

14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

### TRANSMITTAL MEMORANDUM

From: OnSite Environmental Inc.

To: Hillary Ritenberg, Port of Seattle - Seaport

Date: October 23, 2009 Project Name: T115\_SW Tank Reference: S\_LB1504

Laboratory Reference Number: 0910-074

Subject: Tier 3 Data Deliverables

Description: Results of NWTPH-Dx and Dissolved Metals EPA 200.8/7470A.



14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

October 23, 2009

Hillary Ritenberg Port of Seattle Environmental Department 2711 Alaskan Way Seattle, WA 98121

Re: Analytical Data for Project T115\_SW Tank

Laboratory Reference No. 0910-074

Dear Hillary:

Enclosed are the analytical results and associated quality control data for samples submitted on October 8, 2009.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely.

David Baumeister Project Manager

**Enclosures** 

Project: T115\_SW Tank Service Directive: S\_LB1504

### **Case Narrative**

Samples were collected on October 7, 2009 and received by the laboratory on October 8, 2009. They were maintained at the laboratory at a temperature of  $2^{\circ}$ C to  $6^{\circ}$ C. Please see Sample/Cooler Receipt form at the end of the report.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Service Directive: S\_LB1504

### **ANALYTICAL REPORT FOR SAMPLES**

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
T115_SWTNK_MW17_100709_IN	10-074-01	Water	10-7-09	10-8-09	
T115_SWTNK_MW15_100709_IN	10-074-02	Water	10-7-09	10-8-09	
T115_SWTNK_MW16_100709_IN	10-074-03	Water	10-7-09	10-8-09	
T115_SWTNK_MW19_100709_IN	10-074-04	Water	10-7-09	10-8-09	
T115_SWTNK_MW19_100709_IFD	10-074-05	Water	10-7-09	10-8-09	
T115_SWTNK_MW21_100709_IN	10-074-06	Water	10-7-09	10-8-09	

Project: T115\_SW Tank Service Directive: S\_LB1504

### **NWTPH-Dx**

Matrix: Water
Units: mg/L (ppm)

Units:	mg/L (ppm)				
			Date	Date	
Analyte	Result	PQL	Prepared	Analyzed	Flags
Lab ID:	10-074-01				
Client ID:	T115-SWTNK-MW17-100709-IN				
Diesel Range	ND	0.25	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.41	10-14-09	10-14-09	Υ
Surrogate: o-terphenyl	84%	50-150			
Lab ID:	10-074-02				
Client ID:	T115-SWTNK-MW15-100709-IN				
Diesel Range	ND	0.27	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.43			Y
Surrogate: o-terphenyl	85%	50-150	10-14-09	10-14-09	ı
Surrogate. O-terprieny	00 /8	30-130			
Lab ID:	10-074-03				
Client ID:	T115-SWTNK-MW16-100709-IN				
Diesel Range	ND	0.25	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.40	10-14-09	10-14-09	Υ
Surrogate: o-terphenyl	92%	50-150			
Lab ID.	10.074.04				
Lab ID: Client ID:	10-074-04 T115-SWTNK-MW19-100709-IN				
•		2.25	10.11.00	40.44.00	
Diesel Range Organics	0.64	0.25	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.40	10-14-09	10-14-09	Υ
Surrogate: o-terphenyl	90%	50-150			
Lab ID:	10-074-05				
Client ID:	T115-SWTNK-MW19-100709-IFD				
Diesel Range Organics	0.76	0.25	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.40	10-14-09	10-14-09	Υ
Surrogate: o-terphenyl	92%	50-150	<u></u>		

Service Directive: S\_LB1504

### **NWTPH-Dx**

Matrix: Water Units: mg/L (ppm)

			Date	Date	
Analyte	Result	PQL	Prepared	Analyzed	Flags
Lab ID:	10-074-06				
Client ID:	T115-SWTNK-MW21-100709-IN				
Diesel Range	ND	0.25	10-14-09	10-14-09	Υ
Lube Oil Range	ND	0.40	10-14-09	10-14-09	Υ
Surrogate: o-terphenyl	84%	50-150			

Project: T115\_SW Tank Service Directive: S\_LB1504

### DISSOLVED METALS EPA 200.8/7470A

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	10-074-01					
Client ID:	T115-SWTNK-MW17-100709-IN					
Arsenic	ND	3.0	200.8	10-8-09	10-22-09	
Barium	46	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	ND	1.0	200.8	10-8-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Lab ID: Client ID:	10-074-02 T115-SWTNK-MW15-100709-IN					
Arsenic	42	3.0	200.8	10-8-09	10-22-09	
Barium	31	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	9.8	1.0	200.8	10-8-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Project: T115\_SW Tank Service Directive: S\_LB1504

### DISSOLVED METALS EPA 200.8/7470A

Matrix: Water Units: ug/L (ppb)

	G (11 )			Date	Date	
Analyte	Result	PQL	<b>EPA Method</b>	Prepared	Analyzed	Flags
Lab ID:	10-074-03					
Client ID:	T115-SWTNK-MW16-100709-IN					
Arsenic	ND	3.0	200.8	10-8-09	10-22-09	
Barium	200	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	ND	1.0	200.8	10-8-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Lab ID: Client ID:	10-074-04 T115-SWTNK-MW19-100709-IN					
Arsenic	5.5	3.0	200.8	10-8-09	10-22-09	
Barium	ND	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	ND	1.0	200.8	10-8-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Project: T115\_SW Tank Service Directive: S\_LB1504

### DISSOLVED METALS EPA 200.8/7470A

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	<b>EPA Method</b>	Prepared	Analyzed	Flags
Lab ID:	10-074-05					
Client ID:	T115-SWTNK-MW19-100709-IFD					
Arsenic	5.0	3.0	200.8	10-8-09	10-22-09	
Barium	ND	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	ND	1.0	200.8	10-22-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Lab ID: Client ID:	10-074-06 T115-SWTNK-MW21-100709-IN					
Arsenic	3.6	3.0	200.8	10-8-09	10-22-09	
Barium	26	25	200.8	10-8-09	10-22-09	
Cadmium	ND	4.0	200.8	10-8-09	10-22-09	
Chromium	ND	10	200.8	10-8-09	10-22-09	
Lead	ND	1.0	200.8	10-8-09	10-22-09	
Mercury	ND	0.50	7470A	10-8-09	10-16-09	
Selenium	ND	5.0	200.8	10-8-09	10-22-09	
Silver	ND	10	200.8	10-8-09	10-22-09	
Tin	ND	100	200.8	10-8-09	10-22-09	
Zinc	ND	25	200.8	10-8-09	10-22-09	

Service Directive: S\_LB1504

### NWTPH-Dx **METHOD BLANK QUALITY CONTROL**

Date Extracted: Date Analyzed:	10-14-09 10-14-09
Matrix: Units:	Water mg/L (ppm)
Lab ID:	MB1014W1
Diesel Range: PQL:	<b>ND</b> 0.25
Identification:	
Lube Oil Range: PQL:	<b>ND</b> 0.40
Identification:	
Surrogate Recovery o-Terphenyl:	79%
Flags:	Υ

Service Directive: S\_LB1504

### **NWTPH-Dx** DUPLICATE QUALITY CONTROL

	DOFLICATE QU	ALITT CONTINOL
Date Extracted: Date Analyzed:	10-14-09 10-14-09	
Matrix: Units:	Water mg/L (ppm)	
Lab ID:	10-074-06	10-074-06 DUP
Diesel Range: PQL:	<b>ND</b> 0.25	<b>ND</b> 0.26
RPD:	N/A	
Surrogate Recovery		
o-Terphenyl:	84%	85%
Flags:	Υ	Υ

Service Directive: S\_LB1504

### NWTPH-Dx **CONTINUING CALIBRATION SUMMARY**

	True	Calc.	Percent	Contol
Lab ID	Value (ppm)	Value	Difference	Limits
DF2CCV1014R-V1	100	99.7	0	+/-15%
DF2CCV1014R-V2	100	99.6	0	+/-15%
DF2CCV1014R-V3	100	104	-4	+/-15%

Project: T115\_SW Tank Service Directive: S\_LB1504

### DISSOLVED METALS EPA 200.8/7470A METHOD BLANK QUALITY CONTROL

Date Filtered: 10-8-09
Date Analyzed: 10-16&22-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1008D1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Barium	200.8	ND	25
Cadmium	200.8	ND	4.0
Chromium	200.8	ND	10
Lead	200.8	ND	1.0
Mercury	7470A	ND	0.50
Selenium	200.8	ND	5.0
Silver	200.8	ND	10
Tin	200.8	ND	100
Zinc	200.8	ND	25

Project: T115\_SW Tank Service Directive: S\_LB1504

## DISSOLVED METALS EPA 200.8 METHOD BLANK QUALITY CONTROL

Date Filtered: 10-22-09
Date Analyzed: 10-22-09

Matrix: Water Units: ug/L (ppb)

Lab ID: MB1022D1

Analyte Method Result PQL
Lead 200.8 **ND** 1.0

Project: T115\_SW Tank Service Directive: S\_LB1504

### DISSOLVED METALS EPA 200.8/7470A DUPLICATE QUALITY CONTROL

Date Filtered: 10-8-09
Date Analyzed: 10-16&22-09

Matrix: Water Units: ug/L (ppb)

Lab ID: 10-074-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Barium	46.4	45.9	1	25	
Cadmium	ND	ND	NA	4.0	
Chromium	ND	ND	NA	10	
Lead	ND	ND	NA	1.0	
Mercury	ND	ND	NA	0.50	
Selenium	ND	ND	NA	5.0	
Silver	ND	ND	NA	10	
Tin	ND	ND	NA	100	
Zinc	ND	ND	NA	25	

Service Directive: S\_LB1504

### **DISSOLVED METALS** EPA 200.8/7470A MS/MSD QUALITY CONTROL

Date Filtered: 10-8-09 Date Analyzed: 10-16&22-09

Matrix: Water Units: ug/L (ppb)

Lab ID: 10-074-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	209	105	220	110	5	
Barium	200	258	106	253	103	2	
Cadmium	200	213	106	202	101	5	
Chromium	200	189	94	205	102	8	
Lead	200	197	98	199	99	1	
Mercury	12.5	13.8	110	13.8	110	0	
Selenium	200	227	114	222	111	2	
Silver	200	192	96	173	87	10	
Tin	200	202	101	202	101	0	
Zinc	200	226	113	214	107	5	

Service Directive: S\_LB1504

### **DISSOLVED METALS** EPA 200.8/7470A **CONTINUING CALIBRATION SUMMARY**

		True	Calc.	Percent	Control
Analyte	Lab ID	Value (ppb)	Value	Difference	Limits
Arsenic	ICV102209E	50.0	49.9	0.20	+/- 10%
Barium	ICV102209E	50.0	48.9	2.2	+/- 10%
Cadmium	ICV102209E	50.0	51.8	-3.6	+/- 10%
Chromium	ICV102209E	50.0	50.1	-0.20	+/- 10%
Lead	ICV102209E	50.0	48.2	3.6	+/- 10%
Mercury	ICV101609Y	5.00	5.39	-7.8	+/- 10%
Selenium	ICV102209E	50.0	53.4	-6.8	+/- 10%
Silver	ICV102209E	50.0	52.7	-5.4	+/- 10%
Tin	ICV102209E	50.0	51.9	-3.8	+/- 10%
Zinc	ICV102209E	50.0	51.8	-3.6	+/- 10%
Arsenic	CCV1102209E	100	99.8	0.20	+/- 10%
Barium	CCV1102209E	100	98.7	1.3	+/- 10%
Cadmium	CCV1102209E	100	99.4	0.60	+/- 10%
Chromium	CCV1102209E	100	96.2	3.8	+/- 10%
Lead	CCV1102209E	100	97.5	2.5	+/- 10%
Mercury	CCV1101609Y	5.00	4.81	3.8	+/- 20%
Selenium	CCV1102209E	100	102	-2.0	+/- 10%
Silver	CCV1102209E	100	97.4	2.6	+/- 10%
Tin	CCV1102209E	100	97.2	2.8	+/- 10%
Zinc	CCV1102209E	100	105	-5.0	+/- 10%
Arsenic	CCV1102209E	40.0	41.3	-3.2	+/- 10%
Barium	CCV1102209E	40.0	40.9	-2.3	+/- 10%
Cadmium	CCV1102209E	40.0	40.7	-1.8	+/- 10%
Chromium	CCV1102209E	40.0	42.5	-6.3	+/- 10%
Lead	CCV1102209E	40.0	41.0	-2.5	+/- 10%
Selenium	CCV1102209E	40.0	42.8	-7.0	+/- 10%
Silver	CCV1102209E	40.0	40.9	-2.3	+/- 10%
Tin	CCV1102209E	40.0	40.1	-0.25	+/- 10%
Zinc	CCV1102209E	40.0	41.4	-3.5	+/- 10%
Arsenic	CCV2102209E	100	101	-1.0	+/- 10%
Barium	CCV2102209E	100	98.1	1.9	+/- 10%
Cadmium	CCV2102209E	100	98.5	1.5	+/- 10%
Chromium	CCV2102209E	100	99.4	0.60	+/- 10%
Lead	CCV2102209E	100	98.4	1.6	+/- 10%
Mercury	CCV2101609Y	5.00	4.87	2.6	+/- 20%
Selenium	CCV2102209E	100	103	-3.0	+/- 10%
Silver	CCV2102209E	100	99.9	0.10	+/- 10%
Tin	CCV2102209E	100	98.9	1.1	+/- 10%
Zinc	CCV2102209E	100	103	-3.0	+/- 10%
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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

Service Directive: S\_LB1504

### **DISSOLVED METALS** EPA 200.8/7470A **CONTINUING CALIBRATION SUMMARY**

		True	Calc.	Percent	Control
Analyte	Lab ID	Value (ppb)	Value	Difference	Limits
Arsenic	CCV2102209E	40.0	40.1	-0.25	+/- 10%
Barium	CCV2102209E	40.0	41.1	-2.6	+/- 10%
Cadmium	CCV2102209E	40.0	40.2	-0.50	+/- 10%
Chromium	CCV2102209E	40.0	37.3	6.8	+/- 10%
Lead	CCV2102209E	40.0	40.4	-1.0	+/- 10%
Selenium	CCV2102209E	40.0	40.0	0	+/- 10%
Silver	CCV2102209E	40.0	39.9	0.25	+/- 10%
Tin	CCV2102209E	40.0	38.7	3.2	+/- 10%
Zinc	CCV2102209E	40.0	41.7	-4.3	+/- 10%
Arsenic	CCV3102209E	100	102	-2.0	+/- 10%
Barium	CCV3102209E	100	96.8	3.2	+/- 10%
Cadmium	CCV3102209E	100	97.1	2.9	+/- 10%
Chromium	CCV3102209E	100	103	-3.0	+/- 10%
Lead	CCV3102209E	100	98.7	1.3	+/- 10%
Mercury	CCV3101609Y	5.00	4.89	2.2	+/- 20%
Selenium	CCV3102209E	100	102	-2.0	+/- 10%
Silver	CCV3102209E	100	100	0	+/- 10%
Tin	CCV3102209E	100	99.0	1.0	+/- 10%
Zinc	CCV3102209E	100	100	0	+/- 10%
Arsenic	CCV3102209E	40.0	41.3	-3.2	+/- 10%
Barium	CCV3102209E	40.0	41.0	-2.6	+/- 10%
Cadmium	CCV3102209E	40.0	40.8	-2.0	+/- 10%
Chromium	CCV3102209E	40.0	38.4	4.0	+/- 10%
Lead	CCV3102209E	40.0	41.2	-3.0	+/- 10%
Selenium	CCV3102209E	40.0	42.1	-5.3	+/- 10%
Silver	CCV3102209E	40.0	40.3	-0.75	+/- 10%
Tin	CCV3102209E	40.0	38.7	3.2	+/- 10%
Zinc	CCV3102209E	40.0	41.7	-4.3	+/- 10%
		-		-	
Mercury	CCV4101609Y	5.00	4.90	2.0	+/- 20%

Service Directive: S\_LB1504

### **DISSOLVED METALS EPA 200.8 CONTINUING CALIBRATION SUMMARY**

Analyte	Lab ID	True Value (ppb)	Calc. Value	Percent Difference	Control Limits	
Lead	ICV102209E	50.0	49.8	0.40	+/- 10%	
Lead	CCV1102209E	100	99.2	0.80	+/- 10%	
Lead	CCV1102209E	40.0	41.0	-2.5	+/- 10%	
Lead	CCV2102209E	100	98.4	1.6	+/- 10%	
Lead	CCV2102209E	40.0	41.2	-3.0	+/- 10%	



#### **Data Qualifiers and Abbreviations**

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- D Data from 1: dilution.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- G Insufficient sample quantity for duplicate analysis.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- O Hydrocarbons outside the defined gasoline range are present in the sample.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a silica gel cleanup procedure.
- Y Sample extract treated with an acid cleanup procedure.

Z -

ND - Not Detected at PQL

MRL - Method Reporting Limit

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference

# **MA.** Onsite Environmental In

Chain of Custody

Reviewed by/Date	Received by	Relinquished by	Received by	Relinquished by	Received by	Relinquished by	Signature			6 T115_SWTAK_MW21-100709-111 "	5 TILS_SWINK, MW19-100709-1FD "	4 7115-SWTNK- MW19-100709-1N "		2 TIIS_SWINK-MW15_100709-1111 "	1 TIIS_SWONK_MWI7_100709-11 70	Dati Lan ID. Sample identification Samp	IN FITZACTONA	Hillary Kiten burg	Project Manager: SWTANK	B1504	reattle - Scoport FAUIRMANIA	Phone: (425) 883-3881 • Fax: (425) 885-4603	Environmental inc.
Reviewed by/Date					02/25	T中 tor Pas	Gonloany			1700 W 3	1635 W 3	1630 W	" 1530 W 3	" 1500 W 3	7000 1430 W 3	e lime Hed Sampled Watdy Godt	(other)	ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا	XStandard (7 working days)	] 2 Day 🔲 3 Day	☐ Same Day ☐ 1 Day	(Check One)	lumaround Request
					10/8/09 1135	8 octo9 1/35	Date: Time			82	دو	ىو	ಖ	دو	S)	NWTF NWTF Volatile	H-Dx Silic es by enated	/BTEX 8260B d Volat s by 8	iles by	' <b>с-</b> ц	The state of the s	150.00	Laboratory Number:
Chromatograms with final report □			Kinc + Tio	07 106	PID FITTY Metals Volume	2	Comments/Special Instructions:									TCLP	ides b ides t RCRA I 5 5 Metal	y 8081 by 815 Metals		ZI			10-074
					/'		🥦	i								% Moi	sture				8		

Chromatograms with final report ☐

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Report Copy Pink - Client Copy

Client Project Name/Number: S_U31504	Initiated by							
OnSite Project Number: 10-074	Date Initiated: 10/8/69							
1.0 Cooler Verification								
1.1 Were there custody seals on the outside of the cooler?	Yes	No	(N/A)	1 2 3 4				
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4				
1.3 Were the custody seals signed and dated by last custodian?	Yes	No		1 2 3 4				
1.4 Were the samples delivered on ice or blue ice?		No		<b>7</b> 2 3 4				
1.5 Were samples received between 0-6 degrees Celsius?	Yes	No .	Temperature: _	U				
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	N/A)	na-manistriacis, antistam lancollistani		omar ikalananlyrilli.			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other			
					_			
2.0 Chain of Custody Verification					<u> </u>			
2.1 Was a Chain of Custody submitted with the samples?	Yes	No		1 2 3 4				
2.2 Was the COC legible and written in permanent ink?	Yes	No		1 2 3 4				
2.3 Have samples been relinquished and accepted by each custodian?	(es.)	No		1 2 3 4				
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	<b>\Sect.</b>	No		1 2 3 4				
2.5 Were all of the samples listed on the COC submitted?	Ves .	No		1 2 3 4				
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4				
3.0 Sample Verification		<u> </u>						
3.1 Were any sample containers broken or compromised?	Yes	No		1 2 3 4	<u>·</u>			
3.2 Were any sample labels missing or illegible?	Yes			1 2 3 4				
3.3 Have the correct containers been used for each analysis requested?	Yes	No		1 2 3 4				
3.4 Have the samples been correctly preserved?	Yes	No	N/A	1 2 3 4				
3.5 Are volatiles samples free from headspace and air bubbles?	Yes	No	(N/A)	1 2 3 4				
3.6 Is there sufficient sample submitted to perform requested analyses?	Yes	No No	Edvillin	1 2 3 4				
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	No		1 2 3 4				
3.8 Was method 5035A used?	Yes	No	(AM)	1 2 3 4				
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	40000		1 2 3 4				

- 1 Discuss issue in Case Narrative
- 2 Process Sample As-is

- 3 Client contacted to discuss problem
- 4 Sample cannot be analyzed or client does not wish to proceed

## RAW DATA

Data File: 1014-V68.D
Sample: 10-074-01
Data Path: X:\DIESELS\VIGO\DATA\V091014.SEC\
Signal(s): FID2B.ch
Acq On: 14 Oct 09 11123 p
Operator: ZT

Misc

ALS Vial : 68 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 00:29:39 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Comp	ound	R.T.	Response	Conc Units
System Moni 1) S O-Te Spiked Amoun	toring Compounds rphenyl (11-03-08) t 50.000	14.324	148041272 Recovery	42.019 PPM = 84.04%
3) H Gaso 4) H Dies 5) H Dies 6) H Oil 7) H Oil 8) H Dies 9) H Oil 10) H Oil 11) H Alas 12) H Alas 13) H Mine 14) H Bunk 15) H ALKA 16) H Mine	lorooctadecane (	14.000 22.000 22.000 14.000 22.000 13.025 22.000 16.000 15.000	0 4713065 50099781 57994256 38179638 38685919 54025810 31700495 32630312 58841038 16013166 48207404 75423840 88129377 41705482 29310023	16.609 PPM NoCal PPM 12.153 PPM 17.506 PPM 3.617 PPM 13.945 PPM NoCal PPM NoCal PPM 10.396 PPM

(f) = RT Delta > 1/2 Window

(m)=manual int.

Data File: 1014-V68.D

Sample : 10-074-01
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 14 Oct 09 11123 p Acq On

Operator : ZT

Misc

ALS Vial: 68 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 00:29:39 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

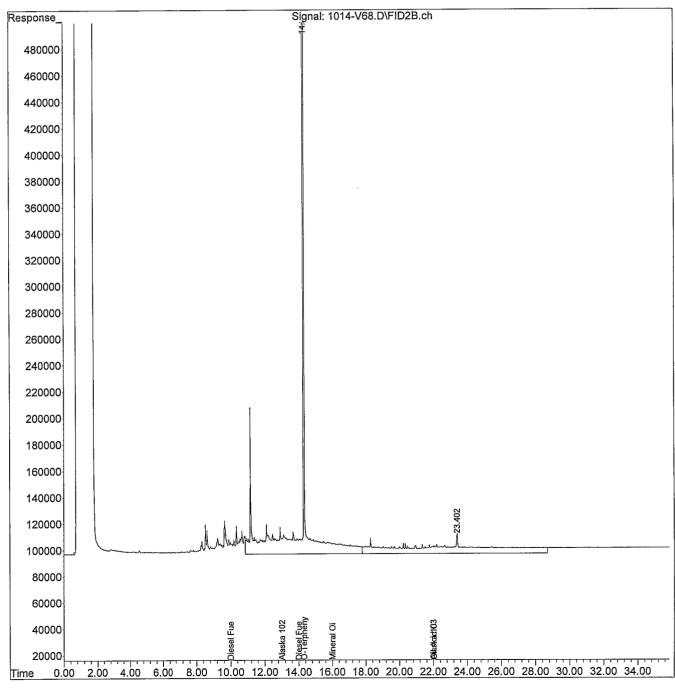
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info



Data File: 1014-V69.D
Sample: 10-074-02
Data Path: X:\DIESELS\VIGO\DATA\V091014.SEC\
Signal(s): FID2B.ch
Acq On: 15 Oct 09 12:33 a
Operator: ZT

Misc

ALS Vial : 69 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 01:09:23 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response Conc Units	
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000 Target Compounds	14.324	150432426 42.696 PPM Recovery = 85.39%	
2) 1-Chlorooctadecane (  3) H Gasoline  4) H Diesel Fuel #1 (11-0  5) H Diesel Fuel #2 (11-0  6) H Oil  7) H Oil Acid Clean (11-0  8) H Diesel Fuel #2 Combo  9) H Oil Combo  10) H Oil Acid Clean Combo  11) H Alaska 102 DF2 (06-2  12) H Alaska 103 Oil (06-2  13) H Mineral Oil (11-03-08)  14) H Bunker C (Fuel Oil #6)  15) H ALKANE C9-C40  16) H Mineral Oil Combo (11  17) H Oil Acid Clean MO Com	0.000 3.500 10.000 14.000 22.000 22.000 14.000 22.000 13.025 22.000 16.000 15.000 12.666 16.000 22.000	7766132 NoCal PPM 18886793 N.D. PPM 22321704 3.578 PPM 35482430 NoCal PPM 36966440 12.760 PPM 19873781 2.991 PPM 31900466 NoCal PPM 33380488 12.540 PPM 23274261 3.800 PPM 17506023 4.927 PPM 17506023 4.927 PPM 19382546 3.861 PPM 39316318 NoCal PPM 39316318 NoCal PPM 13738772 0.197 PPM 31375311 18.492 PPM	

<sup>(</sup>f)=RT Delta > 1/2 Window

<sup>(</sup>m)=manual int.

Data File : 1014-V69.D : 10-074-02 Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

Acq On : 15 Oct 09 Operator : ZT 12:33 a

Misc

Sample Multiplier: 1 : 69 ALS Vial

Integration File: events.e

Quant Time: Oct 15 01:09:23 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

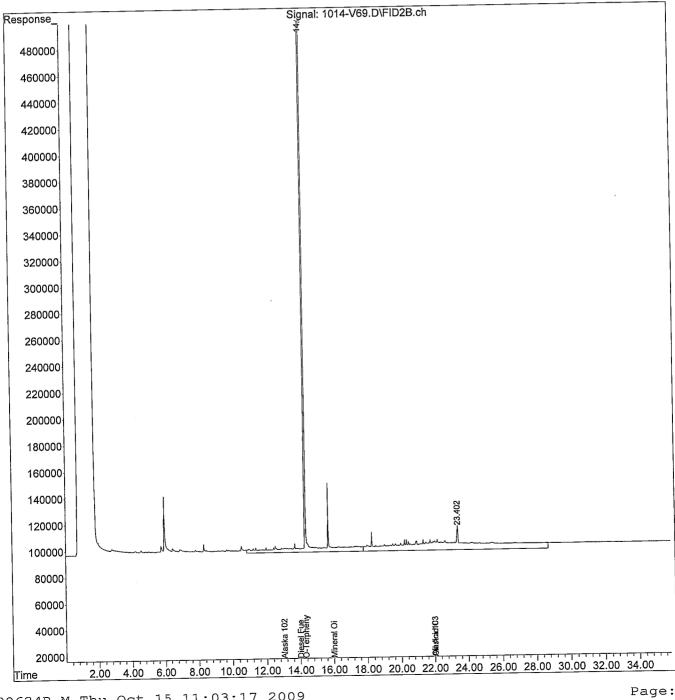
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Data File : 1014-V70.D

Sample : 10-074-03
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch Acq On: 15 Oct 09 Operator: ZT

1:13 a

Misc

ALS Vial: 70 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 01:49:13 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase: Signal Info :

Compound	R.T.	Response	Conc U	nits 
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.325	162288938 Recovery =		
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 22.000 14.000 22.000 13.025 22.000 16.000 15.000 12.666	0 5384274 9489678 9457668 23040437 24625450 8450477 21864822 23451508 9831889 10716759 8203910 21985590 33737904 5802186 22619497	NoCal N.D. N.D. NoCal 6.503 N.D. NoCal 7.419 N.D. N.D. N.D. N.D. NoCal NoCal NoCal	PPM PPM PPM PPM PPM PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

(m) = manual int.

Data File: 1014-V70.D : 10-074-03 Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 15 Oct 09 1:13 a Acq On

Operator : ZT

Misc

Sample Multiplier: 1 ALS Vial : 70

Integration File: events.e

Quant Time: Oct 15 01:49:13 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

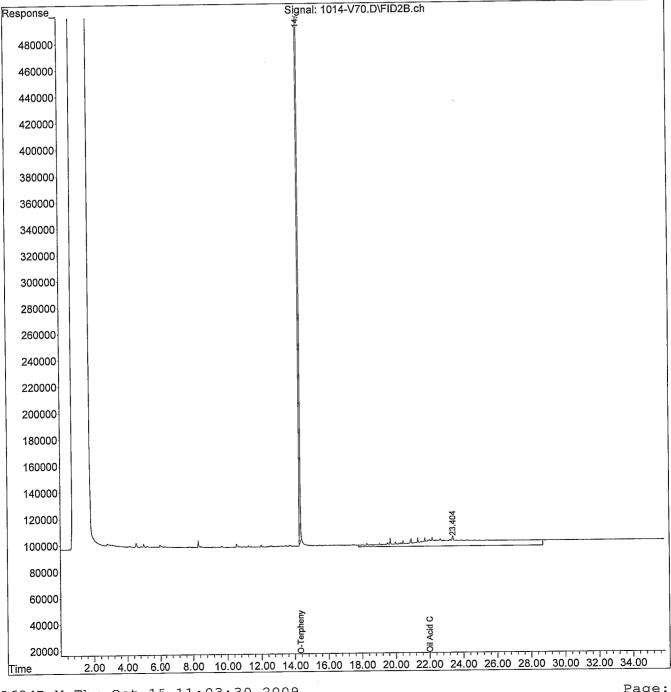
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Data File: 1014-V71.D
Sample: 10-074-04
Data Path: X:\DIESELS\VIGO\DATA\V091014.SEC\
Signal(s): FID2B.ch
Acq On: 15 Oct 09 1:52 a
Operator: ZT

Misc

ALS Vial: 71 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 02:28:58 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.325	158965922 Recovery =	45.113 PPM = 90.23%
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000 15.000 12.666		62.753 PPM NoCal PPM 10.820 PPM 64.034 PPM NoCal PPM 8.477 PPM 62.604 PPM N.D. PPM 34.307 PPM NoCal PPM NoCal PPM NoCal PPM NOCal PPM NOCal PPM NOCal PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

(m) = manual int.

Data File : 1014-V71.D Sample : 10-074-04

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

Acq On : 15 Oct 09 1:52 a

Operator : ZT

Misc

ALS Vial : 71 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 02:28:58 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

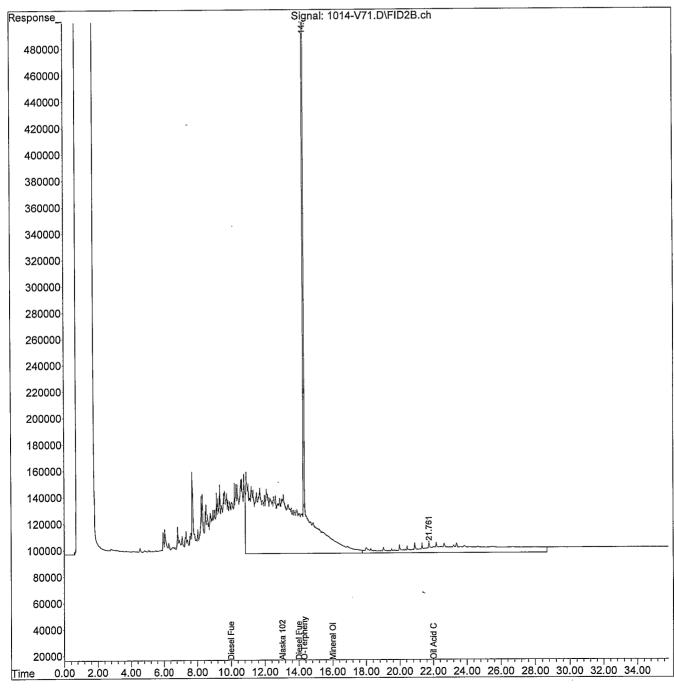
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :



Data File: 1014-V72.D

Sample : 10-074-05
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch Acq On: 15 Oct 09 Operator: ZT

2:32 a

Misc

ALS Vial: 72 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 03:08:42 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007

Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.325	162425927 Recovery	46.093 PPM \ = 92.19%
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000	7811711 197684594 206122248 37040188 35673144 203552373 25483495 26353700 206824653 11861416 126501582 200973987 232401574 123363000 24105365	N.D. PPM NoCal PPM 67.416 PPM 74.749 PPM NoCal PPM 12.104 PPM 76.233 PPM NoCal PPM 8.915 PPM 74.533 PPM N.D. PPM 41.334 PPM NOCal PPM 14.662 PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

<sup>(</sup>m) =manual int.

Data File : 1014-V72.D Sample : 10-074-05

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

Acq On : 15 Oct 09 2:32 a

Operator : ZT

Misc

ALS Vial: 72 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 03:08:42 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

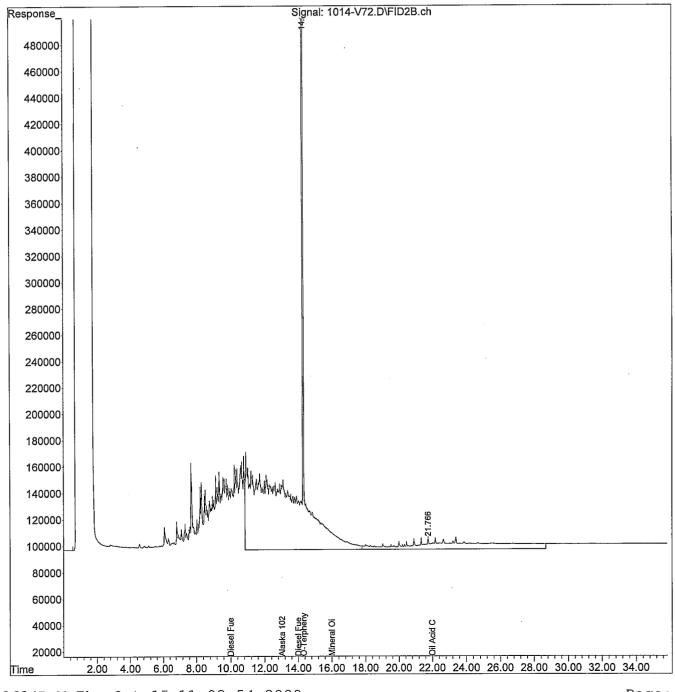
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :



Data File : 1014-V73.D
Sample : 10-074-06
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch Acq On: 15 Oct 09

3:12 a

Operator : ZT

Misc

ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 03:48:23 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units	
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.323		41.876 PPM = 83.75%	·
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	3.500 10.000 14.000 22.000 14.000 22.000 13.025 22.000 16.000 15.000 12.666 16.000	19760250 13800869 14538359 33912121 47652351	N.D. PPM 2.375 PPM NoCal PPM 9.280 PPM 2.066 PPM NoCal PPM 9.873 PPM 2.446 PPM 1.677 PPM 2.167 PPM NoCal PPM NoCal PPM NoCal PPM NoCal PPM	

(f) = RT Delta > 1/2 Window

(m)=manual int.

Data File: 1014-V73.D

Sample : 10-074-06
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 15 Oct 09 3:12 a Acq On

Operator : ZT

Misc

ALS Vial : 73 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 03:48:23 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

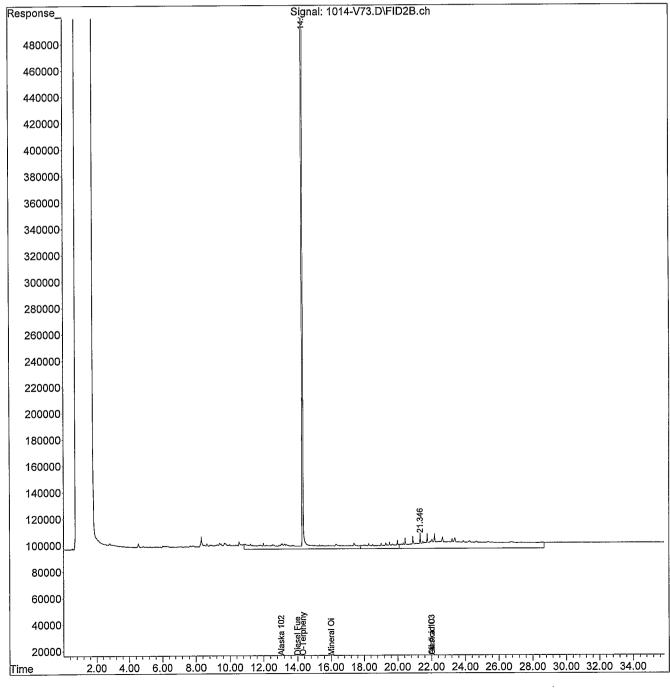
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info :



Data File: 1014-V56.D

Sample : MB1014W1
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

Acq On : 14 Oct 09 Operator : ZT 3121 p

Misc

ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 14 16:17:17 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.322		39.399 PPM = 78.80%
4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo	3.500 10.000 14.000 22.000 22.000 14.000 22.000 13.025 22.000 16.000 15.000	11995104 13068001 28334485 30310469 11835565 26540283 28565975 13455842 12450780 10682881 27744061 41758733	9.386 PPM N.D. PPM NoCal PPM 10.057 PPM 0.017 PPM 0.492 PPM 0.818 PPM NoCal PPM NoCal PPM N.D. PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

<sup>(</sup>m) = manual int.

Data File: 1014-V56.D : MB1014W1 Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch Acq On: 14 Oct 09

3121 p Acq On

Operator : ZT

Misc

ALS Vial : 56 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 14 16:17:17 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

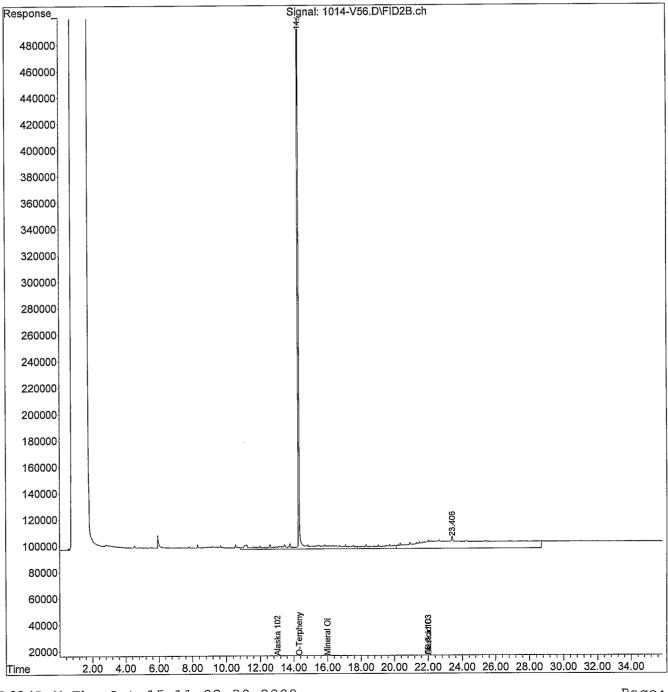
Quant Title : GCTPH

QLast Update : Fri Oct 19 15:50:31 2007

Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Data File: 1014-V74.D
Sample: 10-074-06 DUP
Data Path: X:\DIESELS\VIGO\DATA\V091014.SEC\
Signal(s): FID2B.ch
Acq On: 15 Oct 09 3:52 a
Operator: ZT

Misc

ALS Vial: 74 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 04:28:06 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.324	149620124 Recovery	42.466 PPM = 84.93%
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000 15.000 12.666	12759765 21348642 22931325 14122305 10348730 9739993 25293174 37358905	6.278 PPM 0.154 PPM NoCal PPM 7.150 PPM 0.273 PPM N.D. PPM 0.488 PPM NoCal PPM NoCal PPM N.D. PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

(m)=manual int.

Data File : 1014-V74.D : 10-074-06 DUP Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 15 Oct 09 3:52 a Acq On

Operator : ZT

Misc

: 74 Sample Multiplier: 1 ALS Vial

Integration File: events.e

Quant Time: Oct 15 04:28:06 2009

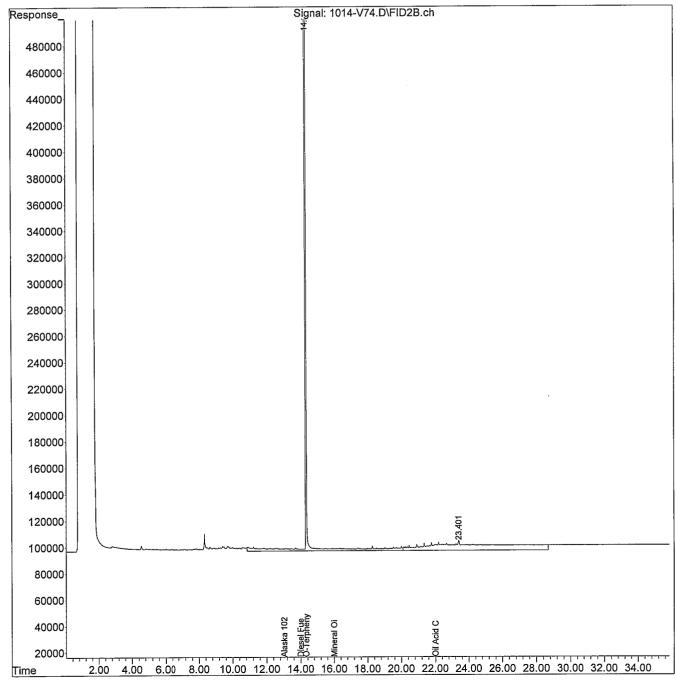
Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Data File: 1014-V53.D

Sample : CCV1014R-V1
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 14 Oct 09 11:18 a Acq On

Operator : ZT

Misc : SV2-89-08

ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 14 11:54:57 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound .	R.T.	Response	Conc Units	_
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.313	1968545 Recovery	0.645 PPM = 1.29%	·
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000 15.000	0 25793610 260294214 270610323 62961412 61635797 264310831 43766107 44813231 272766929 18146307 174280048 257344670 320627028 169617725 39228722	N.D. PPM NoCal PPM 91.058 PPM 99.720 PPM NoCal PPM 25.267 PPM 100.461 PPM NoCal PPM 18.437 PPM 99.945 PPM 5.489 PPM 58.048 PPM NoCal PPM NoCal PPM NoCal PPM NoCal PPM 18.047 PPM NoCal PPM NoCal PPM NoCal PPM NoCal PPM	

(f)=RT Delta > 1/2 Window

(m) = manual int.

: CCV1014R-V1 Sample Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

Acq On : 14 Oct 09 11:18 a

Operator : ZT

: SV2-89-08 Misc

ALS Vial : 53 Sample Multiplier: 1

Integration File: events.e

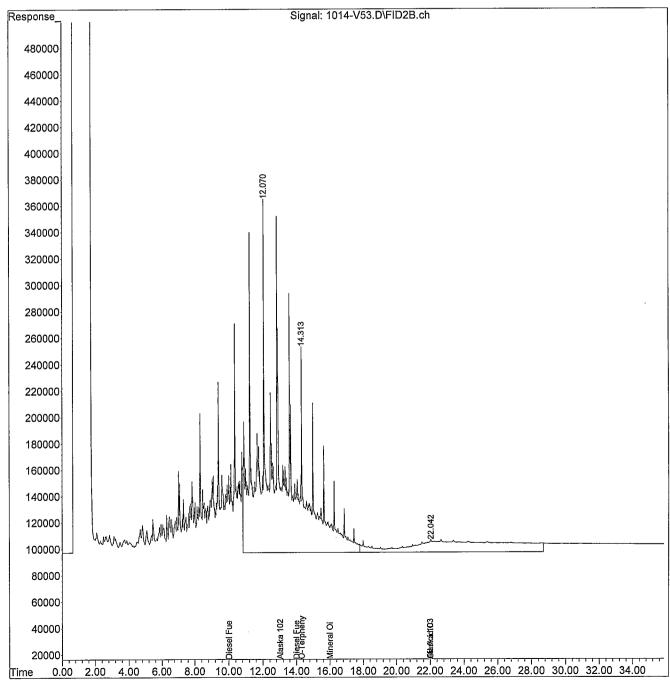
Quant Time: Oct 14 11:54:57 2009

Quant Method : C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007
Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase: Signal Info



Data File : 1014-V63.D
Sample : CCV1014R-V2
Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch

: 14 Oct 09 8123 p Acq On

: ZT Operator

: SV2-89-08 Misc

Sample Multiplier: 1 ALS Vial : 63

Integration File: events.e

Quant Time: Oct 14 21:09:56 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.313	1967290 Recovery	0.645 PPM = 1.29%
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000		17.358 PPM 100.364 PPM NoCal PPM 10.408 PPM 99.786 PPM N.D. PPM 57.700 PPM NoCal PPM NoCal PPM 57.010 PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

<sup>(</sup>m) = manual int.

Data File: 1014-V63.D : CCV1014R-V2 Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

: 14 Oct 09 8123 p Acq On

Operator : ZT

Misc : SV2-89-08

: 63 Sample Multiplier: 1 ALS Vial

Integration File: events.e

Quant Time: Oct 14 21:09:56 2009

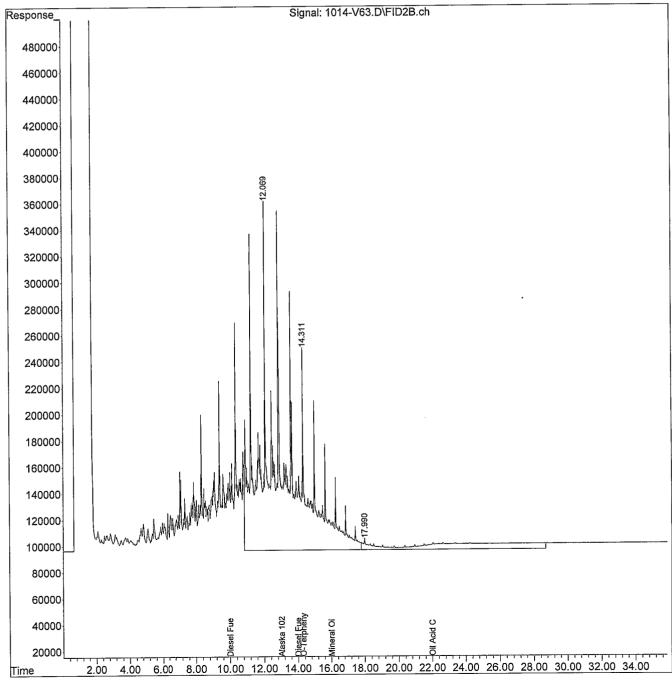
Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH

QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Data File : 1014-V75.D Sample : CCV1014R-V3

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s) : FID2B.ch

4:31 a Acq On : 15 Oct 09

Operator : ZT

: SV2-89-08

ALS Vial : 75 Sample Multiplier: 1

Integration File: events.e

Quant Time: Oct 15 05:07:51 2009

Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M Quant Title: GCTPH QLast Update: Fri Oct 19 15:50:31 2007 Response via: Initial Calibration

Integrator: ChemStation

Volume Inj. : Signal Phase : Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds 1) S O-Terphenyl (11-03-08) Spiked Amount 50.000	14.313	2027929 Recovery	0.662 PPM = 1.32%
Target Compounds 2) 1-Chlorooctadecane ( 3) H Gasoline 4) H Diesel Fuel #1 (11-0 5) H Diesel Fuel #2 (11-0 6) H Oil 7) H Oil Acid Clean (11-0 8) H Diesel Fuel #2 Combo 9) H Oil Combo 10) H Oil Acid Clean Combo 11) H Alaska 102 DF2 (06-2 12) H Alaska 103 Oil (06-2 13) H Mineral Oil (11-03-08) 14) H Bunker C (Fuel Oil #6) 15) H ALKANE C9-C40 16) H Mineral Oil Combo (11 17) H Oil Acid Clean MO Com	14.000 22.000 14.000 22.000 22.000 13.025 22.000 16.000 15.000		94.487 PPM 103.789 PPM NoCal PPM

<sup>(</sup>f)=RT Delta > 1/2 Window

<sup>(</sup>m) = manual int.

Data File: 1014-V75.D : CCV1014R-V3 Sample

Data Path : X:\DIESELS\VIGO\DATA\V091014.SEC\

Signal(s): FID2B.ch

4:31 a Acq On : 15 Oct 09

: ZT Operator

: SV2-89-08 Misc

: 75 Sample Multiplier: 1 ALS Vial

Integration File: events.e

Quant Time: Oct 15 05:07:51 2009

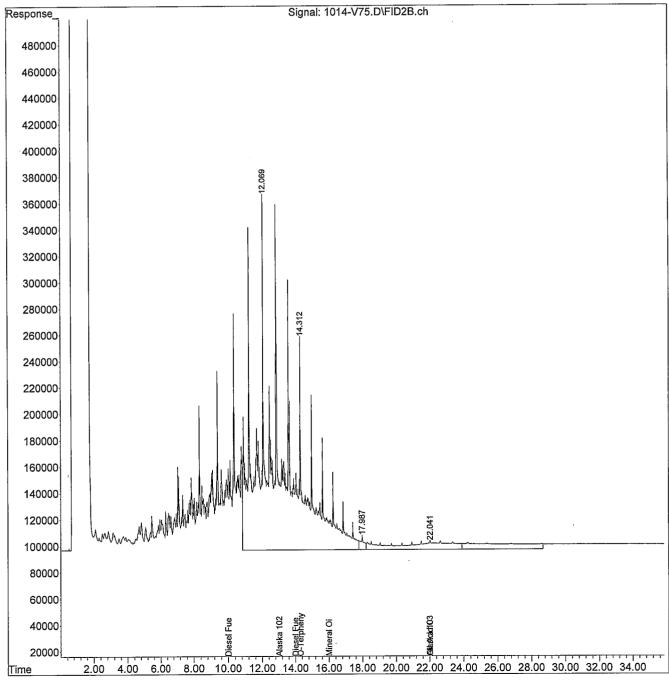
Quant Method: C:\MSDCHEM\2\METHODS\V090624R.M

Quant Title : GCTPH
QLast Update : Fri Oct 19 15:50:31 2007

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. Signal Phase : Signal Info



Report Generated By CETAC QuickTrace

Analyst: apodnozova

Worksheet file: C:\Program Files\QuickTrace\Worksheets\10 October 2009\Y091016W1.wsz

Date Started: 10/16/2009 12:36:22 PM

Comment:

# Results

Sample Name	Туре	Date/Time	Conc (ppb)	μAbs	%RSD Flags
Calibration Blank	STD	10/16/09 12:57:07 pm	0.000	57	33.25
Standard 0.05 ppb	STD	10/16/09 12:58:59 pm	0.050	903	1.03
Standard 0.5 ppb	STD	10/16/09 01:00:51 pm	0.500	8962	0.26
Standard 2.5 ppb	STD	10/16/09 01:02:44 pm	2.500	44223	0.06
Standard 5.0 ppb	STD	10/16/09 01:04:38 pm	5.000	72361	0.30
Standard 10.0 ppb	STD	10/16/09 01:06:32 pm	10.000	149222	0.28
Calibration  Equation: A = 56.933 + 14966.120C  R2: 0.99622  SEE: 4252.0390  Flags:		150,000- 0000- 100,000- 0000- 0000- 0000- 0000- 0000- 0000-			
		0 2	4 6 ncentration (p	8 pb)	10
ICV  % Recovery 107.86	ICV	10/16/09 01:08:27 pm	5.393	80768	0.28
ICB	ICB	10/16/09 01:10:18 pm	-0.007	-46	12.60
CCV % Recovery 96.28	CCV	10/16/09 01:12:12 pm	4.814	72106	0.32
ССВ	ССВ	10/16/09 01:14:03 pm	-0.005	-18	54.52

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
MB1016T1	UNK	10/16/09 01:15:54 pm	0.000	58	8.46	
SB1016T1	UNK	10/16/09 01:17:46 pm	5.425	81241	0.06	
09-029-40	UNK	10/16/09 01:19:38 pm	-0.002	24	6.20	
09-029-40 DUP	UNK	10/16/09 01:21:30 pm	0.000	63	2.02	
09-029-40 L	UNK	10/16/09 01:23:24 pm			6.53	
09-029-40 MS	UNK	10/16/09 01:25:17 pm		81649		
09-029-40 MSD	UNK	10/16/09 01:27:10 pm	5.476	82013	0.38	
09-029-41	UNK	10/16/09 01:29:04 pm	-0.001	37	12.64	
10-081-01a	UNK	10/16/09 01:30:55 pm	-0.002	30	1.38	
10-084-01a	UNK	10/16/09 01:32:47 pm	0.001	67	2.16	
CCV 97.38	CCV	10/16/09 01:34:40 pm	4.869	72930	0.31	
ССВ	ССВ	10/16/09 01:36:32 pm		-33	8.32	
MB1016D1		10/16/09 01:38:24 pm		40		
SB1016D1	UNK	10/16/09 01:40:16 pm			0.29	
10-074-01c		10/16/09 01:42:09 pm	-0.004	-8	21.52	
10-074-01c DUP	UNK	10/16/09 01:44:02 pm	0.004	110	2.22	
10-074-01c L	UNK	10/16/09 01:45:56 pm	-0.001	45	5.73	

Sample Name	Туре	Date/Time	Conc (ppb)	μAbs	%RSD Flags
10-074-01c MS	UNK	10/16/09 01:47:50 pm			0.30
10-074-01cMSD	UNK	10/16/09 01:49:42 pm	5.500	82376	0.48
10-074-02c		10/16/09 01:51:34 pm	0.005	130	2.16
10-074-03c	UNK		0.000		2.26
10-074-04c	UNK	10/16/09 01:55:18 pm	0.000		3.85
CCV % Recovery 97.75	CCV	10/16/09 01:57:12 pm	4.888		0.43
ССВ	ССВ	10/16/09 01:59:03 pm		-18	23.30
10-074-05c	UNK	10/16/09 02:00:56 pm	0.003	98	2.32
10-074-06c	UNK	10/16/09 02:02:49 pm	0.002	81	2.97
10-116-01d	UNK	10/16/09 02:04:43 pm	0.001	70	4.67
10-116-02d	UNK	10/16/09 02:06:35 pm	0.000	59	1.68
10-116-03d	UNK	10/16/09 02:08:28 pm	0.002	94	1.35
10-116-04d	UNK				1.78
10-116-05d	UNK				3.16
10-116-06d		10/16/09 02:14:05 pm	0.014	265	1.37
10-116-07d	UNK	10/16/09 02:15:59 pm	0.006	140	2.54
10-116-08d	UNK	10/16/09 02:17:53 pm	0.008	173	3 1.39
	•				

Sample Name	Туре	Date/Time	Conc (ppb)	μAbs	%RSD	Flags
CCV % Recovery 97.98	CCV	10/16/09 02:19:46 pm	4.899	73378	0.38	
CCB	CCB	10/16/09 02:21:37 pm	0.000	53	0.83	
10-116-09d	UNK	10/16/09 02:23:30 pm	0.006	143	2.43	
10-116-10d	UNK	10/16/09 02:25:23 pm	0.006	150		
10-116-11d	UNK	10/16/09 02:27:16 pm		128		
10-116-12d	UNK		0.005	128	1.94	
CCV % Recovery 98.18	CCV	10/16/09 02:31:02 pm	4.909	73524	0.47	
ССВ	ССВ	10/16/09 02:32:53 pm	0.000	51	5.64	

## Sample/Batch Report

User Name: kmckinney Computer Name: ICPMS2

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Sample File: C:\Elandata\Sample\E091022E.sam

Report Date/Time: Thursday, October 22, 2009 18:22:56

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A/S	S Loc.	Batch ID	Sample ID Description
	9	E091022E	MB1008D1 5X
ĺ.	10	E091022E	SB1008D1 5X
Ï	∃11	E091022E	10-074-01c 5X
ļ	12	E091022E	10-074-01cD 5X
	13	E091022E	10-074-01cL 25X
:	14	E091022E	10-074-01cMS 5X
i	15	E091022E	10-074-01cMSD 5X
:	16	E091022E	10-074-02c 5X
;	17	E091022E	10-074-03c 5X
÷	18	E091022E	10-074-04c 5X
-	19	E091022E	10-074-05c 5X
i	20	E091022E	10-074-06c 5X

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Sample ID: Blank

Sample Date/Time: Thursday, October 22, 2009 12:58:24

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\Blank.001

Concentration Results
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\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	Analyte Sc Cr Cr Zn Zn Ge As As-1 Se Br Se Kr Ag Cd	Mass 45 52 53 66 67 68 72 75 75 77 78 79 82 83 107 111	Meas. Intens. Mean 328255.728 12995.414 5231.891 971.062 628.361 1363.116 336194.232 14440.329 489.896 224.338 14866.294 25177.739 356.011 323.009 2202.622 467.097 35.838	Meas. Intens. RSD 1.827 1.909 2.565 3.445 8.332 2.348 2.765 0.365 12.899 6.824 0.253 1.214 5.202 2.477 2.463 1.275 10.007	Net Intens. Mean	Conc. Mean		Sample Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L
г г	Kr							
			467.097	1.275				ug/L
  >	Cd In Sn	114 115 118	35.838 627000.660 267.007	10.007 3.289 6.498			Quinc. RSD	ug/L Sampie Unit Ug/L Ug/L Jo/L
	Ba Ba Tb	135 137 159 208	44.001 67.001 679301.736 1305.050	12.026 1.493 3.794 3.230				ug/L ug/L ug/L ug/L ug/L
L	Pb	200	,555.666	,				ug/L ug/L

75 - 1 (1877 - Same and 1987)

#### OC Calculated Values

				QC Calculated Val	ues		ug/L
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup∌RéI. % Diff ug/i⊾
۲>	Sc	45					9( )
1	Cr	52					
L	Cr	53					, <b>,</b>
Γ	Zn	66					
Ì	Zn	67					
j	Zn	68					•
i >	Ge	72					u <sub>k</sub> '.
ĺ	As	75				1. 3°	SSL SANTALAN
į	As-1	75					
i	,Se	77					ugre Silve
i	Se	78					4974. 1937
i	Br	79					737 74
į	, Se	82	•				2197C
-	Kr	83					₫₫/Ľ √₫/L
Γ	Ag	107					446
i	Cd	111		•			ug/L
						1111	Dan RM W Diff

Sample ID: Blank

Report Date/Time: Thursday, October 22, 2009 12:59:55

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115
118
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137
159
208

Sample ID: Blank

Report Date/Time: Thursday, October 22, 2009 12:59:55

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Sample ID: Standard 1

Sample Date/Time: Thursday, October 22, 2009 13:01:32

Number of Replicates: 3

Batch ID:

Page 1

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\Standard 1.002

#### Concentration Results

				Concentration Resu	ults				
	Amaluta	Maga	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. RSD	Sample	e Unit
۲	Analyte Sc	Mass 45	307650.670	3,291	307650.670			ug/L	
>		52	203851.143	4.196	0.623	20.00000	1.14	ug/L	
1	Cr	53	27860.918	2.074	0.075	20.00000	6.00	ug/L	
Ĺ	Cr	66	26299.621	3.904	0.078	20.00000	2.36	ug/L	
.	Zn Z:-		4803.317	2.996	0.013	20.00000	2.91	ug/L	
: [	Zn	67	19377.156	0.435	0.055	20.00000	3.59	ug/L	
.	Zn	68 73	325938.754	3.065	325938.754			ug/L	
>	Ge	72 75	40000.000	3.913	0.090	20.00000	5.33	ug/L	
1	As	75 75 ‡	29841.446	4.589	0.090	20.00000	4.10	ug/L	
1.	As-1	Į.	1°	6.151	0.007	20.00000	9.35	ug/L	
	Se	77 '.	2376.002	1.839	0.023	20.00000	8.04	ug/L	
.	Se	78 70	22031.223	2.989	-0.006	20.0000		ug/L	
ļ	Br	79	22281.845	0.959	0.009	20.00000	2.96	ug/L	
L	Se	82	3199.928	3.765	-1.667	20.0000		ug/L	
_	Kr	83	321.342	1.798	0.300	20.00000	2.16	ug/L	
ļ	Ag	107	175809.137	3.256	0.067	20.00000	2.94	ug/L	
	Cd	111	38964.910	1.522	0.159	20.00000	1.87	ug/L	
	Cd	114	92009.457	0.851	579375:957	20.0000		ug/L	Unit
>	ln	115	579375.957		0.220	20.00000	4.75	ug/L	
Ĺ	Sn	118	127507.256	4.818	0.067	20.00000	1.17	üg/L	
Γ	Ва	135	42908.139	1.809	0.110	20.00000		ug/L	
	Ва	137	70339.779	0.478	636595.098	20.00000	2.59	ug/L	
>	Tb	159	636595.098	2.823	0.833	20.00000	3.48 3.59	iid/F	
Ĺ	Pb	208	530887.031	1.297	0.033	20.00000	3:59	ug/L	
								ug/L	
		,	. ,	QC Calculated Val	lues		5.33	ug/L	
	Analyte	Mass -	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff		ıp⊭Rël.	% Diff
	Sc	45	•	•		)	9,35	ug/L	
1	Cr	52	•			1	3 04	ug/L	
1	Cr	53						ug/L	
Ļ	Zn	66					2.96	ug/L	
•	Zn	67						45A.	
1	Zn	68					, ,	ď	
1	Ge	72							
>	As	75							6.20 (*)
l I	As-1	75							UN
1	Se	77						š,	
l l	Se	78					. •	Ú,	
1	9E						: نِيْدِ. مُ	üε/L	
i	Dr	<b>7</b> 0						ug/L	
	Br Se	79 82					: 25.3		
L	Se	82					3.48	₫ĝ/¢	
[ [	Se Kr	82 83					3.48	₫ĝ/L	
	Se Kr Ag	82 83 107					1000 1000 1000 1000 1000 1000 1000 100	dij/L	
	Se Kr	82 83				1	3.48 3.58 5.70	68/C 55/C 25/C	OC INIT
	Se Kr Ag Cd	82 83 107 111	ndard 1			i Diff	4.10	ug/t ug/t ug/t upuRel.	% Diff
· •	Se Kr Ag Cd Sample	82 83 107 111 e ID: Sta	ndard 1	ober 22, 2009 13:03	··04	l Diff		6 <b>3</b> /C 00/L 09/L upu <b>Rel</b> . ug/L	% Diff

	Cd	114
>	ln	115
Ĺ	Sn	118
Γ	Ва	135
ĺ	Вa	137
>	Tb	159
í	Dh	208

Sample ID: Standard 1
Report Date/Time: Thursday, October 22, 2009 13:03:04

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Sample ID: Standard 2

Sample Date/Time: Thursday, October 22, 2009 13:05:47

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\Standard 2.003

Concentration	Results
	1 1000110

				Concentration Resu	ılts				•
	Analyte	Mass	Meas, Intens, Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. RSD	Sample	e Unit
[>	Sc	45	304275.923	2.856	304275.923			ug/L	
	Cr	52	395494.781	0.566	1.261	40.09525	2.37	ug/L	
٠ ¦	Cr	53	51234.052	5.043	0.153	40.16607	7.31	ug/L	•
Ē	Zn	66	50597.590	0.545	0.157	40.04867	0.22	ug/L	
1 	Zn	67	9429.652	2.902	0.028	40.61343	3.13	ug/L	
i I	Zn	68	36792.007	1.087	0.112	40.07289	1.88	ug/L	
>	Ge	72	317352.833	0.757	317352.833			ug/L	
	As	75	73853.801	4.542	0.190	40.44228	4.91	ug/L	
1	As-1	75	61668.666	5.122	0.193	40.53028	4.64	ug/L	
I	Se	77	4491.155	4.185	0.013	40.12962	3.89	ug/L	
l	Se	78	28898.149	0.989	0.047	40.00535	1.49	ug/L	
i i	Br	79	18869.085	0.763	-0.015			ug/L	
1	Se	82	6162.150	1.529	0.018	40.36589	1.96	ug/L	
L	Kr	83	302.008	5.658	-21.001			ug/L	
Г	Ag	107	345663.162	2.444	0.594	39.91890	3.09	ug/L	
İ	Cd	111	76826.506	1.787	0.132	39.94167	3.21	ug/L	
i	Cd	114	175876.744	1.696	0.304	39.64343	1.46	ug/L	Urni
>	In	115	578752.912	1.791	578752.912			ŭg/L	
	Sn	118	261097.533	1.958	0.451	40.20619	3.28	üg/L	
L T	Ва	135	85038.501	2.000	0.129	39.68095	7.68	ug/L	
1	Ва	137	141277.499	1.354	0.215	39.78496	3.28 7.68 6.97	ug/L	
>	Tb	159	658371.382	5.991	658371.382	. 4	3 13	üg/L	
Ĺ	Pb	208	1059447.501	2.515	1.610	39.72610	3.76 3.88	ug/L	
,				QC Calculated Val	uoe	~ _	4.91	ug/L ug/L	
			:	•		Ditation of Diff		ug/⊾ µp⊭ <b>₿ël</b> . '	o/ Diff
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	3.89	ug/£. Jg/£.	70 DIII
>	Sc	45				•	1.49	ug/L	
1	Cr	52					1.740	ug/L	
L	Cr	53	•				1,9	u( /:.	
Γ	Zn	66						1.6	
	Zn	67						: .	
İ	Zn	68					•	ί.	
>	Ge	72							
	As	75							٠ ا <u>ال</u> ا
-	As-1	75					5.9%		
	Se	77					2 6 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		
	Se	78					A 97	33/5	
	Br	79					0.22	08/C	
_	Se	82				j	3.76		
	Kr	83				1	188		
Γ	Ag	107						વસું∙ દ	
1	Cd	111					4,31	ugt	0/ T- \1-

Sample ID: Standard 2

Report Date/Time: Thursday, October 22, 2009 13:07:19

Page 1

4. (Bupulta). % Diff

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HAS upit 415° 14.

	Cd	114
>	in	115
	Sn	118
	Ва	135
	Ва	137
>	Tb	159
	Dh	208

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900 969, 14 0, 17

Sample ID: Standard 2 Report Date/Time: Thursday, October 22, 2009 13:07:19

Sample ID: Standard 3

*i* ;

Sample Date/Time: Thursday, October 22, 2009 13:10:02

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\Standard 3.004

1.0000000000000000000000000000000000000	Con	centra	tion	Results
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Salah dari bada

3.40upuRel. % Off

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				Oomoomia anom moo				
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. RSD	Sample Unit
[>	Sc	45	303665.764	4.454	303665.764	100 05004	4.00	ug/L
i i	Cr	52	1004410.630	0.715	3.273	100.65661	4.69	ug/L
- i :	Cr :	53	119162.778	2.649	0.377	99.88426	7.11	ug/L
Ī	Zn	66	122326.124	1.166	0.368	98.95653	1.30	ug/L
i	Zn	67	22879.334	3.077	0.067	99.72452	3.92	ug/L
i	Zn	68	91655.917	3.026	0.274	99.65523	2.46	ug/L
>	Ge	72	330150.502	0.748	330150.502			ug/L
1	As	75	161785.637	3.288	0.447	99.18765	4.38	ug/L
i	As-1	75	150319.632	2.700	0.454	99.20380	3.45	ug/L
j	Se	77	11384.245	3.881	0.034	100.10393	3.22	ug/L
ì	Se	78	50242.033	2.962	0.108	98.61473	5.14	ug/L 
1	Br	79	16283.403	1.938	-0.026			ug/L
	Se	82	14273.674	1.405	0.042	98.71112	2.00	ug/L
L.	Kr	83.	302.008	8.590	-21.001	•		ug/L
Γ	Ag	107	858871.665	1.485	1.442	99.47196	5.09	ug/L
	Cd	111	194043.800	3.239	0.326	99.76288	6.98	ug/L
1	Cd	114	441469.900	1.680	0.742	99.46197	2.89 5.5SU	ug/L อิน/กรเค Unit ug/L
	In	115	595048.750	4.016	595048.750			ug/L
>	Sn	118	635846.829	0.930	1.069	99.19792	4.74 0.79	ug/E
Γ.	Ва	135	198447.926	1.609	0.309	99.09949		üg/∟
	Ba	137	362247.636	0.512	0.565	100.72481	1:60	ŭĝ/E
	Tb	159	641151.251	1.928	641151.251	* 2		ŭĝ/L
> 	Pb	208	2631588.958	1.468	4.103	100.21012	2.01 2.01	ŭĝ/E cg/L
L	1 2					,	Q. 10	ug/L
				QC Calculated Val	lues	1	4.38	ug/L
				Int Std % Recovery	Spike % Recovery	Dilution % Diff		ıp∴Rel. % Diff
	Analyte	Mass	QC Std % Recovery	int Std % Recovery	Spike 70 (Geovery	Bliddon / Lin	3.22	weit.
•	Sc	45					5.14	uξh.
•	Cr	52						i.e.
_	Cr	53						ق.
•	Zn	66						
•	Zn	67			•			ı.i
•	Zn	68		•			7.	น้
•	Ge	72					23:	45.0 a
•	As	75					. \$\$;	in in the second
•	As-1	75 				÷	4.74	uã∕±
-   -	Se	77				i	5.78	ua/t
	Se	. 78					477700	₩ <del>8</del> /L
ļ.	Br	79				1	1.30	₩ <u>₩</u>
L	Se	82	,			. 1	2.01 2.01	3000 3000 3000 3000 3000 3000 3000 300
_	Kr	83					240	JQA.
ļ	Ag	107						-9/4
	Cd	111					2.38	agil

Sample ID: Standard 3

Report Date/Time: Thursday, October 22, 2009 13:12:24

	Cd	114
>	ln	115
_	Sn	118
-	Ва	135
	Ва	137
>	. Tp	159
i	Ph	208

Sample ID: Standard 3
Report Date/Time: Thursday, October 22, 2009 13:12:24

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Sample ID: QC Std 1

Sample Date/Time: Thursday, October 22, 2009 13:15:07

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 1.005

#### Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	
۲.	Sc	45	301026.092	3.271	301026.092			ug/L
>	Cr	52	466149.219	2.185	1.509	46.42534	1.57	
	Cr ,	53	61692.722	3.321	0.189	50.10856	6.65	
L	Zn	66 <sup>1</sup>	61417.753	1.670	0.193	51.84972	1.68	-
1.	Zn	67	10970.058	1.018	0.033	48.87329	0.98	17
1	Zn	68	45963.127	3.639	0.142	51.83107	3.82	
- I - 1.	Ge	72	314131.337	0.561	314131.337			ug/L
>	As	75	83583.022	4.177	0.223	49.48462	4.47	
! i	As-1	75 75	72120.568	3.416	0.228	49.85383	3.10	
i 1	Se	77	5624.799	5.572	0.017	51.04901	6.19	-
ļ		78	31802.584	4.359	0.057	52.06465	7.16	-
	Se	79	14220.926	1.879	-0.030			ug/L
	Br C-	82	7494.834	4.606	0.023	53.36412	5.05	-
L	Se	83	312.675	4.319	-10.334			ug/L
_	Kr	107	436824.749	2.906	0.764	52.68451	2.87	-
!	Ag	111	94190.289	4.959	0.165	50.47347		-
!	Cd	114	220012.048	2.128	0.386	51.75560	1.59 Cana RSI	ug/L Samole Unit ug/L
	Cd		569630.551	3.408	569630.551			
>	ln O:-	115 118	318432.231	4.498	0.560	51.89939	7.69 4.35 1.60	5 ug/c
Ĺ	Sn		100086.068	1.983	0.153	48.88796	4.5	g üğ/L
		135		1.754	0.263	46.95632	1:6	o ug/L ug/L
!	Ba ~'	137	655850.171	2.807	655850.171			
>	Tb	159	1294710.748	0.712	1.973	48.19235	3.2 3.8	2 ug/L 2 ug/L
L	Pb	208	12547 10.740				ر. د.	ug/L
			•	QC Calculated Va	lues		, 44	
			0.0.0(4.0/ Danayon/	Int Std % Recovery	Spike % Recovery	Dilution %	6 Diff 3.1	DupuRel. % Diff
	Analyte	Mass	QC Std % Recovery	91.705	Opino 70 i iosa 7 a i		6.1	0 ug/L
[>	Sc	45	00.051	31.700			7.1	$\partial = u \zeta  \mathcal{I}_{+}$
	Cr	52	92.851					Ut i
	Cr	53	100.217					٠,
•	Zn	66	103.699					
1	Zn	67	97.747				•	. 14
	Zn	68	103.662	93.437			: .	u,
>	Ge	72	00.000	30.437				
	As	75	98.969				the second filter	William Um
	As-1	75	99.708				7.6	se dath
	Se	77	102.098				1	39 U3/L
	·Se	78	104.129			6	4	
1	Br	. 79	100 700					LICHE.
L.	,Se	82	106.728					zž liĝk
	Kr	83	100 000					
Γ	Ag	107	105.369					<b>0</b> 93.
1	Cd	111	100.947				d ja	47 50/L

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Sample ID: QC Std 1

Report Date/Time: Thursday, October 22, 2009 13:16:41

i	Cd	114	103.511	
) >	ln	115		90.850
	·Sn	118	103.799	
Ī	Ва	135	97.776	
i	Ва	137	93.913	
>	Tb	159		96.548
Ĺ	Pb	208	96.385	

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Sample ID: QC Std 1

Report Date/Time: Thursday, October 22, 2009 13:16:41

Sample ID: QC Std 2

Sample Date/Time: Thursday, October 22, 2009 13:19:22

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 2.006

#### Concentration Results

								وه عبد ود وستنجوبندست مسائت
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean, Co	The same of the same of the same of	Sample Unit
[>	Sc	45	306936.396	2.149	306936.396			Ig/L
	Cr	52	12597.850	1.539	0.001	0.04486	1 1 1 1 1 1 1 1	ig/L
1	Cr	53	4506.164	5.190	-0.001	-0.33128	69.99 "L	5 · · · · · · · · · · · · · · · · · · ·
L	Zn	66	912.388	3.496	-0.000	-0.02402		ig/L
1		67	549.689	2.556	-0.000	-0.27271	29.33 t	ig/L
	Zn	68	1294.105	3.627	-0.000	-0.03160	250.07. t	ıg/L 🚞
1	Zn	72	326666.985	5.421	326666.985		ί	ıg/L 🚎
>	Ge	75	14384.490	0.429	0.001	0.25931	207.01	ıg/L
	As		482.710	10.699	0.000	0.00504	729.79 L	ig/L
	As-1	75	242.006	7.653	0.000	0.22708	122.85 ູ ເ	ug/L
1	Se	77 70	14715.381	0.287	0.001	0.83479	_261.63 - լ	ig/L
4	Se	78	12151.573	2.187	-0.038	onin the		ug/L
al 3	Br	79	318.342	3.359	-0.000	-0.19583	24.98	ug/L
. L`]	. Se	1 82	•	8.512	-23.001	7 (2004) 20 (4005) Carlo Marie (1006) 1 (2007)	+	ug/L
_ 1	Kr	83 =	300.008	11.313	0.003	0.18539	25.56	ug/Ľ
	Ag	107	3763.156	3.542	0.000	0.00760	96.55	ug/L <sup>1</sup>
	Cd	111 .	467.179	28.429	-0.000	-0.00064	the second second second	ug/L
	Cd	114	31.784	0.462	606831.226	V.S.	والمراوية والمستران والمساور	ug/Libre Un
:  >	¹ In	115	606831.226		0.001	0.09846	12 14 15 15 15 15 15 15 15 15 15 15 15 15 15	ug/L
L	Sn	118	902.721	5.178	0.000	0.00281	The same of the same of the same	ug/L
Ţ	Ва	135	49.334	22.783		0.00248	An experience of the second	üg/L
1	Ва	137	75.334	3.066	0.000	0.00240		ug/L
i>	Tb	159	669378.716	2.367	669378.716	0.00464		ug/L ug/L
İ	Pb	208	1329.384	2.033	0.000	0.00161	1 10.51	ug/L

				QC Calculated Value	ies	
>	Analyte Sc	Mass 45	QC Std % Recovery	Int Std % Recovery 93.505	Spike % Recovery	Dilution % Diff Dup: Rel. % Diff 122,8 uc/L 251,63 uc/L
	Cr 3Cr	52 : 53				24.98 ûg/û
	Zn	£ : 66	;			A STATE OF THE PARTY OF THE PAR
C. G	⊹Zn Zn	67 68				) 1 25.58 vg/L 96.58 vg/L
>	Ge	72 75		97.166		118 82 11675
	As As-1	75 75				
	Se	77 78				
	Se Br	79				
L	Se	82 83				
Γ	Kr Ag	107				
	Cd	111				

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Sample ID: QC Std 2

Report Date/Time: Thursday, October 22, 2009 13:20:54

Ì	Cd	114	
>	in	115	96.783
ĺ	Sn	118	
Ī	Ва	135	
İ	Ва	137	
>	Tb	159	98.539
i	Dh	208	

Sample ID: QC Std 3

Sample Date/Time: Thursday, October 22, 2009 13:23:36

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 3.007

#### Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample	Unit
Γ>	Sc	45	301813.973	1.862	301813.973			ug/L	
>	Cr	52	939978.685	3.718	3.077	94.63038	5.29	ug/L	
1	Cr	53	114473.224	2.072	0.363	96.19726	0.33	ug/L	
L r	Zn	66	124741.294	1.083	0.389	104.57187	3.48	ug/L	
1 1	Zn	67	21999.491	3.220	0.067	99.35460	6.20	ug/L	11
ł	Zn	68	87858.733	0.689	0.272	98.95326	3.39	ug/L	-
1	Ge	72	318922.669	2.988	318922.669			ug/L	
>	As	75	155662.477	2.388	0.446	98.84786	5.77	ug/L	
: 1 '		75	145959.318	1.456	0.457	99.78200	4.13	ug/L	
	As-1 Se	77		1.943	0.034	99.75853	4.92	ug/L	
`   		78	48504.896	1.652	0.108	98.63483	6.40	ug/L	
	∵Se	70 79	11209.020	1.763	-0.040			ug/L	
1 1	Br	82 \		3.848	0.044	102.31151	2.20	ug/L	1 1
L	Se	83	301.675	1.942	-21.334			ug/L	4.25
_	Kr	107	836862.133	2.354	1.411	97.37434	2.68		2 2
	Ag	111	184915.848	0.937	0.312	95.45571	0.87	ug/L	
l I	Cd	114	438818.224	2.241	0.742	99.38618	2.23 22.251)	ug/L	e Unit
	Cd	115	591504.698	0.475	591504.698		ं वयः स्था	ug/L	e Ona
>	In Co	118	620118.190	1.919	1.048	97.19817	1.72	ug/L	,
L	Sn	135	202330.727	1.351	0.308	98.68820	2.01	ug/L	
1	Ba		350117.065	4.341	0.533	95.04338	3.41	ug/L	
ļ	Ba ≖'-	137	656451.981	1.009	656451.981			ửg/L	
>	Tb	159	2622632.414	0.266	3.994	97.52992	1.26	üg/L	
L	Pb	208	2022032.414	0.200	Ţ, <b>3</b> .		1.5 :		
								ц <u>е</u> /!	20 1

				QC Calculated Value	ues	<b>;</b>	5.77 ug/L
	Analyte Sc	Mass 45	QC Std % Recovery	Int Std % Recovery 91.945	Spike % Recovery	Dilution % Diff	4.1DuppRel. % Diff 4.92 ug/L
• • •	Cr	52	94.630				6.40 ug/L
	Cr	53	96.197			;	ug/L
_	Zn	66	104.572				2.20 ug/L
•	Zn	67	99.355				ug/L
1	Zn	68	98.953			· .	2.68 ug/L
>	Ge	72		94.863			0.87 ug/L
	As	75	98.848			Jar.	23) 95/1 L. Um
İ	As-1	75	99.782				Lt.
İ	Se	77	99.759				, s./
İ	Se	78	98.635				•
	Br	79					,
L	Se	82	102.312		•		
	Kr	83					
Γ	Ag	107	97.374				a didi.
	Cd	111	95.456			2 F3.18	5.77 SQ/5:

Sample ID: QC Std 3

Report Date/Time: Thursday, October 22, 2009 13:25:09

Page 1

6 Diff 4 Dupi用al. % Diff

4.92 ug/L

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1	Cd	114	99.386	
j >	ln	115		94.339
	Sn	118	97.198	
Ī	Ва	135	98.688	
İ	Ва	137	95.043	
-	Tb	159		96.636
į.	Pb	208	97.530	

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Sample ID: QC Std 3

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Report Date/Time: Thursday, October 22, 2009 13:25:09

Sample ID: QC Std 4

Sample Date/Time: Thursday, October 22, 2009 13:27:52

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 4.008

Concentration R	esults
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				Concentration 1		O Maria Cono	pen	Sample	Linit
	Analyte	Mass	Meas, Intens, Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. KSD	ug/L	Onn
	Sc	45	292117.945	2.093	292117.945	40.04.420	4.91	ug/L	
, .	Cr	52	397037.644	2.797	1.320	40.61439		ug/L	
!	Cr	53	51516.763	1.662	0.160	42.47636	1.09		
L F	Zn	66	48443.600	2.501	0.154	41.40123	4.68	ug/L	
!		67	9218.770	4,266	0.028	41.29201	2.96	ug/L	
!	Zn	68	37532.373	1.643	0.117	42.76490	5.27	ug/L	
l I	Zn	72	309422.923	3.384	309422.923			ug/L	1,000
>	Ge	75		0.086	0.186	41.32052	4.23	ug/L	
-   8		75;	58857.674	0.927	0.189	41.29329	4.37	ug/L	
١٤	As-1	75	4587.872	4.972	0.014	41.99854	8.43	ug/L	
	Se	11,	28222.028	1.650	0.047	42.96667	6.41	ug/L	
'	Se	70	10322.293	0.310	-0.042			ug/L	
	Br	79		2.535	0.018	42.76491	6.16	ug/L	-
L	Se	82	5974.023	4.933	-15.334			ug/L	
	Kr	83	307.675	1.210	0.594	40.94724	3.44	ug/L	
Γ	Ag	107	342544.475	2.380	0.129	39.43060	4.56	ug/L	
	Cd	111	74333.091	1.068	0.304	40.72571	2.98	ųg/L	i tumit
1	Cd	114	174455.288		574081.667	. •	5	ù̄g/L	Unit
>	In	115	574081.667	2.576	0.433	40.12986	3.12	ug/L	
j	Sn	118	248494.011	0.804	0.128	40.91018	0.67	ug/L	
ř	Ва	135	80669.167	1.166		39.95239			
i	Ва	137	141422.583	4.288	0.224	55.55255	5.80		
>	Tb	159	631164.027	1.833	631164.027	40.99549	2.48 5.28	ug/E	
	Pb	208	1060402.738	0.782	1.679	40.99049	5.27	üg/E	
L								ug/L	
-				QC Calculated Va	lues	*	4.23		
				Int Std % Recovery	Spike % Recovery	Dilution₋% Diff	4.30	up⊌Rél.	% Diff
	Analyte	Mass	QC Std % Recovery	88.991	Opinio 70 Classics 7	54	8.43	ug/L	
[>]	Sc	45	104 500	00.331		ν	6.41	ug/L	•
	Cr	52	101.536					ug/L	
L	Cr	53	106.191				6.18	ug/L	
Ī	Zn	66	103.503				·	ug/L	
ĺ	Zn	67	103.230				3.44		
İ	Zn	68	106.912	22.22			≤.5°		
>	Ge	72		92.037			3 . 3		
ĺ	As	75	103.301					M T	Unit
i	As-1	75	103.233					•	
i	Se	77	104.996						
i i	Se	78	107.417					VI	
} 	Br	79							
i	Se	82	106.912				i i red		
L	Kr	83					5.3	4 UL1	
۲		107	102.368					, ug/L	
	Ag	111	98.576				4.2		
ļ	Cd	111				a Di		Dup⊹Rél.	% Diff
	Camal	e ID: Q	Std Δ			. W succe	54		
Γ.	Sample	פוט. עי	J.UIU 7	toher 22 2009 13:29	2.24		- 		

Report Date/Time: Thursday, October 22, 2009 13:29:24

Page 1

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2.13 49/4

1	Cd	114	101.814	04 500
i,	In	115		91.560
	Sn	118	100.325	
ŗ	Ва	135	102.275	
ŀ	Ва	137	99.881	22.044
ĺ.>	Tb	159		92.914
ĺ	Pb	208	102.489	

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Sample ID: QC Std 4

Report Date/Time: Thursday, October 22, 2009 13:29:24

Sample ID: QC Std 5

Sample Date/Time: Thursday, October 22, 2009 13:32:06

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 5.009

Con	cant	ration	ı Resı	ılts
COH	CEIII	ιαιισι	111000	1160

				Concentration Resu	lts				
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample	e Unit
۳	-	Wass 45	303992.750	1.074	303992.750			ug/L	
>	Sc C=	52	12068.461	1.729	0.000	0.00362	916.91	ug/L	
	Cr	53	4205.682	2.915	-0.002	-0.55607	25.37	ug/L	
Ļ	Cr	66	900.387	7.260	-0.000	-0.02215	222.02	ug/L	
ļ	Zn	67	537.021	4,267	-0.000	-0.28781	39.30	ug/L	
1	Zn	68	1239.764	0.973	-0.000	-0.06874	50.90	ug/L	
1	Zn	72	320776.596	1.547	320776.596			ug/L	
>	Ge	75		0.862	0.000	0.10435	205.11	ug/L	?
É		75; 75;	496.239	22.720	0.000	0.01992	395.54	ug/L	
1 .	As-1	73 j	400.200	8.749	0.000	0.05226	349.40	ug/L	
	Se	11	14306.725	0.760	0.000	0.35741	259.58	ug/L	
]	Se	78 1	9332.549	2.208	-0.046			ug/L	
-	Br	79	341.010	7.776	0.000	0.01161	1922.67	ug/L	
L	Se	82	312.342	4.347	-10.667			ug/L	
_	Kr	83	3621.430	11.292	0.003	0.17766	32.06	ug/L	
-	Ag	107	490.203	4.572	0.000	0.02395	70.40	ug/L	
ļ	Cd	111	41.671	14.015	0.000	0.00173	87.42	ug/L	Unit
	Cd	114		2.790	596117.483			ug/L	Q140
>	ln	115	596117.483	13.263	0.001	0.09034	22.16	ug/L	
L	Sn	118	832.380	12.415	-0.000	-0.00097	306.52	ùg/L	
F	Ва	135	41.334	17.862	-0.000	-0.00128	169:30	ug/L	
	Ва	137	61.667	5.057	671559.025			űg/Ľ	
>	Tb	159	671559.025	6.280	-0.000	-0.00342	96.65 50.90	ug/L	
L	Pb	208	1194.376	0.200	• • • • • • • • • • • • • • • • • • • •		50.90	ug/L	
٠.				QC Calculated Val	ues		205.11		•
	K.		* *	Int Std % Recovery	Spike % Recovery		6 Diff 395.5Di		% Diff
	Analyte	Mass	QC Std % Recovery	92.609	Opine 70 (100010)		349,40		
[>	Sc	45	; ·	92.009			259.58	ug/L	
	Cr	52	•					ug/L	
L	Cr	53					1522.67	ug/L	
Γ	Zn	66					:	ug/L	
	Zn	67					32.05		
	Zn	68		05.444					
>	Ge	72		95.414					
	As	75					•		UHLI
	As-1	75							
	Se	77					, .	1.4	
1	Se	78						don	
1	Br	79					13.33	ŭe/il	
L	Se	82					96.65	บลัส	
-	Kr	83					50191	: u§	
Γ	Ag	107						uga.	
1	Cd	111						ug/L	
							7 17 17 197	Second Section	74 C 446

Sample ID: QC:Std 5

Report Date/Time: Thursday, October 22, 2009 13:33:37

Page 1

1. Diff 195.30-upuRel. % Diff 349,40 Uga 251.53 Sg/L

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17226. 30%

	Cd	114	95.074
>	In	115	95.074
L	Sn	118	
ſ	Ва	135	
	Ва	137	
Ĩ>	Tb	159	98.860
1	Pb	208	

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9 (2005) 1 (1998) Signal (2006) **20**06 **20**0

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Sample ID: MB1008D1 5X

Sample Date/Time: Thursday, October 22, 2009 13:36:24

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\MB1008D1 5X.010

#### Concentration Results

			Concentration Resu	ults				
Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean C	onc. RSD	Sampl	e Unit
	45	285554.367	3.131	285554.367			ug/L	
> Sc   Cr	52	12337.828	2.802	0.004	0.11236	56.10	ug/L	
Cr	53	4196.677	1.712	-0.001	-0.32515	55.50	ug/L	
Γ Zn	66	1424.126	3.225	0.002	0.48281	4.67	ug/L	
Zn	67	608.360	3.946	0.000	0.19573	79.49	ug/L	
Zn	68	1765.189	4.699	0.002	0.63868	19.93	ug/L	
i 0-	72	304111.249	1.441	304111.249			ug/L	
> Ge   , As			0.820	0.003	0.63900	34.19	ug/L	
As-1	75 <sub>3</sub>	417.441	15.996	-0.000	-0.01808	284.15	ug/L	. 14
Se	77	219.672	8.808	0.000	0.16400	123.78	ug/L	
Se	78 <sup>†</sup>	14353.132	0.734	0.003	2.72601	28.24	ug/L	
Se   Br	79	8348.583	2.454	-0.047			ug/L	
Se	82	325.676	1.546	0.000	0.02803	66.86	ug/L	
L 3e Kr	83	285.341	1.729	-37.668			ug/L	
	107	1792.528	4.302	-0.000	-0.01996	51.68	ug/L	
Γ Ag I Cd	111	429.277	6.069	0.000	0.00824	170.05	ug/L	
Cd	114	28.993	16.993	-0.000	-0.00068	164.16	ug/L	S. Samer W.
i .	115	556136.431	1.430	556136.431			ug/L	Urur
> In   Sn	118	683.699	5.750	0.001	0.07456	9.45	ug/L	
[ Ba	135	70.001	11.693	0.000	0.01596	27.91	ŭg/L	
l Ba	137	115.335	14.774	0.000	0.01609	3 <u>1</u> .78	üg/L	
· -	159	610905.885	0.440	610905.885			ŭä/L	
> 1b   Pb	208	1255.713	1.925	0.000	0.00328	30.70 19.93	Ug/Ł	
L 15	200	,,			;	18.83	pg/L	
<u> </u>			QC Calculated Val	lues	. )	34.19	ug/L ug/L	
• •	1		•		Dilution % [			o⁄. Diff
Analyte		QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % L	123.78	ug/L	70 DIII
√> Sc	45		86.991		,	28.24	ug/L	
Cr	52					مهريور فياش	ug/L	
L Cr	53					66.86	ug/L	
Γ Zn	66					476,444	ું <del>ક. ⊬</del> વદુ/L	
Zn	67					i .6 '	ur I.	
Zn	68		00.457		•	Total	Lit.	
> Ge	72		90.457				1.4.	
As	75					*		Line
As-1	75							
Se	77						4	
Se	78							
Br	79					4:36	787.	
L Se	82					36-38	7. T.	
_ Kr	83				:	48.68	33/E	
Γ Ag	107						ug/L	
Cd	111				. :	34.19	vg/i.	
								C

Sample ID: MB1008D1 5X

Report Date/Time: Thursday, October 22, 2009 13:37:55

Page 1

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1	Cd	114	
>	In	115	88.698
L	Sn	118	
Γ	Ва	135	
	Ва	137	
>	Tb	159	89.931
Ŀ	Pb	208	

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34.18 TOO THE BURNESS OF 122.56

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TOTAL. 2.2

Sample ID: MB1008D1 5X

Report Date/Time: Thursday, October 22, 2009 13:37:55

Sample ID: SB1008D1 5X

Sample Date/Time: Thursday, October 22, 2009 13:39:36

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\SB1008D1 5X.011

Report Date/Time: Thursday, October 22, 2009 13:41:08

Page 1

				Concentration Resu	ılts				
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. RSD	Sample	Unit
С.	_	45	278798.082	1.363	278798.082			ug/L	
>	. Sc Cr	52	399105.773	4.349	1.392	42.80834	3.77	ug/L	
l I	Cr	53	48782.376	1.570	0.159	42.11831	3.18	ug/L	
L F		66	49197.606	1.486	. 0.163	43.89958	1.36	ug/L	
	Zn	67	9284.499	1.989	0.029	43.56944	4.03	ug/L	
1	. Zn	68	37956.533	3.916	0.124	45.17379	3.70	ug/L	
ļ.	Zn	72	296440.207	2.035	296440.207			ug/L	
>		75		3.242	0.198	43.81921	1.50	ug/L	
!	As	75	59611.211	1.588	0.200	43.63174		cug/L	
	As-1	75	7	2.866	0.014	42.47742	1.88	ug/L	
ļ	Se	77 1	4450.801	3.410	0.050	45.58965	2.68	ug/L	
.	Se	78 <sup>°</sup>	27912.430	0.334	-0.048	-10.00000	2.00	ug/L	
ļ	Br	79	7896.173	2.674	0.019	44.75210	4.99	ug/L	
L	Se	82	5978.693	1.503	-33.001	4-7.1 0210		ug/L	
_	Kr	83	290.008		0.662	45.68450	3.78	ug/L	
Γ	Ag	107	365175.696	0.453	0.130	39.94034	3.87	ug/L	
1	Cd	111	71994.402	0.884		42.81817	2.72	ug/L	
1	Cd	114	175400.953	1.376	0.320	42.01017	2.12	ug/L	Unit
>	> In	115	549027.193	3.273	549027.193	42.71290	5.93	üg/L üg/L	
L	Sn	118	252741.211	2.660	0.461			ug/L ug/L	
Γ	Ва	135	80662.312	3.175	0.133	42.67284	2.70		
	Ва	137	141098.225	2.927	0.233	41.56981	3.76	นัg/L ผม	
:	> Tb	159	604964.601	0.867	604964.601	10 11050		dg/Ľ Jg/L	
L	Pb	208	1052630.686	2.091	1.738	42.44353	1.25 3.70	ug/L	
				QC Calculated Val	100		a eres	ug/L	
	·*	;		•			1.50	ug/L	D:66
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff		ıp⊍Rêl. %	חום פ
Γ>	Sc	45		84.933		:	1,88	ug/L	
-	Cr	52				3	2,68	ug/L	
Ĺ	Cr	53						ug/L	
Ī	Zn	66			•		4.99	ug/L	
Ì	Zn	67						n@\ _	
i	Zn	68					2.71	uș /f.	
>	Ge	72		88.175			27	$\mathbf{u}_1$	
i	As	75							Livi.
i	As-1	75						•	
i	Se	77						Ci i	
i	Se	78						4	
1	Br	79						uį	
i	Se	82						uş/L	
L	Kr	83					1.25	üg/E	
Γ	Ag	107						uga.	
i I	Cd	111					1.50		
1						4 Diff		<u></u>	TVIEE
	Sample	ID: SR	1008D1 5X			5 149	1.83		וווע כ
	Jampie	,D. OD	.0000 , 0/1				1.53	ug/L	

2.55 ug/L

a se lug/L

	Cd	114	
>	In	115	87.564
L	Sn	118	
Ī	Ва	135	
1	Ва	137	
>	Tb	159	89.057
j	Pb	208	

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Sample ID: SB1008D1 5X

Report Date/Time: Thursday, October 22, 2009 13:41:08

Sample ID: 10-074-01c 5X

Sample Date/Time: Thursday, October 22, 2009 13:42:50

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-01c 5X.012

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas, Intens, RSD	Net Intens. Mean	Conc. Mean · Co	nc. RSD	Sample Unit
Γ>	Sc	45	300706.603	5.203	300706.603			ug/L
ĺ	Cr	52	29574.031	3.646	0.059	1.81369	11.55	ug/L
i	Cr	53	5558.755	0.963	0.003	0.68388	40.36	ug/L
Γ̈́	Zn	66	1517.809	2.510	0.002	0.55311	4.06	ug/L
i	Zn	67	759.373	6.428	0.001	0.89615	31.66	ug/L
i	Zn	68	2293.979	2.660	0.003	1.24625	9.75	ug/L
>	Ge	72	307073.105	2.501	307073.105			ug/L
1 2	As	, 75 <u>.</u>	14282.061	2.623	0.004	0.79756	64.33	ug/L
	As-1	75	718 720	12.837	0.001	0.19436	40.21	ug/L
i i	Se	77	284.674	4.056	0.000	0.76863	7.62	ug/L
i í	Se	78	14518.732	1.920	0.003	2.82644	65.61	ug/L
i	Br	79	30148.283	4.729	0.023			ug/L
i	Se	82	370.011	3.117	0.000	0.34317	35.95	ug/L
_	Kr	83	303.341	3.525	-19.668			ug/L
Γ	Ag	107	4266.395	16.603	0.004	0.27738	30.34	ug/L
i	Cd	111	429.583	2.964	0.000	0.00421	128.90	ug/L
į	Cd	114	57.793	16.058	0.000	0.00601	35.21	ug/L " Unit
j>	ln	115	566158.678	1.042	566158.678		•	ug/L
ĺ	Sn	118	989.397	3.596	0.001	0.12259	4.50	ug/L
Ē	Ва	135	17797.257	2.764	0.029	9.28358	0.75	ug/L
i	Ва	137	31779.434	0.448	0.052	9.23648	2.96 4.03	ug/L ug/L ug/L
>	Tb	159	612598.014	3.311	612598.014			ŭġ/Ľ
Ĺ	Pb	208	2031.442	1.464	0.001	0.03415	71.69 75.75	ug/L

							ug/L	
	^		QC Calculated Val	ues		54.53	ug/L	
	Analyte	Mass QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff		p⊭Rel. % Diff	
Γ>	Sc	45	91.607		\$	7.62	ug/L	
1	Cr	52			*	55,61	ug/L	
i	Cr	53					ug/L	
ř	Zn	66				35.95	ug/L	
j	Zn	67					ug/L	
i	Zn	68				30,34	ugΛ.	
i>	Ge	72	91.338			1 (3)	(عا	
i	As	75				•	i del	
j	As-1	75				•	**	
j	Se	77					.:	
j	Se	78					<b>∀</b> ,	
ĺ	Br	79						
Ĺ	Se	82				Sibi	38/2	
	Kr	83			,	T4:94	Hg/E	
Γ	Ag	107					ug/u	
	Cd	111				õ4 33	มยู/โ	

Sample ID: 10-074-01c 5X

Report Date/Time: Thursday, October 22, 2009 13:44:21

Page 1

6 Diff < 0. DupuRel. % Diff

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	Cd	114	
>	In	115	90.296
Ĺ	Sn	118	
Γ	Ва	135	
ĺ	Ва	137	
>	Tb	159	90.181
i :	D1-	000	

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Sample ID: 10-074-01c 5X

Report Date/Time: Thursday, October 22, 2009 13:44:21

Sample ID: 10-074-01cD 5X

Sample Date/Time: Thursday, October 22, 2009 13:46:03

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-01cD 5X.013

## Concentration Results

				Concentration Resi	IITS			
_	Analyte	Mass 45	Meas. Intens. Mean 306886.741	Meas. Intens. RSD 2.936	Net Intens. Mean 306886.741	Conc. Mean Cor	ıc. RSD	Sample Unit ug/L
>	Sc		29506.782	1.980	0.057	1.74129	5.78	ug/L
ì	Cr	52	5592.443	1.799	0.002	0.60898	35.69	ug/L
Ļ	Cr	53 66	1474.134	2.249	0.002	0.48544	5.14	ug/L
ļ	Zn	66 67	772.374	1.244	0.001	0.87142	4.53	ug/L
ļ	Zn Z-	67 68	2279.975	2.536	0.003	1.16686	6.44	ug/L
	Zn	72	314176.797	0.325	314176.797			ug/L
>	Ge			0.730	0.004	0.85681	8.73	ug/L
15	· As	75 75	755.257	15.207	0.001	0,20680	38.05	ug/L
	As-1	77	268.673	6.515	0.000	0.55619	29.32	ug/L
ļ	Se	77 78	14946.760	0.512	0.003	3.06394	6.67	ug/L
1	Se	76 79	32202.597	1.398	0.028			ug/L
	Br C-	79 82	384.679	9.229	0.000	0.38676	66.23	ug/L
L	Se	83	301.341	2.974	-21.668			ug/L
_	Kr	107	1814.533	3.311	-0.000	-0.02857	19.15	ug/L
	Ag	111	450.293	5.541	0.000	0.00739	179.78	ug/L
l	Cd Cd	114	50.091	16.707	0.000	0.00379	47.52	ua/l
		115	585496.396	0.954	585496.396			ug/L Unit
>	ln Sn	118	767.041	16.388	0.001	0.08208	24.97	üg/L
L F	Ba	135	18518.706	2.999	0.029	9.17013	2.26	ug/L
i	ва Ва	137	33044.979	2.867	0.051	9.11562	3.77	ug/L
1	Tb	159	645151.769	0.928	645151.769		C. I.,	ŭά/Ľ
>	Pb	208	1826.090	1.763	0.001	0.02222	7.46	ug/L ug/L
L	FD	200	1020.000			•	<del>د</del> به ۲	
>				OC Calculated Val	<b>400</b>		A 196	ug/L
4			<b>}</b>	QC Calculated Val			8.73	ug/L
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff		ipuRêl. % Diff
[>	Sc	45 <sup>3</sup>	•	93.490		<b>≠</b>	29.32	ug/L
1	Cr	52				;	5.67	ug/L.
L	Cr	53					iin me	ug/L
Γ	Zn	66					÷6,23	JG/L

	>			QC Calculated Val	ues	,	8.73	ug/L ug/L	
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	38 <b>©</b> u		% Diff
[>	Sc	45		93.490			29.32	ug/L	
i	Cr	52	•			;	5.67	ug/L	
Ĺ	Cr	53					in se	ug/L	
Ē	Zn	66					≐6,23	ug/L	
İ	Zn	67						up/L	
İ	Zn	68					*	Ψŗ	
>	Ge	72		93.451				GF .	
j	As	75					٤.		Link
	As-1	75							
	Se	77						ui Si	
	Se	78					18 J	u. Al	
	Br	79					377	UÇ/L Hehr	
L	.Se	82					축· 회교	40/C	
	Kr	83				•	7 46	űg/L űg/L	
Γ	Ag	107						ug/L	
	′Cd	111				,	5.73	ug/L	

Sample ID: 10-074-01cD 5X

Report Date/Time: Thursday, October 22, 2009 13:47:35

Page 1

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	Cd	114	
>	ln	115	93.381
Ĺ	Sn	118	
Γ	Ва	135	
1.	Ва	137	
>	Tb	159	94.973
Ĺ	Pb	208	

Marie de la Caración

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Sample ID: 10-074-01cD 5X

Report Date/Time: Thursday, October 22, 2009 13:47:35

Sample ID: 10-074-01cL 25X

Sample Date/Time: Thursday, October 22, 2009 13:49:18

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-01cL 25X.014

## Concentration Doculta

				Concentration Resu	ılts				
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Samp	le Unit
[>	Sc	45	294322.644	3.737	294322.644			ug/L	
1	Cr	52	15191.836	1.218	0.012	0.37115	14.03	ug/L	
l I	Cr	53	4344.748	2.250	-0.001	-0.30627	71.04	ug/L	
· L	Zn	66	1642.165	4.828	0.002	0.60840	12.29	ug/L	
1	Zn	67	612.360	5.066	0.000	0.07415	170.12	ug/L	
. 1	Zn	68	1872.212	1.363	0.002	0.66089	2.39	ug/L	
1.	Ge	72	319013.434	0.662	319013.434			ug/L	
>	As			1.956	0.003	0.59405	43.35	ug/L	
;	As-1	75 <sub>-</sub> 75 .	501.181	14.545	0.000	0.02510	208.27	ug/L	1 1 2 1 1
1 -	Se	77 .	232.005	3.683	0.000	0.17758	44.12	ug/L	
 	Se	77 78	14926.061	1.463	0.003	2.34939	37.17	ug/L	
 		79	15695.361	0.373	-0.026			ug/L	
1	Br	82	340.010	0.882	0.000	0.01625	235.18	ug/L	
L	Se	83	296.341	3.329	-26.668			ug/L	
г	Kr ^~	107	868.050	2.339	-0.002	-0.13565	2.63	ug/L	
	Ag	111	467.237	5.521	0.000	0.02673	49.62	ug/L	
1	Cd	114	40.563	21.542	0.000	0.00207	118.28	ug/L	
	Cd	115	561639.289	4.207	561639.289		•	ug/L	Unit
>	in C		513.353	2.241	0.000	0.04533	3.67	ug/L	
L	Sn	118	3823.176	3.855	0.006	1.96205	5.96	ug/L	
	Ва	135	6392.312	3.623	0.010	1.82643	2.72	นั่น/L	
	Ba	137	617941.451	2.044	617941.451	**********		ug/L ug/L	
>	Tb	159	1834.758	1.701	0.001	0.02562	170.12 9. <b>74</b> 2.39	ug/L	
L	Pb	208	1034.730	1.701	0.001	3.0200	2.39		
. ,				QC Calculated Value	169	.: š	43.35.	ug/L ug/L	
1			:				Diff 208.2Dt		% Diff
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %	44.12	ip⊭isei. ug/L	70 DIII
•	Sc	45		89.663		•	37,17	ug/L	
•	Cr	52					31,11	ug/L	
-	Cr	53					235.18	ug/L	
•	Zn	66					230.10	ug/L UÇ/L	
•	Zn	67					. 4	d .	
•	Zn	68		04.000		,			
	Ge	72		94.890					
	As	75							333
•	As-1	75							
•	Se	77							
•	Se	78					43	# # #:	
	Br	79	•				4.5	uçra Vəfi	
	Se	82					7842	HEAL	
	Kr	83				•	13.75 18.75 18.75	и <b>с/</b> с 113/С 13/С	
	Ag	107						40/12	
1	Cd	111					43 35	ug/L	

Sample ID: 10-074-01cL 25X

Report Date/Time: Thursday, October 22, 2009 13:50:50

Page 1

43 35 - ug/L 6 Diff 208.20up. Rel. % Diff 44.12 tig t.

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1	Cd	114	
>	In	115	89.576
L	Sn	118	
ſ	Ва	135	
ĺ	Ва	137	
>	Tb	159	90.967
1	m.	200	

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Sample ID: 10-074-01cL 25X

Report Date/Time: Thursday, October 22, 2009 13:50:50

Sample ID: 10-074-01cMS 5X

Sample Date/Time: Thursday, October 22, 2009 13:52:32

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-01cMS 5X.015

## Concentration Results

				Concentration Resi	IITS			
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Co	nc. RSD	Sample Unit
[>	Sc	45	318443.573	5.259	318443.573			ug/L
l'	Cr	52	394843.399	2,691	1.204	37.02764	8.34	ug/L
i	Cr	53	50231.141	5.202	0.142	37.70142	11.96	ug/L
ŗ	Zn	66	55100.413	2.166	0.168	45.10544	1.19	ug/L
i	Zn	67	9481.371	2.221	0.027	40.62610	4.03	ug/L
İ	Zn	68	39033.069	3.354	0.117	42.53805	4.96	ug/L
>	Ge	72	323230.968	1.538	323230.968			ug/L
. !	As	75		3.842	0.185	41.01451	6.52	ug/L
30.	As-1			2.561	0.191	41.82713	4.02	ug/L
:	Se	77	4981.081	0.238	0.015	43.65766	1.37	ug/L
	Se	78 <sup>1</sup>	29254.297	1.814	0.046	42.29722	6.49	ug/L
	Br	79 '	30963.311	2.841	0.021			ug/L
Ì	Se	82	6615.475	3.908	0.019	45.41092	2.80	ug/L
L	Kr	83	297.341	3.179	<b>-</b> 25.668			ug/L
Г	Ag	107	327927.712	7.672	0.556	38.34665	8.07	ug/L
1	Cd	111	78024.470	2.139	0.132	40.49298	1.71	ug/L
İ	Cd	114	186217.715	3.471	0.318	42.55201	4.79	ug/L Unit
>	In	115	586455.753	1.346	586455.753		٠	ug/L
	Sn	118	255562.860	2.365	0.435	40.38242	2.38	ug/L
F	Ва	135	102234.659	2.978	0.161	51.52061	3.23	ug/L
	Ва	137	175295.728	0.728	0.276	49.18155	1.40	úg/Ľ
>	Tb	159	635235.635	1.190	635235.635			ug/L
	Pb	208	1025540.195	1.876	1.613	39.38119	1.74 4.96	ug/L ug/L
L-						•	4.50	ug/L
>				QC Calculated Val	ues		6.52	ug/L
\$		,	: OC Ctd 9/ Becovery	Int Std % Recovery	Spike % Recovery	Dilution % Dif		ıp. Bel. % Diff
	Analyte		QC Std % Recovery	97.011	opine with covery	Bliddion 70 Bit	1.37	ug/L
•	Sc	45	:	97.011			6.49	ug/L
•	Or On	02						ug/L
_	Cr	53					2.80	ug/L
•	Zn Z	66 67						ug/L
,	Zn Z	67					1.0.3	uç/L
· .	Zn O-	68 73		96.144			***	u,
	Ge	72 75		30.177				•
•	As A = 4	75						on Cont
•	As-1	75 77						
•	Se	77 78						J
	Se Br	76 79						A. A. A. A. A. A. A. A. A. A. A. A. A. A
	Br Se	79 82						ág/ti
_	se Kr	83		•			7.74	
	Ag	107					କ ଅଧି	uÇfi
	⊷g Cd	111						uç/L
1 '	Çu	111					8 62	ugá.

Sample ID: 10-074-01cMS 5X

Report Date/Time: Thursday, October 22, 2009 13:54:05

Page 1

6 52 Light £ Diff 4 "Duplifielt, % Diff

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	Cd	114	
>	In	115	93.534
Ĺ	Sn	118	
Γ	Ва	135	
1.	Ва	137	
>	Tb	159	93.513
Ì	Pb	208	

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Sample ID: 10-074-01cMS 5X

Report Date/Time: Thursday, October 22, 2009 13:54:05

Sample ID: 10-074-01cMSD 5X

Sample Date/Time: Thursday, October 22, 2009 13:55:47

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-01cMSD 5X.016

## Concentration Results

	į,	•	7		Concentiation Nes	suits		, 29	457
•	,	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean		Sample Unit
- [	>	Sc	45	299757.590	1.210	299757.590		: 07	ug/L
1		Cr	52	393890.673	1.264	1.275	39.20140	1.29	ug/L
į		Cr	53	51105.798	2.103	0.155	40.91875	1.79	ug/L
Ī		Zn	66	50277.148	0.424	0.159	42.82061	1.89	ug/L
i		Zn	67	9602.169	3.681	0.029	42.99286	5.57	ug/L
į		Zn	68	38718.436	4.416	0.121	43.95016	3.57	ug/L
į:	>	Ge	72	310461.420	1.532	310461.420			ug/L
ĺ		As	75	76194.308	2.513	0.203	44.93201	4.92	ug/L
j		As-1	75	62835.474	2.140	0.201	43.93050	3.72	ug/L
j		Se	77	4923.049	1.910	0.015	44.97756	1.82	ug/L
i		Se	78	30255.232	0.491	0.053	48.63094	3.56	ug/L
i		Br	79	30794.042	0.446	0.024			ug/L
i		Se	82	6231.199	3.709	0.019	44.48884	3.00	ug/L
	٠.	Kr .	83	294.341	5.849	<b>-</b> 28.668		,	úg/L
Γ		Ag	107	294811.612	5.310	0.502	34.66486	6.01	ug/L
ĺ	2	'Cd	111	75517.502	2.099	0.129	39.45037	4.36	ug/L
ĺ		Cd	114	175392.597	1.108	0.301	40.32405	Conc. RSD	ug/L Sa/nple Unit
ĺ	>	In	115	582912.854	2.306	582912.854	<i>)</i>		ug/L
Ĺ		Sn	118	254205.398	2.795	0.436	40.43941	4.96 4.86	ug/L
Ī		Ва	135	97877.099	3.331	0.158	50.61819	4.86	üğ/L
j		Ва	137	175015.856	3.276	0.283	50.37795	3.84	ug/L
İ	>	Tb	159	619248.492	1.633	619248.492		1.58	ug/L
Ĺ		Pb	208	1010063.076	0.647	1.629	39.79197	1.04	ug/L

#### QC Calculated Values

				QC Calculated Vali	ues		•		
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Du	p. Rel. %	Diff
[>	Sc	45		91.318				*7	
	Cr	52						<u></u>	
L	Cr	53						ugi	
Γ	Zn	66					0.00	15/1	
1	Zn	67						ug/L	
İ	Zn	68					6 01	ug/h.	
>	Ge	72		92.346			4,30	ug/L	
İ	As	75	•			H Gune	321	ug/L Sg/Lipin	Cayron
	As-1	75				7 - Xa 39 Ma		rig/E.r.	120 CL
	Se	77					4 96	Dig/L	
	Se	78				,	4:85	üğ/L	٠
	Br	79					3.84	ug/E	
L	Se	82					i de la companya de l	u¢/L	
	Kr	83					1.0.		
Γ	Ag	107						Turi	
	Cd	111						•	

Sample ID: 10-074-01cMSD 5X

Report Date/Time: Thursday, October 22, 2009 13:57:20

Page 1

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1	Cd	114	
>	İn	115	92.968
	Sn	118	
Ī	Ва	135	
i	Ва	137	
<b> </b> >	Tb	159	91.160
i	Dh	208	

Sample ID: 10-074-02c 5X

Sample Date/Time: Thursday, October 22, 2009 13:59:03

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-02c 5X.017

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
Γ>	Sc	45	304445.574	2.088	304445.574			ug/L
i	Cr	52	37383.436	2.133	0.083	2.55968	3.09	ug/L
i	Cr	53	6392.978	1.764	0.005	1.34177	12.89	ug/L
Ē	Zn	66	3325.308	1.029	0.007	1.89844	2.36	ug/L
j	Zn	67	1120.080	2.751	0.001	2.18905	9.44	ug/L
i	Zn	68	3172.586	2.785	0.005	1.97735	1.63	ug/L
>	Ge	72	334560.293	2.106	334560.293			ug/L
· j	As	75	27435.728	1.393	0.039	8.66901	6.14	ug/L
·i '	As-1	75	13415.492	1.886	0.039	8.44807	3.21	ug/L
i ·	Se '	77	242.006	2.863	0.000	0.16688	51.60	ug/L
- i i	Se	78 : .	14943.088	0.700	0.000	0.41895	216.28	ug/L
įŧ	Br	79 🔙	24493.538	1.883	-0.002			ug/L
Ĺi	Se	82 1	358.677	9.202	0.000	0.02824	636.15	ug/L
-	Kr	83	311.342	0.669	-11.667			ug/L
Γ	Ag	107	3292.970	14.080	0.002	0.13714	48.47	ug/L
	Cd	111	890.119	8.113	0.001	0.22614	20.69	ug/L
ĺ	Cd	114	683.706	0.895	0.001	0.14492	Oona. RSD	ug/L
>	ln	115	600939.819	3.413	600939.819		1,000,000,000,000	ug/L
L	Sn	118	1515.809	8.976	0.002	0.19507	14.67	úg/L
Γ	Ва	135	12857.549	1.644	0.019	6.19522	2.58	ug/L
	Ва	137	22765.033	1.575	0.034	6.10838	1.18	ug/L
>	Tb	159	662475.800	0.927	662475.800			ug/L
Ĺ	Pb	208	54257.138	1.760	0.080	1.95326	1.67	ug/L

## QC Calculated Values

				QC Calculated Val	ues		S. 1	14 25 1 in
	Analyte	Mass	QC Std % Recovery	int Std % Recovery	Spike % Recovery	Dilution % Diff	13.2 <b>Du</b> j	p⊮Rel. % Diff
[>	Sc	45		92.746		;	ວິກ.ດິປີ	ug/L
i	<sup>2</sup> Cr	52	•			,	316.28	ug/L
Ŀ	Cr	53	A r					üg/L
Γ	Zn	66	* •				536.15	ug/L
1	Zn	67						ug/L
l	Zn	68					48.47	ug/L
>	Ge	72		99.514			20.69	ug/L
1	As	75					a 405	ac/L Styffing appet G
	As-1	75						ig All Control
1	Se	77		•				$\mathcal{O}_{i}^{(i)}$
-	Se	78					•	•
1	Br	79						
L	Se	82						
	Kr	83						•
Γ	Ag	107						•
1	Cd	111						

Sample ID: 10-074-02c 5X

Report Date/Time: Thursday, October 22, 2009 14:00:36

Page 1

Dir J. Cup. Rel % Diff

13.00 55% D16.08 65%

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	Cd	114	
>	In	115	95.844
Ĺ	Sn	118	
Ī	Ва	135	
İ	Ва	137	
>	Tb	159	97.523
Ĺ	Pb	208	

Sample ID: 10-074-02c 5X

Report Date/Time: Thursday, October 22, 2009 14:00:36

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Sample ID: 10-074-03c 5X

Sample Date/Time: Thursday, October 22, 2009 14:02:19

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-03c 5X.018

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Sc	45	300909.628	3.414	300909.628			ug/L
i	Cr	52	21685.050	0.525	0.033	1.00079	8.34	ug/L
i	Cr	53	4249.036	2.133	-0.002	-0.47772	36.43	ug/L
ř	Zn	66	1571.152	3.639	0.002	0.54606	12.74	ug/L
i	Zn	67	1044.737	6.877	0.001	2.07248	19.57	ug/L
i	Zn	68	3405.005	0.979	0.007	2.40333	1.99	ug/L
>	Ge	72	319717.107	1.735	319717.107			ug/L
i	As	75	14919.061	0.511	0.004	0.82512	21.85	ug/L
i.	As-1 ,	75	894.052	4.181	0.001	0.29263	7.32	ug/Ĺ
j :	Se :	77	229.005	6.594	0.000	0.14391	73.03	ug/L
Ì	Se	78	14986.827	0.794	0.003	2.43317	30.63	ug/L
ŀ	Br `	79 🤄	27579.721	1.574	0.011			ug/L
i i	Se	82 3	373.011	3.782	0.000	0.25157	23.61	ug/L
_	Kr	83 -	302.008	6.395	-21.001			ug/L
Γ	Ag	107	1735.517	8.938	-0.000	-0.02915	69.01	ug/L
İ	Cd	111	462.590	4.451	0.000	0.02419	63.97	ug/L
ĺ	Cd	114	604.351	4.213	0.001	0.13657	Cenc. <b>6.21</b>	ug/L Seimple Unit
ĺ>	in	115	561785.273	1.735	561785.273		12010-11012	ug/L
Ĺ	Sn	118	1255.433	1.627	0.002	0.16781	2.74	ŭġ/L
Ī	Ва	135	78977.462	4.383	0.125	40.04918	2.53	ug/L
ĺ	Ва	137	132383.401	1.592	0.210	37.40112	3.35	üg/L
İ>	Tb	159	630956.888	1.873	630956.888			ug/L
Ĺ	Pb	208	2163.457	2.558	0.002	0.03683	6.05	ug/L
_								**:

## QC Calculated Values

				QC Calculated Val	ues		21.8%	ug/c
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	7 3Du	p. Rel. % Diff
[>	Sc	45		91.669			73.03	49/ <u>L</u>
i	Cr	52	£			*	30.63	ug/L
Ĺ	Cr	53	•					ug/L
Ē	Zn	66	* ***			• •	23.61	ug/L
ĺ	Zn	67						ug/L
İ	Zn	68				,	59.01	ug/L
İ>	Ge	72		95.099			63.97	ug/L
İ	As	75				·	. 為新	Sept. Circle
j	As-1	75						- 40 34
j	Se	77						: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ĺ	Se	78						٠ أ
	Br	79						
Ĺ	Se	82		•				
	Kr	83						•
٢	Ag	107						
	Cd	111						er Spr

Sample ID: 10-074-03c 5X

Report Date/Time: Thursday, October 22, 2009 14:03:53

Page 1

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	Cd	114	
>	In	115	89.599
Ĺ	Sn	118	
Γ	Ва	135	
	Ва	137	
.   >	ďT	159	92.883
L	Pb	208	

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Sample ID: 10-074-03c 5X

Report Date/Time: Thursday, October 22, 2009 14:03:53

Sample ID: 10-074-04c 5X

Sample Date/Time: Thursday, October 22, 2009 14:05:36

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-04c 5X.019

Concentration i	Resul	ts
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	A	14	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Conc	. RSD	Sample Unit
r	Analyte	Mass 45	316401.088	2.656	316401.088			ug/L
>	Sc	45 52	23933.385	2.807	0.036	1.11097	10.85	ug/L
1	Cr	52 53	4388.437	2.318	-0.002	-0.54502	30.17	ug/L
Ļ	Cr	53 66	1765.856	3.562	0.003	0.74717	4.09	ug/L
	Zn	67	640.362	8.999	0.000	0.27258	88.98	ug/L
.	Zn		2230.963	3.193	0.003	1.13149	10.00	ug/L
	Zn	68 72	311722.542	2.322	311722.542			ug/L
>	Ge	75	15784.859	0.473	0.008	1.70830	14.13	ug/L
ļ·	As	•		6.938	0.005	1.09550	6.07	ug/L
1	As-1	75 ; 77	~ 239.672	10.198	0.000	0.30353	86.24	ùg/L
	Se	77 78	14710.373	0.474	0.003	2.73106	42.25	ug/L
	Se	70 79	32306.646	2.354	0.029			ug/L
	Br	82	366.011	6.425	0.000	0.26820	47.01	ug/L
L	Se	83	295.341	5.026	-27.668			ug/L
г	Kr	107	1079.075	1.935	-0.002	-0.10916	5.09	ug/L
	Ag ·	111	381.964	12.196	-0.000	-0.01953	82.96	ug/L
1	Cd Cd	114	44.171	10.800	0.000	0.00292	35.68	ug/L
		115	559511.497	4.436	559511.497			ug/L
>	ln C=	118	714.369	0.530	0.001	0.07907	6.08	ug/L
Ļ	Sn	135	5463.365	4.621	0.009	2.76427	2.95	ug/L
	Ba	137	9183.396	2.303	0.015	2.59022	3.44 4.03	dg/L
l I	Ba Tb	159	627986.014	1.809	627986.014			ug/L
>	Pb	208	2476.823	4.142	0.002	0.04938	68,98 <b>4.58</b> 10.00	Ug/L →
L	Ļυ	200				•	70.00	ug/L
,				QC Calculated Va	lues	± 5	14.73	ug/L
			QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	6 🛈	ıp⊭Rel. % Diff
	Analyte	Mass	QC Std % Recovery	96.389		;	38.24	uy/L
•	Sc	45 50		00.000			42.25	ug/L
•	Cr	52					, .	ug/L
_	Cr	53 66					47 01	cic /IL
	Zn	67						ur .
	Zn	68					•	ş f
ļ	Zn	72		92.721			•	
>	Ge As	75						4, 743
1		75						
1	As-1	73 77						1."
I	Se Se	7 <i>1</i> 78					: 4:	ig fil
1	Br	79					7.4.2	
1	Se	82					ساء مد الأنا إمرية	ĭğ/L
L	06	02					4,55	ŭď/Ľ

Sample ID: 10-074-04c 5X

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Report Date/Time: Thursday, October 22, 2009 14:07:09

Page 1

Kr

Ag

Cd

Co	114	
> In	115	89.236
Ĺ Sr	118	
_ Ba	135	•
l Ba	137	
> Tt	159	92.446
Ĺ PŁ	208	

Sample ID: 10-074-04c 5X Report Date/Time: Thursday, October 22, 2009 14:07:09

Sample ID: QC Std 3

Sample Date/Time: Thursday, October 22, 2009 14:08:47

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 3.020

				• • • • • • • • • • • • • • • • • • • •				•
•	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Co	nc. RSD	Sample Unit
Γ>	Sc	45	292739.510	1.072	292739.510			ug/L
1/	Cr	52	941434.567	3.398	3.176	97.68242	2.37	ug/L
i	Cr	53	114498.148	1.778	0.375	99.35220	2.76	ug/L
L F	Zn	66	120252.732	2.855	0.382	102.80097	1.65	ug/L
1	Zn	67	22251.757	1.137	0.069	102.57854	3.51	ug/L
1	Zn	68	87760.164	1.439	0.277	100.85517	1.56	ug/L
1		72	312528.116	2.850	312528.116			ug/L
>	Ge	75	155859.195	3.138	0.456	101.21279	6.47	ug/L
1	As As 4	75 75	144228.056	2.867	0.461	100.64382	5.62	ug/L
	As-1	73 77	10835.229	1.078	0.034	100.72103	2.60	ug/L
	Se		49698.333	1.778	0.115	104.96648	6.42	ug/L
İ	Se	78 70	8414.314	4.128	-0.048			ug/L
- !	Br	79	14013.266	0.463	0.044	102.51799	3.09	ug/L
L	Se	82	320.009	3.292	-3.000			ug/L
_	Kr	83	850731.564	1.911	1.448	99.87870	2.05	ug/L
ļ	Ag	107	182823.909	2.492	0.311	95.22291	2.55	ug/L
	Cd	111		2.007	0.735		onc. RSD	
	Cd	114	431119.383	0.181	586242.996	i G	ans, RSD	ug/L Sample Unit ug/L
>	ln	115	586242.996	3.676	1.067	98.92540	3. <u>69</u>	ដ <u>8</u> /∟
Ľ,	Sn	118	625505.318		0.306	98.13714		üğ/E
Γ	Ва	135	196330.777	0.982	0.548	97.74135	1.14 0.52	üğ/E
	Ва	137	351243.105	1.061		37.74100	7.65	ug/E
>	Tb	159	640534.821	1.280	640534.821	98.40790	1.00	ug/L ug/L
L	Pb	208	2582126.445	0.895	4.030	30.40730	1.56	18/L

## OC Calculated Values

				QC Calculated Vali	400			N# "
[>	Analyte Sc	Mass 45	QC Std % Recovery	Int Std % Recovery 89.180	Spike % Recovery	Dilution % Diff	Du	p∌Rel. % Diff
	Cr	52	97.682					
i	Cr	53	99.352					i
ř	Zn	66	102.801	•			*	~k <sub>1</sub> .
i	Zn	67	102.579					-6
i	Zn	68	100.855				20)	ugiL
>	Ge	72		92.961			2.55	ปฏ <i>่</i> ใน
ĺ	As	75	101.213			Conc	ASB	99/L Caprole Unit
i	·As-1	75	100.644			,	a aa	49/L
j	´Se	77	100.721			į	3 34	10/L
i	Se	78	104.966			•	1.14	49/L 49/L
i	Br	79				•	\$ <b>52</b>	HUG/L
i	Se	82	102.518				i ĝo	ug/L
_	Kr	83					นเน็ก	uc/L
Γ	Ag	107	99.879					wa si
į	Cd	111	95.223				:	£.

Sample ID: QC Std 3

Report Date/Time: Thursday, October 22, 2009 14:10:21

Page 1

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1	Cd	114	98.516	
>	ln	115		93.500
ĺ	Sn	118	98.925	
Ĩ	Ва	135	98.137	
j	Ва	137	97.741	
>	Tb	159		94.293
Ĺ	Pb	208	98.408	

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Sample ID: QC Std 4

Sample Date/Time: Thursday, October 22, 2009 14:13:03

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 4.021

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas, Intens, RSD	Net Intens. Mean	Conc. Mean Conc.	RSD	Sample Unit
[>	Sc	45	305564.205	1.140	305564.205			ug/L
1>	Cr	52	392003.599	1.662	1.243	38.24279	1.60	ug/L
-	Cr	53	47877.721	4.456	0.141	37.25444	3.77	ug/L
Ĺ	Zn	66	50214.535	2.714	0.155	41.68228	2.37	ug/L
1	Zn	67	9338.893	4.133	0.027	40.59721	1.60	ug/L
] 	Zn	68	36098.935	3.048	0.109	39.83875	3.03	ug/L
  -	Ge	72	318395.130	2.905	318395.130			ug/L
>	As	75	72516.990	2.151	0.185	41.00083	1.71	ug/L
l	As-1	75	58895.290	1.928	0.184	40.11563	1.29	ug/L
1	Se	77	4447.133	2.981	0.013	39.38835	2.85	ug/L
.	Se	78	29289.735	0.577	0.048	43.66491	4.55	ug/L
11	Br	79	6431.672	1.148	-0.055			ug/L
-	Se	82 \		2.660	0.017	40.03879	4.96	ug/L
L:	Kr	83 :		8.582	-31.001			ug/L
Г	Ag	107	339449.863	4.257	0.579	39.92031	4.95	ug/L
1	Cd	111	73436.611	4.703	0.125	38.37103	8.53	ug/L
	Cd	114	174952.064	2.224	0.300	40.21842 Conc	5.82 RSD	ug/L ug/L ug/L
>	In	115	583525.007	3.747	583525.007	Control (Co.		
	Sn	118	243478.651	2.679	0.417	38.72310	6.42	ug/L
L r	Ва	135	80562.843	5.242	0.128	41.04803	4.74	úg/L
1	Ва	137	143814.220	2.636	0.229	40.80606	2.98	üg/L
	Tb	159	628074.427	0.964	628074.427			ug/L
> 	Pb	208	1041160.059	1.435	1.656	40.43571	0.48	ug/L

#### OC Calculated Values

				QC Calculated val	ues			Mit.
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	∴2Du	p⊭Rel. % Diff
г		45	do cia /i corre.,	93.087	•	*	2.86	ug/L
>	Sc		95.607	33.33.			4 55	ug/Ľ
ı	Cr	52						ug/L
L	Cr	53	93.136				1 150	
Ē	Zn	66	104.206			\$	4.96	ug/L
i	Zn	67	101.493					ug/L
1		68	99.597				4.95	ug/L
l	Zn		55.551	94.706		, 2	6,53	ug/L
>	Ge	72		94.700				
	As	75	102.502			11.34	à.\$? R\$55	ug/L Jg/L Jg/L
ĺ	As-1	75	100.289					
i	Se	77	98.471				6.43	uç/11
i	Se	78	109.162				×.7	uř 4.
i	Br	79						<u>}</u>
i	Se	82	100.097					
_	Kr	83						:
Γ	Ag	107	99.801					
	Cd	111	95.928					· · · · · · · · · · · · · · · · · · ·

Sample ID: QC Std 4

Report Date/Time: Thursday, October 22, 2009 14:14:35

Page 1

WALLES W Diff

4.23 1.152 2. 4.544 2.345 - 389 4

1	Cd	114	100.546	
1>	ln	115		93.066
	Sn	118	96.808	
Ī	Ва	135	102.620	
j	Ва	137	102.015	
>	Tb	159		92.459
Ĺ	Pb	208	101.089	

Sample ID: QC Std 5

Sample Date/Time: Thursday, October 22, 2009 14:17:17

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 5.022

Concer	tration	Results
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				Concentration Rest	มเธ				
	Analyte	Mass	Meas. Intens. Mean	Meas. intens. RSD	Net Intens. Mean	Conc. Mean Con	c. RSD	Sample !	Unit
-[>	Sc	45	302262.267	2.816	302262.267		E4 00	ug/L	
ĺ	Cr	52	12400.910	1.138	0.001	0.04464	51.82	ug/L	
i	Cr	53	3879.201	4.080	-0.003	-0.81978	21.83	ug/L	
ř	Zn	66	938.058	4.647	0.000	0.02399	114.99	ug/L	
1	Zn	67	508.353	4.505	-0.000	-0.37593	36.39	ug/L	
l	Zn	68	1336.778	2.507	0.000	0.07086	136.64	ug/L	
>	Ge	72	315152.241	4.356	315152.241			ug/L	
	As	75 ;	14122.548	2.354	0.002	0.42837	136.18	ug/L	
1	As-1	75 <sup>^</sup>	355.579	10.544	-0.000	-0.07201	29.06	ug/L	
1	Se	77	204.004	1.297	-0.000	-0.05734	107.80	ug/L	
1	Se	78	14573.822	2.237	0.002	1.91639	128.45	ug/L	
1	Br	79	5597.780	3.124	-0.057			ug/L	
1	Se	82	315.675	4.921	-0.000	-0.13234	90.67	ug/L	
L	Kr	83	286.341	8.906	-36.668			ug/L	
Г	Ag	107	2973.853	9.897	0.002	0.10440	31.37	ug/L	
1	Cd	111	499.321	8.626	0.000	0.03038	74.37	ug/L	
	Cd	114	28.833	19.912	-0.000	-0.00113	112.54	ųg/L	Unit
1.	ln .	115	591502.427	0.481	591502.427			ùg/L	Otto
>	Sn	118	739.371	4.625	0.001	0.07643	6.32	üg/L	
L r	Ba	135	36.334	20.288	-0.000	-0.00226	183.19	űg/L	•
1	Ba	137	62.668	6.644	0.000	0.00009	1137.54	úg/L	
1.	Tb	159	632083.893	2.781	632083.893	:	200 01 12	ūg/L	
>	Pb	208	1049.035	3.152	-0.000	-0.00638	21.14 136.64	ug/L	
L	Ľρ	200	10 101000				130.04	1.19/L	
				QC Calculated Val	ues		136.18	ug/L	
	A 1- 4-	11-00	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	. 9. <b>9</b> Dı	ıp⊭Rel. %	Diff
_	Analyte	Mass	QC 310 % Necovery	92.081			107.80	บg/L	
1 -	Sc	45 50		02.001			:28 45	ug/L	
•	Cr	52						ug/L	
1	Cr	53						•	

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	19. SDuj		% Diπ
[>	Sc	45		92.081			107.80 :28.45	ug/L ug/L	
	Cr	52					. <u>.</u> .⊖	ಸ್ಥಳು ಸ್ಥಳಿಟ	
L	Cr	53					4 5	di .	
Γ	Zn	66							
	Zn	67							
	Zn	68							
>	Ge	72		93.741					
Ì	As	75						.3	Desi
j	As-1	75							
j	Se	77						-44.42 -54.42	
İ	Se	78			•		20.47 (4.47	ug/L	
İ	Br	79					1737.54	ug/L úg/L	
Ĺ	.Se	82					सम्बद्ध	1197E	

Sample ID: QC Std 5

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Report Date/Time: Thursday, October 22, 2009 14:18:48

Page 1

Kr

Αg

Cd

Diff Is (Dup. Bel. % Diff

136 16 tg/L

ug/L

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	Cd	114	
ĺ>	In	115	94.338
ĺ.	Sn	118	
Ē	Ва	135	
1	Ва	137	
>	Tb	159	93.049
Ĺ	Pb	208	

Ship All on Dire

Sample ID: 10-074-05c 5X

Sample Date/Time: Thursday, October 22, 2009 14:21:37

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-05c 5X.023

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Sc	45	300796.603	2.036	300796.603			ug/L
	Cr	52	26182.930	2.675	0.047	1.46087	7.44	ug/L
Ì	Cr	53	4479.482	1.647	-0.001	-0.27510	52.25	ug/L
ř	Zn .	66	3816.173	2.830	0.009	2.53015	7.41	ug/L
i	Zn	67	942.058	0.829	0.001	1.71970	8.47	ug/L
	Zn	68	3502.710	1.641	0.007	2.62907	3.50	ug/L
>	Ge	72	310880.224	2.797	310880.224			ug/L
	As	75	15541.106	0.763	0.007	1.56730	21.69	uġ/L
i	As-1	75 <sup>^</sup>	1873.756	3.397	0.005	0.99881	2.82	ug/L
Ì	Se	77	225.338	11.413	0.000	0.17286	154.35	ug/L
İ	Se	78	14559.796	0.977	0.003	2.41085	54.03	ug/L
i	Br	79	28847.664	1.948	0.018			ug/L
1	Se	82	347.010	6.814	0.000	0.13214	83.08	ug/L
_	Kr	83	301.675	7.310	-21.334			ug/L
Γ	Ag	107	2467.697	13.514	0.001	0.06216	68.49	ug/L
i	Cd	. 111	444.242	11.872	0.000	0.01522	202.40	ug/L
i	Cd	114	115.680	29.655	0.000	0.02004	40,66	ug/L
>	In	115	559392.674	1.255	559392.674		•	ug/L
ĺ	Sn	118	6585.451	1.721	0.011	1.05260	2.58	úg/Ľ
ŗ	Ва	135	5190.533	1.174	0.008	2.71539	1.37	űg/L
i	Ва	137	9202.414	1.315	0.015	2.68308	1.82	üg/L
>	Tb	159	607486.502	0.524	607486.502	· ·	A	ug/L
	Pb	208	11912.511	2.096	0.018	0.43195	1.75 3.50	ug/L
								ug/L

				QC Calculated Val	ues	;	21.69	ug/L	
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff		p.⊧Rel. ¹	% Diff
[>	Sc	45		91.635			134.38	49/iL	
i	Cr	52		•			54.00	ug/L	
Ĺ	Cr	53					1 1 N	ug/L	
Ī	Zn	66					,	4.	
į	Zn	67						:	
ĺ	Zn	68							
>	Ge	72		92.470					
	As	75						:	) int
	As-1	75					٠٠.		
	Se	77					2.5	93 d.	
ĺ	Se	78					4.3. 3.3. 3.2.		
}	Br	79				•	). <u>Ş</u> z	ug/c	
L	.Se	82					9.45.2	地址	
	Kr	83				,		ug/E	•
Γ	Ag	107						ug/L	
1	Cd	111					11.68	eget.	

Sample ID: 10-074-05c 5X

Report Date/Time: Thursday, October 22, 2009 14:23:11

Page 1

Dix Labup Rel. % Off

CONTRACTOR STREET SE

	Cd In	114 115	89.217
>	Sn	118	
F	Ва	135	
İ	Ва	137	
<b> </b> >	Tb	159	89.428
i	Dh	208	

Sample ID: 10-074-06c 5X

Sample Date/Time: Thursday, October 22, 2009 14:24:54

Number of Replicates: 3 Batch ID: E091022E

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\10-074-06c 5X.024

## Concentration Results

				00,,00,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Sc	45	275364.345	1.714	275364.345			ug/L
i	Cr	52	20368.329	0.428	0.034	1.05797	4.41	ug/L
i	Cr	53	3901.209	1.673	-0.002	-0.46751	26.55	ug/L
ř	Zn	66	1227.762	3.102	0.001	0.39918	5.89	ug/L
i	Zn	67	548.355	3.870	0.000	0.12286	52.34	ug/L
İ	Zn	68	1826.202	1.614	0.002	0.89206	3.16	ug/L
>	Ge	72	280833.225	1.635	280833.225			ug/L
	As	75	14757.685	1.153	0.010	2.13197	14.40	ug/L
ì	As-1	75	1333.921	3.496	0.003	0.71989	6.16	ug/L
i	Se	77	229.339	2.195	0.000	0.44320	20.79	ug/L
i	Se	78	14314.405	1.127	0.007	6.17849	19.56	ug/L
1	Br	79	19142.332	2.479	-0.007			ug/L
1	Se	82	346.010	4.651	0.000	0.40581	35.99	ug/L
L.	Kr	83	296.674	5.938	<b>-</b> 26.334			ug/L
٢	Ag	107	1092.410	6.451	-0.001	-0.09463	16.64	ug/L
i.	Cd	111	392.164	5.623	0.000	0.00721	312.52	ug/L
i	Cd	114	29.152	27.774	0.000	0.00004	<b>5601.50</b> Conc. RSD	ug/L Sample Unit ug/L
>	<b>i</b> n	115	511670.965	4.545	511670.965	ž.		gg/Libie oriii
ĺ	Sn	118	441.682	1.508	0.000	0.04071	11.83	ug/L
ř	Ва	135	8972.853	3.576	0.016	5.11991	2.54	ug/L
i	Ва	137	15314.060	4.724	0.027	4.87027	11.83 2.54 2.612 6.8	úğ/L
>	Tb	159	558857.151	1.484	558857.151		0.Q8 0.08	ug/L
	Pb	208	1157.374	1.124	0.000	0.00366	15.26	ug/L
L	•						3, 10	
				00011111111	•			ug II.

## QC Calculated Values

				<b>4 6 6 6 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7</b>		·	S.1 .
_	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff Du	p.:Rel. % Diff
>	Sc	45		83.887		•	
	Cr	52					
L	Cr	53					ů,
Γ	Zn	66				A. Maria	9)
İ	Zn	67				•	diji.
j	Zn	68				tê d⊀	48.F
j>	Ge	72		83.533		312.52	45/L
ĺ	As	75				5304,50 Cuna 480	ug/L Samule Unit
	As-1	75					ug/L
	Se	77				11 83	üg/L
	Se	78				234	ug/C
	Br	79				A Company	- <u>ù g/L</u>
Ĺ	Se	82				37.3	ug/L
	Kr	83				75.20	
Γ	Ag	107				·	· 4 / 1.
l	Cd	111					

Sample ID: 10-074-06c 5X

Report Date/Time: Thursday, October 22, 2009 14:26:28

Page 1

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1	Cd	114	
>	In	115	81.606
Ĺ	Sn	118	
Γ	Ва	135	
1	Ва	137	
>	Tb	159	82.269
Ĺ	Pb	208	

Sample ID: 10-074-06c 5X Report Date/Time: Thursday, October 22, 2009 14:26:28

Sample ID: QC Std 3

Sample Date/Time: Thursday, October 22, 2009 14:28:06

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 3.025

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Sc	45	275764.894	4.792	275764.894			ug/L
ĺ	Cr	52	919028.261	1.399	3.298	101.44987	5.19	ug/L
i	Cr	53	111345.874	0.855	0.389	102.87951	5.99	ug/L
ř	Zn	66	112356.994	4.238	0.372	100.22957	1.76	ug/L
i	Zn	67	21047.215	1.046	0.068	101.24659	2.54	ug/L
i	Zn	68	86237.617	3.479	0.284	103.61531	6.67	ug/L
>	Ge	72	299379.309	3.429	299379.309			ug/L
ĺ	As	75	151425.059	0.491	0.463	102.73804	3.22	ug/L
i	As-1	75	140545.781	0.809	0.468	102.34853	3.02	ug/L
ĺ	Se	77	10652.362	6.545	0.035	103.61098	10.01	ug/L
i	Se	78	47165.249	3.091	0.113	103.53518	3.76	ug/L
i	Br	79	6724.221	2.632	-0.052			ug/L
į	Se	82	13357.277	2.503	0.044	101.96122	0.96	ug/L
-	Kr	83	299.675	6.056	-23.334			ug/L
Γ	Ag	107	818684.959	1.524	1.450	100.04864	3.68	ug/L
j	Cd	111	177361.329	1.784	0.314	96.18708	4.73	ug/L
i	Cd	114	408168.765	0.837	0.725	97.08916	Cone <b>3.34</b>	ug/L Semple Unit ug/L
i>	In	115	563636.455	3.561	563636.455	;		ug/L
1	Sn	118	600992.895	1.698	1.067	98.98213	5.18	ug/L
Ī	Ва	135	188582.291	1.226	0.302	96.76170	5.18 2.25	ŭĝ/L
İ	Ва	137	340260.803	3.650	0.546	97.25821	5.98	ŭg/Ľ
İ>	Tb	159	624210.100	2.910	624210.100	ŧ	2.53	ug/L
Ĺ	Pb	208	2523520.348	0.699	4.043	98.72683	2.26 3.3	ug/E

#### QC Calculated Values

				QC Calculated Val	lues		3.27 4974
[>	Analyte Sc	Mass 45	QC Std % Recovery	Int Std % Recovery 84.009	Spike % Recovery	Dilution % Diff	Dup⊷Rel. % Diff
ĺ	Cr	52	101.450				
L	Cr	53	102.880				
Γ	Zn	66	100.230				
	Zn	67	101.247				Property of
İ	Zn	68	103.615				Take uga.
>	Ge	72		89.050			4.73 ug/t
	As	75	102.738			. Same	ASS work
j	As-1	75	102.349			, · · ·	ug/L
İ	Se	77	103.611			ŗ	5.18 93/L
j	Se	78	103.535			:	<b>李老</b> 斯 · 東作
1	Br	79					5:53 üğ/L
ĺ	Se	82	101.961				i ig/L
_	Kr	83		,			2.25 ug/L
Γ	Ag	107	100.049		•		and the second s
j	Cd	111	96.187				ent fer i de en en et e

Sample ID: QC Std 3

Report Date/Time: Thursday, October 22, 2009 14:29:39

Page 1

481

	Cd	· 114	97.089	
>	ln	115		89.894
Ĺ	Sn.	118	98.982	٠
Γ	Ва	135	96.762	
	Ва	137	97.258	
>	Tb	159		91.890
1	Ph	208	98 727	

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Sample ID: QC Std 3 Report Date/Time: Thursday, October 22, 2009 14:29:39 Page 2

Sample ID: QC Std 4

Sample Date/Time: Thursday, October 22, 2009 14:32:22

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 4.026

## Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
[>	Sc	45	292930.659	1.955	292930.659			ug/L
	Cr ·	52	395459.909	4.743	1.311	40.33216	6.30	ug/L
L	Cr	53	47173.247	2.069	0.145	38.42844	3.23	ug/L
Γ	Zn	66	48626.230	2.260	0.155	41.70116	1.29	ug/L
	Zn	67	8925.805	3.012	0.027	40.07626	3.36	ug/L
	Zn	68	35468.082	1.261	0.111	40.47563	3.20	ug/L
>	Ge	72	308120.707	1.807	308120.707			ug/L
. 1 :	As	75 :	70962.704	0.808	0.187	41.57310	3.22	ug/L
'	As-1	75	58654.695	0.639	0.189	41.29044	1.19	and the second s
	Se	77	4248.369	2.842	0.013	38.84357	1,27	ug/L
	Se	78	28227.716	1.996	0.047	43.31400	6.90	ug/L
	Br	79	5163.518	2.227	-0.058			ug/L
L	Se	82	5870.622	3.622	0.018	42.10476	2.40	ug/L
	Kr	83	320.676	4.458	-2.333			ug/L
ſ	Ag	107	335453.588	2.053	0.584	40.31412	1.80	ug/L
	Cd	111	70496.106	3.303	0.123	37.58866	3.86	ug/L
1	Cd	114	173659.195	0.917	0.304	40.76408	0.44	ua/l
>	In	115	570651.631	0.876	570651.631			ug/L Unit
L	Sn	118	238119.461	3.567	0.417	38.66277	3.33	นีg/L
ſ	Ва	135	77927.419	1.799	0.128	41.02839	1.22	ug/L
1	Ва	137	139079.390	3.569	0.229	40.77261	3.81	ŭğ∕L
>	Tb	159	607885.396	0.829	607885.396		1.29	ug/L
Ĺ	Pb	208	1025686.603	0.407	1.685	41.16241	3.17	ug/L

	ē			QC Calculated Val	1105			սց/ւ	
	*				ues	1 .	3.22	ugrL	
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	1.1Du	p∺Rel. ¹	% Diff
[>	Sc	45		89.239	•		1.27		
	Cr	52	100.830				6 90	ug/L	
L	Cr	53	96.071					Jø/L	
Γ	Zn	66	104.253				2 40	üçn.	
	Zn	67	100.191						
	Zn	68	101.189						
>	Ge	72		91.650					
	As	75	103.933						
	As-1	75	103.226						Otal
	Se	77	97.109					d .	
	Se	78	108.285		•			Ge At	
	Br	79					3.87	ud t	
L	-Se	82	105.262				1120	ug/L	
	Kr	83				•	Ŷ. Ť?	úá/L	
Γ	Ag	107	100.785			2	5.20	dg/L	
	Cd	111	93.972				3 227	pgd ng/L	

Sample ID: QC Std 4

Report Date/Time: Thursday, October 22, 2009 14:33:54

Page 1

5.84 054

	Cd	114	101.910	
>	ln	115		91.013
	Sn	118	96.657	
F	Ва	135	102.571	
i	Ва	137	101.932	
>	Tb	159		89.487
1	DЬ	208	102 906	

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Sample ID: QC Std 4
Report Date/Time: Thursday, October 22, 2009 14:33:54

Sample ID: QC Std 5

Sample Date/Time: Thursday, October 22, 2009 14:36:35

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022E.mth

Dataset File: C:\elandata\Dataset\E091022E\QC Std 5.027

## Concentration Results

	Concentration Results									
	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit		
[>	\$c *	45 '	284881.700	1.957	284881.700	0.04444	70.54	ug/L		
	Cr	52	11683.621	1.727	0.001	0.04411	76.51	ug/L		
İ	Cr	53	3656.106	4.348	-0.003	-0.82044	22.08	ug/L		
Ī	Zn	66	895.386	2.170	0.000	0.01050	168.45	ug/L		
i	Zn	67	468.350	3.405	-0.000	-0.49827	23.85	ug/L		
i	Zn	68	1336.112	3.486	0.000	0.11526	75.75	ug/L		
>	Ge	72	305908.085	2.036	305908.085			ug/L		
i	As	75	13862.565	1.618	0.002	0.52622	39.38	ug/L		
ì	As-1	75	383.881	13.404	-0.000	-0.04394	90.31	ug/L		
i	Se	77	211.005	9.862	0.000	0.06934	343.39	ug/L		
İ	Se	78	14241.290	1.483	0.002	2.13982	37.15	ug/L		
1	Br	79	4718.272	3.122	-0.059			ug/L		
1	Se	82	299.008	3.394	-0.000	-0.18988	52.40	ug/L		
L	Kr	83	307.342	5.714	-15.667			ug/L		
Г	Ag	107	3049.214	12.980	0.002	0.13472	44.50	ug/L		
- 1	Cd	111	489.040	2.829	0.000	0.03975	34.81	ug/L		
	Cd	. 114	24.610	15.752	-0.000	-0.00174	<b>63.78</b> Conc RSD	ug/L Se/Liple Unit ug/Liple		
1		115	559513.903	3.032	559513.903	;	Conc Rou	ug/Lipie or iii		
>	Sn	118	797.376	4.289	0.001	0.09281	_ <u>8.7</u> 5	ug/L		
L	Ba	135	35.334	15.587	-0.000	-0.00301	103.35	ug/r		
1	Ba	137	63.001	6.919	-0.000	-0.00003	3111.51 158.45	ug/L		
1	<del></del> 1-	159	639384.946	1.965	639384.946	ī,	190,40	ug/L		
>	Pb	208	954.697	5.889	-0.000	-0.01046	17.83	üğ/L üğ/L		
L	. ~					,	: : :::::::::::::::::::::::::::::::::::	ug/L ug/L		
				QC Calculated Val	ues		39.33	ug/L		
	A a le el-a	Mana	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution %		ıp⊭Rel. % Diff		
г	Analyte	Mass	WO Sta 1/2 MECOVERY	86.787	Spino to thospital		•			
>	Sc	45 52		55.767	1			<u> </u>		

				QC Calculated val	ues	38.3	A GENT
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup⊭Rel. % Diff
Γ>	Sc	45		86.787		•	Ž
1	Cr	52			1		No.
i	Cr	53					1.
ř	Zn	66					71
i	Zn	67					45
i	Zn	68					-
>	Ge	72		90.991		34.8	••
	As	75				000 A 82.7	g D Sample Unit
İ	. As-1	75	1			200 11 11 11	
İ	Se	77					5 98% 1 98%
ĺ	Se	78				1U4.3	o ug/L 8 Jail
İ	Br	79				3113.2	3 <b>49/</b> E
Ĺ	Se	82					e 19/L
_	Kr	83				7.8	3 <b>49/L</b> 6 49/L
٢	Ag	107					W <sub>o</sub> Au
ĺ	Cd	111				97 2000 - 100 2000 - 100	
						•	tur. / ! Diff

Sample ID: QC Std 5

Report Date/Time: Thursday, October 22, 2009 14:38:07

	Cd In	114 115	89.237
-	Sn	118	
Ī	Ва	135	
İ	Ва	137	
>	Tb	159	94.124
i	DI <sub>2</sub>	200	

Sample ID: QC Std 5

Report Date/Time: Thursday, October 22, 2009 14:38:07

# Sample/Batch Report

User Name: kmckinney Computer Name: ICPMS2

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1:

Sample File: C:\Elandata\Sample\E091022F.sam

Report Date/Time: Thursday, October 22, 2009 17:02:49

Walter .

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A/S Loc.	Batch ID		Description
9	E091022F	MB1022D1 5	5X
10	E091022F	SB1022D1 5	X
11	E091022F	10-074-02c (	5X
12	E091022F	10-074-05c	5X

Sample ID: Blank

Sample Date/Time: Thursday, October 22, 2009 16:14:03

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\Blank.001

## Concentration Results

Analyte Mass Meas. Intens. Mean Meas. Intens. RSD Net Intens. Mean    Net Intens. Mean   Net Intens. Mean	Conc. Mean Conc. RSD	Sample Unit ug/L ug/L ug/L
---	----------------------	-------------------------------------

				QC Calculated Val	ues		
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Tb	159					
	₽b	208	3 .				
	∜Bi	1209	7	•			
	ļ		ÀÉ				•

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Unit

5 Diff Dup, Rel % Diff

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Oup Rai # D#

Sample ID: Blank

Report Date/Time: Thursday, October 22, 2009 16:14:26

Sample ID: Standard 1

7 4

Sample Date/Time: Thursday, October 22, 2009 16:16:03

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\Standard 1.002

#### Concentration Results

[>   	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 630076.393 534735.191 474099.680	Meas. Intens. RSD 2.689 3.385 1.407	Net Intens. Mean 630076.393 0.847 0.012	Conc. Mean Conc	RSD Sample Unit ug/L 2.62 ug/L ug/L
[>	Analyte Tb	Mass 159	QC Std % Recovery	QC Calculated Val	ues Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
1	Pb Bi	208 209					

Conc. RSD Sample Unit 100 ug/2 1 100 2.62 ug/L ug/L

a Diff Oup. Ref. % Diff

o as RSD Salabo Unit

263 ug/L

Can Ray World

Sample ID: Standard 1

Report Date/Time: Thursday, October 22, 2009 16:16:27

Sample ID: Standard 2

Sample Date/Time: Thursday, October 22, 2009 16:19:09

Number of Replicates: 3

208 209

Batch ID:

Рb

Bi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\Standard 2.003

Concen	tration	Results
COHCER	панон	Noouno

[>	Analyte Tb Pb	159 208	630806.463 1076052.937	Meas. Intens. RSD 1.906 0.579 2.538	Net Intens. Mean 630806.463 1.705 0.015	Conc. Mean Conc. R: 40.04955 2.	SD Sample Unit ug/L .43 ug/L ug/L
Ĺ	Bi	209	476548.681	2.538	0.015		ug/ =

## QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Γ>	Tb	159					

AND MILLSON 1. . . )..

> I Conc RSD Sample Unit ug/L 2.43 ug/L

ug/L

alikela sepalah sag

202 375

State of the second

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, Como RSD Sample Unit 1.77

3.43 July L

22/4

Sample ID: Standard 2

Report Date/Time: Thursday, October 22, 2009 16:19:34

Page 1

City

Sample ID: Standard 3

Sample Date/Time: Thursday, October 22, 2009 16:22:17

Number of Replicates: 3

208

Batch ID:

₽b

ΰBi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\Standard 3.004

Conce	ntration	Results
しんけんしし	пианоп	1 1000110

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean Co	onc. RSD	Sample Unit
	Allalyte	Mass			004074 047			ug/L
Γ.	Tb	159	634071.817	1.990	634071.817			ug/L
>	15	.00		4 4 11 4	4.080	99.28421	1.95	ug/L
- 1	Pb	208	2587470.651	1.154	4.000	99.20421	1.00	<b>.</b>
!			400704.007	1.390	-0.011			ug/L
	Bi	209	462794.697	1.590	0.011			• •

#### OC Calculated Values

				QO Odiodiaioa van	400		
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Γ.	Th	150					

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Sample ID: Standard 3

Report Date/Time: Thursday, October 22, 2009 16:22:41

Page 1

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Sample ID: QC Std 1

Sample Date/Time: Thursday, October 22, 2009 16:25:25

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 1.005

## Concentration Results

	Analyt > Tb Pb Bi	159 208 209	Meas. Intens. Mean 664414.742 1360913.313 472637.318	Meas. Intens. RSD 0.849 1.222 1.792	Net Intens. Mean 664414.742 2.047 -0.029	Conc. Mean Conc 49.80625	RSD Sample Unit ug/L 1.52 ug/L ug/L
	· ·		± ₹ -	QC Calculated Val	ues		
r	Analyte	Mass 159	QC Std % Recovery	Int Std % Recovery 104.548	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Tb Pb	208	99.613				
Ĺ	Bi	209					

10 (KSt) Serrice Unit
 10 (Jg/L) 10 (10
 152 ug/L

19/L 19/L

6 Diff Dup. Rel. % Diff

Rich Supplied Conf.

- 67 ug/L ug/L

· Nat

Dup, Ret. % Diff

Sample ID: QC Std 1

Report Date/Time: Thursday, October 22, 2009 16:25:50

Sample ID: QC Std 2

Sample Date/Time: Thursday, October 22, 2009 16:28:32

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 2.006

### Concentration Results

- [;   	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 633380.644 1211.710 461772.112	Meas. Intens. RSD 1.078 4.381 0.895	Net Intens. Mean 633380.644 0.000 -0.012	Conc. Mean Conc 0.00534	c. RSD Sample Unit ug/L 42.94 ug/L ug/L
				QC Calculated Val	ues		
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
[>	Tb	159		99.665			
1	Pb	208					
L	Bi	209					

Conc. RSD Sample Unit ug/L 42.94 ug/L ug/L

Cher. Part Diff

- Conc ASD - Sample Unit - Utili

C) 64 10/1

ug/L

 $\bigcap : f^*$ 

Sample ID: QC Std 2

Report Date/Time: Thursday, October 22, 2009 16:28:55

Sample ID: QC Std 3

Sample Date/Time: Thursday, October 22, 2009 16:31:38

Number of Replicates: 3

208

1:

i -

1-209

1;

Batch ID:

<sup>‡</sup>Pb

βi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 3.007

99.242

### Concentration Results

[>	Analyte Tb Pb	159 208	Meas. Intens. Mean 653021.754 2664442.673 480170.119	Meas. Intens. RSD 2.825 3.215 1.339	Net Intens. Mean 653021.754 4.078 -0.005	Conc. Mean Co 99.24213	nc. RSD 0.43	Sample Unit ug/L ug/L ug/L
Ĺ	Bi	209	480170.119	1.339	-0.005			ug/L

#### **QC** Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Th	159	·	102.755			

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. L. i Dup, Rel % Diff

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Sample ID: QC Std 3

Report Date/Time: Thursday, October 22, 2009 16:32:03

Sample ID: QC Std 4

Sample Date/Time: Thursday, October 22, 2009 16:34:45

Number of Replicates: 3

11

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 4.008

## Concentration Results

	Analyto  > Tb  Pb  Bi	Mass 159 208 209	Meas. Intens. Mean 643763.868 1086345.780 477613.076	Meas. Intens. RSD 1.915 0.858 3.644	Net Intens. Mean 643763.868 1.686 0.002	Conc. Mean Conc 41.03834	2.80	Sample Unit ug/L ug/L ug/L
	ż		<b>(</b> )	QC Calculated Val	ues			
Γ>	Analyte Tb	Mass 159	QC Std % Recovery	Int Std % Recovery 101.298	Spike % Recovery	Dilution % Diff	Du	p. Rel. % Diff
	Pb Bi	208 209	102.596					

Cano RSD Semale Unit ug/L 2,80 ug/L ug/L

a Diff Dup Rel. % Diff

er RStyl Sprane God agri 2 tu lega

Den uga Den

Dup. Re. 3. Diff

Sample ID: QC Std 4

Report Date/Time: Thursday, October 22, 2009 16:35:10

Sample ID: QC Std 5

Sample Date/Time: Thursday, October 22, 2009 16:37:51

Number of Replicates: 3

209

Batch ID:

Bi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 5.009

Concentration R	esul	ts
-----------------	------	----

[> 	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 633566.410 1240.045 453029.349	Meas. Intens. RSD 0.081 6.683 2.203	Net Intens. Mean 633566.410 0.000 -0.026	Conc. Mean C 0.00640	 Sample Unit ug/L ug/L ug/L
Ĺ	Bi	209	453029.349	2.200			

#### **QC** Calculated Values

			QO Odiodiaio	<del>-</del>		
Tb	Mass 159	QC Std % Recovery	Int Std % Recovery 99.694	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
Pb	208					

t Conc. RSD Sample Unit ug/L 50:26 ug/L ug/L

er of the test

118-2

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1, 100

∵u i i Diff

Cur.

Conn. RSD - Sampid Unit.
 Fugfi.
 30:26 - ugfi.

zo ug/L ug/L

Sample ID: QC Std 5

Report Date/Time: Thursday, October 22, 2009 16:38:15

Sample ID: MB1022D1 5X

Sample Date/Time: Thursday, October 22, 2009 16:41:01

Number of Replicates: 3
Batch ID: E091022F

159 208

₹ 209

Pb Bi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\MB1022D1 5X.010

## Concentration Results

[>	Analyte Tb Pb Bi	Mass 159 208 209	Meas, Intens. Mean 643386.130 991.364 470786.373	Meas. Intens. RSD 2.263 3.126 1.976	Net Intens. Mean 643386.130 -0.000 -0.009	Conc. Mean Conc -0.00373	24.43	Sample Unit ug/L ug/L ug/L
				QC Calculated Val		- u u ol =100	_	D 1 0/ D:#
	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Duj	p. Rel. % Diff

101.239

t ind RSD Scorne Unit

Dub. F.El In Diff

化多数分离 医三硫酸

Sample ID: MB1022D1 5X

Report Date/Time: Thursday, October 22, 2009 16:41:24

Sample ID: SB1022D1 5X

Sample Date/Time: Thursday, October 22, 2009 16:43:05

Number of Replicates: 3 Batch ID: E091022F

209

Bi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\SB1022D1 5X.011

Concentration F	Results
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[>       	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 659612.193 1111934.989 480228.220	Meas. Intens. RSD 1.538 0.589 1.685	Net Intens. Mean 659612.193 1.684 -0.013	Conc. Mean Conc. RSD: Sample Unit ug/L: 40.98606 1.27 ug/L: ug/L:
.•				OC Coloulated Va	luos	

				QC Calculated vali	ues	
>	Analyte Tb Pb	Mass 159 208	QC Std % Recovery	Int Std % Recovery 103.792	Spike % Recovery	Dilution % Diff Dup Rel. % Diff

3、高级市的基础。

Sample ID: SB1022D1 5X

Report Date/Time: Thursday, October 22, 2009 17:00:35

Sample ID: 10-074-02c 5X

Sample Date/Time: Thursday, October 22, 2009 16:45:11

Number of Replicates: 3 Batch ID: E091022F

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\10-074-02c 5X.012

## Concentration Results

[>	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 651089.577 59902.644 439091.165	Meas. Intens. RSD 2.051 0.593 1.685	Net Intens. Mean 651089.577 0.090 -0.066	Conc. Mean Co 2.19813	nc. RSD 1.54	Sampl ug/L ug/L ug/L	
							in the second se		

				QC Calculated Val	ues	
[> 	Analyte Tb Pb	Mass 159 208	QC Std % Recovery	Int Std % Recovery 102.451	Spike % Recovery	Dilution % Diff Dup Rel; % Diff
1	D;	209	1 *			

Sample ID: 10-074-02c 5X

Report Date/Time: Thursday, October 22, 2009 17:00:36

Sample ID: 10-074-05c 5X

Sample Date/Time: Thursday, October 22, 2009 16:47:16

Number of Replicates: 3 Batch ID: E091022F

209

Bi

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\10-074-05c 5X.013

Con	centra	tion Res	sults	
			Netherna Maan	Conc

•	Analyte	Mass	Mode. Interior tire		Net Intens. Mean 669393.946	Conc. Mean	Conc. RSD	Sample Ur ug/L	iit
۲۷	Tb	159	669393.946	1.597	*		0.05		-
	Pb	208	2774.523	2.318	0.002	0.05964	3.25	ug/L	35
i	Bi	209	473490.499	0.537	-0.033			ug/L	

#### QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
->	Tb	159		105.331			
	Pb	208					

i Conc. RSD Sample Unit ug/L 3:25 ug/L

uç /l\_

Qiff

, Danc RSD Samele Unit

328 W/L

uda,

Sample ID: 10-074-05c 5X

Report Date/Time: Thursday, October 22, 2009 17:00:37

Sample ID: QC Std 3

Sample Date/Time: Thursday, October 22, 2009 16:49:18

Number of Replicates: 3

209

Bi

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 3.014

$C\alpha$	ncer	tratio.	n Resi	ılts
$\cup \cup \iota$	1001	ппапо	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4110

[>.   	Analyte Tb Pb Bi	Mass 159 208 209	Meas. Intens. Mean 640468.109 2591896.274 463811.081	Meas. Intens. RSD 0.847 0.209 1.991	Net Intens. Mean 640468.109 4.045 -0.017	98.44447 0.97	Sample Unit ug/L ug/L ug/L
[>	Analyte Tb Pb	Mass 159 208	QC Std % Recovery	QC Calculated Val Int Std % Recovery 100.780	ues Spike % Recovery	Dilution % Diff D	up. Rel. % Diff

Cano RSD - Sample Unit ug/L - 0.97 - ug/L

: ug/L

Will.

Dir Dun Rel % Diff

Color, 1980 - Scandle Lind

ug/L

Dup Rei % Cit

Sample ID: QC Std 3

Report Date/Time: Thursday, October 22, 2009 17:00:39

Sample ID: QC Std 4

Sample Date/Time: Thursday, October 22, 2009 16:52:25

Number of Replicates: 3

47

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 4.015

Concentration .	Resul	ts
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_	Analyte		Meas. Intens. Mean 637765.348	Meas. Intens. RSD 1.797	Net Intens. Mean 637765.348	Conc. Mean Co	onc. RSD	Sample Unit ug/L
1>	Tb	159	03//03.540	****	4 222	44 40440	2.48	ug/L
ĺ	Pb	208	1079811.618	2.590	1.692	41.16446	2.40	·
į.	Bi	209	469968.751	4.326	-0.004			ug/L

#### QC Calculated Values

				QC Calculated Vali	163		V. V
1-	Analyte Tb Pb	Mass 159 208	QC Std % Recovery	Int Std % Recovery 100.354	Spike % Recovery	Dilution % Diff <sup>:</sup>	Dup. Rel. % Diff
1	·HI	: : 209	<b>5</b> :				

4

a follo

S. 111

Unit

dest.

Dup. Rel. % Diff.

·

Thip: Sel. % Giff

Jod

Sample ID: QC Std 4

Report Date/Time: Thursday, October 22, 2009 17:00:40

Sample ID: QC Std 5

Sample Date/Time: Thursday, October 22, 2009 16:55:31

Number of Replicates: 3

Batch ID:

Method File: C:\Elandata\Method\E091022F.mth

Dataset File: C:\elandata\Dataset\E091022F\QC Std 5.016

[;   	Analyte Tb Pb Bi		Meas. Intens. Mean 630476.077 1218.044 464277.054	Concentration Res Meas. Intens. RSD 1.471 0.833 3.749	ults Net Intens. Mean 630476.077 0.000 -0.004	Conc. Mean Conc 0.00579	c. RSD Sample Unit ug/L 10.07 ug/L ug/L
[> 	Analyte Tb Pb Bi	Mass 159 208 209	QC Std % Recovery	QC Calculated Val Int Std % Recovery 99.207	ues Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff

Conc. RSD Sample Unit

- Jack Diff

r Cond. RSU - Sample Ugit Inda -

> 10 07 ug/l. ug/L

拉等

Sample ID: QC Std 5

Report Date/Time: Thursday, October 22, 2009 17:00:41