%RSD	1.2282	.74132	1.1785	1.9876	.91324	2.0383	3.2555
#1	48.692	1.3651	1.3379	51.158	1.3997	2.3962	1.1140
#2	47.754	1.3507	1.3202	49.440	1.4289	2.3266	1.1634
#3	48.409	1.3651	1.3320	50.606	1.4200	2.3178	1.1017
#4	47.403	1.3455	1.3026	49.020	1.4079	2.2827	1.0773
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4350	9.7503	1.8151	1.1168	1.1577	2.2700	4.1405
SDev	.0546	.0821	.0400	.0157	.0126	.0912	.0418
%RSD	2.2421	.84195	2.2053	1.4091	1.0866	4.0198	1.0092
#1	2.5141	9.7958	1.8080	1.1350	1.1722	2.3949	4.1806
#2	2.4038	9.7429	1.8032	1.1077	1.1510	2.1949	4.1191

#3	2.4278	9.8246	1.8716	1.1243	1.1636	2.2804	4.1697
#4	2.3942	9.6382	1.7774	1.1003	1.1442	2.2097	4.0924
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.2323
SDev	.0074
%RSD	.33355

#1	2.2393
#2	2.2227
#3	2.2368
#4	2.2303

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWL9GBT

Operator: WTR

Run Time: 02/27/01 16:57:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00178	.01224	.05853	.11298	.00470	-.00000	.39292
SDev	.00179	.01200	.05605	.00178	.00000	.00007	.00406
%RSD	100.75	98.063	95.770	1.5744	.00000	9104.0	1.0328

#1	.00142	.00121	.02987	.11031	.00470	.00006	.39380
#2	.00144	.01004	.01595	.11386	.00470	.00005	.39173
#3	-.00001	.00841	.14027	.11387	.00470	-.00005	.38823
#4	.00426	.02929	.04803	.11388	.00470	-.00006	.39794

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	.00037	.00315	.00375	.01639	.80512	.00013
SDev	.00212	.00311	.00130	.00096	.00201	.52518	.00079
%RSD	295.72	837.88	41.359	25.634	12.287	65.230	591.81

#1	.00026	.00075	.00342	.00291	.01674	.64624	-.00010
#2	-.00209	.00377	.00397	.00458	.01395	1.3505	.00017
#3	.00258	.00074	.00123	.00291	.01604	.14814	-.00072
#4	.00212	-.00378	.00397	.00457	.01883	1.0756	.00119

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06920	.00104	.00589	S766.41	.00078	.01088	.00913
SDev	.01061	.00052	.00481	1533.1	.00684	.02615	.01182
%RSD	15.339	49.713	81.621	200.03	882.27	240.35	129.44

#1	.08154	.00078	.01179	S-.12350	.00206	-.00215	.00611
#2	.07332	.00078	.00589	S-.12350	.00336	.05010	.01840
#3	.05687	.00078	.00000	S3066.0	-.00906	-.00217	-.00633
#4	.06509	.00181	.00590	S-.12350	.00673	-.00227	.01834

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03228	.13047	.01594	.00122	.00069	-.00735	.00039
SDev	.04362	.04453	.02113	.00020	.00030	.02447	.00304
%RSD	135.10	34.129	132.50	16.182	42.552	332.96	788.42

#1	.00245	.09277	-.01270	.00123	.00046	.02488	.00016
#2	.00723	.15660	.01280	.00123	.00046	-.01812	.00369

#3	-.05983	.17970	.03051	.00097	.00077	-.00374	-.00360
#4	-.07898	.09279	.03316	.00145	.00108	-.03241	.00129

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.02347
SDev	.00092
%RSD	3.9372

#1	.02252
#2	.02345
#3	.02319
#4	.02473

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: CCV2-1 0087-072-1 Operator: WTR
 Run Time: 02/27/01 17:00:36
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98815	49.960	4.9224	4.8678	4.7514	4.7678	50.990
SDev	.00484	.351	.0419	.0283	.0429	.0238	.196
%RSD	.48946	.70273	.85171	.58114	.90220	.49896	.38391
#1	.99467	50.207	4.8797	4.8612	4.7742	4.7721	51.273
#2	.98297	49.456	4.9698	4.8309	4.6888	4.7334	50.858
#3	.98751	50.193	4.9445	4.8943	4.7831	4.7877	50.861
#4	.98747	49.982	4.8957	4.8850	4.7593	4.7778	50.968
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9670	4.8349	4.8396	4.7663	51.549	49.084	4.7573
SDev	.0236	.0257	.0192	.0394	.255	.600	.0592
%RSD	.47540	.53056	.39699	.82572	.49416	1.2222	1.2453
#1	4.9828	4.8570	4.8643	4.7813	51.772	49.752	4.7810
#2	4.9320	4.8001	4.8195	4.7088	51.183	48.404	4.6736
#3	4.9792	4.8314	4.8309	4.7979	51.643	49.383	4.8113
#4	4.9740	4.8510	4.8435	4.7771	51.597	48.799	4.7633
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.022	4.8281	4.8490	49.273	4.8246	4.8726	4.9135
SDev	.307	.0195	.0395	.518	.0349	.0360	.0623
%RSD	.61466	.40362	.81505	1.0516	.72263	.73823	1.2672
#1	50.215	4.8480	4.8564	49.551	4.8690	4.8970	5.0058
#2	49.569	4.8015	4.7915	48.521	4.8094	4.8264	4.8830
#3	50.210	4.8295	4.8800	49.669	4.7874	4.9048	4.8947
#4	50.095	4.8336	4.8682	49.352	4.8328	4.8620	4.8707
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8905	4.9848	4.9432	4.7581	4.7998	9.7692	4.8140
SDev	.0752	.0607	.0715	.0401	.0313	.1430	.0228
%RSD	1.5368	1.2170	1.4456	.84229	.65254	1.4635	.47347
#1	4.9954	5.0024	5.0453	4.7801	4.8245	9.9420	4.8343
#2	4.8403	4.9090	4.9177	4.6999	4.7548	9.6340	4.7817

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#3	4.8321	5.0545	4.9303	4.7882	4.8171	9.6714	4.8237
#4	4.8942	4.9732	4.8794	4.7643	4.8026	9.8294	4.8164
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.9032
SDev	.0307
%RSD	.62652

#1	4.9302
#2	4.8590
#3	4.9108
#4	4.9126

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB1

Operator: WTR

Run Time: 02/27/01 17:03:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00213	.00602	-.01617	.02580	.00099	.00077	-.05533
SDev	.00183	.00813	.01190	.01728	.00021	.00015	.00332
%RSD	85.927	134.97	73.576	66.967	21.286	20.123	5.9959

#1	.00425	.00648	-.00235	.03202	.00107	.00056	-.05434
#2	.00142	.00289	-.02993	.03559	.00125	.00093	-.05218
#3	.00285	.01697	-.02089	.03558	.00082	.00080	-.05480
#4	.00000	-.00224	-.01149	.00001	.00082	.00080	-.06000

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00107	.00037	.00274	.00208	.00366	.43584	.00093
SDev	.00241	.00076	.00113	.00068	.00174	.36506	.00092
%RSD	226.44	204.90	41.189	32.641	47.572	83.761	99.145

#1	.00061	.00075	.00397	.00291	.00140	.80082	.00183
#2	.00448	-.00077	.00178	.00208	.00558	.36284	.00054
#3	.00038	.00075	.00342	.00208	.00349	.62048	.00154
#4	-.00121	.00076	.00178	.00125	.00419	-.04079	-.00018

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02124	.00078	.01179	.02453	.00120	.00870	.00294
SDev	.02193	.00000	.00481	.01009	.00755	.02284	.01175
%RSD	103.23	.23370	40.824	41.134	628.11	262.37	399.78

#1	.03220	.00078	.01179	.01323	-.00696	-.00213	.01826
#2	.03220	.00078	.01768	.03717	.00622	.04126	-.00624
#3	.03220	.00078	.01179	.02675	.00888	.00654	.00606
#4	-.01165	.00078	.00589	.02095	-.00332	-.01085	-.00632

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02873	.05220	.02609	.00060	.00123	.02861	.00106
SDev	.02940	.03512	.01599	.00040	.00040	.10998	.00180
%RSD	102.32	67.284	61.269	67.075	32.275	384.46	169.77

#1	.00719	.06378	.00771	.00034	.00108	.11101	.00016
#2	-.03112	.06958	.01779	.00114	.00139	.05367	.00024

#3	-.02634	.07542	.04074	.00066	.00170	-.13258	.00377
#4	-.06466	.00000	.03815	.00025	.00077	.08233	.00008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00362
SDev .00149
%RSD 41.181

#1 -.00265
#2 -.00204
#3 -.00491
#4 -.00488

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWM3KBT

Operator: WTR

Run Time: 02/27/01 17:06:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00319	.00429	-.02880	-.00000	.00039	.00003	-.05715
SDev	.00242	.00805	.04319	.00001	.00015	.00006	.00201
%RSD	75.784	187.73	149.95	497.59	37.479	231.85	3.5244

#1	.00000	-.00410	-.04828	-.00001	.00021	.00006	-.05876
#2	.00427	.00822	-.06222	.00000	.00039	-.00007	-.05789
#3	.00567	.01354	.03439	.00000	.00056	.00006	-.05775
#4	.00283	-.00051	-.03909	-.00000	.00039	.00006	-.05421

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00121	-.00076	.00287	.00104	-.00122	.71065	.00082
SDev	.00405	.00001	.00100	.00042	.00269	.28087	.00015
%RSD	334.72	1.5451	34.773	40.024	221.33	39.524	18.811

#1	.00365	-.00076	.00178	.00125	-.00488	.61189	.00062
#2	.00485	-.00077	.00233	.00125	.00140	.36284	.00084
#3	-.00424	-.00074	.00342	.00042	.00000	.87812	.00100
#4	.00058	-.00076	.00397	.00125	-.00139	.98976	.00081

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02261	-.00026	.00737	.01516	.00494	.05433	.01221
SDev	.01152	.00000	.00295	.00601	.00130	.00869	.00708
%RSD	50.948	.18238	39.997	39.634	26.260	16.005	57.975

#1	.02398	-.00026	.01178	.00821	.00328	.04129	.00609
#2	.01028	-.00026	.00589	.01670	.00623	.05868	.01837
#3	.03769	-.00026	.00589	.01323	.00565	.05866	.00607
#4	.01850	-.00026	.00589	.02250	.00458	.05869	.01831

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01557	.09279	.02741	.00031	.00093	.01792	.00131
SDev	.02749	.00002	.01576	.00016	.00040	.09248	.00170
%RSD	176.53	.02191	57.516	52.533	43.033	516.13	130.10

#1	-.04073	.09279	.00511	.00016	.00046	-.04651	.00136
#2	-.01197	.09282	.03570	.00021	.00108	-.03227	.00369

#3	.02156	.09277	.02802	.00053	.00139	-.00358	.00009
#4	-.03114	.09277	.04079	.00034	.00077	.15403	.00009

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	-.00228
SDev	.00104
%RSD	45.360

#1	-.00240
#2	-.00202
#3	-.00361
#4	-.00111

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DWM3KCT

Operator: WTR

Run Time: 02/27/01 17:10:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04855	1.8866	2.0656	1.0201	1.7608	.04422	L.45063
SDev	.00135	.0238	.0310	.0051	.0089	.00029	.00788
%RSD	2.7704	1.2641	1.4986	.49960	.50266	.66556	1.7482

#1	.04750	1.9016	2.1045	1.0150	1.7712	.04443	L.45685
#2	.04749	1.8540	2.0313	1.0200	1.7496	.04381	L.45354
#3	.05031	1.9068	2.0539	1.0271	1.7621	.04444	L.45303
#4	.04889	1.8840	2.0725	1.0185	1.7601	.04420	L.43909

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04321	.45237	.18393	.23100	.98051	L.66986	.89093
SDev	.00231	.00514	.00364	.00108	.00665	.48171	.00593
%RSD	5.3338	1.1359	1.9788	.46739	.67802	71.912	.66534

#1	.04495	.45914	.18927	.23225	.98870	L.64624	.89694
#2	.04217	.44711	.18161	.22974	.97545	L1.1787	.88283
#3	.04045	.45313	.18325	.23141	.98312	L.82659	.89112
#4	.04526	.45011	.18161	.23058	.97475	L.02791	.89284

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.07948	.45324	.00455	S-.12350	.44393	.43206	L.01525
SDev	.02068	.00246	.00295	.00000	.00605	.01296	.03524
%RSD	26.015	.54183	64.793	.00000	1.3628	2.9996	231.14

#1	L.09250	.45582	.00013	S-.12350	.44168	.42566	L-.02468
#2	L.08702	.45169	.00602	S-.12350	.45045	.45150	L.01227
#3	L.08976	.45479	.00602	S-.12350	.44694	.42554	L.01218
#4	L.04865	.45066	.00602	S-.12350	.43664	.42555	L.06122

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0725	.19086	.00978	.87617	.00069	1.8084	.45487
SDev	.0438	.00003	.01614	.00447	.00064	.0298	.00276
%RSD	2.1145	.01688	165.05	.51003	91.625	1.6499	.60627

#1	2.0509	.19089	-.00502	.88158	.00015	1.8154	.45723
#2	2.0413	.19089	-.00233	.87078	.00108	1.8443	.45729

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#3	2.1372	.19083	.01803	.87704	.00139	1.7726	.45249
#4	2.0605	.19083	.02842	.87526	.00015	1.8013	.45248

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.50216
SDev	.00368
%RSD	.73230

#1	.50641
#2	.49824
#3	.50388
#4	.50011

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWH38T

Operator: WTR

Run Time: 02/27/01 17:13:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00101	3.2019	.10280	.15255	.25293	.00035	36.302
SDev	.00242	.0181	.08373	.01659	.00139	.00011	.465
%RSD	238.84	.56491	81.449	10.874	.54784	32.884	1.2800
#1	.00135	3.1896	.05701	.14497	.25168	.00049	35.613
#2	.00421	3.2230	.01519	.17742	.25289	.00038	36.622
#3	-.00004	3.2107	.20387	.14395	.25487	.00026	36.519
#4	-.00147	3.1844	.13513	.14385	.25229	.00026	36.453
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1078	.04664	.08113	.21347	11.283	7.9395	.45860
SDev	.0115	.00190	.00232	.00082	.110	.2615	.00328
%RSD	1.0372	4.0694	2.8612	.38414	.97439	3.2932	.71553
#1	1.0947	.04706	.08332	.21470	11.122	8.0748	.46065
#2	1.1153	.04398	.08004	.21306	11.346	7.5939	.45537
#3	1.1193	.04849	.07840	.21306	11.360	7.8945	.46210
#4	1.1018	.04704	.08278	.21306	11.303	8.1950	.45628
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.4550	.34225	.01914	S-.12350	.28165	8.0032	.02985
SDev	.0247	.00424	.00001	.00000	.00839	.0945	.02725
%RSD	1.0068	1.2393	.07426	.00000	2.9776	1.1808	91.294
#1	2.4852	.33602	.01912	S-.12350	.28238	7.9228	.02063
#2	2.4249	.34537	.01914	S-.12350	.29270	8.1052	.02078
#3	2.4578	.34434	.01915	S-.12350	.27882	8.0620	.06977
#4	2.4523	.34329	.01914	S-.12350	.27269	7.9228	.00823
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03116	2.4080	.03328	.53685	.00108	.08096	.02568
SDev	.02261	.0394	.01171	.00333	.00044	.04800	.00241
%RSD	72.564	1.6365	35.179	.62002	40.406	59.281	9.3734
#1	.06060	2.3544	.03512	.53307	.00108	.11496	.02929
#2	.01339	2.4472	.01734	.53811	.00139	.01224	.02448

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#3	.01343	2.4066	.04555	.54077	.00046	.08367	.02447
#4	.03721	2.4240	.03510	.53544	.00139	.11297	.02448
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	1.0029
SDev	.0099
%RSD	.99036

#1	.98829
#2	1.0106
#3	1.0062
#4	1.0063

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWH4AT

Operator: WTR

Run Time: 02/27/01 17:16:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00154	1.1762	.14183	.05751	.08829	.00013	9.0443
SDev	.00178	.0244	.02622	.00001	.00175	.00001	.0537
%RSD	115.46	2.0779	18.487	.01637	1.9804	4.5174	.59411
#1	-.00024	1.1483	.10874	.05750	.08723	.00014	8.9660
#2	.00401	1.1657	.14080	.05751	.08654	.00014	9.0568
#3	.00120	1.1867	.17276	.05752	.08895	.00013	9.0673
#4	.00120	1.2043	.14502	.05752	.09042	.00013	9.0873
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01682	.00066	.00985	.00628	.31516	1.8829	.19051
SDev	.00251	.00213	.00155	.00068	.00346	.3072	.00598
%RSD	14.917	322.63	15.716	10.835	1.0990	16.314	3.1399
#1	.01909	.00367	.01204	.00628	.31098	2.2092	.18691
#2	.01324	-.00084	.00876	.00544	.31377	1.8486	.18409
#3	.01733	.00066	.00985	.00711	.31725	1.9945	.19423
#4	.01763	-.00085	.00876	.00627	.31865	1.4793	.19678
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50361	.02482	.00446	S-.12350	.00921	.04914	.02216
SDev	.01073	.00052	.00564	.00000	.01085	.01878	.03077
%RSD	2.1310	2.0747	126.49	.00000	117.78	38.229	138.87
#1	.50910	.02456	.00004	S-.12350	.00465	.06660	.00679
#2	.50087	.02457	.00593	S-.12350	.02325	.02309	.06831
#3	.51458	.02457	.01183	S-.12350	.01117	.05780	.00678
#4	.48991	.02560	.00004	S-.12350	-.00224	.04905	.00675
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02178	1.0148	.02877	.39711	.00262	.03434	.25252
SDev	.00239	.0111	.01998	.00756	.00056	.09577	.00280
%RSD	10.963	1.0933	69.447	1.9039	21.479	278.86	1.1080
#1	-.02060	1.0118	.01535	.39263	.00200	.16332	.25006
#2	-.02059	1.0234	.05632	.38938	.00324	.00573	.25013

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#3	-.02058	1.0235	.03062	.40028	.00231	-.06598	.25502
#4	-.02537	1.0003	.01280	.40615	.00293	.03431	.25486

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.31648
SDev	.00242
%RSD	.76301

#1	.31885
#2	.31314
#3	.31662
#4	.31732

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWF7GT

Operator: WTR

Run Time: 02/27/01 17:19:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm,	ppm	ppm	ppm
Avg	.00035	.39414	.11320	.04357	.22148	.00009	6.6898
SDev	.00183	.00817	.05844	.00696	.00110	.00006	.0503
%RSD	528.86	2.0728	51.625	15.981	.49867	60.137	.75123

#1	.00249	.40555	.11536	.04060	.21995	.00017	6.7166
#2	-.00039	.39153	.12025	.03906	.22254	.00007	6.6241
#3	.00106	.38623	.03736	.04066	.22150	.00006	6.6794
#4	-.00176	.39326	.17984	.05396	.22193	.00006	6.7392

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.23175	.02329	.15955	.05697	16.148	.79653	.00202
SDev	.00785	.00261	.00157	.00080	.054	.46642	.00081
%RSD	3.3891	11.190	.98417	1.4047	.33669	58.556	40.205

#1	.23400	.02705	.16160	.05801	16.132	1.3505	.00320
#2	.23496	.02103	.15777	.05634	16.087	.21685	.00172
#3	.23782	.02252	.15941	.05635	16.156	.74071	.00180
#4	.22023	.02258	.15941	.05719	16.217	.87812	.00135

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.46524	.15344	.00798	S-.12350	.02145	.69068	.02029
SDev	.01001	.00134	.00001	.00000	.00167	.04428	.01549
%RSD	2.1511	.87241	.08806	.00000	7.7810	6.4117	76.325

#1	.47621	.15498	.00798	S-.12350	.02028	.64728	.00489
#2	.45976	.15188	.00797	S-.12350	.01985	.69062	.01723
#3	.45428	.15293	.00798	S-.12350	.02338	.67330	.04182
#4	.47073	.15398	.00799	S-.12350	.02229	.75149	.01722

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04248	.94222	.02199	.01768	.00486	.00644	.00077
SDev	.03226	.02899	.01145	.00000	.00053	.14883	.00346
%RSD	75.942	3.0767	52.086	.00000	10.843	2312.4	447.65

#1	-.03415	.92778	.03592	.01768	.00540	-.10087	.00528
#2	-.08698	.92768	.00797	.01768	.00478	.18624	-.00314

#3	-.03886	.98571	.02081	.01768	.00509	-.12975	.00047
#4	-.00993	.92773	.02327	.01768	.00416	.07012	.00047
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.9596
SDev	.0129
%RSD	.43481

#1	2.9623
#2	2.9447
#3	2.9560
#4	2.9755

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV7NNT

Operator: WTR

Run Time: 02/27/01 17:22:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00304	.05654	.09489	.27034	.51438	.00017	H855.40
SDev	.00178	.01274	.03600	.00073	.00446	.00001	4.48
%RSD	58.499	22.536	37.936	.27144	.86661	3.1035	.52377
#1	-.00338	.05199	.08913	.27144	.52057	.00016	H849.15
#2	-.00057	.07148	.05224	.26998	.51238	.00017	H857.56
#3	-.00340	.06106	.09833	.26997	.51022	.00018	H855.41
#4	-.00482	.04162	.13988	.26997	.51436	.00017	H859.46
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00083	.00136	-.00096	.00687	.01535	6.1296	.03552
SDev	.00219	.00150	.00173	.00042	.00174	.1288	.00044
%RSD	264.52	110.91	180.16	6.0480	11.358	2.1016	1.2355
#1	-.00293	-.00090	.00123	.00707	.01448	6.3057	.03577
#2	.00210	.00210	-.00260	.00624	.01797	6.0996	.03496
#3	-.00049	.00211	-.00041	.00708	.01448	6.1168	.03596
#4	-.00200	.00211	-.00205	.00708	.01448	5.9965	.03539
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	43.762	10.887	.00442	S-.12350	.01567	.03699	.03701
SDev	.250	.021	.00741	.00000	.00518	.02706	.02915
%RSD	.57162	.18906	167.70	.00000	33.075	73.157	78.769
#1	44.087	10.880	.01179	S-.12350	.00812	.05002	.06760
#2	43.665	10.898	.00590	S-.12350	.01993	.02393	.01867
#3	43.495	10.861	-.00589	S-.12350	.01748	.00654	.00636
#4	43.799	10.908	.00589	S-.12350	.01715	.06747	.05541
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.07301	H57.354	.03786	1.3233	L-.05005	.00022	.00607
SDev	.01809	.293	.01836	.0093	.00030	.08461	.00247
%RSD	24.774	.51026	48.502	.70385	.59009	37789.	40.770
#1	-.08858	H57.734	.04117	1.3363	L-.05012	.05032	.00978
#2	-.05503	H57.316	.01806	1.3196	-.04981	-.06418	.00488

#3	-.08858	H57.020	.03073	1.3145	-.04981	.09316	.00473
#4	-.05984	H57.345	.06148	1.3225	L-.05043	-.07840	.00488
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.06446
SDev	.00235
%RSD	3.6434

#1	.06756
#2	.06500
#3	.06251
#4	.06279

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV7NPT

Operator: WTR

Run Time: 02/27/01 17:25:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00307	.05044	.10417	.22768	.41439	.00017	H827.33
SDev	.00200	.00744	.03328	.00001	.00147	.00000	5.69
%RSD	65.026	14.745	31.949	.00288	.35401	.74961	.68765
#1	-.00025	.06096	.09372	.22769	.41346	.00017	H834.62
#2	-.00308	.04343	.15368	.22768	.41433	.00018	H828.01
#3	-.00449	.04868	.08464	.22768	.41648	.00018	H825.79
#4	-.00448	.04868	.08465	.22767	.41329	.00018	H820.92

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00127	.00102	-.00274	.00187	.00124	5.8248	.02534
SDev	.00170	.00075	.00238	.00208	.00342	.3527	.00090
%RSD	133.65	73.251	86.891	111.06	276.05	6.0551	3.5450

#1	-.00089	.00064	-.00041	.00458	.00542	6.2284	.02536
#2	.00095	.00215	-.00479	.00208	.00124	6.0051	.02619
#3	-.00287	.00065	-.00479	-.00042	.00124	5.4727	.02573
#4	-.00228	.00065	-.00096	.00125	-.00295	5.5929	.02410

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	30.805	9.0909	.00000	S-.12350	.00910	.02827	.02163
SDev	.060	.0475	.00000	.00000	.00818	.02705	.00622
%RSD	.19376	.52286	276.05	.00000	89.908	95.671	28.764

#1	30.858	9.1399	.00000	S-.12350	.02000	.02392	.03097
#2	30.792	9.1059	.00000	S-.12350	.00580	.06742	.01851
#3	30.844	9.0915	.00000	S-.12350	.00071	.00652	.01851
#4	30.726	9.0265	-.00000	S-.12350	.00989	.01522	.01854

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02395	H51.958	.02888	1.3721	-.04819	.06194	.00510
SDev	.05107	.169	.01181	.0055	.00058	.09661	.00060
%RSD	213.24	.32472	40.888	.40362	1.2115	155.96	11.849

#1	-.02154	H52.022	.01810	1.3694	-.04735	.12315	.00601
#2	-.04550	H51.976	.04350	1.3736	-.04858	-.06330	.00480

#3	-.07425	H52.115	.02060	1.3791	-.04827	.03688	.00480
#4	.04550	H51.721	.03332	1.3664	-.04858	.15105	.00481
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02514
SDev	.00128
%RSD	5.0870

#1	.02471
#2	.02476
#3	.02701
#4	.02410

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKTT

Operator: WTR

Run Time: 02/27/01 17:29:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00048	.44075	.13372	.12117	.41784	.00064	271.10
SDev	.00084	.00655	.09412	.00249	.00212	.00006	2.78
%RSD	176.25	1.4863	70.390	2.0523	.50684	9.0930	1.0259

#1	.00023	.44773	.20040	.12208	.41587	.00067	270.68
#2	-.00122	.43199	.01669	.12402	.41691	.00068	267.35
#3	-.00118	.44255	.21876	.11817	.41778	.00056	272.85
#4	.00027	.44073	.09902	.12041	.42079	.00067	273.54

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00076	.02431	.00561	.00312	18.129	1.7240	.00600
SDev	.00123	.00285	.00195	.00458	.140	.2202	.00097
%RSD	160.45	11.715	34.714	146.72	.77120	12.775	16.212

#1	-.00114	.02469	.00561	.00083	18.057	1.6854	.00655
#2	-.00163	.02017	.00451	.00081	17.974	2.0203	.00666
#3	-.00134	.02620	.00397	.01000	18.204	1.4879	.00620
#4	.00105	.02619	.00834	.00085	18.283	1.7026	.00457

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.940	7.2350	.00087	S766.25	.02798	.04471	.01879
SDev	.053	.0577	.00296	1532.8	.00526	.02178	.01738
%RSD	.48596	.79763	340.18	200.03	18.818	48.717	92.492

#1	10.897	7.2126	.00233	S3065.4	.02876	.07302	.04337
#2	10.927	7.1651	-.00357	S-.12350	.02258	.02073	.01876
#3	10.918	7.2683	.00235	S-.12350	.02566	.03821	.00651
#4	11.017	7.2941	.00236	S-.12350	.03491	.04689	.00651

Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.07590	2.8455	.00395	.30848	-.01612	.10930	.00243
SDev	.01641	.0289	.01184	.00192	.00015	.10298	.00280
%RSD	21.622	1.0173	299.73	.62090	.95694	94.218	115.40

#1	-.08570	2.8760	.00849	.30650	-.01588	.16008	.00485
#2	-.08117	2.8644	-.00435	.30757	-.01619	.01748	-.00004

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#3	-.08525	2.8180	-.00690	.30890	-.01619	.02991	.00004
#4	-.05147	2.8238	.01856	.31094	-.01619	.22974	.00486
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.25506
SDev	.00377
%RSD	1.4777

#1	.25935
#2	.25240
#3	.25706
#4	.25143

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKTP5T

Operator: WTR

Run Time: 02/27/01 17:32:14

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00041	.07245	-.00120	.03862	.08755	.00021	55.382
SDev	.00136	.00911	.05379	.00127	.00158	.00006	.297
%RSD	332.84	12.569	4485.3	3.2853	1.8095	26.448	.53662

#1	-.00076	.06985	.02987	.03970	.08877	.00019	55.179
#2	-.00218	.06105	-.08048	.03974	.08895	.00019	55.795
#3	.00067	.07679	.01138	.03753	.08680	.00030	55.402
#4	.00064	.08210	.03443	.03751	.08568	.00019	55.151

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00121	.00297	.00233	.00085	3.8385	.39075	.00136
SDev	.00299	.00288	.00173	.00118	.0351	.20616	.00030
%RSD	247.44	96.928	74.425	137.90	.91333	52.759	22.438

#1	-.00251	.00223	.00397	.00252	3.8551	.69777	.00127
#2	.00022	.00524	.00342	.00086	3.8788	.28555	.00172
#3	.00422	.00523	.00178	.00002	3.8195	.31990	.00100
#4	.00290	-.00080	.00014	.00002	3.8007	.25978	.00146

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.3228	1.5176	.00344	243.83	.00972	.01234	.00615
SDev	.0371	.0133	.00340	5.63	.00309	.03037	.01004
%RSD	1.5958	.87513	98.875	2.3109	31.769	246.02	163.26

#1	2.3564	1.5210	.00050	248.46	.00730	-.00289	.00610
#2	2.3509	1.5344	.00639	248.87	.01246	-.00281	.00621
#3	2.2796	1.5117	.00639	239.87	.01231	-.00283	-.00616
#4	2.3043	1.5034	.00049	238.11	.00680	.05790	.01843

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03249	.57259	.03125	.06452	-.00378	-.00366	.00125
SDev	.03942	.00287	.01797	.00115	.00039	.07640	.00243
%RSD	121.33	.50141	57.503	1.7881	10.272	2089.3	193.92

#1	-.01926	.57403	.03634	.06525	-.00386	-.06469	.00002
#2	-.00961	.57403	.00835	.06570	-.00386	-.03623	.00009

#3	-.09123	.56829	.05156	.06392	-.00416	-.02144	.00490
#4	-.00985	.57403	.02875	.06321	-.00324	.10773	.00001

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04760
SDev	.00177
%RSD	3.7184

#1	.04986
#2	.04577
#3	.04803
#4	.04673

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKTST

Operator: WTR

Run Time: 02/27/01 17:35:23

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.83829	.43289	4.6327	.11554	43.101	.00068	269.45
SDev	.00849	.00728	.0491	.00111	.449	.00001	3.04
%RSD	1.0130	1.6809	1.0594	.95845	1.0425	.78203	1.1281
#1	.82584	.42322	4.5618	.11560	42.631	.00068	265.08
#2	.84004	.44089	4.6580	.11395	43.017	.00068	269.97
#3	.84434	.43383	4.6716	.11635	43.713	.00067	270.70
#4	.84293	.43364	4.6394	.11625	43.044	.00068	272.05
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92328	.03024	4.2668	.01225	17.866	1.6231	.00583
SDev	.01869	.00317	.0451	.00081	.178	.3699	.00074
%RSD	2.0241	10.488	1.0573	6.5800	.99891	22.788	12.727
#1	.89812	.02563	4.2026	.01159	17.617	1.2302	.00529
#2	.93279	.03288	4.2710	.01246	17.860	1.5652	.00510
#3	.92108	.03110	4.2874	.01164	18.020	1.5737	.00639
#4	.94115	.03134	4.3060	.01330	17.965	2.1234	.00655
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.840	7.1354	.00231	S2299.6	.03223	4.4425	.02042
SDev	.079	.0686	.00481	1533.2	.00482	.0538	.00599
%RSD	.72825	.96147	208.24	66.670	14.970	1.2118	29.324
#1	10.732	7.0381	.00228	S3066.1	.03434	4.3707	.01795
#2	10.861	7.1362	.00231	S3066.3	.03663	4.4491	.01742
#3	10.921	7.1847	-.00356	S-.12350	.02545	4.4491	.02939
#4	10.844	7.1826	.00821	S3066.2	.03247	4.5013	.01694
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.96281	2.7628	.00327	.30044	-.01519	.15089	.00382
SDev	.03983	.0417	.02162	.00316	.00046	.09429	.00471
%RSD	4.1370	1.5093	660.84	1.0533	3.0457	62.491	123.45
#1	.92851	2.7019	-.00696	.29672	-.01558	.27840	.00006
#2	1.0203	2.7831	-.02219	.30027	-.01496	.10440	.00022

#3	.95371	2.7947	.01861	.30446	-.01558	.16023	.00499
#4	.94875	2.7716	.02363	.30033	-.01465	.06053	.00999

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.24927
SDev	.00240
%RSD	.96420

#1	.24920
#2	.24602
#3	.25172
#4	.25014

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-2

Operator: WTR

Run Time: 02/27/01 17:38:33

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99489	50.672	5.0224	4.9290	4.8306	4.8152	51.441
SDev	.00262	.280	.0504	.0483	.0392	.0214	.221
%RSD	.26332	.55191	1.0028	.98018	.81236	.44514	.43042
#1	.99635	50.628	5.0548	4.9356	4.8130	4.8149	51.577
#2	.99194	50.465	5.0658	4.8926	4.8170	4.7950	51.329
#3	.99355	51.079	4.9545	4.9948	4.8888	4.8449	51.188
#4	.99771	50.517	5.0144	4.8929	4.8035	4.8058	51.669
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9820	4.8652	4.8729	4.8419	52.034	49.874	4.8855
SDev	.0152	.0050	.0141	.0440	.106	.323	.0770
%RSD	.30414	.10228	.28949	.90972	.20290	.64847	1.5767
#1	4.9977	4.8719	4.8857	4.8246	52.066	49.864	4.8435
#2	4.9735	4.8645	4.8534	4.8263	51.896	49.726	4.8702
#3	4.9653	4.8644	4.8725	4.9070	52.150	50.327	4.9984
#4	4.9916	4.8599	4.8802	4.8096	52.023	49.580	4.8301
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.534	4.8605	4.8933	50.365	4.8413	4.9054	4.9503
SDev	.310	.0101	.0101	.636	.0146	.0408	.0456
%RSD	.61373	.20756	.20555	1.2630	.30088	.83259	.92028
#1	50.462	4.8688	4.8977	49.985	4.8464	4.9143	4.9687
#2	50.355	4.8460	4.9036	50.331	4.8201	4.8620	4.9072
#3	50.991	4.8616	4.8918	51.273	4.8456	4.8876	4.9195
#4	50.328	4.8657	4.8800	49.871	4.8532	4.9576	5.0058
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8908	5.0521	4.9445	4.8398	4.8662	9.8564	4.8706
SDev	.0946	.0252	.0376	.0346	.0205	.2217	.0136
%RSD	1.9335	.49835	.75986	.71428	.42201	2.2491	.27972
#1	5.0011	5.0609	4.9458	4.8316	4.8652	9.9097	4.8794
#2	4.8664	5.0664	4.9252	4.8211	4.8483	9.9260	4.8517

#3	4.9199	5.0146	4.9964	4.8908	4.8952	10.052	4.8817
#4	4.7758	5.0666	4.9104	4.8158	4.8560	9.5378	4.8695
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9220
SDev .0096
%RSD .19530

#1 4.9265
#2 4.9078
#3 4.9290
#4 4.9246

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB2

Operator: WTR

Run Time: 02/27/01 17:41:42

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00741	-.01615	.03290	.00086	.00028	-.05983
SDev	.00071	.00684	.04793	.00178	.00055	.00025	.00659
%RSD	66.633	92.252	296.72	5.4008	64.231	91.150	11.007

#1	.00141	.00833	-.06674	.03557	.00039	.00006	-.06516
#2	.00142	-.00233	-.02988	.03202	.00039	.00006	-.06498
#3	.00142	.01015	.04822	.03201	.00143	.00043	-.05780
#4	.00000	.01350	-.01621	.03202	.00125	.00056	-.05140

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00155	-.00076	.00219	.00083	-.00157	.32205	.00093
SDev	.00215	.00389	.00121	.00048	.00303	.21798	.00032
%RSD	138.76	512.61	55.442	57.350	193.69	67.686	34.572

#1	.00133	-.00226	.00178	.00125	-.00418	.40578	.00100
#2	.00446	-.00529	.00123	.00124	-.00418	.31131	.00108
#3	.00110	.00376	.00178	.00042	.00070	.02791	.00046
#4	-.00071	.00075	.00397	.00042	.00140	.54319	.00119

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01028	.00129	.00442	.01419	.00212	.00869	.01219
SDev	.00923	.00133	.00564	.02068	.00133	.02175	.00710
%RSD	89.773	103.29	127.67	145.70	62.453	250.39	58.266

#1	.01302	.00180	-.00000	-.00454	.00092	-.00221	.01834
#2	.00754	-.00026	.00589	-.00145	.00401	-.00228	.01833
#3	-.00069	.00077	.00000	.02443	.00163	-.00207	.00606
#4	.02124	.00284	.01179	.03833	.00192	.04131	.00602

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00359	.02754	.03186	.00032	.00085	.00004	-.00024
SDev	.02749	.03189	.00735	.00006	.00039	.08468	.00064
%RSD	766.15	115.82	23.057	18.807	45.757	235250.	271.48

#1	-.03594	-.00001	.03061	.00034	.00046	.11112	-.00120
#2	.01675	.00000	.03316	.00030	.00077	-.03214	.00008

#3	.00719	.05798	.04074	.00040	.00139	.01071	.00000
#4	.02635	.05218	.02293	.00025	.00077	-.08954	.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00455
SDev .00069
%RSD 15.121

#1 -.00453
#2 -.00491
#3 -.00517
#4 -.00360

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWHKTD

Operator: WTR

Run Time: 02/27/01 17:44:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.84712	.47028	4.7121	.13537	43.057	.00071	295.67
SDev	.01347	.01426	.1385	.02110	1.022	.00006	4.56
%RSD	1.5904	3.0312	2.9388	15.589	2.3737	7.9767	1.5433
#1	.86598	.48657	4.9173	.15401	44.171	.00079	302.29
#2	.84748	.45663	4.6742	.15328	43.591	.00068	294.90
#3	.83892	.47776	4.6284	.11700	41.879	.00068	293.43
#4	.83611	.46019	4.6285	.11719	42.588	.00068	292.07
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94426	.02944	4.3251	.00623	19.784	1.5029	.00625
SDev	.01413	.00225	.0663	.00548	.341	.3384	.00093
%RSD	1.4965	7.6351	1.5337	88.041	1.7218	22.513	14.794
#1	.96273	.03077	4.4182	.01439	20.238	1.6682	.00738
#2	.94527	.02807	4.3268	.00270	19.846	1.2130	.00529
#3	.94030	.03187	4.2792	.00432	19.477	1.9001	.00658
#4	.92873	.02707	4.2759	.00350	19.575	1.2302	.00575
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.688	7.7666	-.00186	S-.12350	.02413	4.5074	.02590
SDev	.226	.1269	.00561	.00000	.00239	.0678	.02668
%RSD	1.9297	1.6344	301.24	.00000	9.8996	1.5052	103.02
#1	11.919	7.9402	-.00917	S-.12350	.02648	4.5879	.06499
#2	11.820	7.7813	.00257	S-.12350	.02229	4.5182	.01657
#3	11.417	7.6616	.00252	S-.12350	.02588	4.4227	.01718
#4	11.595	7.6833	-.00336	S-.12350	.02186	4.5008	.00483
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0011	3.0426	.03545	.32303	-.01604	.14098	.00149
SDev	.0156	.0643	.03182	.00689	.00059	.08743	.00248
%RSD	1.5584	2.1136	89.772	2.1335	3.6824	62.014	166.62
#1	.97970	3.1252	.07004	.33095	-.01558	.25527	.00521
#2	1.0168	3.0440	.05196	.32606	-.01681	.08668	.00035

#3	1.0061	2.9686	-.00155	.31526	-.01558	.16158	.00024
#4	1.0016	3.0324	.02133	.31983	-.01619	.06038	.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.30128
SDev	.00413
%RSD	1.3717

#1	.30729
#2	.29949
#3	.30043
#4	.29793

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWLOXB

Operator: WTR

Run Time: 02/27/01 17:48:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00107	.00567	-.01159	.00002	.00131	.00009	-.05670
SDev	.00179	.00414	.05026	.00001	.00037	.00006	.00228
%RSD	166.55	73.088	433.76	29.979	28.509	67.817	4.0293

#1	.00142	.00308	.03447	.00001	.00082	.00006	-.05766
#2	.00144	.00301	.02519	.00002	.00150	.00005	-.05328
#3	.00285	.01176	-.03466	.00001	.00168	.00018	-.05807
#4	-.00141	.00482	-.07135	.00002	.00125	.00006	-.05780

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00076	.00037	.00356	.00083	.00924	.36499	.00001
SDev	.00031	.00075	.00121	.00144	.00208	.27538	.00046
%RSD	40.732	202.15	34.099	172.98	22.539	75.450	3449.7

#1	.00080	.00075	.00397	.00125	.00697	.60330	-.00056
#2	.00031	.00075	.00451	.00208	.00976	.60330	.00017
#3	.00098	.00075	.00397	.00125	.00837	.13955	-.00010
#4	.00094	-.00076	.00178	-.00125	.01186	.11379	.00054

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02056	.00000	.00147	.03466	-.00338	.00219	.00606
SDev	.00721	.00052	.00295	.00775	.00367	.00502	.02654
%RSD	35.066	16761.	199.83	22.368	108.52	229.54	438.33

#1	.02672	.00078	.00000	.02443	.00034	.00653	-.00623
#2	.02124	-.00026	.00000	.03408	-.00618	.00655	.00600
#3	.02398	-.00025	.00589	.04297	-.00082	-.00219	-.01849
#4	.01028	-.00025	.00000	.03717	-.00688	-.00214	.04294

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00596	.01307	.00957	-.00010	.00054	-.00370	.00213
SDev	.00459	.02608	.01397	.00000	.00030	.08983	.00250
%RSD	76.944	199.49	145.99	.00000	54.710	2425.2	117.11

#1	-.00237	.00000	.02033	-.00010	.00046	-.10394	.00001
#2	-.00237	.00006	.02293	-.00010	.00077	-.03238	.00482

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#3	-.01195	.00004	-.00262	-.00010	.00015	.01062	.00369
#4	-.00715	.05218	-.00237	-.00010	.00077	.11090	.00000

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	-.00492
SDev	.00095
%RSD	19.287

#1	-.00517
#2	-.00578
#3	-.00515
#4	-.00356

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWLOXC

Operator: WTR

Run Time: 02/27/01 17:51:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04723	1.9668	1.8806	.93837	1.9110	.04764	49.263
SDev	.00135	.0092	.0524	.01934	.0170	.00021	.367
%RSD	2.8644	.46951	2.7886	2.0604	.88979	.44103	.74521

#1	.04617	1.9714	1.8322	.92822	1.9274	.04786	49.068
#2	.04618	1.9676	1.8460	.92822	1.9238	.04772	48.921
#3	.04900	1.9746	1.8966	.96735	1.8971	.04761	49.760
#4	.04758	1.9536	1.9474	.92969	1.8955	.04736	49.303

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04479	.47191	.18945	.23893	1.0482	48.867	.97004
SDev	.00126	.00398	.00293	.00000	.0033	.211	.01657
%RSD	2.8217	.84347	1.5484	.00178	.31699	.43214	1.7079

#1	.04449	.47265	.18781	.23893	1.0476	48.971	.98322
#2	.04327	.46965	.18781	.23892	1.0462	49.048	.98531
#3	.04631	.47718	.19383	.23893	1.0531	48.567	.95339
#4	.04511	.46816	.18836	.23892	1.0461	48.885	.95824

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.417	.47523	.95329	49.681	.46316	.53315	.48729
SDev	.273	.00179	.01473	.685	.01056	.03354	.00697
%RSD	.55197	.37619	1.5454	1.3792	2.2800	6.2919	1.4306

#1	49.645	.47574	.93708	50.241	.46260	.56575	.48126
#2	49.637	.47265	.95476	50.295	.44906	.49615	.49332
#3	49.295	.47679	.97244	48.975	.46677	.51373	.49334
#4	49.089	.47575	.94887	49.213	.47422	.55695	.48125

Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9158	9.5872	1.9014	.94710	.94500	1.9365	.47552
SDev	.0431	.0100	.0119	.00644	.00289	.1729	.00183
%RSD	2.2497	.10473	.62339	.67987	.30546	8.9265	.38370

#1	1.8835	9.5843	1.8900	.95351	.94770	1.8290	.47440
#2	1.9218	9.5844	1.8926	.95173	.94554	1.8147	.47824

#3	1.9745	9.6017	1.9104	.94217	.94584	2.1871	.47488
#4	1.8835	9.5785	1.9129	.94097	.94091	1.9150	.47455

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.46731
SDev	.00460
%RSD	.98325

#1	.46256
#2	.47337
#3	.46792
#4	.46540

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWJJM

Operator: WTR

Run Time: 02/27/01 17:54:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	2.6720	-.01848	.03599	.09378	.00005	41.990
SDev	.00072	.0319	.00720	.01608	.00136	.00009	.985
%RSD	68.523	1.1924	38.968	44.681	1.4551	201.63	2.3448
#1	.00070	2.6816	-.02205	.02417	.09413	.00004	41.939
#2	.00212	2.6570	-.02186	.05830	.09344	.00016	42.317
#3	.00072	2.7115	-.02234	.02428	.09542	.00004	43.027
#4	.00065	2.6378	-.00768	.03723	.09215	-.00006	40.677
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00235	.00100	.04447	.02321	2.9448	5.7196	.00345
SDev	.00333	.00076	.00419	.00204	.0522	.6177	.00146
%RSD	141.70	75.794	9.4209	8.7938	1.7721	10.801	42.274
#1	.00099	.00213	.04337	.02321	2.9446	5.5929	.00419
#2	.00202	.00062	.04775	.02571	2.9537	6.3658	.00484
#3	.00707	.00060	.04775	.02322	3.0039	5.9965	.00328
#4	-.00067	.00063	.03900	.02071	2.8770	4.9230	.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	7.3137	.29137	.00922	S-.12350	.00774	-.00240	.01798
SDev	.0972	.00470	.00340	.00000	.00693	.00437	.02243
%RSD	1.3286	1.6138	36.846	.00000	89.592	182.49	124.73
#1	7.3007	.29137	.01217	S-.12350	.00939	.00416	.03028
#2	7.3034	.29240	.00627	S-.12350	.00722	-.00460	-.00662
#3	7.4432	.29654	.00628	S-.12350	.01555	-.00463	.00574
#4	7.2075	.28517	.01216	S-.12350	-.00121	-.00451	.04253
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02446	10.701	.01823	.23790	.05328	.11538	.00744
SDev	.05878	.165	.01033	.00279	.00162	.03446	.00479
%RSD	240.30	1.5397	56.672	1.1720	3.0402	29.869	64.427
#1	.01146	10.727	.02337	.23892	.05321	.09387	.00988
#2	.02107	10.710	.02067	.23625	.05475	.15109	.00981

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#3	-.10811	10.883	.02582	.24133	.05413	.07892	.00981
#4	-.02228	10.483	.00306	.23510	.05105	.13765	.00025

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.06189
SDev	.00243
%RSD	3.9298

#1	.06065
#2	.06407
#3	.06377
#4	.05908

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DWJJMP5

Operator: WTR

Run Time: 02/27/01 17:57:30

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00049	.52608	-.05537	.03760	.01951	.00003	8.4087
SDev	.00390	.02308	.02664	.00341	.00023	.00006	.1036
%RSD	799.12	4.3871	48.120	9.0633	1.1962	201.77	1.2325
#1	-.00411	.50899	-.07594	.03315	.01936	.00006	8.3976
#2	-.00128	.50367	-.06211	.04025	.01961	.00006	8.2908
#3	.00298	.54929	-.06709	.04029	.01979	-.00006	8.5435
#4	.00436	.54235	-.01633	.03673	.01928	.00007	8.4028
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00454	.00071	.00999	.00277	.60559	1.4320	.00080
SDev	.00229	.00326	.00249	.00197	.00741	.6386	.00081
%RSD	50.409	456.58	24.898	70.945	1.2245	44.595	101.16
#1	.00504	.00222	.00999	.00298	.60176	1.4707	-.00037
#2	.00489	.00373	.01054	.00548	.59757	2.1491	.00097
#3	.00138	.00072	.01273	.00132	.61431	1.5136	.00111
#4	.00686	-.00381	.00671	.00131	.60873	.59471	.00148
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.5218	.05972	.00302	290.89	.00310	.02562	.00606
SDev	.0225	.00084	.00340	2.02	.00535	.02865	.00004
%RSD	1.4815	1.4132	112.48	.69328	172.36	111.84	.61248
#1	1.5204	.05869	.00008	290.71	.00092	.04089	.00605
#2	1.5259	.05972	.00597	291.54	-.00073	-.00254	.00601
#3	1.5478	.06076	.00597	288.25	.01103	.00605	.00608
#4	1.4930	.05972	.00008	293.08	.00120	.05809	.00610
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.04245	2.1193	-.00054	.04934	.01103	.04010	-.00054
SDev	.01932	.0596	.01164	.00014	.00116	.07169	.00290
%RSD	45.518	2.8123	2150.7	.27657	10.559	178.78	538.77
#1	-.03407	2.0758	.00519	.04943	.01002	.11891	.00002
#2	-.05325	2.0700	.00264	.04947	.01002	.06164	.00131

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#3	-.01966	2.1976	.00773	.04917	.01218	-.05313	.00131
#4	-.06280	2.1337	-.01772	.04930	.01188	.03297	-.00479

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00907
SDev	.00134
%RSD	14.719

#1	.00987
#2	.00765
#3	.00827
#4	.01050

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJMS

Operator: WTR

Run Time: 02/27/01 18:00:40

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05075	5.4237	1.9663	1.0087	1.9327	.04710	91.663
SDev	.00706	.0672	.0404	.0213	.0391	.00060	.138
%RSD	13.908	1.2388	2.0554	2.1159	2.0248	1.2727	.15090
#1	.04546	5.4594	1.9257	1.0242	1.9671	.04759	91.644
#2	.04684	5.3860	1.9402	1.0149	1.9175	.04686	91.502
#3	.04970	5.4982	2.0128	1.0185	1.9617	.04759	91.839
#4	.06100	5.3510	1.9865	.97721	1.8843	.04636	91.666
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05347	.47445	.23447	.27150	3.9773	58.600	.97048
SDev	.00229	.00414	.00103	.00650	.0279	.945	.02649
%RSD	4.2884	.87347	.44132	2.3926	.70235	1.6128	2.7295
#1	.05365	.46952	.23378	.27670	4.0075	59.328	.98979
#2	.05603	.47709	.23378	.26589	3.9608	58.091	.96533
#3	.05375	.47856	.23433	.27754	3.9936	59.456	.99172
#4	.05046	.47262	.23597	.26588	3.9475	57.524	.93506
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	55.395	.75885	.94925	S-.12350	.47323	.52807	.51462
SDev	.683	.00458	.01444	.00000	.01549	.04025	.02714
%RSD	1.2324	.60289	1.5210	.00000	3.2739	7.6221	5.2742
#1	55.924	.76221	.96104	S-.12350	.49080	.49312	.50550
#2	55.102	.75600	.94335	S-.12350	.46722	.56296	.52975
#3	55.985	.76324	.96103	S-.12350	.47989	.49330	.48095
#4	54.568	.75393	.93156	S-.12350	.45504	.56289	.54226
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9667	H21.629	1.9115	1.1532	.98571	1.8192	.48188
SDev	.0943	.235	.0601	.0215	.01161	.0753	.00296
%RSD	4.7950	1.0852	3.1446	1.8652	1.1782	4.1373	.61328
#1	2.0028	H21.784	1.9082	1.1720	.99550	1.8260	.48444
#2	1.9882	H21.575	1.9975	1.1452	.97916	1.7119	.47939

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#3	2.0458	H21.836	1.8674	1.1692	.99550	1.8834	.48444
#4	1.8301	H21.320	1.8728	1.1265	.97268	1.8553	.47924

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.55459
SDev	.00313
%RSD	.56503

#1	.55475
#2	.55013
#3	.55636
#4	.55712

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJMD

Operator: WTR

Run Time: 02/27/01 18:03:50

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04533	5.3305	1.9031	.97938	1.9138	.04585	85.500
SDev	.00615	.1159	.0469	.00337	.0508	.00059	2.840
%RSD	13.574	2.1742	2.4648	.34427	2.6568	1.2960	3.3211

#1	.04818	5.4757	1.9306	.98425	1.9695	.04652	84.932
#2	.03676	5.3391	1.8677	.97904	1.9343	.04519	81.715
#3	.04537	5.3142	1.9548	.97716	1.9011	.04614	87.860
#4	.05099	5.1932	1.8594	.97708	1.8500	.04554	87.493

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04947	.44929	.21887	.27042	3.8599	58.196	.99421
SDev	.00391	.01208	.00780	.00745	.0609	1.596	.05507
%RSD	7.8943	2.6889	3.5621	2.7537	1.5780	2.7432	5.5392

#1	.05439	.44998	.21846	.27833	3.8917	60.040	1.0345
#2	.04702	.43199	.20806	.27497	3.7731	58.666	1.0433
#3	.05074	.45757	.22557	.26586	3.9105	57.859	.97281
#4	.04574	.45763	.22339	.26253	3.8644	56.219	.92629

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.029	.72193	.90209	S-.12350	.44948	.47310	.47182
SDev	.837	.01336	.01985	.00000	.00620	.05683	.04052
%RSD	1.5498	1.8512	2.2000	.00000	1.3803	12.013	8.5871

#1	55.141	.72606	.91388	S-.12350	.45752	.44913	.49340
#2	53.781	.70230	.87261	S-.12350	.44710	.42262	.44451
#3	54.061	.73226	.91388	S-.12350	.45046	.46674	.43170
#4	53.132	.72709	.90798	S-.12350	.44283	.55389	.51768

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9796	H20.998	1.8242	1.1355	.95464	1.7812	.46078
SDev	.0598	.253	.0666	.0249	.01341	.1300	.00847
%RSD	3.0189	1.2058	3.6499	2.1941	1.4045	7.2975	1.8384

#1	1.9449	H21.291	1.8064	1.1640	.96990	1.8990	.46454
#2	1.9206	H20.833	1.7376	1.1414	.94307	1.6999	.44955

#3	2.0552	H21.123	1.8724	1.1328	.96188	1.8844	.46937
#4	1.9975	H20.746	1.8804	1.1037	.94369	1.6414	.45967
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.53017
SDev	.00886
%RSD	1.6714

#1	.53179
#2	.51853
#3	.54004
#4	.53031

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJ3

Operator: WTR

Run Time: 02/27/01 18:07:00

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00326	.25152	.00794	.03347	.09939	.00005	47.749
SDev	.00292	.01721	.02638	.01393	.00066	.00000	.414
%RSD	89.717	6.8440	332.06	41.629	.66233	.32988	.86763
#1	.00007	.22963	.02307	.02196	.09905	.00005	47.384
#2	.00290	.25238	-.02771	.03661	.09887	.00005	48.079
#3	.00290	.25234	.00449	.02343	.09930	.00005	48.135
#4	.00715	.27172	.03193	.05190	.10034	.00005	47.397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00635	.00294	.07950	.02500	.33173	4.4571	.00205
SDev	.00148	.00151	.00141	.00108	.00237	.4664	.00081
%RSD	23.318	51.369	1.7790	4.3016	.71558	10.463	39.539
#1	.00644	.00219	.07786	.02375	.32842	3.9869	.00100
#2	.00450	.00521	.08114	.02625	.33190	4.9574	.00264
#3	.00813	.00218	.08005	.02458	.33260	4.7427	.00183
#4	.00634	.00219	.07895	.02541	.33400	4.1415	.00274
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.830	.18650	.00741	S3074.1	.01134	.00644	.02086
SDev	.024	.00084	.00564	.2	.00359	.01231	.04641
%RSD	.21807	.45254	76.154	.00568	31.690	191.05	222.45
#1	10.795	.18546	.00004	S3074.3	.00620	-.00235	-.04370
#2	10.847	.18650	.01183	S3074.1	.01433	-.00219	.01784
#3	10.839	.18753	.01183	S3074.2	.01313	.00647	.05466
#4	10.839	.18650	.00594	S3073.9	.01170	.02384	.05466
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03610	7.8176	.01158	.32437	.00509	-.02392	.00509
SDev	.04953	.0289	.01215	.00076	.00067	.09162	.00008
%RSD	137.18	.37023	104.88	.23323	13.092	383.10	1.5233
#1	.01299	7.7872	.02276	.32531	.00509	-.12058	.00499
#2	-.00616	7.8161	-.00497	.32376	.00447	-.06333	.00515

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#3	-.09718	7.8103	.01045	.32376	.00478	-.00600	.00515
#4	-.05406	7.8567	.01808	.32465	.00601	.09426	.00507

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.12138
SDev	.00167
%RSD	1.3782

#1	.11943
#2	.12347
#3	.12163
#4	.12098

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJKC

Operator: WTR

Run Time: 02/27/01 18:10:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00113	.35514	.01261	.08606	.07255	.00008	36.479
SDev	.00072	.00367	.01798	.00999	.00102	.00006	.254
%RSD	63.877	1.0344	142.58	11.602	1.4089	66.979	.69630
#1	.00151	.35420	.03095	.10070	.07214	.00016	36.713
#2	.00148	.35077	-.01035	.08188	.07145	.00005	36.456
#3	.00148	.35602	.00800	.08335	.07275	.00005	36.615
#4	.00005	.35958	.02185	.07833	.07386	.00006	36.133
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00301	.00183	.01984	.03210	.58710	3.5017	.00173
SDev	.00388	.00257	.00232	.00180	.00127	.9054	.00028
%RSD	128.79	140.31	11.697	5.6022	.21665	25.854	16.180
#1	.00282	.00522	.02312	.03376	.58571	4.8028	.00199
#2	.00831	.00219	.01929	.03210	.58641	3.4116	.00191
#3	-.00094	.00071	.01929	.02960	.58850	2.7846	.00164
#4	.00185	-.00080	.01765	.03293	.58780	3.0079	.00137
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	9.0315	.51632	.00744	388.51	.01254	-.00898	.01215
SDev	.0755	.00176	.00295	7.87	.01007	.03978	.02126
%RSD	.83605	.34104	39.591	2.0245	80.349	443.01	174.97
#1	8.9671	.51452	.01186	382.79	.02437	.04109	.00615
#2	8.9835	.51555	.00597	383.32	.01619	-.01984	.00604
#3	9.0411	.51864	.00597	388.22	.00875	-.05461	.04280
#4	9.1343	.51658	.00597	399.73	.00084	-.00256	-.00638
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.06885	8.7279	.02495	.17629	.00663	-.02789	.00495
SDev	.05000	.0173	.01553	.00215	.00036	.06352	.00396
%RSD	72.616	.19838	62.266	1.2198	5.3707	227.74	80.026
#1	-.05329	8.7323	.00774	.17490	.00694	.02219	.00983
#2	-.13472	8.7033	.03064	.17468	.00694	-.12101	.00493

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#3	-.01495	8.7439	.04352	.17624	.00632	-.00639	.00493
#4	-.07244	8.7322	.01787	.17935	.00632	-.00636	.00012

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	5.2659
SDev	.0153
%RSD	.29148

#1	5.2652
#2	5.2448
#3	5.2735
#4	5.2801

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWLQFBT

Operator: WTR

Run Time: 02/27/01 18:13:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00106	-.00441	-.04482	.00001	.00039	.00003	-.04200
SDev	.00071	.00598	.04478	.00001	.00000	.00006	.00472
%RSD	66.664	135.79	99.923	90.142	.00000	200.00	11.232

#1	.00142	.00126	.00229	.00001	.00039	.00006	-.04574
#2	.00142	-.00222	-.07589	.00000	.00039	.00006	-.03920
#3	.00142	-.01279	-.08960	.00001	.00039	-.00006	-.03681
#4	.00000	-.00388	-.01607	.00000	.00039	.00006	-.04624

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass
High	.50000		.50000		10.000		5.0000
Low	-.50000		-.50000		-10.000		-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00528	-.00115	.00041	.00021	.00192	.30487	.00045
SDev	.00422	.00310	.00130	.00080	.00105	.24636	.00084
%RSD	79.957	270.29	317.56	385.31	54.535	80.807	186.93

#1	.00263	-.00377	-.00041	.00041	.00070	.25978	.00119
#2	.01153	.00222	.00233	.00125	.00279	.66342	.00116
#3	.00410	-.00378	-.00041	-.00042	.00279	.11379	-.00018
#4	.00285	.00074	.00014	-.00042	.00139	.18249	-.00037

Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02056	.00026	.00000	.15613	.00345	.00216	.00917
SDev	.01557	.00060	.00481	.02648	.00259	.04294	.00613
%RSD	75.719	230.95	1941100.	16.963	75.024	1988.7	66.802

#1	.01850	-.00026	.00000	.16733	.00451	-.00225	.01837
#2	.03220	.00078	.00589	.14339	.00637	.05875	.00613
#3	.03220	.00077	.00000	.18703	.00257	-.04572	.00612
#4	-.00069	-.00026	-.00589	.12678	.00034	-.00214	.00608

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass
High	5.0000				.04000	.50000	.06000
Low	-5.0000				-.04000	-.50000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03592	.06523	.02803	.00013	.00008	.05371	.00000
SDev	.03055	.00990	.01471	.00012	.00039	.03093	.00007
%RSD	85.037	15.181	52.467	90.324	503.32	57.585	6933.7

#1	-.01197	.06378	.04079	.00021	.00046	.03942	-.00000
#2	-.07903	.07538	.01530	.00025	.00015	.09666	.00008

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#3	-.01676	.06958	.01530	.00003	.00015	.05373	-.00000
#4	-.03592	.05218	.04075	.00003	-.00046	.02505	-.00008

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High	.25000					2.0000	
Low	-.25000					-2.0000	

Elem	ZN
Units	ppm
Avge	-.00228
SDev	.00236
%RSD	103.42

#1	-.00426
#2	-.00111
#3	.00048
#4	-.00424

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: CCV2-3

Operator: WTR

Run Time: 02/27/01 18:16:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99333	50.591	4.8235	4.9052	4.8164	4.7948	51.188
SDev	.00268	.223	.1013	.0255	.0265	.0191	.152
%RSD	.27011	.44006	2.0997	.52025	.55058	.39810	.29789
#1	.99046	50.488	4.8589	4.8924	4.8092	4.7844	51.268
#2	.99179	50.439	4.9378	4.8922	4.7993	4.7811	50.964
#3	.99476	50.516	4.6975	4.8925	4.8013	4.7910	51.298
#4	.99632	50.921	4.7996	4.9434	4.8556	4.8228	51.222
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9718	4.8461	4.8586	4.8314	51.814	50.055	4.8777
SDev	.0214	.0209	.0266	.0304	.137	.263	.0416
%RSD	.43098	.43134	.54723	.62952	.26391	.52460	.85270
#1	4.9602	4.8540	4.8545	4.8146	51.791	50.242	4.8419
#2	4.9486	4.8179	4.8227	4.8171	51.658	49.846	4.8680
#3	4.9820	4.8449	4.8753	4.8171	51.816	49.812	4.8631
#4	4.9963	4.8674	4.8818	4.8770	51.991	50.319	4.9377
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.513	4.8473	4.8712	50.268	4.8186	4.9072	4.9686
SDev	.277	.0138	.0102	.380	.0257	.0492	.0459
%RSD	.54778	.28536	.20980	.75521	.53394	1.0031	.92378
#1	50.454	4.8480	4.8623	49.995	4.8199	4.9314	4.9810
#2	50.300	4.8284	4.8623	50.169	4.7983	4.8435	4.9071
#3	50.380	4.8512	4.8800	50.079	4.8017	4.9573	5.0175
#4	50.917	4.8615	4.8800	50.827	4.8545	4.8966	4.9688
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8698	5.0446	4.9395	4.8191	4.8481	9.9092	4.8504
SDev	.0816	.0363	.0131	.0243	.0183	.0953	.0200
%RSD	1.6748	.71879	.26433	.50369	.37727	.96200	.41135
#1	4.8613	4.9909	4.9434	4.8121	4.8452	10.013	4.8428
#2	4.8513	5.0545	4.9507	4.8020	4.8295	9.9578	4.8295

#3	4.9812	5.0664	4.9206	4.8072	4.8443	9.7982	4.8527
#4	4.7853	5.0667	4.9432	4.8549	4.8733	9.8676	4.8767
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.9106
SDev .0106
%RSD .21534

#1 4.9017
#2 4.9022
#3 4.9153
#4 4.9234

Errors LC Pass
High 5.5000
Low 4.5000

Method: QUANMET Sample Name: CCB3

Operator: WTR

Run Time: 02/27/01 18:19:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00177	.00298	-.02993	.03202	.00093	.00083	-.05244
SDev	.00136	.00377	.03811	.00000	.00013	.00021	.00212
%RSD	76.545	126.77	127.34	.01021	13.858	25.301	4.0377

#1	.00283	.00127	-.02992	.03203	.00100	.00105	-.04997
#2	.00000	-.00051	-.07130	.03202	.00082	.00093	-.05140
#3	.00142	.00291	.02067	.03202	.00107	.00080	-.05434
#4	.00283	.00824	-.03917	.03202	.00082	.00056	-.05407

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00271	.00150	.00315	.00229	.00297	.47234	.00107
SDev	.00232	.00151	.00182	.00080	.00183	.19028	.00090
%RSD	85.697	100.61	57.653	34.768	61.810	40.285	84.305

#1	.00345	.00074	.00342	.00125	.00489	.31990	.00100
#2	.00348	.00375	.00178	.00208	.00418	.38860	.00172
#3	-.00068	.00075	.00561	.00291	.00140	.43154	-.00018
#4	.00459	.00074	.00178	.00291	.00140	.74930	.00172

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02535	.00104	.01179	.00927	.00312	-.00213	.00301
SDev	.00725	.00052	.00481	.00321	.00527	.00003	.00612
%RSD	28.603	49.869	40.822	34.590	168.97	1.4891	202.93

#1	.02672	.00078	.00589	.01323	.01081	-.00214	.00616
#2	.01850	.00078	.01179	.00666	.00120	-.00208	-.00616
#3	.02124	.00181	.01768	.01052	-.00116	-.00214	.00600
#4	.03494	.00078	.01179	.00666	.00163	-.00215	.00606

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.04059	.00319	.00067	.00100	.03578	.00016
SDev	.00830	.02720	.01238	.00037	.00039	.09601	.00007
%RSD	90865.	67.001	387.97	54.331	38.717	268.35	40.332

#1	.00720	.05218	.01529	.00114	.00139	.08232	.00009
#2	.00720	.05798	-.01275	.00070	.00046	.05365	.00016

#3	-.00718	.00000	.00002	.00025	.00108	.11102	.00025
#4	-.00718	.05218	.01020	.00060	.00108	-.10388	.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00340
SDev .00145
%RSD 42.685

#1 -.00493
#2 -.00175
#3 -.00267
#4 -.00426

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWLQFCT

Operator: WTR

Run Time: 02/27/01 18:22:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04979	1.9841	1.8985	.97650	1.9642	.04837	L-.05264
SDev	.00082	.0055	.0644	.00514	.0116	.00015	.00225
%RSD	1.6455	.27918	3.3902	.52651	.59222	.31938	4.2743

#1	.04909	1.9894	1.8870	.98095	1.9661	.04843	L-.05200
#2	.04907	1.9770	1.9791	.98094	1.9720	.04831	L-.05490
#3	.05051	1.9874	1.9054	.97238	1.9716	.04855	L-.05388
#4	.05049	1.9824	1.8227	.97173	1.9473	.04819	L-.04979

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04320	.49106	.19677	.24103	1.0617	L.28125	.97930
SDev	.00263	.00311	.00197	.00048	.0034	.40162	.01123
%RSD	6.0758	.63243	.99905	.20050	.32334	142.80	1.1466

#1	.04501	.49369	.19855	.24145	1.0647	L.25120	.97732
#2	L.03936	.48919	.19418	.24061	1.0591	L-.23832	.99054
#3	.04477	.48767	.19801	.24061	1.0647	L.38002	.98480
#4	.04366	.49370	.19636	.24145	1.0584	L.73212	.96455

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00480	.49116	.00603	L.00348	.49080	.51124	L.01278
SDev	.02063	.00176	.00481	.00174	.00599	.03047	.00008
%RSD	430.16	.35881	79.791	50.000	1.2212	5.9607	.63316

#1	L.02672	.49193	.00014	L.00550	.48989	.49609	L.01280
#2	L-.01987	.48884	.00603	L.00357	.49247	.49598	L.01280
#3	L.01576	.49297	.01192	L.00126	.48322	.49593	L.01266
#4	L-.00343	.49090	.00603	L.00357	.49763	.55694	L.01285

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9374	.06954	.01805	.96914	.00031	1.9612	.49309
SDev	.0486	.00473	.00208	.00494	.00031	.0788	.00249
%RSD	2.5082	6.8080	11.505	.50962	100.000	4.0199	.50606

#1	1.8691	.06956	.01805	.97014	.00046	1.8573	.49452
#2	1.9697	.06372	.01805	.97170	.00046	2.0293	.49098

#3	1.9745	.06957	.01551	.97281	-.00015	1.9433	.49587
#4	1.9362	.07532	.02060	.96192	.00046	2.0150	.49098

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.48047
SDev	.00315
%RSD	.65607

#1	.48498
#2	.47865
#3	.48028
#4	.47799

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWCX7T

Operator: WTR

Run Time: 02/27/01 18:25:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00202	.34744	.10867	.12137	.03924	.00021	H954.98
SDev	.00071	.00622	.04385	.00175	.00032	.00006	4.62
%RSD	35.168	1.7892	40.350	1.4419	.81317	30.342	.48421
#1	-.00308	.34743	.14663	.12106	.03937	.00018	H951.33
#2	-.00166	.35266	.14196	.12106	.03962	.00017	H954.43
#3	-.00167	.33871	.09149	.11959	.03901	.00018	H961.64
#4	-.00166	.35096	.05460	.12378	.03894	.00030	H952.51
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00405	.01211	-.00192	.82779	.06466	11.675	.00429
SDev	.00430	.00193	.00137	.01158	.00127	.300	.00092
%RSD	106.01	15.969	71.332	1.3984	1.9684	2.5660	21.384
#1	-.00142	.00986	-.00260	.84401	.06327	11.527	.00320
#2	.00872	.01284	-.00260	.82571	.06536	12.094	.00473
#3	.00574	.01436	-.00260	.81656	.06397	11.673	.00529
#4	.00317	.01136	.00013	.82488	.06606	11.407	.00392
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.822	1.5446	.00148	S-.12350	.06206	-.01291	.05602
SDev	.068	.0029	.00295	.00000	.00273	.02177	.03014
%RSD	.42908	.18882	198.88	.00000	4.4025	168.67	53.795
#1	15.877	1.5467	.00001	S-.12350	.06240	-.04557	.05607
#2	15.846	1.5446	.00590	S-.12350	.05843	-.00208	.01908
#3	15.723	1.5467	.00001	S-.12350	.06233	-.00198	.05604
#4	15.844	1.5405	.00001	S-.12350	.06507	-.00201	.09291
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01537	3.2456	.02333	.80623	L-.05591	-.03210	.00512
SDev	.06420	.0029	.01036	.00751	.00046	.12180	.00064
%RSD	417.68	.08940	44.417	.93093	.82759	379.40	12.469
#1	.02175	3.2471	.00807	.81478	L-.05629	.09330	.00480
#2	-.05968	3.2471	.03081	.80744	L-.05567	.05025	.00608

#3	-.07884	3.2413	.02842	.79651	L-.05537	-.12163	.00480
#4	.05529	3.2471	.02603	.80620	L-.05629	-.15033	.00481

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 1.7039
SDev .0065
%RSD .38405

#1 1.7122
#2 1.6965
#3 1.7051
#4 1.7019

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWCX7P5T

Operator: WTR

Run Time: 02/27/01 18:29:08

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00109	.06273	.03157	.05700	.00847	.00014	203.22
SDev	.00293	.00874	.03728	.00000	.00013	.00011	2.33
%RSD	269.36	13.940	118.08	.00483	1.5144	80.517	1.1450

#1	.00141	.06794	.07057	.05700	.00858	.00029	200.76
#2	-.00428	.05040	.04778	.05700	.00840	.00005	201.77
#3	-.00286	.06983	-.01677	.05700	.00858	.00005	205.69
#4	.00139	.06276	.02468	.05700	.00833	.00017	204.63

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00397	.00377	.00191	.17201	.04528	2.9800	.00168
SDev	.00148	.00275	.00206	.00080	.00221	.4447	.00137
%RSD	37.202	73.031	107.96	.46364	4.8711	14.923	81.525

#1	.00337	.00076	.00396	.17097	.04459	3.5060	.00355
#2	.00615	.00226	.00014	.17263	.04249	2.5699	.00036
#3	.00289	.00528	.00013	.17264	.04668	2.6558	.00172
#4	.00347	.00678	.00342	.17181	.04738	3.1883	.00108

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.4253	.33415	.00295	271.14	.01705	.02617	.03086
SDev	.0233	.00271	.00340	3.08	.00236	.03433	.05021
%RSD	.67896	.81179	115.24	1.1348	13.866	131.17	162.71

#1	3.4143	.33182	.00001	268.20	.01744	.06741	.05547
#2	3.4417	.33183	.00590	274.45	.01523	-.00222	-.04292
#3	3.4472	.33698	.00001	273.05	.02024	-.00200	.06782
#4	3.3979	.33595	.00590	268.87	.01528	.04148	.04307

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.03938	.65528	.02244	.16977	-.01134	.03419	.00605
SDev	.03014	.00671	.01333	.00160	.00064	.07534	.00238
%RSD	76.534	1.0242	59.386	.94312	5.6097	220.36	39.343

#1	-.01663	.66112	.01045	.16805	-.01095	-.01596	.00963
#2	-.05496	.64946	.02277	.17072	-.01188	-.04457	.00489

#3	-.07411	.64946	.01560	.17148	-.01188	.09866	.00481
#4	-.01183	.66106	.04094	.16881	-.01064	.09863	.00489
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .35242
SDev .00308
%RSD .87350

#1 .35133
#2 .34880
#3 .35602
#4 .35353

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWCX7ST

Operator: WTR

Run Time: 02/27/01 18:32:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04398	2.2945	2.0740	1.0622	1.7628	.04251	H979.21
SDev	.00136	.0116	.0384	.0247	.0045	.00011	6.18
%RSD	3.0804	.50560	1.8538	2.3275	.25557	.26080	.63143
#1	.04436	2.2914	2.0417	1.0791	1.7673	.04259	H983.90
#2	.04290	2.2811	2.0557	1.0257	1.7572	.04236	H971.88
#3	.04292	2.2967	2.0693	1.0755	1.7654	.04260	H984.74
#4	.04574	2.3089	2.1291	1.0684	1.7612	.04249	H976.33
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05124	.43889	.16724	1.0889	1.0201	11.718	.93827
SDev	.00193	.00195	.00225	.0018	.0061	.172	.00435
%RSD	3.7694	.44346	1.3445	.16935	.59953	1.4650	.46342
#1	.05360	.43812	.17011	1.0908	1.0269	11.914	.93812
#2	.05196	.43964	.16574	1.0866	1.0122	11.768	.94242
#3	.04930	.44115	.16793	1.0883	1.0220	11.690	.93230
#4	.05008	.43663	.16519	1.0900	1.0192	11.501	.94024
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.181	2.0190	.00308	S-.12350	.48011	.47489	.03727
SDev	.070	.0107	.00761	.00000	.01108	.03507	.01414
%RSD	.43035	.53155	247.15	.00000	2.3079	7.3846	37.925
#1	16.238	2.0275	.00013	S-.12350	.49155	.50311	.02507
#2	16.088	2.0069	-.00576	S-.12350	.47535	.49450	.04958
#3	16.230	2.0285	.00602	S-.12350	.48660	.47711	.02499
#4	16.170	2.0130	.01192	S-.12350	.46696	.42486	.04945
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.1936	3.3291	.00689	1.6770	L-.05760	1.7807	.44610
SDev	.0980	.0248	.02015	.0050	.00046	.0847	.00409
%RSD	4.4699	.74482	292.56	.29569	.80321	4.7544	.91598
#1	2.3050	3.3451	.01829	1.6817	L-.05722	1.7699	.45118
#2	2.2426	3.2928	.00312	1.6703	L-.05783	1.8702	.44267

#3	2.0894	3.3334	.02593	1.6797	L-.05814	1.8129	.44764
#4	2.1373	3.3450	-.01979	1.6764	L-.05722	1.6696	.44290

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.2070
SDev	.0121
%RSD	.54637

#1	2.2124
#2	2.1904
#3	2.2184
#4	2.2068

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWCX7DT

Operator: WTR

Run Time: 02/27/01 18:35:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04322	2.2182	2.1139	1.0319	1.7135	.04179	H948.00
SDev	.00266	.0286	.0343	.0230	.0342	.00043	11.82
%RSD	6.1590	1.2909	1.6213	2.2241	1.9940	1.0388	1.2466
#1	.04709	2.1756	2.1442	1.0114	1.6624	.04116	H933.34
#2	.04146	2.2282	2.0655	1.0648	1.7306	.04188	H944.25
#3	.04288	2.2370	2.1298	1.0256	1.7329	.04213	H954.02
#4	.04146	2.2319	2.1160	1.0256	1.7283	.04200	H960.40
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04999	.43326	.16643	1.0411	.95993	11.718	.90808
SDev	.00275	.00605	.00207	.0204	.01087	.440	.02435
%RSD	5.5081	1.3974	1.2421	1.9551	1.1325	3.7510	2.6819
#1	.04588	.42614	.16794	1.0109	.94390	12.257	.87253
#2	.05122	.43061	.16629	1.0533	.96272	11.347	.92616
#3	.05111	.43664	.16355	1.0533	.96550	11.373	.92106
#4	.05174	.43965	.16793	1.0467	.96759	11.896	.91258
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	15.546	1.9553	.00454	S-.12350	.47270	.46614	.04939
SDev	.198	.0247	.00295	.00000	.01246	.02868	.01720
%RSD	1.2717	1.2623	64.832	.00000	2.6357	6.1536	34.823
#1	15.252	1.9212	.00601	S-.12350	.46998	.48556	.06157
#2	15.619	1.9543	.00602	S-.12350	.46733	.46825	.06162
#3	15.641	1.9677	.00602	S-.12350	.46266	.42492	.04926
#4	15.674	1.9780	.00013	S-.12350	.49083	.48582	.02511
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1071	3.1941	.02283	1.6187	L-.05537	1.7093	.43560
SDev	.0625	.0288	.02404	.0303	.00161	.0796	.00479
%RSD	2.9678	.90299	105.32	1.8705	2.9126	4.6596	1.1004
#1	2.0173	3.1593	.02605	1.5733	L-.05321	1.6843	.42841
#2	2.1323	3.2290	.02097	1.6322	L-.05506	1.6699	.43802

#3	2.1611	3.2000	.05146	1.6366	L-.05660	1.8275	.43801
#4	2.1180	3.1884	-.00717	1.6325	L-.05660	1.6556	.43795
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.1369
SDev .0173
%RSD .81140

#1 2.1115
#2 2.1420
#3 2.1433
#4 2.1507

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-4

Operator: WTR

Run Time: 02/27/01 18:38:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0183	51.420	5.0446	4.9934	4.8966	4.8943	53.181
SDev	.0020	.194	.1283	.0487	.0269	.0167	.177
%RSD	.19156	.37665	2.5427	.97579	.55003	.34126	.33268
#1	1.0211	51.160	4.9193	4.9286	4.8641	4.8727	53.284
#2	1.0183	51.467	4.9489	5.0086	4.8997	4.8953	53.063
#3	1.0170	51.426	5.1604	4.9911	4.8929	4.8957	53.374
#4	1.0169	51.626	5.1499	5.0452	4.9297	4.9134	53.002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0912	4.9961	5.0033	4.8659	53.220	50.222	4.8105
SDev	.0186	.0093	.0113	.0274	.095	.025	.0459
%RSD	.36603	.18567	.22576	.56328	.17832	.04912	.95376
#1	5.0890	4.9950	5.0093	4.8299	53.120	50.242	4.7579
#2	5.0663	4.9860	4.9913	4.8706	53.167	50.190	4.8233
#3	5.0998	5.0085	5.0159	4.8665	53.330	50.242	4.7946
#4	5.1098	4.9949	4.9967	4.8964	53.266	50.216	4.8664
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.237	4.9944	5.0260	50.241	4.9769	5.0387	5.0639
SDev	.179	.0082	.0256	.396	.0281	.0124	.0406
%RSD	.34898	.16345	.51017	.78789	.56428	.24651	.80225
#1	50.983	4.9918	4.9921	49.769	4.9446	5.0302	5.0666
#2	51.276	4.9918	5.0216	50.285	4.9659	5.0384	5.0178
#3	51.287	5.0063	5.0511	50.178	5.0099	5.0564	5.0550
#4	51.402	4.9877	5.0393	50.733	4.9874	5.0299	5.1163
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0501	5.0998	5.0715	4.9024	4.9605	10.172	4.9799
SDev	.0597	.0034	.0465	.0238	.0134	.107	.0088
%RSD	1.1812	.06598	.91644	.48548	.26929	1.0525	.17726
#1	4.9708	5.1026	5.1370	4.8727	4.9433	10.183	4.9711
#2	5.0524	5.0968	5.0579	4.9046	4.9596	10.140	4.9750

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#3	5.1152	5.1028	5.0275	4.9013	4.9633	10.310	4.9911
#4	5.0623	5.0969	5.0634	4.9309	4.9757	10.053	4.9825

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	5.0075
SDev	.0232
%RSD	.46385

#1	4.9955
#2	4.9931
#3	5.0421
#4	4.9992

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB4

Operator: WTR

Run Time: 02/27/01 18:41:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	.00477	-.02535	.03381	.00073	.00065	-.04125
SDev	.00136	.00870	.01956	.00206	.00010	.00018	.01040
%RSD	127.40	182.56	77.154	6.0920	14.057	28.571	25.203

#1	.00000	-.00049	-.03910	.03203	.00064	.00043	-.05628
#2	.00000	-.00398	.00232	.03203	.00082	.00080	-.03437
#3	.00284	.00823	-.02538	.03560	.00082	.00080	-.03418
#4	.00142	.01530	-.03923	.03559	.00064	.00056	-.04017

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00191	-.00038	.00342	.00166	.00837	.58183	.00109
SDev	.00249	.00258	.00179	.00144	.00248	.18157	.00046
%RSD	130.57	672.05	52.238	86.655	29.663	31.206	41.969

#1	.00355	.00074	.00123	.00042	.00488	.65483	.00108
#2	-.00091	.00226	.00342	.00292	.00976	.47448	.00127
#3	.00441	-.00378	.00342	.00041	.01046	.39719	.00046
#4	.00058	-.00076	.00561	.00291	.00837	.80082	.00154

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02193	.00026	.00589	.03534	.00404	.03695	.01224
SDev	.01368	.00060	.00000	.01276	.00406	.02709	.00712
%RSD	62.396	227.22	.00544	36.097	100.48	73.305	58.162

#1	.01302	-.00025	.00589	.01825	.00379	.05871	.00615
#2	.02398	-.00025	.00589	.03679	.00845	.05007	.01839
#3	.01028	.00078	.00589	.04915	-.00130	-.00225	.01842
#4	.04043	.00078	.00589	.03717	.00522	.04127	.00601

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00357	.02609	.01087	.00047	.00062	-.00725	.00009
SDev	.06177	.03013	.03300	.00015	.00031	.05534	.00000
%RSD	1731.6	115.47	303.68	31.854	50.000	762.93	4.7962

#1	-.04070	.00000	.00003	.00034	.00015	-.04662	.00008
#2	-.02632	.00000	.03062	.00060	.00077	-.06102	.00009

#3	-.03590	-.05218	-.03046	.00034	.00077	.02499	.00009
#4	.08865	.05218	.04329	.00060	.00077	.05364	.00009

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00458
SDev .00135
%RSD 29.446

#1	-.00425
#2	-.00428
#3	-.00331
#4	-.00649

Errors	LC Pass
High	.02000
Low	-.02000

C18230148 (No dilutions)

Analysis Report *GO108* Averages

02/28/01 01:09:30 PM

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William J. Kenton 2-28-01
 # Sample Name NA

677 916

1	STD1	.06109
2	STD5A	
3	STD5B	51.1237
4	ICV2-1 0087-036-1	25.160
5	ICB1	.01233
6	ICSA 0087-076-3	.00949
7	ICSAB 0057-188-11	10.039
8	DWND0B	.00097
9	DWND0C	47.715
10	DWHKC	192.48
11	DWHKCP5	38.980
12	DWHKCS	242.42
13	DWHKCD	234.59
14	DWL9GBT	S1555.2
15	DWM3KBT	.12631
16	CCV2-1 0087-072-1	49.723
17	CCB1	.02389
18	DWM3KCT	S-.11965
19	DWF7GT	S777.21
20	DWHKTT	S2332.7
21	DWHKTP5T	239.11
22	DWHKTST	S2332.9
23	DWHKTDI	S-.11965
24	DWJJM/5 NA	283.24
25	DWJJMP25	60.129
26	DWJJMS/5 NA	295.73
27	DWJJMD/5 NA	300.26
28	CCV2-2	51.320
29	CCB2	.01037
30	DWJJ3/5 NA	158.87
31	DWND7B	.01664
32	DWND7C	L.00372
33	DV7HM	42.613
34	DV7HMP5	8.4551
35	DV7HMS	42.856
36	DV7HMD	42.295
37	DV7H0	76.447
38	DWNEKB	.01449
39	DWNEKC	L.00440
40	CCV2-3	50.590
41	CCB3	.00607
42	DWGDC	H87.607
43	DWGDCP5	17.469
44	DWGDCS	90.085
45	DWGDCD	89.182
46	DWH3RB	.06110
47	DWH3RC	L.04151
48	DWDPL	.14492
49	DWDPLP5	.03897
50	DWDPLS	.17057
51	DWDPLD	.20181
52	CCV2-4	51.451
53	CCB4	.00646

Refer to file J10227C for dilution verification
 WJE 2-28-01

Sample Name

NA

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917

54	DWDQ9	.98242
55	DWHKC/5 K	36.908
56	DWHKCP25	9.3106
57	DWHKCS/5 K	50.624
58	DWHKCD/5 K	50.453
59	CCV2-5	53.472
60	CCB5	.01458

JTK Z-28-01

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	J10228A	QUANMET	02/28/01	09:54		X	IR
2	STD5A	J10228A	QUANMET	02/28/01	09:57		X	IR
3	STD5B	J10228A	QUANMET	02/28/01	10:01		X	IR
4	ICV2-1 0087-036-1	J10228A	QUANMET	02/28/01	10:04	WTR	S	CONC
5	ICB1	J10228A	QUANMET	02/28/01	10:07	WTR	S	CONC
6	ICSA 0087-076-3	J10228A	QUANMET	02/28/01	10:10	WTR	Q	CONC
7	ICSAB 0057-188-11	J10228A	QUANMET	02/28/01	10:13	WTR	Q	CONC
8	DWND0B	J10228A	QUANMET	02/28/01	10:17	WTR	S	CONC
9	DWND0C	J10228A	QUANMET	02/28/01	10:20	WTR	S	CONC
10	DWHKC	J10228A	QUANMET	02/28/01	10:23	WTR	S	CONC
11	DWHKCP5	J10228A	QUANMET	02/28/01	10:26	WTR	S	CONC
12	DWHKCS	J10228A	QUANMET	02/28/01	10:29	WTR	S	CONC
13	DWHKCD	J10228A	QUANMET	02/28/01	10:32	WTR	S	CONC
14	DWL9GBT	J10228A	QUANMET	02/28/01	10:36	WTR	S	CONC
15	DWM3KBT	J10228A	QUANMET	02/28/01	10:39	WTR	S	CONC
16	CCV2-1 0087-072-1	J10228A	QUANMET	02/28/01	10:42	WTR	S	CONC
17	CCB1	J10228A	QUANMET	02/28/01	10:45	WTR	S	CONC
18	DWM3KCT	J10228A	QUANMET	02/28/01	10:48	WTR	S	CONC
19	DWF7GT	J10228A	QUANMET	02/28/01	10:51	WTR	S	CONC
20	DWHKTT	J10228A	QUANMET	02/28/01	10:55	WTR	S	CONC
21	DWHKTP5T	J10228A	QUANMET	02/28/01	10:58	WTR	S	CONC
22	DWHKTST	J10228A	QUANMET	02/28/01	11:01	WTR	S	CONC
23	DWHKTD	J10228A	QUANMET	02/28/01	11:04	WTR	S	CONC
24	DWJJM/5 NA	J10228A	QUANMET	02/28/01	11:07	WTR	S	CONC
25	DWJJMP25	J10228A	QUANMET	02/28/01	11:10	WTR	S	CONC
26	DWJJMS/5 NA	J10228A	QUANMET	02/28/01	11:14	WTR	S	CONC
27	DWJJMD/5 NA	J10228A	QUANMET	02/28/01	11:17	WTR	S	CONC
28	CCV2-2	J10228A	QUANMET	02/28/01	11:20	WTR	S	CONC
29	CCB2	J10228A	QUANMET	02/28/01	11:23	WTR	S	CONC
30	DWJJ3/5 NA	J10228A	QUANMET	02/28/01	11:26	WTR	S	CONC
31	DWND7B	J10228A	QUANMET	02/28/01	11:29	WTR	S	CONC
32	DWND7C	J10228A	QUANMET	02/28/01	11:33	WTR	S	CONC
33	DV7HM	J10228A	QUANMET	02/28/01	11:36	WTR	S	CONC
34	DV7HMP5	J10228A	QUANMET	02/28/01	11:39	WTR	S	CONC
35	DV7HMS	J10228A	QUANMET	02/28/01	11:42	WTR	S	CONC
36	DV7HMD	J10228A	QUANMET	02/28/01	11:45	WTR	S	CONC
37	DV7H0	J10228A	QUANMET	02/28/01	11:48	WTR	S	CONC
38	DWNEKB	J10228A	QUANMET	02/28/01	11:52	WTR	S	CONC
39	DWNEKC	J10228A	QUANMET	02/28/01	11:55	WTR	S	CONC
40	CCV2-3	J10228A	QUANMET	02/28/01	11:58	WTR	S	CONC
41	CCB3	J10228A	QUANMET	02/28/01	12:01	WTR	S	CONC
42	DWGDC	J10228A	QUANMET	02/28/01	12:04	WTR	S	CONC
43	DWGDCP5	J10228A	QUANMET	02/28/01	12:07	WTR	S	CONC
44	DWGDCS	J10228A	QUANMET	02/28/01	12:11	WTR	S	CONC
45	DWGDCD	J10228A	QUANMET	02/28/01	12:14	WTR	S	CONC
46	DWH3RB	J10228A	QUANMET	02/28/01	12:17	WTR	S	CONC
47	DWH3RC	J10228A	QUANMET	02/28/01	12:20	WTR	S	CONC
48	DWDPL	J10228A	QUANMET	02/28/01	12:23	WTR	S	CONC
49	DWDPLP5	J10228A	QUANMET	02/28/01	12:26	WTR	S	CONC
50	DWDPLS	J10228A	QUANMET	02/28/01	12:30	WTR	S	CONC
51	DWDPLD	J10228A	QUANMET	02/28/01	12:33	WTR	S	CONC
52	CCV2-4	J10228A	QUANMET	02/28/01	12:36	WTR	S	CONC
53	CCB4	J10228A	QUANMET	02/28/01	12:39	WTR	S	CONC

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DWDQ9	J10228A	QUANMET	02/28/01	12:42	WTR	S	CONC
55	DWHKC/5 K	J10228A	QUANMET	02/28/01	12:47	WTR	S	CONC
56	DWHKCP25	J10228A	QUANMET	02/28/01	12:50	WTR	S	CONC
57	DWHKCS/5 K	J10228A	QUANMET	02/28/01	12:53	WTR	S	CONC
58	DWHKCD/5 K	J10228A	QUANMET	02/28/01	12:56	WTR	S	CONC
59	CCV2-5	J10228A	QUANMET	02/28/01	12:59	WTR	S	CONC
60	CCB5	J10228A	QUANMET	02/28/01	13:02	WTR	S	CONC

Method: QUANMET Standard: STD1

Run Time: 02/28/01 09:54:44

Elem	AG	AL	AS	B	BA	BE	CA
Avge	-.00070	.00895	-.00045	.00045	.00000	.00250	-.00044
SDev	.00026	.00044	.00044	.00090	.00014	.00012	.00080
%RSD	36.886	4.9550	98.549	200.00	7815e6	4.6188	180.61

#1	-.00100	.00880	-.00100	.00000	.00012	.00260	.00056
#2	-.00040	.00880	-.00020	.00180	.00008	.00260	-.00018
#3	-.00080	.00860	.00000	.00000	-.00020	.00240	-.00099
#4	-.00060	.00960	-.00060	.00000	.00000	.00240	-.00116

Elem	CD	CO	CR	CU	FE	K	LI
Avge	-.00003	.00025	.00100	.00020	.00095	-.02215	-.00052
SDev	.00012	.00060	.00077	.00023	.00038	.00795	.00027
%RSD	395.30	238.89	76.594	115.47	39.852	35.894	52.355

#1	.00012	.00080	.00160	.00040	.00120	-.01300	-.00016
#2	-.00008	.00040	.00160	.00040	.00120	-.01820	-.00047
#3	.00000	-.00060	.00080	.00000	.00040	-.03020	-.00080
#4	-.00015	.00040	.00000	.00000	.00100	-.02720	-.00064

Elem	MG	MN	MO	NA	NI	PB	SB
Avge	-.00020	.00000	.00005	.06110	.00037	.00010	.00000
SDev	.00117	.00000	.00019	.00205	.00052	.00012	.00000
%RSD	583.10	.00000	382.97	3.3542	139.96	115.47	.00000

#1	.00140	.00000	-.00020	.06380	.00064	.00020	.00000
#2	-.00040	.00000	.00000	.06140	.00068	.00020	.00000
#3	-.00040	.00000	.00020	.05900	.00055	.00000	.00000
#4	-.00140	.00000	.00020	.06020	-.00040	.00000	.00000

Elem	SE	SI	SN	SR	TI	TL	V
Avge	-.00055	.00205	.00000	-.00005	.00185	.00000	.00000
SDev	.00232	.00025	.00117	.00012	.00053	.00143	.00000
%RSD	421.33	12.276	5343e6	241.01	28.432	3581e6	.00000

#1	-.00160	.00200	.00020	-.00008	.00140	-.00020	.00000
#2	-.00300	.00240	.00020	.00000	.00240	.00200	.00000
#3	.00000	.00200	.00120	-.00020	.00140	-.00040	.00000
#4	.00240	.00180	-.00160	.00008	.00220	-.00140	.00000

Elem	ZN
Avge	.00029
SDev	.00012
%RSD	41.691

#1	.00012
#2	.00032
#3	.00032
#4	.00040

Method: QUANMET Standard: STD5A

Run Time: 02/28/01 09:57:56

0017-031-4

Elem	AG	AS	B	BA	BE	CD	CO
Avge	.27320	.43865	.56202	4.5311	16.324	.79785	1.2958
SDev	.00054	.00217	.00129	.0429	.073	.00262	.0006
%RSD	.19824	.49581	.23012	.94745	.44494	.32851	.04942

#1	.27400	.43840	.56333	4.5730	16.390	.79482	1.2962
#2	.27300	.44180	.56101	4.4813	16.236	.80111	1.2952
#3	.27280	.43720	.56293	4.5602	16.376	.79838	1.2964
#4	.27300	.43720	.56081	4.5098	16.292	.79709	1.2952

Elem	CR	CU	LI	MN	MO	NI	PB
Avge	3.6458	2.4225	4.3510	1.9008	.33105	1.5999	.21675
SDev	.0016	.0199	.0534	.0031	.00117	.0048	.00087
%RSD	.04488	.82148	1.2269	.16127	.35356	.30235	.40132

#1	3.6478	2.4414	4.3996	1.9024	.33160	1.5980	.21600
#2	3.6446	2.3996	4.2942	1.8968	.32980	1.5960	.21760
#3	3.6444	2.4368	4.3934	1.9038	.33240	1.5985	.21740
#4	3.6466	2.4124	4.3169	1.9000	.33040	1.6070	.21600

Elem	SB	SE	SI	SN	SR	TI	TL
Avge	.16060	.41345	.34425	.76240	8.8496	6.4815	.27525
SDev	.00059	.00236	.00111	.00395	.0739	.0312	.00266
%RSD	.36662	.57014	.32304	.51806	.83548	.48117	.96828

#1	.16080	.41120	.34340	.75820	8.9194	6.5090	.27800
#2	.15980	.41220	.34320	.76100	8.7645	6.4444	.27160
#3	.16120	.41380	.34540	.76760	8.9030	6.5056	.27580
#4	.16060	.41660	.34500	.76280	8.8116	6.4672	.27560

Elem	V	ZN
Avge	1.6284	1.2501
SDev	.0048	.0010
%RSD	.29323	.07938

#1	1.6322	1.2488
#2	1.6236	1.2512
#3	1.6328	1.2503
#4	1.6250	1.2502

Method: QUANMET Standard: STD5B

Run Time: 02/28/01 10:01:07

0027-032-1

Elem	AL	CA	FE	K	MG	NA
Avge	11.415	25.758	28.579	2.3105	7.3671	51.124
SDev	.044	.181	.149	.0073	.0333	.241
%RSD	.38400	.70319	.52053	.31437	.45263	.47196
#1	11.382	25.597	28.449	2.3172	7.3320	50.972
#2	11.380	25.605	28.458	2.3010	7.3488	50.991
#3	11.424	25.906	28.665	2.3088	7.3804	51.050
#4	11.473	25.922	28.744	2.3150	7.4070	51.482

Method: QUANMET

Slope = Conc(SIR)/IR

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Element	Wavelength	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD5A	STD1	7.14741	.005003	02/28/01 10:01:07
AL	308.215	STD5B	STD1	8.76743	-.078469	02/28/01 10:01:07
AS	193.696	STD5A	STD1	23.1200	.010404	02/28/01 10:01:07
B	249.600	STD5A	STD1	17.8371	-.008027	02/28/01 10:01:07
BA	493.409	STD5A	STD1	2.20699	-.000000	02/28/01 10:01:07
BE	313.042	STD5A	STD1	.614023	-.001535	02/28/01 10:01:07
CA	317.933	STD5B	STD1	3.88228	.001713	02/28/01 10:01:07
CD	228.802	STD5A	STD1	12.7217	.000374	02/28/01 10:01:07
CO	228.616	STD5A	STD1	7.75767	-.001939	02/28/01 10:01:07
CR	267.716	STD5A	STD1	2.74453	-.002745	02/28/01 10:01:07
CU	324.754	STD5A	STD1	4.12420	-.000825	02/28/01 10:01:07
FE	259.940	STD5B	STD1	3.49919	-.003324	02/28/01 10:01:07
K	766.491	STD5B	STD1	42.8697	.949564	02/28/01 10:01:07
LI	670.789	STD5A	STD1	2.29805	.001190	02/28/01 10:01:07
MG	279.079	STD5B	STD1	13.5736	.002715	02/28/01 10:01:07
MN	257.610	STD5A	STD1	5.25933	.000000	02/28/01 10:01:07
MO	202.030	STD5A	STD1	30.2115	-.001511	02/28/01 10:01:07
NA	588.995	STD5B	STD1	1.95838	-.119657	02/28/01 10:01:07
NI	231.604	STD5A	STD1	6.24863	-.002297	02/28/01 10:01:07
PB	220.353	STD5A	STD1	44.8498	-.004485	02/28/01 10:01:07
SB	206.838	STD5A	STD1	62.2986	.000000	02/28/01 10:01:07
SE	196.026	STD5A	STD1	24.1546	.013285	02/28/01 10:01:07
SI	288.158	STD5A	STD1	28.8813	-.059207	02/28/01 10:01:07
SN	189.989	STD5A	STD1	13.1054	-.000000	02/28/01 10:01:07
SR	409.552	STD5A	STD1	1.12998	.000056	02/28/01 10:01:07
TI	334.941	STD5A	STD1	1.54328	-.002855	02/28/01 10:01:07
TL	190.864	STD5A	STD1	72.9317	-.000000	02/28/01 10:01:07
V	292.402	STD5A	STD1	6.04587	.000000	02/28/01 10:01:07
ZN	213.856	STD5A	STD1	8.02350	-.002313	02/28/01 10:01:07

Analysis Report

02/28/01 10:07:25 AM

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Method: QUANMET

Sample Name: ICV2-1 0087-036-1

Operator: WTR

Run Time: 02/28/01 10:04:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP 677 924

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50870	25.251	1.0177	.99118	.98012	.96904	25.001
SDev	.00113	.151	.0223	.00193	.01171	.00541	.156
%RSD	.22189	.59917	2.1929	.19431	1.1950	.55782	.62265
#1	.50731	25.451	1.0206	.99196	.99683	.97505	24.801
#2	.50869	25.256	.98531	.99065	.97873	.97004	25.094
#3	.51007	25.086	1.0331	.98880	.96991	.96193	24.959
#4	.50872	25.210	1.0318	.99332	.97502	.96916	25.150
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	27.500	1.1000	1.1000	1.1000	1.1000	27.500
Low	.45000	22.500	.90000	.90000	.90000	.90000	22.500
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99610	.99348	.99908	.98239	26.010	25.068	.98254
SDev	.01315	.00388	.00431	.01014	.099	.438	.01571
%RSD	1.3197	.39032	.43113	1.0319	.38129	1.7476	1.5993
#1	.99270	.98921	.99427	.99703	26.083	24.914	1.0059
#2	.98044	.99237	.99812	.98054	26.060	24.777	.97773
#3	.99929	.99853	.99922	.97392	25.864	25.720	.97280
#4	1.0120	.99383	1.0047	.97806	26.032	24.862	.97375
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	27.500	27.500	1.1000
Low	.90000	.90000	.90000	.90000	22.500	22.500	.90000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	25.332	.99749	.97617	25.160	1.0125	1.0344	1.0090
SDev	.149	.00381	.00579	.365	.0060	.0338	.0204
%RSD	.58726	.38168	.59283	1.4504	.59555	3.2713	2.0198
#1	25.548	1.0004	.98071	25.693	1.0174	1.0677	.98396
#2	25.274	.99934	.96863	25.084	1.0158	1.0052	1.0092
#3	25.209	.99193	.97464	24.877	1.0039	1.0593	1.0339
#4	25.298	.99829	.98071	24.987	1.0130	1.0053	1.0089
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	27.500	1.1000	1.1000	27.500	1.1000	1.1000	1.1000
Low	22.500	.90000	.90000	22.500	.90000	.90000	.90000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0016	.99650	.99763	.97368	.96957	4.8410	.99733
SDev	.0257	.03177	.04576	.00969	.00537	.1006	.00533
%RSD	2.5622	3.1881	4.5866	.99514	.55414	2.0785	.53403
#1	.97285	.96912	1.0617	.98728	.97651	4.8876	1.0019
#2	.98727	.96902	.95439	.97295	.97003	4.9608	.99329

#3	1.0205	1.0210	.98069	.96464	.96355	4.7587	.99217
#4	1.0258	1.0269	.99370	.96988	.96818	4.7569	1.0019

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	1.1000	1.1000	5.5000	1.1000
Low	.90000	.90000	.90000	.90000	.90000	4.5000	.90000

Elem	ZN
Units	ppm
Avge	.99105
SDev	.00809
%RSD	.81603

#1	.98523
#2	.99357
#3	.98402
#4	1.0014

Errors	LC Pass
High	1.1000
Low	.90000

Method: QUANMET Sample Name: ICB1

Operator: WTR

Run Time: 02/28/01 10:07:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00000	.00824	.01379	-.00800	.00044	.00034	.08474
SDev	.00143	.00462	.02182	.00001	.00000	.00006	.03825
%RSD	48512.	56.086	158.21	.07126	.00000	18.182	45.141
#1	.00072	.00210	.02887	-.00800	.00044	.00031	.08626
#2	-.00214	.01258	.02878	-.00800	.00044	.00031	.13517
#3	.00072	.00742	.01496	-.00801	.00044	.00031	.07447
#4	.00072	.01085	-.01744	-.00801	.00044	.00043	.04305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00047	-.00117	-.00123	.00124	.01120	-.06216	.00004
SDev	.00152	.00200	.00104	.00107	.00175	.39322	.00086
%RSD	323.34	171.93	84.208	86.116	15.608	632.58	2112.1
#1	-.00042	-.00349	-.00110	-.00000	.01138	-.18220	.00065
#2	.00258	-.00195	-.00055	.00165	.01347	-.37940	-.00103
#3	-.00084	.00117	-.00055	.00083	.01067	-.19934	-.00027
#4	.00056	-.00039	-.00274	.00248	.00927	.51229	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01629	.00106	.00755	.01234	-.00509	-.00452	-.00007
SDev	.01173	.00000	.00349	.00419	.00278	.00005	.00006
%RSD	72.008	.11857	46.180	33.994	54.582	1.1345	86.246
#1	.00543	.00106	.00453	.01234	-.00436	-.00458	-.00001
#2	.01629	.00106	.01058	.01704	-.00796	-.00455	-.00013
#3	.01086	.00106	.00453	.01312	-.00156	-.00446	-.00002
#4	.03258	.00106	.01058	.00685	-.00649	-.00451	-.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01332	.00144	-.00721	.00032	.00031	.04365	.00010
SDev	.02925	.00333	.01099	.00007	.00068	.07626	.00005
%RSD	219.60	230.94	152.51	21.053	221.74	174.71	46.456
#1	.02781	.00433	-.02359	.00028	.00085	.11660	.00006
#2	-.00600	-.00144	-.00262	.00028	-.00069	.10197	.00014

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#3	-.01567	-.00144	-.00262	.00028	.00054	-.01471	.00006
#4	.04713	.00433	-.00000	.00042	.00054	-.02927	.00013
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00603
SDev	.00272
%RSD	45.125

#1	.00601
#2	.00988
#3	.00411
#4	.00412

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET

Sample Name: ICSEA 0087-076-3

Operator: WTR

Run Time: 02/28/01 10:10:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

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Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00156	496.76	.05745	-.05268	.00221	.00024	482.32
SDev	.00186	1.57	.12084	.00562	.00031	.00007	1.85
%RSD	119.58	.31631	210.32	10.674	14.215	30.250	.38275

#1	-.00351	494.48	.21597	-.05381	.00203	.00030	480.50
#2	.00097	496.98	.06142	-.04600	.00265	.00017	482.52
#3	-.00193	497.66	.02847	-.05955	.00195	.00017	481.45
#4	-.00177	497.93	-.07605	-.05137	.00221	.00030	484.79

Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass
Value		500.00					500.00
Range		20.000					20.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00602	.01130	-.00000	-.00035	183.77	.31295	.00118
SDev	.00473	.00268	.00276	.00046	.54	.23328	.00073
%RSD	78.638	23.751	151540.	132.09	.29228	74.541	61.842

#1	-.01131	.01054	-.00275	-.00064	183.09	.63233	.00081
#2	-.00041	.01050	-.00055	-.00054	183.89	.24650	.00211
#3	-.00815	.00898	-.00055	-.00057	183.72	.07502	.00043
#4	-.00422	.01517	.00384	.00034	184.39	.29794	.00135

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK
Value					200.00		
Range					20.000		

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	483.68	.00897	.00412	.00950	-.01444	.03636	-.06224
SDev	1.32	.00043	.00851	.00328	.00937	.01251	.07184
%RSD	.27355	4.7696	206.77	34.563	64.872	34.403	115.43

#1	481.78	.00960	.00403	.00842	-.00877	.05390	.00016
#2	483.87	.00874	.01017	.00607	-.00707	.03384	-.12440
#3	484.32	.00868	.01015	.01390	-.02773	.03351	-.00020
#4	484.77	.00886	-.00789	.00960	-.01420	.02421	-.12451

Errors	QC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value	500.00						
Range	20.000						

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.05596	.04049	-.05508	.01344	-.01975	.95780	.00489
SDev	.02353	.00727	.02977	.00008	.00039	.20976	.00011
%RSD	42.043	17.952	54.061	.57093	1.9661	21.900	2.2008

#1	-.07981	.03327	-.06214	.01338	-.02014	1.0604	.00488
#2	-.07250	.05060	-.09135	.01351	-.01921	.65739	.00497

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#3	-.03440	.03904	-.02010	.01338	-.01983	.98034	.00497
#4	-.03715	.03905	-.04671	.01351	-.01983	1.1330	.00474

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	ZN
Units	ppm
Avge	-.00034
SDev	.00063
%RSD	185.34

#1	-.00015
#2	-.00051
#3	-.00109
#4	.00040

Errors	NOCHECK
Value	
Range	

Method: QUANMET Sample Name: ICSAB 0057-188-11 Operator: WTR

Run Time: 02/28/01 10:13:49

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP **677 930**

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97470	495.98	1.0571	.90505	.45772	.45132	482.04
SDev	.00580	3.41	.1869	.01830	.00409	.00191	2.58
%RSD	.59498	.68851	17.681	2.0221	.89256	.42412	.53594

#1	.96780	494.90	1.0927	.93083	.45661	.45061	480.61
#2	.97941	493.56	Q.79272	.89291	.45441	.45049	485.38
#3	.97201	494.44	1.1106	.89117	.45617	.45001	479.50
#4	.97959	501.04	Q1.2325	.90528	.46367	.45417	482.66

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	1.0000	.50000	.50000	500.00
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95695	.46025	.44180	.48536	184.30	10.392	.96949
SDev	.00427	.00463	.00219	.00547	.72	.340	.01125
%RSD	.44613	1.0066	.49672	1.1260	.39108	3.2674	1.1603

#1	.95200	.45910	.44070	.48407	183.84	10.475	.96623
#2	.95484	.46530	.44071	.48085	184.54	10.167	.95612
#3	.95986	.45443	.44070	.48321	183.61	10.089	.97267
#4	.96110	.46216	.44509	.49330	185.20	10.835	.98292

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	.50000	.50000	.50000	200.00	10.000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	482.52	.46042	.88183	10.039	.88075	.96523	.92260
SDev	2.31	.00208	.02287	.108	.00819	.04561	.16735
%RSD	.47933	.45058	2.5935	1.0710	.93026	4.7256	18.139

#1	481.50	.45820	.87421	10.018	.87649	.96372	.84800
#2	481.66	.46264	.91056	9.9409	.89290	.96517	1.1716
#3	480.96	.45918	.85606	10.004	.87532	.91017	.86036
#4	485.96	.46164	.88648	10.192	.87831	1.0219	.81045

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	500.00	.50000	1.0000	10.000	1.0000	1.0000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.84300	1.0552	.83928	.91469	.87396	Q.98486	.46246
SDev	.12285	.0000	.06121	.00700	.00523	.16144	.00413
%RSD	14.573	.00457	7.2934	.76536	.59891	16.392	.89192

#1	.85970	1.0552	Q.77731	.91245	.87126	Q.87343	.46236
#2	.83288	1.0552	.92293	.90983	.87219	Q1.0550	.46284

677**931**

#3	Q.68993	1.0552	.83760	.91141	.87064	Q.83232	.45728
#4	.98951	1.0553	.81929	.92506	.88175	Q1.1787	.46737

Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Fail	QC Pass
Value	1.0000	1.0000	1.0000	1.0000	1.0000	10.000	.50000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000

Elem ZN
Units ppm
Avge .94212
SDev .00782
%RSD .83035

#1 .94121
#2 .95140
#3 .94348
#4 .93238

Errors QC Pass
Value 1.0000
Range 20.000

Method: QUANMET Sample Name: DWND0B

Operator: WTR

Run Time: 02/28/01 10:17:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00037	.02538	.00786	-.00801	-.00002	-.00000	.03384
SDev	.00136	.01391	.01707	.00001	.00018	.00007	.01049
%RSD	371.86	54.815	217.31	.10189	932.55	2065.0	30.983
#1	.00215	.04249	.02392	-.00800	.00018	-.00006	.04812
#2	.00072	.03018	-.01298	-.00800	-.00026	-.00006	.03241
#3	-.00069	.01088	.01948	-.00801	-.00000	.00005	.03199
#4	-.00071	.01798	.00101	-.00801	-.00000	.00006	.02286
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00044	.00077	-.00110	.00041	.01155	.03215	-.00055
SDev	.00102	.00148	.00210	.00158	.00444	.53338	.00077
%RSD	233.92	191.50	191.39	381.44	38.462	1658.9	139.66
#1	.00116	.00116	-.00055	.00083	.01767	.14361	-.00027
#2	-.00098	-.00038	-.00274	-.00082	.01137	-.17362	-.00065
#3	.00122	.00271	.00164	.00248	.00997	.70949	.00027
#4	.00036	-.00039	-.00274	-.00082	.00717	-.55088	-.00157
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02579	.00027	.00302	.00098	-.00408	.00897	-.00000
SDev	.02453	.00053	.00302	.00503	.00371	.02691	.00004
%RSD	95.126	197.57	99.963	513.29	90.932	300.01	1599.7
#1	.05429	.00106	.00453	.00803	-.00347	.04933	.00000
#2	.01629	.00000	.00453	-.00098	-.00759	-.00452	-.00005
#3	.03529	.00000	.00453	.00059	.00086	-.00442	.00005
#4	-.00271	.00000	-.00151	-.00372	-.00612	-.00451	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04834	.00291	-.01441	.00009	.00015	.03267	.00155
SDev	.06317	.02639	.00757	.00007	.00053	.04674	.00231
%RSD	130.66	908.18	52.498	74.074	341.56	143.07	149.18
#1	.12445	.01588	-.02097	.00006	.00085	.01438	.00006
#2	-.00600	.02168	-.00786	.00006	-.00008	.01445	.00126

#3	.07612	-.03604	-.02097	.00019	.00023	-.00017	.00490
#4	-.00119	.01011	-.00786	.00006	-.00039	.10203	-.00003

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00042
SDev	.00033
%RSD	79.716

#1	.00024
#2	.00027
#3	.00024
#4	.00092

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWNDOC

Operator: WTR

Run Time: 02/28/01 10:20:14

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04836	1.9329	1.8585	.91905	1.8401	.04690	48.420
SDev	.00245	.0066	.0284	.00871	.0162	.00030	.179
%RSD	5.0585	.34067	1.5268	.94749	.88109	.64584	.37043
#1	.04585	1.9237	1.8320	.90637	1.8328	.04681	48.338
#2	.05157	1.9342	1.8781	.92062	1.8307	.04656	48.588
#3	.04873	1.9394	1.8364	.92567	1.8644	.04729	48.208
#4	.04726	1.9342	1.8874	.92356	1.8326	.04694	48.549
Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04734	.47303	.18857	.23731	1.0186	47.517	.92452
SDev	.00171	.00446	.00210	.00243	.0019	.484	.01093
%RSD	3.6214	.94272	1.1149	1.0226	.18916	1.0177	1.1818
#1	.04788	.46721	.19021	.23730	1.0177	47.455	.92036
#2	.04486	.47808	.19021	.23484	1.0198	47.163	.91646
#3	.04784	.47340	.18582	.24061	1.0205	48.218	.94066
#4	.04879	.47341	.18802	.23648	1.0163	47.232	.92060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	48.504	.47465	.00315	47.715	.46549	.49756	L.00641
SDev	.280	.00122	.00760	.502	.02021	.04650	.00015
%RSD	.57765	.25623	241.15	1.0522	4.3425	9.3446	2.2843
#1	48.425	.47360	-.00742	47.603	.46414	.55348	L.00634
#2	48.327	.47360	.00466	47.290	.44760	.51788	L.00628
#3	48.919	.47571	.00466	48.441	.45613	.46393	L.00641
#4	48.344	.47571	.01071	47.526	.49406	.45496	L.00662
Errors	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9367	.02865	-.01224	.91370	-.00116	1.8884	.47447
SDev	.0317	.00983	.02563	.00650	.00040	.0566	.00392
%RSD	1.6354	34.318	209.35	.71098	34.427	2.9948	.82526
#1	1.9681	.03875	.01594	.91138	-.00162	1.9541	.47434
#2	1.9295	.02720	-.03124	.90935	-.00100	1.8227	.47449

#3	1.8957	.01571	-.03648	.92336	~.00131	1.8664	.47932
#4	1.9536	.03292	.00283	.91070	-.00069	1.9103	.46973

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.48407
SDev	.00042
%RSD	.08712

#1	.48351
#2	.48451
#3	.48420
#4	.48405

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWHKC

Operator: WTR

Run Time: 02/28/01 10:23:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	1.4128	.21575	.39497	.10892	.00016	73.091
SDev	.00318	.0068	.03599	.00332	.00021	.00000	.192
%RSD	831.38	.47982	16.682	.83954	.19170	2.4060	.26247

#1	-.00356	1.4062	.17423	.39429	.10877	.00017	72.982
#2	.00217	1.4098	.24351	.39072	.10895	.00016	73.178
#3	.00360	1.4220	.19716	.39639	.10877	.00016	73.316
#4	-.00068	1.4132	.24810	.39849	.10921	.00016	72.890

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01251	.00147	.06601	.10855	.69038	H1840.7	.01319
SDev	.00243	.00265	.00339	.00196	.00429	13.0	.00072
%RSD	19.396	180.36	5.1414	1.8070	.62163	.70590	5.4474

#1	.01072	-.00202	.06093	.10978	.68741	H1853.2	.01352
#2	.01549	.00107	.06752	.10896	.68601	H1832.6	.01314
#3	.01347	.00418	.06807	.10566	.69441	H1826.7	.01390
#4	.01036	.00264	.06752	.10979	.69371	H1850.2	.01222

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	6.1387	.99683	.04087	192.48	.00443	.05501	.00235
SDev	.0190	.00105	.00493	1.60	.00870	.02248	.00628
%RSD	.30930	.10547	12.071	.83093	196.47	40.860	266.63

#1	6.1570	.99841	.04087	193.87	.00646	.02129	.01177
#2	6.1488	.99630	.03483	191.38	.01020	.06621	-.00063
#3	6.1135	.99631	.04088	190.84	-.00840	.06628	-.00089
#4	6.1353	.99631	.04692	193.83	.00946	.06625	-.00083

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00817	H21.622	.01652	.33069	-.00162	.06527	.00946
SDev	.04146	.072	.02386	.00209	.00062	.03866	.00182
%RSD	507.77	.33108	144.44	.63329	38.095	59.234	19.273

#1	-.00875	H21.717	.00542	.33213	-.00193	.10183	.00673
#2	.03955	H21.608	-.00512	.32932	-.00193	.08719	.01029

#3	-.04255	H21.544	.01585	.32851	-.00069	.05789	.01037
#4	.04441	H21.619	.04993	.33280	-.00193	.01416	.01045
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge 2.7198
SDev .0117
%RSD .42980

#1 2.7222
#2 2.7033
#3 2.7229
#4 2.7308

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWHKCP5

Operator: WTR

Run Time: 02/28/01 10:26:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	.27872	.04043	.10016	.02276	.00003	14.551
SDev	.00185	.00852	.02793	.00535	.00026	.00015	.055
%RSD	73713.	3.0578	69.095	5.3450	1.1654	503.32	.38007
#1	-.00215	.27564	.02658	.10283	.02269	.00006	14.513
#2	.00214	.29145	.08194	.09213	.02251	.00018	14.616
#3	.00071	.27389	.02197	.10283	.02269	.00006	14.498
#4	-.00072	.27391	.03122	.10284	.02313	-.00018	14.577
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00300	.00076	.01194	.02167	.14294	372.48	.00234
SDev	.00138	.00195	.00259	.00104	.00171	3.62	.00046
%RSD	46.161	257.50	21.689	4.7973	1.1998	.97139	19.653
#1	.00159	.00115	.01263	.02146	.14084	372.17	.00211
#2	.00456	.00269	.01263	.02311	.14294	368.15	.00303
#3	.00373	.00114	.01427	.02146	.14294	372.60	.00211
#4	.00212	-.00196	.00823	.02064	.14504	376.99	.00211
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.2800	.20436	.00908	38.980	.00287	.02447	-.00012
SDev	.0084	.00052	.00302	.450	.00542	.05552	.00004
%RSD	.65941	.25708	33.264	1.1546	188.91	226.91	33.208
#1	1.2895	.20410	.01059	38.932	.00770	.04915	-.00008
#2	1.2841	.20410	.01059	38.451	.00270	.04918	-.00010
#3	1.2759	.20410	.01059	38.989	.00572	.05812	-.00017
#4	1.2705	.20515	.00455	39.550	-.00465	-.05857	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00769	4.1835	-.00128	.06904	-.00031	.06191	.00015
SDev	.03378	.01111	.01609	.00075	.00064	.09100	.00005
%RSD	439.51	.26439	1252.0	1.0804	206.16	147.00	30.947
#1	.05237	4.1863	.00003	.06895	-.00100	.11662	.00017
#2	.01373	4.1748	-.01308	.06823	.00054	.04366	.00017

#3	-.02492	4.1748	.02099	.06895	-.00039	-.05844	.00017
#4	-.01042	4.1979	-.01308	.07004	-.00039	.14578	.00008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .53423
SDev .00396
%RSD .74160

#1 .53542
#2 .53930
#3 .53156
#4 .53065

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWHKCS

Operator: WTR

Run Time: 02/28/01 10:29:47

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05011	3.3583	2.1171	1.3077	1.8620	.04460	123.74
SDev	.00166	.0241	.0522	.0011	.0106	.00014	.41
%RSD	3.3198	.71826	2.4653	.08035	.57156	.31780	.33530
#1	.05156	3.3748	2.1343	1.3072	1.8721	.04472	123.53
#2	.04867	3.3681	2.0928	1.3072	1.8591	.04448	123.77
#3	.04867	3.3680	2.0604	1.3072	1.8684	.04473	123.35
#4	.05155	3.3225	2.1809	1.3093	1.8483	.04447	124.31
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06404	.46056	.25005	.34089	1.6978	H1910.6	.92341
SDev	.00103	.00294	.00276	.00158	.0039	12.5	.00820
%RSD	1.6161	.63803	1.1040	.46273	.22914	.65363	.88845
#1	.06380	.45629	.24950	.34295	1.7015	H1920.1	.92971
#2	.06277	.46095	.24950	.33965	1.6938	H1910.4	.92328
#3	.06525	.46249	.24731	.34130	1.6952	H1919.0	.92879
#4	.06435	.46250	.25389	.33965	1.7008	H1893.0	.91187
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	52.057	1.4736	.04403	242.42	.45999	.53654	.03975
SDev	.164	.0018	.00780	1.87	.01326	.03044	.12273
%RSD	.31595	.12358	17.718	.77290	2.8832	5.6741	308.78
#1	52.180	1.4731	.05309	243.82	.46884	.50739	.13017
#2	51.935	1.4731	.04100	242.37	.44128	.52528	.00527
#3	52.218	1.4720	.04705	243.69	.45989	.57896	L-.11911
#4	51.897	1.4762	.03496	239.79	.46995	.53452	.14265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1816	H22.065	.01161	1.2100	-.00332	1.8482	.47273
SDev	.0536	.062	.01529	.0060	.00059	.0564	.00280
%RSD	2.4553	.28138	131.61	.49303	17.813	3.0493	.59200
#1	2.2118	H22.093	-.00963	1.2150	-.00378	1.8227	.47527
#2	2.1151	H22.046	.02654	1.2084	-.00255	1.9249	.47027

#3	2.2359	H22.133	.01292	1.2143	-.00378	1.7935	.47035
#4	2.1635	H21.989	.01663	1.2022	-.00316	1.8518	.47504

Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	3.2567
SDev	.0069
%RSD	.21170

#1	3.2517
#2	3.2639
#3	3.2501
#4	3.2613

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKCD

Operator: WTR

Run Time: 02/28/01 10:32:57

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05011	3.3076	2.1511	1.3040	1.8337	.04350	123.08
SDev	.00308	.0089	.0610	.0077	.0159	.00017	.78
%RSD	6.1506	.26851	2.8360	.59379	.86778	.38836	.62992

#1	.04726	3.3207	2.0885	1.3072	1.8490	.04374	123.01
#2	.04867	3.3014	2.1257	1.3107	1.8437	.04350	122.35
#3	.05439	3.3032	2.2320	1.2929	1.8136	.04338	124.17
#4	.05010	3.3049	2.1580	1.3051	1.8287	.04338	122.78

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.06117	.46329	.25046	.33841	1.6747	H1853.1	.90015
SDev	.00456	.00532	.00379	.00207	.0044	19.0	.01338
%RSD	7.4516	1.1475	1.5122	.61299	.26509	1.0275	1.4859

#1	.06239	.46251	.24950	.34048	1.6791	H1870.4	.91111
#2	.06703	.45629	.24566	.33882	1.6686	H1864.1	.90849
#3	.05677	.46564	.25445	.33553	1.6763	H1827.4	.88153
#4	.05850	.46874	.25225	.33883	1.6749	H1850.6	.89946

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.172	1.4620	.04100	234.59	.46214	.56576	.00870
SDev	.185	.0039	.00855	2.89	.01464	.03486	.01874
%RSD	.36226	.26592	20.841	1.2336	3.1673	6.1620	215.31

#1	51.414	1.4667	.03496	237.09	.45414	.57916	-.00682
#2	51.200	1.4594	.03496	236.47	.44811	.51622	-.00704
#3	50.977	1.4636	.04100	230.71	.48150	.59724	.01820
#4	51.096	1.4583	.05309	234.09	.46482	.57042	.03047

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0897	H21.672	-.01342	1.1911	-.00316	1.8156	.47148
SDev	.0309	.081	.02500	.0088	.00050	.0484	.00237
%RSD	1.4792	.37160	186.29	.73846	15.932	2.6643	.50183

#1	2.1247	H21.792	-.04690	1.2003	-.00378	1.7499	.47503
#2	2.0716	H21.642	.01338	1.1958	-.00316	1.8230	.47018

#3	2.1054	H21.619	-.00748	1.1803	-.00255	1.8228	.47028
#4	2.0571	H21.636	-.01267	1.1882	-.00316	1.8665	.47044
Errors	LC Pass	LC High	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	3.2226
SDev	.0096
%RSD	.29860

#1	3.2270
#2	3.2190
#3	3.2333
#4	3.2112

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWL9GBT

Operator: WTR

Run Time: 02/28/01 10:36:06

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00106	.00698	.14671	.10082	.00452	.00003	.44877
SDev	.00295	.01146	.02737	.00206	.00027	.00006	.00376
%RSD	277.77	164.24	18.658	2.0436	5.8783	213.07	.83741
#1	-.00069	.01088	.17668	.10261	.00486	.00005	.44484
#2	-.00071	.01262	.12126	.09904	.00460	.00006	.45041
#3	-.00500	-.01007	.16305	.09904	.00423	-.00006	.44662
#4	.00215	.01450	.12586	.10261	.00441	.00006	.45320
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00315	-.00116	-.00110	.00289	.02292	.26151	-.00038
SDev	.00131	.00200	.00375	.00048	.00146	.41590	.00087
%RSD	41.584	173.20	341.31	16.522	6.3654	159.04	229.76
#1	-.00162	-.00194	-.00055	.00330	.02327	.46942	.00027
#2	-.00400	-.00348	-.00494	.00247	.02257	.20363	-.00157
#3	-.00445	-.00037	-.00274	.00248	.02117	-.29366	-.00049
#4	-.00253	.00117	.00384	.00330	.02467	.66662	.00027
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05565	.00080	.00000	S1555.2	-.00561	-.00228	-.00008
SDev	.01559	.00053	.00302	1795.9	.00358	.00447	.00001
%RSD	28.022	66.179	101980.	115.48	63.810	195.78	15.481
#1	.05701	.00106	-.00151	S-.11966	-.00347	.00442	-.00009
#2	.05701	.00106	.00453	S-.11966	-.00311	-.00459	-.00007
#3	.03529	.00001	-.00151	S3110.6	-.01082	-.00449	-.00008
#4	.07330	.00106	-.00151	S3110.3	-.00502	-.00447	-.00010
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00852	.08377	.01442	.00119	-.00008	.03257	.00121
SDev	.03204	.03378	.01220	.00016	.00067	.08111	.00241
%RSD	375.89	40.321	84.600	13.538	864.10	249.06	199.40
#1	-.02529	.03327	.02883	.00141	.00023	-.02944	.00482
#2	.05200	.10253	.01835	.00105	-.00008	.11647	.00005

#3	.00369	.09675	.00001	.00109	-.00100	-.04400	-.00003
#4	.00370	.10253	.01049	.00119	.00054	.08723	-.00001

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.02793
SDev	.00140
%RSD	5.0208

#1	.02914
#2	.02591
#3	.02820
#4	.02846

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: DWM3KBT

Operator: WTR

Run Time: 02/28/01 10:39:16

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00287	.01619	.00907	-.00802	.00044	.00005	.01610
SDev	.00379	.01314	.02587	.00000	.00036	.00001	.00494
%RSD	131.73	81.155	285.35	.04864	81.650	8.3187	30.701
#1	-.00213	.00396	-.00356	-.00802	.00044	.00005	.01080
#2	.00502	.02843	.04248	-.00802	.00044	.00005	.01994
#3	.00646	.02664	.01473	-.00801	.00088	.00005	.02067
#4	.00215	.00573	-.01739	-.00801	-.00000	.00006	.01299
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK
High	.50000		.50000		10.000		
Low	-.50000		-.50000		-10.000		
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00144	.00116	.00041	.00165	.00718	.48871	.00087
SDev	.00186	.00127	.00212	.00067	.00286	.47130	.00115
%RSD	129.66	109.62	516.84	40.816	39.848	96.437	132.58
#1	.00340	-.00040	.00109	.00165	.00297	.17791	-.00065
#2	.00096	.00271	.00165	.00248	.00858	.66662	.00081
#3	.00230	.00115	.00164	.00165	.00928	1.0696	.00211
#4	-.00092	.00117	-.00274	.00083	.00787	.04073	.00119
Errors	LC Pass	NOCHECK	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.10000		.50000				
Low	-.10000		-.50000				
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01493	.00079	.00000	.12632	-.00186	.02693	-.00004
SDev	.01097	.00053	.00579	.06510	.00750	.03700	.00009
%RSD	73.481	66.526	623700.	51.534	404.26	137.39	239.17
#1	.00543	.00105	-.00755	.05856	-.00686	-.00450	-.00008
#2	.02986	.00106	.00453	.08284	.00733	.04938	.00008
#3	.01629	.00106	.00453	.18663	-.00899	.06728	-.00014
#4	.00814	.00000	-.00151	.17723	.00108	-.00446	-.00002
Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK
High						.50000	
Low						-.50000	
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02538	.03325	.01179	.00016	.00093	.00719	.00302
SDev	.00925	.00003	.01665	.00009	.00092	.09418	.00212
%RSD	36.436	.07416	141.16	58.284	99.536	1310.3	70.219
#1	.02779	.03325	.01835	.00006	-.00008	.05830	.00353
#2	.03747	.03326	-.01049	.00028	.00116	.02904	.00369

#3	.01814	.03327	.01048	.00015	.00208	-.13142	.00490
#4	.01814	.03321	.02883	.00015	.00054	.07283	-.00003

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High	.25000						
Low	-.25000						

Elem	ZN
Units	ppm
Avge	.00041
SDev	.00148
%RSD	358.07

#1	.00027
#2	-.00073
#3	.00255
#4	-.00043

Errors	NOCHECK
High	
Low	

Method: QUANMET Sample Name: CCV2-1 0087-072-1 Operator: WTR
 Run Time: 02/28/01 10:42:25
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98553	49.801	4.8855	4.8497	4.7984	4.7648	49.706
SDev	.00325	.542	.0958	.0327	.0753	.0462	.069
%RSD	.32965	1.0878	1.9601	.67358	1.5682	.96922	.13944
#1	.98871	50.554	4.9871	4.8976	4.9014	4.8265	49.710
#2	.98558	49.838	4.9429	4.8413	4.8077	4.7728	49.764
#3	.98678	49.400	4.8316	4.8357	4.7424	4.7232	49.743
#4	.98106	49.412	4.7806	4.8244	4.7422	4.7367	49.608
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9278	4.8303	4.8312	4.8094	50.868	49.611	4.8463
SDev	.0219	.0192	.0205	.0706	.324	.222	.0983
%RSD	.44376	.39794	.42450	1.4676	.63676	.44834	2.0281
#1	4.9598	4.8468	4.8562	4.9068	51.304	49.898	4.9850
#2	4.9185	4.8439	4.8392	4.8160	50.926	49.538	4.8467
#3	4.9220	4.8254	4.8189	4.7558	50.634	49.641	4.7693
#4	4.9107	4.8052	4.8106	4.7590	50.609	49.367	4.7844
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	49.885	4.8320	4.8585	49.723	4.8002	4.8904	4.9372
SDev	.490	.0263	.0414	.806	.0287	.0054	.0387
%RSD	.98213	.54374	.85263	1.6207	.59886	.11099	.78288
#1	50.556	4.8658	4.9054	50.866	4.8207	4.8858	4.9557
#2	49.940	4.8394	4.8752	49.714	4.8288	4.8952	4.9188
#3	49.560	4.8151	4.8087	49.171	4.7713	4.8950	4.8935
#4	49.484	4.8077	4.8449	49.142	4.7800	4.8857	4.9807
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9502	4.9273	4.8920	4.7991	4.8249	9.6484	4.8339
SDev	.1230	.0304	.0299	.0673	.0452	.0980	.0374
%RSD	2.4850	.61615	.61103	1.4025	.93671	1.0154	.77384
#1	4.9539	4.9712	4.9148	4.8914	4.8866	9.7928	4.8836
#2	5.1170	4.9072	4.8519	4.8069	4.8307	9.5930	4.8420

#3	4.9035	4.9241	4.9148	4.7500	4.7943	9.6257	4.8048
#4	4.8262	4.9067	4.8863	4.7481	4.7881	9.5823	4.8053

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.8743
SDev	.0250
%RSD	.51331

#1	4.9097
#2	4.8736
#3	4.8607
#4	4.8533

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB1

Operator: WTR

Run Time: 02/28/01 10:45:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00071	-.00451	-.00114	.01607	.00055	.00052	.00779
SDev	.00261	.00936	.01107	.01605	.00031	.00025	.00263
%RSD	367.93	207.47	967.12	99.862	55.465	48.388	33.723
#1	.00072	-.01197	.00587	.02410	.00018	.00031	.00404
#2	.00215	.00914	-.01742	.02409	.00044	.00031	.00815
#3	-.00357	-.00851	.00121	-.00800	.00070	.00080	.01012
#4	-.00213	-.00670	.00577	.02410	.00088	.00067	.00884
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00329	-.00156	-.00055	.00021	.00770	-.13933	.00018
SDev	.00388	.00319	.00179	.00141	.00105	.35233	.00106
%RSD	117.85	204.00	327.13	685.71	13.624	252.88	603.67
#1	.00134	-.00194	-.00274	-.00165	.00648	-.47371	-.00119
#2	H.00821	.00269	-.00055	.00083	.00718	-.08788	.00119
#3	-.00072	-.00504	-.00055	-.00000	.00857	-.32795	.00081
#4	.00433	-.00195	.00165	.00165	.00857	.33224	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00475	.00079	.00906	.02389	-.00531	-.00452	-.00011
SDev	.01443	.00053	.00302	.02392	.00278	.00008	.00008
%RSD	303.72	66.321	33.329	100.13	52.254	1.7210	70.331
#1	-.01357	.00106	.01057	.00059	-.00127	-.00453	-.00006
#2	.00543	.00106	.01057	.00803	-.00612	-.00442	-.00007
#3	.02172	.00106	.01058	.05229	-.00759	-.00461	-.00009
#4	.00543	.00000	.00453	.03466	-.00627	-.00453	-.00022
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01572	.00723	.00459	.00032	.00046	.00722	.00103
SDev	.03582	.00335	.03170	.00022	.00030	.02794	.00178
%RSD	227.83	46.292	691.11	70.999	63.828	387.11	173.35
#1	.06161	.00433	.00262	.00015	.00054	.02912	.00013
#2	.01814	.00433	-.01311	.00028	.00085	.02907	.00014

#3	-.02534	.01011	-.02097	.00064	.00023	-.00005	.00014
#4	.00848	.01015	.04980	.00019	.00023	-.02928	.00369
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00026
SDev	.00133
%RSD	517.01

#1	.00185
#2	-.00003
#3	-.00134
#4	.00055

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWM3KCT

Operator: WTR

Run Time: 02/28/01 10:48:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04506	1.8609	2.0697	.97803	1.7643	.04383	L.51345
SDev	.00298	.0185	.0729	.00073	.0199	.00016	.00841
%RSD	6.6232	.99243	3.5241	.07499	1.1287	.36481	1.6382

#1	.04147	1.8798	1.9667	.97766	1.7903	.04390	L.50143
#2	.04864	1.8675	2.1055	.97913	1.7555	.04377	L.51710
#3	.04435	1.8359	2.1335	.97766	1.7437	.04365	L.51454
#4	.04578	1.8605	2.0732	.97768	1.7676	.04401	L.52075

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04483	.45328	.18034	.23006	.97802	L.08360	.90021
SDev	.00296	.00178	.00283	.00217	.00552	.29808	.01594
%RSD	6.6067	.39351	1.5713	.94260	.56462	356.57	1.7702

#1	.04228	.45173	.17705	.23316	.97505	L-.13933	.92206
#2	.04837	.45483	.18363	.22986	.97855	L.51229	.89281
#3	.04249	.45175	.17924	.22821	.97295	L-.09646	.88507
#4	.04618	.45483	.18144	.22904	.98555	L.05787	.90092

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.05905	.45702	.00315	S-.11966	.45021	.48813	L.00613
SDev	.00714	.00180	.00302	.00000	.00974	.01849	.00010
%RSD	12.092	.39338	95.998	.00000	2.1630	3.7872	1.6881

#1	L.05158	.45466	.00466	S-.11966	.45804	.49031	L.00622
#2	L.06515	.45781	.00466	S-.11966	.45812	.46350	L.00621
#3	L.05429	.45676	-.00138	S-.11966	.43805	.49035	L.00602
#4	L.06515	.45887	.00466	S-.11966	.44665	.50835	L.00605

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0839	.10356	.01789	.87903	.00008	1.7832	.45873
SDev	.0843	.03179	.01199	.00825	.00078	.0551	.00241
%RSD	4.0471	30.696	67.019	.93796	1006.6	3.0889	.52546

#1	2.0018	.07319	.01593	.88909	-.00069	1.7359	.45512
#2	2.1274	.13101	.00281	.87553	.00116	1.8379	.45997

#3	2.0259	.07902	.02116	.86988	-.00008	1.8234	.45988
#4	2.1806	.13101	.03165	.88163	-.00008	1.7357	.45996
Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.50879
SDev	.00628
%RSD	1.2336

#1	.49950
#2	.51332
#3	.51085
#4	.51147

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWF7GT

Operator: WTR

Run Time: 02/28/01 10:51:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00048	.38079	.11550	.03862	.21835	.00006	6.6403
SDev	.00248	.00801	.05253	.01606	.00092	.00000	.0154
%RSD	520.05	2.1042	45.480	41.597	.42216	.00000	.23195
#1	-.00406	.37244	.17573	.03049	.21709	.00006	6.6230
#2	.00024	.38477	.06922	.06271	.21841	.00006	6.6472
#3	.00167	.38995	.07380	.03060	.21860	.00006	6.6331
#4	.00025	.37599	.14324	.03066	.21930	.00006	6.6579
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23401	.02402	.15699	.06224	15.839	.67305	.00169
SDev	.00471	.00195	.00210	.00042	.038	.06431	.00084
%RSD	2.0137	8.1143	1.3393	.67018	.23927	9.5541	49.737
#1	.22719	.02365	.15534	.06203	15.787	.76094	.00119
#2	.23453	.02363	.15534	.06204	15.847	.60661	.00265
#3	.23701	.02207	.15973	.06203	15.845	.66662	.00211
#4	.23731	.02672	.15754	.06287	15.878	.65805	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.43978	.15369	.00507	S777.21	.01867	.66796	-.00121
SDev	.00768	.00054	.00302	1554.7	.00521	.03050	.14419
%RSD	1.7459	.34847	59.595	200.03	27.895	4.5668	11907.
#1	.43435	.15289	.00657	S-.11966	.01690	.71042	L-.11333
#2	.43435	.15396	.00054	S-.11966	.02145	.63860	L-.13821
#3	.45064	.15396	.00658	S-.11966	.01225	.65687	.12322
#4	.43978	.15397	.00658	S3109.2	.02409	.66596	.12348
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.02006	.83467	.02307	.01751	.00486	.08634	.00043
SDev	.06008	.03572	.01845	.00034	.00036	.06801	.00004
%RSD	299.54	4.2800	79.971	1.9355	7.3314	78.766	9.9645
#1	.00877	.79568	.01277	.01723	.00455	.15621	.00044
#2	-.10699	.81301	.02578	.01723	.00455	-.00491	.00036

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#3	-.01038	.86499	.04784	.01768	.00517	.11182	.00045
#4	.02837	.86499	.00591	.01791	.00517	.08223	.00045
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	2.9384
SDev	.0144
%RSD	.49154

#1	2.9199
#2	2.9359
#3	2.9436
#4	2.9542

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKTT

Operator: WTR

Run Time: 02/28/01 10:55:09

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00309	.42105	.08877	.11101	.40651	.00061	269.69
SDev	.00245	.00575	.06997	.00343	.00090	.00007	.86
%RSD	79.429	1.3654	78.827	3.0908	.22147	11.236	.31852

#1	-.00632	.41451	.09468	.10813	.40725	.00055	268.41
#2	-.00344	.41801	.13154	.11029	.40699	.00067	270.23
#3	-.00058	.42665	-.01186	.10964	.40523	.00054	269.93
#4	-.00201	.42502	.14072	.11597	.40655	.00067	270.18

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00057	.02156	.00165	.00369	17.810	1.2625	.00552
SDev	.00194	.00232	.00179	.00067	.019	.1837	.00031
%RSD	342.07	10.769	108.88	18.179	.10524	14.550	5.6603

#1	.00129	.02273	-.00055	.00452	17.786	1.1982	.00524
#2	.00237	.02272	.00164	.00370	17.821	1.5326	.00579
#3	-.00217	.01808	.00384	.00369	17.805	1.1210	.00524
#4	.00078	.02272	.00164	.00287	17.828	1.1982	.00579

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.703	7.2622	.00381	S2332.7	.02089	.04400	.02522
SDev	.032	.0135	.00349	1555.2	.00561	.03464	.01762
%RSD	.29761	.18606	91.442	66.670	26.854	78.728	69.872

#1	10.682	7.2441	.00683	S3110.5	.02417	-.00758	.00031
#2	10.731	7.2736	.00079	S-.11966	.01309	.06423	.03771
#3	10.729	7.2599	.00683	S3110.0	.02566	.06411	.03767
#4	10.669	7.2715	.00079	S3110.2	.02065	.05524	.02518

Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01259	2.7120	.00132	.30169	-.01636	.10333	.00368
SDev	.04184	.0073	.02450	.00047	.00064	.07651	.00239
%RSD	332.43	.26897	1854.9	.15443	3.8897	74.041	65.066

#1	.00527	2.7018	.00842	.30220	-.01674	.05607	.00009
#2	.06818	2.7135	-.03335	.30130	-.01705	.05587	.00485

#3	.01015	2.7192	.00596	.30130	-.01582	.08517	.00494
#4	-.03325	2.7135	.02426	.30197	-.01582	.21622	.00485
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .25595
SDev .00207
%RSD .80747

#1 .25396
#2 .25789
#3 .25756
#4 .25437

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWHKTP5T

Operator: WTR

Run Time: 02/28/01 10:58:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00115	.08201	.04503	.03100	.08674	.00015	55.460
SDev	.00137	.01581	.04185	.00253	.00087	.00006	.369
%RSD	119.43	19.280	92.935	8.1682	1.0031	40.000	.66620
#1	-.00294	.06353	.06600	.03312	.08714	.00006	54.925
#2	-.00150	.07415	.06126	.02814	.08758	.00018	55.503
#3	-.00007	.09522	.07035	.02959	.08670	.00018	55.720
#4	-.00008	.09514	-.01749	.03314	.08555	.00018	55.692
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00057	.00385	.00000	.00209	3.8132	.25507	.00004
SDev	.00120	.00195	.00210	.00165	.0147	.41280	.00080
%RSD	209.75	50.763	530460.	79.209	.38542	161.83	1969.8
#1	-.00019	.00113	-.00274	-.00039	3.7954	-.30223	-.00065
#2	.00093	.00423	.00165	.00291	3.8304	.56374	.00081
#3	-.00126	.00579	-.00055	.00291	3.8178	.18648	-.00065
#4	-.00178	.00424	.00165	.00291	3.8094	.57231	.00065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2695	1.5355	.00200	239.11	.00303	.00380	.00004
SDev	.0184	.0046	.00349	2.42	.00365	.01272	.00008
%RSD	.81128	.29814	174.05	1.0139	120.23	334.58	217.80
#1	2.2614	1.5295	.00502	241.24	-.00053	-.01420	-.00000
#2	2.2967	1.5400	-.00102	241.14	.00094	.01278	-.00006
#3	2.2559	1.5379	-.00102	237.43	.00402	.00384	.00011
#4	2.2641	1.5347	.00502	236.63	.00770	.01277	.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02261	.52275	.00134	.06425	-.00332	.00094	.00003
SDev	.04125	.03177	.02238	.00046	.00073	.03842	.00005
%RSD	182.42	6.0773	1675.5	.71868	22.144	4106.3	169.44
#1	.03947	.49531	.00330	.06429	-.00409	.02664	.00006
#2	.01059	.55308	.03214	.06488	-.00378	-.03205	-.00001

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#3	-.02810	.49531	-.01243	.06384	-.00286	.04100	-.00001
#4	.06850	.54730	-.01767	.06397	-.00255	-.03185	.00007

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.05330
SDev	.00191
%RSD	3.5868

#1	.05446
#2	.05538
#3	.05188
#4	.05149

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKTST

Operator: WTR

Run Time: 02/28/01 11:01:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.83024	.41988	4.5733	.10740	42.145	.00061	266.60
SDev	.00377	.00757	.1196	.00143	.480	.00007	1.75
%RSD	.45349	1.8030	2.6153	1.3281	1.1393	11.025	.65586
#1	.82700	.41992	4.4185	.10734	41.958	.00067	264.89
#2	.82703	.42684	4.6217	.10900	41.772	.00066	268.14
#3	.83275	.40935	4.7004	.10771	42.850	.00055	265.29
#4	.83417	.42343	4.5524	.10555	42.000	.00055	268.07
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.92951	.02719	4.2805	.00387	17.487	1.2475	.00533
SDev	.00269	.00160	.0175	.00104	.085	.4283	.00045
%RSD	.28897	5.8826	.40840	26.764	.48858	34.334	8.4737
#1	.92577	.02612	4.2557	.00365	17.372	1.1296	.00487
#2	.93114	.02774	4.2919	.00531	17.475	1.8755	.00595
#3	.93175	.02570	4.2809	.00285	17.566	.91527	.00524
#4	.92938	.02919	4.2935	.00367	17.535	1.0696	.00524
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.633	7.1449	-.00076	S2332.9	.02588	4.4965	-.03819
SDev	.065	.0289	.00303	1555.3	.00820	.0297	.00020
%RSD	.61253	.40431	398.36	66.670	31.690	.65971	.53617
#1	10.577	7.1030	-.00531	S3110.4	.02924	4.4539	-.03794
#2	10.596	7.1483	.00075	S3110.6	.03394	4.5167	-.03821
#3	10.723	7.1630	.00076	S-.11966	.02564	4.4987	-.03818
#4	10.636	7.1651	.00076	S3110.6	.01468	4.5167	-.03844
Errors	LC Pass	LC Pass	LC Pass	LC High	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0140	2.6916	.02000	.29514	-.01505	.04045	.00166
SDev	.0928	.0119	.01058	.00299	.00018	.02561	.00230
%RSD	9.1479	.44213	52.917	1.0147	1.1843	63.301	139.05
#1	1.0668	2.6786	.02915	.29384	-.01489	.07428	.00124
#2	.91735	2.6902	.01869	.29271	-.01489	.04424	.00503

#3	1.1157	2.7075	.00560	.29949	-.01520	.02877	.00017
#4	.95618	2.6902	.02656	.29452	-.01520	.01452	.00019
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.25418
SDev	.00191
%RSD	.75091

#1	.25210
#2	.25303
#3	.25559
#4	.25600

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DWHKTD

Operator: WTR

Run Time: 02/28/01 11:04:39

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.84311	.46902	4.6852	.10915	42.404	.00067	291.63
SDev	.00203	.01019	.0635	.00009	.403	.00010	1.43
%RSD	.24072	2.1730	1.3551	.08481	.95132	14.358	.49073

#1	.84025	.47936	4.7488	.10902	41.999	.00066	292.08
#2	.84455	.46898	4.6054	.10921	42.252	.00079	292.79
#3	.84310	.45516	4.7212	.10920	42.953	.00055	289.54
#4	.84455	.47257	4.6655	.10918	42.412	.00066	292.09

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.95006	.03128	4.3339	.00533	19.451	1.5626	.00648
SDev	.00634	.00207	.0157	.00217	.049	.6633	.00084
%RSD	.66706	6.6201	.36335	40.640	.25377	42.449	12.890

#1	.94763	.03069	4.3358	.00718	19.378	2.0813	.00687
#2	.95582	.03211	4.3457	.00637	19.485	1.8070	.00670
#3	.94224	.02873	4.3111	.00224	19.475	.58946	.00524
#4	.95456	.03359	4.3429	.00554	19.466	1.7727	.00708

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.528	7.7768	-.00202	S-.11966	.01792	4.5478	-.03868
SDev	.047	.0159	.01257	.00000	.00804	.0238	.00029
%RSD	.40719	.20407	623.17	.00000	44.860	.52314	.73763

#1	11.467	7.7568	.01308	S-.11966	.02902	4.5433	-.03858
#2	11.551	7.7916	.00101	S-.11966	.00998	4.5613	-.03901
#3	11.576	7.7716	-.01712	S-.11966	.01748	4.5163	-.03834
#4	11.519	7.7873	-.00504	S-.11966	.01520	4.5703	-.03877

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.98261	2.9863	.00200	.31992	-.01590	.10666	.00388
SDev	.03759	.0029	.04164	.00250	.00039	.08376	.00259
%RSD	3.8258	.09703	2085.6	.78232	2.4433	78.528	66.734

#1	1.0295	2.9848	-.02816	.31693	-.01551	.08546	.00529
#2	.99600	2.9848	.05835	.31942	-.01582	-.00303	.00515

#3	.95733	2.9848	-.03076	.32299	-.01644	.17203	-.00000
#4	.94764	2.9906	.00855	.32032	-.01582	.17218	.00507

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.30852
SDev	.00241
%RSD	.78148

#1	.30969
#2	.30975
#3	.30490
#4	.30974

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJM/5 NA Operator: WTR
 Run Time: 02/28/01 11:07:49
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.50100	.03817	.02878	.01973	-.00000	8.4033
SDev	.00272	.00596	.04960	.00291	.00028	.00007	.0567
%RSD	1275.9	1.1892	129.96	10.101	1.3966	1415.1	.67431
#1	.00375	.50880	.08887	.03234	.01942	.00004	8.4555
#2	-.00201	.49487	.06137	.02878	.01986	-.00006	8.4157
#3	-.00201	.49833	.02897	.02522	.01960	-.00006	8.3227
#4	-.00058	.50198	-.02654	.02878	.02004	.00006	8.4192
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00098	-.00003	.00782	.00460	.60032	1.1253	.00087
SDev	.00185	.00407	.00122	.00143	.00090	.6150	.00085
%RSD	188.25	15032.	15.547	31.092	.15068	54.650	97.761
#1	.00348	.00578	.00878	.00585	.60137	1.7298	.00119
#2	.00121	-.00042	.00823	.00584	.59927	1.5240	.00081
#3	.00006	-.00351	.00604	.00336	.60067	.39226	.00173
#4	-.00080	-.00196	.00823	.00337	.59997	.85525	-.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA ✓	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.4890	.06065	.00310	283.24	.00193	.01747	-.00012
SDev	.0204	.00061	.00760	3.61	.00869	.04307	.00013
%RSD	1.3684	.99849	245.36	1.2751	450.42	246.55	105.57
#1	1.5148	.06013	.01065	279.39	.01285	.06695	-.00001
#2	1.4958	.06012	.00461	282.19	-.00774	-.02290	-.00031
#3	1.4741	.06118	.00461	288.06	-.00127	.03980	-.00010
#4	1.4714	.06117	-.00748	283.32	.00388	-.01398	-.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02963	1.9957	.01973	.04880	.00980	.04100	.00217
SDev	.05036	.0055	.02145	.00041	.00044	.04970	.00430
%RSD	169.98	.27583	108.74	.83143	4.4542	121.22	197.74
#1	.05862	1.9915	.01842	.04834	.01042	-.02110	.00862
#2	.03445	1.9971	.04725	.04861	.00949	.08114	.00008

#3	.06828	2.0029	-.00517	.04924	.00949	.02281	.00007
#4	-.04284	1.9914	.01842	.04902	.00980	.08115	-.00008

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01211
SDev	.00190
%RSD	15.668

#1	.01460
#2	.01009
#3	.01141
#4	.01233

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJUMP25

Operator: WTR

Run Time: 02/28/01 11:10:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00040	.10518	.00825	-.00778	.00428	-.00004	1.7720
SDev	.00071	.00870	.02397	.00000	.00048	.00006	.0135
%RSD	178.84	8.2690	290.39	.03965	11.164	163.39	.76215
#1	.00074	.10384	-.01365	-.00778	.00371	-.00006	1.7626
#2	.00074	.11622	.03710	-.00778	.00415	-.00006	1.7761
#3	-.00067	.10565	-.00913	-.00778	.00441	-.00007	1.7601
#4	.00077	.09503	.01869	-.00778	.00486	.00005	1.7893
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00638	-.00080	-.00000	.00022	.12913	.10074	-.00059
SDev	.00213	.00148	.00276	.00156	.00105	.66084	.00095
%RSD	33.443	184.97	191240.	710.05	.81370	655.96	160.41
#1	.00517	-.00196	-.00274	-.00081	.12825	-.34510	-.00119
#2	.00400	-.00196	-.00055	-.00081	.13035	-.25079	-.00119
#3	.00811	-.00042	-.00055	.00001	.12825	-.07931	-.00081
#4	.00826	.00113	.00384	.00249	.12965	1.0782	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA ✓	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.31898	.01318	-.00149	60.129	-.00202	.00436	-.00001
SDev	.01339	.00060	.00698	.628	.00867	.05335	.00005
%RSD	4.1982	4.5884	467.04	1.0440	428.84	1222.5	381.53
#1	.31219	.01266	.00455	60.110	.00689	.04021	.00005
#2	.30405	.01371	-.00754	60.189	-.00399	-.06743	-.00003
#3	.32577	.01371	-.00754	60.876	-.01318	-.00460	-.00008
#4	.33391	.01266	.00455	59.342	.00219	.04927	.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02093	.41303	.00067	.01051	.00201	-.03785	.00210
SDev	.03539	.02842	.00655	.00011	.00030	.03860	.00318
%RSD	169.11	6.8801	976.17	1.0753	14.730	101.98	151.50
#1	-.02497	.45487	.00264	.01045	.00177	-.00134	-.00116
#2	.05716	.40289	.00788	.01045	.00239	-.04513	-.00010

677 967

#3	.01368	.40295	.00002	.01068	.00177	-.08891	.00474
#4	.03784	.39140	-.00785	.01045	.00208	-.01601	.00491

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00184
SDev	.00056
%RSD	30.195

#1	.00114
#2	.00251
#3	.00189
#4	.00183

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJMS/5 NA Operator: WTR
 Run Time: 02/28/01 11:14:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00883	1.0527	.43670	.18221	.40050	.00976	18.293
SDev	.00245	.0140	.03980	.00169	.00395	.00011	.076
%RSD	27.696	1.3293	9.1148	.92710	.98671	1.1552	.41742
#1	.00847	1.0417	.43450	.18452	.39552	.00967	18.187
#2	.00561	1.0400	.48537	.18095	.39993	.00967	18.311
#3	.00992	1.0680	.38797	.18094	.40152	.00991	18.369
#4	.01133	1.0611	.43895	.18243	.40505	.00979	18.305
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00975	.09800	.04829	.05236	.81597	11.058	.19279
SDev	.00215	.00463	.00210	.00042	.00372	.438	.00330
%RSD	22.057	4.7284	4.3542	.79589	.45636	3.9646	1.7110
#1	.01012	.09373	.04774	.05215	.81124	10.672	.18866
#2	.00807	.09684	.04994	.05215	.81614	10.878	.19195
#3	.00815	.10459	.04993	.05298	.81615	11.684	.19417
#4	.01264	.09682	.04554	.05215	.82035	10.998	.19639
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.431	.15859	.19195	295.73	.09979	.12297	.13610
SDev	.089	.00105	.00493	2.99	.00940	.02536	.07275
%RSD	.78103	.66377	2.5701	1.0106	9.4212	20.621	53.455
#1	11.301	.15701	.19195	292.14	.09014	.14071	.06120
#2	11.443	.15911	.19195	295.12	.09920	.12288	.08624
#3	11.491	.15912	.19799	296.31	.09720	.14116	.19841
#4	11.489	.15911	.18591	299.36	.11264	.08714	.19855
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.36000	4.2539	.40958	.23925	.20186	.35141	.10089
SDev	.04236	.0559	.01429	.00237	.00172	.08696	.00233
%RSD	11.767	1.3141	3.4891	.99137	.85019	24.745	2.3127
#1	.42158	4.2279	.42173	.23648	.20055	.22387	.09938
#2	.32981	4.2222	.40610	.23828	.20024	.41342	.09938

#3	.33464	4.2280	.39084	.24036	.20302	.39874	.10430
#4	.35398	4.3377	.41967	.24190	.20364	.36961	.10050

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.10970
SDev	.00064
%RSD	.58009

#1	.11055
#2	.10920
#3	.10923
#4	.10982

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWJJMD/5 NA Operator: WTR
 Run Time: 02/28/01 11:17:18
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00990	1.0566	.40433	.19086	.40309	.00970	17.803
SDev	.00309	.0082	.05450	.00983	.00500	.00021	.070
%RSD	31.202	.77206	13.479	5.1507	1.2406	2.1620	.39087

#1	.01276	1.0539	.45753	.18599	.39640	.00943	17.802
#2	.01133	1.0662	.44355	.18746	.40479	.00992	17.773
#3	.00561	1.0470	.36973	.18451	.40832	.00967	17.737
#4	.00990	1.0594	.34650	.20550	.40284	.00979	17.899

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01073	.09451	.04568	.05359	.81159	11.168	.19698
SDev	.00102	.00573	.00158	.00124	.00430	.343	.00397
%RSD	9.4952	6.0668	3.4523	2.3173	.52941	3.0738	2.0174

#1	.00984	.08753	.04774	.05214	.80843	10.930	.19217
#2	.01212	.09372	.04555	.05462	.81334	11.496	.19693
#3	.01086	.09528	.04390	.05297	.80774	10.818	.20190
#4	.01011	.10149	.04554	.05463	.81684	11.427	.19693

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA ✓	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	11.355	.15596	.19497	300.26	.09835	.11618	.15792
SDev	.113	.00086	.00349	4.69	.00729	.02776	.05691
%RSD	.99811	.55101	1.7892	1.5604	7.4148	23.895	36.038

#1	11.187	.15491	.19799	294.40	.09800	.11380	.18588
#2	11.394	.15701	.19799	302.02	.09264	.14088	.19830
#3	11.437	.15596	.19195	305.47	.09402	.13193	.17358
#4	11.402	.15596	.19195	299.13	.10875	.07812	.07390

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.39139	4.2380	.39526	.23957	.20032	.46088	.09941
SDev	.04933	.0307	.02742	.00246	.00092	.07288	.00005
%RSD	12.604	.72441	6.9367	1.0262	.46011	15.813	.04893

#1	.32495	4.1933	.39604	.23629	.19901	.47190	.09946
#2	.38294	4.2453	.40919	.24036	.20117	.51557	.09945

#3	.43123	4.2626	.35667	.24217	.20055	.50103	.09937
#4	.42643	4.2510	.41916	.23945	.20055	.35501	.09937
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .10906
SDev .00127
%RSD 1.1618

#1 .10892
#2 .10732
#3 .11016
#4 .10982

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: CCV2-2

Operator: WTR

Run Time: 02/28/01 11:20:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99300	50.837	4.9293	4.9091	4.9310	4.8624	49.458
SDev	.00475	.278	.0088	.0305	.0386	.0270	.209
%RSD	.47796	.54760	.17884	.62077	.78381	.55478	.42268

#1	.98728	51.021	4.9326	4.8886	4.9580	4.8676	49.229
#2	.99890	51.115	4.9403	4.9545	4.9674	4.8978	49.675
#3	.99292	50.693	4.9215	4.8968	4.9138	4.8481	49.337
#4	.99290	50.519	4.9230	4.8967	4.8848	4.8360	49.589

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9202	4.8608	4.8400	4.9553	51.337	50.966	5.0466
SDev	.0287	.0192	.0185	.0334	.180	.198	.0495
%RSD	.58417	.39582	.38269	.67463	.35070	.38863	.98139

#1	4.9086	4.8453	4.8271	4.9802	51.317	51.116	5.0938
#2	4.9233	4.8886	4.8666	4.9852	51.593	51.150	5.0785
#3	4.8906	4.8516	4.8276	4.9406	51.260	50.747	5.0291
#4	4.9584	4.8576	4.8386	4.9150	51.178	50.850	4.9849

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.840	4.8571	4.8858	51.320	4.8313	4.9443	4.9810
SDev	.234	.0165	.0347	.431	.0301	.0336	.0003
%RSD	.46030	.34006	.70990	.84028	.62263	.67856	.00564

#1	50.906	4.8500	4.8813	51.719	4.7958	4.8944	4.9807
#2	51.143	4.8816	4.9296	51.627	4.8675	4.9672	4.9808
#3	50.648	4.8458	4.8450	51.136	4.8224	4.9576	4.9812
#4	50.662	4.8510	4.8873	50.799	4.8395	4.9579	4.9812

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9830	4.9957	4.9398	4.9297	4.9055	9.7521	4.8814
SDev	.0646	.0571	.0736	.0352	.0258	.2253	.0195
%RSD	1.2972	1.1423	1.4900	.71320	.52612	2.3101	.40016

#1	4.9539	4.9885	4.9358	4.9520	4.9143	9.9967	4.8807
#2	5.0369	5.0697	5.0433	4.9652	4.9378	9.5119	4.9093

#3	4.9055	4.9306	4.9071	4.9127	4.8884	9.6182	4.8682
#4	5.0356	4.9941	4.8730	4.8889	4.8813	9.8816	4.8676

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.8870
SDev	.0127
%RSD	.26068

#1	4.8776
#2	4.9058
#3	4.8812
#4	4.8835

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB2

Operator: WTR

Run Time: 02/28/01 11:23:37

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00558	-.01972	-.00801	.00051	.00049	.00465
SDev	.00071	.00660	.02786	.00001	.00052	.00032	.00453
%RSD	194.47	118.28	141.29	.06757	102.26	65.696	97.485
#1	.00072	.00564	.01960	-.00801	.00018	.00018	-.00053
#2	.00072	-.00155	-.04508	-.00802	-.00000	.00031	.00345
#3	.00072	.00388	-.03125	-.00802	.00070	.00055	.00528
#4	-.00070	.01436	-.02214	-.00801	.00114	.00091	.01039
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00070	-.00078	-.00068	.00124	.00595	.31938	.00081
SDev	.00360	.00320	.00202	.00219	.00304	.46281	.00130
%RSD	514.28	410.96	295.54	176.66	51.164	144.91	160.28
#1	.00013	-.00504	-.00329	-.00165	.00298	-.35367	-.00011
#2	-.00017	-.00039	-.00054	.00082	.00437	.38368	-.00011
#3	-.00286	.00272	.00165	.00330	.00648	.61518	.00081
#4	H.00570	-.00041	-.00055	.00248	.00998	.63233	.00265
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01493	.00079	.00906	.01038	-.00187	.01567	-.00008
SDev	.00900	.00053	.01032	.00902	.00160	.02578	.00008
%RSD	60.302	66.645	113.85	86.874	85.100	164.48	99.056
#1	.00271	.00000	-.00151	.00333	-.00171	-.00462	-.00008
#2	.01357	.00106	.02266	.00372	-.00237	.04932	-.00016
#3	.02172	.00106	.01057	.01195	-.00362	-.00442	-.00009
#4	.02172	.00106	.00453	.02252	.00020	.02240	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00485	-.00288	.00721	.00070	.00054	.00358	.00102
SDev	.01691	.00555	.01883	.00044	.00025	.01391	.00178
%RSD	348.65	192.85	261.20	62.469	46.657	387.99	173.58
#1	.01329	-.00722	.03145	.00038	.00054	-.01458	-.00003
#2	.01330	-.00722	.01048	.00042	.00023	-.00004	.00030

#3	-.02051	-.00144	-.00000	.00068	.00054	.01450	.00014
#4	.01332	.00438	-.01311	.00132	.00085	.01446	.00369
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00056
SDev .00120
%RSD 214.32

#1 -.00070
#2 -.00042
#3 -.00203
#4 .00090

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWJJ3/5 NA

Operator: WTR

Run Time: 02/28/01 11:26:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00073	.04946	-.01784	.02956	.02117	.00009	9.5402
SDev	.00309	.01732	.04716	.00206	.00040	.00012	.0765
%RSD	421.20	35.004	264.37	6.9655	1.9065	133.29	.80170
#1	-.00070	.04767	-.04554	.03135	.02137	.00018	9.4318
#2	.00504	.07225	.05130	.02778	.02093	.00005	9.6090
#3	-.00212	.03012	-.05007	.02778	.02075	.00018	9.5719
#4	.00072	.04781	-.02704	.03135	.02163	-.00006	9.5481
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00159	.00037	.01702	.00619	.07069	1.3654	.00027
SDev	.00317	.00199	.00179	.00143	.00175	.2170	.00111
%RSD	199.56	535.98	10.528	23.062	2.4786	15.890	408.90
#1	-.00166	-.00039	.01482	.00413	.07086	1.2068	.00119
#2	.00386	.00269	.01701	.00661	.07297	1.3440	-.00027
#3	-.00057	-.00195	.01921	.00743	.06876	1.6783	-.00103
#4	.00472	.00114	.01702	.00661	.07016	1.2325	.00119
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA ✓	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.2695	.03920	.00454	158.87	.00057	.01791	-.00020
SDev	.0169	.00052	.00493	1.88	.00398	.03313	.00005
%RSD	.74381	1.3379	108.65	1.1827	699.15	184.94	27.269
#1	2.2722	.03894	.01058	159.59	.00351	.00444	-.00020
#2	2.2451	.03894	.00454	156.35	.00189	-.00447	-.00016
#3	2.2776	.03894	.00454	158.75	.00219	.06720	-.00028
#4	2.2831	.03999	-.00150	160.80	-.00531	.00448	-.00016
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00461	1.5524	.01442	.06913	.00100	-.00053	.00222
SDev	.03424	.0369	.02270	.00074	.00096	.06300	.00250
%RSD	742.29	2.3740	157.37	1.0677	95.665	11970.	112.69
#1	-.05413	1.5235	.01836	.06913	.00023	-.08803	.00017
#2	-.00098	1.6044	.01049	.06823	.00239	.05775	.00494

#3	.01833	1.5293	.04195	.06913	.00054	-.00050	.00373
#4	.01833	1.5524	-.01310	.07004	.00085	.02867	.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .02558
SDev .00246
%RSD 9.6308

#1 .02333
#2 .02495
#3 .02909
#4 .02495

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWND7B

Operator: WTR

Run Time: 02/28/01 11:29:56

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00000	-.00002	-.01735	-.00801	.00006	.00009	.01983
SDev	.00248	.01215	.01371	.00000	.00026	.00006	.00355
%RSD	96278.	79655.	79.007	.04667	408.58	66.667	17.904
#1	-.00214	-.01527	.00127	-.00801	-.00018	.00006	.01907
#2	-.00071	.00035	-.02198	-.00801	-.00000	.00006	.01870
#3	.00358	.01448	-.03134	-.00800	.00044	.00018	.02492
#4	-.00071	.00039	-.01735	-.00801	-.00000	.00006	.01665
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00184	-.00001	-.00165	.00103	.01032	.13075	-.00015
SDev	.00203	.00078	.00127	.00041	.00176	.28630	.00084
%RSD	110.58	14381.	76.911	39.948	17.080	218.96	565.19
#1	.00081	-.00039	-.00055	.00083	.00857	.10074	-.00103
#2	.00018	.00116	-.00274	.00083	.00997	-.18220	.00027
#3	.00476	-.00040	-.00055	.00165	.01277	.51229	.00081
#4	.00161	-.00039	-.00274	.00083	.00997	.09217	-.00065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00407	.00000	.00151	.01665	-.00154	.00448	.00000
SDev	.00646	.00000	.00780	.00916	.00311	.00733	.00005
%RSD	158.70	74.194	515.94	55.014	201.63	163.51	3028.5
#1	.00814	.00000	-.00755	.00725	.00197	.00448	.00007
#2	-.00543	.00001	.01058	.01430	-.00105	.00451	-.00005
#3	.00543	.00000	-.00151	.02918	-.00561	-.00451	-.00003
#4	.00814	.00000	.00453	.01586	-.00149	.01344	.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04109	.00289	-.00393	.00015	-.00008	-.06211	.00002
SDev	.05802	.00553	.00694	.00016	.00062	.04356	.00010
%RSD	141.18	191.49	176.49	110.69	800.00	70.127	620.54
#1	.11959	-.00144	-.00262	-.00004	-.00039	-.04385	-.00010
#2	.03264	.00433	.00524	.00006	-.00039	-.01471	.00013

#3	.03265	.01011	-.00786	.00028	.00085	-.07307	-.00002
#4	-.02050	-.00144	-.01048	.00028	-.00039	-.11680	.00005

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge .00113
SDev .00072
%RSD 63.618

#1 .00022
#2 .00156
#3 .00091
#4 .00184

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWND7C

Operator: WTR

Run Time: 02/28/01 11:33:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04585	1.9135	1.8448	.92248	1.9147	.04727	L.00598
SDev	.00309	.0093	.0205	.00140	.0286	.00031	.00543
%RSD	6.7438	.48850	1.1106	.15195	1.4932	.65266	90.752

#1	.04299	1.9166	1.8644	.92065	1.9478	.04767	L.00359
#2	.05014	1.9254	1.8319	.92357	1.8792	.04693	L.01377
#3	.04441	1.9061	1.8599	.92359	1.9228	.04731	L.00135
#4	.04586	1.9060	1.8228	.92212	1.9091	.04718	L.00523

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04516	.46834	.18582	.23771	1.0246	L-.33438	.95600
SDev	.00302	.00447	.00179	.00082	.0017	.61559	.02039
%RSD	6.6967	.95378	.96457	.34621	.16132	184.10	2.1334

#1	.04211	.46562	.18582	.23895	1.0233	L-.43941	.97956
#2	.04388	.47496	.18802	.23731	1.0233	L.55516	.93055
#3	.04921	.46717	.18363	.23730	1.0247	L-.84239	.96158
#4	.04543	.46563	.18582	.23730	1.0268	L-.61089	.95231

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.00339	.47255	.00164	L.00372	.47306	.47278	L.00650
SDev	.01542	.00149	.00349	.00469	.00696	.03667	.00006
%RSD	454.31	.31505	212.33	126.02	1.4722	7.7561	.86709

#1	L.00543	.47045	-.00138	L-.00059	.46356	.43683	L.00645
#2	L.01357	.47360	.00466	L.01038	.47995	.49986	L.00657
#3	L-.01900	.47255	-.00138	L.00294	.47583	.44584	L.00652
#4	L-.01357	.47360	.00466	L.00215	.47289	.50860	L.00646

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.8763	.01130	-.01290	.94589	-.00023	1.9394	.47324
SDev	.0620	.00555	.01229	.01107	.00096	.0607	.00175
%RSD	3.3036	49.099	95.320	1.1702	414.55	3.1305	.37009

#1	1.9198	.00986	-.02862	.95870	-.00100	1.9248	.47320
#2	1.9391	.01565	-.01552	.93212	.00116	2.0123	.47449

#3	1.8280	.00406	.00021	.94898	-.00069	1.9540	.47077
#4	1.8184	.01565	-.00765	.94378	-.00039	1.8665	.47448

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.46247
SDev	.00168
%RSD	.36418

#1	.46358
#2	.46420
#3	.46070
#4	.46139

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DV7HM

Operator: WTR

Run Time: 02/28/01 11:36:15

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00006	.05300	.01543	.06358	.04454	.00002	14.350
SDev	.00295	.01529	.02694	.01067	.00018	.00006	.069
%RSD	4836.8	28.843	174.61	16.789	.41081	276.97	.47901
#1	.00173	.05823	-.00542	.06659	.04432	.00005	14.248
#2	-.00255	.04067	.03629	.05702	.04458	-.00007	14.370
#3	-.00257	.04079	.04098	.05345	.04476	.00006	14.388
#4	.00315	.07230	-.01014	.07726	.04450	.00005	14.395
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00023	.00037	-.00151	.00321	10.105	3.3546	.01379
SDev	.00342	.00199	.00144	.00047	.030	.3639	.00062
%RSD	1513.0	540.29	95.458	14.793	.29873	10.849	4.5169
#1	.00090	-.00041	-.00055	.00362	10.086	3.0845	.01352
#2	-.00466	-.00194	-.00000	.00362	10.131	3.5818	.01460
#3	-.00066	.00115	-.00274	.00280	10.131	3.0073	.01314
#4	.00351	.00268	-.00275	.00280	10.073	3.7447	.01390
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.2821	.12758	-.00020	42.613	.00011	.03168	.00003
SDev	.0091	.00060	.00000	.379	.00451	.02574	.00003
%RSD	.27845	.46907	1.9086	.88845	4091.9	81.247	115.49
#1	3.2875	.12810	-.00021	42.716	.00520	.04736	.00005
#2	3.2848	.12706	-.00020	42.757	-.00244	.04733	-.00001
#3	3.2875	.12706	-.00020	42.918	-.00472	-.00642	.00001
#4	3.2685	.12809	-.00021	42.060	.00241	.03846	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04320	4.3871	-.00085	.11416	-.00023	.01686	.00362
SDev	.00734	.0119	.00882	.00056	.00073	.08316	.00242
%RSD	16.988	.27179	1042.7	.49491	317.40	493.35	66.832
#1	.03952	4.4001	.00964	.11411	-.00039	-.08503	.00483
#2	.04932	4.3770	-.00346	.11433	-.00069	.01657	.00483

#3	.04932	4.3770	-.01132	.11478	-.00069	.11868	-.00001
#4	.03465	4.3943	.00177	.11343	.00085	.01720	.00483

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.04492
SDev	.00095
%RSD	2.1102

#1	.04424
#2	.04587
#3	.04397
#4	.04558

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV7HMP5

Operator: WTR

Run Time: 02/28/01 11:39:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00121	.01268	.01392	.03329	.00898	.00006	2.9169
SDev	.00330	.01799	.03185	.00205	.00030	.00010	.0250
%RSD	273.81	141.80	228.79	6.1651	3.3122	163.30	.85799
#1	-.00165	-.00139	.02212	.03151	.00909	.00006	2.9303
#2	.00406	.03374	.05422	.03505	.00901	.00006	2.9265
#3	-.00165	-.00314	-.00099	.03151	.00857	-.00006	2.8794
#4	.00407	.02153	-.01968	.03508	.00927	.00018	2.9311
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00016	-.00078	.00055	.00188	2.0458	.85739	.00257
SDev	.00612	.00444	.00127	.00135	.0062	.36774	.00122
%RSD	3877.6	568.72	230.79	71.670	.30209	42.890	47.683
#1	-.00445	-.00658	.00165	.00188	2.0444	.94956	.00265
#2	.00137	.00271	.00165	.00353	2.0381	1.1125	.00341
#3	-.00462	-.00193	-.00055	.00023	2.0479	.31509	.00081
#4	.00833	.00268	-.00055	.00189	2.0528	1.0525	.00341
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.66782	.02636	.00177	8.4551	-.00334	-.00490	-.00005
SDev	.01945	.00061	.00349	.1020	.00765	.00011	.00013
%RSD	2.9125	2.2974	196.51	1.2063	228.80	2.1405	250.17
#1	.65425	.02689	-.00125	8.4012	.00395	-.00504	-.00002
#2	.67868	.02689	.00480	8.3499	-.00656	-.00483	-.00015
#3	.64882	.02584	.00480	8.5826	-.01259	-.00492	-.00015
#4	.68954	.02584	-.00125	8.4866	.00182	-.00482	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00509	.86499	-.00030	.02268	.00039	.05343	.00002
SDev	.01971	.00000	.02269	.00005	.00073	.06674	.00005
%RSD	386.98	.00000	7624.2	.20516	190.44	124.92	186.85
#1	-.00940	.86499	.01084	.02266	-.00008	.03527	-.00001
#2	.02439	.86499	.02132	.02266	.00116	.06443	.00007

#3	.01959	.86499	-.00226	.02266	-.00039	.13728	.00006
#4	-.01421	.86499	-.03109	.02275	.00085	-.02326	-.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00952
SDev	.00201
%RSD	21.105

#1	.01060
#2	.01035
#3	.00651
#4	.01061

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DV7HMS

Operator: WTR

Run Time: 02/28/01 11:42:35

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04757	1.9802	1.8775	.99484	1.9574	.04788	14.366
SDev	.00336	.0204	.0408	.01911	.0420	.00067	.061
%RSD	7.0710	1.0281	2.1726	1.9207	2.1463	1.4063	.42339
#1	.05108	1.9571	1.8582	.98809	1.9055	.04694	14.372
#2	.04971	1.9833	1.9179	.98394	1.9507	.04791	14.420
#3	.04545	1.9746	1.9040	.98398	1.9661	.04815	14.391
#4	.04403	2.0060	1.8297	1.0234	2.0072	.04852	14.279
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04078	.47299	.18788	.24402	11.114	3.0780	.97898
SDev	.00227	.00149	.00202	.00424	.096	.5560	.02813
%RSD	5.5602	.31437	1.0774	1.7364	.86460	18.063	2.8738
#1	.04253	.47184	.18802	.23844	10.982	3.2388	.94626
#2	.04292	.47338	.19021	.24340	11.119	3.3074	.97129
#3	.03844	.47494	.18801	.24588	11.146	3.5046	.98454
#4	.03926	.47181	.18527	.24836	11.210	2.2614	1.0138
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.2780	.59960	-.00158	42.856	.47567	.47991	.00650
SDev	.0274	.00377	.00302	1.097	.00457	.03810	.00005
%RSD	.83503	.62883	190.49	2.5597	.96105	7.9382	.82212
#1	3.2414	.59430	-.00009	41.541	.46885	.46198	.00643
#2	3.2739	.59960	-.00007	42.620	.47863	.51579	.00651
#3	3.2930	.60171	-.00611	43.076	.47760	.50686	.00656
#4	3.3038	.60278	-.00006	44.189	.47760	.43499	.00649
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9135	4.4403	.00788	1.0618	.00008	1.9090	.47562
SDev	.1029	.0414	.01459	.0208	.00082	.0944	.00461
%RSD	5.3792	.93311	185.27	1.9566	1058.3	4.9435	.96888
#1	1.8490	4.3824	-.00591	1.0359	.00116	1.8996	.46959
#2	1.8398	4.4518	.00198	1.0590	.00023	1.7813	.47443

#3	2.0621	4.4461	.00723	1.0660	-.00039	1.9560	.47918
#4	1.9029	4.4808	.02821	1.0863	-.00069	1.9991	.47926
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .52258
SDev .00378
%RSD .72419

#1 .51692
#2 .52490
#3 .52425
#4 .52424

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DV7HMD

Operator: WTR

Run Time: 02/28/01 11:45:45

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04681	1.9916	1.8811	1.0144	1.9800	.04788	13.963
SDev	.00522	.0097	.0342	.0195	.0349	.00034	.212
%RSD	11.150	.48471	1.8182	1.9233	1.7624	.71071	1.5205
#1	.04396	1.9938	1.9041	1.0177	2.0024	.04802	13.828
#2	.05251	2.0008	1.8302	.98792	1.9567	.04767	14.084
#3	.04968	1.9780	1.8950	1.0171	1.9443	.04753	14.196
#4	.04108	1.9937	1.8949	1.0350	2.0165	.04828	13.744
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04533	.47336	.18747	.24668	10.898	3.2045	.99165
SDev	.00490	.00770	.00453	.00336	.004	.7618	.03458
%RSD	10.800	1.6276	2.4148	1.3634	.03515	23.772	3.4870
#1	.04709	.47489	.18362	.24998	10.899	2.9987	1.0158
#2	.04792	.47181	.19021	.24420	10.892	3.4789	.96961
#3	.04830	.48267	.19241	.24339	10.901	4.0705	.95512
#4	.03803	.46405	.18363	.24914	10.900	2.2700	1.0261
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	3.2448	.59743	.00292	42.295	.46881	.50686	.00646
SDev	.0163	.00258	.00604	1.041	.01447	.04093	.00009
%RSD	.50373	.43154	206.99	2.4608	3.0870	8.0744	1.4411
#1	3.2604	.59533	-.00010	43.032	.44827	.50689	.00636
#2	3.2441	.59848	-.00010	41.650	.46944	.46196	.00640
#3	3.2224	.60059	.01198	41.181	.48069	.56093	.00656
#4	3.2522	.59533	-.00010	43.319	.47686	.49764	.00651
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9176	4.3103	-.01116	1.0704	-.00015	1.8859	.47688
SDev	.0238	.0233	.01699	.0169	.00108	.0460	.00284
%RSD	1.2411	.54093	152.14	1.5764	700.00	2.4409	.59572
#1	1.9164	4.2959	-.02951	1.0808	-.00069	1.9150	.47925
#2	1.8874	4.3132	.00456	1.0599	.00116	1.8277	.47443

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#3	1.9454	4.2901	-.02165	1.0527	.00023	1.9296	.47943
#4	1.9213	4.3421	.00195	1.0883	-.00131	1.8714	.47442

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.50947
SDev	.00413
%RSD	.81144

#1	.50802
#2	.51532
#3	.50889
#4	.50565

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DV7H0

Operator: WTR

Run Time: 02/28/01 11:48:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00094	.04207	.02749	.04363	.02490	.00000	10.920
SDev	.00317	.01646	.03977	.01499	.00000	.00007	.094
%RSD	338.03	39.130	144.67	34.359	.00000	75e6	.86379
#1	.00486	.06181	.02737	.03608	.02490	-.00006	10.890
#2	.00202	.04945	.03202	.03620	.02490	-.00006	11.058
#3	-.00228	.02850	.07385	.06612	.02490	.00006	10.886
#4	-.00085	.02850	-.02327	.03613	.02490	.00006	10.845
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00045	-.00311	-.00261	.00143	5.3889	2.9773	.01440
SDev	.00267	.00320	.00027	.00067	.0261	.2806	.00075
%RSD	599.70	102.64	10.532	47.003	.48392	9.4244	5.2257
#1	-.00375	-.00504	-.00275	.00143	5.3595	2.8701	.01519
#2	-.00021	-.00661	-.00274	.00061	5.4218	2.6386	.01482
#3	.00278	-.00041	-.00220	.00226	5.3805	3.2731	.01352
#4	-.00061	-.00040	-.00274	.00144	5.3938	3.1273	.01406
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.0968	.05915	-.00232	76.447	.00064	-.00562	.00004
SDev	.0267	.00101	.00302	.896	.00493	.00010	.00004
%RSD	.86300	1.7081	130.07	1.1718	766.70	1.6952	108.86
#1	3.0568	.05940	-.00686	75.375	-.00178	-.00568	.00001
#2	3.1084	.06048	-.00081	76.201	.00733	-.00573	.00009
#3	3.1111	.05836	-.00082	76.699	-.00406	-.00554	-.00000
#4	3.1111	.05837	-.00081	77.512	.00108	-.00554	.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.02626	4.0983	-.00495	.09616	.00023	.02283	-.00004
SDev	.03219	.0159	.00581	.00067	.00098	.10399	.00004
%RSD	122.58	.38813	117.24	.69309	421.64	455.56	109.42
#1	-.01369	4.1055	.00356	.09535	.00147	.02683	-.00010
#2	.03482	4.1170	-.00691	.09625	.00054	.05531	-.00002

#3	.02020	4.0881	-.00692	.09607	-.00039	-.11932	-.00002
#4	.06371	4.0824	-.00953	.09697	-.00069	.12849	-.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.02671
SDev	.00077
%RSD	2.8764

#1	.02609
#2	.02766
#3	.02609
#4	.02702

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWNEKB

Operator: WTR

Run Time: 02/28/01 11:52:05

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00002	.00476	.00799	-.00797	.00027	.00006	.01327
SDev	.00082	.01024	.02155	.00002	.00022	.00001	.00219
%RSD	5125.8	215.16	269.59	.21562	80.991	12.087	16.521
#1	.00074	-.00146	.01494	-.00798	-.00000	.00005	.01322
#2	-.00071	-.00493	.01042	-.00798	.00044	.00006	.01153
#3	.00072	.01798	.02875	-.00798	.00018	.00006	.01194
#4	-.00068	.00745	-.02214	-.00795	.00044	.00005	.01637
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00106	-.00117	.00069	.00145	.02747	.21435	-.00001
SDev	.00308	.00089	.00212	.00079	.00954	.28145	.00048
%RSD	289.27	76.399	309.31	54.617	34.744	131.31	3553.0
#1	.00125	-.00194	.00384	.00247	.02047	.53801	.00043
#2	H.00534	-.00040	.00000	.00083	.02257	.25507	.00027
#3	-.00146	-.00194	-.00055	.00083	.02537	-.14790	-.00065
#4	-.00088	-.00039	-.00055	.00165	.04147	.21220	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00882	.00027	.00151	.01449	-.00198	.01342	-.00005
SDev	.00976	.00052	.00780	.00656	.00514	.02839	.00009
%RSD	110.58	193.36	515.12	45.252	258.90	211.59	202.57
#1	.01086	.00001	.00453	.00999	.00557	-.00454	-.00013
#2	.01357	.00001	.01058	.00960	-.00347	.02241	-.00008
#3	-.00543	.00106	-.00151	.02370	-.00590	-.01352	-.00005
#4	.01629	.00001	-.00755	.01469	-.00414	.04931	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00112	.00436	.00525	.00024	.00046	.01062	.00214
SDev	.02401	.00475	.03542	.00027	.00046	.05892	.00315
%RSD	2137.8	108.93	675.33	113.56	100.000	554.55	147.31
#1	-.03013	.01017	.05505	-.00013	.00023	.04351	.00491
#2	-.01080	.00433	-.00262	.00032	.00023	.01433	.00014

#3	.02303	-.00146	-.00262	.00024	.00116	.05809	-.00123
#4	.01341	.00439	-.02882	.00051	.00023	-.07343	.00474

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00041
SDev	.00064
%RSD	156.02

#1	.00023
#2	.00090
#3	-.00042
#4	.00092

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWNEKC

Operator: WTR

Run Time: 02/28/01 11:55:14

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00141	L.00736	L.00578	-.00801	L.00025	L-.00005	L.00996
SDev	.00361	.01243	.02795	.00001	.00038	.00001	.00545
%RSD	255.55	168.99	483.43	.06920	155.30	11.815	54.768

#1	L.00069	L.00854	L-.00806	-.00800	L.00018	L-.00005	L.00605
#2	L.00071	L-.00007	L.04280	-.00801	L.00044	L-.00006	L.01423
#3	L-.00217	L-.00345	L-.02183	-.00801	L-.00026	L-.00005	L.00450
#4	L.00643	L.02440	L.01023	-.00800	L.00062	L-.00006	L.01505

Errors	LC Low	LC Low	LC Low	NOCHECK	LC Low	LC Low	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00183	L-.00380	L-.00351	L-.00000	L.00778	L-.45013	-.00050
SDev	.00243	.00344	.00278	.00202	.00270	.59048	.00158
%RSD	132.87	90.473	79.080	71811.	34.770	131.18	315.23

#1	L.00147	L-.00806	L-.00419	L-.00166	L.00671	L-.84239	-.00173
#2	L-.00010	L-.00030	L-.00255	L.00248	L.00742	L.10932	-.00011
#3	L.00060	L-.00497	L-.00694	L-.00165	L.00536	L-1.0653	-.00173
#4	L.00534	L-.00187	L-.00035	L.00082	L.01162	L-.00214	.00157

Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.03393	L.00032	.94260	L.00441	L.00077	L.00510	.51591
SDev	.02361	.00000	.01032	.00754	.00740	.02435	.01576
%RSD	69.589	1.1720	1.0948	171.19	963.44	477.26	3.0544

#1	L-.03801	L.00032	.95317	L.00685	L-.00865	L-.00400	.50020
#2	L-.01086	L.00032	.94109	L.00411	L.00327	L.04108	.51279
#3	L-.06515	L.00031	.92900	L-.00568	L.00900	L-.01287	.51288
#4	L-.02172	L.00032	.94713	L.01234	L-.00054	L-.00380	.53780

Errors	LC Low	LC Low	NOCHECK	LC Low	LC Low	LC Low	LC Pass
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.01814	9.3544	1.8430	.00007	.94001	L.02917	L-.00450
SDev	.01807	.0468	.0380	.00041	.00627	.07624	.00282
%RSD	99.621	.50017	2.0630	587.29	.66669	261.34	62.767

#1	L.01331	9.2923	1.8364	-.00034	.93392	L.08756	L-.00678
#2	L.04229	9.3444	1.8679	.00032	.93793	L.10204	L-.00210

#3	L.01813	9.3905	1.8757	-.00021	.94873	L-.02914	L-.00711
#4	L-.00117	9.3906	1.7919	.00051	.93947	L-.04376	L-.00201

Errors	LC Low	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Low	LC Low
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge L-.00045
SDev .00227
%RSD 506.05

#1 L-.00203
#2 L-.00206
#3 L-.00048
#4 L.00277

Errors LC Low
High .60000
Low .40000

Method: QUANMET Sample Name: CCV2-3

Operator: WTR

Run Time: 02/28/01 11:58:24

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.99142	50.489	4.9326	4.8971	4.8776	4.8341	49.542
SDev	.00362	.505	.0387	.0592	.0745	.0411	.302
%RSD	.36522	1.0009	.78555	1.2098	1.5271	.84955	.61025

#1	.99440	50.965	4.9146	4.9791	4.9482	4.8754	49.238
#2	.99427	50.178	4.9582	4.8716	4.8246	4.8138	49.945
#3	.98687	49.943	4.8871	4.8409	4.8029	4.7868	49.408
#4	.99014	50.870	4.9707	4.8970	4.9348	4.8606	49.580

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.9314	4.8453	4.8221	4.8950	51.105	50.518	4.9640
SDev	.0272	.0308	.0191	.0748	.280	.911	.1045
%RSD	.55135	.63543	.39623	1.5272	.54842	1.8040	2.1049

#1	4.9031	4.8345	4.8194	4.9703	51.233	51.381	5.0779
#2	4.9628	4.8593	4.8392	4.8359	51.118	50.318	4.8734
#3	4.9153	4.8082	4.7963	4.8259	50.711	49.324	4.8773
#4	4.9444	4.8793	4.8337	4.9481	51.358	51.047	5.0277

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.549	4.8415	4.8616	50.590	4.8213	4.9307	4.9686
SDev	.530	.0210	.0414	.915	.0088	.0421	.0245
%RSD	1.0486	.43448	.85199	1.8085	.18192	.85442	.49408

#1	51.026	4.8447	4.8631	51.569	4.8091	4.8942	4.9810
#2	50.195	4.8478	4.8873	49.891	4.8224	4.9672	4.9807
#3	49.997	4.8119	4.8026	49.734	4.8298	4.8942	4.9318
#4	50.980	4.8616	4.8933	51.165	4.8241	4.9672	4.9810

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.8772	4.9753	4.9169	4.8795	4.8707	9.6492	4.8602
SDev	.0324	.0303	.0553	.0636	.0401	.1089	.0279
%RSD	.66484	.60848	1.1242	1.3029	.82334	1.1283	.57420

#1	4.9102	4.9885	4.8939	4.9397	4.9029	9.5602	4.8805
#2	4.8326	4.9882	4.9832	4.8371	4.8511	9.7219	4.8579

677 997

#3	4.8845	4.9300	4.8546	4.8134	4.8236	9.5519	4.8216
#4	4.8816	4.9943	4.9359	4.9278	4.9051	9.7627	4.8809

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.8831
SDev	.0153
%RSD	.31290

#1	4.8773
#2	4.8950
#3	4.8642
#4	4.8960

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB3 Operator: WTR
 Run Time: 02/28/01 12:01:34
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00143	.01042	.04268	.00001	.00031	.00024	.00084
SDev	.00083	.01247	.01881	.01605	.00028	.00023	.00339
%RSD	57.836	119.65	44.077	304540.	88.454	95.937	401.49
#1	.00071	.00393	.03812	-.00802	-.00000	.00006	-.00391
#2	.00215	.01607	.02875	.02408	.00044	.00030	.00372
#3	.00071	-.00316	.03355	-.00802	.00018	.00006	.00080
#4	.00215	.02484	.07031	-.00802	.00062	.00055	.00276
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00075	-.00039	.00000	.00082	.00245	.04930	.00036
SDev	.00234	.00283	.00210	.00178	.00304	.52914	.00048
%RSD	314.35	731.18	130160.	216.38	124.22	1073.3	131.61
#1	.00143	-.00194	-.00055	-.00000	-.00052	-.36225	.00065
#2	.00006	.00271	.00165	.00330	.00298	.80381	.00081
#3	-.00406	-.00348	-.00274	-.00083	.00088	-.26794	-.00027
#4	-.00041	.00116	.00165	.00083	.00648	.02358	.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00475	.00053	.00906	.00607	-.00217	.01344	-.00010
SDev	.01833	.00061	.00906	.00566	.00421	.03668	.00003
%RSD	385.80	114.79	100.00	93.195	194.11	272.96	30.103
#1	-.01086	-.00000	-.00151	-.00137	-.00796	-.01351	-.00008
#2	.02443	.00106	.01662	.00725	-.00230	.06733	-.00015
#3	-.01086	.00105	.00453	.00607	-.00024	-.00458	-.00009
#4	.01629	.00001	.01662	.01234	.00182	.00450	-.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01449	-.01444	.01310	.00058	.00069	.02186	.00042
SDev	.02243	.03034	.01229	.00037	.00053	.06017	.00068
%RSD	154.88	210.16	93.825	64.405	76.980	275.32	161.48
#1	.00845	-.05921	-.00000	.00047	.00023	.10213	-.00002
#2	-.01569	.00435	.01573	.00077	.00054	-.04382	.00143

#3	-.00604	-.00722	.02883	.00011	.00054	.01461	.00005
#4	-.04467	.00433	.00786	.00096	.00147	.01450	.00022

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00010
SDev	.00178
%RSD	1788.5

#1	-.00002
#2	.00184
#3	.00090
#4	-.00232

Errors	LC Pass
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWGDC

Operator: WTR

Run Time: 02/28/01 12:04:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00291	L.05015	L.02832	.28812	L.02150	L.00004	L2.4175
SDev	.00275	.00863	.04944	.02141	.00028	.00001	.0151
%RSD	94.487	17.205	174.62	7.4290	1.2819	19.643	.62409

#1	L.00506	L.05979	L.02823	.27742	L.02181	L.00004	L2.4000
#2	L-.00068	L.04055	L.09782	.32023	L.02163	L.00005	L2.4111
#3	L.00508	L.05450	L.00047	.27742	L.02119	L.00003	L2.4244
#4	L.00219	L.04575	L-.01326	.27742	L.02137	L.00004	L2.4344

Errors	LC Low	LC Low	LC Low	NOCHECK	LC Low	LC Low	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00032	L.00038	L.01043	L.00103	L.02940	L1.6805	.03105
SDev	.00113	.00370	.00179	.00079	.00155	.3317	.00080
%RSD	349.46	984.08	17.187	76.304	5.2828	19.740	2.5726

#1	L.00156	L-.00041	L.01043	L.00165	L.03027	L1.9184	.03174
#2	L.00076	L-.00195	L.00823	L.00000	L.02747	L1.4126	.03044
#3	L-.00110	L.00581	L.01042	L.00083	L.03097	L2.0127	.03174
#4	L.00007	L-.00195	L.01262	L.00165	L.02887	L1.3783	.03028

Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.23211	L.00080	.01209	H87.607	L.00415	L.00446	L-.00007
SDev	.01375	.00053	.00302	1.088	.00469	.02426	.00009
%RSD	5.9254	65.769	24.993	1.2418	112.85	543.90	125.84

#1	L.22532	L.00106	.01058	H86.793	L.00902	L-.00454	L.00005
#2	L.22261	L.00001	.01058	H89.129	L-.00215	L-.01353	L-.00016
#3	L.25247	L.00107	.01662	H87.656	L.00402	L-.00437	L-.00010
#4	L.22804	L.00106	.01058	H86.852	L.00572	L.04028	L-.00007

Errors	LC Low	LC Low	NOCHECK	LC High	LC Low	LC Low	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L.00854	9.8371	-.00459	.06834	.00108	L.00689	L.01046
SDev	.03030	.0551	.02001	.00072	.00068	.03673	.00352
%RSD	354.56	.55969	436.28	1.0539	63.353	532.94	33.692

#1	L.04236	9.7721	-.03145	.06759	.00177	L-.00041	L.01105
#2	L.01820	9.9049	.00787	.06926	.00023	L.05801	L.00620

#3	L-.03010	9.8472	.01311	.06849	.00085	L-.00049	L.01475
#4	L.00371	9.8241	-.00786	.06800	.00147	L-.02954	L.00984

Errors	LC Low	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Low	LC Low
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem ZN
Units ppm
Avge L.00140
SDev .00141
%RSD 101.22

#1	L.00251
#2	L-.00067
#3	L.00189
#4	L.00186

Errors	LC Low
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWGDCP5

Operator: WTR

Run Time: 02/28/01 12:07:53

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B__	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00144	.01790	.02642	.04907	.00439	.00015	.49097
SDev	.00298	.01034	.02539	.00001	.00029	.00012	.00458
%RSD	207.71	57.743	96.112	.01578	6.6911	79.883	.93266
#1	-.00214	.00571	.01035	.04906	.00397	.00006	.48636
#2	.00503	.03006	.05632	.04907	.00460	.00005	.49600
#3	.00215	.02136	.00098	.04908	.00460	.00018	.48791
#4	.00072	.01446	.03802	.04907	.00441	.00031	.49362
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K__	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00097	-.00078	.00165	.00124	.00805	.30866	.00657
SDev	.00094	.00320	.00179	.00048	.00264	.17281	.00141
%RSD	96.760	409.38	108.85	38.671	32.834	55.988	21.478
#1	.00025	-.00039	.00165	.00082	.00437	.37511	.00449
#2	.00229	-.00040	.00165	.00165	.00788	.52087	.00762
#3	.00034	-.00505	-.00055	.00082	.00998	.19506	.00708
#4	.00100	.00271	.00384	.00165	.00997	.14361	.00708
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04479	.00000	.00453	17.469	-.00143	-.00452	-.00008
SDev	.01004	.00000	.00493	.169	.00383	.00009	.00006
%RSD	22.405	56.434	108.85	.96701	266.91	1.9354	72.438
#1	.03529	.00000	-.00151	17.605	-.00487	-.00450	-.00004
#2	.05701	.00001	.01058	17.226	.00402	-.00452	-.00004
#3	.04886	.00000	.00453	17.489	-.00281	-.00463	-.00017
#4	.03801	.00000	.00453	17.556	-.00208	-.00442	-.00008
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V__
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00360	1.9726	.01311	.01373	.00039	-.01833	.00127
SDev	.01650	.0029	.02030	.00009	.00073	.07081	.00247
%RSD	458.55	.14689	154.91	.64879	190.44	386.37	194.21
#1	-.01086	1.9683	-.00524	.01362	-.00039	-.08756	-.00002
#2	.01814	1.9741	.01048	.01380	.00116	-.05846	.00498

#3	-.00118	1.9740	.04194	.01380	.00085	-.00007	.00006
#4	-.02050	1.9740	.00524	.01371	-.00008	.07279	.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge -.00007
SDev .00138
%RSD 2088.6

#1 -.00070
#2 -.00137
#3 -.00004
#4 .00184

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWGDCS

Operator: WTR

Run Time: 02/28/01 12:11:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00075	.04483	.01569	.31107	.02249	.00008	2.5742
SDev	.00117	.00365	.04723	.01231	.00033	.00006	.0148
%RSD	155.06	8.1364	300.99	3.9570	1.4704	76.820	.57380
#1	.00219	.04534	.01452	.30955	.02225	.00004	2.5660
#2	-.00067	.04000	.05617	.32024	.02251	.00017	2.5782
#3	.00074	.04886	.04230	.29422	.02225	.00006	2.5931
#4	.00076	.04514	-.05022	.32025	.02295	.00004	2.5595
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00097	-.00071	.01227	.00186	.03684	1.8305	.03154
SDev	.00148	.00194	.00210	.00079	.00083	.2640	.00066
%RSD	152.83	274.42	17.118	42.506	2.2629	14.423	2.0876
#1	-.00190	-.00341	.01501	.00165	.03611	1.9699	.03098
#2	.00124	-.00032	.01281	.00248	.03612	2.1070	.03190
#3	-.00159	.00123	.01062	.00248	.03755	1.7384	.03098
#4	-.00161	-.00033	.01062	.00083	.03757	1.5069	.03228
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.22329	.00059	.95318	90.085	-.00270	.00966	.52798
SDev	.01833	.00101	.00987	1.322	.00363	.02138	.01196
%RSD	8.2086	170.74	1.0352	1.4680	134.59	221.16	2.2661
#1	.22804	.00032	.94109	88.924	.00026	-.00386	.52510
#2	.24704	-.00072	.95318	89.420	-.00187	.04109	.53733
#3	.20632	.00138	.95318	90.053	-.00798	.00520	.51224
#4	.21175	.00138	.96526	91.944	-.00121	-.00377	.53725
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04118	19.414	1.9242	.07058	.94565	.02507	.00656
SDev	.01644	.150	.0484	.00071	.00834	.09777	.00242
%RSD	39.925	.77442	2.5161	1.0028	.88228	389.92	36.960
#1	.04721	19.216	1.8574	.07004	.93639	.10167	.00761
#2	.05687	19.378	1.9282	.07004	.94132	-.11716	.00777

#3	.04239	19.528	1.9727	.07071	.94997	.04331	.00293
#4	.01823	19.534	1.9387	.07152	.95491	.07246	.00792
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00404
SDev	.00040
%RSD	9.8148

#1	.00441
#2	.00413
#3	.00413
#4	.00348

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWGDCD

Operator: WTR

Run Time: 02/28/01 12:14:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.03351	.00770	.30596	.02176	-.00001	2.3902
SDev	.00379	.01726	.03031	.01910	.00009	.00007	.0406
%RSD	10870.	51.515	393.53	6.2435	.41754	489.69	1.6989
#1	-.00356	.01050	.00563	.31666	.02181	-.00007	2.3294
#2	.00504	.05233	.00522	.31311	.02181	.00004	2.4115
#3	-.00210	.03649	.04696	.27742	.02163	.00004	2.4075
#4	.00076	.03472	-.02701	.31666	.02181	-.00008	2.4125
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00005	-.00302	.00952	.00103	.02701	1.2411	.03054
SDev	.00215	.00234	.00220	.00141	.00296	.6266	.00036
%RSD	4286.2	77.283	23.077	136.76	10.974	50.487	1.1867
#1	.00133	-.00497	.00622	-.00083	.02493	.39226	.03082
#2	.00134	-.00496	.01062	.00165	.03120	1.2582	.03082
#3	-.00315	-.00029	.01062	.00248	.02700	1.8927	.03006
#4	.00067	-.00186	.01062	.00083	.02491	1.4211	.03044
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.19614	.00006	.94260	89.182	-.00105	.00281	.47830
SDev	.02816	.00053	.01428	1.622	.00495	.02687	.06127
%RSD	14.356	904.56	1.5147	1.8190	469.98	954.77	12.811
#1	.15474	-.00074	.92296	91.616	-.00753	-.02202	.38807
#2	.20360	.00032	.94109	88.396	.00230	-.00395	.50020
#3	.21718	.00033	.95318	88.372	-.00225	-.00381	.50005
#4	.20903	.00032	.95317	88.345	.00327	.04103	.52488
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00371	19.025	1.8998	.06913	.93615	-.05502	.00641
SDev	.02704	.050	.0385	.00083	.00320	.08617	.00260
%RSD	729.67	.26104	2.0247	1.1954	.34198	156.61	40.500
#1	-.03495	19.089	1.8726	.07030	.94071	-.05861	.00252
#2	.01338	19.020	1.8731	.06836	.93484	.01423	.00760

#3	.00854	18.968	1.8993	.06895	.93330	-.00035	.00776
#4	.02785	19.025	1.9544	.06891	.93577	-.17535	.00776
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.00187
SDev	.00183
%RSD	97.897

#1	.00188
#2	.00091
#3	.00442
#4	.00026

Errors	LC Pass
High	100.00
Low	-.02000

677 1003

Method: QUANMET Sample Name: DWH3RB

Operator: WTR

Run Time: 02/28/01 12:17:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00786	.00685	-.00797	.00005	.00006	.40732
SDev	.00271	.00085	.00790	.00000	.00009	.00000	.00379
%RSD	743.99	10.857	115.37	.04106	200.00	.00000	.93052
#1	.00215	.00913	.00568	-.00797	-.00000	.00006	.41049
#2	.00215	.00734	-.00355	-.00797	.00018	.00006	.40949
#3	-.00357	.00744	.01494	-.00798	-.00000	.00006	.40730
#4	.00072	.00752	.01032	-.00797	-.00000	.00006	.40200
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00029	-.00233	-.00055	.00103	.02659	-.03644	-.00034
SDev	.00292	.00195	.00254	.00041	.00155	.21589	.00027
%RSD	1012.9	83.551	461.94	39.982	5.8402	592.46	80.927
#1	.00330	-.00195	.00165	.00083	.02747	.03215	-.00049
#2	-.00365	-.00503	-.00274	.00082	.02607	-.30223	-.00011
#3	.00020	-.00194	.00165	.00165	.02467	.21220	-.00011
#4	.00131	-.00039	-.00275	.00083	.02817	-.08788	-.00065
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00475	.00027	.00000	.06110	.00132	.00217	-.00002
SDev	.00714	.00053	.00579	.00945	.00325	.01346	.00008
%RSD	150.28	194.74	168300.	15.460	245.89	620.31	504.05
#1	.01086	.00001	.00454	.07109	.00028	-.00455	-.00010
#2	-.00543	.00106	.00454	.06678	-.00281	-.00463	-.00004
#3	.00814	.00001	-.00151	.05581	.00366	.02237	-.00004
#4	.00543	.00001	-.00755	.05072	.00417	-.00451	.00010
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01200	.03321	.00983	.00026	.00031	-.01487	-.00000
SDev	.03332	.00000	.01457	.00007	.00073	.10037	.00008
%RSD	277.80	.00000	148.23	29.123	236.29	675.08	6443.8
#1	.02303	.03321	.02097	.00028	.00085	-.07323	.00006
#2	.00370	.03321	-.00524	.00015	.00085	.13103	.00005

#3	-.02046	.03321	.02360	.00032	-.00069	-.08778	-.00002
#4	-.05426	.03321	.00000	.00028	.00023	-.02949	-.00011

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	H.08346
SDev	.00251
%RSD	3.0066

#1	H.08660
#2	H.08180
#3	H.08111
#4	H.08432

Errors	LC High
High	.02000
Low	-.02000

Method: QUANMET Sample Name: DWH3RC

Operator: WTR

Run Time: 02/28/01 12:20:32

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05392	2.1060	2.0298	.97908	2.0659	.05012	L.11031
SDev	.00144	.0193	.0556	.00088	.0245	.00035	.00183
%RSD	2.6707	.91420	2.7400	.09000	1.1863	.69852	1.6618

#1	.05464	2.1131	2.0239	.97929	2.0593	.05003	L.11224
#2	.05463	2.1059	2.0564	.97783	2.0523	.04991	L.10864
#3	.05464	2.1252	2.0839	.97931	2.1021	.05064	L.10886
#4	.05176	2.0797	1.9549	.97991	2.0498	.04992	L.11151

Errors	LC Pass	LC Pass	LC Pass	NOCHECK	LC Pass	LC Pass	LC Low
High	.06000	2.4000	2.4000		2.4000	.06000	60.000
Low	.04000	1.6000	1.6000		1.6000	.04000	40.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05149	.51053	.20679	.26086	1.1148	L.03001	1.0273
SDev	.00495	.00283	.00212	.00196	.0056	.50367	.0156
%RSD	9.6084	.55515	1.0262	.75250	.50595	1678.4	1.5193

#1	.05206	.51364	.20556	.25963	1.1143	L-.03644	1.0200
#2	.04614	.50745	.20611	.25962	1.1171	L.10074	1.0149
#3	.05795	.50895	.20556	.26375	1.1206	L-.58517	1.0500
#4	.04984	.51210	.20995	.26045	1.1073	L.64090	1.0242

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	NOCHECK
High	.06000	.60000	.24000	.30000	1.2000	60.000	
Low	.04000	.40000	.16000	.20000	.80000	40.000	

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	L-.00271	.51570	-.00137	L.04152	.51410	.55448	L.00701
SDev	.01520	.00227	.00493	.00274	.00674	.03025	.00005
%RSD	559.76	.44070	361.01	6.6038	1.3116	5.4548	.65026

#1	L-.00814	.51570	-.00741	L.03858	.50472	.57249	L.00702
#2	L.01086	.51465	-.00137	L.04485	.51994	.56336	L.00705
#3	L-.02172	.51886	-.00137	L.04015	.51788	.50957	L.00704
#4	L.00814	.51360	.00467	L.04250	.51384	.57248	L.00695

Errors	LC Low	LC Pass	NOCHECK	LC Low	LC Pass	LC Pass	LC Low
High	60.000	.60000		60.000	.60000	.60000	.60000
Low	40.000	.40000		40.000	.40000	.40000	.40000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0397	.03636	-.00109	1.0232	.00100	2.0730	.51647
SDev	.0274	.00577	.01182	.0103	.00073	.1257	.00223
%RSD	1.3447	15.855	1085.5	1.0067	73.245	6.0628	.43143

#1	2.0119	.03926	-.01813	1.0206	.00147	2.0839	.51790
#2	2.0216	.03925	.00546	1.0179	.00147	1.9089	.51677

#3	2.0554	.02771	.00809	1.0384	.00116	2.2151	.51798
#4	2.0698	.03921	.00022	1.0161	-.00008	2.0840	.51323

Errors	LC Pass	NOCHECK	NOCHECK	NOCHECK	NOCHECK	LC Pass	LC Pass
High	2.4000					2.4000	.60000
Low	1.6000					1.6000	.40000

Elem	ZN
Units	ppm
Avge	.51288
SDev	.00198
%RSD	.38675

#1	.51075
#2	.51296
#3	.51230
#4	.51551

Errors	LC Pass
High	.60000
Low	.40000

Method: QUANMET Sample Name: DWDPL

Operator: WTR

Run Time: 02/28/01 12:23:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00116	.02627	.13002	-.00736	.00093	.00009	.44248
SDev	.00216	.01089	.10107	.00001	.00029	.00011	.00839
%RSD	185.75	41.460	77.734	.16013	31.347	124.97	1.8965
#1	-.00063	.01625	.06075	-.00737	.00088	.00018	.44091
#2	-.00065	.01974	.19490	-.00735	.00062	-.00005	.43123
#3	.00368	.02839	.02823	-.00736	.00088	.00017	.44923
#4	.00225	.04071	.23621	-.00737	.00132	.00005	.44854
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.00077	.04117	.13078	.35360	.55731	.00059
SDev	.00116	.00408	.00310	.00143	.00291	.75811	.00121
%RSD	323.67	527.74	7.5384	1.0938	.82401	136.03	204.09
#1	.00182	.00271	.04336	.13037	.35009	.56374	.00027
#2	.00072	-.00504	.03678	.13036	.35709	-.49943	-.00081
#3	-.00037	.00116	.04117	.12954	.35430	.91527	.00211
#4	-.00074	.00427	.04336	.13284	.35290	1.2497	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24365	.00931	.00156	.14492	.00142	.04706	-.00042
SDev	.02012	.00053	.00349	.00227	.00610	.02253	.00013
%RSD	8.2569	5.6504	224.16	1.5682	430.75	47.870	29.797
#1	.24432	.00957	-.00147	.14825	.00814	.05833	-.00029
#2	.21718	.00852	-.00146	.14316	-.00656	.01327	-.00050
#3	.24704	.00957	.00458	.14394	.00108	.05828	-.00035
#4	.26604	.00957	.00458	.14433	.00300	.05835	-.00056
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.02404	.03323	.02692	.00119	.00069	.00331	.00163
SDev	.05365	.00005	.03971	.00034	.00089	.07577	.00461
%RSD	223.21	.16203	147.50	28.610	128.30	2289.1	283.37
#1	-.00979	.03323	.00006	.00123	-.00008	-.10606	.00129
#2	.01922	.03316	.03151	.00069	-.00008	.02524	-.00477

#3	-.01461	.03327	-.00519	.00141	.00147	.06892	.00499
#4	.10133	.03327	.08131	.00141	.00147	.02515	.00500

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.07808
SDev	.00149
%RSD	1.9113

#1	.07742
#2	.07999
#3	.07841
#4	.07650

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWDPLP5

Operator: WTR

Run Time: 02/28/01 12:26:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00181	.01403	.04026	-.00789	.00016	.00009	.09706
SDev	.00339	.01250	.03565	.00000	.00048	.00006	.00797
%RSD	187.32	89.076	88.559	.02893	305.81	70.775	8.2130
#1	.00216	.01282	.07497	-.00789	-.00000	.00006	.09206
#2	-.00070	.00746	.03802	-.00790	-.00044	.00018	.09324
#3	.00647	.03196	.05624	-.00789	.00062	.00005	.10895
#4	-.00070	.00389	-.00820	-.00790	.00044	.00006	.09397
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00206	-.00039	.00604	.02681	.06981	.26579	.00027
SDev	.00255	.00126	.00179	.00083	.00167	.37611	.00044
%RSD	123.84	319.54	29.679	3.0805	2.3910	141.50	163.30
#1	-.00152	-.00194	.00604	.02640	.06946	.08360	.00027
#2	.00444	-.00040	.00384	.02640	.06876	-.14790	-.00027
#3	.00230	.00115	.00823	.02805	.07226	.70949	.00027
#4	.00301	-.00040	.00604	.02640	.06876	.41798	.00081
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05226	.00265	-.00301	.03897	-.00040	-.00003	-.00003
SDev	.01736	.00061	.00760	.00714	.00547	.01160	.00012
%RSD	33.229	22.869	252.41	18.331	1353.1	39810.	368.50
#1	.05429	.00317	-.01359	.03427	-.00561	-.01352	-.00005
#2	.02715	.00212	-.00150	.03701	-.00266	.01343	-.00009
#3	.06244	.00318	-.00150	.04955	.00719	.00448	.00014
#4	.06515	.00213	.00454	.03505	-.00053	-.00451	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00384	-.01443	-.00392	.00056	.00039	.06850	.00118
SDev	.05036	.03179	.02977	.00039	.00102	.07470	.00244
%RSD	1312.2	220.34	759.35	68.313	265.33	109.05	205.95
#1	-.04930	-.00722	.00001	.00006	.00054	.02842	-.00017
#2	-.01066	-.00722	.01574	.00051	-.00039	-.01535	-.00001

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#3	.07148	.01594	-.04717	.00096	.00177	.14502	.00484
#4	.00383	-.05921	.01574	.00073	-.00039	.11592	.00007

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.01461
SDev	.00152
%RSD	10.423

#1	.01401
#2	.01429
#3	.01682
#4	.01334

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWDPLS

Operator: WTR

Run Time: 02/28/01 12:30:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04488	1.8937	2.1404	.90992	1.9762	.04895	.48307
SDev	.00138	.0114	.0679	.00387	.0075	.00007	.00441
%RSD	3.0699	.60143	3.1718	.42560	.38081	.13904	.91385

#1	.04596	1.8814	2.1463	.91564	1.9656	.04901	.48581
#2	.04308	1.8867	2.2342	.90851	1.9762	.04889	.47649
#3	.04596	1.9043	2.0952	.90704	1.9823	.04901	.48540
#4	.04453	1.9024	2.0860	.90851	1.9806	.04888	.48458

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04052	.46561	.22809	.37632	1.3733	.19934	.98352
SDev	.00133	.00219	.00329	.00048	.0034	.10157	.00476
%RSD	3.2848	.47090	1.4433	.12680	.24963	50.952	.48443

#1	.03881	.46562	.22973	.37674	1.3719	.29794	.97713
#2	.04080	.46251	.22315	.37591	1.3691	.17791	.98716
#3	.04043	.46716	.22973	.37591	1.3761	.06645	.98265
#4	.04204	.46716	.22973	.37674	1.3761	.25507	.98716

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.23414	.48133	.00320	.17057	.47577	.44789	L-.08434
SDev	.00714	.00302	.00302	.00719	.00406	.01131	.06137
%RSD	3.0492	.62776	94.443	4.2132	.85281	2.5254	72.770

#1	.24432	.48212	.00471	.16744	.47915	.44560	L-.13107
#2	.23347	.47686	.00471	.17175	.47745	.46364	.00602
#3	.23075	.48317	-.00133	.16313	.46990	.44566	L-.10625
#4	.22804	.48317	.00471	.17998	.47659	.43669	L-.10605

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1008	.01569	.04445	.97629	.00023	1.7823	.47819
SDev	.0413	.00003	.02799	.00329	.00025	.1617	.00241
%RSD	1.9638	.17960	62.968	.33730	108.87	9.0742	.50459

#1	2.0803	.01571	.05474	.97225	.00054	1.8042	.47942
#2	2.0851	.01565	.04744	.97529	.00023	1.5855	.47457

#3	2.1625	.01571	.07057	.97994	-.00008	1.7604	.47934
#4	2.0755	.01571	.00504	.97768	.00023	1.9792	.47942
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.53251
SDev	.00154
%RSD	.28973

#1	.53082
#2	.53175
#3	.53435
#4	.53310

Errors	LC Pass
High	100.00
Low	-.02000

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Method: QUANMET Sample Name: DWDPLD

Operator: WTR

Run Time: 02/28/01 12:33:11

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04854	1.9823	2.1452	.92067	2.0118	.04931	.61799
SDev	.00182	.0202	.0421	.00244	.0281	.00049	.00587
%RSD	3.7480	1.0214	1.9612	.26545	1.3950	.99574	.94990
#1	.04601	1.9727	2.1777	.92136	2.0222	.04911	.61036
#2	.04891	1.9954	2.1358	.91716	2.0313	.04982	.61648
#3	.04890	1.9587	2.1777	.92132	1.9702	.04872	.62333
#4	.05034	2.0025	2.0895	.92284	2.0236	.04958	.62178
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04376	.48886	.23741	.38460	1.4168	.60875	.99389
SDev	.00106	.00439	.00283	.00360	.0125	.66300	.01734
%RSD	2.4162	.89719	1.1933	.93506	.87933	108.91	1.7443
#1	.04363	.48265	.23412	.38666	1.4131	.09217	1.0059
#2	.04517	.49195	.23631	.38667	1.4229	-.01929	1.0012
#3	.04261	.48888	.23850	.37924	1.4013	1.2154	.96815
#4	.04360	.49196	.24070	.38584	1.4299	1.1468	1.0002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.24161	.50159	.00169	.20181	.49412	.53382	.03432
SDev	.02335	.00279	.00349	.00236	.01365	.02266	.12081
%RSD	9.6655	.55542	206.05	1.1685	2.7619	4.2440	351.99
#1	.21175	.49896	-.00133	.20191	.50774	.50876	L-.13062
#2	.23618	.50527	.00472	.20504	.48127	.53627	.13068
#3	.26604	.50001	-.00133	.19956	.50392	.52709	.01889
#4	.25247	.50212	.00472	.20073	.48354	.56316	.11835
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.1505	.03901	.03053	.99693	.00077	1.8728	.49603
SDev	.0365	.00006	.02632	.01242	.00030	.0792	.00471
%RSD	1.6975	.14094	86.219	1.2461	38.297	4.2293	.94878
#1	2.1143	.03893	.02591	1.0002	.00054	1.8766	.48903
#2	2.1819	.03904	.06894	1.0066	.00116	1.8472	.49878

#3	2.1239	.03903	.01605	.97873	.00085	1.7891	.49750
#4	2.1819	.03904	.01123	1.0022	.00054	1.9784	.49879
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .56900
SDev .00347
%RSD .60965

#1 .56509
#2 .57192
#3 .56706
#4 .57192

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET- Sample Name: CCV2-4

Operator: WTR

Run Time: 02/28/01 12:36:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.97979	50.655	4.9113	4.9221	4.9362	4.8702	48.504
SDev	.00110	.429	.0169	.0757	.0724	.0397	.426
%RSD	.11269	.84635	.34363	1.5385	1.4662	.81449	.87849

#1	.97981	50.405	4.9340	4.8961	4.9003	4.8494	48.801
#2	.97840	50.774	4.9125	4.9305	4.9607	4.8792	48.461
#3	.97983	51.203	4.9045	5.0213	5.0249	4.9216	47.918
#4	.98110	50.238	4.8942	4.8408	4.8590	4.8306	48.838

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.8706	4.7966	4.7619	4.9692	50.801	51.362	5.0792
SDev	.0296	.0148	.0136	.0747	.122	.279	.1163
%RSD	.60717	.30945	.28487	1.5026	.23920	.54372	2.2903

#1	4.9051	4.8097	4.7771	4.9265	50.816	51.544	5.0040
#2	4.8510	4.7974	4.7557	4.9842	50.901	51.099	5.0977
#3	4.8415	4.7757	4.7464	5.0675	50.861	51.656	5.2359
#4	4.8847	4.8036	4.7684	4.8984	50.626	51.150	4.9790

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	50.727	4.7956	4.8223	51.451	4.7966	4.8777	4.9254
SDev	.362	.0068	.0253	.945	.0366	.0442	.0961
%RSD	.71362	.14163	.52540	1.8368	.76270	.90562	1.9504

#1	50.583	4.8035	4.7845	50.915	4.8321	4.9029	4.9818
#2	50.784	4.7983	4.8329	51.634	4.7667	4.8933	4.9563
#3	51.197	4.7878	4.8389	52.699	4.7634	4.8117	4.9811
#4	50.342	4.7930	4.8328	50.555	4.8241	4.9026	4.7824

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0466	4.9720	4.8472	4.9262	4.8745	9.6894	4.8296
SDev	.1111	.0280	.0551	.0579	.0287	.1166	.0108
%RSD	2.2024	.56334	1.1374	1.1748	.58972	1.2029	.22426

#1	5.1118	4.9880	4.9280	4.8975	4.8634	9.7256	4.8346
#2	5.1266	4.9880	4.8152	4.9459	4.8869	9.8268	4.8340

#3	4.8849	4.9302	4.8362	4.9969	4.9069	9.5502	4.8365
#4	5.0629	4.9819	4.8093	4.8643	4.8406	9.6549	4.8135
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem	ZN
Units	ppm
Avge	4.8223
SDev	.0061
%RSD	.12739

#1	4.8191
#2	4.8262
#3	4.8153
#4	4.8285

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB4

Operator: WTR

Run Time: 02/28/01 12:39:31

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00109	.01211	-.00130	-.00802	.00033	.00018	.00290
SDev	.00137	.00294	.03323	.00000	.00031	.00001	.00194
%RSD	126.41	24.257	2551.0	.05626	92.441	3.4833	66.714
#1	.00217	.01598	.00557	-.00803	.00070	.00017	.00482
#2	.00071	.01254	-.02205	-.00802	-.00000	.00019	.00025
#3	-.00070	.00908	.04264	-.00802	.00018	.00018	.00290
#4	.00217	.01086	-.03138	-.00802	.00044	.00017	.00363
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00036	.00039	-.00014	.00062	.00298	.24864	.00036
SDev	.00254	.00297	.00251	.00104	.00114	.45285	.00061
%RSD	711.82	764.58	1838.9	167.94	38.421	182.13	166.02
#1	-.00116	.00427	.00330	.00165	.00298	.76094	.00119
#2	-.00088	-.00194	-.00274	-.00083	.00297	-.25079	-.00027
#3	-.00266	-.00193	-.00055	.00082	.00158	.01500	.00027
#4	.00327	.00115	-.00055	.00083	.00438	.46942	.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01222	.00079	.01208	.00646	.00443	-.00673	-.00005
SDev	.01375	.00052	.00906	.00416	.00581	.02246	.00005
%RSD	112.58	66.148	74.998	64.330	131.30	333.96	97.936
#1	.02986	.00106	.02266	.01234	.01233	-.00438	-.00007
#2	.00000	.00001	.01662	.00255	.00520	-.01352	-.00001
#3	.00271	.00105	.00453	.00568	-.00053	-.03145	-.00012
#4	.01629	.00105	.00453	.00529	.00072	.02245	-.00001
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00120	-.05917	.01966	.00073	.00039	-.01099	.00318
SDev	.02196	.00003	.02025	.00000	.00040	.03835	.00286
%RSD	1832.3	.05641	102.99	.00000	103.28	348.91	89.795
#1	-.00603	-.05915	.03407	.00073	.00085	.02908	.00514
#2	-.03018	-.05922	-.00262	.00073	-.00008	-.04377	-.00100

#3	.01812	-.05916	.03932	.00073	.00023	.01457	.00369
#4	.01330	-.05915	.00786	.00073	.00054	-.04384	.00490
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem ZN
Units ppm
Avge -.00088
SDev .00032
%RSD 36.331

#1 -.00073
#2 -.00073
#3 -.00069
#4 -.00135

Errors LC Pass
High .02000
Low -.02000

Method: QUANMET Sample Name: DWDQ9

Operator: WTR

Run Time: 02/28/01 12:42:41

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00153	17.208	.16929	.03876	.73698	.00073	H800.27
SDev	.00257	.031	.08389	.03287	.00300	.00020	17.51
%RSD	167.90	.17937	49.553	84.800	.40729	26.743	2.1883
#1	-.00163	17.186	.28780	.05694	.73700	.00065	H794.47
#2	-.00479	17.215	.12705	-.00884	.74072	.00054	H779.77
#3	-.00117	17.183	.16561	.06378	.73337	.00100	H821.17
#4	.00147	17.250	.09670	.04317	.73682	.00075	H805.66
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC High
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000

Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00061	.02039	.12028	1.6458	106.90	2.5293	.00933
SDev	.00326	.00705	.00792	.0101	1.24	1.1429	.00174
%RSD	536.25	34.599	6.5836	.61113	1.1588	45.186	18.608
#1	-.00274	.01574	.11630	1.6478	106.55	1.7298	.00930
#2	-.00055	.01419	.11136	1.6575	105.39	1.5069	.00692
#3	.00072	.02971	.12892	1.6331	108.30	3.9762	.01017
#4	.00500	.02192	.12453	1.6446	107.38	2.9044	.01092
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000

Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.824	.69655	.01382	.98242	.09761	.60927	.01199
SDev	.120	.01049	.00920	.02062	.00161	.06749	.01018
%RSD	1.1078	1.5054	66.543	2.0992	1.6517	11.076	84.927
#1	10.769	.69329	.01830	.97390	.09953	.54644	.01200
#2	10.682	.68348	.00003	1.0052	.09578	.55556	.01202
#3	10.940	.70748	.01853	.95823	.09820	.67204	-.00051
#4	10.905	.70195	.01841	.99231	.09696	.66303	.02443
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000

Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.03426	2.6442	.11057	.30733	.39246	.39198	.12984
SDev	.06490	.0434	.01363	.00052	.00298	.08516	.00737
%RSD	189.43	1.6402	12.331	.16982	.75810	21.726	5.6748
#1	-.04501	2.6224	.10394	.30688	.39531	.36323	.12626
#2	-.12106	2.6224	.12997	.30778	.38945	.44944	.12117

#3	.00386	2.7092	.10946	.30688	.39037	.28484	.13597
#4	.02517	2.6226	.09890	.30778	.39469	.47042	.13596

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.84281
SDev	.01127
%RSD	1.3369

#1	.84225
#2	.82852
#3	.85598
#4	.84451

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKC/5 K Operator: WTR
 Run Time: 02/28/01 12:47:08
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00143	.27385	.05895	.08944	.02139	.00003	12.945
SDev	.00082	.01739	.01815	.00179	.00063	.00006	.463
%RSD	57.231	6.3494	30.788	2.0032	2.9560	217.51	3.5735
#1	.00073	.25800	.04054	.08853	.02075	.00005	12.341
#2	.00071	.27213	.06361	.08855	.02137	-.00006	12.923
#3	.00214	.26686	.08215	.08855	.02119	.00006	13.056
#4	.00215	.29842	.04950	.09213	.02225	.00006	13.460
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K ✓	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00263	-.00118	.01098	.02022	.13314	353.15	.00239
SDev	.00083	.00200	.00210	.00143	.00659	10.31	.00068
%RSD	31.548	169.51	19.152	7.0724	4.9500	2.9181	28.429
#1	.00141	-.00195	.01043	.01816	.12545	338.67	.00211
#2	.00324	-.00351	.00823	.02063	.13245	356.29	.00195
#3	.00305	-.00041	.01263	.02064	.13314	354.68	.00211
#4	.00282	.00114	.01263	.02146	.14154	362.98	.00341
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.1938	.18490	.00908	36.908	.00233	-.00473	-.00012
SDev	.0520	.00610	.00302	1.070	.00517	.00005	.00006
%RSD	4.3559	3.2976	33.271	2.8992	221.33	.97534	50.783
#1	1.1293	.17675	.01059	35.386	.00292	-.00474	-.00005
#2	1.1836	.18516	.00455	37.355	-.00252	-.00479	-.00009
#3	1.2080	.18622	.01059	37.034	.00932	-.00470	-.00019
#4	1.2542	.19148	.01059	37.858	-.00039	-.00469	-.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03423	3.8629	.00133	.06480	.00015	.07282	.00166
SDev	.09642	.1121	.03098	.00206	.00030	.08837	.00231
%RSD	281.71	2.9015	2324.0	3.1725	191.49	121.35	139.25
#1	-.04913	3.7012	-.02357	.06217	-.00008	.11659	.00500
#2	.11031	3.8802	-.01833	.06461	.00023	.16038	.00008

#3	-.04911	3.9149	.04458	.06529	-.00008	.05824	.00017
#4	.12483	3.9553	.00264	.06714	.00054	-.04394	.00138
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem ZN
Units ppm
Avge .47818
SDev .02020
%RSD 4.2249

#1 .45108
#2 .47514
#3 .48954
#4 .49694

Errors LC Pass
High 100.00
Low -.02000

Method: QUANMET Sample Name: DWHKCP25

Operator: WTR

Run Time: 02/28/01 12:50:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00001	.07228	-.00178	.03038	.00558	.00015	3.1927
SDev	.00143	.00734	.00602	.00342	.00021	.00016	.0362
%RSD	28450.	10.157	338.72	11.238	3.7403	104.31	1.1339
#1	.00072	.07408	.00052	.02770	.00556	.00030	3.1709
#2	.00073	.07045	-.00411	.03128	.00574	-.00007	3.1668
#3	-.00214	.06350	.00524	.03484	.00530	.00018	3.1879
#4	.00071	.08111	-.00877	.02771	.00574	.00018	3.2452
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K ✓	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00156	.00116	.00206	.00598	.03289	88.014	.00087
SDev	.00282	.00283	.00197	.00079	.00067	1.313	.00044
%RSD	181.11	244.32	95.877	13.239	2.0411	1.4918	50.260
#1	.00547	.00425	.00384	.00661	.03307	87.872	.00119
#2	-.00109	-.00194	-.00055	.00495	.03237	86.483	.00119
#3	.00032	.00271	.00330	.00661	.03237	88.009	.00081
#4	.00152	-.00040	.00165	.00578	.03377	89.690	.00027
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.30269	.04629	.00454	9.3106	-.00586	.01567	-.00008
SDev	.00844	.00086	.00493	.1294	.00228	.03909	.00007
%RSD	2.7885	1.8536	108.76	1.3895	38.912	249.42	79.363
#1	.29862	.04524	.00454	9.2473	-.00597	.06733	-.00006
#2	.29319	.04629	.00454	9.1783	-.00884	-.02253	-.00012
#3	.30676	.04629	.01058	9.3393	-.00531	.02245	-.00015
#4	.31219	.04734	-.00151	9.4776	-.00333	-.00456	-.00000
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.01077	.93866	-.00327	.01663	-.00015	-.00369	.00127
SDev	.04879	.01280	.01442	.00029	.00046	.05240	.00171
%RSD	453.09	1.3636	440.83	1.7582	300.00	1420.7	134.10
#1	-.06874	.92855	-.01572	.01678	.00023	.07285	.00128
#2	.04237	.93435	.00787	.01620	-.00039	-.02920	.00369

#3	-.03009	.95741	.01049	.01678	-.00069	-.01463	.00015
#4	.01339	.93431	-.01572	.01678	.00023	-.04378	-.00002

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.12195
SDev	.00097
%RSD	.79633

#1	.12285
#2	.12222
#3	.12218
#4	.12057

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKCS/5 K Operator: WTR
 Run Time: 02/28/01 12:53:28
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01010	.67966	.38589	.24413	.39843	.00934	23.282
SDev	.00180	.01476	.03400	.00125	.00664	.00021	.479
%RSD	17.868	2.1713	8.8119	.51173	1.6679	2.2000	2.0581
#1	.00973	.66470	.39184	.24365	.39048	.00907	22.745
#2	.00832	.67524	.40555	.24428	.39578	.00931	23.079
#3	.00973	.67882	.33621	.24282	.40196	.00944	23.443
#4	.01261	.69989	.40995	.24577	.40549	.00955	23.860
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_ ✓	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01195	.09016	.04990	.07065	.34414	399.57	.19716
SDev	.00186	.00369	.00314	.00107	.00829	6.28	.00367
%RSD	15.530	4.0976	6.2823	1.5129	2.4092	1.5706	1.8630
#1	.01414	.08628	.04551	.06941	.33609	391.83	.19287
#2	.01145	.08784	.05155	.07024	.33959	397.19	.19547
#3	.00972	.09405	.04990	.07107	.34589	403.80	.19931
#4	.01248	.09249	.05264	.07189	.35499	405.46	.20098
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.868	.29277	.01213	50.624	.09687	.13191	.00109
SDev	.203	.00598	.00578	.789	.00896	.00009	.00015
%RSD	1.8708	2.0407	47.689	1.5595	9.2524	.06816	13.560
#1	10.639	.28620	.01666	49.626	.08768	.13182	.00098
#2	10.767	.28935	.01062	50.365	.09195	.13185	.00100
#3	10.978	.29672	.01666	51.165	.09989	.13201	.00108
#4	11.090	.29882	.00458	51.340	.10797	.13195	.00130
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.40444	4.2106	.01645	.25680	-.00077	.37615	.09519
SDev	.06053	.0867	.01821	.00477	.00030	.05961	.00281
%RSD	14.966	2.0597	110.68	1.8563	38.297	15.848	2.9545
#1	.31384	4.1008	.02103	.25121	-.00100	.46377	.09222
#2	.43945	4.1817	.02890	.25482	-.00069	.36160	.09699

#3	.43464	4.2741	.02628	.25912	-.00100	.33238	.09344
#4	.42984	4.2857	-.01042	.26205	-.00039	.34686	.09812
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.61893
SDev	.01609
%RSD	2.5991

#1	.60050
#2	.61400
#3	.62226
#4	.63896

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: DWHKCD/5 K Operator: WTR
 Run Time: 02/28/01 12:56:38
 Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01120	.68449	.39963	.24360	.40211	.00945	23.424
SDev	.00117	.00677	.02958	.00155	.00148	.00006	.171
%RSD	10.486	.98863	7.4019	.63614	.36871	.63789	.73071
#1	.01120	.68229	.44241	.24575	.40063	.00942	23.204
#2	.01120	.68053	.39618	.24219	.40196	.00954	23.381
#3	.01263	.69456	.38220	.24281	.40170	.00942	23.595
#4	.00975	.68057	.37774	.24365	.40416	.00943	23.516
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	100.00	100.00	100.00	15.000	600.00
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K ✓	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01218	.09404	.05100	.07292	.34502	398.04	.19932
SDev	.00264	.00219	.00127	.00041	.00184	1.30	.00167
%RSD	21.671	2.3323	2.4876	.56542	.53351	.32769	.83742
#1	.00958	.09560	.04990	.07272	.34310	397.55	.19969
#2	.01052	.09094	.04990	.07271	.34659	396.75	.19785
#3	.01324	.09559	.05209	.07272	.34659	398.05	.19823
#4	.01538	.09403	.05209	.07354	.34379	399.83	.20153
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	100.00	100.00	100.00	400.00	1000.0	20.000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	10.857	.29461	.00911	50.453	.09564	.13873	.00111
SDev	.040	.00210	.00302	.249	.00254	.00454	.00003
%RSD	.36827	.71408	33.169	.49395	2.6533	3.2709	2.4577
#1	10.815	.29146	.01062	50.498	.09871	.14102	.00114
#2	10.837	.29566	.00458	50.198	.09643	.13193	.00113
#3	10.867	.29567	.01062	50.336	.09276	.14101	.00110
#4	10.908	.29567	.01062	50.778	.09467	.14098	.00108
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	600.00	100.00	50.000	400.00	100.00	100.00	100.00
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.40686	4.2207	.01710	.25889	-.00031	.38703	.10090
SDev	.06390	.0318	.00693	.00117	.00030	.05635	.00180
%RSD	15.705	.75245	40.542	.45079	95.743	14.560	1.7831
#1	.36700	4.1933	.02365	.25753	-.00008	.36148	.10183
#2	.49744	4.1933	.02103	.25844	-.00008	.33234	.10175

#3	.40566	4.2511	.00793	.25934	-.00039	.39064	.10183
#4	.35734	4.2453	.01579	.26025	-.00069	.46364	.09820

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	100.00	50.000	50.000	100.00	100.00
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-2.0000	-.05000

Elem	ZN
Units	ppm
Avge	.62275
SDev	.00230
%RSD	.36967

#1	.62041
#2	.62589
#3	.62269
#4	.62201

Errors	LC Pass
High	100.00
Low	-.02000

Method: QUANMET Sample Name: CCV2-5

Operator: WTR

Run Time: 02/28/01 12:59:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.99870	51.965	5.0070	4.9787	5.0968	4.9374	49.377
SDev	.00074	.162	.0833	.0261	.0194	.0122	.147
%RSD	.07399	.31191	1.6629	.52451	.38160	.24746	.29838
#1	.99894	51.773	4.9674	4.9862	5.0749	4.9215	49.220
#2	.99908	52.039	4.9278	4.9570	5.1056	4.9379	49.332
#3	.99760	51.904	5.0122	4.9591	5.0877	4.9390	49.382
#4	.99919	52.146	5.1207	5.0124	5.1191	4.9513	49.573
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	55.000	5.5000	5.5000	5.5000	5.5000	55.000
Low	.90000	45.000	4.5000	4.5000	4.5000	4.5000	45.000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	4.9602	4.8993	4.8460	5.0923	51.862	53.092	5.2808
SDev	.0263	.0197	.0118	.0163	.159	.181	.0318
%RSD	.53020	.40288	.24329	.31994	.30617	.34042	.60199
#1	4.9421	4.8885	4.8320	5.0752	51.706	52.942	5.2557
#2	4.9348	4.8869	4.8479	5.1040	51.830	53.345	5.3126
#3	4.9730	4.8930	4.8435	5.0818	51.830	52.985	5.2513
#4	4.9908	4.9286	4.8605	5.1082	52.084	53.096	5.3035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	55.000	55.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	45.000	45.000	4.5000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	51.967	4.8930	4.9342	53.472	4.8980	4.9445	5.0562
SDev	.127	.0152	.0200	.251	.0403	.0655	.0866
%RSD	.24362	.31025	.40502	.46899	.82356	1.3251	1.7126
#1	51.881	4.8785	4.9115	53.223	4.8421	5.0384	4.9810
#2	51.908	4.8890	4.9297	53.681	4.9123	4.9397	5.1311
#3	51.924	4.8901	4.9357	53.288	4.9001	4.8949	4.9814
#4	52.155	4.9144	4.9599	53.694	4.9373	4.9048	5.1312
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	55.000	5.5000	5.5000	55.000	5.5000	5.5000	5.5000
Low	45.000	4.5000	4.5000	45.000	4.5000	4.5000	4.5000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.0788	5.0815	4.9963	5.0788	4.9883	9.9901	4.9317
SDev	.0885	.0002	.0151	.0179	.0132	.1755	.0156
%RSD	1.7435	.00359	.30213	.35292	.26453	1.7563	.31656
#1	5.0614	5.0813	5.0065	5.0582	4.9739	10.167	4.9126
#2	5.1149	5.0816	4.9808	5.0848	4.9900	10.107	4.9371

#3	4.9652	5.0815	5.0117	5.0719	4.9838	9.8884	4.9275
#4	5.1737	5.0817	4.9861	5.1002	5.0054	9.7977	4.9496

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.5000	5.5000	5.5000	5.5000	5.5000	11.000	5.5000
Low	4.5000	4.5000	4.5000	4.5000	4.5000	9.0000	4.5000

Elem ZN
Units ppm
Avge 4.8959
SDev .0133
%RSD .27164

#1	4.8797
#2	4.8934
#3	4.8986
#4	4.9119

Errors	LC Pass
High	5.5000
Low	4.5000

Method: QUANMET Sample Name: CCB5

Operator: WTR

Run Time: 02/28/01 13:02:58

Comment: STL PITTSBURGH ICP METALS ANALYSIS INSTRUMENT JA61EICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	B_	BA	BE	CA
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00072	.01828	.01832	.00003	.00115	.00101	.01853
SDev	.00166	.02056	.04591	.01606	.00125	.00107	.01498
%RSD	229.38	112.47	250.64	59441.	108.68	105.63	80.808
#1	-.00071	.00030	.00115	-.00802	-.00000	.00018	.00381
#2	-.00071	.00206	.03813	-.00802	.00044	.00031	.01167
#3	.00215	.02840	-.03607	.02411	.00132	.00104	.01994
#4	.00217	.04234	.07008	-.00797	.00283	.00251	.03871
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.30000	.20000	.20000	.00500	5.0000
Low	-.01000	-.20000	-.30000	-.20000	-.20000	-.00500	-5.0000
Elem	CD	CO	CR	CU	FE	K_	LI
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00131	-.00195	.00000	.00144	.01260	.11789	.00132
SDev	.00227	.00127	.00276	.00124	.01272	.33449	.00141
%RSD	173.13	65.253	245890.	85.823	100.97	283.73	106.51
#1	-.00115	-.00194	-.00274	-.00000	.00297	-.36225	.00027
#2	.00098	-.00194	-.00055	.00082	.00367	.17791	.00081
#3	.00435	-.00351	-.00055	.00247	.01348	.24650	.00081
#4	.00106	-.00040	.00384	.00248	.03028	.40941	.00341
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.00500	.05000	.01000	.02500	.10000	5.0000	.05000
Low	-.00500	-.05000	-.01000	-.02500	-.10000	-5.0000	-.05000
Elem	MG	MN	MO	NA	NI	PB	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01900	.00185	.00907	.01459	-.00232	.00890	-.00008
SDev	.02458	.00101	.00302	.01926	.00428	.04886	.00005
%RSD	129.36	54.691	33.327	132.03	184.97	548.72	67.132
#1	-.01086	.00106	.01057	-.00098	-.00700	-.00454	-.00009
#2	.01086	.00106	.01057	.00215	-.00171	-.04939	-.00012
#3	.02986	.00211	.00453	.01586	.00322	.02231	-.00000
#4	.04615	.00317	.01058	.04132	-.00377	.06723	-.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	5.0000	.01500	.04000	5.0000	.04000	.10000	.06000
Low	-5.0000	-.01500	-.04000	-5.0000	-.04000	-.10000	-.06000
Elem	SE	SI	SN	SR	TI	TL	V_
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01212	-.05630	.00262	.00096	.00116	.01446	.00133
SDev	.01944	.00335	.01112	.00128	.00173	.03145	.00244
%RSD	160.47	5.9531	424.59	133.10	149.27	217.42	183.46
#1	.02296	-.05921	-.00786	.00006	-.00039	.01458	.00013
#2	.01330	-.05921	.01835	.00006	-.00008	.02915	.00014

#3	.02782	-.05343	-.00000	.00096	.00177	-.02928	.00006
#4	-.01561	-.05337	-.00001	.00277	.00332	.04341	.00499

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.25000	.50000	.10000	.05000	.05000	.30000	.05000
Low	-.25000	-.50000	-.10000	-.05000	-.05000	-.30000	-.05000

Elem	ZN
Units	ppm
Avge	.00201
SDev	.00107
%RSD	53.027

#1	.00186
#2	.00090
#3	.00182
#4	.00347

Errors	LC Pass
High	.02000
Low	-.02000

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Analysis Report *WCB* Averages

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Runkeyed 3101

#	Sample Name	AG	AS	CD	CR	PB	SB
1	STD1	-.00174	-.01003	.00294	.00349		
2	STD6	9.22532	5.61339	11.7518			
3	STD7				9.06349		
4	ICV3-1 0087-035-16	.51795	.25792	.25249	1.0391	.25715	.26186
5	ICB1	-.00021	-.00131	.00005	-.00028	-.00032	.00190
6	ICSA 0087-076-3	-.00032	.00142	-.00031	-.00006	.00175	.00711
7	ICSAB 0087-081-6	1.0665	.97801	.88902	.49163	.95080	1.0081
8	DWLOXB	-.00041	-.00021	-.00013	-.00040	.00086	.00104
9	DWLOXC	.05096	1.9937	.04728	.20465	.49595	.50463
10	DWJJM	.00126	.00528	.00012	.05123	.00560	.00721
11	DWJJMP5	.00038	.00164	.00008	.00999	.00146	.00325
12	DWJJMS	.05461	2.0714	.04664	.25870	.50876	.52319
13	DWJJMD	.05641	2.0702	.04705	<u>.36910</u>	.51625	.52538
14	DWJJ3	.00150	.05092	.00107	.08736	.00251	.00954
15	DWJKC	.00068	.02018	.00098	.02033	.00090	.01863
16	CCV3-1 0087-076-2	1.0322	.51112	.48898	2.0453	.50177	.51282
17	CCB1	-.00001	.00000	.00000	.00038	-.00055	.00180
18	DWND7B	.00035	-.00018	-.00009	.00018	-.00029	.00180
19	DWND7C	.04854	H1.9577	.04787	.19968	.48170	L.00152
20	DV7HM	-.00053	.00049	-.00014	.00001	.00040	.00182
21	DV7HMP5	.00002	.00127	-.00001	.00000	-.00067	.00194
22	DV7HMS	.05065	1.9943	.04813	.20487	.50121	.00186
23	DV7HMD	.04980	1.9724	.04749	.20119	.49199	.00220
24	DV7H0	.00035	.00036	.00006	.00076	.00018	.00269
25	DWPTEBF	-.00091	.00018	-.00029	-.00079	-.00026	-.00191
26	DWPTECF	.05064	2.0312	.04987	.20770	.50372	L.00158
27	DW3E5F	-.00020	.00204	-.00013	.00102	.00024	.00238
28	CCV3-2	1.0324	.50981	.49082	2.0488	.50704	.51690
29	CCB2	.00089	.00023	.00017	.00070	-.00021	.00129
30	DWND0B	.00000	.00004	.00018	-.00032	-.00201	.00281
31	DWND0C	.05027	1.9767	.04658	.19764	.49080	-.00008
32	DWHKC	.00178	.02490	.01401	.07390	.05705	.00718
33	DWHKCP5	.00057	.00323	.00271	.01416	.01058	.00186
34	DWHKCS	.05444	2.0911	.05858	.27525	.54846	.00685
35	DWHKCD	.05628	2.1380	.05980	.27963	.55954	.00826
36	DWJJMD Cr Rerun	.05491	2.0445	.04651	.25938	.50860	.52153
37	CCV3-3	1.0352	.51279	.49276	2.0539	.50828	.52065
38	CCB3	.00038	.00107	.00005	.00081	-.00089	.00028
39	DWPMRB	.00010	-.00043	-.00012	.00097	.00060	.00122
40	DWPMRC	.04982	1.9691	.04843	.20286	.49509	L.00096
41	DWJCL	.00050	.00105	-.00018	.00096	.00007	.00221
42	DWJC2	.00021	-.00045	-.00015	.00045	-.00071	.00293
43	DWJEF	-.00022	.00214	.00167	.00055	.00191	.00176
44	DWJEFP5	-.00011	-.00016	.00039	-.00018	.00038	.00142
45	DWJEFS	.04356	1.7444	.04400	.17872	.43824	.00442
46	DWJEFD	.04273	1.7182	.04315	.17623	.43346	.00208
47	DWJEJ	.00021	.00102	.00011	.00110	-.00012	.00039
48	CCV3-4	1.0119	.49995	.47822	2.0111	.49744	.50971
49	CCB4	.00005	.00045	.00000	.00052	-.00044	.00345
50	DWJEFF	.00003	.00143	.00147	.00102	.00265	.00208
51	DWJEFP5F	.00032	.00021	.00037	.00047	-.00036	.00165
52	DWJEFSF	.04426	1.7423	.04374	.17944	.43739	.00170
53	DWJEFD	.04224	1.6734	.04224	.17240	.42004	.00221

WJD: Cr Runkeyed 3101 - All runs for Cr. PB 3101

#	Sample Name	AG	AS	CD	CR	PB	SB
54	DWJEJF	.00005	.00013	-.00014	.00103	.00082	.00156
55	CCV3-5	1.0205	.50354	.48790	2.0354	.50296	.51475
56	CCB5	.00040	.00051	-.00008	.00101	-.00090	.00163

#	Sample Name	SE	TL
1	STD1		-.02678
2	STD6		3.10408
3	STD7		
4	ICV3-1 0087-035-16	.26202	.51181
5	ICB1	.00158	-.00635
6	ICSA 0087-076-3	.00937	.00461
7	ICSAB 0087-081-6	1.0033	.97996
8	DWLOXB	.00407	-.00424
9	DWLOXC	1.9914	2.0582
10	DWJJM	.00271	.00269
11	DWJJMP5	-.00072	-.00374
12	DWJJMS	2.0592	2.2155
13	DWJJMD	2.0797	2.2159
14	DWJJ3	.00294	.00002
15	DWJKC	.00184	-.00482
16	CCV3-1 0087-076-2	.51767	1.0180
17	CCB1	.00102	-.00150
18	DWND7B	.00023	-.00211
19	DWND7C	H1.9471	H1.9331
20	DV7HM	.00421	-.00464
21	DV7HMP5	.00349	-.00241
22	DV7HMS	1.9898	2.0307
23	DV7HMD	1.9440	2.0134
24	DV7H0	.00153	-.00319
25	DWPTEBF	.00224	-.00277
26	DWPTECF	2.0198	2.0020
27	DW3E5F	.00110	-.00301
28	CCV3-2	.52061	1.0207
29	CCB2	.00135	-.00235
30	DWND0B	.00345	.00300
31	DWND0C	2.0849	2.0210
32	DWHKC	.01973	.01984
33	DWHKCP5	.00350	-.00057
34	DWHKCS	2.2474	2.2059
35	DWHKCD	2.3061	2.2479
36	DWJJMD Cr Rerun	2.0567	2.2058
37	CCV3-3	.52063	1.0244
38	CCB3	.00271	-.00050
39	DWPMRB	.00351	-.00579
40	DWPMRC	1.9535	1.9443
41	DWJCL	.00301	-.00312
42	DWJC2	.00184	-.00439
43	DWJEF	.00032	-.00304
44	DWJEFP5	-.00001	-.00187
45	DWJEFS	1.7237	1.7653
46	DWJEFD	1.6766	1.7364
47	DWJEJ	.00009	-.00493

#	Sample Name	SE	TL
48	CCV3-4	.51443	1.0090
49	CCB4	.00254	-.00457
50	DWJEFF	.00245	-.00388
51	DWJEFP5F	.00044	-.00203
52	DWJEFSF	1.7274	1.7579
53	DWJEFDf	1.6398	1.6999
54	DWJEJF	.00276	-.00336
55	CCV3-5	.51999	1.0176
56	CCB5	.00443	-.00318

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Analysis Report

Summary

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T463101

#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
1	STD1	T10301B	METTRA	03/01/01	10:36		X	IR
2	STD6	T10301B	METTRA	03/01/01	10:41		X	IR
3	STD7	T10301B	METTRA	03/01/01	10:45		X	IR
4	ICV3-1 0087-035-16	T10301B	METTRA	03/01/01	10:49	RJG	S	CONC
5	ICB1	T10301B	METTRA	03/01/01	10:54	RJG	S	CONC
6	ICSA 0087-076-3	T10301B	METTRA	03/01/01	10:58	RJG	Q	CONC
7	ICSAB 0087-081-6	T10301B	METTRA	03/01/01	11:02	RJG	Q	CONC
8	DWLOXB	T10301B	METTRA	03/01/01	11:10	RJG	S	CONC
9	DWLOXC	T10301B	METTRA	03/01/01	11:14	RJG	S	CONC
10	DWJJM	T10301B	METTRA	03/01/01	11:19	RJG	S	CONC
11	DWJJMP5	T10301B	METTRA	03/01/01	11:23	RJG	S	CONC
12	DWJJMS	T10301B	METTRA	03/01/01	11:27	RJG	S	CONC
13	DWJJMD	T10301B	METTRA	03/01/01	11:32	RJG	S	CONC
14	DWJJ3	T10301B	METTRA	03/01/01	11:36	RJG	S	CONC
15	DWJKC	T10301B	METTRA	03/01/01	11:41	RJG	S	CONC
16	CCV3-1 0087-076-2	T10301B	METTRA	03/01/01	11:45	RJG	S	CONC
17	CCB1	T10301B	METTRA	03/01/01	11:50	RJG	S	CONC
18	DWND7B	T10301B	METTRA	03/01/01	11:54	RJG	S	CONC
19	DWND7C	T10301B	METTRA	03/01/01	11:58	RJG	S	CONC
20	DV7HM	T10301B	METTRA	03/01/01	12:03	RJG	S	CONC
21	DV7HMP5	T10301B	METTRA	03/01/01	12:07	RJG	S	CONC
22	DV7HMS	T10301B	METTRA	03/01/01	12:12	RJG	S	CONC
23	DV7HMD	T10301B	METTRA	03/01/01	12:16	RJG	S	CONC
24	DV7H0	T10301B	METTRA	03/01/01	12:21	RJG	S	CONC
25	DWPTEBF	T10301B	METTRA	03/01/01	12:25	RJG	S	CONC
26	DWPTECF	T10301B	METTRA	03/01/01	12:29	RJG	S	CONC
27	DW3E5F	T10301B	METTRA	03/01/01	12:34	RJG	S	CONC
28	CCV3-2	T10301B	METTRA	03/01/01	12:38	RJG	S	CONC
29	CCB2	T10301B	METTRA	03/01/01	12:43	RJG	S	CONC
30	DWND0B	T10301B	METTRA	03/01/01	12:48	RJG	S	CONC
31	DWND0C	T10301B	METTRA	03/01/01	12:52	RJG	S	CONC
32	DWHKC	T10301B	METTRA	03/01/01	12:57	RJG	S	CONC
33	DWHKCP5	T10301B	METTRA	03/01/01	13:01	RJG	S	CONC
34	DWHKCS	T10301B	METTRA	03/01/01	13:06	RJG	S	CONC
35	DWHKCD	T10301B	METTRA	03/01/01	13:10	RJG	S	CONC
36	DWJJMD Cr Rerun	T10301B	METTRA	03/01/01	13:14	RJG	S	CONC
37	CCV3-3	T10301B	METTRA	03/01/01	13:19	RJG	S	CONC
38	CCB3	T10301B	METTRA	03/01/01	13:23	RJG	S	CONC
39	DWPMRB	T10301B	METTRA	03/01/01	13:30	RJG	S	CONC
40	DWPMRC	T10301B	METTRA	03/01/01	13:35	RJG	S	CONC
41	DWJCL	T10301B	METTRA	03/01/01	13:39	RJG	S	CONC
42	DWJC2	T10301B	METTRA	03/01/01	13:44	RJG	S	CONC
43	DWJEF	T10301B	METTRA	03/01/01	13:48	RJG	S	CONC
44	DWJEFP5	T10301B	METTRA	03/01/01	13:52	RJG	S	CONC
45	DWJEFS	T10301B	METTRA	03/01/01	13:57	RJG	S	CONC
46	DWJEFD	T10301B	METTRA	03/01/01	14:01	RJG	S	CONC
47	DWJEJ	T10301B	METTRA	03/01/01	14:06	RJG	S	CONC
48	CCV3-4	T10301B	METTRA	03/01/01	14:10	RJG	S	CONC
49	CCB4	T10301B	METTRA	03/01/01	14:15	RJG	S	CONC
50	DWJEFF	T10301B	METTRA	03/01/01	14:24	RJG	S	CONC
51	DWJEFP5F	T10301B	METTRA	03/01/01	14:29	RJG	S	CONC
52	DWJEFSF	T10301B	METTRA	03/01/01	14:33	RJG	S	CONC
53	DWJEFD	T10301B	METTRA	03/01/01	14:38	RJG	S	CONC

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Analysis Report

Summary

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#	Sample Name	File	Method	Date	Time	OpID	Type	Mode
54	DWJEJF	T10301B	METTRA	03/01/01	14:42	RJG	S	CONC
55	CCV3-5	T10301B	METTRA	03/01/01	14:47	RJG	S	CONC
56	CCB5	T10301B	METTRA	03/01/01	14:51	RJG	S	CONC

Method: METTRA Standard: STD1
Run Time: 03/01/01 10:36:41

Elem	AG	AL	AS	BA	BE	CA	CD
Avge	-.00175	.14412	-.01003	.00032	-.03076	.00218	.00294
SDev	.00259	.00014	.00870	.00033	.00107	.00006	.00013
%RSD	148.34	.09672	86.755	103.64	3.4889	2.6186	4.2535
#1	-.00358	.14422	-.00388	.00055	-.03000	.00222	.00286
#2	.00009	.14402	-.01619	.00009	-.03152	.00214	.00303
Elem	CO	CR	CU	FE	MG	MN	MO
Avge	-.00102	.00350	.00094	.00026	.00004	.00205	.00132
SDev	.00042	.00024	.00006	.00012	.00030	.00012	.00042
%RSD	41.389	6.7445	6.5824	47.003	710.83	5.7383	32.080
#1	-.00072	.00367	.00089	.00034	.00026	.00213	.00102
#2	-.00132	.00333	.00098	.00017	-.00017	.00196	.00162
Elem	NI	PB/1	PB/2	SB/1	SB/2	SE/1	SE/2
Avge	.00132	.05051	-.00064	.01651	-.00713	-.13293	.06247
SDev	.00006	.00185	.00537	.00438	.01178	.01971	.01096
%RSD	4.7163	3.6678	833.85	26.527	165.08	14.824	17.540
#1	.00128	.05182	.00315	.01960	.00119	-.14686	.05472
#2	.00137	.04920	-.00444	.01341	-.01546	-.11899	.07022
Elem	TL	V	ZN				
Avge	-.02679	.00004	-.00062				
SDev	.00708	.00006	.00003				
%RSD	26.424	141.42	4.7223				
#1	-.03179	.00009	-.00064				
#2	-.02178	.00000	-.00060				

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11719	--	--	--	--	--	--
SDev	18.10235	--	--	--	--	--	--
%RSD	.1544661	--	--	--	--	--	--
#1	11732	--	--	--	--	--	--
#2	11706	--	--	--	--	--	--

Method: METTRA

Standard: STD6

Run Time: 03/01/01 10:41:11

0087-084-1

Elem	AG	AS	CD	PB/1	PB/2	SB/1	SB/2
Avge	9.2253	5.6134	11.752	4.4384	6.2130	7.4809	3.9472
SDev	.0068	.0468	.071	.0004	.0304	.0164	.0099
%RSD	.07361	.83434	.60441	.00909	.48870	.21962	.24959

#1	9.2301	5.6465	11.802	4.4381	6.2345	7.4693	3.9541
#2	9.2205	5.5803	11.702	4.4387	6.1915	7.4925	3.9402

Elem	SE/1	SE/2	TL
Avge	4.5854	3.2653	3.1041
SDev	.0421	.0177	.0363
%RSD	.91748	.54262	1.1689

#1	4.6152	3.2528	3.1297
#2	4.5557	3.2778	3.0784

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11779	--	--	--	--	--	--
SDev	6.965416	--	--	--	--	--	--
%RSD	.0591320	--	--	--	--	--	--

#1	11784	--	--	--	--	--	--
#2	11774	--	--	--	--	--	--

Method: METTRA Standard: STD7
Run Time: 03/01/01 10:45:39

0087.0842

Elem	AL	BA	BE	CA	CO	CR	CU
Avge	5.1770	12.331	10.322	4.2725	2.3734	9.0635	2.7661
SDev	.0022	.052	.047	.0254	.0080	.0349	.0033
%RSD	.04301	.42546	.45997	.59505	.33528	.38498	.11790
#1	5.1785	12.294	10.289	4.2545	2.3678	9.0388	2.7638
#2	5.1754	12.368	10.356	4.2905	2.3790	9.0882	2.7684
Elem	FE	MG	MN	MO	NI	V	ZN
Avge	2.6987	11.288	7.1791	2.2896	1.8592	.70795	2.2017
SDev	.0067	.025	.0160	.0165	.0277	.00423	.0170
%RSD	.24908	.21793	.22307	.71901	1.4899	.59809	.77354
#1	2.6939	11.270	7.1678	2.2779	1.8396	.70495	2.1896
#2	2.7034	11.305	7.1905	2.3012	1.8788	.71094	2.2137
IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11677	--	--	--	--	--	--
SDev	8.909269	--	--	--	--	--	--
%RSD	.0762992	--	--	--	--	--	--
#1	11683	--	--	--	--	--	--
#2	11670	--	--	--	--	--	--

Method: METTRA

Slope = Conc(SIR)/IR

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
AG	328.068	STD6	STD1	.216754	.000379	03/01/01 10:45:39
AL	308.215	STD7	STD1	9.95067	-1.43410	03/01/01 10:45:39
AS	189.042	STD6	STD1	.177827	.001784	03/01/01 10:45:39
BA	493.409	STD7	STD1	.324390	-.000104	03/01/01 10:45:39
BE	313.042	STD7	STD1	.383205	.011788	03/01/01 10:45:39
CA	317.933	STD7	STD1	23.4173	-.050953	03/01/01 10:45:39
CD	226.502	STD6	STD1	.085115	-.000251	03/01/01 10:45:39
CO	228.616	STD7	STD1	1.68461	.001726	03/01/01 10:45:39
CR	267.716	STD7	STD1	.441435	-.001544	03/01/01 10:45:39
CU	324.753	STD7	STD1	1.44655	-.001358	03/01/01 10:45:39
FE	271.441	STD7	STD1	18.6507	-.004773	03/01/01 10:45:39
MG	279.078	STD7	STD1	8.85934	-.000376	03/01/01 10:45:39
MN	257.610	STD7	STD1	.557328	-.001141	03/01/01 10:45:39
MO	202.030	STD7	STD1	1.74807	-.002313	03/01/01 10:45:39
NI	231.604	STD7	STD1	2.15144	-.002846	03/01/01 10:45:39
PB/1	220.351	STD6	STD1	.227901	-.011512	03/01/01 10:45:39
PB/2	220.352	STD6	STD1	.160937	.000104	03/01/01 10:45:39
PB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SB/1	206.831	STD6	STD1	.133969	-.002212	03/01/01 10:45:39
SB/2	206.832	STD6	STD1	.252889	.001804	03/01/01 10:45:39
SB	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
SE/1	196.021	STD6	STD1	.211938	.028172	03/01/01 10:45:39
SE/2	196.022	STD6	STD1	.312222	-.019504	03/01/01 10:45:39
SE	220.353	NONE	NONE	.000000	.000000	*NOT STANDARDIZED
TL	190.864	STD6	STD1	.638799	.017112	03/01/01 10:45:39
V	292.402	STD7	STD1	5.62637	-.000240	03/01/01 10:45:39
ZN	213.856	STD7	STD1	1.82864	.001131	03/01/01 10:45:39

Method: METTRA Sample Name: ICV3-1 0087-035-16 Operator: RJG

Run Time: 03/01/01 10:49:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51796	12.289	.25793	1.0283	1.0294	25.712	.25250
SDev	.00194	.033	.00198	.0120	.0085	.221	.00346
%RSD	.37558	.27103	.76870	1.1654	.82666	.86100	1.3708
#1	.51933	12.266	.25933	1.0367	1.0355	25.869	.25495
#2	.51658	12.313	.25653	1.0198	1.0234	25.556	.25005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.55000	13.750	.27500	1.1000	1.1000	27.500	.27500
Low	.45000	11.250	.22500	.90000	.90000	22.500	.22500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0534	1.0391	1.0021	12.952	25.033	1.0336	1.0502
SDev	.0032	.0031	.0014	.028	.049	.0025	.0011
%RSD	.29923	.29364	.13754	.21388	.19411	.23730	.10109
#1	1.0556	1.0412	1.0031	12.932	25.067	1.0354	1.0509
#2	1.0512	1.0369	1.0012	12.971	24.999	1.0319	1.0494
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	1.1000	1.1000	13.750	27.500	1.1000	1.1000
Low	.90000	.90000	.90000	11.250	22.500	.90000	.90000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0296	.25752	.25698	.25716	.25651	.26454	.26187
SDev	.0309	.00143	.00108	.00024	.00016	.00407	.00277
%RSD	3.0016	.55639	.42027	.09458	.06312	1.5399	1.0582
#1	1.0515	.25651	.25774	.25733	.25639	.26166	.25991
#2	1.0077	.25854	.25621	.25699	.25662	.26742	.26382
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	1.1000			.27500			.27500
Low	.90000			.22500			.22500
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.26305	.26152	.26203	.51181	1.0359	1.0669	
SDev	.00054	.00718	.00497	.00774	.0069	.0133	
%RSD	.20517	2.7472	1.8974	1.5115	.66917	1.2512	
#1	.26343	.26660	.26554	.51728	1.0408	1.0763	
#2	.26267	.25644	.25851	.50634	1.0310	1.0574	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.27500	.55000	1.1000	1.1000	
Low			.22500	.45000	.90000	.90000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11722	--	--	--	--	--	--
SDev	17.53680	--	--	--	--	--	--
%RSD	.1496097	--	--	--	--	--	--
#1	11734	--	--	--	--	--	--
#2	11709	--	--	--	--	--	--

677 1050

Method: METTRA Sample Name: ICB1

Operator: RJG

Run Time: 03/01/01 10:54:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.01110	-.00132	.00031	-.00017	.03397	.00005
SDev	.00054	.01838	.00042	.00007	.00112	.00021	.00018
%RSD	257.48	165.64	31.914	22.720	649.16	.60594	331.99
#1	-.00059	.02410	-.00162	.00026	.00062	.03383	.00018
#2	.00017	-.00190	-.00102	.00036	-.00097	.03412	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00042	-.00029	.00033	-.00239	.00766	.00042	.00259
SDev	.00000	.00033	.00080	.00114	.00597	.00003	.00138
%RSD	.76226	114.20	242.57	47.468	77.896	7.1533	53.084
#1	.00042	-.00052	-.00024	-.00159	.00344	.00044	.00356
#2	.00041	-.00006	.00089	-.00320	.01189	.00040	.00162
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00182	-.00227	.00064	-.00033	-.00112	.00342	.00191
SDev	.00013	.00269	.00131	.00002	.00146	.00324	.00168
%RSD	7.3401	118.29	204.20	6.7547	130.45	94.754	87.771
#1	-.00192	-.00418	.00157	-.00035	-.00009	.00113	.00072
#2	-.00173	-.00037	-.00028	-.00031	-.00216	.00572	.00309
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00067	.00204	.00159	-.00636	.00025	.00177	
SDev	.00112	.00618	.00449	.00228	.00069	.00022	
%RSD	165.39	302.85	283.39	35.885	279.55	12.650	
#1	.00146	.00641	.00476	-.00475	-.00024	.00161	
#2	-.00011	-.00233	-.00159	-.00797	.00073	.00193	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11581	--	--	--	--	--	--
SDev	28.07228	--	--	--	--	--	--
%RSD	.2424015	--	--	--	--	--	--
#1	11601	--	--	--	--	--	--
#2	11561	--	--	--	--	--	--

Method: METTRA Sample Name: ICSA 0087-076-3 Operator: RJG
 Run Time: 03/01/01 10:58:29
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00033	537.34	.00142	.00215	-.00130	489.42	-.00031
SDev	.00000	8.43	.00060	.00007	.00096	.33	.00077
%RSD	.09521	1.5692	41.922	3.4264	73.851	.06824	245.06

#1	-.00033	531.38	.00185	.00220	-.00062	489.18	-.00086
#2	-.00033	543.31	.00100	.00210	-.00198	489.66	.00023

Errors	NOCHECK	QC Pass	NOCHECK	NOCHECK	NOCHECK	QC Pass	NOCHECK
Value		500.00				500.00	
Range		20.000				20.000	

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00035	-.00006	-.00250	206.94	542.09	.00693	-.00239
SDev	.00054	.00045	.00144	.78	1.93	.00028	.00078
%RSD	152.55	715.83	57.340	.37648	.35601	4.0663	32.752

#1	.00073	-.00038	-.00352	206.39	540.72	.00673	-.00184
#2	-.00003	.00026	-.00149	207.49	543.45	.00713	-.00295

Errors	NOCHECK	NOCHECK	NOCHECK	QC Pass	QC Pass	NOCHECK	NOCHECK
Value				200.00	500.00		
Range				20.000	20.000		

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00226	-.00448	.00487	.00176	.00668	.00734	.00712
SDev	.00083	.00726	.00553	.00128	.00127	.00014	.00033
%RSD	36.579	161.94	113.54	72.496	19.007	1.9663	4.5824

#1	-.00168	.00065	.00096	.00086	.00578	.00744	.00689
#2	-.00285	-.00961	.00879	.00266	.00757	.00724	.00735

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value							
Range							

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00739	.01037	.00938	.00462	.01794	.00286
SDev	.00101	.00500	.00367	.00364	.00115	.00007
%RSD	13.649	48.274	39.183	78.760	6.4206	2.5074

#1	.00668	.00683	.00678	.00719	.01875	.00281
#2	.00811	.01391	.01198	.00205	.01712	.00291

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
Value						
Range						

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11046	--	--	--	--	--	--
SDev	4.878622	--	--	--	--	--	--
%RSD	.0441662	--	--	--	--	--	--
#1	11043	--	--	--	--	--	--
#2	11050	--	--	--	--	--	--

Method: METTRA Sample Name: ICSAB 0087-081-6 Operator: RJG
 Run Time: 03/01/01 11:02:56
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0665	525.69	.97802	.51918	.49056	475.29	.88902
SDev	.0003	16.71	.01810	.00364	.00223	.91	.01667
%RSD	.03033	3.1779	1.8511	.70033	.45400	.19243	1.8748
#1	1.0668	513.88	.99082	.52175	.49214	475.93	.90081
#2	1.0663	537.51	.96521	.51661	.48899	474.64	.87724
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	1.0000	500.00	1.0000	.50000	.50000	500.00	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48609	.49163	.54104	200.97	524.46	.50506	.96192
SDev	.00103	.00283	.00722	1.15	1.21	.00171	.00024
%RSD	.21106	.57591	1.3343	.57243	.23048	.33814	.02489
#1	.48537	.48963	.53594	200.16	523.61	.50385	.96175
#2	.48682	.49363	.54615	201.78	525.32	.50626	.96208
Errors	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass	QC Pass
Value	.50000	.50000	.50000	200.00	500.00	.50000	1.0000
Range	20.000	20.000	20.000	20.000	20.000	20.000	20.000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.94060	.95851	.94696	.95081	.99207	1.0162	1.0081
SDev	.04886	.00911	.00292	.00498	.00814	.0098	.0092
%RSD	5.1940	.94991	.30786	.52339	.82063	.96172	.91549
#1	.97514	.96495	.94903	.95433	.98631	1.0093	1.0016
#2	.90605	.95208	.94490	.94729	.99783	1.0231	1.0147
Errors	QC Pass	NOCHECK	NOCHECK	QC Pass	NOCHECK	NOCHECK	QC Pass
Value	1.0000			1.0000			1.0000
Range	20.000			20.000			20.000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.0091	1.0004	1.0033	.97997	.52030	1.0117	
SDev	.0112	.0048	.0005	.02448	.00915	.0273	
%RSD	1.1094	.47687	.05443	2.4986	1.7588	2.7003	
#1	1.0012	1.0038	1.0029	.99728	.52677	1.0310	
#2	1.0170	.99703	1.0037	.96265	.51383	.99237	
Errors	NOCHECK	NOCHECK	QC Pass	QC Pass	QC Pass	QC Pass	
Value			1.0000	1.0000	.50000	1.0000	
Range			20.000	20.000	20.000	20.000	

677 1055

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11404	--	--	--	--	--	--
SDev	47.16347	--	--	--	--	--	--
%RSD	.4135623	--	--	--	--	--	--
#1	11371	--	--	--	--	--	--
#2	11438	--	--	--	--	--	--

Method: METTRA Sample Name: DWL0XB

Operator: RJG

Run Time: 03/01/01 11:10:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00042	.01518	-.00021	.00018	-.00098	.04488	-.00013
SDev	.00020	.02900	.00081	.00001	.00124	.00098	.00012
%RSD	48.573	191.08	384.52	6.1394	126.83	2.1796	93.859

#1	-.00027	.03568	-.00078	.00017	-.00010	.04557	-.00022
#2	-.00056	-.00533	.00036	.00019	-.00186	.04419	-.00004

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	-.00040	.00083	.02980	.03206	-.00030	.00070
SDev	.00051	.00026	.00186	.00352	.00363	.00004	.00044
%RSD	878.36	65.223	224.86	11.804	11.313	12.592	62.809

#1	-.00030	-.00022	-.00049	.02732	.03462	-.00033	.00039
#2	.00041	-.00059	.00214	.03229	.02949	-.00027	.00101

Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00192	-.00069	.00164	.00086	.00002	.00155	.00104
SDev	.00027	.00202	.00092	.00006	.00342	.00157	.00009
%RSD	13.913	293.23	55.782	7.1096	15345.	101.01	8.9535

#1	-.00211	.00074	.00099	.00091	-.00239	.00266	.00098
#2	-.00173	-.00211	.00229	.00082	.00244	.00044	.00111

Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00027	.00625	.00408	-.00424	-.00071	.00078
SDev	.00090	.00178	.00149	.00114	.00068	.00017
%RSD	331.91	28.506	36.448	26.969	96.033	21.797

#1	.00036	.00750	H.00513	-.00505	-.00120	.00090
#2	-.00090	.00499	.00303	-.00343	-.00023	.00066

Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass
High			.00500	.01000	.05000	.02000
Low			-.00500	-.01000	-.05000	-.02000

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11606	--	--	--	--	--	--
SDev	54.30636	--	--	--	--	--	--
%RSD	.4678980	--	--	--	--	--	--
#1	11645	--	--	--	--	--	--
#2	11568	--	--	--	--	--	--

Method: METTRA Sample Name: DWLOXC

Operator: RJG

Run Time: 03/01/01 11:14:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05096	2.1121	1.9937	2.0230	.05125	50.804	.04729
SDev	.00029	.0209	.0312	.0038	.00213	.217	.00091
%RSD	.56057	.98979	1.5628	.18629	4.1491	.42763	1.9149
#1	.05076	2.0973	2.0157	2.0257	.05276	50.958	.04793
#2	.05116	2.1269	1.9716	2.0204	.04975	50.651	.04665
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51165	.20465	.25298	.89745	49.894	.50912	1.0244
SDev	.00096	.00036	.00475	.01925	.054	.00073	.0020
%RSD	.18669	.17425	1.8792	2.1446	.10733	.14318	.19995
#1	.51232	.20490	.24962	.91106	49.856	.50860	1.0230
#2	.51097	.20440	.25634	.88384	49.932	.50964	1.0259
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.49437	.50593	.49098	.49596	.48855	.51267	.50464
SDev	.01788	.00637	.00960	.00852	.00164	.00577	.00440
%RSD	3.6167	1.2585	1.9556	1.7188	.33544	1.1262	.87124
#1	.50701	.51043	.49777	.50198	.48971	.51675	.50775
#2	.48173	.50143	.48419	.48993	.48739	.50859	.50153
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.0173	1.9784	1.9914	2.0582	.50696	.51293	
SDev	.0101	.0151	.0134	.0602	.00124	.01168	
%RSD	.49939	.76342	.67435	2.9266	.24466	2.2764	
#1	2.0245	1.9891	2.0009	2.1008	.50783	.52119	
#2	2.0102	1.9677	1.9819	2.0156	.50608	.50467	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11505	--	--	--	--	--	--
SDev	98.64140	--	--	--	--	--	--
%RSD	.8573748	--	--	--	--	--	--
#1	11435	--	--	--	--	--	--
#2	11575	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJM

Operator: RJG

Run Time: 03/01/01 11:19:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00126	3.2071	.00529	.10535	-.00041	44.442	.00012
SDev	.00032	.0049	.00001	.00115	.00143	.383	.00008
%RSD	25.529	.15396	.26572	1.0938	347.37	.86223	68.027
#1	.00149	3.2106	.00530	.10617	.00060	44.713	.00006
#2	.00103	3.2036	.00528	.10454	-.00143	44.171	.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00243	.05123	.02768	3.1926	7.9629	.32527	.00762
SDev	.00038	.00088	.00042	.0049	.0302	.00032	.00145
%RSD	15.461	1.7167	1.5315	.15213	.37895	.09773	19.103
#1	.00269	.05185	.02738	3.1892	7.9843	.32549	.00865
#2	.00216	.05061	.02798	3.1960	7.9416	.32504	.00659
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00948	.00466	.00607	.00560	.00471	.00847	.00721
SDev	.00272	.00299	.00386	.00158	.00086	.00237	.00187
%RSD	28.721	64.135	63.604	28.188	18.211	28.050	25.913
#1	.01140	.00678	.00334	.00449	.00410	.00679	.00589
#2	.00755	.00255	.00880	.00672	.00531	.01015	.00854
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00463	.00176	.00272	.00270	.00969	.07340	
SDev	.00278	.00120	.00013	.00026	.00014	.00161	
%RSD	60.062	67.903	4.7528	9.5597	1.4561	2.1961	
#1	.00660	.00092	.00281	.00252	.00979	.07454	
#2	.00267	.00261	.00263	.00288	.00959	.07226	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

677 1061

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11457	--	--	--	--	--	--
SDev	185.0148	--	--	--	--	--	--
%RSD	1.614852	--	--	--	--	--	--
#1	11326	--	--	--	--	--	--
#2	11588	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJMP5

Operator: RJG

Run Time: 03/01/01 11:23:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00039	.61392	.00164	.02152	-.00070	9.0299	.00009
SDev	.00015	.03425	.00045	.00023	.00212	.0547	.00016
%RSD	37.641	5.5792	27.244	1.0816	301.27	.60555	182.19
#1	.00049	.63814	.00196	.02169	.00079	9.0686	.00021
#2	.00029	.58970	.00132	.02136	-.00220	8.9912	-.00003

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00070	.01000	.00669	.63808	1.6025	.06536	.00163
SDev	.00032	.00015	.00230	.01690	.0043	.00004	.00045
%RSD	44.968	1.4714	34.422	2.6477	.26559	.05764	27.686
#1	.00048	.01010	.00507	.62613	1.6055	.06538	.00195
#2	.00093	.00989	.00832	.65002	1.5995	.06533	.00131

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00052	.00210	.00115	.00146	.00083	.00446	.00325
SDev	.00160	.00244	.00210	.00059	.00211	.00221	.00077
%RSD	309.56	115.89	183.19	40.170	256.06	49.427	23.608
#1	.00165	.00383	-.00034	.00105	-.00067	.00602	.00379
#2	-.00062	.00038	.00263	.00188	.00232	.00290	.00271

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00223	-.00220	-.00073	-.00374	.00169	.01508
SDev	.00154	.00215	.00195	.00031	.00035	.00041
%RSD	69.013	97.637	268.25	8.3010	20.690	2.7189
#1	.00114	-.00372	-.00210	-.00352	.00193	.01537
#2	.00332	-.00068	.00065	-.00396	.00144	.01479

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11532	--	--	--	--	--	--
SDev	65.79615	--	--	--	--	--	--
%RSD	.5705317	--	--	--	--	--	--
#1	11486	--	--	--	--	--	--
#2	11579	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJMS

Operator: RJG

Run Time: 03/01/01 11:27:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05462	6.4984	2.0714	2.1417	.05201	94.768	.04665
SDev	.00066	.1026	.0239	.0093	.00193	.077	.00086
%RSD	1.2105	1.5785	1.1559	.43587	3.7031	.08097	1.8431
#1	.05508	6.4259	2.0883	2.1483	.05337	94.822	.04726
#2	.05415	6.5710	2.0545	2.1351	.05064	94.714	.04604
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51417	.25870	.30157	4.0748	59.752	.84096	1.0266
SDev	.00043	.00015	.00317	.0028	.278	.00289	.0066
%RSD	.08381	.05657	1.0512	.06808	.46468	.34391	.63927
#1	.51387	.25860	.29933	4.0728	59.556	.83891	1.0219
#2	.51448	.25880	.30381	4.0768	59.948	.84300	1.0312
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51179	.52455	.50088	.50876	.50287	.53334	.52319
SDev	.01901	.00217	.00895	.00669	.00003	.00598	.00398
%RSD	3.7138	.41297	1.7862	1.3148	.00592	1.1216	.76073
#1	.52523	.52608	.50721	.51349	.50285	.53757	.52600
#2	.49835	.52302	.49456	.50403	.50289	.52911	.52038
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0842	2.0468	2.0592	2.2155	.53136	.60076	
SDev	.0190	.0331	.0284	.0388	.00074	.01240	
%RSD	.91171	1.6174	1.3795	1.7528	.13961	2.0647	
#1	2.0977	2.0702	2.0793	2.2430	.53189	.60953	
#2	2.0708	2.0234	2.0392	2.1880	.53084	.59199	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11588	--	--	--	--	--	--
SDev	76.26188	--	--	--	--	--	--
%RSD	.6581150	--	--	--	--	--	--
#1	11534	--	--	--	--	--	--
#2	11642	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJMD

Operator: RJG

Run Time: 03/01/01 11:32:19

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05642	6.6327	2.0702	2.1460	.05153	95.264	.04706
SDev	.00014	.1967	.0185	.0074	.00218	.104	.00059
%RSD	.24850	2.9657	.89180	.34677	4.2230	.10891	1.2546
#1	.05632	6.4936	2.0832	2.1513	.05307	95.190	.04747
#2	.05651	6.7718	2.0571	2.1408	.04999	95.337	.04664
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51678	.36910	.30707	6.7229	59.884	.86006	1.0632
SDev	.00064	.00253	.00584	.0533	.367	.00419	.0068
%RSD	.12378	.68572	1.9030	.79271	.61238	.48766	.64029
#1	.51633	.36731	.30294	6.6852	59.625	.85709	1.0584
#2	.51723	.37089	.31120	6.7606	60.144	.86302	1.0680
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51986	.52903	.50987	.51625	.51074	.53270	.52539
SDev	.02143	.00005	.00557	.00373	.00386	.00070	.00082
%RSD	4.1215	.00930	1.0918	.72240	.75641	.13181	.15572
#1	.53501	.52907	.51381	.51889	.50800	.53320	.52481
#2	.50471	.52900	.50594	.51362	.51347	.53220	.52596
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0737	2.0827	2.0797	2.2159	.54230	.60132	
SDev	.0082	.0190	.0099	.0527	.00371	.01310	
%RSD	.39682	.91018	.47622	2.3803	.68458	2.1784	
#1	2.0679	2.0961	2.0867	2.2532	.54492	.61058	
#2	2.0795	2.0693	2.0727	2.1786	.53967	.59206	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11295	--	--	--	--	--	--
SDev	26.44607	--	--	--	--	--	--
%RSD	.2341458	--	--	--	--	--	--
#1	11276	--	--	--	--	--	--
#2	11313	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJ3

Operator: RJG

Run Time: 03/01/01 11:36:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00151	.29476	.05092	.11168	-.00073	49.503	.00108
SDev	.00073	.04463	.00042	.00095	.00203	.196	.00002
%RSD	48.244	15.142	.83087	.85380	279.29	.39629	1.9744
#1	.00099	.32632	.05122	.11235	.00071	49.642	.00109
#2	.00202	.26320	.05063	.11100	-.00217	49.365	.00106
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00180	.08737	.02915	.31420	11.510	.20358	.00553
SDev	.00071	.00115	.00205	.00259	.027	.00042	.00027
%RSD	39.675	1.3146	7.0229	.82513	.23870	.20873	4.8816
#1	.00129	.08656	.02770	.31237	11.491	.20328	.00534
#2	.00230	.08818	.03059	.31603	11.529	.20389	.00572
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00929	.00476	.00140	.00252	.00431	.01216	.00955
SDev	.00071	.00360	.00175	.00003	.00270	.00169	.00023
%RSD	7.6213	75.645	125.00	1.3909	62.587	13.871	2.3703
#1	.00879	.00222	.00263	.00249	.00622	.01097	.00939
#2	.00979	.00731	.00016	.00254	.00240	.01335	.00971
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00274	.00305	.00295	.00003	.00083	.13555	
SDev	.00326	.00244	.00271	.00181	.00001	.00302	
%RSD	118.84	79.778	91.859	6632.0	.58764	2.2278	
#1	.00504	.00478	.00486	-.00125	.00083	.13769	
#2	.00044	.00133	.00103	.00131	.00083	.13342	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11699	--	--	--	--	--	--
SDev	70.03948	--	--	--	--	--	--
%RSD	.5986754	--	--	--	--	--	--
#1	11650	--	--	--	--	--	--
#2	11749	--	--	--	--	--	--

Method: METTRA Sample Name: DWJKC

Operator: RJG

Run Time: 03/01/01 11:41:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00068	.37905	.02019	.07598	-.00061	38.152	.00099
SDev	.00001	.03224	.00032	.00002	.00212	.087	.00009
%RSD	1.8749	8.5054	1.6028	.02263	347.80	.22810	8.8748
#1	.00068	.40185	.01996	.07599	.00089	38.090	.00105
#2	.00069	.35625	.02041	.07596	-.00211	38.213	.00093
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00263	.02033	.03507	.57078	9.0821	.55170	.00344
SDev	.00026	.00025	.00246	.01533	.0542	.00336	.00031
%RSD	9.7225	1.2181	7.0117	2.6864	.59667	.60863	9.0710
#1	.00281	.02016	.03333	.55993	9.0438	.54933	.00322
#2	.00244	.02051	.03681	.58162	9.1204	.55407	.00366
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.01048	-.00043	.00157	.00090	.01491	.02049	.01863
SDev	.00012	.00063	.00167	.00090	.00177	.00212	.00200
%RSD	1.1275	145.57	106.12	99.855	11.848	10.361	10.757
#1	.01040	.00001	.00039	.00027	.01616	.02199	.02005
#2	.01057	-.00087	.00275	.00154	.01366	.01899	.01722
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00260	.00146	.00184	-.00482	.00140	H5.4105	
SDev	.00506	.00649	.00602	.00220	.00000	.1103	
%RSD	194.11	444.88	326.73	45.590	.28478	2.0392	
#1	-.00097	-.00313	-.00241	-.00327	.00139	H5.4886	
#2	.00618	.00605	.00609	-.00638	.00140	H5.3325	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC High	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11703	--	--	--	--	--	--
SDev	10.18261	--	--	--	--	--	--
%RSD	.0870071	--	--	--	--	--	--
#1	11696	--	--	--	--	--	--
#2	11710	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-1 0087-076-2 Operator: RJG
 Run Time: 03/01/01 11:45:36
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.0322	25.131	.51112	2.0373	2.0474	50.867	.48899
SDev	.0049	.670	.00475	.0150	.0047	.249	.01210
%RSD	.47499	2.6669	.92860	.73773	.22870	.48984	2.4743
#1	1.0357	24.657	.51448	2.0479	2.0507	51.043	.49754
#2	1.0287	25.605	.50776	2.0267	2.0441	50.691	.48043
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.0523	2.0453	2.0109	25.365	49.862	2.0343	2.0556
SDev	.0046	.0005	.0132	.109	.023	.0023	.0070
%RSD	.22242	.02210	.65648	.43126	.04602	.11227	.34067
#1	2.0555	2.0450	2.0016	25.288	49.878	2.0359	2.0507
#2	2.0491	2.0457	2.0203	25.442	49.846	2.0327	2.0606
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9944	.50139	.50197	.50177	.50763	.51542	.51283
SDev	.0920	.00263	.01048	.00786	.00163	.00354	.00291
%RSD	4.6141	.52349	2.0877	1.5672	.32092	.68731	.56654
#1	2.0594	.50325	.50938	.50733	.50879	.51792	.51488
#2	1.9293	.49953	.49456	.49621	.50648	.51291	.51077
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.52125	.51589	.51768	1.0180	2.0254	2.0351	
SDev	.00043	.00712	.00489	.0225	.0146	.0534	
%RSD	.08175	1.3794	.94433	2.2133	.71951	2.6226	
#1	.52155	.52092	.52113	1.0339	2.0357	2.0728	
#2	.52095	.51086	.51422	1.0020	2.0151	1.9973	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11748	--	--	--	--	--	--
SDev	27.89550	--	--	--	--	--	--
%RSD	.2374484	--	--	--	--	--	--
#1	11728	--	--	--	--	--	--
#2	11768	--	--	--	--	--	--

Method: METTRA Sample Name: CCB1

Operator: RJG

Run Time: 03/01/01 11:50:01

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00001	-.00011	-.00001	.00033	-.00012	.21240	-.00000
SDev	.00077	.04031	.00143	.00008	.00225	.00351	.00006
%RSD	5451.0	37084.	15956.	23.646	1848.2	1.6537	4885.2
#1	-.00056	.02840	.00100	.00039	.00147	.20991	-.00004
#2	.00053	-.02861	-.00102	.00028	-.00171	.21488	.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00071	.00038	.00112	.00970	.00921	.00096	.00373
SDev	.00031	.00067	.00155	.01598	.00382	.00003	.00127
%RSD	43.444	174.76	139.36	164.71	41.450	3.0270	33.960
#1	.00049	.00086	.00002	-.00160	.00651	.00098	.00463
#2	.00092	-.00009	.00221	.02100	.01191	.00094	.00284
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00256	-.00266	.00049	-.00056	.00128	.00206	.00180
SDev	.00092	.00013	.00077	.00047	.00028	.00123	.00091
%RSD	35.953	4.7366	157.10	84.537	21.431	59.502	50.494
#1	-.00322	-.00257	-.00005	-.00089	.00109	.00120	.00116
#2	-.00191	-.00275	.00104	-.00022	.00148	.00293	.00245
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00044	.00131	.00102	-.00150	.00122	.01079	
SDev	.00140	.00153	.00055	.00464	.00070	.00010	
%RSD	318.58	116.62	54.049	309.08	56.950	.87969	
#1	.00143	.00023	.00063	-.00478	.00073	.01086	
#2	-.00055	.00239	.00141	.00178	.00172	.01073	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11560	--	--	--	--	--	--
SDev	28.42583	--	--	--	--	--	--
%RSD	.2458982	--	--	--	--	--	--
#1	11580	--	--	--	--	--	--
#2	11540	--	--	--	--	--	--

Method: METTRA Sample Name: DWND7B

Operator: RJG

Run Time: 03/01/01 11:54:27

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00035	-.00056	-.00018	.00021	-.00038	.02909	-.00010
SDev	.00022	.06658	.00068	.00001	.00203	.00330	.00009
%RSD	63.976	11789.	368.91	6.5309	532.91	11.355	99.623
#1	.00051	.04651	.00030	.00022	.00105	.02675	-.00016
#2	.00019	-.04764	-.00067	.00020	-.00181	.03142	-.00003
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00074	.00018	.00117	.00567	.00500	-.00020	.00072
SDev	.00027	.00078	.00196	.00358	.00115	.00002	.00047
%RSD	36.509	432.03	168.24	63.164	23.032	11.155	65.005
#1	.00055	.00073	-.00022	.00821	.00581	-.00022	.00105
#2	.00093	-.00037	.00255	.00314	.00418	-.00018	.00039
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00219	-.00247	.00078	-.00030	-.00032	.00286	.00180
SDev	.00012	.00168	.00158	.00049	.00114	.00364	.00205
%RSD	5.6409	68.114	201.30	163.97	355.56	127.23	113.66
#1	-.00228	-.00366	.00190	.00005	.00049	.00029	.00035
#2	-.00211	-.00128	-.00033	-.00065	-.00113	.00543	.00325
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00076	-.00002	.00024	-.00211	.00098	.00265	
SDev	.00371	.00253	.00292	.00359	.00033	.00024	
%RSD	487.83	12475.	1217.7	170.26	33.552	9.1714	
#1	-.00186	-.00181	-.00183	.00043	.00075	.00282	
#2	.00339	.00177	.00231	-.00465	.00121	.00248	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11554	--	--	--	--	--	--
SDev	143.8603	--	--	--	--	--	--
%RSD	1.245158	--	--	--	--	--	--
#1	11452	--	--	--	--	--	--
#2	11655	--	--	--	--	--	--

Note: Disregard error flags - incorrect check table assigned to sample.
 Analysis Report Recovery of Pb is acceptable 03/01/01 12:03:16 PM

Method: METTRA Sample Name: DWND7C Operator: RJG
 Run Time: 03/01/01 11:58:53
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP 677 1078
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04854	1.8432	H1.9577	1.9540	.05059	.01486	.04787
SDev	.00074	.0044	.0300	.0131	.00233	.00409	.00055
%RSD	1.5231	.24059	1.5341	.67223	4.5979	27.550	1.1463

#1	.04802	1.8401	H1.9789	1.9633	.05224	.01196	.04826
#2	.04906	1.8463	H1.9364	1.9447	.04895	.01775	.04748

Errors	NOCHECK	NOCHECK	LC High	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High			1.1650				
Low			.69000				

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51007	.19968	.23829	.99303	.00230	.49682	.00041
SDev	.00028	.00113	.00258	.01498	.00378	.00003	.00001
%RSD	.05577	.56766	1.0815	1.5089	164.54	.00604	2.0572

#1	.50987	.19888	.23646	.98243	-.00038	.49680	.00041
#2	.51027	.20049	.24011	1.0036	.00498	.49684	.00040

Errors	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK	NOCHECK
High							
Low							

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48882	.48330	.48091	.48171	-.00061	.00259	L.00153
SDev	.02007	.00207	.00351	.00303	.00107	.00209	.00103
%RSD	4.1050	.42901	.72950	.62910	176.15	80.495	67.796

#1	.50301	.48477	.48339	.48385	.00015	.00112	L.00079
#2	.47464	.48184	.47843	.47956	-.00137	.00407	.00226

Errors	NOCHECK	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High				.74000			.34050
Low				.45450			.00210

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.9720	1.9346	H1.9471	H1.9331	.48932	.50441
SDev	.0024	.0052	.0026	.0521	.00090	.01320
%RSD	.12272	.26719	.13569	2.6966	.18447	2.6169

#1	1.9703	1.9382	H1.9489	H1.9699	.48869	.51375
#2	1.9737	1.9309	H1.9452	H1.8962	.48996	.49508

Errors	NOCHECK	NOCHECK	LC High	LC High	NOCHECK	NOCHECK
High			.94000	.57500		
Low			.55500	.23000		

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11564	--	--	--	--	--	--
SDev	35.70889	--	--	--	--	--	--
%RSD	.3087989	--	--	--	--	--	--
#1	11539	--	--	--	--	--	--
#2	11589	--	--	--	--	--	--

Method: METTRA Sample Name: DV7HM

Operator: RJG

Run Time: 03/01/01 12:03:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00054	.04693	.00050	.04699	-.00020	15.442	-.00015
SDev	.00056	.03787	.00121	.00005	.00218	.044	.00015
%RSD	103.20	80.688	243.50	.11278	1090.2	.28778	103.06
#1	-.00093	.07371	-.00036	.04695	.00134	15.411	-.00026
#2	-.00015	.02015	.00135	.04703	-.00174	15.473	-.00004
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00049	.00002	.00511	10.278	3.2849	.13560	-.00050
SDev	.00000	.00038	.00234	.117	.0247	.00113	.00043
%RSD	.07183	1995.3	45.870	1.1366	.75304	.83180	85.334
#1	.00049	-.00025	.00345	10.195	3.2674	.13480	-.00080
#2	.00049	.00029	.00676	10.361	3.3024	.13640	-.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00059	.00142	-.00010	.00041	-.00058	.00303	.00183
SDev	.00223	.00232	.00113	.00002	.00111	.00338	.00189
%RSD	377.23	163.96	1134.5	4.7132	191.48	111.60	103.15
#1	-.00099	-.00023	.00070	.00039	.00021	.00064	.00050
#2	.00217	.00306	-.00090	.00042	-.00137	.00543	.00316
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00288	.00488	.00422	-.00465	.00108	.05051	
SDev	.00086	.00115	.00048	.00078	.00038	.00118	
%RSD	29.814	23.574	11.417	16.747	35.378	2.3446	
#1	.00349	.00407	.00388	-.00520	.00081	.05135	
#2	.00228	.00570	.00456	-.00410	.00135	.04967	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11580	--	--	--	--	--	--
SDev	3.288323	--	--	--	--	--	--
%RSD	.0283977	--	--	--	--	--	--
#1	11582	--	--	--	--	--	--
#2	11577	--	--	--	--	--	--

Method: METTRA Sample Name: DV7HMP5

Operator: RJG

Run Time: 03/01/01 12:07:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00003	.00836	.00127	.00928	-.00028	3.0274	-.00002
SDev	.00071	.05464	.00259	.00017	.00175	.0080	.00015
%RSD	2670.9	653.80	203.59	1.8079	624.52	.26296	831.94
#1	.00053	.04699	.00310	.00940	.00096	3.0331	-.00012
#2	-.00048	-.03028	-.00056	.00916	-.00151	3.0218	.00009
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00012	.00000	.00166	2.0243	.63840	.02676	-.00050
SDev	.00009	.00058	.00160	.0030	.00399	.00019	.00023
%RSD	68.945	16837.	96.317	.15011	.62537	.71172	46.617
#1	.00019	.00042	.00053	2.0265	.64123	.02690	-.00033
#2	.00006	-.00041	.00280	2.0222	.63558	.02663	-.00066
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00248	-.00078	-.00063	-.00068	.00039	.00273	.00195
SDev	.00157	.00091	.00097	.00035	.00445	.00013	.00139
%RSD	63.392	116.49	154.40	50.941	1148.6	4.8043	71.550
#1	-.00359	-.00014	-.00132	-.00092	.00353	.00263	.00293
#2	-.00137	-.00142	.00006	-.00043	-.00276	.00282	.00096
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00171	.00438	.00349	-.00241	.00094	.01057	
SDev	.00152	.00067	.00095	.00021	.00001	.00028	
%RSD	88.781	15.332	27.332	8.5039	.65452	2.6196	
#1	.00064	.00390	.00282	-.00256	.00094	.01077	
#2	.00279	.00485	.00417	-.00227	.00093	.01038	

677 1083

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11574	--	--	--	--	--	--
SDev	121.3745	--	--	--	--	--	--
%RSD	1.048662	--	--	--	--	--	--
#1	11488	--	--	--	--	--	--
#2	11660	--	--	--	--	--	--

Method: METTRA Sample Name: DV7HMS

Operator: RJG

Run Time: 03/01/01 12:12:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05066	2.0708	1.9943	2.0610	.05180	15.560	.04814
SDev	.00029	.0206	.0225	.0013	.00222	.033	.00068
%RSD	.56394	.99256	1.1279	.06268	4.2864	.21504	1.4053
#1	.05046	2.0563	2.0102	2.0619	.05337	15.583	.04861
#2	.05086	2.0853	1.9784	2.0601	.05023	15.536	.04766
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.52079	.20487	.25715	11.384	3.3192	.64692	.00005
SDev	.00065	.00137	.00558	.087	.0150	.00190	.00009
%RSD	.12523	.66803	2.1678	.76850	.45292	.29423	162.82
#1	.52033	.20391	.25321	11.322	3.3085	.64557	-.00001
#2	.52125	.20584	.26109	11.446	3.3298	.64827	.00012
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50178	.50690	.49838	.50122	-.00165	.00362	.00186
SDev	.02140	.00263	.00807	.00626	.00245	.00456	.00222
%RSD	4.2643	.51910	1.6187	1.2484	148.52	125.91	119.23
#1	.51692	.50876	.50408	.50564	.00008	.00040	.00029
#2	.48665	.50504	.49267	.49679	-.00339	.00684	.00344
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0042	1.9825	1.9898	2.0307	.50411	.57589	
SDev	.0106	.0134	.0125	.0366	.00406	.01429	
%RSD	.52691	.67577	.62584	1.8038	.80494	2.4806	
#1	2.0117	1.9920	1.9986	2.0566	.50698	.58599	
#2	1.9968	1.9731	1.9810	2.0048	.50124	.56579	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11445	--	--	--	--	--	--
SDev	93.47965	--	--	--	--	--	--
%RSD	.8167657	--	--	--	--	--	--
#1	11379	--	--	--	--	--	--
#2	11511	--	--	--	--	--	--

Method: METTRA Sample Name: DV7HMD

Operator: RJG

Run Time: 03/01/01 12:16:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04981	2.0535	1.9724	2.0493	.05143	14.991	.04749
SDev	.00141	.0163	.0302	.0169	.00253	.033	.00089
%RSD	2.8309	.79554	1.5312	.82466	4.9296	.21954	1.8822
#1	.04881	2.0420	1.9938	2.0612	.05323	15.014	.04812
#2	.05080	2.0651	1.9511	2.0373	.04964	14.967	.04686
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51338	.20120	.25568	10.993	3.2005	.63665	-.00056
SDev	.00154	.00101	.00381	.096	.0097	.00086	.00032
%RSD	.29939	.50353	1.4920	.87040	.30222	.13554	57.833
#1	.51229	.20048	.25298	10.925	3.1936	.63604	-.00079
#2	.51446	.20191	.25837	11.060	3.2073	.63726	-.00033
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49664	.49792	.48903	.49199	-.00164	.00412	.00220
SDev	.02456	.00179	.00378	.00193	.00117	.00045	.00009
%RSD	4.9443	.36050	.77381	.39154	71.357	10.962	4.0063
#1	.51400	.49665	.49171	.49335	-.00247	.00444	.00214
#2	.47928	.49919	.48636	.49063	-.00081	.00380	.00227
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9700	1.9311	1.9440	2.0134	.49872	.56000	
SDev	.0290	.0172	.0018	.0657	.00260	.01448	
%RSD	1.4745	.89166	.09321	3.2621	.52186	2.5860	
#1	1.9495	1.9432	1.9453	2.0598	.50056	.57024	
#2	1.9906	1.9189	1.9428	1.9670	.49688	.54976	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED ,	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11481	--	--	--	--	--	--
SDev	11.20806	--	--	--	--	--	--
%RSD	.0976233	--	--	--	--	--	--
#1	11489	--	--	--	--	--	--
#2	11473	--	--	--	--	--	--

Method: METTRA Sample Name: DV7H0

Operator: RJG

Run Time: 03/01/01 12:21:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00036	.05364	.00037	.02651	-.00035	11.853	.00007
SDev	.00030	.05452	.00172	.00024	.00218	.007	.00023
%RSD	82.764	101.64	467.60	.91793	625.75	.05741	352.81
#1	.00015	.09218	.00158	.02668	.00119	11.858	-.00010
#2	.00057	.01509	-.00085	.02634	-.00189	11.848	.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00047	.00076	.00222	5.5091	3.1390	.06294	-.00008
SDev	.00012	.00006	.00235	.0236	.0088	.00006	.00100
%RSD	24.828	8.1288	105.72	.42764	.28133	.09837	1247.3
#1	.00038	.00072	.00056	5.4925	3.1327	.06290	.00063
#2	.00055	.00081	.00389	5.5258	3.1452	.06299	-.00079
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00095	-.00045	.00051	.00019	-.00009	.00409	.00270
SDev	.00028	.00082	.00110	.00046	.00017	.00241	.00166
%RSD	29.807	183.75	216.50	242.11	193.51	58.822	61.566
#1	-.00075	-.00102	.00128	.00051	-.00021	.00239	.00152
#2	-.00115	.00013	-.00027	-.00013	.00003	.00579	.00387
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00166	.00312	.00153	-.00320	.00189	.03020	
SDev	.00175	.00006	.00055	.00220	.00036	.00094	
%RSD	105.52	1.8258	35.609	68.861	18.851	3.1263	
#1	-.00290	.00316	.00115	-.00164	.00164	.03087	
#2	-.00042	.00308	.00192	-.00476	.00214	.02953	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11375	--	--	--	--	--	--
SDev	99.70206	--	--	--	--	--	--
%RSD	.8764707	--	--	--	--	--	--
#1	11305	--	--	--	--	--	--
#2	11446	--	--	--	--	--	--

Method: METTRA Sample Name: DWPTEBF Operator: RJG
 Run Time: 03/01/01 12:25:30
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00092	.02049	.00018	.00026	-.00011	.01849	-.00029
SDev	.00063	.04598	.00032	.00008	.00214	.00292	.00025
%RSD	68.517	224.41	174.04	30.362	1859.2	15.790	85.789
#1	-.00136	.05300	.00041	.00021	.00139	.01643	-.00047
#2	-.00047	-.01202	-.00004	.00032	-.00162	.02056	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00063	-.00079	.00047	.00667	-.00694	-.00031	-.00064
SDev	.00083	.00014	.00223	.01144	.00055	.00007	.00108
%RSD	132.77	17.190	472.61	171.44	7.9110	21.948	169.48
#1	-.00121	-.00089	-.00111	-.00142	-.00656	-.00036	.00013
#2	-.00004	-.00070	.00205	.01476	-.00733	-.00027	-.00140
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00181	-.00326	.00122	-.00027	-.00192	-.00191	-.00191
SDev	.00066	.00295	.00050	.00065	.00145	.00013	.00040
%RSD	36.511	90.706	40.724	242.41	75.412	6.5462	20.778
#1	-.00135	-.00117	.00087	.00019	-.00089	-.00200	-.00163
#2	-.00228	-.00534	.00157	-.00073	-.00294	-.00183	-.00220
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00266	.00204	.00225	-.00278	-.00048	.00708	
SDev	.00140	.00407	.00225	.00511	.00034	.00028	
%RSD	52.559	199.65	100.05	184.04	71.064	3.9148	
#1	.00167	.00491	.00384	-.00639	-.00024	.00728	
#2	.00365	-.00084	.00066	.00084	-.00073	.00688	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11465	--	--	--	--	--	--
SDev	5.161741	--	--	--	--	--	--
%RSD	.0450205	--	--	--	--	--	--
#1	11469	--	--	--	--	--	--
#2	11462	--	--	--	--	--	--

Method: METTRA Sample Name: DWPTECF

Operator: RJG

Run Time: 03/01/01 12:29:55

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05065	1.9217	2.0312	2.0356	.05237	L.02054	.04987
SDev	.00079	.0209	.0212	.0084	.00228	.00340	.00058
%RSD	1.5540	1.0870	1.0436	.41487	4.3434	16.549	1.1553
#1	.05009	1.9070	2.0462	2.0416	.05398	L.01814	.05028
#2	.05120	1.9365	2.0162	2.0297	.05076	L.02294	.04947
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.53084	.20771	.24795	1.0488	L.00081	.51763	L-.00002
SDev	.00269	.00237	.00437	.0076	.00711	.00285	.00088
%RSD	.50693	1.1396	1.7620	.72632	879.55	.55034	3891.0
#1	.52894	.20603	.24486	1.0434	L-.00422	.51561	L-.00064
#2	.53274	.20938	.25104	1.0542	L.00584	.51964	L.00060
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50765	.50734	.50192	.50372	-.00010	.00242	L.00158
SDev	.02156	.00416	.00010	.00145	.00057	.00141	.00075
%RSD	4.2472	.82031	.01964	.28818	572.62	58.196	47.393
#1	.52290	.50440	.50185	.50270	-.00050	.00342	L.00212
#2	.49241	.51028	.50199	.50475	.00030	.00143	L.00105
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0422	2.0085	2.0198	2.0020	.50801	.52519	
SDev	.0226	.0092	.0137	.0550	.00502	.01039	
%RSD	1.1049	.45996	.67712	2.7469	.98830	1.9779	
#1	2.0263	2.0020	2.0101	2.0409	.50446	.53254	
#2	2.0582	2.0151	2.0294	1.9631	.51156	.51785	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11466	--	--	--	--	--	--
SDev	81.95395	--	--	--	--	--	--
%RSD	.7147562	--	--	--	--	--	--
#1	11524	--	--	--	--	--	--
#2	11408	--	--	--	--	--	--

Method: METTRA Sample Name: DW3E5F

Operator: RJG

Run Time: 03/01/01 12:34:21

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00021	.02439	.00205	.05849	-.00022	23.166	-.00013
SDev	.00016	.05379	.00034	.00026	.00198	.036	.00012
%RSD	80.003	220.55	16.703	.44118	898.66	.15356	88.359
#1	-.00032	.06243	.00229	.05867	.00118	23.191	-.00022
#2	-.00009	-.01365	.00181	.05830	-.00162	23.140	-.00005
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00096	.00103	.00149	-.01363	11.404	.06294	.01363
SDev	.00056	.00024	.00189	.00133	.023	.00004	.00099
%RSD	58.651	23.153	126.43	9.7617	.19966	.05816	7.2326
#1	.00136	.00119	.00016	-.01457	11.388	.06292	.01433
#2	.00056	.00086	.00283	-.01269	11.420	.06297	.01293
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00173	.00150	-.00038	.00024	-.00287	.00500	.00238
SDev	.00184	.00005	.00054	.00038	.00108	.00049	.00069
%RSD	106.30	3.3534	141.57	153.43	37.496	9.8739	28.923
#1	-.00303	.00146	-.00076	-.00002	-.00364	.00465	.00189
#2	-.00043	.00153	.00000	.00051	-.00211	.00535	.00287
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00090	.00121	.00111	-.00301	-.00024	.00551	
SDev	.00034	.00377	.00240	.00407	.00000	.00027	
%RSD	37.321	310.94	216.95	135.21	.18576	4.8863	
#1	.00066	.00388	.00281	-.00013	-.00024	.00570	
#2	.00113	-.00145	-.00059	-.00589	-.00024	.00532	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

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IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11515	--	--	--	--	--	--
SDev	91.81754	--	--	--	--	--	--
%RSD	.7973855	--	--	--	--	--	--
#1	11450	--	--	--	--	--	--
#2	11580	--	--	--	--	--	--

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Method: METTRA Sample Name: CCV3-2

Operator: RJG

Run Time: 03/01/01 12:38:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0324	24.903	.50982	2.0301	2.0496	50.905	.49082
SDev	.0016	.730	.00858	.0109	.0012	.160	.01045
%RSD	.15636	2.9303	1.6827	.53920	.06048	.31337	2.1284
#1	1.0335	24.387	.51588	2.0378	2.0505	51.018	.49821
#2	1.0313	25.419	.50375	2.0223	2.0487	50.793	.48344
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0580	2.0488	1.9999	25.345	50.068	2.0395	2.0647
SDev	.0028	.0032	.0178	.135	.057	.0031	.0101
%RSD	.13526	.15865	.88840	.53360	.11420	.15054	.48783
#1	2.0600	2.0465	1.9874	25.250	50.027	2.0374	2.0575
#2	2.0561	2.0511	2.0125	25.441	50.108	2.0417	2.0718
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9961	.51042	.50536	.50705	.51254	.51908	.51690
SDev	.0873	.00673	.00874	.00807	.00137	.00756	.00550
%RSD	4.3740	1.3176	1.7290	1.5911	.26784	1.4569	1.0643
#1	2.0579	.51518	.51154	.51275	.51351	.52443	.52079
#2	1.9344	.50567	.49918	.50134	.51157	.51373	.51301
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52218	.51983	.52061	1.0207	2.0250	2.0384	
SDev	.00049	.00067	.00029	.0382	.0070	.0590	
%RSD	.09295	.12899	.05486	3.7441	.34401	2.8937	
#1	.52184	.52030	.52081	1.0478	2.0299	2.0801	
#2	.52252	.51936	.52041	.99372	2.0201	1.9967	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11725	--	--	--	--	--	--
SDev	82.20116	--	--	--	--	--	--
%RSD	.7010596	--	--	--	--	--	--
#1	11667	--	--	--	--	--	--
#2	11783	--	--	--	--	--	--

Method: METTRA Sample Name: CCB2 Operator: RJG
 Run Time: 03/01/01 12:43:12
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00090	.01286	.00023	.00050	-.00052	.00606	.00018
SDev	.00009	.06187	.00103	.00020	.00152	.00818	.00011
%RSD	9.9413	481.00	440.46	40.575	294.66	134.97	63.188
#1	.00083	.05661	.00097	.00065	.00056	.00028	.00010
#2	.00096	-.03088	-.00050	.00036	-.00160	.01185	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00074	.00071	.00103	.00821	.01392	.00041	.00339
SDev	.00004	.00070	.00158	.01617	.00938	.00008	.00049
%RSD	5.9557	98.792	154.09	197.02	67.383	19.739	14.512
#1	.00077	.00120	-.00009	.01965	.02056	.00047	.00304
#2	.00071	.00021	.00215	-.00323	.00729	.00035	.00374
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00229	-.00047	-.00009	-.00022	-.00242	.00314	.00129
SDev	.00132	.00217	.00172	.00042	.00048	.00132	.00072
%RSD	57.634	461.37	1961.6	196.43	19.781	42.105	56.010
#1	-.00322	-.00201	.00113	.00008	-.00208	.00221	.00078
#2	-.00136	.00107	-.00130	-.00051	-.00275	.00408	.00180
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00028	.00218	.00136	-.00235	.00099	.00059	
SDev	.00280	.00316	.00118	.00413	.00033	.00022	
%RSD	986.93	145.18	86.596	175.50	33.565	38.458	
#1	-.00226	.00441	.00219	.00057	.00075	.00075	
#2	.00169	-.00006	.00053	-.00527	.00122	.00043	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

677 1099

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11493	--	--	--	--	--	--
SDev	92.59577	--	--	--	--	--	--
%RSD	.8056588	--	--	--	--	--	--
#1	11428	--	--	--	--	--	--
#2	11559	--	--	--	--	--	--

Method: METTRA Sample Name: DWND0B

Operator: RJG

Run Time: 03/01/01 12:48:18

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00000	-.00156	.00004	.00021	.00029	.01184	.00018
SDev	.00061	.05727	.00100	.00004	.00235	.00408	.00018
%RSD	220580.	3678.7	2212.7	17.916	801.05	34.473	96.292
#1	-.00043	.03894	-.00066	.00019	.00195	.00895	.00031
#2	.00043	-.04206	.00075	.00024	-.00137	.01473	.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00065	-.00032	.00049	-.00242	.00452	-.00033	.00022
SDev	.00061	.00018	.00182	.02128	.00159	.00007	.00063
%RSD	93.132	56.684	374.42	878.73	35.106	19.477	288.79
#1	.00108	-.00045	-.00080	.01263	.00340	-.00038	-.00023
#2	.00022	-.00019	.00178	-.01747	.00565	-.00029	.00066
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00257	-.00539	-.00033	-.00202	.00004	.00420	.00282
SDev	.00065	.00022	.00098	.00058	.00519	.00422	.00108
%RSD	25.143	4.1592	292.79	28.566	13244.	100.30	38.487
#1	-.00303	-.00555	.00036	-.00161	.00371	.00122	.00205
#2	-.00211	-.00523	-.00102	-.00242	-.00363	.00719	.00358
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00779	.00129	.00346	.00300	.00024	.00150	
SDev	.00060	.00131	.00108	.00377	.00001	.00006	
%RSD	7.6558	101.76	31.126	125.69	3.5195	3.7869	
#1	.00737	.00036	.00270	.00567	.00024	.00154	
#2	.00821	.00222	.00422	.00033	.00023	.00146	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11746	--	--	--	--	--	--
SDev	27.57716	--	--	--	--	--	--
%RSD	.2347702	--	--	--	--	--	--
#1	11727	--	--	--	--	--	--
#2	11766	--	--	--	--	--	--

Method: METTRA Sample Name: DWND0C

Operator: RJG

Run Time: 03/01/01 12:52:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05028	2.0480	1.9767	1.9433	.05061	49.146	.04659
SDev	.00018	.0085	.0296	.0106	.00227	.189	.00072
%RSD	.35930	.41486	1.4999	.54472	4.4812	.38509	1.5351
#1	.05041	2.0420	1.9976	1.9508	.05222	49.280	.04709
#2	.05015	2.0540	1.9557	1.9358	.04901	49.013	.04608
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49837	.19765	.24726	.83568	48.409	.49348	.00015
SDev	.00223	.00017	.00318	.01064	.073	.00054	.00051
%RSD	.44663	.08812	1.2883	1.2732	.15036	.10856	346.19
#1	.49994	.19752	.24500	.82815	48.358	.49311	-.00021
#2	.49680	.19777	.24951	.84320	48.461	.49386	.00051
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48407	.49303	.48969	.49080	-.00400	.00186	-.00009
SDev	.02250	.00281	.00945	.00724	.00099	.00234	.00123
%RSD	4.6484	.57105	1.9298	1.4753	24.626	125.59	1396.0
#1	.49998	.49502	.49637	.49592	-.00470	.00352	.00078
#2	.46816	.49104	.48301	.48568	-.00330	.00021	-.00096
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.0951	2.0799	2.0849	2.0211	.48909	.50806	
SDev	.0046	.0340	.0211	.0662	.00199	.01422	
%RSD	.22185	1.6336	1.0127	3.2772	.40731	2.7978	
#1	2.0918	2.1039	2.0999	2.0679	.49050	.51812	
#2	2.0984	2.0558	2.0700	1.9742	.48768	.49801	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11718	--	--	--	--	--	--
SDev	88.49469	--	--	--	--	--	--
%RSD	.7552175	--	--	--	--	--	--
#1	11655	--	--	--	--	--	--
#2	11780	--	--	--	--	--	--

Method: METTRA Sample Name: DWHKC

Operator: RJG

Run Time: 03/01/01 12:57:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00179	1.8340	.02491	.12300	.00003	76.883	.01401
SDev	.00006	.0124	.00029	.00096	.00211	.150	.00041
%RSD	3.4806	.67753	1.1695	.77713	7801.8	.19569	2.9188
#1	.00183	1.8252	.02470	.12367	.00152	76.989	.01430
#2	.00174	1.8428	.02511	.12232	-.00146	76.776	.01372
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00134	.07391	.12210	.72263	6.7722	1.0956	.04387
SDev	.00045	.00041	.00304	.00245	.0250	.0021	.00066
%RSD	33.570	.55594	2.4936	.33865	.36949	.18764	1.4966
#1	.00165	.07362	.11995	.72090	6.7545	1.0942	.04433
#2	.00102	.07420	.12426	.72436	6.7899	1.0971	.04340
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00785	.05606	.05755	.05705	.00333	.00912	.00719
SDev	.00018	.00078	.00116	.00103	.00119	.00142	.00055
%RSD	2.2465	1.3848	2.0208	1.8127	35.803	15.594	7.6613
#1	.00773	.05661	.05837	.05778	.00249	.01012	.00758
#2	.00798	.05552	.05672	.05632	.00418	.00811	.00680
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.03820	.01052	.01974	.01985	.00997	2.8993	
SDev	.00077	.00116	.00051	.00031	.00074	.0804	
%RSD	2.0259	10.999	2.6030	1.5529	7.4640	2.7722	
#1	.03766	.01133	.02010	.02007	.01049	2.9562	
#2	.03875	.00970	.01937	.01963	.00944	2.8425	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

677 1105

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11868	--	--	--	--	--	--
SDev	88.42426	--	--	--	--	--	--
%RSD	.7450755	--	--	--	--	--	--
#1	11805	--	--	--	--	--	--
#2	11930	--	--	--	--	--	--

Method: METTRA Sample Name: DWHKCP5

Operator: RJG

Run Time: 03/01/01 13:01:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00058	.31284	.00324	.02475	-.00063	15.086	.00271
SDev	.00003	.03618	.00021	.00000	.00153	.064	.00023
%RSD	4.4916	11.566	6.5147	.00748	244.39	.42261	8.3795
#1	.00060	.33843	.00309	.02475	.00046	15.041	.00255
#2	.00056	.28726	.00339	.02475	-.00171	15.132	.00287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00028	.01416	.02413	.11634	1.3237	.21403	.00897
SDev	.00025	.00058	.00181	.01787	.0138	.00081	.00040
%RSD	90.564	4.0853	7.4825	15.364	1.0428	.37668	4.4352
#1	.00010	.01375	.02286	.12898	1.3139	.21346	.00869
#2	.00046	.01457	.02541	.10370	1.3334	.21460	.00925
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00050	.01321	.00927	.01058	-.00220	.00389	.00186
SDev	.00179	.00348	.00180	.00004	.00334	.00146	.00208
%RSD	357.89	26.366	19.437	.39525	151.88	37.439	111.81
#1	.00076	.01075	.01054	.01061	.00016	.00492	.00334
#2	-.00176	.01568	.00800	.01055	-.00456	.00286	.00039
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.01000	.00026	.00350	-.00057	.00192	.57523	
SDev	.00200	.00137	.00025	.00179	.00034	.00961	
%RSD	19.990	530.43	7.0511	311.53	17.827	1.6712	
#1	.00859	.00123	.00368	.00069	.00216	.58202	
#2	.01141	-.00071	.00333	-.00184	.00168	.56843	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11930	--	--	--	--	--	--
SDev	17.57133	--	--	--	--	--	--
%RSD	.1472835	--	--	--	--	--	--
#1	11918	--	--	--	--	--	--
#2	11943	--	--	--	--	--	--

Method: METTRA Sample Name: DWHKCS

Operator: RJG

Run Time: 03/01/01 13:06:03

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05445	4.2719	2.0911	2.0653	.04938	126.01	.05858
SDev	.00059	.0694	.0287	.0077	.00149	.01	.00116
%RSD	1.0900	1.6253	1.3710	.37332	3.0249	.00770	1.9748
#1	.05487	4.2228	2.1114	2.0708	.05043	126.00	.05940
#2	.05403	4.3210	2.0708	2.0599	.04832	126.01	.05776
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49366	.27526	.38654	1.6400	56.958	1.6044	.04523
SDev	.00023	.00034	.00423	.0213	.081	.0015	.00031
%RSD	.04607	.12155	1.0934	1.2981	.14228	.09610	.67616
#1	.49350	.27502	.38355	1.6249	56.900	1.6033	.04502
#2	.49382	.27549	.38953	1.6550	57.015	1.6055	.04545
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.47792	.56145	.54198	.54846	.00636	.00710	.00686
SDev	.01510	.00466	.00782	.00677	.00209	.00367	.00315
%RSD	3.1601	.83010	1.4428	1.2339	32.879	51.743	45.913
#1	.48860	.56475	.54751	.55325	.00784	.00970	.00908
#2	.46724	.55816	.53645	.54368	.00488	.00450	.00463
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.2635	2.2393	2.2474	2.2059	.51222	3.3825	
SDev	.0048	.0294	.0180	.0646	.00487	.0803	
%RSD	.21045	1.3137	.80249	2.9276	.94979	2.3749	
#1	2.2602	2.2601	2.2601	2.2516	.51566	3.4393	
#2	2.2669	2.2185	2.2346	2.1603	.50878	3.3257	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11728	--	--	--	--	--	--
SDev	80.53974	--	--	--	--	--	--
%RSD	.6867333	--	--	--	--	--	--
#1	11671	--	--	--	--	--	--
#2	11785	--	--	--	--	--	--

Method: METTRA Sample Name: DWHKCD

Operator: RJG

Run Time: 03/01/01 13:10:29

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.05628	4.3376	2.1381	2.0968	.04944	127.15	.05981
SDev	.00213	.2220	.0365	.0522	.00009	3.72	.00072
%RSD	3.7811	5.1190	1.7057	2.4909	.18115	2.9270	1.2007
#1	.05478	4.1806	2.1123	2.0599	.04937	124.52	.05930
#2	.05779	4.4946	2.1638	2.1338	.04950	129.78	.06031
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.50560	.27963	.39770	1.6616	57.564	1.6220	.04490
SDev	.01254	.00818	.01534	.0536	1.622	.0452	.00104
%RSD	2.4807	2.9263	3.8562	3.2243	2.8173	2.7848	2.3174
#1	.49673	.27384	.38685	1.6237	56.418	1.5901	.04416
#2	.51447	.28542	.40854	1.6994	58.711	1.6540	.04563
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48922	.57238	.55314	.55955	.00401	.01039	.00826
SDev	.00432	.01150	.00465	.00693	.00073	.00207	.00163
%RSD	.88369	2.0086	.84102	1.2388	18.270	19.964	19.690
#1	.48616	.56425	.54985	.55465	.00349	.00892	.00711
#2	.49228	.58051	.55643	.56445	.00453	.01185	.00941
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	2.3239	2.2972	2.3061	2.2479	.52346	3.4233	
SDev	.0624	.0294	.0404	.0100	.01070	.0302	
%RSD	2.6852	1.2815	1.7526	.44592	2.0450	.88348	
#1	2.2798	2.2763	2.2775	2.2550	.51589	3.4019	
#2	2.3680	2.3180	2.3346	2.2408	.53103	3.4447	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

677 1111

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11537	--	--	--	--	--	--
SDev	228.0771	--	--	--	--	--	--
%RSD	1.976889	--	--	--	--	--	--
#1	11698	--	--	--	--	--	--
#2	11376	--	--	--	--	--	--

Method: METTRA Sample Name: DWJJMD Cr Rerun Operator: RJG
 Run Time: 03/01/01 13:14:55
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.05492	6.4659	2.0445	2.1091	.05106	94.063	.04651
SDev	.00007	.1466	.0201	.0018	.00098	.314	.00024
%RSD	.13032	2.2680	.98402	.08626	1.9300	.33383	.50906
#1	.05497	6.3622	2.0587	2.1104	.05175	93.841	.04668
#2	.05487	6.5696	2.0303	2.1078	.05036	94.285	.04634
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.51315	.25939	.29729	4.0866	59.408	.83818	1.0210
SDev	.00005	.00106	.00529	.0393	.236	.00258	.0050
%RSD	.00985	.40805	1.7779	.96137	.39806	.30762	.48695
#1	.51311	.25864	.29356	4.0588	59.241	.83635	1.0175
#2	.51318	.26014	.30103	4.1144	59.575	.84000	1.0246
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.50354	.52550	.50017	.50860	.50390	.53033	.52153
SDev	.01631	.00026	.00228	.00161	.00085	.00001	.00029
%RSD	3.2391	.04970	.45607	.31625	.16975	.00131	.05550
#1	.51508	.52531	.49856	.50746	.50330	.53033	.52133
#2	.49201	.52568	.50178	.50974	.50451	.53034	.52174
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	2.0803	2.0449	2.0567	2.2059	.52654	.59404	
SDev	.0346	.0093	.0053	.0538	.00209	.00997	
%RSD	1.6635	.45397	.25924	2.4371	.39631	1.6780	
#1	2.0559	2.0515	2.0529	2.2439	.52507	.60108	
#2	2.1048	2.0383	2.0605	2.1678	.52802	.58699	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11357	--	--	--	--	--	--
SDev	23.33452	--	--	--	--	--	--
%RSD	.2054674	--	--	--	--	--	--
#1	11340	--	--	--	--	--	--
#2	11373	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-3

Operator: RJG

Run Time: 03/01/01 13:19:22

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0352	24.867	.51280	2.0359	2.0538	51.019	.49277
SDev	.0014	.721	.01222	.0108	.0049	.193	.01185
%RSD	.13527	2.8997	2.3820	.52826	.23797	.37788	2.4057
#1	1.0361	24.357	.52143	2.0435	2.0573	51.155	.50115
#2	1.0342	25.376	.50416	2.0283	2.0504	50.882	.48439
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0662	2.0539	2.0046	25.420	50.201	2.0443	2.0725
SDev	.0010	.0002	.0182	.062	.025	.0015	.0028
%RSD	.05021	.00863	.90617	.24518	.04925	.07393	.13714
#1	2.0669	2.0541	1.9917	25.376	50.183	2.0453	2.0705
#2	2.0654	2.0538	2.0174	25.464	50.218	2.0432	2.0745
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0039	.51012	.50738	.50829	.51665	.52266	.52066
SDev	.0891	.00761	.00950	.00887	.00186	.00928	.00557
%RSD	4.4479	1.4922	1.8725	1.7454	.35905	1.7756	1.0702
#1	2.0669	.51550	.51409	.51456	.51534	.52922	.52460
#2	1.9409	.50474	.50066	.50202	.51796	.51610	.51672
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52501	.51845	.52064	1.0244	2.0342	2.0426	
SDev	.00190	.00450	.00363	.0453	.0103	.0610	
%RSD	.36199	.86769	.69787	4.4213	.50423	2.9881	
#1	.52636	.52163	.52321	1.0565	2.0414	2.0858	
#2	.52367	.51527	.51807	.99242	2.0269	1.9995	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11761	--	--	--	--	--	--
SDev	124.4860	--	--	--	--	--	--
%RSD	1.058422	--	--	--	--	--	--
#1	11673	--	--	--	--	--	--
#2	11850	--	--	--	--	--	--

Method: METTRA Sample Name: CCB3

Operator: RJG

Run Time: 03/01/01 13:23:48

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00038	.02317	.00108	.00053	-.00022	.03251	.00005
SDev	.00053	.04984	.00039	.00010	.00104	.02217	.00006
%RSD	139.88	215.11	36.502	18.391	467.11	68.200	122.64
#1	.00076	.05841	.00080	.00059	.00051	.01683	.00001
#2	.00000	-.01207	.00136	.00046	-.00096	.04819	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00077	.00082	.00097	.00569	.01391	.00058	.00394
SDev	.00051	.00011	.00122	.00339	.00288	.00005	.00179
%RSD	65.594	13.049	126.57	59.507	20.704	9.0668	45.435
#1	.00113	.00090	.00010	.00330	.01594	.00062	.00520
#2	.00042	.00074	.00183	.00809	.01187	.00054	.00267
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00125	-.00102	-.00084	-.00090	-.00211	.00149	.00029
SDev	.00147	.00096	.00077	.00083	.00235	.00307	.00126
%RSD	118.40	93.473	92.175	92.666	111.55	206.49	436.61
#1	-.00020	-.00035	-.00029	-.00031	-.00377	.00365	.00118
#2	-.00229	-.00170	-.00138	-.00149	-.00044	-.00068	-.00060
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00178	.00319	.00272	-.00050	.00124	.00082	
SDev	.00033	.00187	.00136	.00282	.00140	.00010	
%RSD	18.563	58.790	50.019	562.28	112.99	12.431	
#1	.00201	.00451	.00368	-.00250	.00223	.00089	
#2	.00155	.00186	.00176	.00150	.00025	.00075	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11487	--	--	--	--	--	--
SDev	122.7189	--	--	--	--	--	--
%RSD	1.068322	--	--	--	--	--	--
#1	11400	--	--	--	--	--	--
#2	11574	--	--	--	--	--	--

Method: METTRA Sample Name: DWPMRB

Operator: RJG

Run Time: 03/01/01 13:30:44

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00011	.02340	-.00043	.00009	.00037	.01640	-.00012
SDev	.00041	.05153	.00125	.00005	.00220	.00274	.00007
%RSD	392.97	220.24	287.69	56.936	593.38	16.734	58.310
#1	.00040	.05984	-.00132	.00005	.00192	.01446	-.00017
#2	-.00019	-.01304	.00045	.00012	-.00118	.01834	-.00007
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00048	.00098	.00018	-.00310	.00272	-.00024	.00089
SDev	.00020	.00020	.00200	.00688	.00328	.00010	.00065
%RSD	42.584	20.058	1085.5	222.14	120.85	43.267	73.588
#1	-.00033	.00111	-.00123	.00177	.00504	-.00017	.00135
#2	-.00062	.00084	.00160	-.00797	.00040	-.00032	.00043
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00219	.00468	-.00142	.00061	-.00371	.00368	.00122
SDev	.00173	.00322	.00156	.00003	.00116	.00147	.00060
%RSD	78.856	68.872	109.85	5.1080	31.239	40.060	48.974
#1	-.00097	.00696	-.00253	.00063	-.00453	.00473	.00164
#2	-.00341	.00240	-.00032	.00059	-.00289	.00264	.00080
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00023	.00538	.00351	-.00580	.00025	.00067	
SDev	.00123	.00104	.00028	.00031	.00000	.00021	
%RSD	543.85	19.370	8.0958	5.2800	1.3577	32.242	
#1	.00065	.00464	.00331	-.00558	.00025	.00082	
#2	-.00110	.00612	.00371	-.00601	.00025	.00051	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11474	--	--	--	--	--	--
SDev	24.28884	--	--	--	--	--	--
%RSD	.2116947	--	--	--	--	--	--
#1	11456	--	--	--	--	--	--
#2	11491	--	--	--	--	--	--

Method: METTRA Sample Name: DWPMRC

Operator: RJG

Run Time: 03/01/01 13:35:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04983	1.8534	1.9691	1.9845	.05141	L.02382	.04844
SDev	.00039	.0002	.0382	.0078	.00222	.00534	.00183
%RSD	.79076	.00986	1.9414	.39096	4.3186	22.440	3.7708
#1	.05011	1.8533	1.9961	1.9900	.05298	L.02760	.04973
#2	.04955	1.8535	1.9421	1.9790	.04984	L.02004	.04714
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass
High	.06000	2.4000	2.4000	2.4000	.06000	60.000	.06000
Low	.04000	1.6000	1.6000	1.6000	.04000	40.000	.04000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.51895	.20286	.24149	1.0120	L.00041	.50451	L.00090
SDev	.00047	.00039	.00323	.0004	.00111	.00005	.00026
%RSD	.09006	.19169	1.3386	.03805	272.33	.01004	28.831
#1	.51928	.20314	.23921	1.0122	L.00119	.50454	L.00108
#2	.51862	.20259	.24378	1.0117	L-.00038	.50447	L.00072
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Low	LC Pass	LC Low
High	.60000	.24000	.30000	1.2000	60.000	.60000	1.2000
Low	.40000	.16000	.20000	.80000	40.000	.40000	.80000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.49602	.49647	.49441	.49510	.00016	.00137	L.00097
SDev	.02716	.01015	.00799	.00871	.00369	.00433	.00166
%RSD	5.4753	2.0444	1.6169	1.7596	2361.1	315.49	171.64
#1	.51523	.50364	.50006	.50126	-.00245	.00443	L.00214
#2	.47682	.48929	.48876	.48894	.00276	-.00169	L-.00021
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Low
High	.60000			.60000			.60000
Low	.40000			.40000			.40000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.9753	1.9426	1.9535	1.9443	.49599	.50886	
SDev	.0100	.0182	.0155	.0642	.00177	.01483	
%RSD	.50397	.93774	.79168	3.3009	.35672	2.9147	
#1	1.9823	1.9555	1.9645	1.9897	.49725	.51935	
#2	1.9683	1.9298	1.9426	1.8989	.49474	.49837	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			2.4000	2.4000	.60000	.60000	
Low			1.6000	1.6000	.40000	.40000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11437	--	--	--	--	--	--
SDev	153.1245	--	--	--	--	--	--
%RSD	1.338843	--	--	--	--	--	--
#1	11329	--	--	--	--	--	--
#2	11545	--	--	--	--	--	--

Method: METTRA Sample Name: DWJCL Operator: RJG
 Run Time: 03/01/01 13:39:36
 Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP
 Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.03432	.00105	.01148	-.00042	539.04	-.00019
SDev	.00009	.04705	.00089	.00006	.00128	4.45	.00006
%RSD	18.748	137.08	84.542	.55071	300.93	.82616	29.551
#1	.00044	.06759	.00169	.01143	.00048	535.89	-.00023
#2	.00057	.00105	.00042	.01152	-.00133	542.19	-.00015
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00050	.00097	.00371	-.01805	11.250	.00233	-.00007
SDev	.00016	.00007	.00165	.02318	.091	.00002	.00099
%RSD	32.439	7.6738	44.515	128.37	.80700	1.0057	1340.9
#1	.00038	.00092	.00255	-.00167	11.186	.00231	.00063
#2	.00061	.00102	.00488	-.03444	11.315	.00234	-.00077
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00076	.00149	-.00064	.00007	-.00250	.00457	.00222
SDev	.00054	.00060	.00332	.00202	.00036	.00132	.00076
%RSD	71.978	39.864	522.32	2730.7	14.468	28.877	34.296
#1	-.00037	.00107	.00171	.00150	-.00225	.00364	.00168
#2	-.00114	.00192	-.00298	-.00135	-.00276	.00551	.00275
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	.00078	.00413	.00302	-.00313	.00571	.00303	
SDev	.00107	.00101	.00103	.00033	.00003	.00017	
%RSD	136.36	24.353	34.043	10.647	.48088	5.6588	
#1	.00003	.00342	.00229	-.00289	.00573	.00316	
#2	.00154	.00484	.00374	-.00336	.00569	.00291	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

677 1123

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11330	--	--	--	--	--	--
SDev	37.19354	--	--	--	--	--	--
%RSD	.3282777	--	--	--	--	--	--
#1	11304	--	--	--	--	--	--
#2	11356	--	--	--	--	--	--

Method: METTRA Sample Name: DWJC2

Operator: RJG

Run Time: 03/01/01 13:44:02

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00022	.03319	-.00045	.01121	.00030	526.78	-.00016
SDev	.00130	.06824	.00038	.00014	.00212	1.13	.00010
%RSD	598.61	205.60	84.266	1.2130	707.68	.21452	62.054
#1	.00113	.08144	-.00072	.01131	.00180	527.58	-.00009
#2	-.00070	-.01506	-.00018	.01111	-.00120	525.98	-.00023
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.00042	.00045	.00354	-.01169	10.964	.00223	.00047
SDev	.00007	.00135	.00200	.00953	.017	.00009	.00092
%RSD	17.213	298.27	56.457	81.477	.15523	3.9184	193.90
#1	.00037	.00141	.00213	-.01843	10.952	.00229	.00112
#2	.00048	-.00050	.00496	-.00496	10.976	.00217	-.00018
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.00095	.00023	-.00119	-.00071	-.00204	.00543	.00294
SDev	.00003	.00405	.00309	.00072	.00102	.00256	.00205
%RSD	3.1284	1727.5	260.77	100.31	50.133	47.256	69.812
#1	-.00092	.00310	-.00337	-.00122	-.00277	.00361	.00149
#2	-.00097	-.00263	.00100	-.00021	-.00132	.00724	.00439
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	-.00094	.00323	.00184	-.00440	-.00024	.00227	
SDev	.00389	.00359	.00369	.00069	.00000	.00013	
%RSD	415.75	110.95	200.03	15.765	1.3338	5.8546	
#1	-.00369	.00070	-.00076	-.00489	-.00025	.00236	
#2	.00182	.00577	.00445	-.00391	-.00024	.00217	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11326	--	--	--	--	--	--
SDev	176.6704	--	--	--	--	--	--
%RSD	1.559848	--	--	--	--	--	--
#1	11201	--	--	--	--	--	--
#2	11451	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEF

Operator: RJG

Run Time: 03/01/01 13:48:28

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00022	1.9884	.00215	.03370	.00209	26.983	.00168
SDev	.00053	.0328	.00169	.00025	.00157	.075	.00004
%RSD	238.64	1.6507	78.966	.73724	75.031	.27930	2.5809
#1	-.00059	1.9652	.00095	.03352	.00320	26.929	.00165
#2	.00015	2.0116	.00334	.03387	.00098	27.036	.00171
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03189	.00055	.28346	.48231	6.8589	1.3534	-.00014
SDev	.00023	.00040	.00575	.00609	.0296	.0053	.00030
%RSD	.71715	72.941	2.0270	1.2627	.43152	.39220	222.01
#1	.03205	.00027	.27940	.48662	6.8379	1.3497	.00008
#2	.03173	.00083	.28753	.47800	6.8798	1.3572	-.00035
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00941	.00023	.00276	.00192	-.00145	.00337	.00176
SDev	.00228	.00169	.00072	.00008	.00222	.00102	.00142
%RSD	24.216	723.81	26.195	4.2416	152.77	30.313	80.468
#1	.00780	-.00096	.00327	.00186	.00012	.00409	.00277
#2	.01102	.00143	.00225	.00198	-.00302	.00265	.00076
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00011	.00043	.00032	-.00305	.00056	1.0402	
SDev	.00122	.00167	.00071	.00149	.00029	.0260	
%RSD	1152.7	384.71	218.35	48.904	52.032	2.5040	
#1	-.00075	.00161	.00083	-.00200	.00035	1.0586	
#2	.00097	-.00075	-.00018	-.00410	.00077	1.0218	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13263	--	--	--	--	--	--
SDev	140.0430	--	--	--	--	--	--
%RSD	1.055887	--	--	--	--	--	--
#1	13164	--	--	--	--	--	--
#2	13362	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFP5

Operator: RJG

Run Time: 03/01/01 13:52:54

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00012	.45834	-.00017	.00753	.00061	6.1261	.00039
SDev	.00052	.03292	.00028	.00005	.00161	.0147	.00006
%RSD	445.38	7.1820	167.11	.61684	264.36	.23921	16.508

#1	-.00049	.48162	-.00037	.00756	.00174	6.1157	.00035
#2	.00025	.43507	.00003	.00749	-.00053	6.1365	.00044

Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00709	-.00019	.06225	.10718	1.5263	.30490	.00019
SDev	.00021	.00017	.00285	.01029	.0094	.00044	.00019
%RSD	2.9873	94.014	4.5862	9.6000	.61505	.14527	98.029

#1	.00694	-.00031	.06023	.09991	1.5196	.30459	.00006
#2	.00724	-.00006	.06427	.11446	1.5329	.30521	.00033

Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00105	-.00456	.00286	.00039	.00171	.00129	.00143
SDev	.00241	.00059	.00023	.00004	.00078	.00310	.00233
%RSD	228.81	12.911	7.9589	11.509	45.881	241.35	163.36

#1	-.00065	-.00498	.00302	.00035	.00226	.00348	.00308
#2	.00276	-.00414	.00269	.00042	.00116	-.00091	-.00022

Elem	SE/1	SE/2	SE	TL	V_	ZN
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00003	-.00001	-.00002	-.00188	.00003	.23769
SDev	.00136	.00005	.00042	.00396	.00034	.00606
%RSD	4395.4	330.64	2111.2	211.18	1025.0	2.5507

#1	-.00099	.00002	-.00032	-.00468	-.00021	.24198
#2	.00093	-.00005	.00028	.00093	.00027	.23340

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11853	--	--	--	--	--	--
SDev	87.15091	--	--	--	--	--	--
%RSD	.7352940	--	--	--	--	--	--
#1	11791	--	--	--	--	--	--
#2	11914	--	--	--	--	--	--

677 1130

Method: METTRA Sample Name: DWJEFS

Operator: RJG

Run Time: 03/01/01 13:57:20

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04356	3.6642	1.7444	1.7851	.04782	26.594	.04400
SDev	.00012	.0928	.0257	.0045	.00124	.101	.00089
%RSD	.26557	2.5326	1.4719	.25070	2.5881	.38068	2.0147
#1	.04364	3.5986	1.7626	1.7819	.04869	26.522	.04463
#2	.04348	3.7298	1.7263	1.7882	.04694	26.666	.04337
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48797	.17873	.49715	1.3688	6.7919	1.7808	-.00040
SDev	.00242	.00070	.00911	.0105	.0290	.0072	.00011
%RSD	.49644	.39218	1.8324	.76613	.42636	.40473	27.088
#1	.48626	.17823	.49071	1.3614	6.7714	1.7757	-.00032
#2	.48969	.17922	.50359	1.3762	6.8124	1.7859	-.00047
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.44791	.43993	.43741	.43825	.00122	.00602	.00443
SDev	.01844	.00420	.00642	.00568	.00027	.00326	.00227
%RSD	4.1167	.95368	1.4683	1.2963	22.334	54.175	51.246
#1	.46094	.44290	.44195	.44226	.00142	.00833	.00603
#2	.43487	.43696	.43286	.43423	.00103	.00372	.00282
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7534	1.7089	1.7237	1.7653	.43723	1.4623	
SDev	.0074	.0109	.0048	.0622	.00015	.0354	
%RSD	.42348	.63760	.27818	3.5245	.03380	2.4226	
#1	1.7481	1.7166	1.7271	1.8093	.43713	1.4874	
#2	1.7586	1.7012	1.7203	1.7213	.43734	1.4373	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13229	--	--	--	--	--	--
SDev	95.77775	--	--	--	--	--	--
%RSD	.7240025	--	--	--	--	--	--
#1	13161	--	--	--	--	--	--
#2	13297	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFD

Operator: RJG

Run Time: 03/01/01 14:01:46

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.04274	3.6178	1.7182	1.7754	.04713	25.990	.04315
SDev	.00080	.0824	.0254	.0051	.00114	.165	.00036
%RSD	1.8791	2.2770	1.4794	.28665	2.4213	.63308	.83905
#1	.04217	3.5596	1.7362	1.7718	.04794	25.874	.04341
#2	.04330	3.6761	1.7002	1.7790	.04633	26.106	.04290
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.48070	.17624	.49229	1.3425	6.6519	1.7492	.00001
SDev	.00085	.00217	.00826	.0112	.0402	.0086	.00027
%RSD	.17773	1.2314	1.6775	.83406	.60389	.49367	2246.4
#1	.48009	.17470	.48645	1.3346	6.6235	1.7431	-.00018
#2	.48130	.17777	.49813	1.3504	6.6803	1.7553	.00020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.43755	.43384	.43328	.43347	-.00243	.00435	.00209
SDev	.01401	.00327	.00175	.00226	.00216	.00002	.00074
%RSD	3.2016	.75446	.40458	.52119	88.879	.55092	35.245
#1	.44745	.43616	.43452	.43507	-.00090	.00436	.00261
#2	.42764	.43153	.43204	.43187	-.00396	.00433	.00157
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avg	1.6980	1.6659	1.6766	1.7364	.43517	1.4331	
SDev	.0025	.0025	.0008	.0638	.00155	.0310	
%RSD	.14497	.14746	.04884	3.6720	.35533	2.1629	
#1	1.6963	1.6677	1.6772	1.7815	.43626	1.4550	
#2	1.6997	1.6642	1.6760	1.6913	.43408	1.4111	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13156	--	--	--	--	--	--
SDev	83.47382	--	--	--	--	--	--
%RSD	.6345056	--	--	--	--	--	--
#1	13097	--	--	--	--	--	--
#2	13215	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEJ

Operator: RJG

Run Time: 03/01/01 14:06:12

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00022	.09906	.00102	.03588	-.00068	48.097	.00012
SDev	.00105	.00179	.00010	.00001	.00015	.069	.00003
%RSD	478.55	1.8031	9.8043	.02823	21.955	.14295	27.649
#1	-.00052	.10032	.00109	.03589	-.00057	48.146	.00014
#2	.00096	.09780	.00095	.03588	-.00078	48.049	.00009
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00336	.00111	.01916	.74546	8.1898	1.6121	.00018
SDev	.00025	.00040	.00062	.02131	.0134	.0005	.00010
%RSD	7.5559	36.151	3.2507	2.8584	.16345	.03297	57.137
#1	.00318	.00082	.01872	.73039	8.1803	1.6125	.00011
#2	.00354	.00139	.01960	.76053	8.1993	1.6117	.00025
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00043	.00177	-.00107	-.00013	-.00266	.00192	.00039
SDev	.00079	.00155	.00091	.00112	.00261	.00045	.00117
%RSD	185.76	87.542	84.679	893.12	98.113	23.451	296.85
#1	.00013	.00067	-.00171	-.00092	-.00081	.00224	.00122
#2	-.00099	.00286	-.00043	.00067	-.00451	.00160	-.00043
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00267	.00147	.00009	-.00493	.00123	.10484	
SDev	.00500	.00118	.00245	.00014	.00172	.00037	
%RSD	187.21	80.142	2692.6	2.8853	140.32	.34968	
#1	.00086	.00230	.00182	-.00483	.00001	.10510	
#2	-.00621	.00064	-.00164	-.00503	.00245	.10458	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11579	--	--	--	--	--	--
SDev	22.38021	--	--	--	--	--	--
%RSD	.1932906	--	--	--	--	--	--
#1	11563	--	--	--	--	--	--
#2	11594	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-4

Operator: RJG

Run Time: 03/01/01 14:10:38

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0119	24.242	.49996	1.9838	1.9991	49.606	.47822
SDev	.0017	.519	.00925	.0001	.0006	.072	.00843
%RSD	.16527	2.1411	1.8507	.00312	.03219	.14523	1.7617
#1	1.0131	23.875	.50650	1.9838	1.9995	49.657	.48418
#2	1.0107	24.609	.49341	1.9839	1.9986	49.555	.47226
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0213	2.0111	1.9558	24.814	49.182	1.9992	2.0318
SDev	.0036	.0014	.0130	.034	.087	.0041	.0012
%RSD	.17961	.07085	.66373	.13842	.17676	.20496	.06058
#1	2.0239	2.0121	1.9466	24.838	49.243	2.0021	2.0309
#2	2.0188	2.0101	1.9650	24.789	49.120	1.9963	2.0326
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9206	.49943	.49646	.49745	.50871	.51021	.50971
SDev	.0497	.00352	.00676	.00568	.01067	.00370	.00602
%RSD	2.5891	.70407	1.3624	1.1423	2.0982	.72447	1.1810
#1	1.9558	.50191	.50124	.50146	.51626	.51283	.51397
#2	1.8854	.49694	.49168	.49343	.50116	.50760	.50546
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.51697	.51316	.51443	1.0090	1.9813	1.9878	
SDev	.00011	.00795	.00534	.0286	.0032	.0352	
%RSD	.02130	1.5496	1.0382	2.8328	.16357	1.7689	
#1	.51705	.51878	.51821	1.0292	1.9836	2.0127	
#2	.51690	.50754	.51065	.98877	1.9790	1.9629	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11693	--	--	--	--	--	--
SDev	126.0066	--	--	--	--	--	--
%RSD	1.077601	--	--	--	--	--	--
#1	11604	--	--	--	--	--	--
#2	11782	--	--	--	--	--	--

Method: METTRA Sample Name: CCB4

Operator: RJG

Run Time: 03/01/01 14:15:04

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00006	.02336	.00045	.00047	.00027	.01262	-.00001
SDev	.00024	.04557	.00054	.00003	.00117	.00242	.00010
%RSD	443.52	195.09	118.28	7.3137	433.09	19.156	1082.0
#1	-.00012	.05558	.00007	.00050	.00110	.01091	-.00008
#2	.00023	-.00886	.00084	.00045	-.00056	.01433	.00006
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00040	.00052	.00041	-.00886	.00428	.00020	.00328
SDev	.00043	.00004	.00196	.01040	.00003	.00011	.00058
%RSD	107.98	8.2145	479.10	117.40	.82570	56.423	17.807
#1	.00009	.00056	-.00098	-.00150	.00431	.00028	.00369
#2	.00070	.00049	.00179	-.01621	.00426	.00012	.00287
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00162	-.00121	-.00006	-.00045	-.00144	.00590	.00346
SDev	.00014	.00075	.00085	.00082	.00306	.00017	.00091
%RSD	8.7810	61.886	1381.6	183.61	212.47	2.8190	26.298
#1	-.00152	-.00175	-.00066	-.00102	.00072	.00578	.00410
#2	-.00172	-.00068	.00054	.00013	-.00361	.00602	.00281
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00178	.00292	.00254	-.00458	.00099	.00066	
SDev	.00069	.00157	.00082	.00274	.00036	.00033	
%RSD	38.512	53.566	32.093	59.719	36.482	50.502	
#1	.00130	.00403	.00312	-.00651	.00125	.00090	
#2	.00227	.00182	.00197	-.00265	.00074	.00043	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11417	--	--	--	--	--	--
SDev	86.65580	--	--	--	--	--	--
%RSD	.7590316	--	--	--	--	--	--
#1	11355	--	--	--	--	--	--
#2	11478	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFF

Operator: RJG

Run Time: 03/01/01 14:24:59

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00004	1.7293	.00143	.03677	.00286	26.725	.00147
SDev	.00097	.0135	.00190	.00035	.00182	.296	.00014
%RSD	2578.0	.78220	132.58	.94146	63.606	1.1060	9.4321
#1	.00073	1.7388	.00009	.03702	.00415	26.934	.00157
#2	-.00065	1.7197	.00278	.03653	.00157	26.516	.00137
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.03023	.00103	.26690	.42161	6.7940	1.2917	.00038
SDev	.00086	.00085	.00299	.00187	.0668	.0078	.00022
%RSD	2.8585	83.210	1.1218	.44447	.98254	.60391	57.958
#1	.03084	.00163	.26478	.42293	6.8412	1.2972	.00023
#2	.02962	.00042	.26901	.42028	6.7468	1.2862	.00054
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00792	.00262	.00268	.00266	-.00218	.00421	.00208
SDev	.00435	.00218	.00082	.00127	.00134	.00298	.00154
%RSD	54.937	83.182	30.691	47.905	61.240	70.683	73.972
#1	.01100	.00415	.00326	.00356	-.00312	.00632	.00317
#2	.00484	.00108	.00210	.00176	-.00124	.00211	.00099
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00360	.00189	.00246	-.00389	.00033	.98619	
SDev	.00092	.00411	.00305	.00150	.00061	.03758	
%RSD	25.492	218.07	124.17	38.639	182.16	3.8110	
#1	.00424	.00480	.00461	-.00283	.00077	1.0128	
#2	.00295	-.00102	.00030	-.00495	-.00010	.95961	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13273	--	--	--	--	--	--
SDev	277.0091	--	--	--	--	--	--
%RSD	2.086953	--	--	--	--	--	--
#1	13078	--	--	--	--	--	--
#2	13469	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFP5F

Operator: RJG

Run Time: 03/01/01 14:29:25

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00032	.39080	.00021	.00802	.00081	5.9980	.00037
SDev	.00049	.04129	.00062	.00004	.00174	.0332	.00028
%RSD	153.11	10.565	294.21	.45016	213.79	.55319	74.505
#1	-.00003	.42000	.00065	.00804	.00205	5.9745	.00018
#2	.00067	.36161	-.00023	.00799	-.00042	6.0214	.00057
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00682	.00047	.05785	.09254	1.5162	.28992	.00050
SDev	.00083	.00126	.00356	.02729	.0137	.00086	.00082
%RSD	12.144	267.26	6.1596	29.492	.90508	.29697	165.23
#1	.00624	-.00042	.05533	.07325	1.5065	.28932	-.00008
#2	.00741	.00136	.06037	.11184	1.5259	.29053	.00108
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00108	-.00099	-.00006	-.00037	-.00299	.00397	.00165
SDev	.00011	.00049	.00078	.00036	.00256	.00254	.00084
%RSD	9.9804	49.475	1374.6	97.689	85.596	64.066	51.095
#1	.00100	-.00064	-.00061	-.00062	-.00479	.00576	.00225
#2	.00115	-.00134	.00050	-.00011	-.00118	.00217	.00105
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	-.00010	.00071	.00044	-.00204	.00050	.22229	
SDev	.00138	.00148	.00145	.00099	.00102	.00618	
%RSD	1312.1	207.94	328.52	48.710	201.75	2.7791	
#1	-.00108	-.00034	-.00058	-.00133	-.00021	.22666	
#2	.00087	.00176	.00146	-.00274	.00122	.21793	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11811	--	--	--	--	--	--
SDev	66.60960	--	--	--	--	--	--
%RSD	.5639504	--	--	--	--	--	--
#1	11764	--	--	--	--	--	--
#2	11858	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFSF

Operator: RJG

Run Time: 03/01/01 14:33:51

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04427	3.4641	1.7423	1.7804	.04729	27.018	.04374
SDev	.00035	.0699	.0266	.0043	.00140	.047	.00089
%RSD	.79900	2.0180	1.5285	.24048	2.9686	.17303	2.0266
#1	.04402	3.4146	1.7611	1.7835	.04829	26.985	.04437
#2	.04452	3.5135	1.7234	1.7774	.04630	27.051	.04312
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.48550	.17945	.48505	1.3079	6.8869	1.7595	.00003
SDev	.00001	.00106	.00331	.0123	.0120	.0019	.00028
%RSD	.00118	.59046	.68155	.93850	.17426	.10776	926.91
#1	.48550	.17870	.48271	1.2993	6.8784	1.7582	.00023
#2	.48550	.18020	.48738	1.3166	6.8954	1.7609	-.00017
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.44285	.43980	.43619	.43739	-.00291	.00401	.00171
SDev	.01256	.00061	.00178	.00139	.00034	.00357	.00227
%RSD	2.8365	.13787	.40741	.31716	11.699	88.971	132.75
#1	.45173	.44023	.43745	.43837	-.00315	.00654	.00331
#2	.43397	.43937	.43494	.43641	-.00267	.00149	.00010
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.7413	1.7205	1.7274	1.7580	.43439	1.4396	
SDev	.0184	.0012	.0053	.0375	.00237	.0305	
%RSD	1.0560	.07142	.30703	2.1308	.54676	2.1201	
#1	1.7283	1.7214	1.7237	1.7844	.43607	1.4612	
#2	1.7543	1.7197	1.7312	1.7315	.43271	1.4180	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13056	--	--	--	--	--	--
SDev	10.92494	--	--	--	--	--	--
%RSD	.0836793	--	--	--	--	--	--
#1	13063	--	--	--	--	--	--
#2	13048	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEFD

Operator: RJG

Run Time: 03/01/01 14:38:17

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.04225	3.3372	1.6734	1.7198	.04609	26.659	.04225
SDev	.00032	.0665	.0225	.0005	.00107	.048	.00064
%RSD	.75988	1.9913	1.3419	.03107	2.3281	.17935	1.5269
#1	.04247	3.2902	1.6893	1.7194	.04685	26.625	.04270
#2	.04202	3.3842	1.6576	1.7202	.04533	26.693	.04179
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.46866	.17240	.47603	1.2468	6.7870	1.7272	-.00036
SDev	.00065	.00013	.00559	.0169	.0118	.0041	.00020
%RSD	.13785	.07455	1.1734	1.3571	.17384	.23685	55.160
#1	.46911	.17249	.47208	1.2348	6.7786	1.7243	-.00022
#2	.46820	.17231	.47998	1.2588	6.7953	1.7301	-.00050
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.42674	.42582	.41716	.42005	-.00233	.00448	.00221
SDev	.01868	.00854	.00448	.00583	.00088	.00019	.00042
%RSD	4.3778	2.0057	1.0747	1.3890	37.787	4.3142	19.070
#1	.43995	.43186	.42033	.42417	-.00171	.00462	.00251
#2	.41353	.41978	.41399	.41592	-.00295	.00435	.00192
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	1.6671	1.6261	1.6398	1.6999	.41851	1.4015	
SDev	.0037	.0157	.0092	.0522	.00166	.0326	
%RSD	.22345	.96623	.56348	3.0700	.39537	2.3276	
#1	1.6644	1.6373	1.6463	1.7368	.41968	1.4246	
#2	1.6697	1.6150	1.6332	1.6630	.41734	1.3784	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	13450	--	--	--	--	--	--
SDev	110.4502	--	--	--	--	--	--
%RSD	.8211851	--	--	--	--	--	--
#1	13372	--	--	--	--	--	--
#2	13528	--	--	--	--	--	--

Method: METTRA Sample Name: DWJEJF

Operator: RJG

Run Time: 03/01/01 14:42:43

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00005	.08744	.00013	.03945	.00039	50.314	-.00014
SDev	.00032	.04589	.00001	.00006	.00150	.171	.00004
%RSD	591.09	52.479	6.7225	.15665	382.76	.34051	29.964
#1	-.00017	.11989	.00014	.03950	.00145	50.193	-.00017
#2	.00028	.05499	.00012	.03941	-.00067	50.435	-.00011
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.0000	600.00	10.000	10.000	10.000	600.00	5.0000
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00328	.00103	.00628	.01869	8.5090	1.6093	-.00009
SDev	.00031	.00002	.00189	.00357	.0217	.0053	.00010
%RSD	9.3479	1.4990	30.144	19.086	.25529	.32644	109.11
#1	.00306	.00102	.00494	.02121	8.4936	1.6056	-.00016
#2	.00349	.00104	.00762	.01617	8.5243	1.6131	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	100.00	20.000	10.000	500.00	600.00	10.000	20.000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00121	-.00270	.00258	.00082	-.00215	.00342	.00156
SDev	.00172	.00299	.00178	.00019	.00108	.00421	.00317
%RSD	141.89	110.71	69.096	23.559	50.233	123.31	202.73
#1	-.00000	-.00482	.00385	.00096	-.00291	.00044	-.00068
#2	.00242	-.00059	.00132	.00069	-.00139	.00639	.00380
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	100.00			5.0000			10.000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00256	.00287	.00276	-.00337	.00100	.03492	
SDev	.00575	.00139	.00099	.00016	.00036	.00090	
%RSD	224.80	48.423	35.706	4.7505	35.547	2.5829	
#1	-.00151	.00385	.00207	-.00348	.00125	.03556	
#2	.00662	.00189	.00346	-.00325	.00075	.03428	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			10.000	10.000	50.000	5.0000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11403	--	--	--	--	--	--
SDev	52.60902	--	--	--	--	--	--
%RSD	.4613653	--	--	--	--	--	--
#1	11366	--	--	--	--	--	--
#2	11440	--	--	--	--	--	--

Method: METTRA Sample Name: CCV3-5

Operator: RJG

Run Time: 03/01/01 14:47:10

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.0205	24.155	.50354	2.0028	2.0226	50.188	.48790
SDev	.0015	.786	.00742	.0003	.0073	.087	.01090
%RSD	.14619	3.2552	1.4743	.01551	.36130	.17309	2.2332
#1	1.0195	23.599	.50879	2.0026	2.0175	50.127	.49560
#2	1.0216	24.711	.49829	2.0030	2.0278	50.250	.48020
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	1.1000	27.500	.55000	2.2000	2.2000	55.000	.55000
Low	.90000	22.500	.45000	1.8000	1.8000	45.000	.45000
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	2.0484	2.0354	1.9645	25.042	49.614	2.0187	2.0568
SDev	.0021	.0077	.0214	.097	.089	.0016	.0096
%RSD	.10248	.38024	1.0916	.38772	.17927	.08080	.46534
#1	2.0469	2.0299	1.9493	24.973	49.551	2.0175	2.0500
#2	2.0498	2.0409	1.9797	25.110	49.676	2.0198	2.0636
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	2.2000	2.2000	2.2000	27.500	55.000	2.2000	2.2000
Low	1.8000	1.8000	1.8000	22.500	45.000	1.8000	1.8000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	1.9691	.50498	.50197	.50297	.50938	.51743	.51475
SDev	.0709	.00132	.00843	.00606	.00662	.00481	.00541
%RSD	3.5989	.26153	1.6795	1.2054	1.2986	.92911	1.0509
#1	2.0192	.50591	.50793	.50726	.51406	.52083	.51858
#2	1.9190	.50405	.49600	.49868	.50471	.51403	.51093
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	2.2000			.55000			.55000
Low	1.8000			.45000			.45000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.52316	.51841	.51999	1.0176	2.0083	2.0202	
SDev	.00050	.00885	.00607	.0382	.0042	.0510	
%RSD	.09501	1.7077	1.1674	3.7498	.21119	2.5232	
#1	.52351	.52467	.52428	1.0445	2.0113	2.0562	
#2	.52281	.51215	.51570	.99058	2.0053	1.9842	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.55000	1.1000	2.2000	2.2000	
Low			.45000	.90000	1.8000	1.8000	

677 1151

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11603	--	--	--	--	--	--
SDev	74.52933	--	--	--	--	--	--
%RSD	.6423171	--	--	--	--	--	--
#1	11550	--	--	--	--	--	--
#2	11656	--	--	--	--	--	--

Method: METTRA Sample Name: CCB5

Operator: RJG

Run Time: 03/01/01 14:51:36

Comment: STL PITTSBURGH ICP METALS ANALYSIS-INSTRUMENT TRACEICP

Mode: CONC Corr. Factor: 1

Elem	AG	AL	AS	BA	BE	CA	CD
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00041	.04656	.00051	.00055	.00065	.00804	-.00008
SDev	.00012	.04008	.00017	.00013	.00168	.01026	.00008
%RSD	29.924	86.084	33.200	24.050	256.50	127.62	100.25
#1	.00032	.07490	.00039	.00046	.00184	.00078	-.00014
#2	.00049	.01822	.00063	.00064	-.00053	.01529	-.00002
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.01000	.20000	.01000	.20000	.00500	5.0000	.00500
Low	-.01000	-.20000	-.01000	-.20000	-.00500	-5.0000	-.00500
Elem	CO	CR	CU	FE	MG	MN	MO
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	.00094	.00101	.00037	.01328	.01294	.00021	.00356
SDev	.00005	.00003	.00199	.01167	.00332	.00003	.00153
%RSD	5.5975	2.6681	539.87	87.883	25.705	16.175	42.943
#1	.00098	.00103	-.00104	.00503	.01059	.00024	.00464
#2	.00091	.00099	.00178	.02153	.01529	.00019	.00248
Errors	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass	LC Pass
High	.05000	.01000	.02500	.10000	5.0000	.01500	.04000
Low	-.05000	-.01000	-.02500	-.10000	-5.0000	-.01500	-.04000
Elem	NI	PB/1	PB/2	PB	SB/1	SB/2	SB
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	-.00246	-.00322	.00026	-.00090	-.00053	.00272	.00164
SDev	.00054	.00048	.00113	.00060	.00200	.00152	.00168
%RSD	21.826	14.847	443.22	66.409	377.80	55.829	102.37
#1	-.00284	-.00355	.00106	-.00048	.00088	.00379	.00282
#2	-.00208	-.00288	-.00055	-.00132	-.00194	.00165	.00045
Errors	LC Pass	NOCHECK	NOCHECK	LC Pass	NOCHECK	NOCHECK	LC Pass
High	.04000			.00300			.06000
Low	-.04000			-.00300			-.06000
Elem	SE/1	SE/2	SE	TL	V_	ZN	
Units	ppm	ppm	ppm	ppm	ppm	ppm	
Avge	.00268	.00531	.00444	-.00319	.00126	.00046	
SDev	.00548	.00106	.00111	.00524	.00000	.00006	
%RSD	203.97	20.040	25.116	164.22	.34475	13.515	
#1	.00656	.00456	H.00522	.00051	.00125	.00050	
#2	-.00119	.00606	.00365	-.00689	.00126	.00041	
Errors	NOCHECK	NOCHECK	LC Pass	LC Pass	LC Pass	LC Pass	
High			.00500	.01000	.05000	.02000	
Low			-.00500	-.01000	-.05000	-.02000	

IntStd	1	2	3	4	5	6	7
Mode	Counts	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED	NOTUSED
Elem	Y	--	--	--	--	--	--
Wavlen	371.030	--	--	--	--	--	--
Avge	11314	--	--	--	--	--	--
SDev	2.651650	--	--	--	--	--	--
%RSD	.0234377	--	--	--	--	--	--
#1	11316	--	--	--	--	--	--
#2	11312	--	--	--	--	--	--

677 1154

STL-Pittsburgh Atomic Absorption Data for Mercury

Instrument: PS200HG

Analyst Name: William A. Hays

Date of Analysis: 2-24-01

File ID: 0224 HGA

Matrix: WATER

Lot Number/SDG

Method

<u>C1B200120</u>	<u>TSLP</u>	<u>7470A</u>
<u>C1B140234</u>		
<u>C1B200221</u>		
<u>C1B220110</u>		
<u>C1B220121</u>		
<u>C1B210119</u>		
<u>C1B220250</u>		
<u>C1B230105</u>		
<u>C1B230148</u>		
<u>A1B190120</u>		

677 1155

William A. Hoyle 2-24-01

08:45:03 24 Feb 2001

Folder: 0224HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Standard: 1 Rep: 1				Seq: 0		08:45:03 24 Feb 2001 HG		
Hg	.000	ppb	2574					
*** Standard: 2 Rep: 1				Seq: 1		08:46:38 24 Feb 2001 HG		
Hg	.200	ppb	21327	0087-100-9				
*** Standard: 3 Rep: 1				Seq: 2		08:48:06 24 Feb 2001 HG		
Hg	.500	ppb	49781	0087-100-10				
*** Standard: 4 Rep: 1				Seq: 3		08:49:41 24 Feb 2001 HG		
Hg	1.00	ppb	88745	0087-100-11				
*** Standard: 5 Rep: 1				Seq: 4		08:51:22 24 Feb 2001 HG		
Hg	5.00	ppb	471862	0087-100-12				
*** Standard: 6 Rep: 1				Seq: 5		08:53:10 24 Feb 2001 HG		
Hg	10.0	ppb	919815	0087-100-13				

677 1156

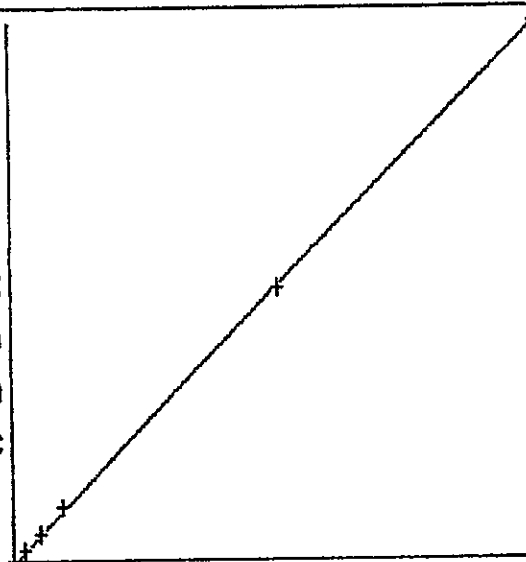
William C. Noyle 2-24-01

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0224HGA Seq: 6 Batch:
 Prnt: R/T On Pump: On
 Rev: 4.2 08:53:20 24 Feb 2001 Xmit: Off Gas: 0.30 LPM
 State: Idle User: WAH A/S: On

CALIBRATION: Line proto: HGMET

Hg	Accepted
Conc.	Calc.
S1 .000	-.001
S2 .200	.203
S3 .500	.512
S4 1.00	.935
S5 5.00	5.09
S6 10.0	9.96
A .0000000	r .999986
B 1.00566e-5	C -2.87046e-2

Mean	SD
S1 2574	2574
S2 21327	21327
S3 49781	49781
S4 88745	88745
S5 471862	471862
S6 919815	919815



Relative Absorbance

New cal coefficients stored

677 1157

William A. Hoyle 1-24-01

08:55:39 24 Feb 2001

Folder: 0224HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: ICV5-1				Seq: 6	08:55:39 24 Feb 2001 HG			
Hg	2.51	ppb	233656	0087-100-14				
*** Sample ID: ICB1				Seq: 7	08:57:13 24 Feb 2001 HG			
Hg	-.005	ppb	2189					
*** Sample ID: CCV5-1				Seq: 8	08:58:39 24 Feb 2001 HG			
Hg	5.05	ppb	467902	0087-100-15				
*** Sample ID: CCB1				Seq: 9	09:00:09 24 Feb 2001 HG			
Hg	-.019	ppb	867					
*** Sample ID: DWJCGBT				Seq: 10	09:01:44 24 Feb 2001 HG			
Hg	.002	ppb	2850					
*** Sample ID: DWJCGCT				Seq: 11	09:03:11 24 Feb 2001 HG			
Hg	2.65	ppb	246552	0087-100-16				
*** Sample ID: DWF4VBT				Seq: 12	09:04:49 24 Feb 2001 HG			
Hg	.002	ppb	2865					
*** Sample ID: DWCX7T				Seq: 13	09:06:55 24 Feb 2001 HG			
Hg	.031	ppb	5496					
*** Sample ID: DWCX7ST				Seq: 14	09:08:22 24 Feb 2001 HG			
Hg	5.16	ppb	477995					SP. REC. 103%
*** Sample ID: DWCX7DT				Seq: 15	09:09:51 24 Feb 2001 HG			
Hg	5.02	ppb	465373					SP. REC. 100%
*** Sample ID: DWJCVBT				Seq: 16	09:11:20 24 Feb 2001 HG			
Hg	-.000	ppb	2641					
*** Sample ID: DWJCVCT				Seq: 17	09:12:49 24 Feb 2001 HG			
Hg	2.64	ppb	245730	0087-101-1				

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Folder: 0224HGA
Protocol: HGMET

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09:14:37 24 Feb 2001

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DWF5GBT				Seq: 18	09:14:37 24 Feb 2001	HG		
Hg	.006	ppb	3236					
*** Sample ID: DV5D2T				Seq: 19	09:16:04 24 Feb 2001	HG		
Hg	.037	ppb	6029					
*** Sample ID: CCV5-2				Seq: 20	09:17:30 24 Feb 2001	HG		
Hg	5.08	ppb	470435					
*** Sample ID: CCB2				Seq: 21	09:18:55 24 Feb 2001	HG		
Hg	-.018	ppb	949					
*** Sample ID: DV5D2ST				Seq: 22	09:20:20 24 Feb 2001	HG		
Hg	5.04	ppb	467158					
*** Sample ID: DV5D2DT				Seq: 23	09:22:00 24 Feb 2001	HG		
Hg	4.99	ppb	461991					
*** Sample ID: DWD1KT				Seq: 24	09:23:30 24 Feb 2001	HG		
Hg	-.054	ppb	-2361					
*** Sample ID: DWJC5BT				Seq: 25	09:25:10 24 Feb 2001	HG		
Hg	.034	ppb	5786					
*** Sample ID: DWJC5CT				Seq: 26	09:26:46 24 Feb 2001	HG		
Hg	2.65	ppb	246804					
*** Sample ID: DWH4TBT				Seq: 27	09:28:55 24 Feb 2001	HG		
Hg	.053	ppb	7483					
*** Sample ID: DWF72T				Seq: 28	09:30:40 24 Feb 2001	HG		
Hg	.000	ppb	2667					
*** Sample ID: DWF72ST				Seq: 29	09:32:38 24 Feb 2001	HG		
Hg	5.09	ppb	471268					

SP REC WAH
100% 2-24-01SP REC
101%SP REC
100%

0087-101-2

SP REC
102%

677 1159

09:34:06 24 Feb 2001

Folder: 0224HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DWF72DT				Seq: 30	09:34:06 24 Feb 2001	HG		
Hg	5.04	ppb	466927					SP.REC. 101%
*** Sample ID: DWJDHBT				Seq: 31	09:35:34 24 Feb 2001	HG		
Hg	-.038	ppb	-870					
*** Sample ID: CCV5-3				Seq: 32	09:37:05 24 Feb 2001	HG		
Hg	5.03	ppb	466249					
*** Sample ID: CCB3				Seq: 33	09:39:00 24 Feb 2001	HG		
Hg	-.001	ppb	2531					
*** Sample ID: DWJDHCT				Seq: 34	09:41:17 24 Feb 2001	HG		
Hg	2.56	ppb	238733		0087-101-3			
*** Sample ID: DWH4XBT				Seq: 35	09:42:45 24 Feb 2001	HG		
Hg	.005	ppb	3104					
*** Sample ID: DWGAHT				Seq: 36	09:44:16 24 Feb 2001	HG		
Hg	.149	ppb	16349					
*** Sample ID: DWGAHST				Seq: 37	09:46:06 24 Feb 2001	HG		SP.REC. 99%
Hg	5.12	ppb	474069					
*** Sample ID: DWGAHDT				Seq: 38	09:47:31 24 Feb 2001	HG		SP.REC. 96%
Hg	4.96	ppb	459505					
*** Sample ID: DWGAPT				Seq: 39	09:48:58 24 Feb 2001	HG		
Hg	.034	ppb	5813					
*** Sample ID: DWGATT				Seq: 40	09:50:38 24 Feb 2001	HG		
Hg	.108	ppb	12610					
*** Sample ID: DWGA1T				Seq: 41	09:52:03 24 Feb 2001	HG		
Hg	.087	ppb	10668					

677 1160

09:53:32 24 Feb 2001

Folder: 0224HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DWGA3T				Seq: 42		09:53:32 24 Feb 2001	HG	
Hg	.130	ppb	14651					
*** Sample ID: DWJD9B				Seq: 43		09:55:13 24 Feb 2001	HG	
Hg	.005	ppb	3131					
*** Sample ID: CCV5-4				Seq: 44		09:56:50 24 Feb 2001	HG	
Hg	4.92	ppb	455664					
*** Sample ID: CCB4				Seq: 45		09:59:16 24 Feb 2001	HG	
Hg	.007	ppb	3307					
*** Sample ID: DWJD9C				Seq: 46		10:01:23 24 Feb 2001	HG	
Hg	2.44	ppb	226984		0087-101-4			
*** Sample ID: DWELT				Seq: 47		10:03:02 24 Feb 2001	HG	
Hg	.332	ppb	33268					
*** Sample ID: DWELTS				Seq: 48		10:04:39 24 Feb 2001	HG	
Hg	1.26	ppb	118750					SP. REC. 93% ^{2/6}
*** Sample ID: DWELTD				Seq: 49		10:06:05 24 Feb 2001	HG	
Hg	1.25	ppb	117703					SP. REC. 92% ^{2/6}
*** Sample ID: DWEL9				Seq: 50		10:07:34 24 Feb 2001	HG	
Hg	.007	ppb	3330					
*** Sample ID: DWEME				Seq: 51		10:09:05 24 Feb 2001	HG	
Hg	.377	ppb	37360					
*** Sample ID: DWEMN				Seq: 52		10:10:33 24 Feb 2001	HG	
Hg	.461	ppb	45152					
*** Sample ID: DWEMQ				Seq: 53		10:12:09 24 Feb 2001	HG	
Hg	-.001	ppb	2587					

677.1161

10:13:36 24 Feb 2001

Folder: 0224HGA
Protocol: HGMET

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DWEMV				Seq: 54	10:13:36 24 Feb 2001	HG		
Hg	.000	ppb	2673					
*** Sample ID: DWEM1				Seq: 55	10:15:03 24 Feb 2001	HG		
Hg	.020	ppb	4503					
*** Sample ID: CCV5-5				Seq: 56	10:16:29 24 Feb 2001	HG		
Hg	4.99	ppb	462603					
*** Sample ID: CCBS				Seq: 57	10:18:04 24 Feb 2001	HG		
Hg	-.015	ppb	1237					
*** Sample ID: DWEM3				Seq: 58	10:19:32 24 Feb 2001	HG		
Hg	.042	ppb	6514					
*** Sample ID: DWKC1B				Seq: 59	10:21:44 24 Feb 2001	HG		
Hg	.034	ppb	5765					
*** Sample ID: DWKC1C				Seq: 60	10:23:11 24 Feb 2001	HG		
Hg	2.46	ppb	229168	0087-101-5				
*** Sample ID: DWHLG				Seq: 61	10:24:48 24 Feb 2001	HG		
Hg	.034	ppb	5742					
*** Sample ID: DWH4N				Seq: 62	10:26:44 24 Feb 2001	HG		
Hg	.111	ppb	12859					
*** Sample ID: DWH4NS				Seq: 63	10:28:10 24 Feb 2001	HG		
Hg	1.03	ppb	97941					SP. REC. 92%
*** Sample ID: DWH4ND				Seq: 64	10:29:51 24 Feb 2001	HG		
Hg	1.08	ppb	102311					SP. REC. 97%
*** Sample ID: DWH4P				Seq: 65	10:31:29 24 Feb 2001	HG		
Hg	.092	ppb	11104					

677 1162

10:32:56 24 Feb 2001

Folder: 0224HGA

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Protocol: HGMET

Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: DWJJM				Seq: 66	10:32:56 24 Feb 2001 HG			
Hg	.164	ppb	17784					
*** Sample ID: DWJJ3				Seq: 67	10:34:38 24 Feb 2001 HG			
Hg	.292	ppb	29536					
*** Sample ID: CCV5-6				Seq: 68	10:36:17 24 Feb 2001 HG			
Hg	4.89	ppb	453409					
*** Sample ID: CCB6				Seq: 69	10:37:56 24 Feb 2001 HG			
Hg	-.013	ppb	1459					
*** Sample ID: DWJKC				Seq: 70	10:39:25 24 Feb 2001 HG			
Hg	.081	ppb	10073					
*** Sample ID: DWKBAB				Seq: 71	10:40:54 24 Feb 2001 HG			
Hg	-.004	ppb	2234					
*** Sample ID: DWKBAC				Seq: 72	10:42:36 24 Feb 2001 HG			
Hg	2.39	ppb	222410					
*** Sample ID: DWAON				Seq: 73	10:44:05 24 Feb 2001 HG			
Hg	-.022	ppb	663					
*** Sample ID: DWAONS				Seq: 74	10:45:53 24 Feb 2001 HG			
Hg	1.03	ppb	97688					
*** Sample ID: DWAOND				Seq: 75	10:47:21 24 Feb 2001 HG			
Hg	1.06	ppb	100321					
*** Sample ID: CCV5-7				Seq: 76	10:49:42 24 Feb 2001 HG			
Hg	4.89	ppb	452857					
*** Sample ID: CCB7				Seq: 77	10:51:32 24 Feb 2001 HG			
Hg	.009	ppb	3512					

END OF ANALYSIS
WAH
2-24-01

SP REC.
103%

SP REC.
106%

677 1163

William A. Hoyle 2-24-01

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
 RunFold: 0224HGA Seq: 0 Batch:
 Prnt: R/T On Pump: Off
 Rev: 4.2 07:50:03 24 Feb 2001 Xmit: Off Gas: LPM
 State: Idle User: WAH A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1

cup ID	Extended id	Weight	Volume	Macro	check macros
1	ICV5-1	1.0000	1.0000		
2	ICB1	1.0000	1.0000		
3	CCV5-1	1.0000	1.0000		
4	CCB1	1.0000	1.0000		
5	DWJCGBT	1.0000	1.0000		
6	DWJCGCT	1.0000	1.0000		
7	DWF4VBT	1.0000	1.0000		
8	DWCX7T	1.0000	1.0000		
9	DWCX7ST	1.0000	1.0000		
10	DWCX7DT	1.0000	1.0000		
11	DWJCVBT	1.0000	1.0000		
12	DWJCVCT	1.0000	1.0000		
13	DWF5GBT	1.0000	1.0000		
14	DV5D2T	1.0000	1.0000		
15	CCV5-2	1.0000	1.0000		

PgDn

Cup 1 ID: ICV5-1

Cell down mode Ins to switch

677 1164

RunProt: HGMET STL-PITTSBURGH METALS ANALYSIS
RunFold: 0224HGA Seq: 0 Batch:
Prnt: R/T On Pump: Off
Rev: 4.2 07:50:04 24 Feb 2001 Xmit: Off Gas: LPM
State: Idle User: WAH A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1 PgUp
cup ID Extended id Weight Volume Macro check macros
16 CCB2 1.0000 1.0000
17 DV5D2ST 1.0000 1.0000
18 DV5D2DT 1.0000 1.0000
19 DWD1KT 1.0000 1.0000
20 DWJC5BT 1.0000 1.0000
21 DWJC5CT 1.0000 1.0000
22 DWH4TBT 1.0000 1.0000
23 DWF72T 1.0000 1.0000
24 DWF72ST 1.0000 1.0000
25 DWF72DT 1.0000 1.0000
26 DWJDHBT 1.0000 1.0000
27 CCV5-3 1.0000 1.0000
28 CCB3 1.0000 1.0000
29 DWJDHCT 1.0000 1.0000
30 DWH4XBT 1.0000 1.0000

PgDn

Cup 16 ID: CCB2

Cell down mode Ins to switch

677 1165

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0224HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
	Rev: 4.2	07:50:06 24 Feb 2001	Xmit: Off Gas: LPM
State: Idle		User: WAH.	A/S: On

AUTOSAMPLER: Rack Edit rack: RACK1				PgUp
cup ID	Extended id	Weight	Volume Macro	check macros
31 DWGAHT		1.0000	1.0000	
32 DWGAHST		1.0000	1.0000	
33 DWGAHDT		1.0000	1.0000	
34 DWGAFT		1.0000	1.0000	
35 DWGATT		1.0000	1.0000	
36 DWGA1T		1.0000	1.0000	
37 DWGA3T		1.0000	1.0000	
38 DWJD9B		1.0000	1.0000	
39 CCV5-4		1.0000	1.0000	
40 CCB4		1.0000	1.0000	
41 DWJD9C		1.0000	1.0000	
42 DWELT		1.0000	1.0000	
43 DWELTS		1.0000	1.0000	
44 DWELTD		1.0000	1.0000	

PgDn

Cup 31 ID: DWGAHT

Cell down mode Ins to switch

677 1166

RunProt: HGMET - STL-PITTSBURGH METALS ANALYSIS
RunFold: 0224HGA Seq: 0 Batch:
 Prnt: R/T On Pump: Off
 Rev: 4.2 08:04:22 24 Feb 2001 Xmit: Off Gas: LPM
State: Idle User: WAH A/S: On

AUTOSAMPLER: Rack Edit rack: RACK2

cup ID	Extended id	Weight	Volume	Macro	check macros
1 DWEL9		1.0000	1.0000		
2 DWEME		1.0000	1.0000		
3 DWEMN		1.0000	1.0000		
4 DWEMQ		1.0000	1.0000		
5 DWEMV		1.0000	1.0000		
6 DWEM1		1.0000	1.0000		
7 CCV5-5		1.0000	1.0000		
8 CCBS		1.0000	1.0000		
9 DWEM3		1.0000	1.0000		
10 DWKC1B		1.0000	1.0000		
11 DWKC1C		1.0000	1.0000		
12 DWHLG		1.0000	1.0000		
13 DWH4N		1.0000	1.0000		
14 DWH4NS		1.0000	1.0000		
15 DWH4ND		1.0000	1.0000		

PgDn

Cup 1 ID: DWEL9

Cell down mode Ins to switch

RunProt: HGMET	STL-PITTSBURGH METALS ANALYSIS		
RunFold: 0224HGA	Seq: 0	Batch:	
	Prnt: R/T On	Pump: Off	
	Rev: 4.2	08:04:24 24 Feb 2001	Xmit: Off Gas: LPM
State: Idle		User: WAH	A/S: On

AUTOSAMPLER: Rack Edit		rack: RACK2	PgUp
cup ID	Extended id	Weight Volume Macro	check macros
16 DWH4P		1.0000 1.0000	
17 DWJJM		1.0000 1.0000	
18 DWJJ3		1.0000 1.0000	
19 CCV5-6		1.0000 1.0000	
20 CCB6		1.0000 1.0000	
21 DWJKC		1.0000 1.0000	
22 DWKBAB		1.0000 1.0000	
23 DWKBAC		1.0000 1.0000	
24 DWAON		1.0000 1.0000	
25 DWAONS		1.0000 1.0000	
26 DWAOND		1.0000 1.0000	
27 CCV5-7		1.0000 1.0000	
28 CCB7		1.0000 1.0000	
29		1.0000 1.0000	
30		1.0000 1.0000	

PgDn

Cup 16 ID: DWH4P

Cell down mode Ins to switch



Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571

Hg Digestion Log

Serial Number	070	Log Book Number	96-MT-583	Start Time	07:25:20
Pipet # H31609					

Sample ID	Date Rec'd	Prep Date	Prepared By	WVVol	Sample Type	Run Date	Comments
1. STD0	N/A	2-24-01	WBAH	100ml	WATER	3-24-01	N/A
2. STD1							0087-100-9
3. STD2							0087-100-10
4. STD3							0087-100-11
5. STD4							0087-100-12
6. STD5							0087-100-13
7. ICS							0087-100-14
8. ICS							N/A
9. CCS							0087-100-15
10. CCS							N/A
11. DWJCSBT							↓
12. DWJCSBT							0087-100-16
13. DWJCSBT							N/A
14. DWJCSBT	3-20-01						↓
15. DWJCSBT							+5ml 0087-100-7
16. DWJCSBT							+5ml 0087-100-7
17. DWJCSBT	N/A						N/A
18. DWJCSBT							0087-101-1
19. DWJCSBT							N/A
20. DWJCSBT	3-14-01						↓
21. DWJCSBT							+5ml 0087-100-7
22. DWJCSBT							+5ml 0087-100-7
23. DWJCSBT	2-20-01						N/A
24. DWJCSBT	N/A						↓
25. DWJCSBT							0087-101-3
Reagents		Vol (mL)		Ref. Number			Method
HNO3	2.5ml		MAILINCKRODT	6623	TOPAOS	7470A	AUTOCLAVE 15PSI 120°C
H2SO4	5.0ml			5557	T/6A16		SACLO = 0087-069-13
KMNO4	15.0ml			0087-087-3			ASCL-4H2O2 = 0087-091-5
K2S2O4	8.0ml			0087-092-1			WBAH 2-24-01
Extract(s)			Extract(s) Received			Extract(s) Relinquished	
(Record line number from above)							
	Date	Time	Analyst	Location	Date	Time	Location
			WBAH				

Quanterra Incorporated
450 William Pitt Way
Pittsburgh, Pennsylvania 15238
412/826-5477 FAX: 412/826-5571

Hg Digestion Log

QUA-4169

PIPET # H31609.

Serial Number						Log Book Number						Start Time					
071						96-MT-583						07:25-07:45					
Sample ID	Date Rec'd	Prep Date	Prepared By	Wt/Vol	Sample Type	Run Date	Comments										
1 DWHTBT	N/A	2-24-01	WAH	100ml	WATER	2-24-01	N/A										
2 DWF73T	↓																
3 DWF73ST	↓						+ 5ml 0087-100-7										
4 DWF73DT							+ 5ml 0087-100-7										
5 DWTDHBT	N/A						N/A										
6 DWTDHCT	↓						0087-101-3										
7 DWTHYBT	↓						N/A										
8 DWGAHT	2-23-01						↓										
9 DWGANST							+ 5ml 0087-100-7										
10 DWGABOT							+ 5ml 0087-100-7										
11 DWGAPT							N/A										
12 DWGATT							↓										
13 DWGANT	↓						↓										
14 DWGAST	N/A						↓										
15 DWTDGB	↓						0087-101-4										
16 DWTDGC	↓						N/A										
17 DWELT	2-21-01						↓										
18 DWELTS							+ 1ml 0087-100-7										
19 DWELTD							+ 1ml 0087-100-7										
20 DWELS							N/A										
21 DWELME							↓										
22 DWELMN							↓										
23 DWELMQ							↓										
24 DWELMV							↓										
25 DWELML	↓						↓										
Reagents	Vol (mL)	Ref. Number	Method														
HNO3	2.5ml	MALINCKRODT 6629 TOSAO5	7470A AUTOCLAVE 15PSI 120°C														
H2SO4	5.0ml	↓ 5557 TIBAI6	SACLS = 0087-069-13														
KMNO4	15.0ml	0087-087-3	NACL-NH2OH = 0087-091-5														
K2S2O4	8.0ml	0087-092-1	WAH 2-24-01														
Extract(s) Received				Extract(s) Relinquished													
Date	Time	Analyst	Location	Date	Time	Analyst	Location										
				WAH 2-24-01													
(Record line number from above)																	

Hg Digestion Log

Serial Number	Log Book Number	Start Time
072	96-MT-583	07:35 201:40

[illegible]

STL - Pittsburgh Data Review Checklist - Mercury

677 1171

Run Date	Analyst	Instrument	Prep Batches Run	Method Used
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Method	3010A	Metric	Water	Start Time	1100	Reagents:	3ml Conc HNO ₃	623109405	Wallinckx			
Analyst	Capitula H. B. B.	Date	2-26-01	Lot Number	C1B230148		5ml 1:1 HCL	0087-099-1				
Reviewed by		Date	2-26-01									
SDG:		MS	M5 BUREY, MSA, MSCREY	Lab Lot # (book/page/line)	0087-020-1, 0057-123-10, 0057-123-1	124-1 Cnt	2-26-01	Balance #:				
Sample ID	Initial Wt/Vol	Final Vol	Comments	Color	Clarity	Texture	Antifacts	Antifact Codes				
1. DWJTM	50ml	50ml	CKL 2-26-01	Pre	Post	Pre	Post	S=Stones				
2. DWJTM			+ 0.5ml M5BUREY, MSA, MSCREY					O=Organic (plant mat)				
3. DWJTM			↓					W=free H ₂ O				
4. DWJTM			CKL 2-26-01					G=Glass				
5. DWJTM								M=Metal Pigments				
6. DWJTM								R=Rubber/Plastic				
7. DWJTM			10.5ml M5BUREY, MSA, MSCREY					C=Cloth				
8. DWJTM								P=Paper				
9. DWJTM								I=Insects				
10. DWJTM												
11. DWJTM												
12. DWJTM												
13. DWJTM												
14. DWJTM												
15. DWJTM												
16. DWJTM												
17. DWJTM												
18. DWJTM												
19. DWJTM												
20. DWJTM												
21. DWJTM												
22. DWJTM												
23. DWJTM												
24. DWJTM												
Digestate(s)	Date	Time	(Received)	Analyst	Location	Date	Time	(Relinquished)	Analyst	Location	Hot Plate/Block Temp	Correction Factor
All Above	2-26-01	1730		CKL	Met Prep	2-26-01	1740		CKL	Met 182	11/95°C	-0.5°C
All Above	2-27-01	1245		CKL	Met 182	2-27-01	1600		CKL	Met 182		
All Above	2-28-01	830		CKL	Met 182	2-28-01	1315		CKL	Met 182		
All Above	3-10-01	1145		CKL	Met 182	3-10-01	1340		CKL	Met 182		

REQUESTED BY RIZZOC

METHOD. QM Inductively Coupled Plasma (6010B Trace)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SPX	MATRIX DESCRIPTION	QTY	
										RCVD	REQD
3A	DWJHM	---	316086	399411	I-05-QM	C1B230148	001		WATER	0	13 1
3A	DWJJ3	---	316087	399411	I-05-QM	C1B230148	002		WATER	0	13 1
3A	DWJKC	---	316088	399411	I-05-QM	C1B230148	003		WATER	0	13 1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

[Signature]
[Signature]

[Signature]
[Signature]

2-26-01 1100
2-26-01 1300

***** END OF REPORT *****

REQUESTED BY: HOYLEW

METHOD: 08 Mercury (7470A, Cold Vapor) - Liquid

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SPX	MATRIX	QTY	QTY	
		CNTR#							DESCRIPTION			RCVD
3A	DWJJM	___	315505	399411	I-19-08	C1B230148	001		WATER	0	13	1
3A	DWJJ3	___	315506	399411	I-19-08	C1B230148	002		WATER	0	13	1
3A	DWJKC	___	315507	399411	I-19-08	C1B230148	003		WATER	0	13	1

RELINQUISHED BYRECEIVED BYDATE/TIME

William A. Hoyle William A. Hoyle 2-24-01 05:05

William A. Hoyle William A. Hoyle 2-24-01 06:10

***** END OF REPORT *****

677 1175

GENERAL CHEMISTRY DATA

677 1176

UXB INTERNATIONAL

Client Sample ID: DF/24-B/1053/IDW/001

General Chemistry

Lot-Sample #...: C1B230148-001 Work Order #...: DWJJM Matrix.....: WATER
Date Sampled...: 02/22/01 Date Received...: 02/23/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	8.4		No Units	SW846 9040	02/23/01	1054347
		Dilution Factor: 1		MS Run #.....: 1054146		
Cyanide, Total	ND	10.0	ug/L	SW846 9012A	02/24-02/26/01	1055094
		Dilution Factor: 1		MS Run #.....: 1055005		
Flashpoint	>201		deg F	SW846 1010	02/23/01	1054405
		Dilution Factor: 1		MS Run #.....: 1054188		
Total Sulfide	ND	1.0	mg/L	MCAWW 376.1	02/28/01	1059242
		Dilution Factor: 1		MS Run #.....: 1059102		

677 1177

UXB INTERNATIONAL

Client Sample ID: DF/24-A/1053/IDW/002

General Chemistry

Lot-Sample #...: C1B230148-002 Work Order #...: DWJJ3 Matrix.....: WATER
Date Sampled...: 02/22/01 Date Received...: 02/23/01

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
pH	7.8		No Units	SW846 9040	02/23/01	1054347
			Dilution Factor: 1	MS Run #: 1054146		
Cyanide, Total	ND	10.0	ug/L	SW846 9012A	02/24-02/26/01	1055094
			Dilution Factor: 1	MS Run #: 1055005		
Flashpoint	>201		deg F	SW846 1010	02/23/01	1054405
			Dilution Factor: 1	MS Run #: 1054188		
Total Sulfide	ND	1.0	mg/L	MCAWW 376.1	02/28/01	1059242
			Dilution Factor: 1	MS Run #: 1059102		

677 1178

UXB INTERNATIONAL

Client Sample ID: DF/24-A/1053/IDW/003

General Chemistry

Lot-Sample #...: C1B230148-003 Work Order #...: DWJKC Matrix.....: WATER
 Date Sampled...: 02/22/01 Date Received...: 02/23/01

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	11.8		No Units	SW846 9040	02/23/01	1054347
		Dilution Factor 1		MS Run #... : 1054146		
Cyanide, Total	ND	10.0	ug/L	SW846 9012A	02/24-02/26/01	1055094
		Dilution Factor: 1		MS Run #.....: 1055005		
Flashpoint	>201		deg F	SW846 1010	02/23/01	1054405
		Dilution Factor 1		MS Run #.....: 1054188		
Total Sulfide	ND	1.0	mg/L	MCAWW 376.1	02/28/01	1059242
		Dilution Factor: 1		MS Run # : 1059102		

677 1179

METHOD BLANK REPORT

General Chemistry

Client Lot #...: C1B230148

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Cyanide, Total	ND	Work Order #: DWK8D1AA 10.0	ug/L	MB Lot-Sample #: SW846 9012A	C1B240000-094 02/24-02/26/01	1055094
		Dilution Factor: 1				
Total Sulfide	ND	Work Order #: DWPX71AA 1.0	mg/L	MB Lot-Sample #: MCAWW 376.1	C1B280000-242 02/28/01	1059242
		Dilution Factor: 1				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

677 1180

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: C1B230148

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
pH	101	Work Order #: DWJ8A1AA (85 - 115)	LCS Lot-Sample#: C1B230000-347 SW846 9040	02/23/01	1054347
		Dilution Factor: 1			
Cyanide, Total	108	Work Order #: DWK8D1AC (85 - 115)	LCS Lot-Sample#: C1B240000-094 SW846 9012A	02/24-02/26/01	1055094
		Dilution Factor: 1			
Flashpoint	101	Work Order #: DWKQC1AA (85 - 115)	LCS Lot-Sample#: C1B230000-405 SW846 1010	02/23/01	1054405
		Dilution Factor: 1			
Total Sulfide	85	Work Order #: DWPX71AC (75 - 125)	LCS Lot-Sample#: C1B280000-242 MCAWW 376.1	02/28/01	1059242
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

677 1181

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #....: C1B230148

Matrix.....: WATER

Date Sampled...: 02/21/01

Date Received...: 02/22/01

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Cyanide, Total			WO#: DWELT1CA-MS/DWELT1CC-MSD			MS Lot-Sample #: C1B210119-001	
54 N	(75 - 125)				SW846 9012A	02/24-02/26/01	1055094
48 N	(75 - 125)	11	(0-20)		SW846 9012A	02/24-02/26/01	1055094
Dilution Factor: 1							
MS Run #:: 1055005							
Total Sulfide			WO#: DWHLG1DW-MS/DWHLG1DX-MSD			MS Lot-Sample #: C1B220250-001	
94	(75 - 125)				MCAWW 376.1	02/28/01	1059242
86	(75 - 125)	8.2	(0-20)		MCAWW 376.1	02/28/01	1059242
Dilution Factor: 1							
MS Run #:: 1059102							

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results

N Spiked analyte recovery is outside stated control limits.

677 1182

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: C1B230148

Work Order #...: DWJJM-SMP
DWJJM-DUP

Matrix.....: WATER

Date Sampled...: 02/22/01

Date Received...: 02/23/01

% Moisture.....:

Dilution Factor:

Initial Wgt/Vol:

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Flashpoint						SD Lot-Sample #: C1B230148-001		
	>201	>201	deg F	0.0	(0-0.0)	SW846 1010	02/23/01	1054405
				Dilution Factor: 1		MS Run Number. 1054188		
pH						SD Lot-Sample #: C1B230148-001		
	8.4	8.4	No Units	0.24	(0-0.0)	SW846 9040	02/23/01	1054347
				Dilution Factor: 1		MS Run Number...: 1054146		

STL Pittsburgh pH LOG SHEET

677 1183

Lot No. 018220110 Batch No. 1054296 SDG No. 2
118230148 1054347

Analyst: BRANDY MUECHER
 Date: 02/23/01
 Start Time: 08:30/13:20

pH Meter Calibration

Reading	Buffer	Manf. Lot No.	Rec'd	Expire
<u>4.00</u>	4.0	<u>LABCON 0271-08</u>	<u>12/19/00</u>	<u>12/19/01</u>
<u>7.00</u>	7.0	<u>0062-04</u>	<u>05/19/00</u>	<u>03/01/02</u>
<u>10.02</u>	10.0	<u>0146-04</u>	<u>10/26/00</u>	<u>05/25/01</u>

LCS ID No.: 0299-26 Exp: 12/19/01

Relative Percent Difference = $\frac{C18230148-001 - C18220110-001}{C18230148-001 + C18220110-001} \times 100 = 0.2\%$

Range = $\pm .05$ pH units

$$\frac{|X_1 - X_2|}{\frac{X_1 + X_2}{2}} \times 100$$

X_1 = Original Result
 X_2 = Duplicate

pH Liquid

Sample ID	pH Reading
LCS	7.04
<u>C18230148-001</u>	<u>8.43 2 RPD</u>
<u>-001 DUP</u>	<u>8.45 3 0.2%</u>
<u>-002</u>	<u>7.79</u>
<u>-003</u>	<u>11.77</u>
LCS	7.05

BM
02/23/01

pH Solid

Sample ID	pH Reading
LCS	7.05
<u>C18220110-001</u>	<u>9.40 2 RPD</u>
<u>-001 DUP</u>	<u>9.00 3 4.3%</u>
LCS	7.05

BM
02/23/01

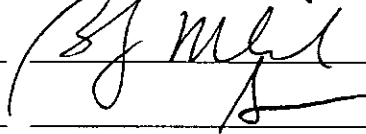
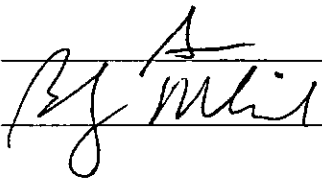
BM 02/23/01

REQUESTED BY HLECHICB

677 1184

JD OZ pH (9045C) - Non-Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
1F	DWP72-1-AN	_____	315376	002532	A-88-OZ	C1B220110	001		SOLID	4	1

RELINQUISHED BYRECEIVED BYDATE/TIME

01/23/01 08:15

01/23/01 09:45

***** END OF REPORT *****

REQUESTED BY ~~MLECHICK~~

677 1185

DD- PJ pH (9040) - Aqueous

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u> <u>RCVD</u>	<u>QTY</u> <u>REQD</u>
3A	DWJJM-1-CA	___	315441	399411	I-88-FJ	C1B230148	001		WATER	13	1
3A	DWJJ3-1-CA	___	315442	399411	I-88-FJ	C1B230148	002		WATER	13	1
3A	DWJKC-1-CA	___	315443	399411	I-88-FJ	C1B230148	003		WATER	13	1

RELINQUISHED BYRECEIVED BYDATE/TIME

02/23/01 13:15

02/23/01 14:00

***** END OF REPORT *****

677 1186

Ignitability

Method: Flashpoint (1010 closed cup)STL Pittsburgh
450 William Pitt Way
Pittsburgh, PA 15238

ANALYST: <u>[Signature]</u>	DATE: <u>2-23-01</u>
BATCH: <u>1054405</u>	TIME: <u>15:30</u>

SAMPLE ID	RESULT	Corrected Results
P-Xylolms	81°F	81.9°F
C1B23148-1	>200°F	>200.9°F
-1x	>200°F	>200.9°F
-2	>200°F	>200.9°F
-3	>200°F	>200.9°F
P-Xylolms	81°F	81.9°F

RPD =
0.00Reviewed by [Signature] Date 2-23-01

WC-00-0060

Page 43 of 100

677 1187

REQUESTED BY GROVERP

METHOD AB Flash Point (1010, Closed Cup)

STORAGE LOCATION	WORK ORDER #	PICKED CNTR#	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SPX	MATRIX DESCRIPTION	QTY	QTY
										RCVD	REQD
3A	DWJJM-1-AB	___	315517	399411	I-88-AE	C1B230148	001		WATER	13	1
3A	DWJJ3-1-AK	___	315518	399411	I-88-AE	C1B230148	002		WATER	13	1
3A	DWJKC-1-AK	___	315519	399411	I-88-AE	C1B230148	003		WATER	13	1

RELINQUISHED BY

RECEIVED BY

DATE/TIME

2-23-01 15:30

2-23-01 17:00

***** END OF REPORT *****

677 1188 STL Pittsburgh-Cyanide Analysis

Analyst J. Johnson Date 02-26-01
 Data File 022601A

Lot Number(s) Batch Number(s) Method

C18140143	1053155	Total Water
C18140233	↓	↓
C18150236	↓	↓
C18150274	↓	↓

C18130209	1053173	Amenable Water
C18140143	↓	↓
C18150236	↓	↓

C18140279	1054151	Total Solid
C18150274	↓	↓
C18150278	↓	↓
C18150284	↓	↓

C18220250	1055094	Total Water
C18230178	↓	↓
C18240119	↓	↓

Run Results Report

Results: C:\FLOW_4\022601A.RST.

Results completed: 10:43 February 26, 2001.

Operator: PAUL JOHNSON

677 1189

CYANIDE

Time	Cup	Name	Height	Calc.	Flags
----- User request: Start Data Collect -----					
07:22	0	CARRYOVER	790	0.001737	
07:24	0	CARRYOVER	116	0.000077	
		Mean & RSD:	453	0.000907	NoRSD
07:25	0	READ BASELIN	0	-0.000209	BL
07:26	301	0.500 PPM ST	205590	0.506269	HI
07:27	301	0.500 PPM ST	204211	0.502871	HI
07:28	301	0.500 PPM ST	203641	0.501465	HI
		Mean & RSD:	204481	0.503535	.49%
07:29	302	0.400 PPM ST	162974	0.401283	
07:31	302	0.400 PPM ST	162428	0.399936	
07:32	302	0.400 PPM ST	159512	0.392752	
		Mean & RSD:	161638	0.397990	1.15%
07:33	303	0.300 ppm ST	120687	0.297108	
07:34	303	0.300 ppm ST	121068	0.298046	
07:35	303	0.300 ppm ST	121155	0.298259	
		Mean & RSD:	120970	0.297804	.206%
07:36	304	0.200 PPM ST	80614	0.198385	
07:38	304	0.200 PPM ST	80723	0.198653	
07:39	304	0.200 PPM ST	80953	0.199220	
		Mean & RSD:	80763	0.198753	.214%
07:40	305	0.100 PPM ST	40737	0.100147	
07:41	305	0.100 PPM ST	40790	0.100278	
07:42	305	0.100 PPM ST	40719	0.100103	
		Mean & RSD:	40749	0.100176	.0907
07:43	306	0.050 PPM ST	20459	0.050193	
07:45	306	0.050 PPM ST	20500	0.050292	
07:46	306	0.050 PPM ST	20405	0.050060	
		Mean & RSD:	20455	0.050182	.231%
07:47	307	0.010 PPM ST	4271	0.010314	
07:48	307	0.010 PPM ST	4194	0.010122	
07:49	307	0.010 PPM ST	4159	0.010037	
		Mean & RSD:	4208	0.010158	1.37%
07:50	0	0.000 PPM ST	-13	-0.000241	LO
07:52	0	0.000 PPM ST	-47	-0.000324	LO
07:53	0	0.000 PPM ST	25	-0.000147	LO OL
		Mean & RSD:	-30	-0.000283	120%
07:54	101	DWF8Q1ACC	66415	0.163407	102.1%
07:55	0	ICB	-16	-0.000249	LO
07:56	0	BLANK	-40	-0.000307	LO
07:57	2	CCV	41900	0.103012	103.0%
07:59	0	CCB	-1	-0.000211	LO
08:00	0	BASELINE	0	-0.000209	BL
08:01	102	DWF8Q1ABB	862	0.001915	

Page #1

Run Results Report

Run Results Report

Results: C:\FLOW_4\022601A.RST

Results completed: 10:43 February 26, 2001.

Operator: PAUL JOHNSON

677 1190

P. Johnson 22601

CYANIDE					
Time	Cup	Name	Height	Calc.	Flags
08:02	103	DV4MF1AJ	3008	0.007201	
08:03	104	DV4MT1A1	1439	0.003337	
08:04	105	DV4MT1A7X	1575	0.003670	<i>0.07. A3</i>
08:06	106	DV4MT1A2S	45638	0.112221	<i>112.2?</i>
08:07	107	DV4M01AJ	2345	0.005568	
08:08	108	DV4M31AJ	2102	0.004969	
08:09	109	DV4M51AJ	2309	0.005479	
08:10	0	BLANK	-43	-0.000316	LO
08:11	2	CCV	42359	0.104143	<i>1.04.1?</i>
08:13	0	CCB	-18	-0.000253	LO
08:14	0	BASELINE	0	-0.000209	BL
08:15	110	DV4NE1AK	4792	0.011597	
08:16	111	DV4PE1AK	2162	0.005118	
08:17	112	DV4PP1AK	8861	0.021621	
08:18	113	DV4PR1AJ	2174	0.005146	
08:20	114	DV4P21AJ	5084	0.012316	
08:21	115	DV4P41AJ	1940	0.004571	
08:22	116	DV4P71AJ	3258	0.007818	
08:23	117	DV4P91AJ	780	0.001713	
08:24	0	BLANK	-24	-0.000268	LO
08:25	2	CCV	42359	0.104143	<i>1.04.1?</i>
08:27	0	CCB	-22	-0.000264	LO
08:28	0	BASELINE	0	-0.000209	BL
08:29	118	DV5E41A5	909	0.002029	
08:30	119	DV67T1AM	1824	0.004284	
08:31	120	DV68E1AM	2198	0.005206	
08:32	121	DV7JM1A7	1166	0.002664	
08:34	122	DV7JQ1AJ	1076	0.002442	
08:35	0	BLANK	-81	-0.000409	LO
08:36	2	CCV	42425	0.104307	<i>1.04.3?</i>
08:37	0	CCB	-34	-0.000292	LO
08:38	0	BASELINE	0	-0.000209	BL
08:39	123	DWF9W1AAB	1337	0.003085	<i>See Amended Cyanide Calculation Sheet</i>
08:41	124	DWF9W1ACC	2665	0.006356	
08:42	125	DV2X91AH	3664	0.008818	
08:43	126	DV21G1AH	3346	0.008033	
08:44	127	DV4MF1AG	3266	0.007837	
08:45	128	DV4MT1AT	1942	0.004574	
08:46	129	DV4MT1A8X	1939	0.004567	
08:48	130	DV4MT1AUS	2502	0.005956	
08:49	0	BLANK	-18	-0.000252	LO
08:50	2	CCV	42391	0.104222	<i>1.04.2?</i>
08:51	0	CCB	-6	-0.000225	LO
08:52	0	BASELINE	0	-0.000209	BL

Page #2

Run Results Report

Run Results Report

Results: C:\FLOW_4\022601A.RST

Results completed: 10:43 February 26, 2001.

Operator: PAUL JOHNSON

677 1191

P. Johnson 2-26-01

CYANIDE

Time	Cup	Name	Height	Calc.	Flags
08:53	131	DV4M01AG	1020	0.002304	
08:55	132	DV4M31AG	1297	0.002987	
08:56	133	DV4M51AG	3689	0.008878	
08:57	134	DV4NE1AH	3535	0.008501	
08:58	135	DV4PE1AH	1472	0.003417	
08:59	136	DV4PP1AH	14797	0.036245	
09:00	137	DV4PR1AG	1381	0.003193	
09:02	138	DV4P21AG	4066	0.009808	
09:03	0	BLANK	15	-0.000173	LO
09:04	2	CCV	42735	0.105071	105.19.
09:05	0	CCB	1	-0.000205	LO
09:06	0	BASELINE	0	-0.000209	BL
09:07	139	DV4P41AG	2170	0.005137	
09:09	140	DV4P71AG	3269	0.007844	
09:10	141	DV4P91AG	1545	0.003598	
09:11	142	DV67T1AK	2698	0.006437	
09:12	143	DV68E1AK	2931	0.007012	
09:13	0	BLANK	-62	-0.000362	LO
09:14	2	CCV	42391	0.104223	104.27.
09:16	0	CCB	-1	-0.000212	LO
09:17	0	BASELINE	0	-0.000209	BL
09:18	144	ICV	67338	0.165680	163.47.
09:19	0	ICB	42	-0.000106	LO
09:20	0	BLANK	43	-0.000102	LO
09:21	2	CCV	42577	0.104681	104.77.
09:23	0	CCB	12	-0.000179	LO
09:24	0	BASELINE	0	-0.000209	BL
09:25	145	DWH5R1AAB	1823	0.214105	mg/kg 103.27.
09:26	146	DWH5R1ACC	86419	106.343727	
09:27	147	DV5JF1DU	2015	0.237777	
09:28	148	DV5JF1D6X	2081	0.245922	
09:30	149	DV5JF1DVS	47295	5.815178	0.07.47
09:31	150	DV5JM1A6	1262	0.145053	114.37.
09:32	151	DV7JH1A8	12844	1.571640	
09:33	152	DV7JH1EDX	29442	3.616152	28.37.47
09:34	0	BLANK	20	-0.000159	LO
09:35	2	CCV	42799	0.105227	105.27.
09:37	0	CCB	7	-0.000192	LO
09:38	0	BASELINE	0	-0.000209	BL
09:39	153	DV7JH1CUS	47951	5.896015	mg/kg 24.57.
09:40	154	DV7JL1AK	1354	0.156386	
09:41	155	DV7K31A6	1721	0.201498	
09:42	156	DV7K51AH	1277	0.146886	
09:44	157	DV7K71AH	1605	0.187291	mg/kg

*See Ammonia Cyanide
Calculation Sheet**See Ammonia Cyanide
Calculation Sheet**mg/kg 103.27.**0.07.47
114.37.**28.37.47**mg/kg
105.27.**mg/kg 24.57.**mg/kg*

Page #3

Run Results Report

Run Results Report

Results: C:\FLOW_4\022601A.RST

677 1192

Results completed: 10:43 February 26, 2001.

Operator: PAUL JOHNSON

J. Johnson 22601

CYANIDE

Time	Cup	Name	Height	Calc.	Flags
09:45	158	DV7K81AH	1517	0.176388	
09:46	159	DV7ME1A8	1983	0.233872	
09:47	160	DV7MJ1AK	1805	0.211936	
09:48	0	BLANK	-31	-0.000285	LO
09:49	2	CCV	42671	0.104913	
09:51	0	CCB	13	-0.000177	LO
09:52	0	BASELINE	0	-0.000209	BL
09:53	161	DV7MK1AK	1006	0.113413	
09:54	162	DV7MM1AK	1293	0.148807	
09:55	163	DV7MN1A4	1902	0.223884	
09:56	164	DV7MN1D7X	2058	0.243058	
09:58	165	DV7MN1A5S	47707	5.865881	
09:59	0	BLANK	-11	-0.000236	LO
10:00	2	CCV	42734	0.105067	
10:01	0	CCB	9	-0.000187	LO
10:02	0	BASELINE	0	-0.000209	BL
10:03	166	.05	22260	0.054629	
10:05	167	.40	169421	0.417165	
10:06	0	BLANK	33	-0.000128	LO
10:07	2	CCV	42735	0.105071	
10:08	0	CCB	19	-0.000161	LO
10:09	0	BASELINE	0	-0.000209	BL
10:10	168	DWK8D1AAB	929	0.002080	
10:12	169	DWK8D1ACC	70369	0.173147	
10:13	170	DWHLG1A7	5262	0.012754	
10:14	171	DWJJM1A7	1399	0.003239	
10:15	172	DWJJ31AJ	1521	0.003539	
10:16	173	DWJKC1AJ	1341	0.003094	
10:17	174	DWELT1A7	1416	0.003279	
10:19	175	DWELT1CAS	21782	0.053451	
10:20	0	BLANK	23	-0.000152	LO
10:21	2	CCV	43183	0.106175	
10:22	0	CCB	27	-0.000143	LO
10:23	0	BASELINE	0	-0.000209	BL
10:24	176	DWELT1CCD	19532	0.047909	
10:26	177	DWEL91AJ	812	0.001792	
10:27	178	DWEME1AJ	928	0.002077	
10:28	179	DWEMN1AJ	1074	0.002436	
10:29	180	DWEMQ1AJ	1069	0.002425	
10:30	181	DWEMV1AJ	1000	0.002255	
10:31	182	DWEM11AJ	986	0.002221	
10:33	183	DWEM31AJ	1121	0.002553	
10:34	0	BLANK	2	-0.000203	LO
10:35	2	CCV	42950	0.105600	

Page #4

Run Results Report

Run Results Report

Results: C:\FLOW_4\022601A.RST

Results completed: 10:43 February 26, 2001:

Operator: PAUL JOHNSON

677 1193

P. Johnson 22601

CYANIDE					
Time	Cup	Name	Height	Calc.	Flags
10:36	0	CCB	9	-0.000186	LO
10:37	0	BASELINE	0	-0.000209	BL

677 1194

File name: C:\FLOW_4\022601A.RST

Date: February 26, 2001

Operator: PAUL JOHNSON

P. Johnson 2.26.01

* Name	Conc	Height
* 0.500 PPM STD	0.500000	205590.484375
* 0.500 PPM STD	0.500000	204211.031250
* 0.500 PPM STD	0.500000	203640.562500
* 0.400 PPM STD	0.400000	162974.343750
* 0.400 PPM STD	0.400000	162427.656250
* 0.400 PPM STD	0.400000	159511.500000
* 0.300 ppm STD	0.300000	120687.281250
* 0.300 ppm STD	0.300000	121068.140625
* 0.300 ppm STD	0.300000	121154.789062
* 0.200 PPM STD	0.200000	80613.539062
* 0.200 PPM STD	0.200000	80722.570312
* 0.200 PPM STD	0.200000	80952.695312
* 0.100 PPM STD	0.100000	40736.835938
* 0.100 PPM STD	0.100000	40789.957031
* 0.100 PPM STD	0.100000	40718.847656
* 0.050 PPM STD	0.050000	20459.330078
* 0.050 PPM STD	0.050000	20499.541016
* 0.050 PPM STD	0.050000	20405.294922
* 0.010 PPM STD	0.010000	4271.426758
* 0.010 PPM STD	0.010000	4193.535156
* 0.010 PPM STD	0.010000	4159.176270
* 0.000 PPM STD	0.000000	-13.047627
* 0.000 PPM STD	0.000000	-46.924183
* 0.000 PPM STD	0.000000	24.931362

Calib Coef:

y=bx+a

a: (intercept) 8.4770e+01

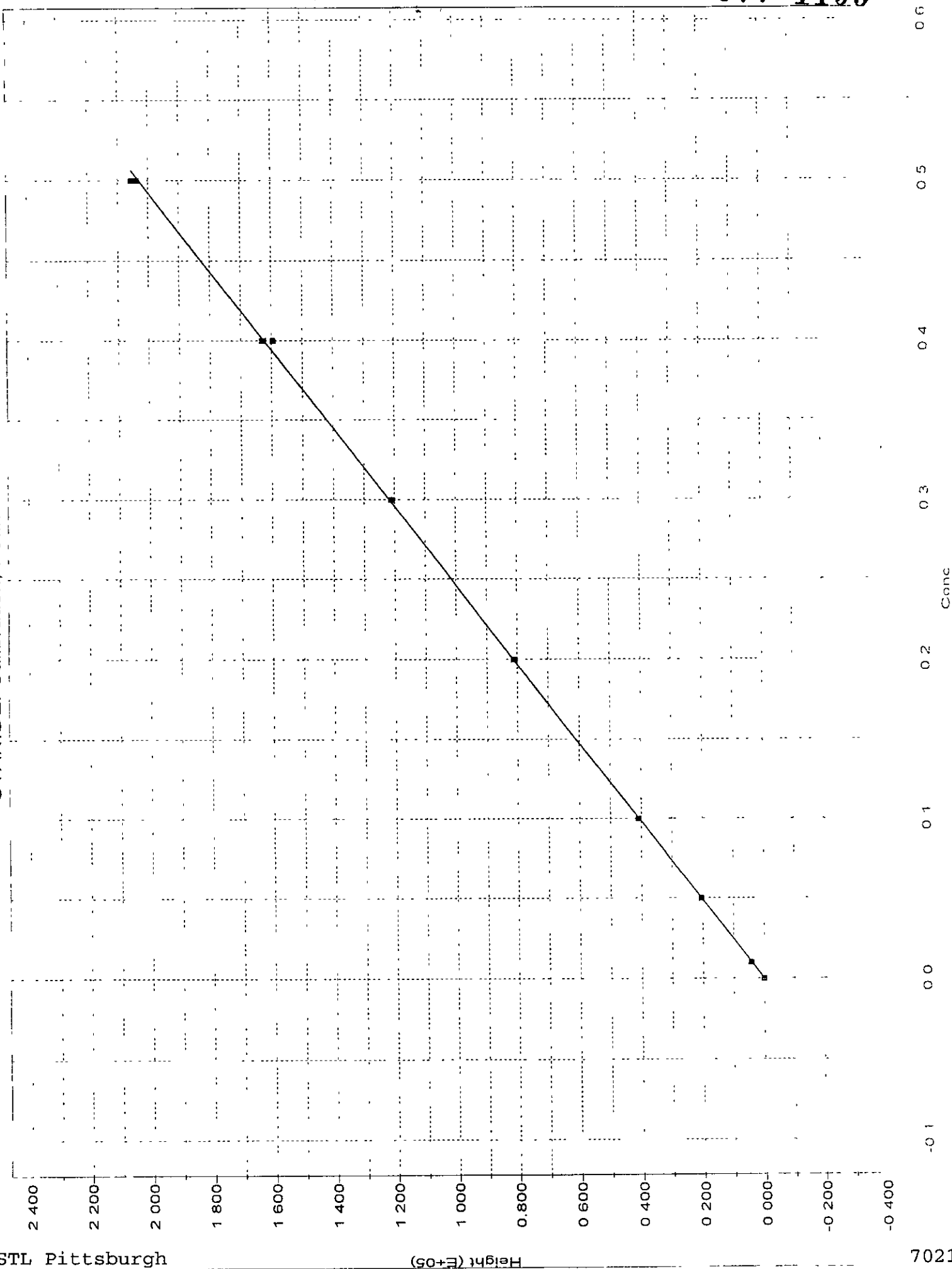
b: 4.0592e+05

Corr Coef: 0.999919

Carryover: 0.186%

No Drift Peaks

CYANIDE. Calibration, Peak 5-169



C181302001
 C18140143
 C18150236
 Sample 7

Batch 053173

677 1196

Total CH - NonAmenable CH = Amenable CH

mg	NJ	NJ	NJ
LC3			
72.154.02	0.1634	NJ	0.1634 10219.
C181302009.001			
ju2x9	NJ	NJ	NJ
002			
ju216	NJ	NJ	NJ
C18140143.001			
ju4mF	NJ	NJ	NJ
002			
ju4mT	NJ	NJ	NJ
002X			
ju4mT	NJ	NJ	NJ 0.00
0025			
ju4mT	0.1122	NJ	0.1122 11221.
003			
ju4m0	NJ	NJ	NJ
004			
ju4m3	NJ	NJ	NJ
005			
ju4m5	NJ	NJ	NJ
006			
ju4mE	0.0116	NJ	0.0116
008			
ju4mE	NJ	NJ	NJ
009			0.0146
* ju4mP	0.0216	0.0312	NJ
010			
ju4mP	NJ	NJ	NJ
011			
ju4m2	0.0123	NJ	0.0123
012			
ju4m4	NJ	NJ	NJ
013			
ju4m3	NJ	NJ	NJ
014			
ju4m9	NJ	NJ	NJ
C18130236.001			
STL Pittsburgh	NJ	NJ	NJ 7022
ju4mT			

LI 150204
LI 150143
Sample 73

Date 1053173

677 1197

Total CH - NonAmenable CH = Amenable CH

403

J. Johnson 2.26.01

LI 150236002

June 8E

NJ

NJ

NJ

J. Johnson
2.26.01

* Note: PreTreated Sample Value Greater
Than Non-Treated Sample Value.

Total 1053155
water

CYANIDE DISTILLATION WORKSHEET

Logbook ID: WC37

STL Pittsburgh

STL - Pittsburgh

Distilled by P. Johnson		Date 2-22-01		Reagent/Std Book ID 342-97-342-54-9	
Sample ID		Initial		Final	
1 WEESOLAR		Some		Some	
2 WEESOLAR					
3 WEESOLAR					
4 WEESOLAR					
5 WEESOLAR					
6 WEESOLAR					
7 WEESOLAR					
8 WEESOLAR					
9 WEESOLAR					
10 WEESOLAR					
11 WEESOLAR					
12 WEESOLAR					
13 WEESOLAR					
14 WEESOLAR					
15 WEESOLAR					
16 WEESOLAR					
17 WEESOLAR					
18 WEESOLAR					
19 WEESOLAR					
20 WEESOLAR					
21 WEESOLAR					
22 WEESOLAR					
23 WEESOLAR					
24					
25					
26					

Distillate(s) Received		Distillate(s) Relinquished	
Date	Time	Date	Time
2-22-01	1105	2-22-01	1135
2-22-01	0150	2-22-01	1030
Analyst: P. Johnson		Analyst: P. Johnson	
Location: WC		Location: Ref 3	

Comments: I have 1044000 Spills to 1044000 of 72-54-01 To 5000 of Sample
Reviewed by: *[Signature]* Date: 2-22-01

10-3-73

STL - Pittsburgh

CYANIDE DISTILLATION WORKSHEET

Logbook ID: WC37

677 1199

Sample ID		Initial	Final	Before Distillation	After Distillation	Expiration Date	Color
1	1022201						
2	1022201						
3	1022201						
4	1022201						
5	1022201						
6	1022201						
7	1022201						
8	1022201						
9	1022201						
10	1022201						
11	1022201						
12	1022201						
13	1022201						
14	1022201						
15	1022201						
16	1022201						
17	1022201						
18	1022201						
19	1022201						
20	1022201						
21	1022201						
22	1022201						
23							
24							
25							
26							

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Reagent/Std Book ID: 3421099.9

Date: 2.22.01

Sample Description (GLP Samples Only): 342197.1

3421529

Comments

Comments	Reviewed by	Date
WCS, 16 Apr 07 72-54-07 Subm at press of 5 sec of 72-54-04 To 50 sec of samples	<i>[Signature]</i>	2-28-01

STL - Pittsburgh

CYANIDE DISTILLATION WORKSHEET

Logbook ID: WC37

677 1200

Sample ID	Distillation		Final	Sample Description (CLP Samples Only)		Expiration Date	Color
	Initial	Before Distillation		After Distillation	Color		
1. WASHRIAP	3.000	NA	3.000	NA	NA	NA	R=Red
2. WASHRIAP	1.000	NA	1.000	NA	NA	NA	BL=Blue
3. WASHRIAP	1.000	NA	1.000	NA	NA	NA	BR=Brown
4. WASHRIAP	1.000	NA	1.000	NA	NA	NA	BLK=Black
5. WASHRIAP	1.000	NA	1.000	NA	NA	NA	Y=Yellow
6. WASHRIAP	1.000	NA	1.000	NA	NA	NA	O=Orange
7. WASHRIAP	1.000	NA	1.000	NA	NA	NA	V=Violet
8. WASHRIAP	1.000	NA	1.000	NA	NA	NA	P=Pink
9. WASHRIAP	1.000	NA	1.000	NA	NA	NA	W=White
10. WASHRIAP	1.000	NA	1.000	NA	NA	NA	GY=Gray
11. WASHRIAP	1.000	NA	1.000	NA	NA	NA	GN=Green
12. WASHRIAP	1.000	NA	1.000	NA	NA	NA	C=Colorless
13. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
14. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
15. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
16. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
17. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
18. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
19. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
20. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
21. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
22. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
23. WASHRIAP	1.000	NA	1.000	NA	NA	NA	
24.							
25.							
26.							

Distillate(s) (record line # from above)	Distillate(s) Received		Distillate(s) Relinquished	
	Date	Time	Date	Time
1. 22	2/23/01	1555	2/23/01	1235
1. 22	2/23/01	0300	2/23/01	1030

Location	Analyst	
	Date	Time
Johnson Ref 3	2/23/01	1235
Johnson Ref 3	2/23/01	1030

Location	Analyst	
	Date	Time
Johnson Ref 3	2/23/01	1235
Johnson Ref 3	2/23/01	1030

Comments:

Reviewed by: [Signature] Date: 2-23-01

Comments: [Signature] Date: 2-23-01

1055094
Total
Water
1055094
CYANIDE DISTILLATION WORKSHEET

Logbook ID: WC37

STL - Pittsburgh

STL Pittsburgh

Sample ID	Distillation		Final	Before Distillation	Sample Description (CLP Samples Only)		Color
	Initial	Distillate			After Distillation	Expiration Date	
1. Johnson Start 0800							
1. Johnson Start 0800	Some	Some	Some				
2. Johnson Start 0800							
3. Johnson Start 0800							
4. Johnson Start 0800							
5. Johnson Start 0800							
6. Johnson Start 0800							
7. Johnson Start 0800							
8. Johnson Start 0800							
9. Johnson Start 0800							
10. Johnson Start 0800							
11. Johnson Start 0800							
12. Johnson Start 0800							
13. Johnson Start 0800							
14. Johnson Start 0800							
15. Johnson Start 0800							
16. Johnson Start 0800							
17. Johnson Start 0800							
18. Johnson Start 0800							
19. Johnson Start 0800							
20. Johnson Start 0800							
21. Johnson Start 0800							
22. Johnson Start 0800							
23. Johnson Start 0800							
24. Johnson Start 0800							
25. Johnson Start 0800							
26. Johnson Start 0800							

Distillate(s) Received	Distillate(s) Relinquished	
	Date	Analyst
2.2.201 0945 P. Johnson Ref 3	2.2.201 0945 P. Johnson Ref 3	2.2.201 0945 P. Johnson Ref 3
2.2.201 0700 P. Johnson Ref 3	2.2.201 1100 P. Johnson Ref 3	2.2.201 1100 P. Johnson Ref 3

Comments	Reviewed by	Date	Page

REQUESTED BY JOHNSONP

METHOD OU Cyanide, Total (CLP)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX	QTY	QTY
		CNTR#							DESCRIPTION	RCVD	REQD
20 D, E CLP1	DV4MF-1-AJ	_____	314815	039108	I-06-OU	C1B140143	001		WATER	10	1
20 D, E CLP1	DV4MT-1-A1	_____	314816	039108	I-06-OU	C1B140143	002		WATER	30	1
20 D, E CLP1	DV4M0-1-AJ	_____	314817	039108	I-06-OU	C1B140143	003		WATER	10	1
20 D, E CLP1	DV4M3-1-AJ	_____	314818	039108	I-06-OU	C1B140143	004		WATER	10	1
20 D, E CLP1	DV4M5-1-AJ	_____	314819	039108	I-06-OU	C1B140143	005		WATER	10	1
20 D, E CLP1	DV4NB-1-AK	_____	314820	039108	I-06-OU	C1B140143	006		WATER	12	1
20 D, E CLP1	DV4PB-1-AK	_____	314821	039108	I-06-OU	C1B140143	008		WATER	11	1
20 D, E CLP1	DV4PP-1-AK	_____	314822	039108	I-06-OU	C1B140143	009		WATER	11	1
20 D, E CLP1	DV4PR-1-AJ	_____	314823	039108	I-06-OU	C1B140143	010		WATER	10	1
20 D, E CLP1	DV4P2-1-AJ	_____	314824	039108	I-06-OU	C1B140143	011		WATER	10	1
20 D, E CLP1	DV4P4-1-AJ	_____	314825	039108	I-06-OU	C1B140143	012		WATER	10	1
20 D, E CLP1	DV4P7-1-AJ	_____	314826	039108	I-06-OU	C1B140143	013		WATER	10	1
20 D, E CLP1	DV4P9-1-AJ	_____	314827	039108	I-06-OU	C1B140143	014		WATER	10	1
21B	DV5E4-1-A5	_____	314828	058624	I-06-OU	C1B140233	017		WATER	9	1
21D, CLP1	DV67T-1-AM	_____	314829	039108	I-06-OU	C1B150236	001		WATER	10	1
21D, CLP1	DV68E-1-AM	_____	314830	039108	I-06-OU	C1B150236	002		WATER	10	1
21E CLP1	DV7JM-1-A7	_____	314831	058624	I-06-OU	C1B150274	003		WATER	11	1
21E CLP1	DV7JQ-1-AJ	_____	314832	058624	I-06-OU	C1B150274	004		WATER	11	1

REQUESTED BY JOHNSONP

METHOD: OU Cyanide, Total (CLP)

<u>STORAGE LOCATION</u>	<u>WORK ORDER #</u>	<u>PICKED</u> <u>CNTR#</u>	<u>CONTROL #</u>	<u>CLIENT #</u>	<u>ANALYSIS</u>	<u>LOTID</u>	<u>SMP#</u>	<u>SFX</u>	<u>MATRIX</u> <u>DESCRIPTION</u>	<u>QTY</u>	<u>QTY</u> <u>RCVD REQD</u>

RELINQUISHED BYRECEIVED BYDATE/TIME

<u>P. Johnson</u>	<u>P. Johnson</u>	<u>2-22-01/0830</u>
<u>P. Johnson</u>	<u>P. Johnson</u>	<u>2-22-01/1700</u>

***** END OF REPORT *****

677 1204

PSR024 2/22/01 6:22:52 MT

SAMPLE CUSTODIAN REMOVAL REQUEST

PAGE 001

REQUESTED BY: JOHNSONP

METHOD: N4 Cyanide, Amenable (9012)

STORAGE LOCATION	WORK ORDER #	PICKED			CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SEFX	MATRIX DESCRIPTION	QTY	
		CNTR#										RCVD	REQD
19 A,B CLP1	DV2X9-1-AH	___	___	___	314773	039108	I-06-N4	C1B130209	001		WATER	10	1
19 A,B CLP1	DV21G-1-AH	___	___	___	314774	039108	I-06-N4	C1B130209	002		WATER	10	1
20 D,B CLP1	DV4MF-1-AG	___	___	___	314775	039108	I-06-N4	C1B140143	001		WATER	10	1
20 D,B CLP1	DV4MT-1-AT	___	___	___	314776	039108	I-06-N4	C1B140143	002		WATER	30	1
20 D,B CLP1	DV4M0-1-AG	___	___	___	314777	039108	I-06-N4	C1B140143	003		WATER	10	1
20 D,B CLP1	DV4M3-1-AG	___	___	___	314778	039108	I-06-N4	C1B140143	004		WATER	10	1
20 D,B CLP1	DV4M5-1-AG	___	___	___	314779	039108	I-06-N4	C1B140143	005		WATER	10	1
20 D,B CLP1	DV4NE-1-AH	___	___	___	314780	039108	I-06-N4	C1B140143	006		WATER	12	1
20 D,B CLP1	DV4PE-1-AH	___	___	___	314781	039108	I-06-N4	C1B140143	008		WATER	11	1
20 D,B CLP1	DV4PP-1-AH	___	___	___	314782	039108	I-06-N4	C1B140143	009		WATER	11	1
20 D,B CLP1	DV4PR-1-AG	___	___	___	314783	039108	I-06-N4	C1B140143	010		WATER	10	1
20 D,B CLP1	DV4P2-1-AG	___	___	___	314784	039108	I-06-N4	C1B140143	011		WATER	10	1
20 D,B CLP1	DV4P4-1-AG	___	___	___	314785	039108	I-06-N4	C1B140143	012		WATER	10	1
20 D,B CLP1	DV4P7-1-AG	___	___	___	314786	039108	I-06-N4	C1B140143	013		WATER	10	1
20 D,B CLP1	DV4P9-1-AG	___	___	___	314787	039108	I-06-N4	C1B140143	014		WATER	10	1
21D, CLP1	DV67T-1-AK	___	___	___	314788	039108	I-06-N4	C1B150236	001		WATER	10	1
21D, CLP1	DV68E-1-AK	___	___	___	314789	039108	I-06-N4	C1B150236	002		WATER	10	1

REQUESTED BY JOHNSONP

METHOD OU Cyanide, Amenable (9012)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SPX	MATRIX	QTY	QTY
		CNTR#							DESCRIPTION	RCVD	REQD

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DATE/TIME

<i>P. Johnson</i>	<i>P. Johnson</i>	<i>2/22/01 0830</i>
<i>P. Johnson</i>	<i>P. Johnson</i>	<i>2/22/01 1400</i>

REQUESTED BY JOHNSONP

677 1206

METHOD OU Cyanide, Total (CLP)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX	QTY	QTY
		CNTR#							DESCRIPTION	RCVD	REQD
21B	DV5JF-1-DU	___	315066	058624	A-06-OU	C1B140249	001		SOLID	4	1
21B	DV5JM-1-A6	___	315067	058624	A-06-OU	C1B140249	002		SOLID	2	1
21B	DV7K3-1-A6	___	315070	058624	A-06-OU	C1B150278	001		SOLID	2	1
21B	DV7K5-1-AH	___	315071	058624	A-06-OU	C1B150278	002		SOLID	2	1
21B	DV7K7-1-AH	___	315072	058624	A-06-OU	C1B150278	003		SOLID	2	1
21B	DV7K8-1-AH	___	315073	058624	A-06-OU	C1B150278	004		SOLID	2	1
21B CLP1	DV7JH-1-A8	___	315068	058624	A-06-OU	C1B150274	001		SOLID	5	1
21B CLP1	DV7JL-1-AK	___	315069	058624	A-06-OU	C1B150274	002		SOLID	5	1
21B CLP1	DV7ME-1-A8	___	315074	101531	A-06-OU	C1B150284	001		SOLID	4	1
21B CLP1	DV7MJ-1-AK	___	315075	101531	A-06-OU	C1B150284	002		SOLID	4	1
21B CLP1	DV7MK-1-AK	___	315076	101531	A-06-OU	C1B150284	003		SOLID	4	1
21B CLP1	DV7MM-1-AK	___	315077	101531	A-06-OU	C1B150284	004		SOLID	4	1
21B CLP1	DV7MN-1-A4	___	315078	101531	A-06-OU	C1B150284	005		SOLID	8	1

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P. Johnson
P. Johnson

P. Johnson
P. Johnson

2-23-01 / 0840
2-23-01 / 0955

***** END OF REPORT *****

677 1207

REQUESTED BY JOHNSONP

METHOD: QP Cyanide, Total

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SFX	MATRIX DESCRIPTION	QTY	QTY
		CNTR#								RCVD	REQD
2A, CLP1	DWBLT-1-A7	___	315605	011578	I-06-QP	C1B210119	001		WATER	8	1
2A, CLP1	DWEL9-1-AJ	___	315606	011578	I-06-QP	C1B210119	002		WATER	8	1
2A, CLP1	DWEMB-1-AJ	___	315607	011578	I-06-QP	C1B210119	003		WATER	8	1
2A, CLP1	DWEMN-1-AJ	___	315608	011578	I-06-QP	C1B210119	004		WATER	8	1
2A, CLP1	DWEMQ-1-AJ	___	315609	011578	I-06-QP	C1B210119	005		WATER	8	1
2A, CLP1	DWEMV-1-AJ	___	315610	011578	I-06-QP	C1B210119	006		WATER	7	1
2A, CLP1	DWEM1-1-AJ	___	315611	011578	I-06-QP	C1B210119	007		WATER	8	1
2A, CLP1	DWEM3-1-AJ	___	315612	011578	I-06-QP	C1B210119	008		WATER	8	1
2D CLP1	DWHLG-1-A7	___	315613	399411	I-06-QP	C1B220250	001		WATER	13	1
3A	DWJJM-1-A7	___	315614	399411	I-06-QP	C1B230148	001		WATER	13	1
3A	DWJJ3-1-AJ	___	315615	399411	I-06-QP	C1B230148	002		WATER	13	1
3A	DWJKC-1-AJ	___	315616	399411	I-06-QP	C1B230148	003		WATER	13	1

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P. Johnson
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2-24-01/0700
2-24-01/0750

***** END OF REPORT *****

677 1208

STL Pittsburgh
SULFIDE LOG SHEET

Page ____ of ____

Lot No. Batch No. SDG No

C1B220250

1059242

C1B230148

Analyst: Eric L. Nicosi / Brandy MuehnickDate: 02/28/01Start Time: 07:50Stock Std. ID No. 647 - 024 - 03True Value ~1000 ppmDays Actual Value 1007 ppmPrep 02/28/01Exp. 03/07/01ICV/LCS 2.5 mL of 1007 ppm (ID No.: 647 - 024 - 03) = 50.35 ppm Range ±15%CCV 2.5 mL of 1007 ppm Range ±10%

Calculations:

$$\text{Sulfide mg/L} = \frac{[(20 \text{ mL of Iodine} \times N \text{ Iodine}) - (X \text{ mL Na}_2\text{S}_2\text{O}_3 \times N \text{ Na}_2\text{S}_2\text{O}_3)]}{\text{mL Sample}} \times 16,000$$

Iodine Standardization ID No.: 647 - 021 - 06

Relative Percent Difference =

$$0.0244 \text{ N Iodine} = \frac{(19.9 \text{ mL Na}_2\text{S}_2\text{O}_3)(0.0245 \text{ N of Na}_2\text{S}_2\text{O}_3)}{20.0 \text{ mL of Iodine Solution}}$$

$$\frac{|X_1 - X_2|}{\left(\frac{X_1 + X_2}{2}\right)} \times 100 \quad \begin{array}{l} X_1 = \text{Original Result} \\ X_2 = \text{Duplicate} \end{array}$$

Sodium Thiosulfate Standardization = ID No. 647 - 018 - 06

Titration mLs Normality

1 10.1 0.02482 10.3 0.0243 Avg. = 0.0246 N

$$\frac{(10 \text{ mL of KH(IO}_3)_2)(0.025 \text{ N KH(IO}_3)_2)}{\text{mL of Na}_2\text{S}_2\text{O}_3}$$

Concentration of Sample in Spike:

Sample ID: C1B220250-001

$$\frac{\text{Ong. Smp. Conc.}}{1.08} \left(\frac{\text{Vol. of Smp. in Spike}}{\text{Ong Smp. Vol.}} \right) = \frac{50}{50} = 1.08$$

MS Percent Recovery:

$$100 \times \left(\frac{\text{Observed Conc. of MS} - \text{Conc. of Smp in Spike}}{\text{True Spike Conc.}} \right) = \frac{19.97 - 1.08}{20.14} = 93.8\%$$

MSD Percent Recovery:

$$100 \times \left(\frac{\text{Observed Conc. of MS} - \text{Conc. of Smp in Spike}}{\text{True Spike Conc.}} \right) = \frac{18.4 - 1.08}{20.14} = 86\%$$

Sample ID C1B220250-001 MSSample ID C1B220250-001 MSD

STL Pittsburgh SULFIDE LOG SHEET

Page ____ of ____

True Value LCS/ICV = 50,35 ppm

True Value MS/MSD = 30.14 ppm

Sample ID	Sample mL	N = $\frac{0.0244}{\text{mL of Iodine}}$	mL of N = $\frac{0.0246}{\text{Na}_2\text{S}_2\text{O}_3}$	Conc.	LDL
ICV	50	30	14.2	44.38	88%
ICB			19.9	ND	1
LCS			14.4	42.80	85%
PB			19.8	ND	1
C1B220250-001			19.7	1.08	↓
↓ -MS -001			17.3	19.97	93.8%
↓ -MSD -001			17.5	18.4	86.9%
C1B230148-001			20.4	ND	1
↓ -002			20.7	ND	↓
↓ -003			20.3	ND	↓
CCV			14.0	45.95	91.3%
CCB			20.0	ND	1
BM 02/28/01					

TOTAL

RPD
8.18%

~~BM~~
~~02/28/01~~

STL - Pittsburgh

SULFIDE DISTILLATION WORKSHEET

Logbook ID: WC1

Distilled by <u>Eric L. Nesbitt/Beatty Muehler</u>	Date <u>02/28/01</u>	Reagent/Std Book ID <u>342-173-0/342-170-0/647-016-4</u>	Actual Stock Value (ppm) <u>1007</u>	True Value 1000 ppm

Sample ID	Distillation		Expiration Date
	Initial	Final	
1. ICB	50 mL	50 mL	
2. ICB			
3. PB			
4. LCS			
5. CIB 220250-001			02/28/01
6. -001 MSD			03/01/01
7. -001 MSD			
8. CIB 230148-001			
9. -002			
10. -003			
11. TOTAL			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			
26.			

Distillate(s) Received		Distillate(s) Relinquished	
Date	Time	Date	Time
02/28/01	07:45	02/28/01	11:30
Analyst		Analyst	
Symel		Symel	
Location		Location	
WC		D. 500502	

Comments	Date
ICV/LCS = 25 mL of 647-024-03 to 50 mL DI H ₂ O T.V. = MS/MSD = 1.0 mL of 647-024-03 to 50 mL sample T.V. =	2-28-01

677 12:1

REQUESTED BY WESOLOS

JD CT Sulfide (376.1)

STORAGE LOCATION	WORK ORDER #	PICKED	CONTROL #	CLIENT #	ANALYSIS	LOTID	SMP#	SPX	MATRIX	QTY	QTY
		CNTR#							DESCRIPTION	RCVD	REQD
2D CLP1	DWHLG-1-A9	_____	316563	399411	I-88-CT	C1B220250	001		WATER	13	1
3A	DWJYM-1-A9	_____	316564	399411	I-88-CT	C1B230148	001		WATER	13	1
3A	DWJJ3-1-AL	_____	316565	399411	I-88-CT	C1B230148	002		WATER	13	1
3A	DWJKC-1-AL	_____	316566	399411	I-88-CT	C1B230148	003		WATER	13	1

0

RELINQUISHED BY

RECEIVED BY

DATE/TIME

E. L. Wessell
E. L. Wessell

E. L. Wessell
E. L. Wessell

2/28/01 (07:00)

2/28/01 (07:35)

***** END OF REPORT *****

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE