

**APCL Project: #2931**

**ATL #: 062725**



*Advanced Technology  
Laboratories*

*3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040*

001

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APCL #: **#2931**

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**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL  
**Lab Order:** 062725  
**Contract No:**

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
062725-001A	MW-4-5	Water	4/21/2003	5/9/2003	5/16/2003
062725-002A	MW-4-4	Water	4/21/2003	5/9/2003	5/16/2003
062725-003A	MW-4-3	Water	4/21/2003	5/9/2003	5/16/2003
062725-004A	MW-4-2	Water	4/21/2003	5/9/2003	5/16/2003
062725-005A	MW-4-1	Water	4/21/2003	5/9/2003	5/16/2003
062725-006A	EB-2-4/21/03	Water	4/21/2003	5/9/2003	5/16/2003
062725-007A	Dupe-1-2Q03	Water	4/21/2003	5/9/2003	5/16/2003
062725-008A	Source-2Q03	Water	4/21/2003	5/9/2003	5/16/2003
062725-009A	MW-19-5	Water	4/22/2003	5/9/2003	5/16/2003
062725-010A	MW-19-4	Water	4/22/2003	5/9/2003	5/16/2003
062725-011A	MW-19-3	Water	4/22/2003	5/9/2003	5/16/2003
062725-012A	MW-19-2	Water	4/22/2003	5/9/2003	5/16/2003
062725-013A	MW-19-1	Water	4/22/2003	5/9/2003	5/16/2003
062725-014A	EB-3-4/22/03	Water	4/22/2003	5/9/2003	5/16/2003
062725-015A	MW-14-5	Water	4/23/2003	5/9/2003	5/16/2003
062725-016A	MW-14-4	Water	4/23/2003	5/9/2003	5/16/2003
062725-017A	MW-14-3	Water	4/23/2003	5/9/2003	5/16/2003
062725-018A	MW-14-2	Water	4/23/2003	5/9/2003	5/16/2003
062725-019A	MW-14-1	Water	4/23/2003	5/9/2003	5/16/2003
062725-020A	EB-4-4/23/03	Water	4/23/2003	5/9/2003	5/16/2003
062725-021A	Dupe-2-2Q03	Water	4/23/2003	5/9/2003	5/16/2003
062725-022A	MW-20-5	Water	4/24/2003	5/9/2003	5/16/2003
062725-023A	MW-20-4	Water	4/24/2003	5/9/2003	5/16/2003
062725-024A	MW-20-3	Water	4/24/2003	5/9/2003	5/16/2003
062725-025A	MW-20-2	Water	4/24/2003	5/9/2003	5/16/2003
062725-026A	MW-20-1	Water	4/24/2003	5/9/2003	5/16/2003
062725-027A	EB-5-4/24/03	Water	4/24/2003	5/9/2003	5/16/2003
062725-028A	Dupe-3-2Q03	Water	4/24/2003	5/9/2003	5/16/2003
062725-029A	MW-21-5	Water	4/17/2003	5/9/2003	5/16/2003



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**CLIENT:** Applied P & Ch Laboratories

**Project:** #2931, JPL

**Lab Order:** 062725

**Contract No:**

## Work Order Sample Summary

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Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
062725-030A	MW-21-4	Water	4/17/2003	5/9/2003	5/16/2003
062725-031A	MW-21-3	Water	4/17/2003	5/9/2003	5/16/2003
062725-032A	MW-21-2	Water	4/17/2003	5/9/2003	5/16/2003
062725-033A	MW-21-1	Water	4/17/2003	5/9/2003	5/16/2003
062725-034A	EB-1-4/17/03	Water	4/17/2003	5/9/2003	5/16/2003



**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL  
**Lab Order:** 062725

**CASE NARRATIVE**

Analytical Comments for EPA 200.8 (ICP-MS Metals)

QC Batch Number R27306: Chromium Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

QC Batch Number R27309: Chromium Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



## Sample Receiving Items



# Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
 Tel: (909) 590-1828 Fax: (909) 590-1498

# Subcontract Chain of Custody

Please Print in pen Page 1 of 3

Subcontract Lab: All Contact: Puri Tel #: (562) 989-4045 Fax #: (562) 989-4040  
 Address: 3275 Walnut Avenue City: Signal Hill State: CA Zip code: 90807  
 APCL Client: #2931 APCL Contact: Kenny Chan  
 Project Name/Code: JPL Job #: \_\_\_\_\_  
 BILL TO APCL Sub Quotation #: \_\_\_\_\_

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	Remarks
MW-4-5		4/21/03 0810	W	HNO3	1		
MW-4-4		0930			↓		Level 4 pkg.
MW-4-3		1015			↓		anal EDD
MW-4-2		1140			↓		
MW-4-1		1330			↓		MS/MSD
EB-2-4/2/03							
Dupe-1-2003							
Service-2003							
MW-19-5		4/21/03 1405			↓		
MW-19-4		0920			↓		
MW-19-3		0225			↓		
MW-19-2		1130			↓		
MW-19-1		1300			↓		MS/MSD
EB-3-4/2/03		1410			↓		
MW-14-5		1140			↓		
		4/23/03 0835			↓		

QC Requirement:  Regular;  QA/QC Report;  WIP;  Raw Data;  Extended Raw Data  CLP;  ACE  AFCEE  NEESA (E, C or D);  Other \_\_\_\_\_ (Please specify)

Sample Disposal:  Return  Disposal by APCL  Hold for \_\_\_\_\_ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions:  Intact;  Broken. Cooler Seal:  Intact;  Broken;  None. Tag # \_\_\_\_\_ Temperature:  Room  Cold (28 °C).

Relinquished by \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished by \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

APCL USE ONLY Service # \_\_\_\_\_ Note: \_\_\_\_\_

APCL Form 4-101, Ver. 4.0, Jan. 17, 2003. Root-File: \CUST.DATA\LABCHAIN\_ROOT\LAB.CHAIN.TEX

# Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
 Tel: (909) 590-1828 Fax: (909) 590-1498

# Subcontract Chain of Custody

Please Print in pen Page 2 of 3

Subcontract Lab: ATL Contact: Puri Tel #: (562) 89-4045 Fax #: (562) 89-4040  
 Address: 3275 Walnut Ave one City: Signal Hill State: CA Zip code: 90807  
 APCL Client: #2931 APCL Contract: Pennington  
 Project Name/Code: JPL Job # \_\_\_\_\_  
 BILL TO APCL Sub Quotation # \_\_\_\_\_

Due Date:  Regular  Rush: \_\_\_ days \_\_\_ hours Sampled by: Leo Williams

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	White - With report Yellow - Lab copy Pink - Originator	Remarks
MW-14-4		4/23/03 0935	W	HANDS	1	200.8 200.8		Level 4 pag.
MW-14-3		1110						anal EDD
MW-14-2		1220						
MW-14-1		1320						
EB-4-423/03		1125						
Over-2-2003								
MW-20-5		4/24/03 0805						
MW-20-4		0850						
MW-20-3		1000						
MW-20-2		1040						
MW-20-1		1145						
EB-5-424/03		0905						
Over-3-2003								
MW-21-5		4/17/03 0900						
MW-21-4		1000						

QC Requirement:  Regular;  QA/QC Report;  WIP;  Raw Data;  Extended Raw Data  CLP;  ACE  AFCEE  NEBSA \_\_\_ (E, C or D);  Other \_\_\_ (Please specify)

Sample Disposal:  Return  Disposal by APCL  Hold for \_\_\_ days after receiving date.  Intact;  Broken;  None Tag # \_\_\_\_\_

Sample Conditions:  Intact;  Broken. Cooler Seal:  Intact;  Broken;  None Tag # \_\_\_\_\_

Temperature:  Room  Cold (28 °C)

Relinquished by \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished by \_\_\_\_\_ Date/Time \_\_\_\_\_ Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

APCL USE ONLY Service # \_\_\_\_\_ Note: \_\_\_\_\_

APCL Form 4-101, Ver. 4.0, Jan. 17, 2003.  
 Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.  
 Root-file:\CUST.DATA\LABCHAIN-ROOT\_SUB.TEX File:JUST DATA LABCHAIN.MEX



# Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
 Tel: (909) 590-1828 Fax: (909) 590-1498

# Subcontract Chain of Custody

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Subcontract Lab: ATL Contact: Puri Tel #: (562) 989-4045 Fax #: (562) 989-4040  
 Address: 3215 Alhambra Avenue City: Signal Hill State: CA Zip code: 90807  
 APCL Client: # 2931 APCL Contact: Kenneth Chan  
 Project Name/Code: JPL Job #: \_\_\_\_\_  
 BILL TO APCL Sub Quotation #: \_\_\_\_\_

Due Date:  Regular  Rush: \_\_\_\_\_ days \_\_\_\_\_ hours

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	White - With report Yellow - Lab copy Pink - Originator	Remarks
MW-21-3		4/17/03	W	HMB	1	2008 2008		Level 4 pkg.
MW-21-2		↓	↓	↓	↓	Cr		and FIB
MW-21-1		1205	↓	↓	↓	X		
EB-1-4/17/03		1250	↓	↓	↓	X		
		↓	↓	↓	↓	X		
		1215	↓	↓	↓	X		

QC Requirement:  Regular;  QA/QC Report;  WIP;  Raw Data;  Extended Raw Data;  CLP;  ACE;  AFCEE;  NEESA;  Other \_\_\_\_\_ (Please specify)

Sample Disposal:  Return;  Disposal by APCL;  Hold for \_\_\_\_\_ days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions:  Intact;  Broken. Cooler Seal:  Intact;  Broken;  None. Tag # \_\_\_\_\_ Temperature:  Room  Cold (28 °C)

Relinquished by \_\_\_\_\_ / \_\_\_\_\_ Received by \_\_\_\_\_ / \_\_\_\_\_  
 Relinquished Date/Time \_\_\_\_\_ / \_\_\_\_\_ Received Date/Time \_\_\_\_\_ / \_\_\_\_\_

APCL USE ONLY Service # \_\_\_\_\_ Note: \_\_\_\_\_

APCL Form 4-101, Ver. 4.0, Jan. 17, 2003.  
 Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.  
 Root-Dir-ICUST-DATA-LA-BICHAIN-ROOT-ANL-TRY File-Inst-DATA-BICHAIN-ROOT-ANL-TRY

010

# Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
 Tel: (909) 590-1828 Fax: (909) 590-1498

# Subcontract Chain of Custody

Please Print in pen Page 1 of 3

Subcontract Lab: All Contact: Puri  
 Address: 3275 Walnut Avenue City: Signal Hill Tel #: 562 989-4045 Fax #: 562 989-4040  
 APCL Client: #2931 APCL Contact: Kenny Chan State: CA Zip code: 90807

Project Name/Code: JPL Job #:             
 BILL TO APCL Sub Quotation #:           

Due Date:  regular  rush:            days            hours Sampled by: Leo Williamson

Field Sample ID No.	Sample Description	Date Time Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	Remarks
MU-4-5		4/21/03 0800	U	HNB	1	2008 2008	Level 4 pkg.
MU-4-4		0930			↓	X	anal EDD
MU-4-3		1015			↓	X	
MU-4-2		1140			2	X	
MU-4-1		1330			1	X	← MS/MSD
EB-2-4/2/03		-			↓	X	
Quar-1-2003		-			↓	X	
Source-2003		1405			↓	X	
MU-19-5		4/21/03 0920			↓	X	
MU-19-4		1025			↓	X	
MU-19-3		1130			↓	X	
MU-19-2		1300			2	X	← MS/MSD
MU-19-1		1410			1	X	
EB-3-4/2/03		↓			↓	X	
MU-14-5		4/21/03 0835			↓	X	

QC Requirement:  Regular;  QA/QC Report;  WIP;  Raw Data;  Extended Raw Data  CLP;  ACE  AFCEE  NEBSA (E, C or D);  Other (Please specify)

Sample Disposal:  Return  Disposal by APCL  Hold for            days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions:  Intact;  Broken. Cooler Seal:  Intact;  Broken;  None. Tag #            Temperature:  Room  Cold (2.8 °C)

Relinquished by [Signature] Date/Time 5/8/03 1700 Received by BETH M ALPANTE Date/Time 050903 1845Gm

Relinquished by            Date/Time            Received by            Date/Time           

APCL USE ONLY Service #            Note:           

Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

APCL Form 4-101, Ver. 4.0, Jan. 17, 2003.



# Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
Tel: (909) 590-1828 Fax: (909) 590-1498

# Subcontract Chain of Custody

Please Print in pen Page 3 of 3

Subcontract Lab: APL Contact: Puri Tel #: (562) 989-4045 Fax #: (562) 989-4040  
 Address: 2215 Abbott Avenue City: Signal Hill State: CA Zip code: 90807  
 APCL Client: # 2931 APCL Contact: Kenny Chan

Project Name/Code: JPL Job #:            Sub Quotation #:           

Due Date:  Regular  Rush:            days            hours Sampled by: Leo Williamson

Field Sample ID No.	Sample Description	Date Collected	Sample Matrix	Preservation	# of Containers	Analysis Items	Remarks
<u>MMU-21-3</u>		<u>4/17/03</u>	<u>W</u>	<u>ANL</u>	<u>1</u>	<u>8008</u>	<u>Level 4 pkg.</u>
<u>MMU-21-2</u>		<u>1205</u>	<u>↓</u>	<u>↓</u>	<u>1</u>	<u>5</u>	<u>and EPP</u>
<u>MMU-21-1</u>		<u>1250</u>	<u>↓</u>	<u>↓</u>	<u>1</u>	<u>5</u>	
<u>EB-1-4/17/03</u>		<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>1</u>	<u>5</u>	

QC Requirement:  Regular;  QA/QC Report;  WIP;  Raw Data;  Extended Raw Data  CEP;  ACE  AFCEE  NEESA (E, C or D);  Other (Please specify)

Sample Disposal:  Return  Disposal by APCL  Hold for            days after receiving date. If not specified, samples will be discarded 45 days after samples are received.

Sample Conditions:  Intact;  Broken. Cooler Seal:  Intact;  Broken;  None. Tag #            Temperature:  Room  Cold (28 °C)

Relinquished by            Date/Time 5/8/03 / 1700 Received by BETA M. ALPANTE Date/Time 050903 / 1845 am

Relinquished by            Date/Time            /            Received by            Date/Time            /           

APCL USE ONLY Service #            Note:           

APCL Form 4-101, Ver. 4.0, Jan. 17, 2003. Clients understand that all terms described in the proposals, quotations for this project, and/or the general terms provided in the current APCL price schedules will be followed. APCL reserves the right to terminate its service or withhold delivery of any reports, if in APCL's sole discretion the terms of the project have been broken.

## INORGANICS COMPLETE INVENTORY SHEET

Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: #2931

Laboratory Name: Advanced Technology Laboratories  
 Laboratory Address: 3275 Walnut Avenue, Signal Hill, CA 90807

ATL Number: 062725  
 Date Sampled: 04/21/03  
 Date Received: 05/09/03

### Method 200.8 (Metals)

	Topic	Page(s)
Sample Data	Inorganic Data Result Sheet	015-026
Standards Data	Initial Calibration	027
	Initial Calibration Verification and Continuing Calibration Verification/External Reference Standard	028-030
	Tune File	031-032
	Internal Standard Table	033-034
Raw QC Data	Blank Report Sheet	035-036
	Spike Sample Recovery	037
	Laboratory Control Spike Report	037
	Duplicate Report Sheet	038
	Holding Times Summary Sheet	040-041
Miscellaneous Items	Preparation Log	042-043
	Analysis Run Log	044-045
	Standards Log	046-053
	List of Method Detection Limits	054
Raw Data Package	Standards Data Sample Data QC Data	055-122

014



# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-001

**Collection Date:** 4/21/2003 8:10:00 AM

**Client Sample ID:** MW-4-5

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.0	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-002

**Collection Date:** 4/21/2003 9:30:00 AM

**Client Sample ID:** MW-4-4

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.5	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-003

**Collection Date:** 4/21/2003 10:15:00 AM

**Client Sample ID:** MW-4-3

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.8	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



015

# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-004 **Collection Date:** 4/21/2003 11:40:00 AM  
**Client Sample ID:** MW-4-2 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	6.4	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-005 **Collection Date:** 4/21/2003 1:30:00 PM  
**Client Sample ID:** MW-4-1 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.4	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-006 **Collection Date:** 4/21/2003  
**Client Sample ID:** EB-2-4/21/03 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



016

# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-007  
**Client Sample ID:** Dupe-1-2Q03

**Collection Date:** 4/21/2003  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	2.8	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-008  
**Client Sample ID:** Source-2Q03

**Collection Date:** 4/21/2003 2:05:00 PM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-009  
**Client Sample ID:** MW-19-5

**Collection Date:** 4/22/2003 9:20:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	2.5	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



ALT



# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-010 **Collection Date:** 4/22/2003 10:25:00 AM  
**Client Sample ID:** MW-19-4 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	2.4	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-011 **Collection Date:** 4/22/2003 11:30:00 AM  
**Client Sample ID:** MW-19-3 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	5.0	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-012 **Collection Date:** 4/22/2003 1:00:00 PM  
**Client Sample ID:** MW-19-2 **Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	4.2	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



018

# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-013

**Collection Date:** 4/22/2003 2:10:00 PM

**Client Sample ID:** MW-19-1

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	1.7	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-014

**Collection Date:** 4/22/2003 11:40:00 AM

**Client Sample ID:** EB-3-4/22/03

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-015

**Collection Date:** 4/23/2003 8:35:00 AM

**Client Sample ID:** MW-14-5

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	2.1	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



019

# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-016

**Collection Date:** 4/23/2003 9:35:00 AM

**Client Sample ID:** MW-14-4

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.8	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-017

**Collection Date:** 4/23/2003 11:10:00 AM

**Client Sample ID:** MW-14-3

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	3.2	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-018

**Collection Date:** 4/23/2003 12:20:00 PM

**Client Sample ID:** MW-14-2

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	4.4	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range  
 H - Sample exceeding holding time

Results are wet unless otherwise specified



# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-019

**Collection Date:** 4/23/2003 1:20:00 PM

**Client Sample ID:** MW-14-1

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	4.6	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-020

**Collection Date:** 4/23/2003 11:25:00 AM

**Client Sample ID:** EB-4-4/23/03

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-021

**Collection Date:** 4/23/2003

**Client Sample ID:** Dupe-2-2Q03

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512A	QC Batch: R27306	PrepDate:	Analyst: NS		
Chromium	2.6	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



021

**Advanced Technology Laboratories**

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-022

**Collection Date:** 4/24/2003 8:05:00 AM

**Client Sample ID:** MW-20-5

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	1.7	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-023

**Collection Date:** 4/24/2003 8:50:00 AM

**Client Sample ID:** MW-20-4

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	2.2	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-024

**Collection Date:** 4/24/2003 10:00:00 AM

**Client Sample ID:** MW-20-3

**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	4.2	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



022

# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-025  
**Client Sample ID:** MW-20-2

**Collection Date:** 4/24/2003 10:40:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	2.1	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-026  
**Client Sample ID:** MW-20-1

**Collection Date:** 4/24/2003 11:45:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	2.4	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-027  
**Client Sample ID:** EB-5-4/24/03

**Collection Date:** 4/24/2003 9:05:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP-MS METALS**

**EPA 200.8**

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	ND	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-028  
**Client Sample ID:** Dupe-3-2Q03

**Collection Date:** 4/24/2003  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	2.1	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-029  
**Client Sample ID:** MW-21-5

**Collection Date:** 4/17/2003 9:00:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	2.7	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-030  
**Client Sample ID:** MW-21-4

**Collection Date:** 4/17/2003 10:00:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	3.8	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified



# Advanced Technology Laboratories

Date: 16-May-03

**CLIENT:** Applied P & Ch Laboratories  
**Project:** #2931, JPL

**Lab Order:** 062725

**Lab ID:** 062725-031  
**Client Sample ID:** MW-21-3

**Collection Date:** 4/17/2003 11:10:00 AM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	3.7	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-032  
**Client Sample ID:** MW-21-2

**Collection Date:** 4/17/2003 12:05:00 PM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	4.8	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Lab ID:** 062725-033  
**Client Sample ID:** MW-21-1

**Collection Date:** 4/17/2003 12:50:00 PM  
**Matrix:** WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4_030512B	QC Batch: R27309	PrepDate:	Analyst: NS		
Chromium	3.5	1.0	µg/L	1	5/12/2003
Lead	ND	1.0	µg/L	1	5/12/2003

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level      H-Sample exceeding holding time

Results are wet unless otherwise specified





# Advanced Technology Laboratories

Date: 16-May-03

CLIENT: Applied P & Ch Laboratories  
Project: #2931, JPL

Lab Order: 062725

Lab ID: 062725-034  
Client Sample ID: EB-1-4/17/03

Collection Date: 4/17/2003 12:15:00 PM  
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
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## ICP-MS METALS

### EPA 200.8

RunID: ICP4\_030512B

QC Batch: R27309

PrepDate:

Analyst: NS

Chromium

ND

1.0

µg/L

1

5/12/2003

Lead

ND

1.0

µg/L

1

5/12/2003

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level

H-Sample exceeding holding time

Results are wet unless otherwise specified



Advanced Technology  
Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

025

Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: JPL  
 ATL Number: 062725  
 Date Received: 05/09/03

**(EPA 200.8) - INITIAL CALIBRATION**

Instrument ID: ICP4  
 Date(s) Analyzed: 05/12/03

Initial Calibration:

COMPOUND	INTENSITY				r <sup>2</sup>
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	
Chromium	11028	46287	84018	159828	0.9999
Lead	2089	16112	32116	63020	0.9999

Standard Concentration:	0.5 ppb	5 ppb	10 ppb	20 ppb
Standard ID:	MST030512E	MST030512D	MST030512C	MST030512B

Calibration Acceptance Criteria: > 0.995 Correlation



027





Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: JPL  
 ATL Number: 062725  
 Date Received: 05/09/03

**(EPA 200.8) INITIAL AND CONTINUING CALIBRATION VERIFICATION**  
 (EXTERNAL REFERENCE STANDARD)

Instrument ID: ICP4

Date Analyzed: 05/12/2003

Initial Calibration Verification: **Source:** Leeman **Standard Code:** MST030512G  
 Continuing Calibration Verification: Leeman MST030512G

QC Batch Number: R27309

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found CCV1	%R(1)	Found CCV2	%R(1)	
Chromium	10.0	10.17	102	10.0	9.73	97	9.65	97	
Lead	10.0	9.91	99	10.0	10.27	103	10.2	102	

ICV Limits: 90 -110%  
 CCV Limits: 85 -115%

## Instrument Tuning Report

File Name: 030512.tun  
File Path: D:\ELAN\TUNING\2003\May

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.028	2046	2040	0.724	
Mg	23.985	23.979	5684	2020	0.729	
Rh	102.905	102.878	24975	1955	0.767	
Ce	139.905	139.929	33974	2010	0.788	
Pb	207.977	207.978	50417	2270	0.762	
U	238.050	238.025	57642	2435	0.775	

## Daily Performance Report

Sample ID: 030512-daily

Sample Date/Time: Monday, May 12, 2003 10:16:54

Sample Description:

Method File: c:\elandata\Method\Daily.mth

Dataset File: d:\elan\daily performance\2003\may\030512-daily.016

Tuning File: c:\elandata\Tuning\default.tun

Optimization File: c:\elandata\Optimize\default.dac

Dual Detector Mode: Pulse

Acq. Dead Time(ns): 35

Current Dead Time (ns): 35

### Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
Mg	24.0	47408.8	47408.807	420.806	0.9
Rh	102.9	155274.2	155274.236	1678.118	1.1
In	114.9	191689.9	191689.869	1073.182	0.6
Pb	208.0	78969.8	78969.814	702.917	0.9
[> Ba	137.9	157480.8	157480.808	884.317	0.6
[ Ba++	69.0	3592.4	0.023	0.000	0.9
[> Ce	139.9	195549.5	195549.519	1047.221	0.5
[ CeO	155.9	5894.1	0.030	0.001	2.6
Bkgd	220.0	2.6	2.567	0.346	13.5

### Current Optimization File Data

Current Value	Description
0.87	Nebulizer Gas Flow
7.00	Lens Voltage
1100.00	ICP RF Power
-1850.00	Analog Stage Voltage
1700.00	Pulse Stage Voltage
85.00	Discriminator Threshold
-1.50	AC Rod Offset
60.00	Service DAC 1
0.00	Quadrupole Rod Offset

### Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	21	6.2	5638.8
Co	59	21	6.6	122542.0
In	115	21	7.0	284105.2

Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: JPL  
 ATL Number: 062725  
 Date Received: 03/05/03

Instrument ID: ICP4 Internal Standard ID: MST030307A  
 Date Analyzed: 05/12/2003 Standard Concentration: 50 ug/L  
 QC Batch: R27306

			Scandium		Terbium	
			Area	% Rec	Area	% Rec
Calibration Blank			513669	---	1031558	---
Lab ID	Sample Description	APCL Lab ID:				
MB-R27306	---	--	522354	102	1056089	102
LCS-R27306	---	--	519153	101	1051352	102
062725-001A	MW-4-5	--	571083	111	1044058	101
062725-002A	MW-4-4	--	605795	118	1062144	103
062725-003A	MW-4-3	--	597762	116	1086070	105
062725-004A	MW-4-2	--	595669	116	1036833	101
062725-004ADUP	MW-4-2	--	580488	113	1030638	100
062725-004AMS	MW-4-2	--	562332	109	1026310	99
062725-004AMSD	MW-4-2	--	555564	108	1036778	101
062725-005A	MW-4-1	--	504186	98	1046126	101
062725-006A	EB-2-4/21/03	--	449850	88	1027839	100
062725-007A	Dupe-1-2Q03	--	509971	99	1046001	101
062725-008A	Source-2Q03	--	461039	90	1029090	100
062725-009A	MW-19-5	--	493748	96	1034538	100
062725-010A	MW-19-4		541137	105	1051168	102
062725-011A	MW-19-3		558022	109	1045209	101
062725-013A	MW-19-1		527752	103	1055290	102
062725-014A	EB-3-4/22/03		476746	93	1069334	104
062725-015A	MW-14-5		547259	107	1064293	103
062725-016A	MW-14-4		562254	109	1055949	102
062725-017A	MW-14-3		546031	106	1029218	100
062725-018A	MW-14-2		562816	110	1036334	100
062725-019A	MW-14-1		573932	112	1052239	102
062725-020A	EB-4-4/23/03		489527	95	1090577	106
062725-021A	Dupe-2-2Q03		558970	109	1047599	102
062725-021ADUP	Dupe-2-2Q03		566859	110	1061144	103

\* Outside Acceptance Criteria  
 Acceptance Criteria: 60 - 125%



Advanced Technology  
 Laboratories

3275 Walnut Avenue Signal Hill, CA 90807 Tel: 562 989-4045 Fax: 562 989-4040

033



Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: JPL  
 ATL Number: 062725  
 Date Received: 05/09/03

Internal Standard ID: MST030124A

Standard Concentration: 50 ug/L

Instrument ID: ICP4

Date Analyzed: 05/12/2003

QC Batch: R27309

			Scandium		Indium	
			Area	% Rec	Area	% Rec
Calibration Blank			513669	---	1031558	---
Lab ID	Sample Description	APCL Lab ID:				
MB-R27309	---	--	464265	90	1038884	101
LCS-R27309	---	--	462965	90	1044292	101
062725-012A	MW-19-2	--	597359	116	1051724	102
062725-012ADUP	MW-19-2	--	603948	118	1069096	104
062725-012AMS	MW-19-2	--	607485	118	1076660	104
062725-012AMSD	MW-19-2	--	606563	118	1098986	107
062725-022A	MW-20-5	--	541017	105	1065689	103
062725-023A	MW-20-4	--	536135	104	1074464	104
062725-024A	MW-20-3	--	559312	109	1080320	105
062725-025A	MW-20-2	--	572516	111	1097022	106
062725-026A	MW-20-1	--	557987	109	1094371	106
062725-027A	EB-5-4/24/03	--	492110	96	1069079	104
062725-028A	Dupe-3-2Q03	--	560797	109	1101068	107
062725-029A	MW-21-5	--	593340	116	1098015	106
062725-030A	MW-21-4	--	608002	118	1097905	106
062725-031A	MW-21-3	--	629235	122	1109752	108
062725-032A	MW-21-2	--	620161	121	1102938	107
062725-033A	MW-21-1	--	644711	126	1101695	107
062725-034A	EB-1-4/17/03	--	53388	10	1104853	107

\* Outside Acceptance Criteria

Acceptance Criteria: 60 - 125%









**Advanced Technology Laboratories**

Date: 16-May-03

Advanced Technology Laboratories

CLIENT: Applied P & Ch Laboratories  
 Work Order: 062725  
 Project: #2931, JPL

**ANALYTICAL QC SUMMARY REPORT**

TestCode: 200.8\_W

Sample ID: MB-R27306	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: ZZZZZ	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410879						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.115	1.0									J
Lead	ND	1.0									

Sample ID: MB-R27309	SampType: MBLK	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: ZZZZZ	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410919						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.209	1.0									J
Lead	ND	1.0									

Sample ID: LCS-R27306	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: ZZZZZ	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410878						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	10.23	1.0	10	0	102	85	115	0	0	0	
Lead	10.04	1.0	10	0	100	85	115	0	0	0	

Sample ID: LCS-R27309	SampType: LCS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: ZZZZZ	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410918						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.866	1.0	10	0	98.7	85	115	0	0	0	
Lead	10.28	1.0	10	0	103	85	115	0	0	0	

Sample ID: 062725-004AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: MW-4-2	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410860						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	9.866	1.0	10	0	98.7	85	115	0	0	0	
Lead	10.28	1.0	10	0	103	85	115	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 R - RPD outside accepted recovery limits  
 S - Spike Recovery outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank  
 DO - Surrogate dilute out  
 H - Sample exceeded holding time  
 Calculations are based on raw values

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**CLIENT:** Applied P & Ch Laboratories  
**Work Order:** 062725  
**Project:** #2931, JPL

# ANALYTICAL QC SUMMARY REPORT

**TestCode: 200.8\_W**

Sample ID: 062725-004AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: MW-4-2	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410860						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	14.01	1.0	10	6.424	75.8	80	120	0	0	0	S
Lead	9.651	1.0	10	0	96.5	80	120	0	0	0	

Sample ID: 062725-012AMS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: MW-19-2	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410903						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	11.76	1.0	10	4.224	75.4	80	120	0	0	0	S
Lead	9.324	1.0	10	0	93.2	80	120	0	0	0	

Sample ID: 062725-004AMSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: MW-4-2	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410861						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	13.79	1.0	10	6.424	73.6	80	120	14.01	1.57	20	S
Lead	9.558	1.0	10	0	95.6	80	120	9.651	0.968	20	

Sample ID: 062725-012AMSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: MW-19-2	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410904						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	11.73	1.0	10	4.224	75.1	80	120	11.76	0.281	20	S
Lead	9.266	1.0	10	0	92.7	80	120	9.324	0.624	20	

Sample ID: 062725-004ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: MW-4-2	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410880						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	6.353	1.0	0	0	0	0	0	6.424	1.11	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit    S - Spike Recovery outside accepted recovery limits    DO- Surrogate dilute out  
 J - Analyte detected below quantitation limits    B - Analyte detected in the associated Method Blank    H - Sample exceeded holding time  
 R - RPD outside accepted recovery limits    Calculations are based on raw values



**CLIENT:** Applied P & Ch Laboratories  
**Work Order:** 062725  
**Project:** #2931, JPL

# ANALYTICAL QC SUMMARY REPORT

**TestCode: 200.8\_W**

Sample ID: 062725-004ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: MW-4-2	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410880						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0	0	0	0	0	0	0	0	0	30

Sample ID: 062725-021ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512A						
Client ID: Dupe-2-2Q03	Batch ID: R27306	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410881						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	2.688	1.0	0	0	0	0	0	2.551	5.23	0	30
Lead	ND	1.0	0	0	0	0	0	0	0	0	30

Sample ID: 062725-012ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: MW-19-2	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410920						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	4.264	1.0	0	0	0	0	0	4.224	0.943	0	30
Lead	ND	1.0	0	0	0	0	0	0	0	0	30

Sample ID: 062725-034ADUP	SampType: DUP	TestCode: 200.8_W	Units: µg/L	Prep Date:	Run ID: ICP4_030512B						
Client ID: EB-1-4/17/03	Batch ID: R27309	TestNo: EPA 200.8		Analysis Date: 5/12/2003	SeqNo: 410921						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	ND	1.0	0	0	0	0	0	0	0	0	30
Lead	ND	1.0	0	0	0	0	0	0	0	0	30

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**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      DO - Surrogate dilute out  
 J - Analyte detected below quantitation limits      B - Analyte detected in the associated Method Blank      H - Sample exceeded holding time  
 R - RPD outside accepted recovery limits      Calculations are based on raw values

Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: #2931  
 ATL Number: 062725  
 Date Received: 05/09/03

**HOLDING TIME SUMMARY \_ EPA 200.8**

	Lab Sample ID	Client Sample ID	Sample Description	Date Sampled	Date Digested	Contract Holding Time
1	062725-001A	MW-4-5		04/21/2003	N/A	6 Months
2	062725-002A	MW-4-4		04/21/2003	N/A	6 Months
3	062725-003A	MW-4-3		04/21/2003	N/A	6 Months
4	062725-004A	MW-4-2		04/21/2003	N/A	6 Months
5	062725-005A	MW-4-1		04/21/2003	N/A	6 Months
6	062725-006A	EB-2-4/21/03		04/21/2003	N/A	6 Months
7	062725-007A	Dupe-1-2Q03		04/21/2003	N/A	6 Months
8	062725-008A	Source-2Q03		04/21/2003	N/A	6 Months
9	062725-009A	MW-19-5		04/22/2003	N/A	6 Months
10	062725-010A	MW-19-4		04/22/2003	N/A	6 Months
11	062725-011A	MW-19-3		04/22/2003	N/A	6 Months
12	062725-012A	MW-19-2		04/22/2003	N/A	6 Months
13	062725-013A	MW-19-1		04/22/2003	N/A	6 Months
14	062725-014A	EB-3-4/22/03		04/22/2003	N/A	6 Months
15	062725-015A	MW-14-5		04/23/2003	N/A	6 Months
16	062725-016A	MW-14-4		04/23/2003	N/A	6 Months
17	062725-017A	MW-14-3		04/23/2003	N/A	6 Months
18	062725-018A	MW-14-2		04/23/2003	N/A	6 Months
19	062725-019A	MW-14-1		04/23/2003	N/A	6 Months
20	062725-020A	EB-4-4/23/03		04/23/2003	N/A	6 Months
21						

\_\_\_0\_\_\_ of \_\_\_20\_\_\_ sample(s) were outside of holding time.



Client: Applied P & Ch Laboratory  
 Attn: Kenny Chan  
 Client's Project: #2931  
 ATL Number: 062725  
 Date Received: 05/09/03

**HOLDING TIME SUMMARY \_ EPA 200.8**

	Lab Sample ID	Client Sample ID	Sample Description	Date Sampled	Date Digested	Contract Holding Time
1	062725-021A	Dupe-2-2Q03		04/23/2003	N/A	6 Months
2	062725-022A	MW-20-5		04/24/2003	N/A	6 Months
3	062725-023A	MW-20-4		04/24/2003	N/A	6 Months
4	062725-024A	MW-20-3		04/24/2003	N/A	6 Months
5	062725-025A	MW-20-2		04/24/2003	N/A	6 Months
6	062725-026A	MW-20-1		04/24/2003	N/A	6 Months
7	062725-027A	EB-5-4/24/03		04/24/2003	N/A	6 Months
8	062725-028A	Dupe-3-2Q03		04/24/2003	N/A	6 Months
9	062725-029A	MW-21-5		04/17/2003	N/A	6 Months
10	062725-030A	MW-21-4		04/17/2003	N/A	6 Months
11	062725-031A	MW-21-3		04/17/2003	N/A	6 Months
12	062725-032A	MW-21-2		04/17/2003	N/A	6 Months
13	062725-033A	MW-21-1		04/17/2003	N/A	6 Months
14	062725-034A	EB-1-4/17/03		04/17/2003	N/A	6 Months
15						
16						
17						
18						
19						
20						
21						

\_\_\_0\_\_\_ of \_\_\_14\_\_\_ sample(s) were outside of holding time.

041





Method (Circle one): Turbidity Check and Sample Preparation Log

Date Read / Digested: 5/2/03

Acid Lot #  
 Hydrochloric N/A  
 Nitric N/A

Matrix (Circle one):  
 1) Drinking Water  
 2) Ground Water  
 3) Liquid  
 4) Soil  
 5) Solid  
 6) Other Water

Turb. Calibration  
 100 NTU: 10 NTU  
 Std Code: SC6000  
 Initials: WJ

Method (Circle one):  
 1) 200-B  
 2) 3010A  
 3) 3050B  
 4) 3051

Sample ID	Turbidity Result *	Sample Wt./Vol.	Spike / LCS Amt. Added	Spike / LCS Conc. (ppm)	Spike Code	Final Vol (ml)	Initials	Comments
MS 62725-4A	0.14	10	0.1ml	1 ppm	HST030512A	10	WS	
MSD	0.14	↓	0.1ml	↓	↓	↓	↓	
Method Blank	-	↓	-	-	-	↓	↓	
LCS	-	↓	0.1ml	1 ppm	HST030512F	↓	↓	
Blank MS								
Blank MSD								
1 62725-1A	0.31	10				10	WS	
2	0.47							
3	0.97							
4	0.14							
5	0.26							
6	0.06							
7	0.06							
8	0.28							
9	0.27							
10	0.10							
11	0.15							
12	0.07							
13	0.13							
14	0.09							
15	0.14							
16	0.14							
17	0.18							
18	0.33							
19	0.01							
20	0.05							
DUP 62725-4A	0.14							
62725-4A	0.05							

Turbidity < 1 NTU DOES NOT need sample preparation.

Relinquished by / Date:

Received by / Date:

Date Read / Digested: 5/2/03

NS/2/03

Method (Circle one): 200B Matrix (Circle one): 4) Soil  
 1) 200A 100 NTU: 10 NTU 1) Drinking Water  
 2) 3010A Std Code: SUC-0022 2) Ground Water  
 3) 3050B Initials: NS 3) Liquid  
 4) 3051 Initials: NS 6) Other: water

Sample ID	Turbidity Result *	Sample Wt./Vol.	Spike/LCS Amt. Added	Spike/LCS Conc. (ppm)	Spike Code	Final Vol (ml)	Initials	Comments
MS 62725-12A	0.38	10	0.122	1 ppm	MSJ030512A	10	NS	
MSD	0.38							
Method Blank	-							
LCS	-		0.1	1 ppm	MSJ030512F			
Blank MS								
Blank MSD								

1	62725-12A	0.38	10			10	NS	
2	-22	0.29						
3	-23	0.39						
4	-24	0.45						
5	-25	0.10						
6	-26	0.05						
7	-27	0.05						
8	-28	0.10						
9	-29	0.10						
10	-30	0.27						
11	-31	0.16						
12	-32	0.26						
13	-33	0.05						
14	-34	0.04						
15								
16								
17								
18								
19								
20	62725-12A	0.30	10			10	NS	
DUP		0.34						

\* Turbidity <1 NTU DOES NOT need sample preparation.

# Sample/Batch Report

User Name: Nancy  
 Computer Name: ICPMS PE 6100  
 Sample File: D:\ELAN\Sample\2003\May\030512.sam  
 Report Date/Time: Monday, May 12, 2003 11:04:15

A/S Loc.	Batch ID	Sample ID	Description	Sample Type	Init. Quant.	Prep. Vol.	Aliquot Vol.	Diluted Vol.	Solids Ratio
7		ICV							
1		ICB							
9		MB							
10		LCS	> R27306	NS 5/12/03					
11		062725-001A							
12		062725-002A							
13		062725-003A							
14		062725-004A							
15		062725-004ADUP							
16		062725-004AMS							
17		062725-004AMSD							
18		062725-005A							
7		CCV							
8		CCB							
19		062725-006A							
20		062725-007A							
21		062725-008A							
22		062725-009A							
23		062725-010A							
24		062725-011A							
25		062725-013A							
26		062725-014A							
27		062725-015A							
28		062725-016A							
7		CCV							
8		CCB							
29		062725-017A							
30		062725-018A							
31		062725-019A							
32		062725-020A							
33		062725-021A							
34		062725-021ADUP							
7		CCV							
8		CCB							
35		MB	> R27309	NS 5/12/03					
36		LCS							
37		062725-012A							
38		062725-012ADUP							
39		062725-012AMS							
40		062725-012AMSD							
41		062725-022A							
42		062725-023A							
43		062725-024A							
44		062725-025A							
7		CCV							
8		CCB							
45		062725-026A							
46		062725-027A							
47		062725-028A							

CAL: NST030512B / 20  
           C / 10  
           D / 5  
           E / 0.5

ICW/CW: NST030512G

NS/MSD: NST030512A

LCS: NST030512F

ICP4  
 NS, 5/12/03

044

48	062725-029A
49	062725-030A
50	062725-031A
51	062725-032A
52	062725-033A
53	062725-034A
54	062725-034ADUP
7	CCV
8	CCB

Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Amount Taken from Stock	
4-16-03	ICPMS - STD <sub>1</sub>	NS1030416A	NS1030402 A NS1030407 A	10 ppm 10 ppm	5 5	
	-100	B	NS1030416A	1 ppm	5	
	-50	C	B	100 ppb	25	
	-10	D	C	50 ppb	10	
	-LCS <sub>1</sub>	E	NS1021216D NS1030407B	10 ppm 10 ppm	5 5	
	-Iw/cover@2	F	NS1030416E	1 ppm	2.5	
4-18-03	ICPMS - STD <sub>1</sub>	NS1030418E	NS1030402A	10 ppm	5	
	-20	D	NS1030418C	1 ppm	1	
	-10	E	D	2 ppm	25	
	-5	F	E	10 ppb	25	
	-0.5	G	F	5 ppb	5	
	-LCS <sub>1</sub>	H	NS1021216D	10 ppm	5	
	-Iw/cover@10	I	NS1030418H	1 ppm	0.5	
	-100	J	E	1 ppm	5	
	-50	K	J	100 ppb	25	
	-10	L	K	20 ppb	10	
	-Iw/cover@2	M	H	1 ppm	2.5	
4-18-03	ICPMS - Internal Std.	NS1030418A	NS1030217A li	1000 ppm	1 ml	
			B Ge			
			C Tb			

Metals Working Standard Prep Log

Preparation	Expiration Dates		Comments	Initials			
	Final Vol. (ml)	Final Conc. (ug/ml)			Diluent Matrix (ie H <sub>2</sub> O)	Working STD *	Exp Date
1	50	1 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	7-15-03		German High Purity	NS
		100 ppb					
		50 ppb					
		10 ppb					
5	50	1 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	7-15-03		German High Purity	NS
		100 ppb					
		1 ppm		7-7-03		German	
		20 ppb					
10		10 ppb					
		5 ppb					
		0.5 ppb					
		1 ppm				German	
15		10 ppb					
		100 ppb					
		10 ppb					
		10 ppb					
		50 ppb					NS
	100 ml	10 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	7-17-03		High Purity	
17							NS
20							

\* Check working std versus all manufacturer's

Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Std Code	Stock Concentration	Stock Concentration	Amount Taken from Stock
4-18-03	ICPMS - Internal Std	MST030418 A	MST030217D Sc	1000 ppm	1000 ppm	1 ml
		I	E In			I
		I	F Tr			I
4-18-03	ICPMS - Tuning Stock Soln.	MST030418 B	MST-010523E Mg	1000 ppm	1000 ppm	0.5 ml
			MST030414H Cu			
			MST030217J Pb			
			MST030414E Cd			
			MST030414C Ba			
			MST030217G Ca			
			MST030414F Pb			
			MST030414D Be			
			MST030414G Co			
			MST030217H Tl			
			MST030217I U			
			MST030217E Zn			
4-21-03	ICPMS - 10ppb Tuning Soln.	MST030421A	MST030418B	1 ppm	1 ppm	10 ml
			MST030402A	1 ppm	1 ppm	5 ml
			MST030402B	1000 ppm	1000 ppm	0.05
4-22-03	ICPMS - STD	MST030422A	MST030422	1 ppm	1 ppm	1 ml
	- 20	B		20ppb	20ppb	25
	- 10	C		10ppb	10ppb	25
	- 5	D				25

Metals Working Standard Prep Log

Preparation			Expiration Dates		Comments	Initials
Final Vol. (ml)	Final Conc. (ug/ml)	Diluent Matrix (ie H <sub>2</sub> O)	Working STD *	Exp Date		
100 ml	10 ppm	DI H <sub>2</sub> O + HNO <sub>3</sub>	7-17-03	High Purity		WS
500 ml	1 ppm	DI H <sub>2</sub> O + HNO <sub>3</sub>	7-17-03	Ultra Scientific High Purity		WS
1000 ml	10 ppb	DI H <sub>2</sub> O + HNO <sub>3</sub>	7-20-03	Ultra Scientific High Purity		WS
500	1 ppm	DI H <sub>2</sub> O + HNO <sub>3</sub>	7-21-03	Leeman		WS
	20 ppb					
	10 ppb					
	5 ppb					

\* Check working std versus all manufacturer's



Metals Working Standard Prep Log

Date	Standard Name	Working Std Code	Stock Info		Preparation	
			Stock Sid	Stock Code	Stock Concentration	Amount Taken from Stock
05-02-03	ICP MS - STD <sub>1</sub> (Hx)	MST030502H	MST030217K		1000 ppm	0.05
	- 5 (Hx)	I	MST030502H		1 ppm	0.25
	- 2.5 (I)	J	I		5 ppb	25
	- 1 (I)	K	J		2.5 ppb	20
	- LCS (Hx)	L	MST030430H		1000 ppm	0.05
	- ICP/CON @ 2.5	M	MST030502		1 ppm	0.125
	ICP MS - STD <sub>1</sub>	N	MST030402A MST030402B MST030402C		1000 ppm 1000 ppm 1000 ppm	5 0.05
	- 100	O	MST030502N		1 ppm	5
	- 50	P	I		100 ppb	25
	- 10	Q	F		50 ppb	10
	- LCS <sub>1</sub>	R	MST030402B MST030402C		1000 ppm 1000 ppm	5 0.05
	- ICP/CON @ 20	S	MST030502R		1 ppm	7.5
05-08-03	ICP MS - STD <sub>1</sub>	MST030508A	MST030402A MST030402B		10 ppm 1000 ppm	5 0.05
	- 20	B	MST030508A		1 ppm	1
	- 10	C	B		20 ppb	25
	- 5	D	C		10 ppb	25
	- 0.5	E	D		5 ppb	5
	- LCS <sub>1</sub>	F	MST030402D MST030402E		1000 ppm 1000 ppm	5 0.05
	- ICP/CON @ 10	G	MST030508F		1 ppm	0.5
05-08-03	ICP MS - STD <sub>1</sub>	MST030512A	MST030402A		10 ppm	5

Metals Working Standard Prep Log

Preparation		Expiration Dates		Comments	Initials	
Final Vol. (ml)	Final Conc. (ug/ml)	Diluent Matrix (ie H <sub>2</sub> O)	Working STD *			Exp Date
50	1 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	07-31-03		High Purity	NS
	5 ppb					
	2.5 ppb					
	1 ppb					
	1 ppm				Ultra Scientific	
	2.5 ppb					
50	1 ppm				Leaman High Purity	NS
	100 ppb					
	50 ppb					
	10 ppb					
	1 ppm				Leaman High Purity	
	50 ppb					
50	1 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	8-6-03		Leaman	NS
	2 ppb					
	10 ppb					
	5 ppb					
	0.5 ppb					
	1 ppm				Leaman	
	10 ppb					
50	1 ppm	DI H <sub>2</sub> O + 2% HNO <sub>3</sub>	8-10-03		Leaman	NS

Check working std versus all manufacturer's





## Method Detection Limits

Method: 6020 / 200.8  
Date of Analysis: 01/13/2003  
Instrument ID: ICP4  
Matrix: Water

<u>Compound</u>	<u>MDL (ug/L)</u>	<u>DLR (ug/L)</u>
Chromium	0.111	1
Copper	0.078	1
Lead	0.134	1
Nickel	0.071	1
Zinc	3.341	5

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ELAN Instrument Control Session

File Edit Analysis Options Window Help



Data Only Method - c:\elandata\Method\ATL-TUNING250.mth

Dataset - d:\elan\tuning\2003\may\

		Repress	Summary
	Batch ID	Sample ID	Time
1		030502-tuning	08:25:00 Fri 02-May-03
2		030502-tuning	10:00:00 Fri 02-May-03
3		030505-tuning	11:55:00 Mon 05-May-03
4		030505-tuning	14:10:00 Mon 05-May-03
5		030505-tuning	16:41:00 Tue 06-May-03
6		030507-tuning	10:07:00 Wed 07-May-03
7		030508-tuning	13:05:00 Thu 08-May-03
8		030512-tuning	08:41:00 Mon 12-May-03
9		030512-tuning	10:00:00 Mon 12-May-03
10		030512-tuning	10:50:00 Mon 12-May-03

Tuning - D:\ELAN\TUNING\2003\May\030512.tun

Tune Mass Spec  Peak Width Only

Peak Search Window (amu):  Resolution DAC:   In Analyze

	Analyte	Mass (amu)	Measured Mass (amu)	Mass calibration DAC Value	Resolution DAC Value	Peak Width
1	Be	9.0122	9.02775	2046	2040	0.724
2	Mg	23.985	23.9787	5684	2020	0.723
3	Rh	102.905	102.878	24975	1955	0.767
4	Ce	139.905	139.929	33974	2010	0.745
5	Pb	207.977	207.978	50417	2270	0.762
6	U	238.05	238.025	57642	2435	0.775

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:06:17

Dataset File: D:\ELAN\Dataset\2003\May\030512\Blank.001

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Blank

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45		513669	1.6		ug/L	%
Cr	52		6252	6.2		ug/L	%
Cr	53		29960	6.7		ug/L	%
Ni	60		8482	0.9		ug/L	%
Ni	62		1376	0.7		ug/L	%
Cu	63		333	25.8		ug/L	%
Cu	65		206	6.0		ug/L	%
[> Tb	159		1031558	2.0		ug/L	%
Pb	207		832	20.2		ug/L	%
Pb	208		3928	20.6		ug/L	%

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:08:50

Dataset File: D:\ELAN\Dataset\2003\May\030512\Standard 1.002

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapci.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 1

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	521139	0.8			ug/L	%
	Cr	52	6252	11028	2.0	0.500	0.024	ug/L	4.9 %
	Cr	53	29960	37117	4.8	0.500	0.124	ug/L	24.9 %
	Ni	60	8482	8857	1.2	0.500	0.355	ug/L	71.0 %
	NI	62	1376	1426	2.9	0.500	0.823	ug/L	164.6 %
	Cu	63	333	2249	2.8	0.500	0.021	ug/L	4.1 %
[	Cu	65	206	1127	0.5	0.500	0.008	ug/L	1.5 %
[>	Tb	159	1031558	1053122	0.7			ug/L	%
	Pb	207	832	2089	1.4	0.500	0.017	ug/L	3.4 %
[	Pb	208	3928	9788	1.4	0.500	0.015	ug/L	2.9 %



# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:11:40

Dataset File: D:\ELAN\DataSet\2003\May\030512\Standard 2.003

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 2

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	523154	0.6		ug/L	%
	Cr	52	6252	46287	2.2	4.991	0.105 ug/L	2.1 %
	Cr	53	29960	43045	2.7	4.792	0.419 ug/L	8.7 %
	Ni	60	8482	15980	1.5	5.033	0.233 ug/L	4.6 %
	Ni	62	1376	2399	1.3	5.035	0.081 ug/L	1.6 %
	Cu	63	333	18513	0.9	4.997	0.068 ug/L	1.4 %
	Cu	65	206	8786	1.2	4.996	0.081 ug/L	1.6 %
[>	Tb	159	1031558	1046956	1.6		ug/L	%
	Pb	207	832	16112	1.4	5.010	0.023 ug/L	0.5 %
	Pb	208	3928	75729	1.6	5.010	0.027 ug/L	0.5 %

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# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:14:30

Dataset File: D:\ELAN\Dataset\2003\May\030512\Standard 3.004

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: Standard 3

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	522284	1.0		ug/L	%
Cr	52	6252	84018	1.7	9.944	0.196 ug/L	2.0 %
Cr	53	29960	47511	4.6	9.032	1.070 ug/L	11.8 %
Ni	60	8482	23375	0.9	10.026	0.292 ug/L	2.9 %
Ni	62	1376	3525	2.4	10.143	0.553 ug/L	5.5 %
Cu	63	333	36616	0.7	9.998	0.134 ug/L	1.3 %
[ Cu	65	206	17163	0.9	9.978	0.085 ug/L	0.9 %
[> Tb	159	1031558	1060534	0.4		ug/L	%
Pb	207	832	32116	2.8	10.025	0.294 ug/L	2.9 %
[ Pb	208	3928	148830	2.1	9.996	0.232 ug/L	2.3 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:17:22

Dataset File: D:\ELAN\Dataset\2003\May\030512\Standard 4.005

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

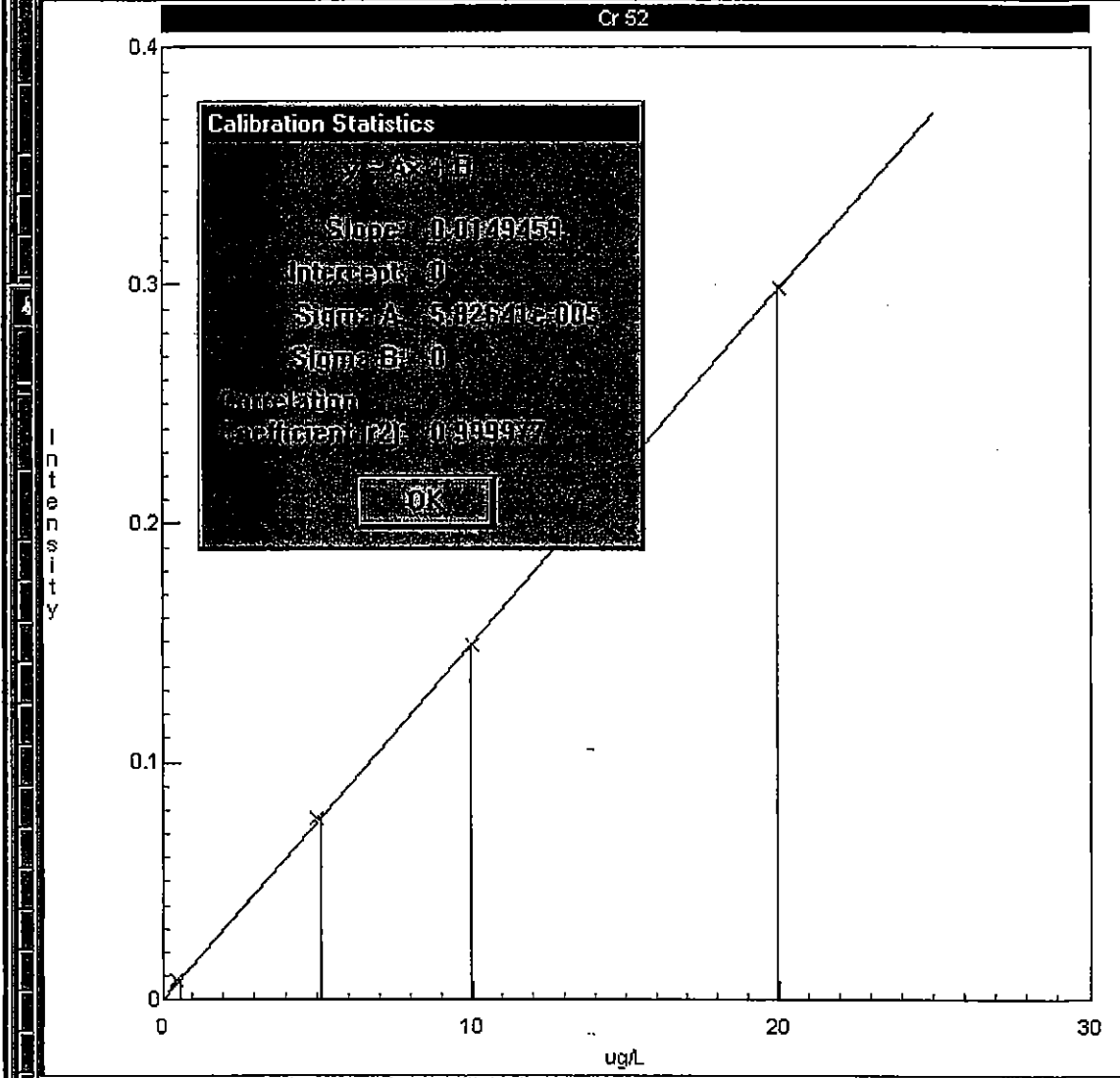
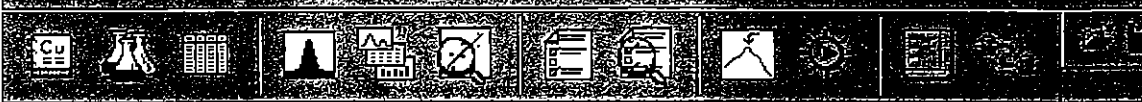
Number of Replicates: 3

Sample ID: Standard 4

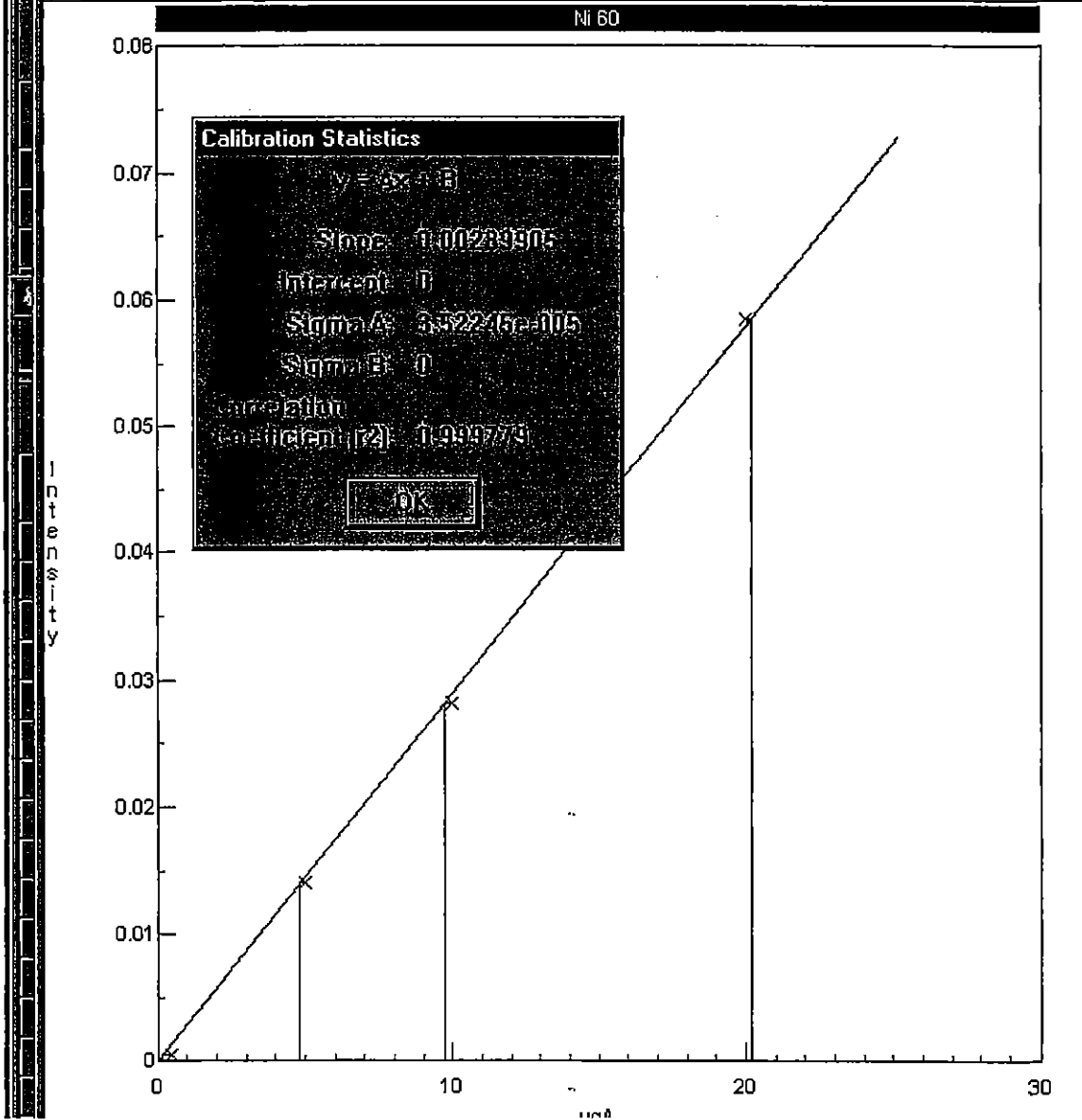
Sample Type:

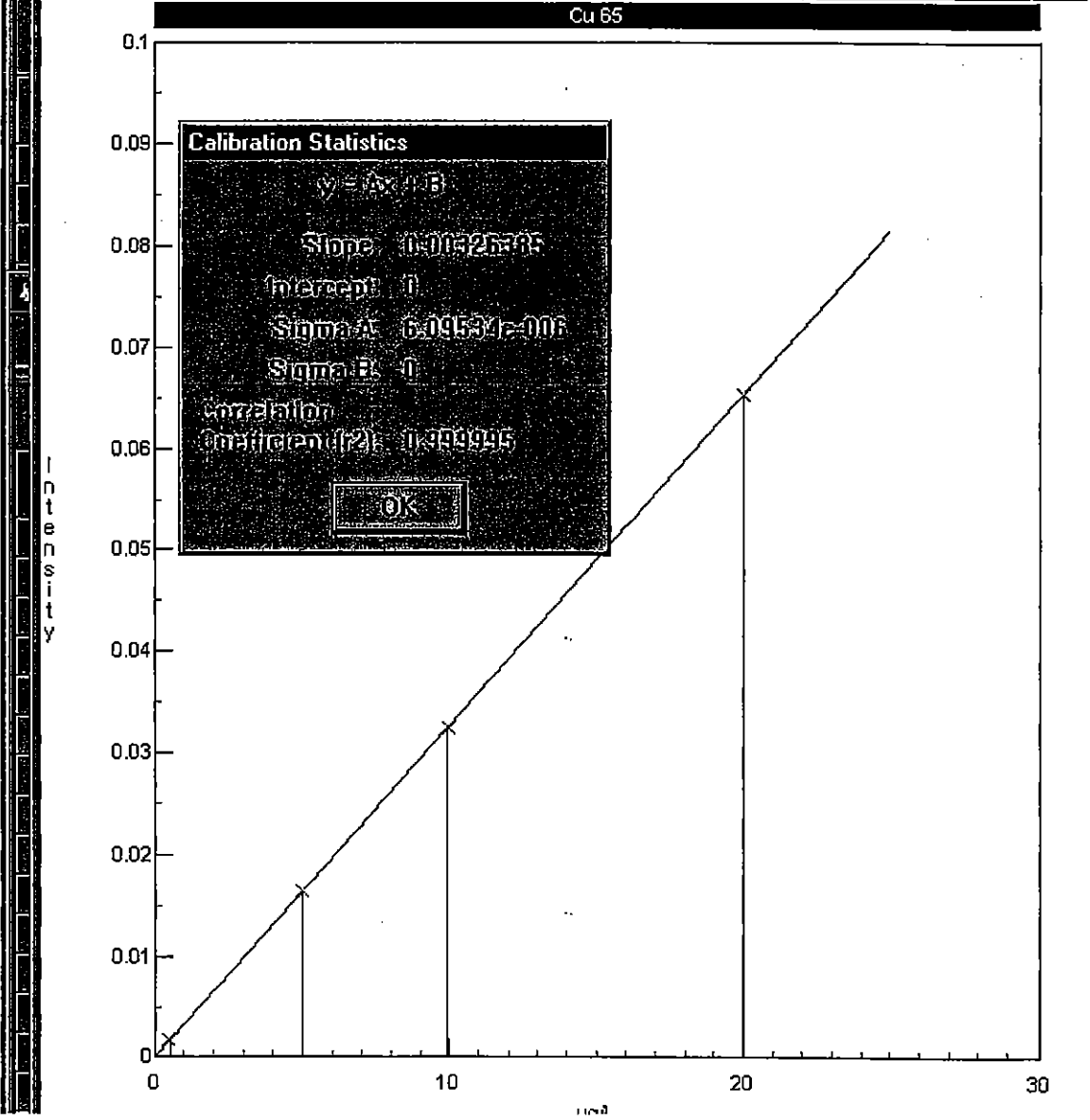
### Summary

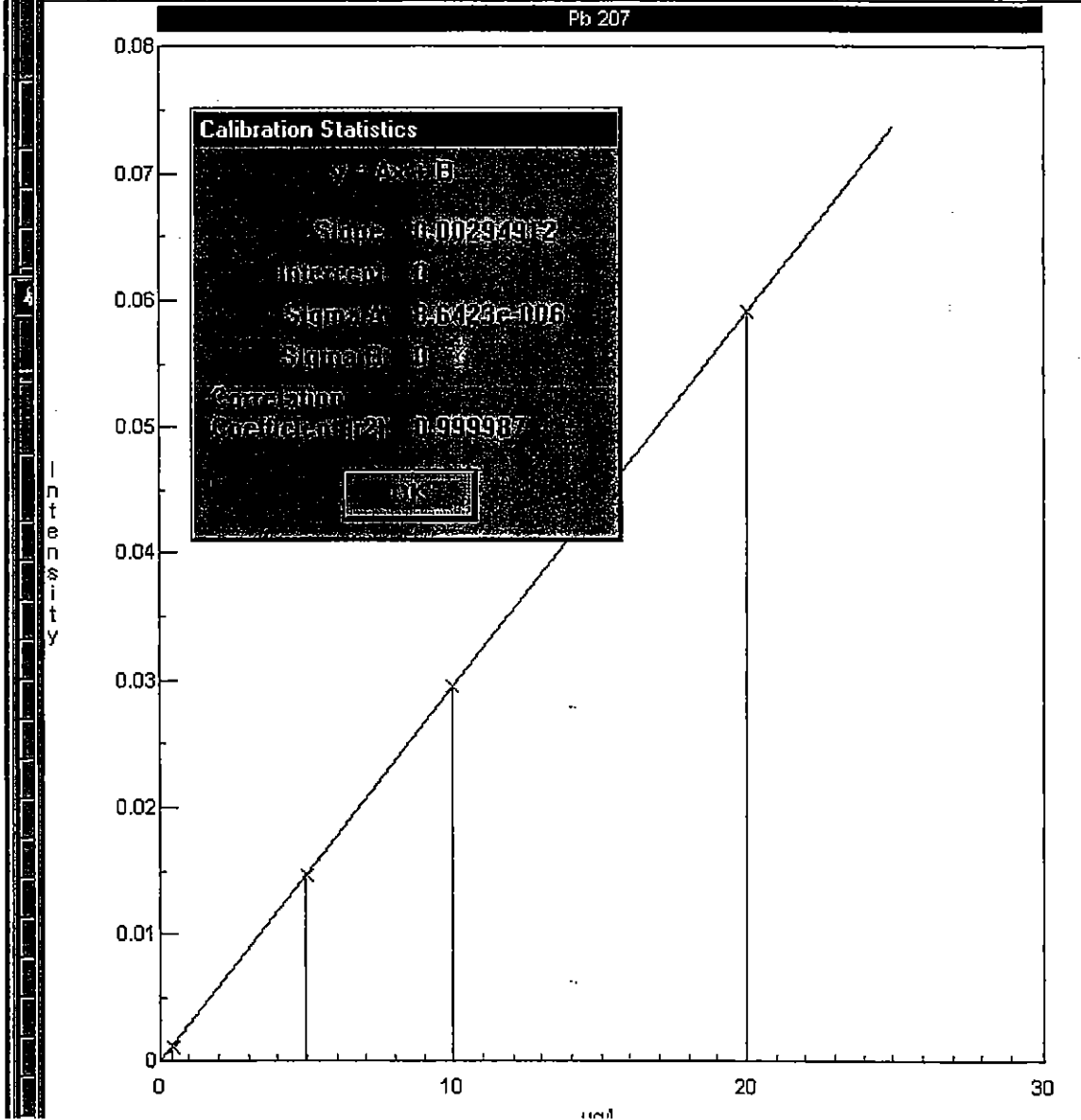
	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	513849	0.5			ug/L	%
	Cr	52	6252	159828	0.8	19.997	0.081	ug/L	0.4 %
	Cr	53	29960	58040	2.7	18.571	1.171	ug/L	6.3 %
	Ni	60	8482	38540	0.2	20.176	0.105	ug/L	0.5 %
	Ni	62	1376	5780	0.8	20.307	0.349	ug/L	1.7 %
	Cu	63	333	71784	0.5	20.003	0.204	ug/L	1.0 %
	Cu	65	206	33783	0.8	20.021	0.206	ug/L	1.0 %
[>	Tb	159	1031558	1053083	2.0			ug/L	%
	Pb	207	832	63020	2.2	20.019	0.228	ug/L	1.1 %
	Pb	208	3928	292574	1.3	20.015	0.204	ug/L	1.0 %



18	8		CCB	Run Sample	atl r
15	19		062725-006A	Run Sample	atl r







## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:20:15

Dataset File: D:\ELAN\Dataset\2003\May\030512\ICV.006

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbnipcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: ICV

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	520403	1.2		ug/L	%
Cr	52	6252	85419	0.7	10.169	0.090 ug/L	0.9 %
Cr	53	29960	49770	2.0	12.685	0.702 ug/L	5.5 %
Ni	60	8482	22272	1.0	9.067	0.048 ug/L	0.5 %
Ni	62	1376	3360	1.2	8.953	0.294 ug/L	3.3 %
Cu	63	333	37273	1.2	10.210	0.060 ug/L	0.6 %
[ Cu	65	206	17622	0.7	10.253	0.144 ug/L	1.4 %
[> Tb	159	1031558	1062345	1.3		ug/L	%
Pb	207	832	31920	1.8	9.914	0.059 ug/L	0.6 %
[ Pb	208	3928	148629	1.7	9.940	0.043 ug/L	0.4 %



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:22:51

Dataset File: D:\ELAN\Dataset\2003\May\030512\ICB.007

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: ICB

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	517265	0.9		ug/L	%
	Cr	52	6252	7429	3.0	0.146	0.021 ug/L	14.5 %
	Cr	53	29960	41565	3.9	7.485	0.897 ug/L	12.0 %
	Ni	60	8482	6278	1.8	-1.510	0.049 ug/L	3.2 %
	Ni	62	1376	1039	2.0	-1.589	0.134 ug/L	8.4 %
	Cu	63	333	307	1.8	-0.008	0.002 ug/L	25.0 %
L	Cu	65	206	219	3.7	0.006	0.006 ug/L	92.2 %
[>	Tb	159	1031558	1048056	2.5		ug/L	%
	Pb	207	832	334	8.8	-0.165	0.010 ug/L	6.1 %
L	Pb	208	3928	1553	6.2	-0.170	0.007 ug/L	4.1 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:26:03

Dataset File: D:\ELAN\Dataset\2003\May\030512\MB.008

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: MB - R27306 NS 5/12/03

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	522354	1.3		ug/L	%
Cr	52	6252	7259	3.3	0.115	0.021 ug/L	18.1 %
Cr	53	29960	40911	3.3	6.792	0.545 ug/L	8.0 %
Ni	60	8482	7097	3.3	-1.010	0.111 ug/L	11.0 %
Ni	62	1376	1132	3.8	-1.215	0.168 ug/L	13.8 %
Cu	63	333	399	2.6	0.017	0.002 ug/L	11.6 %
Cu	65	206	267	4.1	0.034	0.007 ug/L	19.6 %
[> Tb	159	1031558	1056089	1.8		ug/L	%
Pb	207	832	321	0.7	-0.170	0.002 ug/L	0.9 %
Pb	208	3928	1347	4.2	-0.185	0.005 ug/L	2.9 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:29:08

Dataset File: D:\ELAN\Dataset\2003\May\030512\LCS.009

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: LCS - R27306 NS 5/12/03

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	519153	1.0		ug/L	%
Cr	52	6252	85688	0.4	10.229	0.073 ug/L	0.7 %
Cr	53	29960	52716	2.7	14.691	0.915 ug/L	6.2 %
Ni	60	8482	22633	1.3	9.343	0.267 ug/L	2.9 %
Ni	62	1376	3415	1.5	9.238	0.286 ug/L	3.1 %
Cu	63	333	36130	2.8	9.919	0.319 ug/L	3.2 %
Cu	65	206	17143	1.7	9.994	0.170 ug/L	1.7 %
[> Tb	159	1031558	1051352	1.0		ug/L	%
Pb	207	832	31989	2.1	10.043	0.144 ug/L	1.4 %
Pb	208	3928	149512	1.6	10.108	0.140 ug/L	1.4 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:31:42

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-001A.010

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-001A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	571083	0.8		ug/L	%
Cr	52	6252	32516	0.5	2.995	0.026 ug/L	0.9 %
Cr	53	29960	12846	5.6	-12.177	0.486 ug/L	4.0 %
Ni	60	8482	3463	0.7	-3.604	0.012 ug/L	0.3 %
Ni	62	1376	619	3.4	-3.779	0.071 ug/L	1.9 %
Cu	63	333	3249	3.0	0.725	0.018 ug/L	2.5 %
Cu	65	206	993	2.8	0.409	0.014 ug/L	3.5 %
[> Tb	159	1031558	1044058	1.5		ug/L	%
Pb	207	832	895	9.1	0.018	0.031 ug/L	175.7 %
Pb	208	3928	4221	11.2	0.018	0.038 ug/L	215.9 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:34:16

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-002A.011

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-002A

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	605795	1.7			ug/L	%
	Cr	52	6252	38827	0.9	3.474	0.058	ug/L	1.7 %
	Cr	53	29960	8656	3.0	-14.966	0.223	ug/L	1.5 %
	Ni	60	8482	2402	2.8	-4.328	0.029	ug/L	0.7 %
	Ni	62	1376	426	4.5	-4.682	0.065	ug/L	1.4 %
	Cu	63	333	2228	1.8	0.436	0.012	ug/L	2.9 %
	Cu	65	206	631	2.4	0.196	0.008	ug/L	4.0 %
[>	Tb	159	1031558	1062144	1.2			ug/L	%
	Pb	207	832	704	4.3	-0.048	0.012	ug/L	24.1 %
	Pb	208	3928	3269	2.4	-0.053	0.008	ug/L	15.3 %

070

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:36:50

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-003A.012

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-003A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	597762	1.1		ug/L	%
Cr	52	6252	41216	0.5	3.799	0.058 ug/L	1.5 %
Cr	53	29960	6102	2.2	-16.355	0.096 ug/L	0.6 %
Ni	60	8482	2868	3.3	-4.040	0.067 ug/L	1.7 %
Ni	62	1376	427	2.8	-4.657	0.052 ug/L	1.1 %
Cu	63	333	2371	1.6	0.477	0.013 ug/L	2.7 %
[ Cu	65	206	675	2.1	0.223	0.004 ug/L	1.7 %
[> Tb	159	1031558	1086070	1.3		ug/L	%
Pb	207	832	862	4.0	-0.004	0.014 ug/L	329.3 %
[ Pb	208	3928	3918	2.6	-0.015	0.010 ug/L	71.5 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:49:46

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-004A.015

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-004A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	595106	1.8			ug/L	%
	Cr	52	6252	64367	0.4	6.424	0.134	ug/L	2.1 %
	Cr	53	29960	7173	2.8	-15.728	0.080	ug/L	0.5 %
	Ni	60	8482	5498	1.2	-2.508	0.073	ug/L	2.9 %
	Ni	62	1376	433	4.7	-4.623	0.083	ug/L	1.8 %
	Cu	63	333	1729	2.6	0.325	0.007	ug/L	2.1 %
L	Cu	65	206	1837	2.1	0.823	0.026	ug/L	3.2 %
[>	Tb	159	1031558	1036833	2.2			ug/L	%
	Pb	207	832	754	17.3	-0.026	0.048	ug/L	181.4 %
L	Pb	208	3928	3564	9.9	-0.027	0.029	ug/L	110.2 %

0 072

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:52:21

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-004ADUP.016

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-004ADUP

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	580488	0.8			ug/L	%
	Cr	52	6252	62176	1.1	6.353	0.127	ug/L	2.0 %
	Cr	53	29960	6845	0.2	-15.817	0.026	ug/L	0.2 %
	Ni	60	8482	5474	2.1	-2.443	0.092	ug/L	3.8 %
	Ni	62	1376	441	3.4	-4.549	0.063	ug/L	1.4 %
	Cu	63	333	1631	2.9	0.311	0.014	ug/L	4.6 %
[	Cu	65	206	1727	2.3	0.789	0.016	ug/L	2.0 %
[>	Tb	159	1031558	1030638	1.3			ug/L	%
	Pb	207	832	570	5.5	-0.086	0.009	ug/L	10.9 %
[	Pb	208	3928	2706	1.8	-0.086	0.001	ug/L	1.4 %



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:54:57

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-004AMS.017

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-004AMS

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	562332	0.7		ug/L	%
Cr	52	6252	124549	1.6	14.006	0.320 ug/L	2.3 %
Cr	53	29960	14263	1.7	-11.203	0.196 ug/L	1.7 %
Ni	60	8482	17974	1.6	5.331	0.225 ug/L	4.2 %
Ni	62	1376	2328	2.3	3.460	0.223 ug/L	6.5 %
Cu	63	333	29969	1.4	7.573	0.092 ug/L	1.2 %
Cu	65	206	15068	1.4	8.087	0.144 ug/L	1.8 %
[> Tb	159	1031558	1026310	2.1		ug/L	%
Pb	207	832	30037	1.6	9.651	0.064 ug/L	0.7 %
Pb	208	3928	140911	1.2	9.751	0.086 ug/L	0.9 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 11:57:33

Dataset File: D:\ELAN\DataSet\2003\May\030512\062725-004AMSD.018

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-004AMSD

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	555564	1.7		ug/L	%
	Cr	52	6252	121230	0.4	13.788	0.200 ug/L	1.5 %
	Cr	53	29960	14110	1.2	-11.192	0.120 ug/L	1.1 %
	Ni	60	8482	17722	1.5	5.308	0.117 ug/L	2.2 %
	Ni	62	1376	2276	2.4	3.358	0.148 ug/L	4.4 %
	Cu	63	333	29611	2.0	7.574	0.028 ug/L	0.4 %
[	Cu	65	206	14997	0.5	8.149	0.111 ug/L	1.4 %
[>	Tb	159	1031558	1036778	1.5		ug/L	%
	Pb	207	832	30061	2.1	9.558	0.077 ug/L	0.8 %
[	Pb	208	3928	141071	2.3	9.659	0.085 ug/L	0.9 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:00:10

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-005A.019

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-005A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	504186	1.4		ug/L	%
Cr	52	6252	31613	0.4	3.381	0.060 ug/L	1.8 %
Cr	53	29960	2639	1.4	-18.046	0.048 ug/L	0.3 %
Ni	60	8482	1871	0.5	-4.416	0.021 ug/L	0.5 %
Ni	62	1376	192	4.8	-5.447	0.055 ug/L	1.0 %
Cu	63	333	2153	1.1	0.521	0.004 ug/L	0.8 %
Cu	65	206	1291	0.6	0.662	0.009 ug/L	1.4 %
[> Tb	159	1031558	1046126	1.6		ug/L	%
Pb	207	832	542	3.0	-0.098	0.003 ug/L	2.6 %
Pb	208	3928	2517	2.0	-0.102	0.003 ug/L	2.5 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:02:48

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCV.020

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	427626	1.5		ug/L	%
	Cr	52	6252	68130	1.2	9.846	0.043 ug/L	0.4 %
	Cr	53	29960	36887	6.2	9.482	1.388 ug/L	14.6 %
	Ni	60	8482	13623	2.7	5.292	0.148 ug/L	2.8 %
	Ni	62	1376	2158	2.8	5.609	0.190 ug/L	3.4 %
	Cu	63	333	30064	1.1	10.021	0.046 ug/L	0.5 %
	Cu	65	206	14463	0.4	10.240	0.121 ug/L	1.2 %
[>	Tb	159	1031558	1016787	2.0		ug/L	%
	Pb	207	832	32570	4.2	10.585	0.242 ug/L	2.3 %
	Pb	208	3928	152960	3.7	10.707	0.192 ug/L	1.8 %

077

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:05:27

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCB.021

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	425511	1.7		ug/L	%
[ Cr	52	6252	6883	3.7	0.268	0.039 ug/L	14.5 %
[ Cr	53	29960	37153	5.4	9.856	1.608 ug/L	16.3 %
[ Ni	60	8482	486	8.6	-5.302	0.034 ug/L	0.6 %
[ Ni	62	1376	220	3.7	-5.121	0.064 ug/L	1.3 %
[ Cu	63	333	270	0.6	-0.002	0.001 ug/L	61.1 %
[ Cu	65	206	186	13.8	0.011	0.020 ug/L	180.6 %
[> Tb	159	1031558	1005501	0.1		ug/L	%
[ Pb	207	832	297	7.1	-0.173	0.007 ug/L	4.2 %
[ Pb	208	3928	1333	3.6	-0.181	0.003 ug/L	1.9 %

078

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:08:06

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-006A.022

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-006A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	449850	1.3		ug/L	%
Cr	52	6252	6553	2.3	0.160	0.010 ug/L	6.3 %
Cr	53	29960	7558	7.4	-14.110	0.494 ug/L	3.5 %
Ni	60	8482	528	9.8	-5.291	0.034 ug/L	0.6 %
Ni	62	1376	205	7.4	-5.271	0.066 ug/L	1.2 %
Cu	63	333	376	3.8	0.027	0.006 ug/L	21.4 %
Cu	65	206	230	3.7	0.033	0.008 ug/L	22.8 %
[> Tb	159	1031558	1027839	1.5		ug/L	%
Pb	207	832	590	4.6	-0.079	0.006 ug/L	7.6 %
Pb	208	3928	2748	3.5	-0.083	0.005 ug/L	5.6 %

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## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:10:44

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-007A.023

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-007A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	509971	1.9			ug/L	%
	Cr	52	6252	27275	1.5	2.765	0.082	ug/L	3.0 %
	Cr	53	29960	5553	4.1	-16.121	0.224	ug/L	1.4 %
	Ni	60	8482	1993	1.0	-4.347	0.016	ug/L	0.4 %
	Ni	62	1376	335	5.1	-4.792	0.063	ug/L	1.3 %
	Cu	63	333	1476	2.7	0.323	0.006	ug/L	1.9 %
	Cu	65	206	495	2.7	0.174	0.008	ug/L	4.4 %
[>	Tb	159	1031558	1046001	1.9			ug/L	%
	Pb	207	832	692	5.5	-0.049	0.008	ug/L	16.3 %
	Pb	208	3928	3257	5.4	-0.051	0.008	ug/L	16.3 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:13:22

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-008A.024

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-008A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	461039	1.6		ug/L	%
	Cr	52	6252	5505	0.1	-0.015	0.013 ug/L	87.5 %
	Cr	53	29960	3470	3.9	-17.266	0.140 ug/L	0.8 %
	Ni	60	8482	506	3.9	-5.317	0.010 ug/L	0.2 %
	Ni	62	1376	212	6.8	-5.260	0.077 ug/L	1.5 %
	Cu	63	333	3308	1.5	0.939	0.001 ug/L	0.1 %
	Cu	65	206	1606	2.3	0.944	0.010 ug/L	1.0 %
[>	Tb	159	1031558	1029090	1.8		ug/L	%
	Pb	207	832	586	2.0	-0.080	0.004 ug/L	4.4 %
	Pb	208	3928	2794	0.4	-0.080	0.004 ug/L	5.1 %



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:16:01

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-009A.025

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-009A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	493748	1.3		ug/L	%
Cr	52	6252	24333	0.4	2.483	0.037 ug/L	1.5 %
Cr	53	29960	4028	3.2	-17.052	0.118 ug/L	0.7 %
Ni	60	8482	2287	9.0	-4.099	0.132 ug/L	3.2 %
Ni	62	1376	293	1.1	-4.945	0.005 ug/L	0.1 %
Cu	63	333	2389	0.8	0.603	0.009 ug/L	1.4 %
Cu	65	206	1522	2.3	0.821	0.034 ug/L	4.1 %
[> Tb	159	1031558	1034538	1.5		ug/L	%
Pb	207	832	615	3.7	-0.072	0.006 ug/L	7.9 %
Pb	208	3928	2872	2.8	-0.075	0.005 ug/L	6.4 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:18:40

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-010A.026

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-010A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	541437	0.8		ug/L	%
Cr	52	6252	26084	1.1	2.409	0.028 ug/L	1.2 %
Cr	53	29960	3425	1.1	-17.675	0.036 ug/L	0.2 %
Ni	60	8482	1903	7.6	-4.484	0.082 ug/L	1.8 %
Ni	62	1376	294	7.4	-5.060	0.093 ug/L	1.8 %
Cu	63	333	1725	0.8	0.365	0.002 ug/L	0.5 %
[ Cu	65	206	1008	1.1	0.447	0.010 ug/L	2.3 %
[> Tb	159	1031558	1051168	2.1		ug/L	%
[ Pb	207	832	551	1.2	-0.096	0.004 ug/L	4.3 %
[ Pb	208	3928	2526	2.3	-0.103	0.001 ug/L	0.5 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:21:16

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-011A.027

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-011A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	558022	0.5			ug/L	%
	Cr	52	6252	48725	0.6	5.028	0.064	ug/L	1.3 %
	Cr	53	29960	5033	0.6	-16.759	0.008	ug/L	0.0 %
	Ni	60	8482	3865	2.0	-3.307	0.051	ug/L	1.5 %
	Ni	62	1376	215	2.4	-5.437	0.025	ug/L	0.5 %
	Cu	63	333	2882	0.6	0.650	0.006	ug/L	0.9 %
	Cu	65	206	2079	2.1	1.018	0.021	ug/L	2.1 %
[>	Tb	159	1031558	1045209	1.0			ug/L	%
	Pb	207	832	460	6.0	-0.124	0.008	ug/L	6.7 %
	Pb	208	3928	2160	2.0	-0.127	0.002	ug/L	1.5 %

084

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:23:48

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-013A.028

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-013A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	527752	1.2		ug/L	%
Cr	52	6252	19902	1.4	1.709	0.059 ug/L	3.4 %
Cr	53	29960	2489	1.1	-18.222	0.035 ug/L	0.2 %
Ni	60	8482	1505	15.2	-4.711	0.160 ug/L	3.4 %
Ni	62	1376	213	11.1	-5.393	0.106 ug/L	2.0 %
Cu	63	333	3512	0.7	0.864	0.013 ug/L	1.5 %
Cu	65	206	1856	0.6	0.954	0.008 ug/L	0.8 %
[> Tb	159	1031558	1055290	0.6		ug/L	%
Pb	207	832	528	2.1	-0.104	0.003 ug/L	3.0 %
Pb	208	3928	2493	2.4	-0.106	0.003 ug/L	3.2 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:26:21

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-014A.029

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-014A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	476746	2.6		ug/L	%
Cr	52	6252	5912	2.0	0.016	0.024 ug/L	153.5 %
Cr	53	29960	2081	3.8	-18.340	0.091 ug/L	0.5 %
Ni	60	8482	501	4.8	-5.334	0.012 ug/L	0.2 %
Ni	62	1376	218	3.8	-5.265	0.024 ug/L	0.4 %
Cu	63	333	3653	2.8	1.009	0.017 ug/L	1.7 %
Cu	65	206	1762	0.8	1.010	0.035 ug/L	3.4 %
[> Tb	159	1031558	1069334	2.1		ug/L	%
Pb	207	832	567	6.0	-0.094	0.013 ug/L	13.6 %
Pb	208	3928	2543	2.0	-0.104	0.005 ug/L	4.9 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:28:54

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-015A.030

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-015A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	547259	0.8		ug/L	%
	Cr	52	6252	23881	1.2	2.105	0.027	1.3 %
	Cr	53	29960	2382	3.9	-18.346	0.069	0.4 %
	Ni	60	8482	951	2.5	-5.097	0.019	0.4 %
	NI	62	1376	252	4.0	-5.256	0.046	0.9 %
	Cu	63	333	2947	0.8	0.682	0.013	1.9 %
L	Cu	65	206	1291	1.2	0.600	0.011	1.9 %
[>	Tb	159	1031558	1064293	0.8		ug/L	%
	Pb	207	832	405	3.9	-0.144	0.006	4.1 %
L	Pb	208	3928	1896	3.6	-0.148	0.004	2.5 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:31:28

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-016A.031

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-016A

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	562254	0.8			ug/L	%
	Cr	52	6252	38671	1.4	3.787	0.047	ug/L	1.2 %
	Cr	53	29960	4350	0.6	-17.195	0.015	ug/L	0.1 %
	Ni	60	8482	1975	5.7	-4.484	0.075	ug/L	1.7 %
	Ni	62	1376	213	3.5	-5.451	0.025	ug/L	0.5 %
	Cu	63	333	1827	1.5	0.374	0.011	ug/L	2.9 %
	Cu	65	206	990	1.6	0.417	0.006	ug/L	1.6 %
[>	Tb	159	1031558	1055949	1.5			ug/L	%
	Pb	207	832	417	2.1	-0.139	0.001	ug/L	0.7 %
	Pb	208	3928	1936	5.4	-0.144	0.006	ug/L	3.9 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:34:04

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCV.032

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	429312	0.9		ug/L	%
[ Cr	52	6252	69373	1.0	<b>9.998</b>	0.093 ug/L	0.9 %
[ Cr	53	29960	39204	4.4	<b>11.210</b>	1.137 ug/L	10.1 %
[ Ni	60	8482	13527	0.8	<b>5.173</b>	0.096 ug/L	1.9 %
[ Ni	62	1376	2127	0.8	<b>5.391</b>	0.051 ug/L	0.9 %
[ Cu	63	333	29851	0.3	<b>9.910</b>	0.089 ug/L	0.9 %
[ Cu	65	206	14256	0.9	<b>10.051</b>	0.016 ug/L	0.2 %
[> Tb	159	1031558	1013891	1.0		ug/L	%
[ Pb	207	832	32124	1.2	<b>10.470</b>	0.052 ug/L	0.5 %
[ Pb	208	3928	150783	1.6	<b>10.583</b>	0.093 ug/L	0.9 %



# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:36:44

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCB.033

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	431830	0.3		ug/L	%
Cr	52	6252	7136	1.8	0.291	0.017 ug/L	5.7 %
Cr	53	29960	39250	3.7	11.068	1.074 ug/L	9.7 %
Ni	60	8482	636	3.9	-5.188	0.020 ug/L	0.4 %
Ni	62	1376	214	3.7	-5.175	0.044 ug/L	0.9 %
Cu	63	333	289	6.0	0.003	0.006 ug/L	175.6 %
Cu	65	206	177	3.0	0.003	0.004 ug/L	158.6 %
[> Tb	159	1031558	1011041	1.2		ug/L	%
Pb	207	832	305	3.8	-0.171	0.004 ug/L	2.4 %
Pb	208	3928	1332	3.4	-0.182	0.003 ug/L	1.4 %

090

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:39:21

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-017A.034

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-017A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	546031	0.9		ug/L	%
Cr	52	6252	32642	1.7	3.186	0.092 ug/L	2.9 %
Cr	53	29960	9656	4.2	-13.813	0.291 ug/L	2.1 %
Ni	60	8482	3826	3.0	-3.279	0.069 ug/L	2.1 %
Ni	62	1376	312	5.9	-4.996	0.072 ug/L	1.4 %
Cu	63	333	2998	0.7	0.697	0.013 ug/L	1.8 %
Cu	65	206	2420	1.1	1.235	0.008 ug/L	0.7 %
[> Tb	159	1031558	1029218	1.4		ug/L	%
Pb	207	832	518	3.6	-0.103	0.004 ug/L	3.8 %
Pb	208	3928	2392	4.4	-0.108	0.006 ug/L	5.1 %

0 091

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:41:56

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-018A.035

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbriapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-018A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	562816	1.8		ug/L	%
	Cr	52	6252	44124	1.1	4.432	0.090 ug/L	2.0 %
	Cr	53	29960	7548	1.4	-15.266	0.111 ug/L	0.7 %
	Ni	60	8482	4492	1.8	-2.942	0.093 ug/L	3.2 %
	Ni	62	1376	255	3.6	-5.275	0.058 ug/L	1.1 %
	Cu	63	333	6170	1.7	1.484	0.045 ug/L	3.0 %
	Cu	65	206	4116	1.1	2.118	0.046 ug/L	2.2 %
[>	Tb	159	1031558	1036334	2.3		ug/L	%
	Pb	207	832	755	3.5	-0.026	0.008 ug/L	32.0 %
	Pb	208	3928	3504	3.8	-0.031	0.008 ug/L	26.3 %

092

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:44:31

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-019A.036

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-019A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	573932	1.0		ug/L	%
Cr	52	6252	46654	1.1	4.625	0.111 ug/L	2.4 %
Cr	53	29960	6478	1.8	-15.988	0.106 ug/L	0.7 %
Ni	60	8482	5739	1.4	-2.246	0.040 ug/L	1.8 %
Ni	62	1376	397	10.1	-4.712	0.155 ug/L	3.3 %
Cu	63	333	9549	2.0	2.300	0.037 ug/L	1.6 %
[ Cu	65	206	5791	1.0	2.969	0.013 ug/L	0.4 %
[> Tb	159	1031558	1052239	2.3		ug/L	%
Pb	207	832	697	1.8	-0.049	0.001 ug/L	2.8 %
[ Pb	208	3928	3301	2.2	-0.049	0.000 ug/L	0.5 %

093

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:47:06

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-020A.037

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-020A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	489527	0.7		ug/L	%
Cr	52	6252	7358	1.6	0.191	0.011 ug/L	5.8 %
Cr	53	29960	3572	3.0	-17.344	0.091 ug/L	0.5 %
Ni	60	8482	602	2.2	-5.271	0.006 ug/L	0.1 %
Ni	62	1376	225	6.9	-5.262	0.068 ug/L	1.3 %
Cu	63	333	922	1.6	0.178	0.003 ug/L	1.4 %
[ Cu	65	206	505	3.3	0.193	0.012 ug/L	6.4 %
[> Tb	159	1031558	1090577	2.0		ug/L	%
Pb	207	832	652	3.7	-0.071	0.004 ug/L	6.0 %
[ Pb	208	3928	3291	14.4	-0.058	0.027 ug/L	47.2 %

094

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:49:43

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-021A.038

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-021A

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	558970	1.3		ug/L		%
	Cr	52	6252	28110	0.9	2.551	0.061	ug/L	2.4 %
	Cr	53	29960	4457	2.6	-17.115	0.038	ug/L	0.2 %
	Ni	60	8482	3836	4.4	-3.329	0.100	ug/L	3.0 %
	Ni	62	1376	294	4.5	-5.103	0.060	ug/L	1.2 %
	Cu	63	333	4037	2.1	0.946	0.019	ug/L	2.0 %
	Cu	65	206	2687	4.4	1.350	0.053	ug/L	4.0 %
[>	Tb	159	1031558	1047599	2.5		ug/L		%
	Pb	207	832	538	6.6	-0.100	0.007	ug/L	7.5 %
	Pb	208	3928	2471	5.3	-0.106	0.005	ug/L	4.6 %

095

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:52:19

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-021ADUP.039

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-021ADUP

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
> Sc-1	45	513669	566856	0.4		ug/L	%
Cr	52	6252	29675	1.4	2.688	0.049 ug/L	1.8 %
Cr	53	29960	4280	0.4	-17.259	0.011 ug/L	0.1 %
Ni	60	8482	3882	2.2	-3.334	0.043 ug/L	1.3 %
Ni	62	1376	287	4.5	-5.147	0.054 ug/L	1.0 %
Cu	63	333	4078	1.6	0.942	0.020 ug/L	2.1 %
Cu	65	206	2763	2.7	1.370	0.044 ug/L	3.2 %
> Tb	159	1031558	1061144	1.9		ug/L	%
Pb	207	832	537	4.8	-0.102	0.011 ug/L	11.2 %
Pb	208	3928	2421	1.4	-0.111	0.005 ug/L	4.7 %

096

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:55:41

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCV.040

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	470034	0.8		ug/L	%
Cr	52	6252	74068	2.0	9.728	0.127 ug/L	1.3 %
Cr	53	29960	40215	7.1	9.248	1.860 ug/L	20.1 %
Ni	60	8482	14517	3.3	4.957	0.279 ug/L	5.6 %
Ni	62	1376	2261	3.0	5.048	0.254 ug/L	5.0 %
Cu	63	333	31688	1.0	9.606	0.153 ug/L	1.6 %
Cu	65	206	15496	0.3	9.978	0.071 ug/L	0.7 %
[> Tb	159	1031558	1050587	1.7		ug/L	%
Pb	207	832	33144	2.6	10.426	0.306 ug/L	2.9 %
Pb	208	3928	155384	2.4	10.526	0.335 ug/L	3.2 %

n. 097



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 12:58:20

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCB.041

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	466196	0.9			ug/L	%
	Cr	52	6252	7073	3.7	0.201	0.030	ug/L	14.7 %
	Cr	53	29960	39798	5.6	9.185	1.416	ug/L	15.4 %
	Ni	60	8482	618	2.6	-5.239	0.013	ug/L	0.2 %
	Ni	62	1376	240	1.3	-5.127	0.026	ug/L	0.5 %
	Cu	63	333	299	3.6	-0.001	0.004	ug/L	476.9 %
	Cu	65	206	228	2.6	0.027	0.005	ug/L	19.6 %
[>	Tb	159	1031558	1037867	1.8			ug/L	%
	Pb	207	832	305	3.3	-0.174	0.002	ug/L	1.0 %
	Pb	208	3928	1387	2.6	-0.180	0.002	ug/L	1.2 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:02:00

Dataset File: D:\ELAN\Dataset\2003\May\030512\MB-.042

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: MB- 227309 NS 5/2/03

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
> Sc-1	45	513669	464265	0.9		ug/L	%
Cr	52	6252	7099	4.7	0.209	0.043 ug/L	20.5 %
Cr	53	29960	40865	5.7	10.090	1.583 ug/L	15.7 %
Ni	60	8482	87	12.9	-5.631	0.009 ug/L	0.2 %
Ni	62	1376	171	8.2	-5.476	0.069 ug/L	1.3 %
Cu	63	333	382	3.1	0.025	0.004 ug/L	13.9 %
Cu	65	206	258	1.6	0.047	0.002 ug/L	4.0 %
> Tb	159	1031558	1038884	1.9		ug/L	%
Pb	207	832	243	6.4	-0.194	0.004 ug/L	1.8 %
Pb	208	3928	1078	3.9	-0.202	0.003 ug/L	1.3 %

099

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:04:38

Dataset File: D:\ELAN\Dataset\2003\May\030512\LCS-.043

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: LCS- R27309 NS 5/12/03

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	462965	1.1		ug/L	%
Cr	52	6252	73901	1.1	9.866	0.010 ug/L	0.1 %
Cr	53	29960	51837	2.8	18.229	0.624 ug/L	3.4 %
Ni	60	8482	14412	0.4	5.043	0.112 ug/L	2.2 %
NI	62	1376	2260	1.0	5.218	0.146 ug/L	2.8 %
Cu	63	333	31586	1.0	9.722	0.122 ug/L	1.3 %
L Cu	65	206	15241	0.7	9.963	0.079 ug/L	0.8 %
[> Tb	159	1031558	1044292	2.0		ug/L	%
Pb	207	832	32500	2.6	10.279	0.072 ug/L	0.7 %
L Pb	208	3928	153440	2.2	10.453	0.047 ug/L	0.5 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:07:16

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-012A.044

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-012A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	597359	1.2		ug/L	%
Cr	52	6252	44977	0.4	<b>4.224</b>	0.045 ug/L	1.1 %
Cr	53	29960	12722	4.6	<b>-12.583</b>	0.403 ug/L	3.2 %
Ni	60	8482	4207	3.1	<b>-3.266</b>	0.096 ug/L	2.9 %
Ni	62	1376	278	4.3	<b>-5.246</b>	0.035 ug/L	0.7 %
Cu	63	333	3400	1.7	<b>0.726</b>	0.008 ug/L	1.1 %
[ Cu	65	206	2652	1.8	<b>1.238</b>	0.041 ug/L	3.3 %
[> Tb	159	1031558	1051724	1.7		ug/L	%
Pb	207	832	603	2.4	<b>-0.079</b>	0.007 ug/L	8.6 %
[ Pb	208	3928	2815	0.9	<b>-0.083</b>	0.005 ug/L	5.8 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:09:54

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-012ADUP.045

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-012ADUP

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	603948	1.3			ug/L	%
	Cr	52	6252	45840	0.9	4.264	0.018	ug/L	0.4 %
	Cr	53	29960	8934	3.4	-14.795	0.237	ug/L	1.6 %
	Ni	60	8482	4215	1.4	-3.288	0.047	ug/L	1.4 %
	Ni	62	1376	278	11.5	-5.258	0.131	ug/L	2.5 %
	Cu	63	333	3364	2.4	0.708	0.021	ug/L	2.9 %
[	Cu	65	206	2642	1.3	1.217	0.007	ug/L	0.5 %
[>	Tb	159	1031558	1069096	1.1			ug/L	%
	Pb	207	832	526	7.6	-0.107	0.011	ug/L	10.6 %
[	Pb	208	3928	2473	4.2	-0.109	0.005	ug/L	5.0 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:12:57

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-012AMS.046

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-012AMS

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	607485	0.5		ug/L	%
Cr	52	6252	114195	1.1	11.763	0.136 ug/L	1.2 %
Cr	53	29960	15877	1.4	-10.942	0.087 ug/L	0.8 %
Ni	60	8482	18119	1.8	4.593	0.237 ug/L	5.2 %
Ni	62	1376	2351	4.5	2.822	0.446 ug/L	15.8 %
Cu	63	333	33381	0.6	7.812	0.083 ug/L	1.1 %
Cu	65	206	16834	1.3	8.368	0.142 ug/L	1.7 %
[> Tb	159	1031558	1076660	1.9		ug/L	%
Pb	207	832	30470	1.5	9.324	0.080 ug/L	0.9 %
Pb	208	3928	142401	1.8	9.382	0.011 ug/L	0.1 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:15:32

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-012AMSD.047

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-012AMSD

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	606563	0.6			ug/L	%
	Cr	52	6252	113716	1.1	11.730	0.167	ug/L	1.4 %
	Cr	53	29960	15427	0.9	-11.180	0.105	ug/L	0.9 %
	Ni	60	8482	18146	3.2	4.624	0.359	ug/L	7.8 %
	Ni	62	1376	2322	2.8	2.724	0.301	ug/L	11.0 %
	Cu	63	333	33842	1.8	7.933	0.152	ug/L	1.9 %
L	Cu	65	206	17019	2.6	8.474	0.232	ug/L	2.7 %
[>	Tb	159	1031558	1098986	1.2			ug/L	%
	Pb	207	832	30916	2.0	9.266	0.159	ug/L	1.7 %
L	Pb	208	3928	143677	2.0	9.270	0.099	ug/L	1.1 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:18:04

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-022A.048

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-022A

Sample Type:

## Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	541017	1.2		ug/L	%
	Cr	52	6252	20152	0.6	1.678	0.038 ug/L	2.3 %
	Cr	53	29960	4300	3.4	-17.123	0.120 ug/L	0.7 %
	Ni	60	8482	595	8.4	-5.317	0.027 ug/L	0.5 %
	Ni	62	1376	317	1.9	-4.962	0.034 ug/L	0.7 %
	Cu	63	333	2184	4.1	0.488	0.025 ug/L	5.2 %
	Cu	65	206	723	7.0	0.287	0.030 ug/L	10.5 %
[>	Tb	159	1031558	1065689	1.2		ug/L	%
	Pb	207	832	513	1.8	-0.110	0.004 ug/L	3.4 %
	Pb	208	3928	2374	3.8	-0.115	0.005 ug/L	4.5 %



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:20:37

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-023A.049

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-023A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	536135	1.6		ug/L	%
Cr	52	6252	24188	0.8	2.205	0.040 ug/L	1.8 %
Cr	53	29960	3890	3.8	-17.358	0.109 ug/L	0.6 %
Ni	60	8482	909	3.2	-5.111	0.025 ug/L	0.5 %
Ni	62	1376	312	5.7	-4.969	0.074 ug/L	1.5 %
Cu	63	333	1670	0.9	0.355	0.010 ug/L	2.9 %
Cu	65	206	975	1.8	0.434	0.019 ug/L	4.3 %
[> Tb	159	1031558	1074464	2.2		ug/L	%
Pb	207	832	416	2.8	-0.142	0.006 ug/L	4.5 %
Pb	208	3928	1836	2.1	-0.153	0.004 ug/L	2.5 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:23:10

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-024A.050

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-024A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[>	Sc-1	45	513669	559312	1.4		ug/L	%
	Cr	52	6252	41810	1.0	4.187	0.040 ug/L	1.0 %
	Cr	53	29960	4752	1.9	-16.937	0.089 ug/L	0.5 %
	Ni	60	8482	2139	2.9	-4.377	0.027 ug/L	0.6 %
	Ni	62	1376	306	7.5	-5.053	0.080 ug/L	1.6 %
	Cu	63	333	2069	6.9	0.439	0.030 ug/L	6.8 %
	Cu	65	206	737	4.1	0.281	0.015 ug/L	5.5 %
[>	Tb	159	1031558	1080320	2.2		ug/L	%
	Pb	207	832	435	3.7	-0.137	0.004 ug/L	2.9 %
	Pb	208	3928	2048	2.1	-0.140	0.002 ug/L	1.3 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:25:43

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-025A.051

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-025A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	572516	0.9			ug/L	%
	Cr	52	6252	24934	1.5	2.100	0.042	ug/L	2.0 %
	Cr	53	29960	3244	2.6	-17.899	0.067	ug/L	0.4 %
	Ni	60	8482	1537	3.3	-4.770	0.023	ug/L	0.5 %
	Ni	62	1376	185	6.1	-5.584	0.041	ug/L	0.7 %
	Cu	63	333	963	1.8	0.149	0.004	ug/L	2.8 %
	Cu	65	206	676	6.5	0.239	0.022	ug/L	9.1 %
[>	Tb	159	1031558	1097022	1.5			ug/L	%
	Pb	207	832	415	4.5	-0.145	0.004	ug/L	3.0 %
	Pb	208	3928	1898	3.2	-0.152	0.003	ug/L	1.7 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:28:20

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCV.052

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	478268	1.0		ug/L	%
Cr	52	6252	75335	0.1	<b>9.725</b>	0.111 ug/L	1.1 %
Cr	53	29960	39646	3.2	<b>8.349</b>	0.694 ug/L	8.3 %
Ni	60	8482	14934	1.4	<b>5.074</b>	0.041 ug/L	0.8 %
Ni	62	1376	2332	0.2	<b>5.206</b>	0.137 ug/L	2.6 %
Cu	63	333	32151	1.5	<b>9.577</b>	0.091 ug/L	0.9 %
Cu	65	206	15676	2.2	<b>9.919</b>	0.135 ug/L	1.4 %
[> Tb	159	1031558	1069848	1.1		ug/L	%
Pb	207	832	33278	1.4	<b>10.274</b>	0.078 ug/L	0.8 %
Pb	208	3928	155294	2.1	<b>10.323</b>	0.170 ug/L	1.6 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:30:59

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCB.053

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	<b>Sc-1</b>	45	513669	470425	1.1		ug/L		%
	<b>Cr</b>	52	6252	6942	2.4	<b>0.173</b>	0.014	ug/L	8.1 %
	<b>Cr</b>	53	29960	39099	3.9	<b>8.422</b>	0.903	ug/L	10.7 %
	<b>Ni</b>	60	8482	626	1.8	<b>-5.237</b>	0.013	ug/L	0.3 %
	<b>Ni</b>	62	1376	248	2.3	<b>-5.100</b>	0.018	ug/L	0.3 %
	<b>Cu</b>	63	333	321	7.7	<b>0.005</b>	0.006	ug/L	127.6 %
L	<b>Cu</b>	65	206	216	6.1	<b>0.018</b>	0.010	ug/L	56.5 %
[>	<b>Tb</b>	159	1031558	1062079	0.8		ug/L		%
	<b>Pb</b>	207	832	324	8.0	<b>-0.170</b>	0.008	ug/L	4.5 %
L	<b>Pb</b>	208	3928	1415	3.6	<b>-0.181</b>	0.003	ug/L	1.5 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:33:36

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-026A.054

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-026A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	557987	1.3		ug/L	%
Cr	52	6252	26644	3.1	2.380	0.061 ug/L	2.6 %
Cr	53	29960	9991	6.5	-13.740	0.362 ug/L	2.6 %
Ni	60	8482	2162	8.3	-4.360	0.094 ug/L	2.2 %
Ni	62	1376	248	3.3	-5.295	0.026 ug/L	0.5 %
Cu	63	333	4431	1.8	1.049	0.018 ug/L	1.7 %
Cu	65	206	2523	3.1	1.262	0.040 ug/L	3.2 %
[> Tb	159	1031558	1094371	1.6		ug/L	%
Pb	207	832	495	2.7	-0.120	0.005 ug/L	4.4 %
Pb	208	3928	2267	2.6	-0.127	0.004 ug/L	3.0 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:36:11

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-027A.055

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-027A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	492110	0.6			ug/L	%
	Cr	52	6252	7059	1.0	0.145	0.005	ug/L	3.4 %
	Cr	53	29960	6158	4.4	-15.571	0.197	ug/L	1.3 %
	Ni	60	8482	673	1.9	-5.224	0.010	ug/L	0.2 %
	Ni	62	1376	238	9.5	-5.201	0.104	ug/L	2.0 %
	Cu	63	333	2671	3.0	0.688	0.019	ug/L	2.7 %
[	Cu	65	206	1323	2.1	0.701	0.022	ug/L	3.2 %
[>	Tb	159	1031558	1069079	1.7			ug/L	%
	Pb	207	832	622	3.1	-0.076	0.006	ug/L	8.1 %
[	Pb	208	3928	2778	2.6	-0.088	0.004	ug/L	4.7 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:38:45

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-028A.056

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-028A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	560797	1.0			ug/L	%
	Cr	52	6252	24634	0.4	2.125	0.019	ug/L	0.9 %
	Cr	53	29960	5339	3.8	-16.588	0.154	ug/L	0.9 %
	Ni	60	8482	2041	2.8	-4.440	0.042	ug/L	0.9 %
	Ni	62	1376	227	8.5	-5.390	0.081	ug/L	1.5 %
	Cu	63	333	1216	4.0	0.219	0.014	ug/L	6.3 %
L	Cu	65	206	988	0.6	0.417	0.007	ug/L	1.7 %
[>	Tb	159	1031558	1101068	1.3			ug/L	%
	Pb	207	832	625	2.5	-0.081	0.003	ug/L	4.3 %
L	Pb	208	3928	2823	2.1	-0.091	0.002	ug/L	1.7 %



# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:41:21

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-029A.057

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-029A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	593340	1.5		ug/L	%
Cr	52	6252	31569	0.8	2.746	0.024 ug/L	0.9 %
Cr	53	29960	5692	0.7	-16.564	0.034 ug/L	0.2 %
Ni	60	8482	3071	4.0	-3.911	0.046 ug/L	1.2 %
Ni	62	1376	282	3.0	-5.221	0.042 ug/L	0.8 %
Cu	63	333	2880	1.3	0.605	0.005 ug/L	0.9 %
[ Cu	65	206	1946	1.9	0.882	0.017 ug/L	2.0 %
[> Tb	159	1031558	1098015	1.6		ug/L	%
Pb	207	832	458	2.9	-0.132	0.006 ug/L	4.4 %
[ Pb	208	3928	2062	4.3	-0.141	0.004 ug/L	3.0 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:43:57

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-030A.058

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-030A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	608002	1.3		ug/L	%
Cr	52	6252	42233	0.7	3.833	0.027 ug/L	0.7 %
Cr	53	29960	5768	1.0	-16.600	0.043 ug/L	0.3 %
Ni	60	8482	2998	4.2	-3.995	0.060 ug/L	1.5 %
Ni	62	1376	263	2.6	-5.324	0.040 ug/L	0.8 %
Cu	63	333	1887	0.9	0.353	0.008 ug/L	2.3 %
Cu	65	206	1290	1.3	0.527	0.007 ug/L	1.4 %
[> Tb	159	1031558	1097905	1.6		ug/L	%
Pb	207	832	362	8.7	-0.162	0.010 ug/L	6.3 %
Pb	208	3928	1653	4.6	-0.168	0.005 ug/L	2.9 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:46:33

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-031A.059

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-031A

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	<b>Sc-1</b>	45	513669	629235	1.1		ug/L		%
	<b>Cr</b>	52	6252	42508	0.8	<b>3.706</b>	0.029	ug/L	0.8 %
	<b>Cr</b>	53	29960	4862	0.5	<b>-17.199</b>	0.026	ug/L	0.2 %
	<b>Ni</b>	60	8482	4380	2.4	<b>-3.294</b>	0.082	ug/L	2.5 %
	<b>Ni</b>	62	1376	281	2.0	<b>-5.292</b>	0.014	ug/L	0.3 %
	<b>Cu</b>	63	333	4625	1.2	<b>0.964</b>	0.024	ug/L	2.5 %
L	<b>Cu</b>	65	206	2918	0.6	<b>1.298</b>	0.008	ug/L	0.6 %
[>	<b>Tb</b>	159	1031558	1109752	1.3		ug/L		%
	<b>Pb</b>	207	832	311	4.2	<b>-0.178</b>	0.003	ug/L	1.9 %
L	<b>Pb</b>	208	3928	1411	1.3	<b>-0.185</b>	0.000	ug/L	0.2 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:49:10

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-032A.060

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-032A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	620161	0.4		ug/L	%
Cr	52	6252	51661	1.1	4.759	0.047 ug/L	1.0 %
Cr	53	29960	5429	0.8	-16.850	0.034 ug/L	0.2 %
Ni	60	8482	4954	5.4	-2.941	0.140 ug/L	4.8 %
Ni	62	1376	354	7.1	-4.997	0.092 ug/L	1.8 %
Cu	63	333	3622	2.2	0.747	0.014 ug/L	1.9 %
Cu	65	206	2160	2.6	0.944	0.023 ug/L	2.4 %
[> Tb	159	1031558	1102938	1.7		ug/L	%
Pb	207	832	351	3.4	-0.165	0.005 ug/L	3.3 %
Pb	208	3928	1580	1.3	-0.173	0.001 ug/L	0.5 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:51:47

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-033A.061

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-033A

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	644711	0.8		ug/L	%
Cr	52	6252	41240	1.1	3.466	0.044 ug/L	1.3 %
Cr	53	29960	5352	1.5	-17.003	0.051 ug/L	0.3 %
Ni	60	8482	4536	4.9	-3.269	0.119 ug/L	3.6 %
Ni	62	1376	289	10.8	-5.287	0.123 ug/L	2.3 %
Cu	63	333	1807	4.9	0.310	0.017 ug/L	5.5 %
Cu	65	206	2005	5.1	0.830	0.042 ug/L	5.1 %
[> Tb	159	1031558	1101695	1.9		ug/L	%
Pb	207	832	404	4.5	-0.149	0.007 ug/L	4.4 %
Pb	208	3928	1918	3.5	-0.151	0.006 ug/L	4.2 %

# Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:54:25

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-034A.062

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapci.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-034A

Sample Type:

## Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	533388	1.5		ug/L	%
Cr	52	6252	6988	1.5	0.062	0.004 ug/L	6.9 %
Cr	53	29960	2896	3.3	-17.980	0.066 ug/L	0.4 %
Ni	60	8482	583	3.1	-5.319	0.016 ug/L	0.3 %
Ni	62	1376	230	9.6	-5.329	0.088 ug/L	1.6 %
Cu	63	333	637	1.5	0.079	0.001 ug/L	1.3 %
[ Cu	65	206	350	3.2	0.078	0.007 ug/L	9.4 %
[> Tb	159	1031558	1104853	2.7		ug/L	%
Pb	207	832	463	2.9	-0.131	0.008 ug/L	5.8 %
[ Pb	208	3928	2174	1.1	-0.134	0.004 ug/L	2.8 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:57:03

Dataset File: D:\ELAN\Dataset\2003\May\030512\062725-034ADUP.063

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbnipcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: 062725-034ADUP

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	526451	0.8			ug/L	%
	Cr	52	6252	6187	1.3	-0.028	0.004	ug/L	14.5 %
	Cr	53	29960	2575	2.7	-18.162	0.057	ug/L	0.3 %
	Ni	60	8482	565	1.3	-5.326	0.007	ug/L	0.1 %
	Ni	62	1376	233	3.6	-5.301	0.036	ug/L	0.7 %
	Cu	63	333	476	0.3	0.037	0.001	ug/L	2.9 %
L	Cu	65	206	269	1.7	0.033	0.002	ug/L	4.9 %
[>	Tb	159	1031558	1115130	0.3			ug/L	%
	Pb	207	832	418	4.0	-0.146	0.005	ug/L	3.7 %
L	Pb	208	3928	1913	2.2	-0.153	0.003	ug/L	1.9 %

## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 13:59:42

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCV.064

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbniapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCV

Sample Type:

### Summary

Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD	Conc. RSD
[> Sc-1	45	513669	505086	0.6		ug/L	%
Cr	52	6252	79003	0.1	<b>9.651</b>	0.066 ug/L	0.7 %
Cr	53	29960	40496	3.3	<b>7.425</b>	0.752 ug/L	10.1 %
Ni	60	8482	15589	1.1	<b>4.950</b>	0.053 ug/L	1.1 %
Ni	62	1376	2437	2.0	<b>5.085</b>	0.285 ug/L	5.6 %
Cu	63	333	33636	1.6	<b>9.487</b>	0.201 ug/L	2.1 %
Cu	65	206	16077	1.7	<b>9.630</b>	0.200 ug/L	2.1 %
[> Tb	159	1031558	1094671	1.8		ug/L	%
Pb	207	832	33855	1.7	<b>10.214</b>	0.044 ug/L	0.4 %
Pb	208	3928	157643	1.4	<b>10.240</b>	0.054 ug/L	0.5 %



## Quantitative Analysis Summary

Sample Date/Time: Monday, May 12, 2003 14:02:21

Dataset File: D:\ELAN\Dataset\2003\May\030512\CCB.065

Method File: c:\elandata\Method\atl methods 030317\atl-epa 200.8 crcupbnriapcl.mth

Optimization File: c:\elandata\Optimize\default.dac

Number of Replicates: 3

Sample ID: CCB

Sample Type:

### Summary

	Analyte	Mass	Blank Intensity	Meas. Intensity	Int. RSD	Conc. Mean	Conc. SD		Conc. RSD
[>	Sc-1	45	513669	501643	0.8		ug/L		%
	Cr	52	6252	7022	3.5	0.122	0.027	ug/L	21.8 %
	Cr	53	29960	40039	4.6	7.300	1.046	ug/L	14.3 %
	Ni	60	8482	623	1.1	-5.267	0.003	ug/L	0.1 %
	Ni	62	1376	255	2.7	-5.144	0.040	ug/L	0.8 %
	Cu	63	333	341	1.8	0.005	0.001	ug/L	21.9 %
[	Cu	65	206	214	6.5	0.007	0.008	ug/L	100.4 %
[>	Tb	159	1031558	1088543	2.2		ug/L		%
	Pb	207	832	295	2.2	-0.181	0.004	ug/L	2.2 %
[	Pb	208	3928	1316	3.0	-0.190	0.002	ug/L	1.1 %

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

GEOFON, Inc.

Attention: Leo Williamson

22632 Golden Spring Dr Ste 270

Diamond Bar 91765

Tel: (909)396-7662 Fax: (909)396-1455

# APCL Analytical Report

Service ID #: 801-032811

Received: 04/21/03

Collected by:

Extracted: N/A

Collected on: 04/21/03

Tested: N/A

Reported: 05/28/03

Sample Description: Water

Project Description: 04-4428.10 JPL

## Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result
				MW-4-1
				03-02811-1
NDMA <sup>(a)</sup>				

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

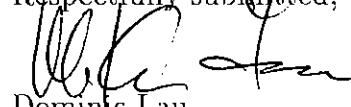
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

<sup>(a)</sup> Subcontracted to Maxxam Analytics Inc. See attached.

Respectfully submitted,



Dominic Lau

Laboratory Director

Applied P & Ch Laboratory



INCORPORATED  
22632 GOLDEN SPRINGS DR., SUITE 270  
DIAMOND BAR, CA 91765 • (909) 396-7662 • FAX (909) 396-1455

### CHAIN-OF-CUSTODY RECORD

LABORATORY COPY

MW-4 0019

GEOFON LAB COORDINATOR <b>Brad Shojice</b> LAB COORDINATOR'S PHONE (909) 396-7662		LAB COORDINATOR'S FAX (909) 396-1455		LABORATORY SERVICE ID		LABORATORY CONTACT <b>Kenny Chan</b>		MAIL REPORT (COMPANY NAME) <b>GEOFON, INC.</b>	
PROJECT NAME: <b>SPL CW MON-2903</b>		PROJECT LOCATION <b>MW-4 (SE Faculty Perimeter)</b>		LABORATORY PHONE (909) 396-1828		LABORATORY FAX (909) 590-1498		RECIPIENT NAME <b>Geo W. Williamson</b>	
PROJECT CONTACT <b>Geo W. Williamson</b>		PROJECT PHONE NUMBER (714) 920-8729		LABORATORY ADDRESS <b>13760 <del>State</del> Magnolia</b>		LABORATORY ADDRESS <b>13760 <del>State</del> Magnolia</b>		ADDRESS <b>22632 Golden Springs Dr. #210</b>	
PROJECT ADDRESS <b>4800 Oak Grove Dr.</b>		CITY, STATE AND ZIP CODE <b>Pasadena, CA</b>		CITY, STATE AND ZIP CODE <b>Chico, CA 91710</b>		CITY, STATE AND ZIP CODE <b>Chico, CA 91710</b>		CITY, STATE AND ZIP CODE <b>Diamond Bar, CA 91765</b>	
PROJECT MANAGER <b>Asrar Fahiem</b>		PROJECT MANAGER'S PHONE (909) 396-7662		CLIENT <b>US NAVY SWP IV</b>		PROJECT MANAGER'S FAX (909) 396-1455			
Item		Matrix		Time Preserved		# of Cont		T.A.T.	
1	MW-4-1	H <sub>2</sub> O	4/21/03 1330	NONE	26+	III	NORMAL	X	X
2									
3									
4									
5									
6									
7									
8									
9									
10									

872050 (4-DIAMOND)  
162570 (NDMA)  
Analyzes

2811

SAMPLES COLLECTED BY: <b>Geo W. Williamson</b>		COURIER AND AIR BILL NUMBER:	
RELINQUISHED BY: <b>Geo W. Williamson</b>		RECEIVED BY: <b>[Signature]</b>	
DATE: <b>4/21/03 17:00</b>		TIME: <b>17:00</b>	
COOLER TEMPERATURE UPON RECEIPT		SAMPLE'S CONDITION UPON RECEIPT	

Applied P & Ch Laboratory

13760 Magnolia Ave., Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Receiving Checklist

APCL ServiceID: 2811 Client Name/Project: Geofon

1. Sample Arrival

Date/Time Received 4/21/03 1900 Date/Time Opened 4/21/03 1900 By (name): Paul Kern
Custody Transfer: Client Golden State UPS US Mail FedEx APCL Empl: Adam Wood

2. Chain-of-Custody (CoC)

With Samples? Faxed? Client has Copy? Signed, dated? By:
Project ID? Analyses Clear? Hold Samples? # on Hold # Received
CoC/Docs Zip-Locked under lid? Compos.#: #Samples OK?
Discrepancies? Client notified? Response (attach docs):

3. Shipping Container/Cooler

Cooler Used? # of 2 Cooled by: Ice Blue Ice Dry Ice None
Temp °C 2.9°C 3.8°C
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? Absent Intact Tampered?

4. Sample Preservation

pH <2 pH >12
If Not, pH = Preserved by: Client APCL Third Party

5. Holding-time Requirements

pH 24hr BACT 6/24hr CrVI 24hr NO3- 48hr BOD 48hr
Cl2 ASAP Turbidity 48hr DO ASAP Fe(II) ASAP
HT Expired? Client notified?

6. Sample Container Condition

Intact? Broken? Documented? Number:
Type: plastic glass Tube: brass/SS Tedlar Bag
Quantity OK? Leaking? Anomaly?
Caps tight? Air Bubbles? Anomaly?
Labels: Unique ID? Date/Time Preserved?

7. Turn Around Time

RUSH TAT: Sdap Std (7-10 days) Not Marked

8. Sample Matrix

Drinking H2O Other Liq Soil Wipe Polymer Air Other:
Ground H2O Sludge Filter Oil/Petro Paint W. Water Extract Unknown

9. Pre-Login Check List Completed & OK?

ALL OK? (if not, attach docs) Client Contact? (Name: ) Date/Time:
Received/Checked by: Paul Kern Date: 21 Apr 2003 Time: 7:38 a.m.

\*HT: Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710  
Tel: (909) 590-1828 Fax: (909) 590-1498

# Sample Login: Check List

03-02811 (0470\_ 129) (2202777\_ 129)

04/22/03

## Part 1: General Information

---

- |                          |                          |                      |  |
|--------------------------|--------------------------|----------------------|--|
| <input type="checkbox"/> | Company Information      | Name:                | <i>GEOFON, Inc.</i>  |
|                          |                          | Address:             | <i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i> |
| <input type="checkbox"/> | Project Information      | Project Description: | <i>JPL</i>   |
|                          |                          | Project #:           | <i>04-4428.10</i>  |
| <input type="checkbox"/> | Billing Information      | P.O. #:              |  |
|                          |                          | Bill Address:        | <i>22632 Golden Spring Dr Ste 270 ,Diamond Bar ,CA 91765</i> |
|                          |                          | Lab Project ID:      |  |
|                          |                          | Client Database #:   | <i>3</i>   |
| <input type="checkbox"/> | Receiving Information    | Who Received Sample? | <i>Paul Kou</i>  |
|                          |                          | Receiving Date/Time: | <i>04/21/03 1700</i>   |
|                          |                          | COC No.              |  |
| <input type="checkbox"/> | Shipping Information     | Shipping Company     | <i>APCL pick up</i>  |
|                          |                          | Packing Information: | <i>Cooler/Ice Chester</i>                                    |
|                          |                          | Cooler Temperature:  | <i>2.9 3.7 °C</i>  |
| <input type="checkbox"/> | Container Information    | Container Provider:  | <i>Client</i>  |
| <input type="checkbox"/> | Sampling Information     | Sampling Person:     |  |
|                          |                          | Sampling Company:    | <i>Client</i>  |
| <input type="checkbox"/> | Turn-Around-Time Option: |                      | <i>Rush 5 working day(s)</i>                                 |
| <input type="checkbox"/> | QC Option:               |                      | <i>NEESA D</i>   |
| <input type="checkbox"/> | Disposal Option:         |                      | <i>Not specify</i>   |

## Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample Sub-ID	APCL Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days	
1	MW-4-1	NDMA	03-02811-1	W	G		1000	2	G	042103	N	0	6	<input type="checkbox"/>

## Part 3: Analysis Information

Test Items:  Customized-13, Sub-contract

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	CUSTOM	
1	MW-4-1	NDMA	03-02811-1	W	X	<input type="checkbox"/>

Login By En-Yu Paul Kou

Check By 