SDG # 8304615

Close Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Tronox LLC, Henderson

SDG: 8304615
Lot #s: D9G220275, D9G230298, D9G230301, D9G240312, D9G250146, D9G250155 and D9G250157

Frank Hagar

Northgate Environmental Management, Inc.
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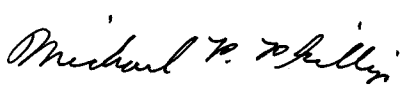
TestAmerica Laboratories, Inc.



Michael P. Phillips
Project Manager

August 17, 2009

Case Narrative
SDG 8304615

The samples presented in this report were submitted to TestAmerica by Northgate Environmental Management, Inc. from the Tronox/Henderson site. The samples were received according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated.

The results apply only to the samples included in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have been found to be compliant with laboratory protocols, with the exception of any items noted below.

Sample Receiving

Two samples including a MS/MSD were received under chain of custody at a temperature of 4.7°C on July 22, 2009, and were logged under lot D9G220275. One sample was received under chain of custody at temperatures of 2.5°C and 3.7°C on July 23, 2009, and was logged under lot D9G230298. Two samples were received under chain of custody at temperatures of 2.5°C and 3.7°C on July 23, 2009, and were logged under lot D9G230301. However, one of the samples (EB-071709-GW) was cancelled by the client on July 24, 2009. Both sample EB-071709-GW and the sample it was associated with, TR-6B, will be re-sampled. One sample was received under chain of custody at a temperature of 4.4°C on July 24, 2009, and was logged under lot D9G240312. One sample was received under chain of custody at a temperature of 0.4°C on July 25, 2009, and was logged under lot D9G250146. One sample was received under chain of custody at a temperature of 3.8°C on July 25, 2009, and was logged under lot D9G250155. One sample was received under chain of custody at a temperature of 3.8°C on July 25, 2009, and was logged under lot D9G250157. These lots are reported here under SDG 8304615.

GC Semivolatiles / Organophosphorus Pesticides – SW846 Method 8141A

The method required MS/MSD could not be performed for QC batch 9205274 due to insufficient sample volume; however, method precision and accuracy were demonstrated with acceptable LCS/LCSD data.

Total and Dissolved Arsenic and Selenium – SW846 Method 6020/Collision Cell

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. All of the samples analyzed for Total Arsenic, Total Selenium, Dissolved Arsenic or Dissolved Selenium were diluted by a factor of 5X due to the sample matrix. The reporting limits have been adjusted relative to the dilutions required.

The method required MS/MSD was performed for Total Metals QC batch 9204215 using sample D9G220275-001 (M-77B), as requested, and exhibited MS and MSD recoveries for Arsenic and a MSD recovery for Selenium outside the QC control limits. The

acceptable LCS and Method Blank results indicated that the analytical system was operating in control; therefore, corrective action was deemed unnecessary.

The method required MS/MSD was performed for Total Metals QC batch 9205162 using sample D9G230298-001 (M-33B) and all results were in control.

The method required MS/MSD was performed for Total Metals QC batch 9208088 using sample D9G240312-001 (CLD-4RB) and exhibited a MS recovery for Arsenic that was outside the control limits. Because the concentration of Arsenic in the parent sample was greater than 4X the spike amount, no corrective action was required.

The method required MS/MSD was performed for Dissolved Metals QC batch 9204219 using sample D9G220275-001 (M-77B) and all results were in control.

Quality Control Definitions of Terms

Term	Definition
Batch	A set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.
Laboratory Control Sample and Laboratory Control Sample Duplicate (LCS/LCSD)	A volume of reagent water for aqueous samples or a contaminant-free solid matrix (Ottawa sand) for soil and sediment samples which is spiked with known amounts of representative target analytes and required surrogates. A LCS is carried through the entire analytical process and is used to monitor the accuracy of the analytical process independent of potential matrix effects. An LCSD is a second Laboratory Control Sample.
Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A field sample fortified with known quantities of target analytes that are also added to the LCS. Matrix spike duplicate is a second matrix spike sample. MS/MSDs are carried throughout the entire analytical process and are used to determine sample matrix effect on accuracy of the measurement system. The accuracy and precision estimated using MS/MSD is only representative of the precision of the sample that was spiked.
Method Blank	A sample composed of all the reagents (in the same quantities) in reagent water carried through the entire analytical process. The method blank is used to monitor the level of contamination introduced during sample preparation steps.
Surrogate	Organic constituents not expected to be detected in environmental media and are added to every sample and QC at a known concentration. Surrogates are used to determine the efficiency of the sample preparation and the analytical process.
Sample Duplicate	A second aliquot of an environmental sample, taken from the same sample container when possible, that is processed independently with the first sample aliquot. The results are used to assess the effect of the sample matrix on the precision of the analytical process. The precision estimated using this sample is not necessarily representative of the precision for other samples in the batch.
Method Detection Limit "MDL"	The method detection limit is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from replicate analyses of low level standards in a typical representative matrix.
Reporting Limit "RL"	The TestAmerica reporting limit is normally the lowest level at which measurements become quantitatively meaningful, ie., the quantitation limit, which is approximately three times the MDL. Some projects require RLs that are less than the quantitation limit to achieve particular maximum contaminant levels (MCLs) or relevant and appropriate requirements (ARARs), but RLs cannot be less than the statistically determined MDL.

Quality Control Definitions of Qualifiers

Qualifier	Definition
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
a	Spiked analyte recovery is outside control limits.
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
DIL	The concentration is estimated or not reported due to dilution.
E	Estimated result. Result concentration exceeds the calibration range.
G	Inorganics: Elevated reporting limit. The reporting limit is elevated due to matrix interference.
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
ND	The analyte was not detected at the MDL concentration and with a measurable degree of confidence can be said not to be present at or above the RL concentration.
p	Relative percent difference (RPD) is outside stated control limits.
Q	Elevated reporting limit. The reporting limit is elevated due to high analyte levels.
V	General Chemistry: Elevated reporting limit due to limited sample volume.
Wa	Post digestion spike recovery fell between 40-85% due to matrix interference.
Wb	Post digestion spike recovery fell between 115-150% due to matrix interference.
I	Percent recovery is estimated since the results exceeded the calibration range.
T1	A tentatively identified compound that did not generate a spectral match of 80% or greater. Typically called "unknown"
T2	A tentatively identified compound with a spectral match of 80% or better
T3	A tentatively identified compound that was calibrated for by the lab, but not on the client target analyte list.
IC	Diluted due to high inorganic chloride.

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G220275

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
M-77B 07/20/09 09:30 001				
Arsenic	91	25	ug/L	SW846 6020
Selenium	5.3 B	25	ug/L	SW846 6020
M-77BDISS 07/20/09 09:30 002				
Arsenic - DISSOLVED	87	25	ug/L	SW846 6020
Selenium - DISSOLVED	6.6 B	25	ug/L	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G230298

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
M-33B 07/21/09 11:15 001				
Arsenic	55	25	ug/L	SW846 6020
Selenium	12 B	25	ug/L	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

D9G230301

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G240312

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
CLD-4RB 07/22/09 09:50 001				
Arsenic	380	25	ug/L	SW846 6020
Selenium	11 B	25	ug/L	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G250146

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-6RB 07/23/09 09:17 001				
Arsenic	160	25	ug/L	SW846 6020
Selenium	7.4 B	25	ug/L	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G250155

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
M-35B 07/24/09 11:10 001				
Arsenic	100	25	ug/L	SW846 6020
Selenium	5.1 B	25	ug/L	SW846 6020

(Continued on next page)

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G250157

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
M-52B 07/24/09 08:10 001				
Arsenic	180	25	ug/L	SW846 6020
Selenium	9.9 B	25	ug/L	SW846 6020

METHODS SUMMARY

8304615

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
ICP-MS (6020)	SW846 6020	SW846 3005A
ICP-MS (6020)	SW846 6020	SW846 3020A
Organophosphorous Compounds by GC	SW846 8141A	SW846 3510

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

8304615

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 6020	Thomas Lill	006929
SW846 6020	Thomas Lill	6929
SW846 8141A	Teresa L. Williams	002510

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

8304615 : D9G220275

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LGWWA	001	M-77B	07/20/09	09:30
LGWWD	002	M-77BDISS	07/20/09	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G230298

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG07X	001	M-33B	07/21/09	11:15

NOTE(S):

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(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G230301

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG074	001	M-97B	07/21/09	07:40

NOTE(S):

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(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G240312

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG282	001	CLD-4RB	07/22/09	09:50

NOTE(S):

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- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
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(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G250146

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG3WE	001	MW-6RB	07/23/09	09:17

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
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- Results noted as "ND" were not detected at or above the stated limit.
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- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G250155

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG3W9	001	M-35B	07/24/09	11:10

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
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- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G250157

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LG3XG	001	M-52B	07/24/09	08:10

NOTE(S):

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- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

QC DATA ASSOCIATION SUMMARY

D9G220275

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9204215	9204109
002	WG	SW846 6020		9204219	9204114

QC DATA ASSOCIATION SUMMARY

D9G230298

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9205162	9205102

QC DATA ASSOCIATION SUMMARY

D9G230301

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 8141A		9205274	

QC DATA ASSOCIATION SUMMARY

D9G240312

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9208088	9218077

QC DATA ASSOCIATION SUMMARY

D9G250146

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9208088	9218077

QC DATA ASSOCIATION SUMMARY

D9G250155

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9208088	9218077

QC DATA ASSOCIATION SUMMARY

D9G250157

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WG	SW846 6020		9208088	9218077

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G220275

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G220275

Lab Code: Case No.: SAS No.:

SOW No.:

Sample ID.	Lab Sample No.
M-77B	D9G220275-001
M-77BMS MS	D9G220275-001S
M-77BMSD MSD	D9G220275-001SD

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/3/09 Title: Metals Analyst

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Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77B
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G220275-001
Matrix:	WATER	**Lab WorkOrder:**	LGWWA
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204215	**Date/Time Analyzed:**	07/30/09 06:40
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**91**	1.0	25	
7782-49-2	Selenium	**5.3**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	40.0	39.1	97.8	50.0	50.6	101.2	50.5	101.0	M
Selenium	40.0	40.5	101.2	50.0	50.2	100.4	51.3	102.6	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	49.7	99.4	49.2	98.4	M
Selenium				50.0	49.7	99.4	49.5	99.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	49.1	98.2	49.3	98.6	M
Selenium				50.0	52.1	104.2	49.3	98.6	M

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

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.049	104.9		
Selenium				1.00	0.945	94.5		

Comments:

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Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G230000-215B
Matrix:	WATER	**Lab WorkOrder:**	LGXP7
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204215	**Date/Time Analyzed:**	07/30/09 06:34
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C		Preparation Blank	C		M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U		0.21	U		M
Selenium	0.700	U	0.700	U	0.700	U	-0.887	B		0.70	U		M

Comments:

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.49	99.38	99.4	0.38	96.31	96.3
Selenium	0.0	100.0	-0.19	99.59	99.6	1.28	97.97	98.0

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Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77BMS
Lot/SDG Number:	D9G220275	**MS Lab Sample ID:**	D9G220275-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LGWWA
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204215	**Date/Time Analyzed:**	07/30/09 06:48
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	91		120		73	N	85 - 117
Selenium	40.0	5.3	B	37.4		80		77 - 122

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THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77BMSD
Lot/SDG Number:	D9G220275	**MSD Lab Sample ID:**	D9G220275-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LGWWA
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204215	**Date/Time Analyzed:**	07/30/09 06:51
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	91		119		70	N	1.2		85 - 117	20
Selenium	40.0	5.3	B	32.8		69	N	13		77 - 122	20

Total Metals Analvsis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.: M-77B PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	207.300		18.200		200.00	94.6		M
Selenium	75 - 125	195.200		1.053	B	200.00	97.1		M

Comments: _____

Form V (PART 2) - IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G230000-215C
Matrix:	WATER	**Lab WorkOrder:**	LGXP7
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204215	**Date/Time Analyzed:**	07/30/09 06:37
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	36.7	92		85 - 117
Selenium	40.0	37.2	93		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

M-77B SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	18.200		17.550	B	3.6		M
Selenium	1.053	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

TestAmerica

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

Form XII - IN

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
M-77B	7/28/2009	50.0	50.0
M-77BMS MS	7/28/2009	50.0	50.0
M-77BMSD MSD	7/28/2009	50.0	50.0
MB9204215	7/28/2009	50.0	50.0
Check Sample	7/28/2009	50.0	50.0

Comments:

TestAmerica

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/29/2009 End Date: 7/30/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:47				X															X						
100 PPB	1.00	17:49				X															X						
ICV	1.00	17:52				X															X						
ICB	1.00	17:57				X															X						
RL STD	1.00	18:00				X															X						
ICSA	1.00	18:08				X															X						
ICSAB	1.00	18:11				X															X						
RINSE	1.00	18:14				X															X						
LR	1.00	18:17				X															X						
RINSE	1.00	18:19				X															X						
CCV	1.00	18:22				X															X						
CCB	1.00	18:25				X															X						
CAL BLANK	1.00	20:34				X															X						
100 PPB	1.00	20:37				X															X						
CCV	1.00	20:39				X															X						
CCB	1.00	20:42				X															X						
ICSA	1.00	20:48				X															X						
ICSAB	1.00	20:51				X															X						
WASH	1.00	20:53				X															X						
CCV	1.00	20:56				X															X						
CCB	1.00	20:59				X															X						
CAL BLANK	1.00	05:23				X															X						
100 PPB	1.00	05:25				X															X						
CCV	1.00	05:28				X															X						
CCB	1.00	05:31				X															X						
CCV	1.00	06:26				X															X						
CCB	1.00	06:29				X															X						
MB9204215	1.00	06:34				X															X						
Check Sample	1.00	06:37				X															X						
M-77B	5.00	06:40				X															X						
M-77B SER	25.00	06:43				X															X						
M-77B PDS	1.00	06:46				X															X						
M-77BMS MS	5.00	06:48				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/29/2009 End Date: 7/30/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
M-77BMSD MSD	5.00	06:51				X															X						
CCV	1.00	06:54				X															X						
CCB	1.00	06:57				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Dissolved Metals

CLP-Like Forms

Lot ID: D9G220275

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 002

TestAmerica

Dissolved Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G220275

Lab Code: Case No.: SAS No.:

SOW No.:

Sample ID.	Lab Sample No.
M-77BDISS	D9G220275-002
M-77BDISS MS	D9G220275-002S
M-77BDISS MSD	D9G220275-002SD

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/3/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77BDISS
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G220275-002
Matrix:	WATER	**Lab WorkOrder:**	LGWWD
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204219	**Date/Time Analyzed:**	07/30/09 06:12
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**87**	1.0	25	
7782-49-2	Selenium	**6.6**	3.5	25	B

Dissolved Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	39.1	97.8	50.0	50.6	101.2	50.5	101.0	M
Selenium	40.0	40.5	101.2	50.0	50.2	100.4	51.3	102.6	M

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

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	49.7	99.4	49.2	98.4	M
Selenium				50.0	49.7	99.4	49.5	99.0	M

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

Dissolved Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	48.8	97.6	49.1	98.2	M
Selenium				50.0	45.7	91.4	52.1	104.2	M

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

Dissolved Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.049	104.9		
Selenium				1.00	0.945	94.5		

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G230000-219B
Matrix:	WATER	**Lab WorkOrder:**	LGXRH
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204219	**Date/Time Analyzed:**	07/30/09 06:07
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	-0.887	B	0.70	U	M

Comments:

TestAmerica

Dissolved Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Dissolved Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.49	99.38	99.4	0.38	96.31	96.3
Selenium	0.0	100.0	-0.19	99.59	99.6	1.28	97.97	98.0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77BDISS
Lot/SDG Number:	D9G220275	**MS Lab Sample ID:**	D9G220275-002S
Matrix:	WATER	**MS Lab WorkOrder:**	LGWWD
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204219	**Date/Time Analyzed:**	07/30/09 06:21
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	87		122		90		85 - 117
Selenium	40.0	6.6	B	42.1		89		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-77BDISS
Lot/SDG Number:	D9G220275	**MSD Lab Sample ID:**	D9G220275-002D
Matrix:	WATER	**MSD Lab WorkOrder:**	LGWWD
% Moisture:	N/A	**Date/Time Collected:**	07/20/09 09:30
Basis:	Wet	**Date/Time Received:**	07/22/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204219	**Date/Time Analyzed:**	07/30/09 06:23
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	87		128		105		4.8		85 - 117	20
Selenium	40.0	6.6	B	46.3		99		9.3		77 - 122	20

TestAmerica

Dissolved Metals Analysis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

M-77BDISS PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	208.100		17.334		200.00	95.4		M
Selenium	75 - 125	192.800		1.312	B	200.00	95.7		M

Comments: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G220275	**Lab Sample ID:**	D9G230000-219C
Matrix:	WATER	**Lab WorkOrder:**	LGXRH
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9204219	**Date/Time Analyzed:**	07/30/09 06:10
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	40.6	102		85 - 117
Selenium	40.0	39.1	98		77 - 122

Dissolved Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

M-77BDISS SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	17.334		16.460	B	5.0		M
Selenium	1.312	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Dissolved Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

Dissolved Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

TestAmerica

Dissolved Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G220275

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
M-77BDISS	7/28/2009	50.0	50.0
M-77BDISS MS	7/28/2009	50.0	50.0
M-77BDISS MSD	7/28/2009	50.0	50.0
MB9204219	7/28/2009	50.0	50.0
Check Sample	7/28/2009	50.0	50.0

Comments:

TestAmerica

Dissolved Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/29/2009 End Date: 7/30/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:47				X															X						
100 PPB	1.00	17:49				X															X						
ICV	1.00	17:52				X															X						
ICB	1.00	17:57				X															X						
RL STD	1.00	18:00				X															X						
ICSA	1.00	18:08				X															X						
ICSAB	1.00	18:11				X															X						
RINSE	1.00	18:14				X															X						
LR	1.00	18:17				X															X						
RINSE	1.00	18:19				X															X						
CCV	1.00	18:22				X															X						
CCB	1.00	18:25				X															X						
CAL BLANK	1.00	20:34				X															X						
100 PPB	1.00	20:37				X															X						
CCV	1.00	20:39				X															X						
CCB	1.00	20:42				X															X						
ICSA	1.00	20:48				X															X						
ICSAB	1.00	20:51				X															X						
WASH	1.00	20:53				X															X						
CCV	1.00	20:56				X															X						
CCB	1.00	20:59				X															X						
CAL BLANK	1.00	05:23				X															X						
100 PPB	1.00	05:25				X															X						
CCV	1.00	05:28				X															X						
CCB	1.00	05:31				X															X						
CCV	1.00	05:59				X															X						
CCB	1.00	06:01				X															X						
MB9204219	1.00	06:07				X															X						
Check Sample	1.00	06:10				X															X						
M-77BDISS	5.00	06:12				X															X						
M-77BDISS SER	25.00	06:15				X															X						
M-77BDISS PDS	1.00	06:18				X															X						
M-77BDISS MS	5.00	06:21				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Dissolved Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G220275

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/29/2009 End Date: 7/30/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
M-77BDISS MSD	5.00	06:23				X															X						
CCV	1.00	06:26				X															X						
CCB	1.00	06:29				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G230298

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G230298

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
M-33B	D9G230298-001
M-33B MS	D9G230298-001S
M-33B MSD	D9G230298-001SD

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/4/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-33B
Lot/SDG Number:	D9G230298	**Lab Sample ID:**	D9G230298-001
Matrix:	WATER	**Lab WorkOrder:**	LG07X
% Moisture:	N/A	**Date/Time Collected:**	07/21/09 11:15
Basis:	Wet	**Date/Time Received:**	07/23/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9205162	**Date/Time Analyzed:**	08/01/09 02:02
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**55**	1.0	25	
7782-49-2	Selenium	**12**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	40.0	40.0	100.0	50.0	50.0	100.0	49.9	99.8	M
Selenium	40.0	41.8	104.5	50.0	50.2	100.4	48.5	97.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	49.7	99.4	49.9	99.8	M
Selenium				50.0	49.0	98.0	49.5	99.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	49.7	99.4	49.5	99.0	M
Selenium				50.0	47.4	94.8	50.4	100.8	M

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

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G230298

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	0.969	96.9		
Selenium				2.00			2.001	100.0

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G230298	**Lab Sample ID:**	D9G240000-162B
Matrix:	WATER	**Lab WorkOrder:**	LG1L5
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9205162	**Date/Time Analyzed:**	08/01/09 01:59
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.51	101.80	101.8	0.54	99.06	99.1
Selenium	0.0	100.0	-0.17	107.40	107.4	0.37	101.10	101.1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-33B
Lot/SDG Number:	D9G230298	**MS Lab Sample ID:**	D9G230298-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LG07X
% Moisture:	N/A	**Date/Time Collected:**	07/21/09 11:15
Basis:	Wet	**Date/Time Received:**	07/23/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9205162	**Date/Time Analyzed:**	08/01/09 02:10
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	55		93.4		96		85 - 117
Selenium	40.0	12	B	56.1		112		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-33B
Lot/SDG Number:	D9G230298	**MSD Lab Sample ID:**	D9G230298-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LG07X
% Moisture:	N/A	**Date/Time Collected:**	07/21/09 11:15
Basis:	Wet	**Date/Time Received:**	07/23/09 09:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9205162	**Date/Time Analyzed:**	08/01/09 02:13
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	55		95.2		101		1.9		85 - 117	20
Selenium	40.0	12	B	48.3		92		15		77 - 122	20

TestAmerica

Total Metals Analvsis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

M-33B PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	209.300		10.964		200.00	99.2		M
Selenium	75 - 125	205.100		2.302	B	200.00	101.4		M

Comments: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G230298	**Lab Sample ID:**	D9G240000-162C
Matrix:	WATER	**Lab WorkOrder:**	LG1L5
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/28/09 12:00
QC Batch ID:	9205162	**Date/Time Analyzed:**	08/01/09 01:56
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	38.6	96		85 - 117
Selenium	40.0	37.2	93		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

M-33B SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	10.964		10.750	B	2.0		M
Selenium	2.302	B	3.500	U	100.0		M

Comments: _____

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

TestAmerica

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

Form XII - IN

TestAmerica

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G230298

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
M-33B	7/28/2009	50.0	50.0
M-33B MS	7/28/2009	50.0	50.0
M-33B MSD	7/28/2009	50.0	50.0
MB9205162	7/28/2009	50.0	50.0
Check Sample	7/28/2009	50.0	50.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G230298

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/31/2009 End Date: 8/1/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:31				X															X						
100 PPB	1.00	17:34				X															X						
ICV	1.00	17:36				X															X						
ICB	1.00	17:44				X															X						
RL STD	1.00	17:47				X																					
ALTSE	1.00	17:53																			X						
ICSA	1.00	17:56				X															X						
RINSE	1.00	18:02				X															X						
LR	1.00	18:05				X															X						
RINSE	1.00	18:07				X															X						
ICSAB	1.00	18:12				X															X						
RINSE	1.00	18:15				X															X						
CCV	1.00	18:18				X															X						
CCB	1.00	18:21				X															X						
CAL BLANK	1.00	21:57				X															X						
100 PPB	1.00	22:00				X															X						
CCV	1.00	22:03				X															X						
CCB	1.00	22:06				X															X						
ICSA	1.00	22:12				X															X						
ICSAB	1.00	22:15				X															X						
WASH	1.00	22:18				X															X						
CCV	1.00	22:23				X															X						
CCB	1.00	22:26				X															X						
CAL BLANK	1.00	00:51				X															X						
100 PPB	1.00	00:53				X															X						
CCV	1.00	00:56				X															X						
CCB	1.00	00:59				X															X						
CCV	1.00	01:47				X															X						
CCB	1.00	01:50				X															X						
MB9205162	1.00	01:56				X															X						
Check Sample	1.00	01:59				X															X						
M-33B	5.00	02:02				X															X						
M-33B SER	25.00	02:05				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G230298

Instrument ID Number: Agilent 7500 Method: M

Start Date: 7/31/2009 End Date: 8/1/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
M-33B PDS	1.00	02:08				X															X						
M-33B MS	5.00	02:10				X															X						
M-33B MSD	5.00	02:13				X															X						
CCV	1.00	02:16				X															X						
CCB	1.00	02:19				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Semivolatile GC

CLP-Like Forms

Lot ID: D9G230301

Client: Northgate/Tronox

Method: SW846 8141A

Associated Samples: 001

Batch: 9205274

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-97B
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G230301-001
Matrix:	WATER	**Lab WorkOrder:**	LG0741AA
% Moisture:	N/A	**Date/Time Collected:**	07/21/09 07:40
Basis:	Wet	**Date/Time Received:**	07/23/09 09:30
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 17:59
Sample Aliquot:	1060 mL	**Instrument ID:**	D2
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U
62-73-7	Dichlorvos	0.16	0.16	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-97B
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G230301-001
Matrix:	WATER	**Lab WorkOrder:**	LG0741AA
% Moisture:	N/A	**Date/Time Collected:**	07/21/09 07:40
Basis:	Wet	**Date/Time Received:**	07/23/09 09:30
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 17:59
Sample Aliquot:	1060 mL	**Instrument ID:**	D2
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
297-97-2	Thionazin	0.31	0.31	1.0	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	78	60	154	
24934-91-6	Chlormefos	66	49	171	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G240000-274B
Matrix:	WATER	**Lab WorkOrder:**	LG1WF1AA
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 16:37
Sample Aliquot:	1000 mL	**Instrument ID:**	D2
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
62-73-7	Dichlorvos	0.16	0.16	1.0	U
297-97-2	Thionazin	0.31	0.31	1.0	U
60-51-5	Dimethoate	0.45	0.45	1.5	U
298-04-4	Disulfoton	0.32	0.32	1.0	U
2104-64-5	EPN	0.15	0.15	1.2	U
13194-48-4	Ethoprop	0.18	0.18	0.50	U
52-85-7	Famphur	0.18	0.18	1.0	U
115-90-2	Fensulfothion	0.54	0.54	2.5	U
55-38-9	Fenthion	0.15	0.15	2.5	U
121-75-5	Malathion	0.13	0.13	1.2	U
150-50-5	Merphos	0.17	0.17	5.0	U
298-00-0	Methyl parathion	0.14	0.14	4.0	U
86-50-0	Azinphos-methyl	0.17	0.17	2.5	U
7786-34-7	Mevinphos	0.46	0.46	6.2	U
300-76-5	Naled	0.25	0.25	1.0	U
56-38-2	Ethyl parathion	0.14	0.14	1.0	U
298-02-2	Phorate	0.15	0.15	1.2	U
299-84-3	Ronnel	0.12	0.12	10	U
3689-24-5	Sulfotepp	0.17	0.17	1.5	U
34643-46-4	Tokuthion	0.12	0.12	1.6	U
327-98-0	Trichloronate	0.24	0.24	1.0	U
35400-43-2	Bolstar	0.31	0.31	1.0	U
961-11-5	Tetrachlorvinphos (Stirophos)	0.12	0.12	3.5	U
2921-88-2	Chlorpyrifos	0.36	0.36	1.0	U
56-72-4	Coumaphos	0.14	0.14	1.0	U
298-03-3	Demeton-O	0.14	0.14	1.0	U
126-75-0	Demeton-S	0.069	0.069	1.0	U
333-41-5	Diazinon	0.15	0.15	1.0	U

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G240000-274B
Matrix:	WATER	**Lab WorkOrder:**	LG1WF1AA
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 16:37
Sample Aliquot:	1000 mL	**Instrument ID:**	D2
Dilution Factor:	1		

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	91	60	154	
24934-91-6	Chlormefos	69	49	171	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER **Extraction** I09P29H
Lot/SDG Number: 8304615 **QC Batch ID:** 9205274

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
M-97B	LG0741AA	66	78							0
INTRA-LAB BLANK	LG1WF1AA	69	91							0
CHECK SAMPLE	LG1WF1AC	75	103							0
DUPLICATE CHECK	LG1WF1AD	70	96							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Chlormefos	49	171
SRG 2	Triphenyl phosphate	60	154

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G240000-274C
Matrix:	WATER	**Lab WorkOrder:**	LG1WF1AC
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 17:04
Sample Aliquot:	1000 mL	**Instrument ID:**	D2
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Dichlorvos	4.00	3.42	86		40 - 193
Thionazin	4.00	3.51	88		39 - 180
Dimethoate	4.00	3.14	78		33 - 139
Disulfoton	4.00	3.13	78		44 - 139
EPN	8.00	7.48	93		50 - 150
Ethoprop	4.00	3.64	91		43 - 165
Famphur	4.00	3.50	87		51 - 131
Fensulfothion	4.00	3.82	96		46 - 115
Fenthion	4.00	3.16	79		63 - 128
Malathion	4.00	3.09	77		53 - 137
Merphos	4.00	3.22	81		50 - 150
Methyl parathion	4.00	3.52	88		55 - 131
Azinphos-methyl	4.00	3.35	84		42 - 125
Mevinphos	4.00	3.16	79		39 - 175
Ethyl parathion	4.00	3.46	86		47 - 142
Phorate	4.00	2.75	69		46 - 142
Ronnel	4.00	3.67	92		43 - 115
Sulfotepp	4.00	2.98	75		29 - 166
Trichloronate	4.00	3.17	79		60 - 115
Chlorpyrifos	4.00	3.54	89		60 - 120
Coumaphos	4.00	3.63	91		61 - 115
Diazinon	4.00	3.45	86		47 - 149

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	103	60	154	
24934-91-6	Chlormefos	75	49	171	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G240000-274L
Matrix:	WATER	**Lab WorkOrder:**	LG1WF1AD
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	8141A	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/24/09 12:00
QC Batch ID:	9205274	**Date/Time Analyzed:**	08/06/09 17:31
Sample Aliquot:	1000 mL	**Instrument ID:**	D2
Dilution Factor:	1		

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
Dichlorvos	4.00	3.29		82		4.0		40 - 193	49
Thionazin	4.00	3.26		82		7.3		39 - 180	40
Dimethoate	4.00	3.09		77		1.4		33 - 139	50
Disulfoton	4.00	2.81		70		11		44 - 139	40
EPN	8.00	7.00		87		6.6		50 - 150	50
Ethoprop	4.00	3.47		87		4.8		43 - 165	36
Famphur	4.00	3.30		83		5.8		51 - 131	88
Fensulfothion	4.00	3.60		90		6.1		46 - 115	62
Fenthion	4.00	2.88		72		9.4		63 - 128	41
Malathion	4.00	3.01		75		2.5		53 - 137	28
Merphos	4.00	3.06		76		5.2		50 - 150	50
Methyl parathion	4.00	3.47		87		1.4		55 - 131	30
Azinphos-methyl	4.00	3.13		78		6.8		42 - 125	36
Mevinphos	4.00	3.01		75		4.8		39 - 175	40
Ethyl parathion	4.00	3.28		82		5.3		47 - 142	40
Phorate	4.00	2.48		62		10		46 - 142	40
Ronnel	4.00	3.54		88		3.7		43 - 115	39
Sulfotepp	4.00	2.84		71		4.8		29 - 166	40
Trichloronate	4.00	3.08		77		2.8		60 - 115	38
Chlorpyrifos	4.00	3.37		84		5.1		60 - 120	34
Coumaphos	4.00	3.49		87		3.9		61 - 115	43
Diazinon	4.00	3.22		81		6.7		47 - 149	40

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
115-86-6	Triphenyl phosphate	96	60	154	
24934-91-6	Chlormefos	70	49	171	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Method Blank Summary

Lab Name:	TESTAMERICA DENVER	**Lab File ID:**	014F1401.
Lot/SDG Number:	8304615	**Lab Sample ID:**	D9G240000-274B
Matrix:	WATER	**Lab Work Order:**	LG1WF1AA
Analysis Method:	8141A	**Date/Time Extracted:**	07/24/09 12:00
Extraction Method:	I09P29H	**Date/Time Analyzed:**	08/06/09 16:37
QC Batch ID:	9205274	**Instrument ID:**	D2

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
M-97B	LG0741AA	014F1401.	08/06/09	17:59
CHECK SAMPLE	LG1WF1AC C	012F1201.	08/06/09	17:04
DUPLICATE CHECK	LG1WF1AD L	013F1301.	08/06/09	17:31

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
OPP L7 GSV860-0	0806092.b/003F0301.D	OPP L7 GSV860-09	Diazinon	BAS
OPP L7 GSV860-0	0806092.b/003F0301.D	OPP L7 GSV860-09	Atrazine	BAS
OPP L6 GSV870-0	0806092.b/004F0401.D	OPP L6 GSV870-09	Diazinon	BAS
OPP L6 GSV870-0	0806092.b/004F0401.D	OPP L6 GSV870-09	Atrazine	BAS
OPP L5 GSV871-0	0806092.b/005F0501.D	OPP L5 GSV871-09	Diazinon	BAS
OPP L5 GSV871-0	0806092.b/005F0501.D	OPP L5 GSV871-09	Anilazine	BAS
OPP L5 GSV871-0	0806092.b/005F0501.D	OPP L5 GSV871-09	Atrazine	BAS
OPP L4 GSV872-0	0806092.b/006F0601.D	OPP L4 GSV872-09	Diazinon	BAS
OPP L4 GSV872-0	0806092.b/006F0601.D	OPP L4 GSV872-09	Anilazine	BAS
OPP L4 GSV872-0	0806092.b/006F0601.D	OPP L4 GSV872-09	Atrazine	BAS
OPP L3 GSV873-0	0806092.b/007F0701.D	OPP L3 GSV873-09	Diazinon	BAS
OPP L3 GSV873-0	0806092.b/007F0701.D	OPP L3 GSV873-09	Anilazine	BAS
OPP L3 GSV873-0	0806092.b/007F0701.D	OPP L3 GSV873-09	Atrazine	BAS
OPP L2 GSV874-0	0806092.b/008F0801.D	OPP L2 GSV874-09	Diazinon	BAS
OPP L2 GSV874-0	0806092.b/008F0801.D	OPP L2 GSV874-09	Anilazine	BAS
OPP L2 GSV874-0	0806092.b/008F0801.D	OPP L2 GSV874-09	Atrazine	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Naled	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Simazine	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Diazinon	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Parathion	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Merphos-B (Merphos Oxone)	BAS
OPP L1 GSV875-0	0806092.b/009F0901.D	OPP L1 GSV875-09	Atrazine	BAS
OPP SS GSV895-0	0806092.b/010F1001.D	OPP SS GSV895-09	Diazinon	BAS
OPP SS GSV895-0	0806092.b/010F1001.D	OPP SS GSV895-09	Disulfoton	BAS
OPP SS GSV895-0	0806092.b/010F1001.D	OPP SS GSV895-09	Demeton-S	BAS
OPP SS GSV895-0	0806092.b/010F1001.D	OPP SS GSV895-09	Anilazine	BAS
OPP SS GSV895-0	0806092.b/010F1001.D	OPP SS GSV895-09	Atrazine	BAS

Legend

BAS - Baseline Event
BID - Baseline ID
SP - Split Peak
TAIL - Peak Tailing or Fronting
NOID - Analyte not Identified by the Data System
MAIN - Mis-Integrated
MSID - Analyte Misidentified by the Data System

8/7/09

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MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
OPP L7 GSV860-0	0806091.b/003F0301.D	OPP L7 GSV860-09	Anilazine	BAS
OPP L6 GSV870-0	0806091.b/004F0401.D	OPP L6 GSV870-09	Anilazine	BAS
OPP L5 GSV871-0	0806091.b/005F0501.D	OPP L5 GSV871-09	Anilazine	BAS
OPP L4 GSV872-0	0806091.b/006F0601.D	OPP L4 GSV872-09	Anilazine	BAS
OPP L3 GSV873-0	0806091.b/007F0701.D	OPP L3 GSV873-09	Anilazine	BAS
OPP L2 GSV874-0	0806091.b/008F0801.D	OPP L2 GSV874-09	Anilazine	BAS
OPP L2 GSV874-0	0806091.b/008F0801.D	OPP L2 GSV874-09	Carbophenothion-methyl	BAS
OPP L2 GSV874-0	0806091.b/008F0801.D	OPP L2 GSV874-09	Merphos-B (Merphos Oxone)	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Mevinphos	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Dimethoate	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Simazine	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Tetrachlorvinphos (Stirophos)	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Fensulfothion	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Phosmet	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Merphos-A (Merphos)	BAS
OPP L1 GSV875-0	0806091.b/009F0901.D	OPP L1 GSV875-09	Merphos-B (Merphos Oxone)	BAS
OPP SS GSV895-0	0806091.b/010F1001.D	OPP SS GSV895-09	Demeton-S	BAS
OPP SS GSV895-0	0806091.b/010F1001.D	OPP SS GSV895-09	Anilazine	BAS
OPP SS GSV895-0	0806091.b/010F1001.D	OPP SS GSV895-09	Merphos-A (Merphos)	BAS

Legend

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MSIN - Mis-Integrated
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MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
LG1WF1AA	0806092.b/011F1101.D	MB	No Manual Integrations	
LG1WF1AC	0806092.b/012F1201.D	LCS	Diazinon	BAS
LG1WF1AC	0806092.b/012F1201.D	LCS	Disulfoton	BAS
LG1WF1AC	0806092.b/012F1201.D	LCS	Demeton-S	BAS
LG1WF1AC	0806092.b/012F1201.D	LCS	Atrazine	BAS
LG1WF1AD	0806092.b/013F1301.D	LCSD	Diazinon	BAS
LG1WF1AD	0806092.b/013F1301.D	LCSD	Disulfoton	BAS
LG1WF1AD	0806092.b/013F1301.D	LCSD	Demeton-S	BAS
LG1WF1AD	0806092.b/013F1301.D	LCSD	Atrazine	BAS
LG08H1AA	0806092.b/015F1501.D	306-1	No Manual Integrations	
LG08K1AA	0806092.b/016F1601.D	306-2	No Manual Integrations	
LG08L1AA	0806092.b/017F1701.D	306-3	No Manual Integrations	
LG08M1AA	0806092.b/018F1801.D	306-4	No Manual Integrations	
LG08V1AA	0806092.b/019F1901.D	306-5	No Manual Integrations	
OPP CCV GSV0861	0806092.b/022F2201.D	OPP CCV GSV0861	Diazinon	BAS
OPP CCV GSV0861	0806092.b/022F2201.D	OPP CCV GSV0861	Atrazine	BAS

Legend

BAS - Baseline Event
BID - Baseline ID
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TAIL - Peak Tailing or Fronting
NOID - Analyte not Identified by the Data System
MSIN - Mis-Integrated
MSID - Analyte Misidentified by the Data System

8/7/09

MANUAL INTEGRATION SUMMARY REPORT

Sample Name	Data File	Lot No.	Compound	Code
LG1WF1AA	0806091.b/011F1101.D	MB	No Manual Integrations	
LG1WF1AC	0806091.b/012F1201.D	LCS	No Manual Integrations	
LG1WF1AD	0806091.b/013F1301.D	LCSD	No Manual Integrations	
LG08H1AA	0806091.b/015F1501.D	306-1	No Manual Integrations	
LG08K1AA	0806091.b/016F1601.D	306-2	No Manual Integrations	
LG08L1AA	0806091.b/017F1701.D	306-3	No Manual Integrations	
LG08M1AA	0806091.b/018F1801.D	306-4	No Manual Integrations	
LG08V1AA	0806091.b/019F1901.D	306-5	No Manual Integrations	
OPP CCV GSV0861	0806091.b/022F2201.D	OPP CCV GSV0861	No Manual Integrations	

Legend

BAS - Baseline Event
BID - Baseline ID
SP - Split Peak
TAIL - Peak Tailing or Fronting
NOID - Analyte not Identified by the Data System
MSIN - Mis-Integrated
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Report Date : 07-Aug-2009 08:22

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Calibration File Names:
Level 1: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0901.D
Level 2: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\008F0801.D
Level 3: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Level 4: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Level 5: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Level 6: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Level 7: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	5.0000 Level 7										
1 o,o,o-TEPT	60356	153069	357384	597394	802659	1041312					
	1296938						QUAD	0.01686	0.29632	0.01695	0.99817
2 Dichlorvos	38766	97090	236382	406483	566931	787168					
	950818						WLINR	0.00661	1.91742		0.99400
4 Mevinphos	20784	60215	167787	298068	405911	548507					
	692828						WLINR	0.03011	1.39464		0.99361
5 Demeton-O	7328	19905	53507	94931	130704	182737					
	232018						WLINR	0.00965	1.40814		0.99537

* All weighted linear are 1/x

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TestAmerica

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Start Cal Date : 06-AUG-2009 12:58
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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
6 Thionazin	39406	100910	258226	454067	611871	818651					
	1041567						WLINR	0.01060	2.07443		0.99371
7 Ethoprop	24521	60173	159361	281813	387345	497993					
	660025						WLINR	0.01405	1.29635		0.99379
8 Phorate	1.78952	1.78180	2.41601	2.03409	1.95213	2.03577					
	1.96064						AVRG		1.99571		10.65160
9 Naled	2364	7971	31013	65369	94924	134238					
	177821						WLINR	0.09225	0.34653		0.99568
10 Sulfotepp	55071	134184	332322	579913	760467	1002600					
	1259867						WLINR	-0.00543	2.53962		0.99109
12 Simazine	0.33611	0.32249	0.41548	0.36084	0.35491	0.35967					
	0.35556						AVRG		0.35786		8.12302
13 Diazinon	29119	70741	176119	316941	403319	549406					
	703582						WLINR	0.00128	1.39137		0.99303

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TestAmerica

INITIAL CALIBRATION DATA

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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
14 Atrazine	13368	36826	88458	146146	208979	258175					
	318216						QUAD	0.04814	1.04463	0.36910	0.99723
15 Propazine	7831	23609	62163	114010	152109	202004					
	262507						WLINR	0.02772	0.52221		0.99451
16 Disulfoton	26551	70798	177395	316424	423156	558998					
	713903						WLINR	0.01013	1.42645		0.99357
17 Demeton-S	19550	57025	140910	267435	350018	493144					
	620416						WLINR	0.01822	1.81159		0.99636
18 Dimethoate	30901	85451	220034	399590	527786	710490					
	919664						WLINR	0.01960	1.81946		0.99451
19 Ronnel	25402	64796	158537	282907	372707	501398					
	650233						WLINR	0.00596	1.27627		0.99446
20 Merphos-A (Merphos)	20208	55934	138362	252361	335820	462632					
	609259						LINR	-0.10408	0.49687		0.99129

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TestAmerica

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Quant Method : ISTD
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Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
21 Chlorpyrifos	21237	60607	149544	268415	353328	483833	599989	WLINR	0.01332	1.21172		0.99346	
22 Fenthion	18776	40748	140951	281601	376566	475563	662162	WLINR	0.04827	1.29154		0.99254	
23 Trichloronate	35440	108594	224757	386484	481097	670271	791153	LINR	-0.09506	1.52853		0.98987	<-
24 Anilazine	+++++	1365	5446	10658	16270	23122	29754	WLINR	0.13324	0.06056		0.99580	
25 Methyl Parathion	26057	70514	178679	323523	438809	589284	764532	WLINR	0.02018	1.50337		0.99568	
26 Malathion	20378	55317	137907	244307	331835	446246	564841	WLINR	0.01372	1.12630		0.99453	
27 Tokuthion	23347	61910	155275	272176	360235	477103	601635	WLINR	0.00493	1.21273		0.99184	

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
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Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
28 Parathion	27796	68378	173641	303707	400079	532806	666755	WLINR	0.00066	1.34536		0.99155
29 Merphos-B (Merphos Oxone)	8193	19053	50092	87050	117192	160245	209905	QUAD	0.00002	3.99353	4.19550	0.99655
30 Tetrachlorvinphos (stirophos)	14633	40546	99267	176428	235430	312270	393087	WLINR	0.00822	0.79198		0.99305
31 Carbophenothion methyl	19335	59783	150574	273834	369428	485153	614237	WLINR	0.02156	1.24332		0.99364
32 Bolstar	24830	62262	148685	262486	345976	452745	568413	WLINR	-0.00656	1.14690		0.99176
33 Carbophenothion	23920	66481	158258	291027	391840	507573	638239	WLINR	0.00858	1.29364		0.99369
35 Fensulfothion	21641	55100	144111	244410	324575	446385	548194	WLINR	0.00601	1.11094		0.99082

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
37 Phosmet / EPN	61420	132515	285475	484535	635473	836790					
	1052841						WLINR	-0.08428	1.03825		0.99225
38 Famphur	38915	86915	188482	312731	418546	576217					
	728950						WLINR	-0.02995	1.41294		0.99395
39 Azinphos-methyl	1.19112	1.27363	1.50428	1.26080	1.25557	1.29235					
	1.31504						AVRG		1.29897		7.57335
40 Azinphos-ethyl	45196	86455	186617	298611	415808	530700					
	679524						WLINR	-0.05818	1.31662		0.99218
41 Coumaphos	20239	47205	126050	215546	296355	403154					
	505521						WLINR	0.00994	1.00707		0.99325
S 42 Merphos	28401	74987	188454	339411	453012	622877					
	819164						WLINR	0.01904	1.58612		0.99575
M 43 Total Demeton	26878	76930	194417	362366	480722	675881					
	852434						WLINR	0.02754	1.68935		0.99620

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
$ 3 Chlormefos	44458	109656	277425	488546	662346	889230					
	1130949						WLINR	0.00857	2.24268		0.99438
$ 34 Triphenyl phosphate	19386	48811	123629	218925	290427	377570					
	480212						WLINR	0.00300	0.96701		0.99176

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Report Date: 07-Aug-2009 08:22

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Start Cal Date: 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Last Cal Level: 1
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
06-AUG-2009 15:42	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
06-AUG-2009 15:15	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
06-AUG-2009 14:47	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
06-AUG-2009 14:20	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
06-AUG-2009 13:52	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
06-AUG-2009 13:25	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
06-AUG-2009 12:58	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: BY SAMPLE

06-AUG-2009 16:09	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\010F1001.D		

Report Date : 07-Aug-2009 08:20

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Calibration File Names:
Level 1: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
Level 2: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Level 3: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
Level 4: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Level 5: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Level 6: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Level 7: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
1 o,o,o-TEPT	27235	69103	176667	273888	380611	530397					
	667873						WLINR	0.00437	2.76150		0.99070
2 Dichlorvos	19624	49660	121959	217219	299105	394344					
	494964						WLINR	0.01094	2.07952		0.99581
3 Mevinphos	0.70987	0.83613	1.19746	0.99299	1.02111	1.00792					
	1.02544						AVRG		0.97013		16.02289
5 Thionazin	16347	46078	116071	198904	270134	356552					
	452629						WLINR	0.01337	1.90395		0.99350

*All weighted linear are 1/x

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
6 Demeton-O	7663	16576	43609	67743	105619	133217	171892	WLINR	0.00170	2.18668		0.99112
7 Ethoprop	17439	42559	102655	203616	270063	352360	445757	WLINR	0.01650	1.87535		0.99723
8 Naled	789	5395	17781	39234	55026	79043	104555	WLINR	0.10055	0.42919		0.99646
10 Sulfotepp	31103	72734	161301	272812	358937	470909	591692	WLINR	-0.02666	2.46816		0.99294
11 Phorate	20942	55180	119141	206533	269371	355358	443267	LINR	-0.05994	1.79112		0.99682
12 Dimethoate	13628	46073	123499	234736	318948	429609	550587	WLINR	0.04553	2.30912		0.99695
13 Demeton-S	9874	30199	72778	131092	169836	227643	283901	WLINR	0.00915	1.77734		0.99385

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
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Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
14 Simazine	5806	17101	46770	90943	120316	160354	196470	WLINR	0.03618	0.85037		0.99565
15 Atrazine	7433	16880	47483	89027	116845	160200	201963	WLINR	0.02564	0.84498		0.99545
16 propazine	6444	16038	42201	77939	101930	142131	177792	WLINR	0.02257	0.74299		0.99593
17 Disulfoton	9740	23733	62379	107216	145630	207119	259283	WLINR	0.01965	1.07126		0.99471
18 Diazinon	24787	54615	135177	234306	300229	416271	491284	WLINR	-0.01278	2.11415		0.99219
19 Methyl Parathion	10381	33545	83612	148922	192341	260459	329756	WLINR	0.02055	1.39298		0.99344
20 Ronnel	11310	31990	79747	132002	186402	242078	319724	WLINR	0.01501	1.31436		0.99292

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
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Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2	
	5.0000 Level 7											
21 Malathion	12017	30837	73542	127531	167962	219045						
	280372						WLINR	-0.00342	1.17261		0.99300	
22 Fenthion	10574	28555	72130	132190	176698	231332						
	301629						WLINR	0.02002	1.25197		0.99537	
23 Parathion	10134	28660	75321	134353	181496	240220						
	313652						WLINR	0.02603	1.30048		0.99472	
24 Chlorpyrifos	1.88134	1.87231	2.27378	1.86707	1.79826	1.72943						
	1.95897						AVRG		1.91159		9.15814	
25 Trichloronate	14112	36498	89537	154049	208922	282505						
	371970						WLINR	0.01257	1.51131		0.99446	
26 Anilazine	+++++	826	2826	5841	7461	13218						
	16019						WLINR	0.14526	0.06857		0.98603	<-
27 Merphos-A (Merphos)	11430	31853	75953	132917	173016	233543						
	287727						WLINR	0.00298	1.22464		0.99330	

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1 / 5.0000 Level 7	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
28 Tetrachlorvinphos (Stirophos)	7254 / 219679	19289	48409	93046	128125	170697	WLINR	0.03119	0.91025		0.99771
29 Tokuthion	15121 / 332126	36242	88378	154338	197028	265806	WLINR	-0.00681	1.39687		0.99278
30 Merphos-B (Merphos Oxone)	4672 / 89437	7669	24451	42858	51369	69404	LINR	-0.03580	0.36071		0.99146
31 Carbophenothion-methyl	10831 / 263905	26053	67846	118446	158558	210590	WLINR	0.00785	1.11309		0.99378
32 Fensulfothion	11896 / 345436	32630	87310	153756	208297	266554	WLINR	0.01989	1.45488		0.99290
33 Bolstar / Famphur	24720 / 612450	69693	166272	286233	372086	489394	WLINR	-0.00260	1.30376		0.99138
34 Carbophenothion	1.12961 / 1.49316	1.32850	1.77066	1.37892	1.53211	1.27764	AVRG		1.41580		14.57304

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

	Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
		5.0000 Level 7											
	36 Phosmet	8837	25724	69014	125340	163123	221328						
		277254						WLINR	0.03634	1.22307		0.98684	<-
	37 EPN	11005	28342	73819	140325	177040	245612						
		303505						WLINR	0.02030	1.28670		0.99525	
	38 Azinphos-methyl	10147	23048	68525	125256	168294	229655						
		284466						WLINR	0.02923	1.20596		0.99461	
	40 Azinphos-ethyl	26756	43178	85913	151651	188903	249137						
		302773						WLINR	-0.09682	1.23973		0.99481	
	41 Coumaphos	8196	20857	56878	104402	142605	195717						
		249968						WLINR	0.03297	1.03529		0.99625	
S	42 Merphos	16102	39522	100404	175775	224385	302947						
		377164						WLINR	0.00044	1.59699		0.99227	
M	43 Total Demeton	17537	46775	116387	198835	275455	360860						
		455793						WLINR	0.00996	1.91689		0.99407	

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
$ 4 Chlormefos	1.95470	1.89064	2.71720	2.26391	2.28818	2.26782					
	2.21766						AVRG		2.22859		12.07406
$ 35 Triphenyl phosphate	8112	25724	65323	113284	142596	191433					
	241166						LINR	-0.03420	0.98195		0.99469

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Table of Contents

Report Date: 07-Aug-2009 08:20

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Start Cal Date: 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Last Cal Level: 1
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
06-AUG-2009 15:42	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
06-AUG-2009 15:15	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
06-AUG-2009 14:47	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
06-AUG-2009 14:20	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
06-AUG-2009 13:52	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
06-AUG-2009 13:25	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
06-AUG-2009 12:58	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: BY SAMPLE

06-AUG-2009 16:09	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\010F1001.D		

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.0000	2.2018	10.1	15.0	
2	Dichlorvos	2.0000	2.0536	2.7	15.0	
3	Chlormefos	2.0000	1.7144	14.3	15.0	
4	Mevinphos	2.0000	1.7730	11.3	15.0	
5	Demeton-O	0.6500	2.1449	230.0	15.0	<- OK, see total demeton
6	Thionazin	2.0000	2.2025	10.1	15.0	
7	Ethoprop	2.0000	1.9689	1.6	15.0	
8	Phorate	2.0000	1.6238	18.8	15.0	<-
10	Naled	2.0000	1.8455	7.7	15.0	
146	Sulfotepp	2.0000	1.9576	2.1	15.0	
10	Simazine	2.0000	2.9567	47.8	15.0	<-
12	Diazinon	2.0000	1.9089	4.6	15.0	
150	Atrazine	2.0000	1.9657	1.7	15.0	
13	Propazine	2.0000	2.1279	6.4	15.0	
14	Disulfoton	2.0000	2.0805	4.0	15.0	
15	Demeton-S	1.3600	0.1525	88.8	15.0	<- OK, see total demeton
16	Dimethoate	2.0000	2.1765	8.8	15.0	
17	Ronnel	2.0000	2.0870	4.4	15.0	
148	Merphos-A (Merphos)	2.0000	0.1919	90.4	999.0	
18	Chlorpyrifos	2.0000	2.0011	0.1	15.0	
19	Fenthion	2.0000	1.9599	2.0	15.0	
20	Trichloronate	2.0000	1.8191	9.0	15.0	
21	Anilazine	2.0000	1.0823	45.9	15.0	<-
23	Methyl Parathion	2.0000	1.9807	1.0	15.0	
24	Malathion	2.0000	1.8696	6.5	15.0	
25	Tokuthion	2.0000	1.9788	1.1	15.0	
26	Parathion	2.0000	2.1534	7.7	15.0	
149	Merphos-B (Merphos Oxone)	2.0000	8.1236	306.2	999.0	
27	Tetrachlorvinphos (stirophos)	2.0000	2.0968	4.8	15.0	
28	Carbophenothion methyl	2.0000	1.2860	35.7	15.0	<-
28	Bolstar	2.0000	2.1205	6.0	15.0	
30	Carbophenothion	2.0000	2.2562	12.8	15.0	
29	Triphenyl phosphate	2.0000	1.8593	7.0	15.0	
30	Fensulfothion	2.0000	2.0203	1.0	15.0	
35	Phosmet / EPN	4.0000	4.5605	14.0	15.0	
33	Famphur	2.0000	2.2966	14.8	15.0	
34	Azinphos-methyl	2.0000	1.9330	3.4	15.0	
35	Azinphos-ethyl	2.0000	2.0948	4.7	15.0	
36	Coumaphos	2.0000	1.9872	0.6	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.7882	10.6	15.0
40 Total Demeton	2.0000	2.2974	14.9	15.0

Average %D = 26.2

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.0000	2.2717	13.6	15.0	
2	Dichlorvos	2.0000	1.9502	2.5	15.0	
3	Mevinphos	2.0000	1.7488	12.6	15.0	
4	Chlormefos	2.0000	1.7199	14.0	15.0	
5	Thionazin	2.0000	2.2734	13.7	15.0	
6	Demeton-O	0.6500	1.8115	178.7	15.0	<- ok, see total demeton
7	Ethoprop	2.0000	2.2525	12.6	15.0	
8	Naled	2.0000	1.9804	1.0	15.0	
9	Sulfotepp	2.0000	1.9605	2.0	15.0	
10	Phorate	2.0000	1.6813	15.9	15.0	<-
11	Dimethoate	2.0000	2.1879	9.4	15.0	
12	Demeton-S	1.3600	0.3317	75.6	15.0	<- ok, see total demeton
13	Simazine	2.0000	2.1647	8.2	15.0	
14	Atrazine	2.0000	2.0483	2.4	15.0	
15	propazine	2.0000	2.0269	1.3	15.0	
17	Disulfoton	2.0000	2.0679	3.4	15.0	
16	Diazinon	2.0000	1.9798	1.0	15.0	
18	Methyl Parathion	2.0000	2.0407	2.0	15.0	
19	Ronnel	2.0000	2.1116	5.6	15.0	
20	Malathion	2.0000	1.9633	1.8	15.0	
21	Fenthion	2.0000	1.9795	1.0	15.0	
22	Parathion	2.0000	2.1558	7.8	15.0	
23	Chlorpyrifos	2.0000	2.0550	2.7	15.0	
24	Trichloronate	2.0000	1.9193	4.0	15.0	
25	Anilazine	2.0000	1.0705	46.5	15.0	<-
148	Merphos-A (Merphos)	2.0000	0.2808	86.0	999.0	
26	Tetrachlorvinphos (Stirophos)	2.0000	1.8972	5.1	15.0	
28	Tokuthion	2.0000	2.0419	2.1	15.0	
149	Merphos-B (Merphos Oxone)	2.0000	7.5483	277.4	999.0	
29	Carbophenothion-methyl	2.0000	1.3628	31.9	15.0	<-
29	Fensulfothion	2.0000	1.9401	3.0	15.0	
30	Bolstar / Famphur	4.0000	4.4316	10.8	15.0	
32	Carbophenothion	2.0000	2.2043	10.2	15.0	
31	Triphenyl phosphate	2.0000	1.8916	5.4	15.0	
34	Phosmet	2.0000	2.3364	16.8	15.0	<-
32	EPN	2.0000	2.2899	14.5	15.0	
33	Azinphos-methyl	2.0000	1.9194	4.0	15.0	
35	Azinphos-ethyl	2.0000	2.1107	5.5	15.0	
36	Coumaphos	2.0000	2.1006	5.0	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.9328	3.4	15.0
40 Total Demeton	2.0000	2.1432	7.2	15.0

Average %D = 22.6

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 21:37
Lab File ID: 022F2201.D
Lab Sample ID: OPP CCV GSV0861
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\08

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.5000	2.2894	8.4	15.0	
2	Dichlorvos	2.5000	2.4217	3.1	15.0	
3	Chlormefos	2.5000	2.3502	6.0	15.0	
4	Mevinphos	2.5000	2.4676	1.3	15.0	
5	Demeton-O	0.8125	0.7810	3.9	15.0	
6	Thionazin	2.5000	2.3878	4.5	15.0	
7	Ethoprop	2.5000	2.4234	3.1	15.0	
8	Phorate	2.5000	2.3517	5.9	15.0	
10	Naled	2.5000	2.5641	2.6	15.0	
146	Sulfotepp	2.5000	2.3918	4.3	15.0	
10	Simazine	2.5000	2.2483	10.1	15.0	
12	Diazinon	2.5000	2.3629	5.5	15.0	
150	Atrazine	2.5000	2.1657	13.4	15.0	
13	Propazine	2.5000	2.3100	7.6	15.0	
14	Disulfoton	2.5000	2.3069	7.7	15.0	
15	Demeton-S	1.7000	1.6253	4.4	15.0	
16	Dimethoate	2.5000	2.3616	5.5	15.0	
17	Ronnel	2.5000	2.3782	4.9	15.0	
148	Merphos-A (Merphos)	2.5000	2.2678	9.3	999.0	
18	Chlorpyrifos	2.5000	2.4625	1.5	15.0	
19	Fenthion	2.5000	2.2228	11.1	15.0	
20	Trichloronate	2.5000	2.4557	1.8	15.0	
21	Anilazine	2.5000	0.3309	86.8	15.0	<-
23	Methyl Parathion	2.5000	2.3812	4.8	15.0	
24	Malathion	2.5000	2.4278	2.9	15.0	
25	Tokuthion	2.5000	2.4362	2.6	15.0	
26	Parathion	2.5000	2.4009	4.0	15.0	
149	Merphos-B (Merphos Oxone)	2.5000	3.4478	37.9	999.0	
27	Tetrachlorvinphos (stirophos)	2.5000	2.4420	2.3	15.0	
28	Carbophenothion methyl	2.5000	2.3958	4.2	15.0	
28	Bolstar	2.5000	2.3733	5.1	15.0	
30	Carbophenothion	2.5000	2.3754	5.0	15.0	
29	Triphenyl phosphate	2.5000	2.4300	2.8	15.0	
30	Fensulfothion	2.5000	2.3544	5.8	15.0	
35	Phosmet / EPN	5.0000	4.7724	4.6	15.0	
33	Famphur	2.5000	2.4226	3.1	15.0	
34	Azinphos-methyl	2.5000	2.3026	7.9	15.0	
35	Azinphos-ethyl	2.5000	2.3076	7.7	15.0	
36	Coumaphos	2.5000	2.3238	7.0	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 21:37
Lab Sample ID: OPP CCV GSV0861
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\08

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.5000	2.3597	5.6	15.0
40 Total Demeton	2.5000	2.4063	3.7	15.0

Average %D = 8.03

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 21:37
Lab File ID: 022F2201.D
Lab Sample ID: OPP CCV GSV0861
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\08

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.5000	2.4723	1.1	15.0	
2	Dichlorvos	2.5000	2.4137	3.5	15.0	
3	Mevinphos	2.5000	2.5218	0.9	15.0	
4	Chlormefos	2.5000	2.5381	1.5	15.0	
5	Thionazin	2.5000	2.4187	3.3	15.0	
6	Demeton-O	0.8125	0.8593	5.8	15.0	
7	Ethoprop	2.5000	2.5588	2.4	15.0	
8	Naled	2.5000	2.6215	4.9	15.0	
9	Sulfotepp	2.5000	2.4738	1.0	15.0	
10	Phorate	2.5000	2.5215	0.9	15.0	
11	Dimethoate	2.5000	2.4656	1.4	15.0	
12	Demeton-S	1.7000	1.7040	0.2	15.0	
13	Simazine	2.5000	2.7072	8.3	15.0	
14	Atrazine	2.5000	2.5289	1.2	15.0	
15	propazine	2.5000	2.4775	0.9	15.0	
17	Disulfoton	2.5000	2.3173	7.3	15.0	
16	Diazinon	2.5000	2.5344	1.4	15.0	
18	Methyl Parathion	2.5000	2.4621	1.5	15.0	
19	Ronnel	2.5000	2.4542	1.8	15.0	
20	Malathion	2.5000	2.5129	0.5	15.0	
21	Fenthion	2.5000	2.4523	1.9	15.0	
22	Parathion	2.5000	2.4410	2.4	15.0	
23	Chlorpyrifos	2.5000	2.7661	10.6	15.0	
24	Trichloronate	2.5000	2.5003	0.0	15.0	
25	Anilazine	2.5000	1.0200	59.2	15.0	<-
148	Merphos-A (Merphos)	2.5000	2.1661	13.4	999.0	
26	Tetrachlorvinphos (Stirophos)	2.5000	2.4164	3.3	15.0	
28	Tokuthion	2.5000	2.4366	2.5	15.0	
149	Merphos-B (Merphos Oxone)	2.5000	3.2567	30.3	999.0	
29	Carbophenothion-methyl	2.5000	2.3906	4.4	15.0	
29	Fensulfothion	2.5000	2.4277	2.9	15.0	
30	Bolstar / Famphur	5.0000	4.8882	2.2	15.0	
32	Carbophenothion	2.5000	2.6667	6.7	15.0	
31	Triphenyl phosphate	2.5000	2.4879	0.5	15.0	
34	Phosmet	2.5000	2.3447	6.2	15.0	
32	EPN	2.5000	2.3937	4.3	15.0	
33	Azinphos-methyl	2.5000	2.5236	0.9	15.0	
35	Azinphos-ethyl	2.5000	2.4944	0.2	15.0	
36	Coumaphos	2.5000	2.4683	1.3	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 21:37
Lab Sample ID: OPP CCV GSV0861
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\08

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.5000	2.4091	3.6	15.0
40 Total Demeton	2.5000	2.5633	2.5	15.0

Average %D = 5.10

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV860-09				
4	Vial 4	OPP L6 GSV870-09				
5	Vial 5	OPP L5 GSV871-09				
6	Vial 6	OPP L4 GSV872-09				
7	Vial 7	OPP L3 GSV873-09				
8	Vial 8	OPP L2 GSV874-09				
9	Vial 9	OPP L1 GSV875-09				
10	Vial 10	OPP SS GSV895-09				
11	Vial 11	LG1WF1AA,MB				
12	Vial 12	LG1WF1AC,LCS				
13	Vial 13	LG1WF1AD,LCSD				
14	Vial 14	LG0741AA,301-1				
15	Vial 15	LG08H1AA,306-1				
16	Vial 16	LG08K1AA,306-2				
17	Vial 17	LG08L1AA,306-3				
18	Vial 18	LG08M1AA,306-4				
19	Vial 19	LG08V1AA,306-5				
20	Vial 20	LG0851AA,309-1				
21	Vial 21	LG09C1AA,310-1				
22	Vial 22	OPP CCV GSV0861				
23	Vial 23	LG4A21AA,MB				
24	Vial 24	LG4A21AC,LCS				
25	Vial 25	LG4A21AD,LCSD				
26	Vial 26	LGWWX2AA,280-1				
27	Vial 27	LGWW42AA,280-3				
28	Vial 28	LGWW52AA,280-4				
29	Vial 29	LG34H1AA,MB				
30	Vial 30	LG34H1AC,LCS				
31	Vial 31	LG34H1AD,LCSD				
32	Vial 32	LG2W11AA,270-1				
33	Vial 33	LG4781AA,MB				
34	Vial 34	LG4781AC,LCS				
35	Vial 35	LG4781AD,LCSD				
36	Vial 36	LGQD32AA,150-3				
37	Vial 37	OPP CCV GSV0861				
38	Vial 38	LG5GL1AA,BLK				
39	Vial 39	LG5GL1AC,LCS				
40	Vial 40	LGNRG1AC,293-11				
41	Vial 41	LGNRG1CM,293-11S				
42	Vial 42	LGNRG1CN,293-11D				
43	Vial 43	LGRCC1AA,BLK				
44	Vial 44	LGRCC1AC,LCS				
45	Vial 45	LGL5K1AE,333-4				
46	Vial 46	LGL5K1DA,333-4S				
47	Vial 47	LGL5K1DC,333-4D				
48	Vial 48	LGL5P1AQ,333-5				
49	Vial 49	LGNQV1AC,293-3				
50	Vial 50	LGNQW1AN,293-4				
51	Vial 51	LGNQ01AR,293-6				
52	Vial 52	OPP CCV GSV0827				
53	Vial 53	LGNQ21AA,293-7				
54	Vial 54	LGNQ51AN,293-8				
55	Vial 55	LGNQ81AF,293-9				
56	Vial 56	LGNRC1AR,293-10				
57	Vial 57	LGNRJ1AN,293-12				
58	Vial 58	LGNRK1AR,293-13				

9205274

9207019

9206111

9205404

9209010

9202116

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LGNRL1A1,293-14				
60	Vial 60	LGNRP1AN,293-16				
61	Vial 61	LGNRR1A4,293-17				
62	Vial 62	LGN151AC,293-21				
63	Vial 63	OPP CCV GSV0861				
64	Vial 64	OPP L1 GSV0862				

Sequence Table (Back Injector):

No entries - empty table!

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G240312

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G240312

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
CLD-4RB	D9G240312-001
CLD-4RB MS	D9G240312-001S
CLD-4RB MSD	D9G240312-001SD

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/6/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	CLD-4RB
Lot/SDG Number:	D9G240312	**Lab Sample ID:**	D9G240312-001
Matrix:	WATER	**Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:40
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**380**	1.0	25	
7782-49-2	Selenium	**11**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	40.0	100.0	50.0	51.0	102.0	50.8	101.6	M
Selenium	40.0	39.5	98.8	50.0	49.6	99.2	51.2	102.4	M

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

Total Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	50.5	101.0	50.2	100.4	M
Selenium				50.0	49.4	98.8	50.5	101.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	51.5	103.0	50.9	101.8	M
Selenium				50.0	52.3	104.6	51.5	103.0	M

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

TestAmerica

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G240312

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.042	104.2		
Selenium				1.00	1.017	101.7		

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G240312	**Lab Sample ID:**	D9G270000-088B
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:34
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C		M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U		M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U		M

Comments:

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.41	99.71	99.7	0.47	99.30	99.3
Selenium	0.0	100.0	-0.17	102.30	102.3	-0.41	99.29	99.3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	CLD-4RB
Lot/SDG Number:	D9G240312	**MS Lab Sample ID:**	D9G240312-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:49
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	380		440	MSB	144	N	85 - 117
Selenium	40.0	11	B	55.2		110		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	CLD-4RB
Lot/SDG Number:	D9G240312	**MSD Lab Sample ID:**	D9G240312-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:51
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	380		424	MSB	104		3.6		85 - 117	20
Selenium	40.0	11	B	55.5		111		0.54		77 - 122	20

Total Metals Analvsis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.: CLD-4RB PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	280.900		76.500		200.00	102.2		M
Selenium	75 - 125	208.300		2.222	B	200.00	103.0		M

Comments: _____

Form V (PART 2) - IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G240312	**Lab Sample ID:**	D9G270000-088C
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:37
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	40.8	102		85 - 117
Selenium	40.0	40.5	101		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

CLD-4RB SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

Form X - IN

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

Form XII - IN

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G240312

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
CLD-4RB	7/29/2009	50.0	50.0
CLD-4RB MS	7/29/2009	50.0	50.0
CLD-4RB MSD	7/29/2009	50.0	50.0
MB9208088	7/29/2009	50.0	50.0
Check Sample	7/29/2009	50.0	50.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G240312

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:30				X															X						
100 PPB	1.00	17:33				X															X						
ICV	1.00	17:35				X															X						
ICB	1.00	17:41				X															X						
RL STD	1.00	17:44				X															X						
ICSA	1.00	17:53				X															X						
ICSAB	1.00	17:56				X															X						
RINSE	1.00	17:59				X															X						
LR	1.00	18:02				X															X						
RINSE	1.00	18:05				X															X						
CCV	1.00	18:08				X															X						
CCB	1.00	18:10				X															X						
ALTLR	1.00	18:18				X															X						
RINSE	1.00	18:21				X															X						
CCV	1.00	18:24				X															X						
CCB	1.00	18:27				X															X						
CAL BLANK	1.00	21:44				X															X						
100 PPB	1.00	21:47				X															X						
CCV	1.00	21:50				X															X						
CCB	1.00	21:53				X															X						
ICSA	1.00	21:59				X															X						
ICSAB	1.00	22:02				X															X						
WASH	1.00	22:04				X															X						
CCV	1.00	22:07				X															X						
CCB	1.00	22:10				X															X						
CCV	1.00	22:25				X															X						
CCB	1.00	22:28				X															X						
MB9208088	1.00	22:34				X															X						
Check Sample	1.00	22:37				X															X						
CLD-4RB	5.00	22:40				X															X						
CLD-4RB SER	25.00	22:43				X															X						
CLD-4RB PDS	1.00	22:46				X															X						
CLD-4RB MS	5.00	22:49				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G240312

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CLD-4RB MSD	5.00	22:51				X															X						
CCV	1.00	23:03				X															X						
CCB	1.00	23:06				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G250146

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G250146

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
MW-6RB	D9G250146-001

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/6/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	MW-6RB
Lot/SDG Number:	D9G250146	**Lab Sample ID:**	D9G250146-001
Matrix:	WATER	**Lab WorkOrder:**	LG3WE
% Moisture:	N/A	**Date/Time Collected:**	07/23/09 09:17
Basis:	Wet	**Date/Time Received:**	07/25/09 08:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:54
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**160**	1.0	25	
7782-49-2	Selenium	**7.4**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	40.0	40.0	100.0	50.0	51.0	102.0	50.8	101.6	M
Selenium	40.0	39.5	98.8	50.0	49.6	99.2	51.2	102.4	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	50.5	101.0	50.2	100.4	M
Selenium				50.0	49.4	98.8	50.5	101.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	51.5	103.0	50.9	101.8	M
Selenium				50.0	52.3	104.6	51.5	103.0	M

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

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250146

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.042	104.2		
Selenium				1.00	1.017	101.7		

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250146	**Lab Sample ID:**	D9G270000-088B
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:34
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

Total Metals Analysis

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Total Metals Analvsis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.41	99.71	99.7	0.47	99.30	99.3
Selenium	0.0	100.0	-0.17	102.30	102.3	-0.41	99.29	99.3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250146	**MS Lab Sample ID:**	D9G240312-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:49
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	380		440	MSB	144	N	85 - 117
Selenium	40.0	11	B	55.2		110		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250146	**MSD Lab Sample ID:**	D9G240312-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:51
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	380		424	MSB	104		3.6		85 - 117	20
Selenium	40.0	11	B	55.5		111		0.54		77 - 122	20

TestAmerica

Total Metals Analysis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.: INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	280.900		76.500		200.00	102.2		M
Selenium	75 - 125	208.300		2.222	B	200.00	103.0		M

Comments: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250146	**Lab Sample ID:**	D9G270000-088C
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:37
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	40.8	102		85 - 117
Selenium	40.0	40.5	101		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250146

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
INTRA-LAB QC	7/29/2009	50.0	50.0
LAB MS/MSD MS	7/29/2009	50.0	50.0
LAB MS/MSD MSD	7/29/2009	50.0	50.0
MW-6RB	7/29/2009	50.0	50.0
MB9208088	7/29/2009	50.0	50.0
Check Sample	7/29/2009	50.0	50.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250146

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:30				X															X						
100 PPB	1.00	17:33				X															X						
ICV	1.00	17:35				X															X						
ICB	1.00	17:41				X															X						
RL STD	1.00	17:44				X															X						
ICSA	1.00	17:53				X															X						
ICSAB	1.00	17:56				X															X						
RINSE	1.00	17:59				X															X						
LR	1.00	18:02				X															X						
RINSE	1.00	18:05				X															X						
CCV	1.00	18:08				X															X						
CCB	1.00	18:10				X															X						
ALTLR	1.00	18:18				X															X						
RINSE	1.00	18:21				X															X						
CCV	1.00	18:24				X															X						
CCB	1.00	18:27				X															X						
CAL BLANK	1.00	21:44				X															X						
100 PPB	1.00	21:47				X															X						
CCV	1.00	21:50				X															X						
CCB	1.00	21:53				X															X						
ICSA	1.00	21:59				X															X						
ICSAB	1.00	22:02				X															X						
WASH	1.00	22:04				X															X						
CCV	1.00	22:07				X															X						
CCB	1.00	22:10				X															X						
CCV	1.00	22:25				X															X						
CCB	1.00	22:28				X															X						
MB9208088	1.00	22:34				X															X						
Check Sample	1.00	22:37				X															X						
INTRA-LAB QC	5.00	22:40				X															X						
INTRA-LAB QC SER	25.00	22:43				X															X						
INTRA-LAB QC PDS	1.00	22:46				X															X						
LAB MS/MSD MS	5.00	22:49				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250146

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
LAB MS/MSD MSD	5.00	22:51				X															X						
MW-6RB	5.00	22:54				X															X						
CCV	1.00	23:03				X															X						
CCB	1.00	23:06				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G250155

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G250155

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
M-35B	D9G250155-001

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/6/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-35B
Lot/SDG Number:	D9G250155	**Lab Sample ID:**	D9G250155-001
Matrix:	WATER	**Lab WorkOrder:**	LG3W9
% Moisture:	N/A	**Date/Time Collected:**	07/24/09 11:10
Basis:	Wet	**Date/Time Received:**	07/25/09 08:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:57
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**100**	1.0	25	
7782-49-2	Selenium	**5.1**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic	40.0	40.0	100.0	50.0	51.0	102.0	50.8	101.6	M
Selenium	40.0	39.5	98.8	50.0	49.6	99.2	51.2	102.4	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	50.5	101.0	50.2	100.4	M
Selenium				50.0	49.4	98.8	50.5	101.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	51.5	103.0	50.9	101.8	M
Selenium				50.0	52.3	104.6	51.5	103.0	M

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

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250155

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.042	104.2		
Selenium				1.00	1.017	101.7		

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250155	**Lab Sample ID:**	D9G270000-088B
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:34
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.41	99.71	99.7	0.47	99.30	99.3
Selenium	0.0	100.0	-0.17	102.30	102.3	-0.41	99.29	99.3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250155	**MS Lab Sample ID:**	D9G240312-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:49
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	380		440	MSB	144	N	85 - 117
Selenium	40.0	11	B	55.2		110		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250155	**MSD Lab Sample ID:**	D9G240312-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:51
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	380		424	MSB	104		3.6		85 - 117	20
Selenium	40.0	11	B	55.5		111		0.54		77 - 122	20

Total Metals Analysis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.: INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	280.900		76.500		200.00	102.2		M
Selenium	75 - 125	208.300		2.222	B	200.00	103.0		M

Comments: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250155	**Lab Sample ID:**	D9G270000-088C
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:37
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	40.8	102		85 - 117
Selenium	40.0	40.5	101		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

Form XII - IN

Total Metals Analysis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250155

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
INTRA-LAB QC	7/29/2009	50.0	50.0
LAB MS/MSD MS	7/29/2009	50.0	50.0
LAB MS/MSD MSD	7/29/2009	50.0	50.0
M-35B	7/29/2009	50.0	50.0
MB9208088	7/29/2009	50.0	50.0
Check Sample	7/29/2009	50.0	50.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250155

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:30				X															X						
100 PPB	1.00	17:33				X															X						
ICV	1.00	17:35				X															X						
ICB	1.00	17:41				X															X						
RL STD	1.00	17:44				X															X						
ICSA	1.00	17:53				X															X						
ICSAB	1.00	17:56				X															X						
RINSE	1.00	17:59				X															X						
LR	1.00	18:02				X															X						
RINSE	1.00	18:05				X															X						
CCV	1.00	18:08				X															X						
CCB	1.00	18:10				X															X						
ALTLR	1.00	18:18				X															X						
RINSE	1.00	18:21				X															X						
CCV	1.00	18:24				X															X						
CCB	1.00	18:27				X															X						
CAL BLANK	1.00	21:44				X															X						
100 PPB	1.00	21:47				X															X						
CCV	1.00	21:50				X															X						
CCB	1.00	21:53				X															X						
ICSA	1.00	21:59				X															X						
ICSAB	1.00	22:02				X															X						
WASH	1.00	22:04				X															X						
CCV	1.00	22:07				X															X						
CCB	1.00	22:10				X															X						
CCV	1.00	22:25				X															X						
CCB	1.00	22:28				X															X						
MB9208088	1.00	22:34				X															X						
Check Sample	1.00	22:37				X															X						
INTRA-LAB QC	5.00	22:40				X															X						
INTRA-LAB QC SER	25.00	22:43				X															X						
INTRA-LAB QC PDS	1.00	22:46				X															X						
LAB MS/MSD MS	5.00	22:49				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250155

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
LAB MS/MSD MSD	5.00	22:51				X															X						
M-35B	5.00	22:57				X															X						
CCV	1.00	23:03				X															X						
CCB	1.00	23:06				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

Total Metals

CLP-Like Forms

Lot ID: D9G250157

Client: Northgate/Tronox

Method: SW846 6020/Collision Cell

Associated Sample: 001

TestAmerica

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: Northgate Environmental Management, Inc. SDG No.: D9G250157

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
M-52B	D9G250157-001

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

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 8/16/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	M-52B
Lot/SDG Number:	D9G250157	**Lab Sample ID:**	D9G250157-001
Matrix:	WATER	**Lab WorkOrder:**	LG3XG
% Moisture:	N/A	**Date/Time Collected:**	07/24/09 08:10
Basis:	Wet	**Date/Time Received:**	07/25/09 08:30
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 23:00
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	5		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	**180**	1.0	25	
7782-49-2	Selenium	**9.9**	3.5	25	B

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Arsenic	40.0	40.0	100.0	50.0	51.0	102.0	50.8	101.6	M
Selenium	40.0	39.5	98.8	50.0	49.6	99.2	51.2	102.4	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	50.5	101.0	50.2	100.4	M
Selenium				50.0	49.4	98.8	50.5	101.0	M

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Initial Calibration Source: High Purity

Continuing Calibration Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Arsenic				50.0	51.5	103.0	50.9	101.8	M
Selenium				50.0	52.3	104.6	51.5	103.0	M

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

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250157

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Arsenic				1.00	1.042	104.2		
Selenium				1.00	1.017	101.7		

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250157	**Lab Sample ID:**	D9G270000-088B
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:34
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

CAS No.	Analyte	Conc.	MDL	RL	Q
7440-38-2	Arsenic	0.21	0.21	5.0	U
7782-49-2	Selenium	0.70	0.70	5.0	U

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic	0.210	U	0.210	U	0.210	U	0.210	U	0.21	U	M
Selenium	0.700	U	0.700	U	0.700	U	0.700	U	0.70	U	M

Comments:

TestAmerica

Total Metals Analysis

-3-

BLANKS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Arsenic			0.210	U	0.210	U	0.210	U			M
Selenium			0.700	U	0.700	U	0.700	U			M

Comments:

TestAmerica

Total Metals Analysis

-4-

ICP INTERFERENCE CHECK SAMPLE

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

ICP ID Number: Agilent 7500 ICS Source: Inorganic Ventures

Concentration Units): ug/L

Analyte	True		Initial Found			Final Found		
	Sol.A	Sol.AB	Sol.A	Sol.AB	%R	Sol.A	Sol.AB	%R
Arsenic	0.0	100.0	0.41	99.71	99.7	0.47	99.30	99.3
Selenium	0.0	100.0	-0.17	102.30	102.3	-0.41	99.29	99.3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250157	**MS Lab Sample ID:**	D9G240312-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:49
MS Sample Aliquot:	50 mL	**Instrument ID:**	024
MS Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Arsenic	40.0	380		440	MSB	144	N	85 - 117
Selenium	40.0	11	B	55.2		110		77 - 122

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9G250157	**MSD Lab Sample ID:**	D9G240312-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LG282
% Moisture:	N/A	**Date/Time Collected:**	07/22/09 09:50
Basis:	Wet	**Date/Time Received:**	07/24/09 08:45
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:51
MSD Sample Aliquot:	50 mL	**Instrument ID:**	024
MSD Dilution Factor:	5		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Arsenic	40.0	380		424	MSB	104		3.6		85 - 117	20
Selenium	40.0	11	B	55.5		111		0.54		77 - 122	20

Total Metals Analysis
-5B-

POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.: INTRA-LAB QC PDS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added(SA)	%R	Q	M
Arsenic	75 - 125	280.900		76.500		200.00	102.2		M
Selenium	75 - 125	208.300		2.222	B	200.00	103.0		M

Comments: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9G250157	**Lab Sample ID:**	D9G270000-088C
Matrix:	WATER	**Lab WorkOrder:**	LG6WK
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	6020	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	07/29/09 07:00
QC Batch ID:	9208088	**Date/Time Analyzed:**	08/04/09 22:37
Sample Aliquot:	50 mL	**Instrument ID:**	024
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Arsenic	40.0	40.8	102		85 - 117
Selenium	40.0	40.5	101		77 - 122

Total Metals Analysis

-9-

ICP SERIAL DILUTIONS

SAMPLE NO.

INTRA-LAB QC SER

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	B	3.500	U	100.0		M

Comments: _____

TestAmerica

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

ICP ID Number: Agilent 7500 Date: 4/23/2009

Flame AA ID Number: _____

Furnace AA ID Number:

Analyte	Isotope	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Arsenic	75		5.000	0.2100	M
Selenium	78		5.000	0.7000	M

Comments: _____

Total Metals Analysis
-12-
ICP LINEAR RANGES (QUARTERLY)

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

ICP ID Number: Agilent 7500 Date: 7/7/2009

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Arsenic	0.001	3600	M
Selenium	0.001	3600	M

Comments: _____

TestAmerica

Total Metals Analvsis

-13-

PREPARATION LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9G250157

Method: MS Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
INTRA-LAB QC	7/29/2009	50.0	50.0
LAB MS/MSD MS	7/29/2009	50.0	50.0
LAB MS/MSD MSD	7/29/2009	50.0	50.0
M-52B	7/29/2009	50.0	50.0
MB9208088	7/29/2009	50.0	50.0
Check Sample	7/29/2009	50.0	50.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250157

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CAL BLANK	1.00	17:30				X															X						
100 PPB	1.00	17:33				X															X						
ICV	1.00	17:35				X															X						
ICB	1.00	17:41				X															X						
RL STD	1.00	17:44				X															X						
ICSA	1.00	17:53				X															X						
ICSAB	1.00	17:56				X															X						
RINSE	1.00	17:59				X															X						
LR	1.00	18:02				X															X						
RINSE	1.00	18:05				X															X						
CCV	1.00	18:08				X															X						
CCB	1.00	18:10				X															X						
ALTLR	1.00	18:18				X															X						
RINSE	1.00	18:21				X															X						
CCV	1.00	18:24				X															X						
CCB	1.00	18:27				X															X						
CAL BLANK	1.00	21:44				X															X						
100 PPB	1.00	21:47				X															X						
CCV	1.00	21:50				X															X						
CCB	1.00	21:53				X															X						
ICSA	1.00	21:59				X															X						
ICSAB	1.00	22:02				X															X						
WASH	1.00	22:04				X															X						
CCV	1.00	22:07				X															X						
CCB	1.00	22:10				X															X						
CCV	1.00	22:25				X															X						
CCB	1.00	22:28				X															X						
MB9208088	1.00	22:34				X															X						
Check Sample	1.00	22:37				X															X						
INTRA-LAB QC	5.00	22:40				X															X						
INTRA-LAB QC SER	25.00	22:43				X															X						
INTRA-LAB QC PDS	1.00	22:46				X															X						
LAB MS/MSD MS	5.00	22:49				X															X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

Total Metals Analysis

-14-

ANALYSIS RUN LOG

Contract: Northgate Environmental Management, Inc.

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9G250157

Instrument ID Number: Agilent 7500 Method: M

Start Date: 8/4/2009 End Date: 8/4/2009

Sample ID.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
LAB MS/MSD MSD	5.00	22:51				X														X						
M-52B	5.00	23:00				X														X						
CCV	1.00	23:03				X														X						
CCB	1.00	23:06				X														X						

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

4.7°C
4
7-22-09

219

northgate
environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00324
Page: 1 of 1
Cooler # 1 of

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley, Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	Mark one
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush	Mark One
If Rush, Date due			
QC level Required: Standard		Special	EPA Stage 4 / Mark one
NJ Reduced Deliverable Package?			
MA MCP Cert?		CT RCP Cert?	Mark One
Lab Project ID (lab use)			

Valid Matrix Codes: DRINKING WATER (WP), GROUND WATER (WG), WASTE WATER (WW), FREE PRODUCT (LF), SOIL (SO), OIL (SW), WIPE (AA), AMBIENT AIR (AE), SVE AIR (GS), SOIL GAS; WATER (W), SURFACE WATER (WS), WATER QC (WQ), SLUDGE (SL), OIL RINSEATE (WH), OTHER (OT), ANIMAL TISSUE (TA)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 6020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	M-77B	WG	G	7/20/2009	9:30 AM	1	N			X						X		500 ml Plastic
2	M-77BDISS	WG	G	7/20/2009	9:30 AM	1	Y			X						X		500 ml Plastic
3	M-77BMS	WG	G	7/20/2009	9:30 AM	1	N			X						X		500 ml Plastic
4	M-77BMSD	WG	G	7/20/2009	9:30 AM	1	N			X						X		500 ml Plastic
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

DRB 7-20-09

Additional Comments/Special Instructions:

As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Dana Brown, NGEM	7/20	14:30	GES	7/20	1430
GES	7/20	16:00	GES	7/20	1600
GES	7/21	11:00		7/21/09	1100
	7/21/09	1600	FedEx	7/22/9	0930

Sample Receipt Conditions

Temp in °C	Samples on Ice?	Sample intact?	Chain of Custody Seals?
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N
	Y / N	Y / N	Y / N

SHIPPING METHOD (mark as appropriate): UPS / COURIER / FEDEX / US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Dana Brown

SIGNATURE of SAMPLER:

DATE Signed: 7-20-09 Time: 14:30

TestAmerica

Table of Contents

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9G220275 Date/Time Received: 7/22/9 0930

Company Name & Sampling Site: Nor Nigate - TRONOX

PM to Complete This Section: *Yes* *No* *Yes* *No*
Residual chlorine check required: ☐ ☒ Quarantined : ☐ ☒

Quote #: 83046

Special Instructions:

MS/MSD

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____ _____ _____ _____ _____ _____ _____ _____

Temperatures (°C): 4.7 _____ _____ _____ _____ _____ _____ _____

N/A	*Yes*	*No*		*Initials*
☐	☑	☐	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	CHK
	☑	☐	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____	
	☑	☐	3. Chain of custody present? If no, document on CUR.	
	☐	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	☐	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	☐	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
☐	☑	☐	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	☐	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	☐	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☑	☐	☐	10. Were VOA samples without headspace? If no, document on CUR.	
☑	☐	☐	11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☑	☐	☐	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☐	☑	☐	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☐	☑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☑	17. Are analyses with short holding times requested?	
	☐	☑	18. Was a quick Turn Around (TAT) requested?	

TestAmerica Denver

Sample Receiving Checklist

Lot # D96220275

Login Checks:

Initials AG

N/A	Yes	No		
	☑	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003)	If no, document on CUR, and contact PM before proceeding.
~~☐~~ X	☐		20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates?	If no, document on CUR, and contact PM before proceeding.
	☑	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☑	☐	22. Were special log in instructions read and followed?	
☑	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
	☑	☐	24. Were tests logged checked against the COC? Which samples were confirmed? All	
☑	☐	☐	25. Was a Rush form completed for quick TAT?	
☑	☐	☐	26. Was a Short Hold form completed for any short holds?	
	☐	☑	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks:

Initials CWK

☑	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?
	☑	☐	29. Were sample labels double-checked by a second person?
☑	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
	☑	☐	31. Did the sample ID, Date, and Time from label match what was logged?
☑	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27
☑	☐	☐	33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

northgate
environmental management, inc.
1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00321
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:		Required Project Information:		Required Invoice Information:			
Lab Name:	TestAmerica	Site ID #:	TRONOX LLC. HENDERSON	Send Invoice to:	Susan Crowley Tronox LLC	TAT: Standard 30 day	X
Address:	4955 Yarrow Street	Project #	2027.001	Address:	PO Box 55	If Rush, Date due	
Arvada, CO 80002		Site Address	560 W. Lake Mead Drive	City/State	Henderson, NV 89009	Phone #:	(949)260-9293
Lab PM:	Michael P. Phillips	City	Henderson	State	NV	Reimbursement project?	X
Phone/Fax:	303-736-0157	Site PM Name	Derrick Willis	Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com		
Lab PM email	michael.phillips@testamericainc.com	Phone/Fax:	949-375-7004	CC Hardcopy report to	PDF Electronic Version Only		
Applicable Lab Quote #:		Site PM Email:	derrick.willis@ngem.com	CC Hardcopy report to	see additional comments below		

Rush | Mark One | QC level Required: Standard | Special | EPA Stage 4 | Mark one | NJ Reduced Deliverable Package? | MA MCP Cert? | CT RCP Cert? | Mark One | Lab Project ID (lab use)

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	OIL RINSEATE	WH
OIL	SW	OTHER	OT
WIPE	AA	ANIMAL TISSUE	TA
AMBIENT AIR	AE		
SVE AIR	GS		
SOIL GAS			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 8020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	M-33B	WG	G	7/21/2009	11:15 AM	1	N			X						X		500 ml Plastic
2																		
3																		
4	DRB																	
5	7-21-09																	
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:

As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	7/21	14:00	GES	7/21	1400
	7/21	1600	GES	7/21/09	1600
GES	7/22/09	1120		7/22/09	1120
	7/23/09	1600		7/23/09	0930

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER:
DATE Signed 7/21/09 Time: 14:00

Sample Receipt Conditions	Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N	Y/N

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9G230298 Date/Time Received: 7/23/09

Company Name & Sampling Site: Northgate - TRONOX

PM to Complete This Section: *Yes* *No* *Yes* *No*
Residual chlorine check required: ☐ ☒ Quarantined : ☐ ☒

Quote #: 83046

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 2.5 3.7

N/A *Yes* *No* *Initials* AG

☐ ☑ ☐ 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.

☑ ☐ 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____

☑ ☐ 3. Chain of custody present? If no, document on CUR.

☐ ☑ 4. Bottles broken and/or are leaking? If yes, document on CUR.

☐ ☑ 5. Multiphasic samples obvious? If yes, document on CUR.

☑ ☐ 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.

☐ ☑ ☐ 7. pH of all samples checked and meet requirements? If no, document on CUR.

☑ ☐ 8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.

☑ ☐ 9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.

☑ ☐ ☐ 10. Were VOA samples without headspace? If no, document on CUR.

☑ ☐ ☐ 11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid

☐ ☑ 12. Did samples require preservation with sodium thiosulfate?

☑ ☐ ☐ 13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.

☑ ☐ ☐ 14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.

☑ ☐ ☐ 15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.

☐ ☑ 16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.

☐ ☑ 17. Are analyses with short holding times requested?

☐ ☑ 18. Was a quick Turn Around (TAT) requested?

TestAmerica Denver

Sample Receiving Checklist

Lot # D9G230298

Login Checks:

Initials

N/A	Yes	No		
	☑	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003)	If no, document on CUR, and contact PM before proceeding.
☑	☐	☐	20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates?	If no, document on CUR, and contact PM before proceeding.
	☑	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☑	☐	22. Were special log in instructions read and followed?	
☑	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
	☑	☐	24. Were tests logged checked against the COC? Which samples were confirmed?	+
☑	☐	☐	25. Was a Rush form completed for quick TAT?	
☑	☐	☐	26. Was a Short Hold form completed for any short holds?	
	☐	☑	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks:

Initials

☑	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?	
	☑	☐	29. Were sample labels double-checked by a second person?	
☑	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
	☑	☐	31. Did the sample ID, Date, and Time from label match what was logged?	
☑	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27	
☑	☐	☐	33. Were AFCEE metals stored refrigerated?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

northgate
environmental management, inc.
1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00374
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley, Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush		Mark One	
If Rush, Date due					
QC level Required: Standard		Special	EPA Stage 4	Mark one	
NJ Reduced Deliverable Package?					
MA MCP Cert?		CT RCP Cert?		Mark One	
Lab Project ID (lab use)					

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	OIL RINSEATE	WH
OIL	SW	OTHER	OT
WIPE	AA	ANIMAL TISSUE	TA
AMBIENT AIR	AE		
SVE AIR	GS		
SOIL GAS			

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 8020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	~~M-97B~~ DRB 7-21-09	WG	G	~~7/21/2009~~	~~7:40 AM~~	1	N			X						X		~~500 ml Plastic~~
2	~~M-97BDISS~~ DRB 7-21-09	WG	G	7/21/2009	7:40 AM	1	Y			X						X		~~500 ml Plastic~~
3	M-97B	WG	G	7/21/2009	7:40 AM	2	N	X									X	2-1L Amber Glass
4	EB-071709-GW	W	G	7/21/2009	9:01 AM	1	N			X						X		500 ml Plastic
5	EB-071709-GW	W	G	7/21/2009	9:01 AM	2	N	X									X	2-1L Amber Glass
6																		
7	DRB 7-21-09																	
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:

As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

EB071709-GW is associated with TR-6B

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	7/21	14:00	GES	7/21	1400
GES	7/21	1600		7/21/09	1600
	7/22	1120		7/22/09	1120
	7/22/09	1600	Fax	7/23/09	0930

SHIPPING METHOD: (mark as appropriate) UPS (COURIER) FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER:
DATE Signed 7/21/09 Time: 14:00

Sample Receipt Conditions	Temp in 0C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	

Test America

Table of Contents

Phillips, Michael

From: Vivian Willis [vivian.willis@verdant-solutions.com]
Sent: Friday, July 24, 2009 1:27 PM
To: Phillips, Michael; Cindy.Arnold@ngem.com
Cc: Middleditch, Eric; 'Derrick Willis'; frank.hagar@ngem.com; Reading, Jack
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Mike,

1) EB071709-GW is an orphan equipment blank, please cancel it. On 7/17/09 both TR-6B and EB071709-GW were collected and shipped FedEx did not make their Saturday delivery and both samples came in over temperature. Due to a misunderstanding on 7/21/09 only the EB was resampled. TR-6B will be resampled and the equipment blank for it will be recollected.

2) You checked and found SA166-31B and that is indeed associated with EB072109-SO.

3) The field blank, FB-72109-SO, will be placed on the same SDG as EB072109-SO.

Thanks and please call me if any additional questions come up.
Vivian Willis

From: Phillips, Michael [mailto:Michael.Phillips@testamericainc.com]
Sent: Friday, July 24, 2009 10:22 AM
To: Cindy.Arnold@ngem.com
Cc: Middleditch, Eric; Derrick Willis; Vivian Willis; frank.hagar@ngem.com; Reading, Jack
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Hi Cindy,

We need some help with these blank associations:

1) The COC received yesterday containing EB-07179-GW says that it is associated with TR-6B (see the attached COC). However, TR-6B and EB-071709-GW were the samples that came in late this past Monday at an elevated temperature (17.2 degrees). You said to put them on hold and you would re-sample. However, we have not received a new TR-6B, so we don't have the sample that EB-071709-GW is associated with. Is TR-6B still coming?

2) The COC for EB-072109-SO says that it is associated with SA166-31B; however, we have not received SA166-31B. So, how do we associate EB-072109-SO?

3) Please refer to Vivian's message below regarding sample FB072109-SO. Since it applies to all soil samples in Area 1, how do we associate it? We need to place it in the correct SDG.

Please advise as soon as possible so that the lab can proceed.

MICHAEL P. PHILLIPS
Project Manager
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
4955 Yarrow Street
Arvada, CO 80002
Tel 303-736-0157 | Fax 303-432-8925
www.testamericainc.com

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: *Project Feedback*

From: Vivian Willis [mailto:vivian.willis@verdant-solutions.com]
Sent: Friday, July 24, 2009 10:54 AM
To: Phillips, Michael; frank.hagar@ngem.com
Cc: Middleditch, Eric; Cindy.Arnold@ngem.com; 'Derrick Willis'
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Michael,
Please check the Additional Comments/Special Instructions box in your COC for equipment blank associations, Frank and I are attempting to put the necessary information on them for you.

As for the field blank FB072109-SO this applies to all soil samples in Area I, you will need to contact Cindy Arnold on how to handle that particular sample.

On a separate note, please contact Frank and Cindy immediately if there are any detects in any of the field or trip blanks.

Thanks so much

Right-cl here to downloa pictures To help

Vivian Willis
Data Management

Verdant Solutions, Inc.
1000 Bristol Street North, Suite 17-165, Newport Beach, CA 92660
Main: **949.922.9730** | Fax: **949.209.2070** | Email: vivian.willis@**verdant-solutions.com**

From: Phillips, Michael [mailto:Michael.Phillips@testamericainc.com]
Sent: Friday, July 24, 2009 8:07 AM
To: Vivian Willis; frank.hagar@ngem.com
Cc: Middleditch, Eric
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Hi Vivian and Frank,

We received two equipment blanks and one field blank yesterday, 7/23, and I need to confirm the proper associations:

1) EB-07179-GW came in on the same COC as M-97B, so I assume this EB is associated with M-97B.

2) EB072109-SO came in on its own COC. What is the associated soil sample(s)?

3) FB072109-SO came in on its own COC. What is the associated soil sample(s)?

Thanks.

MICHAEL P. PHILLIPS
Project Manager
TestAmerica
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Arvada, CO 80002
Tel 303-736-0157 | Fax 303-432-8925
www.testamericainc.com

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: *Project Feedback*

From: Vivian Willis [mailto:vivian.willis@verdant-solutions.com]
Sent: Sunday, July 19, 2009 9:32 PM
To: Phillips, Michael
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Did you get this info? Just in case, I gave this info to some of the other labs.

EB062609-SO, SA172-0.5B DQCR 6/26/09 Area II

EB070109-SO1, SA114-0.5B DQCR 7/1/09 Area II

EB070809-SO, RSAN3009-20B DQCR 7/8/09 Area I

EB071009-SO, RSAM2-35B DQCR 7/10/09 Area I

EB071509-SO, SA74-29B DQCR 7/15/09 Area I

EB071609-SO, RSAO3-31B DQCR 7/16/09 Area
Vivian

From: Phillips, Michael [mailto:Michael.Phillips@testamericainc.com]
Sent: Thursday, July 16, 2009 8:39 AM
To: Cindy Arnold
Cc: derrick.willis@ngem.com; frank.hagar@ngem.com; vivian.willis@verdant-solutions.com; Middleditch, Eric
Subject: RE: Tronox SDG and Sampling Tracking -BLANKS

Cindy,

I still have one sample, EB062609-SO, for which the association is not clear. I've sent this to Frank Hagar and he has indicated he will let me know today how this sample should be associated. Once I have that information I will be able to modify the Monday sample tracking logs to show the correct QC Blank matrix associations and the correct SDGs.

There will be no need to amend any report packages or EDDs submitted so far. It can be fixed in the sample tracking log on Monday.

MICHAEL P. PHILLIPS
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www.testamericainc.com

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: *Project Feedback*

From: Cindy Arnold [mailto:carnold@ngem.com]
Sent: Thursday, July 16, 2009 12:19 AM
To: Middleditch, Eric; cbeechler@caslab.com; dkocher@EMSL.com; Team.Kent@GEL.com; emk@gel.com; Heather.Shaffer@gel.com; jjaeger@caslab.com; ledrosa@alpha-analytical.com; Phillips, Michael; RandyG@alpha-analytical.com; tlanzing@emsl.com
Cc: carnold@ngem.com; derrick.willis@ngem.com; frank.hagar@ngem.com; vivian.willis@verdant-solutions.com
Subject: Tronox SDG and Sampling Tracking -BLANKS

Please note that the field QC BLANKS are collected for each matrix, per the Tronox program. The samples/matirx that they are associated with should be clear on the COC. Blanks now have IDs to assist you with their matrix association.

Examples: EB062909-GW <=> Groundwater and EB071009-SO <=> SOIL

Blanks are to be analyzed and reported with the associated matrix. I'm seeing sample tracking logs with all Tronox Blanks thrown onto the water table and SDGs. **You'll need to let me know how this is going to be amended since we are using these data to validate**. **100% of the Tronox data will be validated. Please review this ASAP. Note: We have not released any of the 2009 data to LDC yet, so the fix could be to amend the packages and EDDs and reupload. If it's just an error in your sample tracking log submittal - confirm that it will be amend in this Monday's submittal. I'll need to hear from each of you no later than tomorrow (7/17/09) on this issue. Thanks, Cindy

CONFIDENTIALITY NOTICE: This e-mail communication, including any attachments, may contain privileged or confidential information for specific individuals and is protected by law. If you are not the intended recipient(s), you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited and you should delete this message and its attachments from your computer without retaining any copies. If you have received this communication in error, please reply to the sender immediately. We appreciate your cooperation.

Please consider the environment before printing this e-mail.

Please consider the environment before printing this e-mail.

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9H230301 Date/Time Received: 7/23/09 0930.

Company Name & Sampling Site: Northgate - JRO-ox

PM to Complete This Section: *Yes* *No* *Yes* *No*
Residual chlorine check required: ☐ ☒ Quarantined : ☐ ☒

Quote #: 83046

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 2

Temperatures (°C): 2.5 3.7

N/A	*Yes*	*No*		*Initials*
☐	☑	☐	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	
	☑	☐	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:___	
	☑	☐	3. Chain of custody present? If no, document on CUR.	
	☐	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	☐	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	☐	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
☐	☑	☐	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	☐	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	☐	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☑	☐	☐	10. Were VOA samples without headspace? If no, document on CUR.	
☑	☐	☐	11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☑	☐	☐	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☑	☐	☐	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☐	☑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☑	17. Are analyses with short holding times requested?	
	☐	☑	18. Was a quick Turn Around (TAT) requested?	

TestAmerica Denver

Sample Receiving Checklist

Lot # D9G2303O1

Login Checks:

N/A	Yes	No		Initials
	☑	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	LM.
☑	☐	☐	20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☑	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☑	☐	22. Were special log in instructions read and followed?	
☑	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
	☑	☐	24. Were tests logged checked against the COC? Which samples were confirmed? all	
☑	☐	☐	25. Was a Rush form completed for quick TAT?	
☑	☐	☐	26. Was a Short Hold form completed for any short holds?	
	☐	☑	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks:

				Initials
☑	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?	
	☑	☐	29. Were sample labels double-checked by a second person?	
☑	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
	☑	☐	31. Did the sample ID, Date, and Time from label match what was logged?	
☑	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27	
☑	☐	☐	33. Were AFCEE metals stored refrigerated?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

northgate
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(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

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COC No. 2027.001.00255
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	Mark one
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush	Mark One
If Rush, Date due			
QC level Required: Standard		Special	EPA Stage 4 / Mark one
NJ Reduced Deliverable Package?			
MA MCP Cert?		CT RCP Cert?	Mark One

Lab Project ID (lab use)

Valid Matrix Codes: MATRIX — DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL SW; WIPE AA; AMBIENT AIR AE; SVE AIR GS; SOIL GAS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; OIL RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 8020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	CLD-4RB	WG	G	7/22/2009	9:50 AM	1	N			X						X		500 ml Plastic
2																		
3																		
4																		
5																		
6	DRB 7-22-09				DRB 7-22-09													
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:

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Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	7/22	14:30	GES	7/22	1430
GES	7/22	1600	TALS	7/22/09	1600
TALS	7/23/09	1320		7/22/09	1320
	7/24/09	0845	Glenn Brissell	7/24/09	0845

SHIPPING METHOD (mark as appropriate): UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER:
DATE Signed 7/22/09 Time: 14:30

Sample Receipt Conditions

	Y/N	Y/N	Y/N	Temp in °C
	Y/N	Y/N	Y/N	Samples on Ice?
	Y/N	Y/N	Y/N	Sample intact?
	Y/N	Y/N	Y/N	Trip Blank?

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9G240312 Date/Time Received: 7/24/09 0845

Company Name & Sampling Site: TRONOX

PM to Complete This Section: *Yes* *No* *Yes* *No*

Residual chlorine check required: ☐ ☒ Quarantined : ☐ ☒

Quote #: 830416

Special Instructions:

Time Zone:

• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): _____ _____ _____ _____ _____ _____ _____ _____

Temperatures (°C): 4.4 _____ _____ _____ _____ _____ _____ _____

N/A	*Yes*	*No*		*Initials*
☐	☑	☐	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	CR
	☑	☐	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: — No:____	
	☑	☐	3. Chain of custody present? If no, document on CUR.	
	☐	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	☐	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	☐	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
☐	☑	☐	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	☐	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	☐	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☑	☐	☐	10. Were VOA samples without headspace? If no, document on CUR.	
☑	☐	☐	11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☑	☐	☐	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☑	☐	☐	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☐	☑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☑	17. Are analyses with short holding times requested?	
	☐	☑	18. Was a quick Turn Around (TAT) requested?	

TestAmerica Denver

Sample Receiving Checklist

Lot # D9G240312

Login Checks:

Initials MB

N/A Yes No

☑ ☐ 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.

☑ ☐ ☐ 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.

☑ ☐ 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?

☐ ☑ ☐ 22. Were special log in instructions read and followed?

☑ ☐ ☐ 23. Were AFCEE metals logged for refrigerated storage?

☑ ☐ 24. Were tests logged checked against the COC? Which samples were confirmed? 1

☑ ☐ ☐ 25. Was a Rush form completed for quick TAT?

☑ ☐ ☐ 26. Was a Short Hold form completed for any short holds?

☐ ☑ 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials LC

☐ ☐ ☐ 28. Was the subcontract COC signed and sent with samples to bottle prep?

☑ ☐ 29. Were sample labels double-checked by a second person?

☑ ☐ ☐ 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?

☑ ☐ 31. Did the sample ID, Date, and Time from label match what was logged?

☑ ☐ ☐ 32. Were stickers for special archiving instructions affixed to each box? See #27

☑ ☐ ☐ 33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

0,4

236

northgate
environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00333
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley, Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	Mark one
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush		Mark One
If Rush, Date due				
QC level Required: Standard		Special	EPA Stage 4	Mark one
NJ Reduced Deliverable Package?				
MA MCP Cert?		CT RCP Cert?		Mark One

Lab Project ID (lab use)

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	OIL RINSEATE	WH
OIL	SW	OTHER	OT
WIPE	AA	ANIMAL TISSUE	TA
AMBIENT AIR	AE		
SVE AIR	GS		
SOIL GAS			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 8020/Collision Cell	EPA 8141A OPP Past	Comments/Lab Sample I.D.
1	MW-6RB	WG	G	7/23/2009	9:17 AM	1	N			X						X		500 ml Plastic
2																		
3																		
4																		
5	DRB																	
6	7-23-09																	
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:

As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	23-Jul	14:30	GES	7/23	1430
GES	7/23	1600	GES	7/23	1600
GES	7/24	1300	JA-LV	7/24/09	13:00
JA-LV	7/24	18:00		7/25/9	0830

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana R Brown
SIGNATURE of SAMPLER:
DATE Signed 7/23/2009 Time: 14:30

Sample Receipt Conditions			
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?

Table of Contents

TestAmerica

TestAmerica Denver

Sample Receiving Checklist

Lot #: D960250146 Date/Time Received: 7/25/9 0830

Company Name & Sampling Site: Northgate

PM to Complete This Section: *Yes* *No* *Yes* *No*
Residual chlorine check required: ❑ ❑ Quarantined : ❑ ❑

Quote #:

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 0.4

N/A	*Yes*	*No*		*Initials*
❑	☑	❑	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	
	☑	❑	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____	
	☑	❑	3. Chain of custody present? If no, document on CUR.	
	❑	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	❑	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	❑	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
❑	☑	❑	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	❑	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	❑	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☑	❑	❑	10. Were VOA samples without headspace? If no, document on CUR.	
☑	❑	❑	11. Were VOA vials preserved? Preservative ❑HCl ❑4±2°C ❑Sodium Thiosulfate ❑ Ascorbic Acid	
	❑	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	❑	❑	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☑	❑	❑	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☑	❑	❑	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☑	❑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	❑	☑	17. Are analyses with short holding times requested?	
	❑	❑	18. Was a quick Turn Around (TAT) requested?	

TestAmerica Denver

Sample Receiving Checklist

Lot # D9G250146

Login Checks:

Initials: AC

N/A	Yes	No		
	☑	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003)	If no, document on CUR, and contact PM before proceeding.
☑	☐	☐	20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates?	If no, document on CUR, and contact PM before proceeding.
	☑	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☑	☐	22. Were special log in instructions read and followed?	
☑	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
	☑	☐	24. Were tests logged checked against the COC? Which samples were confirmed? All	
☑	☐	☐	25. Was a Rush form completed for quick TAT?	
☑	☐	☐	26. Was a Short Hold form completed for any short holds?	
	☐	☑	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks:

Initials: JM

☒	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?	
	☒	☐	29. Were sample labels double-checked by a second person?	
☒	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?	
	☒	☐	31. Did the sample ID, Date, and Time from label match what was logged?	
☒	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27	
☒	☐	☐	33. Were AFCEE metals stored refrigerated?	

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

3.8

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northgate
environmental management, inc.
1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00327
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley, Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	Mark one
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush		Mark One	
If Rush, Date due					
QC level Required: Standard		Special	EPA Stage 4	Mark one	
NJ Reduced Deliverable Package?					
MA MCP Cert?		CT RCP Cert?		Mark One	
Lab Project ID (lab use)					

Valid Matrix Codes: DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL SW; WIPE AA; AMBIENT AIR AE; SVE AIR GS; SOIL GAS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 6020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	M-35B	WG	G	7/24/2009	11:10 AM	1	N			X						X		500 ml Plastic
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

DRB 7-24-09

Additional Comments/Special Instructions:
As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	7/24	14:30	GES	7/24	1430
GES	7/24	1600	Green	7/25	0830

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER:
DATE Signed 7/24/09 Time: 14:30

Sample Receipt Conditions	Temp in 0C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	
	Y/N	Y/N	Y/N	

TestAmerica

Table of Contents

TestAmerica Denver

Sample Receiving Checklist

Lot #: D960250155 Date/Time Received: 7/25/9 0830

Company Name & Sampling Site: Northgate

PM to Complete This Section:	*Yes*	*No*		*Yes*	*No*
Residual chlorine check required:	☐	☐	Quarantined :	☐	☐

Quote #:

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 3.8

N/A	*Yes*	*No*		*Initials*
☐	☑	☐	1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.	
	☑	☐	2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____	
	☑	☐	3. Chain of custody present? If no, document on CUR.	
	☐	☑	4. Bottles broken and/or are leaking? If yes, document on CUR.	
	☐	☑	5. Multiphasic samples obvious? If yes, document on CUR.	
	☑	☐	6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.	
N/A	☑	☐	7. pH of all samples checked and meet requirements? If no, document on CUR.	
	☑	☐	8. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.	
	☑	☐	9. Did chain of custody agree with labels ID and samples received? If no, document on CUR.	
☑	☐	☐	10. Were VOA samples without headspace? If no, document on CUR.	
☑	☐	☐	11. Were VOA vials preserved? Preservative ☐HCl ☐4±2°C ☐Sodium Thiosulfate ☐ Ascorbic Acid	
	☐	☑	12. Did samples require preservation with sodium thiosulfate?	
☑	☐	☐	13. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.	
☑	☐	☐	14. Sediment present in dissolved/filtered bottles? If yes, document on CUR.	
☑	☐	☐	15. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.	
	☐	☑	16. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.	
	☐	☑	17. Are analyses with short holding times requested?	
	☐	☑	18. Was a quick Turn Around (TAT) requested?	

TestAmerica Denver

Sample Receiving Checklist

Lot # D960250155

Login Checks:

Initials

N/A	Yes	No		
	☑	☐	19.	Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
☑	☐	☐	20.	Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
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☑	☐	☐	23.	Were AFCEE metals logged for refrigerated storage?
	☑	☐	24.	Were tests logged checked against the COC? Which samples were confirmed? All
☑	☐	☐	25.	Was a Rush form completed for quick TAT?
☑	☐	☐	26.	Was a Short Hold form completed for any short holds?
	☐	☑	27.	Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials

☐	☐	☐	28.	Was the subcontract COC signed and sent with samples to bottle prep?
	☐	☐	29.	Were sample labels double-checked by a second person?
☐	☐	☐	30.	Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
	☐	☐	31.	Did the sample ID, Date, and Time from label match what was logged?
☐	☐	☐	32.	Were stickers for special archiving instructions affixed to each box? See #27
☐	☐	☐	33.	Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

3.8

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northgate
environmental management, inc.

1100 Quail Street, Suite 102, Newport Beach, CA 92660
(949) 260-9293

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

COC No. 2027.001.00330
Page: 1 of 1
Cooler # 1 of 1

Required Ship to Lab:

Lab Name:	TestAmerica
Address:	4955 Yarrow Street
	Arvada, CO 80002
Lab PM:	Michael P. Phillips
Phone/Fax:	303-736-0157
Lab PM email	michael.phillips@testamericainc.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	TRONOX LLC. HENDERSON
Project #	2027.001
Site Address	560 W. Lake Mead Drive
City	Henderson
State	NV
Site PM Name	Derrick Willis
Phone/Fax:	949-375-7004
Site PM Email:	derrick.willis@ngem.com

Required Invoice Information:

Send Invoice to:	Susan Crowley, Tronox LLC
Address:	PO Box 55
City/State	Henderson, NV 89009
Phone #:	(949)260-9293
Reimbursement project?	X
Non-reimbursement project?	Mark one
Send EDD to	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com
CC Hardcopy report to	PDF Electronic Version Only
CC Hardcopy report to	see additional comments below

TAT: Standard 30 day	X	Rush		Mark One	
If Rush, Date due					
QC level Required: Standard		Special	EPA Stage 4	Mark one	
NJ Reduced Deliverable Package?					
MA MCP Cert?		CT RCP Cert?		Mark One	
Lab Project ID (lab use)					

Valid Matrix Codes: DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL SW; WIPE AA; AMBIENT AIR AE; SVE AIR GS; SOIL GAS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; OIL RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analyses: EPA 6020/Collision Cell	EPA 8141A OPP Pest	Comments/Lab Sample I.D.
1	M-52B	WG	G	7/24/2009	8:10 AM	1	N			X						X		500 ml Plastic
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

DRB
7-24-09

Additional Comments/Special Instructions:

As Se only by collison cell
All PDF reports and EDDs will be uploaded to:
Northgate Environmental Management, Inc.
FTP site address provided to labs
Notifications provided to:
cindy.arnold@ngem.com
frank.hagar@ngem.com

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
DANA BROWN, NGEM	7/24	14:30	GES	7/24	1430
GES	7/24	1600		7/25	0830

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER:
DATE Signed 7/24/09 Time: 14:30

Sample Receipt Conditions

	Temp in OC	Samples on Ice?	Sample intact?	Trip Blank?
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N
		Y/N	Y/N	Y/N

Table of Contents

TestAmerica

TestAmerica Denver

Sample Receiving Checklist

Lot #: D96250157 Date/Time Received: 7/25/9 0830

Company Name & Sampling Site: Northgate

PM to Complete This Section:	*Yes*	*No*		*Yes*	*No*
Residual chlorine check required:	❑	❑	Quarantined :	❑	❑

Quote #:

Special Instructions:

Time Zone:
• EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 3.8

N/A	*Yes*	*No*		
❑	☑	❑	1.	Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
	☑	❑	2.	Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: ✓ No:____
	☑	❑	3.	Chain of custody present? If no, document on CUR.
	❑	☑	4.	Bottles broken and/or are leaking? If yes, document on CUR.
	❑	☑	5.	Multiphasic samples obvious? If yes, document on CUR.
	☑	❑	6.	Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
❑	☑	❑	7.	pH of all samples checked and meet requirements? If no, document on CUR.
	☑	❑	8.	Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
	☑	❑	9.	Did chain of custody agree with labels ID and samples received? If no, document on CUR.
☑	❑	❑	10.	Were VOA samples without headspace? If no, document on CUR.
☑	❑	❑	11.	Were VOA vials preserved? Preservative ❑HCl ❑4±2°C ❑Sodium Thiosulfate ❑ Ascorbic Acid
	❑	☑	12.	Did samples require preservation with sodium thiosulfate?
☑	❑	❑	13.	If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
☑	❑	❑	14.	Sediment present in dissolved/filtered bottles? If yes, document on CUR.
☑	❑	❑	15.	Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
	❑	☑	16.	Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
	❑	☑	17.	Are analyses with short holding times requested?
	❑	☑	18.	Was a quick Turn Around (TAT) requested?

Initials

TestAmerica Denver

Sample Receiving Checklist

Lot # D960250157

Login Checks: *Initials* AG

N/A	Yes	No		
☑	☐	☐	19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003)	If no, document on CUR, and contact PM before proceeding.
☑	☐	☐	20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates?	If no, document on CUR, and contact PM before proceeding.
☐	☑	☐	21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?	
☐	☑	☐	22. Were special log in instructions read and followed?	
☑	☐	☐	23. Were AFCEE metals logged for refrigerated storage?	
☐	☑	☐	24. Were tests logged checked against the COC? Which samples were confirmed? All	
☑	☐	☐	25. Was a Rush form completed for quick TAT?	
☑	☐	☐	26. Was a Short Hold form completed for any short holds?	
☐	☐	☑	27. Were special archiving instructions indicated in the General Comments? If so, what were they?	

Labeling and Storage Checks: *Initials* JM

☑	☐	☐	28. Was the subcontract COC signed and sent with samples to bottle prep?
☐	☑	☐	29. Were sample labels double-checked by a second person?
☑	☐	☐	30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
☐	☑	☐	31. Did the sample ID, Date, and Time from label match what was logged?
☑	☐	☐	32. Were stickers for special archiving instructions affixed to each box? See #27
☑	☐	☐	33. Were AFCEE metals stored refrigerated?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G220275

Client: Northgate Environmental

Batch(es) #: 9204219, 9204215

Associated Samples: 1, 2

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: 7/30/09

Metals Raw Data RoadMap

LotID		Metal	WorkOrder	Anal Date	TestDesc	Batch	File Id	Instr
D9G220275	1 D	SE	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	1 S	SE	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	1 D	AS	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	1 S	AS	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	1	SE	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	1	AS	LGWWA1A	20090730	6020TOTA	9204215	AG072909A	024
D9G220275	2 D	SE	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024
D9G220275	2 S	SE	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024
D9G220275	2 D	AS	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024
D9G220275	2 S	AS	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024
D9G220275	2	SE	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024
D9G220275	2	AS	LGWWD1A	20090730	6020DSVD	9204219	AG072909A	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9204219**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: JRL

Prep Date: 7/28/09 ~~07/23/09~~ SRW

Due Date: 08/03/09

Lot	Work Order			Initial Weight/Volume
D9G230000 Water	**LGXRH**	B	Due Date: SDG:	50 mL
D9G230000 Water	**LGXRH**	C	Due Date: SDG:	50 mL
D9G220275 Water	**LGWWD** Dissolved		Due Date: 08/03/09 SDG:	50 mL
D9G220275 Water	**LGWWD** Dissolved	S	Due Date: 08/03/09 SDG:	50 mL
D9G220275 Water	**LGWWD** Dissolved	D	Due Date: 08/03/09 SDG:	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

checked 7/29/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

DISSOLVED WATER DIGESTION FOR ICPMS (Prep code MD)

BATCH # 9204219 **ALLIQUOTTED BY:** JKH
PREP DATE: 7/28/2009 **DIGESTED BY:** JRW

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

Were samples filtered in the lab? ☐ Yes ☒ No

If "yes", then the method blank and the LCS were filtered prior to digestion.

Analyst(s) Initials:

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	2

TEMPERATURE CYCLES

Thermometer ID: 14371 Block & Cup # : 11/24

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3/HCl	1200	94	1700	91

Samples and QC revolumed to: 50 mL Analyst's Initials JRW

COMMENTS:

I certify that all information above is correct and complete.

Signature: *Jay Wilk* ***Date:*** 7/28/09

Batch Number: **9204215**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: JNL

Prep Date: 7/28/09 ~~07/29/09~~ JNL

Due Date: 08/03/09

Lot	Work Order			Initial Weight/Volume
D9G230000 Water	**LGXP7**	B	Due Date: SDG:	50 mL
D9G230000 Water	**LGXP7**	C	Due Date: SDG:	50 mL
D9G220275 Water	**LGWWA** Total		Due Date: 08/03/09 SDG:	50 mL
D9G220275 Water	**LGWWA** Total	S	Due Date: 08/03/09 SDG:	50 mL
D9G220275 Water	**LGWWA** Total	D	Due Date: 08/03/09 SDG:	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

Checked 1/29/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9204215 **ALLIQUOTTED BY:** JKH
PREP DATE: 7/28/2008 **DIGESTED BY:** JRW

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☑ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 25844 Block & Cup # : 2/34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	1200	92	1615	95
HNO3	1630	95	1700	95
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials JRW

COMMENTS:

I certify that all information above is correct and complete.

Signature: [signature]

Date: 7/28/09

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification

ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Jul-29-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se — Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4426-09, ICP-MS (024) INT STD BRC

Analyst: LILLT

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 07-24-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock — Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4469-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 50.000
Date Prep./Opened: 07-28-2009
Date Expires(1): 08-28-2009 (1 Month)
Date Expires(2): 02-01-2010 (None)
pipettes: Met 8

Parent Std No.: STD0664-09, ICPMS Interferent Check Standard — Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 02-01-2010 Parent Date Expires(2): 02-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4494-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water — Volume (ml): 1,000.0
Date Prep./Opened: 07-29-2009
Date Expires(1): 08-29-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD4493-09, NITRIC ACID — Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4495-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Expires(2): 03-01-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 21 and Met 8

Parent Std No.: STD1198-09, 1000 mg/L Sn Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	10.000

STD4496-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Expires(2): 07-30-2009 (1 Day)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD3773-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3774-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00

Zn	20.000	100.00

Parent Std No.: STD3862-09, Iron Stock — Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Fe	1,000.0	5,000.0

Parent Std No.: STD4495-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 07-30-2009 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sn	10.000	100.00

STD4497-09, ICP-MS CCV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD3773-09, ICPMS 2008CAL-1 Inorganic Ventures — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	20.000	50.000
Sb	20.000	50.000

Parent Std No.: STD3774-09, ICPMS 2008CAL-2 Inorganic Ventures — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	20.000	50.000
Al	20.000	50.000
As	20.000	50.000
Ba	20.000	50.000
Be	20.000	50.000
Cd	20.000	50.000
Co	20.000	50.000
Cr	20.000	50.000
Cu	20.000	50.000
Mn	20.000	50.000
Ni	20.000	50.000
Pb	20.000	50.000
Se	20.000	50.000
Th	20.000	50.000
Tl	20.000	50.000
U	20.000	50.000
V	20.000	50.000
Zn	20.000	50.000

Parent Std No.: STD3862-09, Iron Stock — Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (ug/L)

Fe	1,000.0	2,500.0

Parent Std No.: STD4495-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 07-30-2009 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sn	10.000	50.000

STD4498-09, ICP-MS RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn — Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4496-09, ICP-MS 100 ppb cal — Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 07-30-2009 Parent Date Expires(2): 07-30-2009

Component	Initial Conc (ug/L)	Final Conc (mg/L)
Mo	100.00	0.0010
Sb	100.00	0.0010
Ag	100.00	0.0010
Al	100.00	0.0010
As	100.00	0.0010
Ba	100.00	0.0010
Be	100.00	0.0010
Cd	100.00	0.0010
Co	100.00	0.0010
Cr	100.00	0.0010
Cu	100.00	0.0010
Mn	100.00	0.0010
Ni	100.00	0.0010
Pb	100.00	0.0010
Se	100.00	0.0010
Th	100.00	0.0010
Tl	100.00	0.0010
U	100.00	0.0010
V	100.00	0.0010
Zn	100.00	0.0010
Fe	5,000.0	0.0500
Sn	100.00	0.0010

STD4499-09, ICP-MS AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (2 Days)
pipettes: Met 20 and Met 8

Parent Std No.: STD4498-09, ICP-MS RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Ag	0.0010	0.0002
Al	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Fe	0.0500	0.0100
Sn	0.0010	0.0002

STD4500-09, ICP-MS ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 21, Met 20, and Met 8

Parent Std No.: STD1978-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000

Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

Parent Std No.: STD3773-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.0500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	20.000	100.00
Sb	20.000	100.00

Parent Std No.: STD3774-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.0500
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	20.000	100.00
Al	20.000	100.00
As	20.000	100.00
Ba	20.000	100.00
Be	20.000	100.00
Cd	20.000	100.00
Co	20.000	100.00
Cr	20.000	100.00
Cu	20.000	100.00
Mn	20.000	100.00
Ni	20.000	100.00
Pb	20.000	100.00
Se	20.000	100.00
Th	20.000	100.00
Tl	20.000	100.00
U	20.000	100.00
V	20.000	100.00
Zn	20.000	100.00

Parent Std No.: STD4495-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 07-30-2009 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sn	10.000	100.00

STD4501-09, ICPMS LR STD 1000 ppb

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20 and Met 8

Parent Std No.: STD3773-09, ICPMS 2008CAL-1 Inorganic Ventures Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	20.000	1,000.0
Sb	20.000	1,000.0

Parent Std No.: STD3774-09, ICPMS 2008CAL-2 Inorganic Ventures Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 06-23-2010 Parent Date Expires(2): 07-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	20.000	1,000.0
Al	20.000	1,000.0
As	20.000	1,000.0
Ba	20.000	1,000.0
Be	20.000	1,000.0
Cd	20.000	1,000.0
Co	20.000	1,000.0
Cr	20.000	1,000.0
Cu	20.000	1,000.0
Mn	20.000	1,000.0
Ni	20.000	1,000.0
Pb	20.000	1,000.0
Se	20.000	1,000.0
Th	20.000	1,000.0
Tl	20.000	1,000.0
U	20.000	1,000.0
V	20.000	1,000.0
Zn	20.000	1,000.0

Parent Std No.: STD4495-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-30-2009 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sn	10.000	1,000.0

STD4502-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Expires(2): 02-27-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 21 and Met 8

Parent Std No.: STD1213-09, ICPMS ICV SOLUTION A (High Purity) Aliquot Amount (ml): 0.0400
Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Al	10.000	40.000
As	10.000	40.000
Ba	10.000	40.000
Be	10.000	40.000
Cd	10.000	40.000

Co	10.000	40.000
Cr	10.000	40.000
Cu	10.000	40.000
Fe	250.00	1,000.0
Li	10.000	40.000
Mn	10.000	40.000
Ni	10.000	40.000
Pb	10.000	40.000
Se	10.000	40.000
Th	10.000	40.000
Tl	10.000	40.000
U	10.000	40.000
V	10.000	40.000
Zn	10.000	40.000

Parent Std No.: STD1214-09, ICPMS ICV SOLUTION B (High Purity) Aliquot Amount (ml): 0.0400
Parent Date Expires(1): 02-27-2010 Parent Date Expires(2): 02-27-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Ag	10.000	40.000
Mo	10.000	40.000
Sb	10.000	40.000
Sn	10.000	40.000
Zr	10.000	40.000

STD4503-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD4504-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 07-29-2009
Date Expires(1): 07-30-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000

Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By: LRD 07/29/09 File AG072909A

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0	07/29/09 17:44		
3	Cal Blank				1.0	07/29/09 17:47		
4	100 ppb				1.0	07/29/09 17:49		
5	ICV				1.0	07/29/09 17:52		
6	RLIV				1.0	07/29/09 17:55		
7	ICB				1.0	07/29/09 17:57		
8	RL STD				1.0	07/29/09 18:00		
9	AFCEE RL				1.0	07/29/09 18:03		
10	ALTSe				1.0	07/29/09 18:06		
11	ICSA				1.0	07/29/09 18:08		
12	ICSAB				1.0	07/29/09 18:11		
13	RINSE				1.0	07/29/09 18:14		
14	LR				1.0	07/29/09 18:17		
15	RINSE				1.0	07/29/09 18:19		
16	CCV				1.0	07/29/09 18:22		
17	CCB				1.0	07/29/09 18:25		
18	RLCV				1.0	07/29/09 18:27		
19	LGFE6D	H9G140108-13	9195211		1.0	07/29/09 18:30	Zn DQR KT 7/30/09	
20	CCV				1.0	07/29/09 18:33		
21	CCB				1.0	07/29/09 18:36		
22	RLCV				1.0	07/29/09 18:38		
23	LGNWK	D9G170310-1	9201183	04	1.0	07/29/09 18:41		
24	LGNXA	D9G170310-2	9201183	04	1.0	07/29/09 18:44		
25	LGNXC	D9G170310-3	9201183	04	1.0	07/29/09 18:47		
26	LGNXD	D9G170310-4	9201183	04	1.0	07/29/09 18:49		
27	LGNXE	D9G170310-5	9201183	04	1.0	07/29/09 18:52		
28	LGNXF	D9G170310-6	9201183	04	1.0	07/29/09 18:55		
29	LGNXG	D9G170310-7	9201183	04	1.0	07/29/09 18:58		
30	CCV				1.0	07/29/09 19:00		
31	CCB				1.0	07/29/09 19:03		
32	RLCV				1.0	07/29/09 19:06		
33	~~LG1J4B~~	~~D9G240000~~	~~9205120~~	~~MS~~	~~1.0~~	~~07/29/09 19:09~~		
34	LG1J4C	D9G240000	9205120	MS	1.0	07/29/09 19:12		
35	LGX8R	D9G230197-1	9205120	MS	1.0	07/29/09 19:14		
36	LGX80	D9G230197-2	9205120	MS	1.0	07/29/09 19:17		
37	LGX83	D9G230197-3	9205120	MS	1.0	07/29/09 19:20		
38	LGX85	D9G230197-4	9205120	MS	1.0	07/29/09 19:23		
39	LGX85P5	D9G230197	9205120		5.0	07/29/09 19:25		
40	LGX85Z	D9G230197-4	9205120		1.0	07/29/09 19:28		
41	CCV				1.0	07/29/09 19:31		
42	CCB				1.0	07/29/09 19:34		
43	RLCV				1.0	07/29/09 19:36		
44	LGX85S	D9G230197-4	9205120	MS	1.0	07/29/09 19:39		
45	LGX85D	D9G230197-4	9205120	MS	1.0	07/29/09 19:42		
46	LGX87	D9G230197-5	9205120	MS	1.0	07/29/09 19:44		
47	~~LGX9A~~	~~D9G230197-6~~	~~9205120~~	~~MS~~	~~1.0~~	~~07/29/09 19:47~~	KT 7/30/09 Did not use.	

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
48	LGX9C	D9G230197-7	9205120	MS	1.0	07/29/09 19:50		
49	LG02Q	D9G230277-1	9205120	MS	1.0	07/29/09 19:53		
50	LG021	D9G230277-2	9205120	MS	1.0	07/29/09 19:55		
51	CCV				1.0	07/29/09 19:58		
52	CCB				1.0	07/29/09 20:01		
53	RLCV				1.0	07/29/09 20:04		
54	LGM62B	D9G170000	9198286	U2	1.0	07/29/09 20:07		
55	LGM62C	D9G170000	9198286	U2	1.0	07/29/09 20:09		
56	LGM62L	D9G170000	9198286	U2	1.0	07/29/09 20:12		
57	RINSE				1.0	07/29/09 20:15		
58	RINSE				1.0	07/29/09 20:18		
59	RINSE				1.0	07/29/09 20:20		
60	RINSE				1.0	07/29/09 20:23		
61	RINSE				1.0	07/29/09 20:26		
62	RINSE				1.0	07/29/09 20:28		
63	Cal Blank				1.0	07/29/09 20:31	KT 7/30/09 Did not use.	
64	Cal Blank				1.0	07/29/09 20:34		
65	100 ppb				1.0	07/29/09 20:37		
66	CCV				1.0	07/29/09 20:39		
67	CCB				1.0	07/29/09 20:42		
68	RLCV				1.0	07/29/09 20:45		
69	ICSA				1.0	07/29/09 20:48		
70	ICSAB				1.0	07/29/09 20:51		
71	WASH				1.0	07/29/09 20:53		
72	CCV				1.0	07/29/09 20:56		
73	CCB				1.0	07/29/09 20:59		
74	RLCV				1.0	07/29/09 21:02		
75	LGM62B	D9G170000	9198286	U2	1.0	07/29/09 21:04		
76	LGM62C	D9G170000	9198286	U2	1.0	07/29/09 21:07		
77	LGM62L	D9G170000	9198286	U2	1.0	07/29/09 21:10		
78	LGL5Q	D9G160333-6	9198282	U2	1.0	07/29/09 21:13		
79	LGL5QP5	D9G160333	9198282		5.0	07/29/09 21:15		
80	LGL5QZ	D9G160333-6	9198282		1.0	07/29/09 21:18		
81	LGL6M	D9G160333-28	9198282	U2	1.0	07/29/09 21:21		
82	CCV		286 KT 7/30/09		1.0	07/29/09 21:24		
83	CCB				1.0	07/29/09 21:26		
84	RLCV				1.0	07/29/09 21:29		
85	LGQENBQ	D9G200000	9201320	U1	1.0	07/29/09 21:32		
86	LGQENCQ	D9G200000	9201320	U1	1.0	07/29/09 21:35		
87	LGN18Q	D9G170316-1	9201320	U1	1.0	07/29/09 21:37		
88	LGN18P5Q	D9G170316	9201320		5.0	07/29/09 21:40		
89	LGN18ZQ	D9G170316-1	9201320		1.0	07/29/09 21:43		
90	LGN18SQ	D9G170316-1	9201320	U1	1.0	07/29/09 21:46		
91	LGN18DQ	D9G170316-1	9201320	U1	1.0	07/29/09 21:48		
92	LGN19Q	D9G170316-2	9201320	U1	1.0	07/29/09 21:51		
93	LGN2AQ	D9G170316-3	9201320	U1	1.0	07/29/09 21:54		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
94	LGN2CQ	D9G170316-4	9201320	U1	1.0	07/29/09 21:56		☐
95	CCV				1.0	07/29/09 21:59		☐
96	CCB				1.0	07/29/09 22:02		☐
97	RLCV				1.0	07/29/09 22:05		☐
98	LGN2DQ	D9G170316-5	9201320	U1	1.0	07/29/09 22:07		☐
99	LGN2EQ	D9G170316-6	9201320	U1	1.0	07/29/09 22:10		☐
100	LGN2FQ	D9G170316-7	9201320	U1	1.0	07/29/09 22:13		☐
101	LGN2GQ	D9G170316-8	9201320	U1	1.0	07/29/09 22:16		☐
102	LGN2HQ	D9G170316-9	9201320	U1	1.0	07/29/09 22:18		☐
103	LGN2JQ	D9G170316-10	9201320	U1	1.0	07/29/09 22:21		☐
104	LGN2KQ	D9G170316-11	9201320	U1	1.0	07/29/09 22:24		☐
105	LGN2LQ	D9G170316-12	9201320	U1	1.0	07/29/09 22:27		☐
106	LGN2MQ	D9G170316-13	9201320	U1	1.0	07/29/09 22:29		☐
107	LGN2NQ	D9G170316-14	9201320	U1	1.0	07/29/09 22:32		☐
108	CCV				1.0	07/29/09 22:35		☐
109	CCB				1.0	07/29/09 22:38		☐
110	RLCV				1.0	07/29/09 22:40		☐
111	LGQE7BQ	D9G200000	9201329	U1	1.0	07/29/09 22:43		☐
112	LGQE7CQ	D9G200000	9201329	U1	1.0	07/29/09 22:46		☐
113	LGN2PQ	D9G170316-15	9201329	U1	1.0	07/29/09 22:49		☐
114	LGN2PP5Q	D9G170316	9201329		5.0	07/29/09 22:51		☐
115	LGN2PZQ	D9G170316-15	9201329		1.0	07/29/09 22:54		☐
116	LGN2PSQ	D9G170316-15	9201329	U1	1.0	07/29/09 22:57		☐
117	LGN2PDQ	D9G170316-15	9201329	U1	1.0	07/29/09 23:00		☐
118	LGN2QQ	D9G170316-16	9201329	U1	1.0	07/29/09 23:02		☐
119	LGN2RQ	D9G170316-17	9201329	U1	1.0	07/29/09 23:05		☐
120	LGN2TQ	D9G170316-18	9201329	U1	1.0	07/29/09 23:08		☐
121	CCV				1.0	07/29/09 23:11		☐
122	CCB				1.0	07/29/09 23:13		☐
123	RLCV				1.0	07/29/09 23:16		☐
124	LGN2VQ	D9G170316-19	9201329	U1	1.0	07/29/09 23:19		☐
125	LGN2WQ	D9G170316-20	9201329	U1	1.0	07/29/09 23:22		☐
126	LGN2XQ	D9G170316-21	9201329	U1	1.0	07/29/09 23:25		☐
127	LGN20Q	D9G170316-22	9201329	U1	1.0	07/29/09 23:27		☐
128	LGN21Q	D9G170316-23	9201329	U1	1.0	07/29/09 23:30		☐
129	LGN22Q	D9G170316-24	9201329	U1	1.0	07/29/09 23:33		☐
130	LGN23Q	D9G170316-25	9201329	U1	1.0	07/29/09 23:36		☐
131	LGN24Q	D9G170316-26	9201329	U1	1.0	07/29/09 23:38		☐
132	LGN25Q	D9G170316-27	9201329	U1	1.0	07/29/09 23:41		☐
133	LGN26Q	D9G170316-28	9201329	U1	1.0	07/29/09 23:44		☐
134	CCV				1.0	07/29/09 23:47		☐
135	CCB				1.0	07/29/09 23:49		☐
136	RLCV				1.0	07/29/09 23:52		☐
137	~~LGQD8B~~	~~D9G200000~~	~~9201313~~	~~46~~	~~1.0~~	~~07/29/09 23:55~~		☐
138	LGQD8C	D9G200000	~~9201313~~	46	1.0	07/29/09 23:58		☐
139	~~LGN2P~~	~~D9G170316-15~~	~~9201313~~	~~U1~~	~~1.0~~	~~07/30/09 00:00~~	W.L 7/30/09 Did not use.	☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
140	~~LGN2PP5~~	~~D9G170316~~	~~9201313~~		~~5.0~~	~~07/30/09 00:03~~		
141	LGN2PZ	D9G170316-15	9201313		1.0	07/30/09 00:06		
142	LGN2PS	D9G170316-15	9201313	U1	1.0	07/30/09 00:09		
143	LGN2PD	D9G170316-15	9201313	U1	1.0	07/30/09 00:11		
144	LGN2Q	D9G170316-16	9201329	U1	1.0	07/30/09 00:14		
145	LGN2R	D9G170316-17	9201313	U1	1.0	07/30/09 00:17		
146	LGN2T	D9G170316-18	9201313	U1	1.0	07/30/09 00:20		
147	CCV				1.0	07/30/09 00:22		
148	CCB				1.0	07/30/09 00:25		
149	RLCV				1.0	07/30/09 00:28		
150	LGN2V	D9G170316-19	9201313	U1	1.0	07/30/09 00:31		
151	LGN2W	D9G170316-20	9201313	U1	1.0	07/30/09 00:34		
152	LGN2X	D9G170316-21	9201313	U1	1.0	07/30/09 00:36		
153	LGN20	D9G170316-22	9201313	U1	1.0	07/30/09 00:39		
154	LGN21	D9G170316-23	9201313	U1	1.0	07/30/09 00:42		
155	LGN22	D9G170316-24	9201313	U1	1.0	07/30/09 00:45		
156	LGN23	D9G170316-25	9201313	U1	1.0	07/30/09 00:47		
157	LGN24	D9G170316-26	9201313	U1	1.0	07/30/09 00:50		
158	LGN25	D9G170316-27	9201313	U1	1.0	07/30/09 00:53		
159	LGN26	D9G170316-28	9201313	U1	1.0	07/30/09 00:56		
160	CCV				1.0	07/30/09 00:58		
161	CCB				1.0	07/30/09 01:01		
162	RLCV				1.0	07/30/09 01:04		
163	RINSE				1.0	07/30/09 01:07		
164	RINSE				1.0	07/30/09 01:09		
165	RINSE				1.0	07/30/09 01:12		
166	RINSE				1.0	07/30/09 01:15		
167	RINSE				1.0	07/30/09 01:18		
168	RINSE				1.0	07/30/09 01:20		
169	~~Cal Blank~~				~~1.0~~	~~07/30/09 01:23~~	VK 7/30/09 Did not use.	
170	Cal Blank				1.0	07/30/09 01:26		
171	100 ppb				1.0	07/30/09 01:29		
172	CCV				1.0	07/30/09 01:31		
173	CCB				1.0	07/30/09 01:34		
174	RLCV				1.0	07/30/09 01:37		
175	LGR1WB	D9G210000	9202254	46	1.0	07/30/09 01:40		
176	LGR1WC	D9G210000	9202254	46	1.0	07/30/09 01:42		
177	LGQ0Q	D9G200202-1	9202254	U1	1.0	07/30/09 01:45		
178	LGQ0R	D9G200202-2	9202254	U1	1.0	07/30/09 01:48		
179	LGQ0T	D9G200202-3	9202254	U1	1.0	07/30/09 01:51		
180	LGQ0V	D9G200202-4	9202254	U1	1.0	07/30/09 01:54		
181	LGQ0W	D9G200202-5	9202254	U1	1.0	07/30/09 01:56		
182	LGQ0X	D9G200202-6	9202254	U1	1.0	07/30/09 01:59		
183	CCV				1.0	07/30/09 02:02		
184	CCB				1.0	07/30/09 02:05		
185	RLCV				1.0	07/30/09 02:07		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
186	LGQ00	D9G200202-7	9202254	U1	1.0	07/30/09 02:10		☐
187	LGQ01	D9G200202-8	9202254	U1	1.0	07/30/09 02:13		☐
188	LGQ01P5	D9G200202	9202254		5.0	07/30/09 02:16		☐
189	LGQ01Z	D9G200202-8	9202254		1.0	07/30/09 02:19		☐
190	LGQ01S	D9G200202-8	9202254	U1	1.0	07/30/09 02:21		☐
191	LGQ01D	D9G200202-8	9202254	U1	1.0	07/30/09 02:24		☐
192	LGQ02	D9G200202-9	9202254	U1	1.0	07/30/09 02:27		☐
193	LGQ03	D9G200202-10	9202254	U1	1.0	07/30/09 02:30		☐
194	CCV				1.0	07/30/09 02:32		☐
195	CCB				1.0	07/30/09 02:35		☐
196	RLCV				1.0	07/30/09 02:38		☐
197	LGQ04	D9G200202-11	9202254	U1	1.0	07/30/09 02:41		☐
198	LGQ05	D9G200202-12	9202254	U1	1.0	07/30/09 02:44		☐
199	LGQ06	D9G200202-13	9202254	U1	1.0	07/30/09 02:46		☐
200	LGQ07	D9G200202-14	9202254	U1	1.0	07/30/09 02:49		☐
201	LGQ08	D9G200202-15	9202254	U1	1.0	07/30/09 02:52		☐
202	LGQ09	D9G200202-16	9202254	U1	1.0	07/30/09 02:55		☐
203	LGQ1A	D9G200202-17	9202254	U1	1.0	07/30/09 02:57		☐
204	CCV				1.0	07/30/09 03:00		☐
205	CCB				1.0	07/30/09 03:03		☐
206	RLCV				1.0	07/30/09 03:06		☐
207	~~LGTHNB~~	~~D9G210000~~	~~9202361~~	~~46~~	~~1.0~~	~~07/30/09 03:09~~		☐
208	LGTHNC	D9G210000	9202361	46	1.0	07/30/09 03:11		☐
209	LGQ15	D9G200204-1	9202364	U1	1.0	07/30/09 03:14		☐
210	LGQ17	D9G200204-2	9202361	U1	1.0	07/30/09 03:17		☐
211	LGQ17P5	D9G200204	9202361		5.0	07/30/09 03:20		☐
212	LGQ17Z	D9G200204-2	9202361		1.0	07/30/09 03:23		☐
213	LGQ17S	D9G200204-2	9202364	U1	1.0	07/30/09 03:25		☐
214	CCV				1.0	07/30/09 03:28		☐
215	CCB				1.0	07/30/09 03:31		☐
216	RLCV				1.0	07/30/09 03:34		☐
217	LGQ17D	D9G200204-2	9202364	U1	1.0	07/30/09 03:37		☐
218	LGQ19	D9G200204-3	9202361	U1	1.0	07/30/09 03:39		☐
219	LGQ2A	D9G200204-4	9202361	U1	1.0	07/30/09 03:42		☐
220	LGQ2C	D9G200204-5	9202361	U1	1.0	07/30/09 03:45		☐
221	LGQ2D	D9G200204-6	9202361	U1	1.0	07/30/09 03:48		☐
222	LGQ2E	D9G200204-7	9202361	U1	1.0	07/30/09 03:51		☐
223	LGQ2F	D9G200204-8	9202361	U1	1.0	07/30/09 03:53		☐
224	CCV				1.0	07/30/09 03:56		☐
225	CCB				1.0	07/30/09 03:59		☐
226	RLCV				1.0	07/30/09 04:02		☐
227	LGQ2G	D9G200204-9	9202361	U1	1.0	07/30/09 04:05		☐
228	LGQ2H	D9G200204-10	9202361	U1	1.0	07/30/09 04:07		☐
229	LGQ2J	D9G200204-11	9202361	U1	1.0	07/30/09 04:10		☐
230	LGQ2K	D9G200204-12	9202361	U1	1.0	07/30/09 04:13		☐
231	~~LGQ2L~~	~~D9G200204-13~~	~~9202361~~	~~U1~~	~~1.0~~	~~07/30/09 04:16~~	RT 7/30/09 Did not use.	☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
232	LGQ2M	D9G200204-14	9202361	U1	1.0	07/30/09 04:19		☐
233	LGQ2N	D9G200204-15	9202361	U1	1.0	07/30/09 04:21		☐
234	CCV				1.0	07/30/09 04:24		☐
235	CCB				1.0	07/30/09 04:27		☐
236	RLCV				1.0	07/30/09 04:30		☐
237	LGRW8B	D9G210000	9202231	MS	1.0	07/30/09 04:33		☐
238	LGRW8C	D9G210000	9202231	MS	1.0	07/30/09 04:35		☐
239	LGRW8L	D9G210000	9202231	MS	1.0	07/30/09 04:38		☐
240	LGQ1E	D9G200202-19	9202231	U2	1.0	07/30/09 04:41		☐
241	LGQ1EP5	D9G200202	9202231		5.0	07/30/09 04:44		☐
242	LGQ1EZ	D9G200202-19	9202231		1.0	07/30/09 04:47		☐
243	LGQ1F	D9G200202-20	9202231	U2	1.0	07/30/09 04:49		☐
244	LGQ1G	D9G200202-21	9202231	U2	1.0	07/30/09 04:52		☐
245	CCV				1.0	07/30/09 04:55		☐
246	CCB				1.0	07/30/09 04:58		☐
247	RLCV				1.0	07/30/09 05:01		☐
248	RINSE				1.0	07/30/09 05:03		☐
249	RINSE				1.0	07/30/09 05:06		☐
250	RINSE				1.0	07/30/09 05:09		☐
251	RINSE				1.0	07/30/09 05:12		☐
252	RINSE				1.0	07/30/09 05:14		☐
253	RINSE				1.0	07/30/09 05:17		☐
254	Cal Blank				1.0	07/30/09 05:20	KF 7/30/09 Did not use.	☐
255	Cal Blank				1.0	07/30/09 05:23		☐
256	100 ppb				1.0	07/30/09 05:25		☐
257	CCV				1.0	07/30/09 05:28		☐
258	CCB				1.0	07/30/09 05:31		☐
259	RLCV				1.0	07/30/09 05:34		☐
260	LGRXNB	D9G210000	9202240	U2	1.0	07/30/09 05:36		☐
261	LGRXNC	D9G210000	9202240	U2	1.0	07/30/09 05:39		☐
262	LGRXNL	D9G210000	9202240	U2	1.0	07/30/09 05:42		☐
263	LGQ1E	D9G200202-19	9202231	U2	1.0	07/30/09 05:45		☐
264	LGQ1EP5	D9G200202	9202231		5.0	07/30/09 05:48		☐
265	LGQ1EZ	D9G200202-19	9202231		1.0	07/30/09 05:50		☐
266	LGQ1F	D9G200202-20	9202231	U2	1.0	07/30/09 05:53		☐
267	LGQ1G	D9G200202-21	9202231	U2	1.0	07/30/09 05:56		☐
268	CCV				1.0	07/30/09 05:59		☐
269	CCB				1.0	07/30/09 06:01		☐
270	RLCV				1.0	07/30/09 06:04		☐
271	LGXRHBF	D9G230000	9204219	MD	1.0	07/30/09 06:07		☐
272	LGXRHCF	D9G230000	9204219	MD	1.0	07/30/09 06:10		☐
273	LGWWDF 5X	D9G220275-2	9204219	MD	5.0	07/30/09 06:12		☐
274	LGWWDP25I	D9G220275	9204219		25.0	07/30/09 06:15		☐
275	LGWWDZF	D9G220275-2	9204219		1.0	07/30/09 06:18		☐
276	LGWWDSF 5	D9G220275-2	9204219	MD	5.0	07/30/09 06:21		☐
277	LGWWDDF 5	D9G220275-2	9204219	MD	5.0	07/30/09 06:23		☐

Denver

RUN SUMMARY

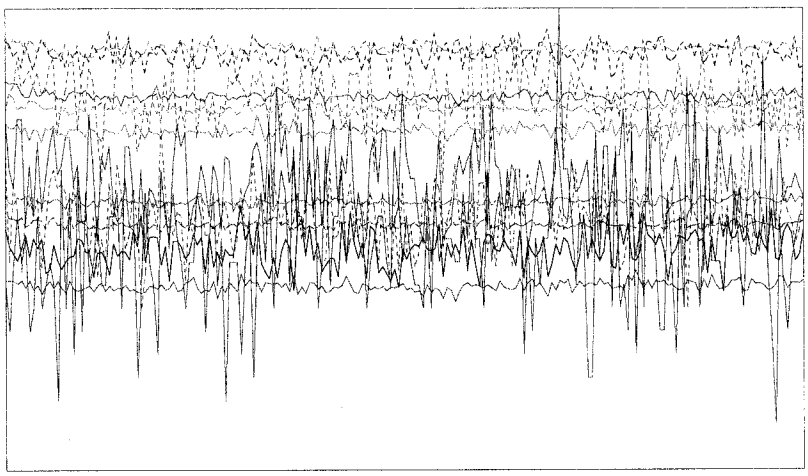
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 07/30/09 11:26:47

File ID: AG072909A **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
278	CCV				1.0	07/30/09 06:26		☐
279	CCB				1.0	07/30/09 06:29		☐
280	RLCV				1.0	07/30/09 06:32		☐
281	LGXP7B	D9G230000	9204215	MS	1.0	07/30/09 06:34		☐
282	LGXP7C	D9G230000	9204215	MS	1.0	07/30/09 06:37		☐
283	LGWWA 5X	D9G220275-1	9204215	MS	5.0	07/30/09 06:40		☐
284	LGWWAP25	D9G220275	9204215		25.0	07/30/09 06:43		☐
285	LGWWAZ	D9G220275-1	9204215		1.0	07/30/09 06:46		☐
286	LGWWAS 5X	D9G220275-1	9204215	MS	5.0	07/30/09 06:48		☐
287	LGWWAD 5X	D9G220275-1	9204215	MS	5.0	07/30/09 06:51		☐
288	CCV				1.0	07/30/09 06:54		☐
289	CCB				1.0	07/30/09 06:57		☐
290	RLCV				1.0	07/30/09 06:59		☐
291	~~LGXFPB~~	~~D9G230000~~	~~9204156~~	~~MS~~	~~1.0~~	~~07/30/09 07:02~~		☐
292	LGXFPC	D9G230000	9204156	MS	1.0	07/30/09 07:05		☐
293	LGV5A	D9G220192-1	9204156	MS	1.0	07/30/09 07:08		☐
294	LGV5L	D9G220192-2	9204156	MS	1.0	07/30/09 07:10		☐
295	LGV5W	D9G220192-3	9204156	MS	1.0	07/30/09 07:13		☐
296	LGV56	D9G220192-4	9204156	MS	1.0	07/30/09 07:16		☐
297	LGV1D	D9G220173-1	9204156	MS	1.0	07/30/09 07:19		☐
298	LGV1DP5	D9G220173	9204156		5.0	07/30/09 07:21		☐
299	LGV1DZ	D9G220173-1	9204156		1.0	07/30/09 07:24		☐
300	CCV				1.0	07/30/09 07:27		☐
301	CCB				1.0	07/30/09 07:30		☐
302	RLCV				1.0	07/30/09 07:33		☐
303	LGV1DS	D9G220173-1	9204156	MS	1.0	07/30/09 07:35		☐
304	LGV1DD	D9G220173-1	9204156	MS	1.0	07/30/09 07:38		☐
305	LGV1L	D9G220173-2	9204156	MS	1.0	07/30/09 07:41		☐
306	LGV1M	D9G220173-3	9204156	MS	1.0	07/30/09 07:44		☐
307	LGV1N	D9G220173-4	9204156	MS	1.0	07/30/09 07:46		☐
308	LGV1P	D9G220173-5	9204156	MS	1.0	07/30/09 07:49		☐
309	LGV1Q	D9G220173-6	9204156	MS	1.0	07/30/09 07:52		☐
310	LGV1T	D9G220173-7	9204156	MS	1.0	07/30/09 07:55		☐
311	LGV1V	D9G220173-8	9204156	MS	1.0	07/30/09 07:58		☐
312	CCV				1.0	07/30/09 08:00		☐
313	CCB				1.0	07/30/09 08:03		☐
314	~~RLCV~~				~~1.0~~	~~07/30/09 08:06~~	RT 7/30/09 Did not use.	☐

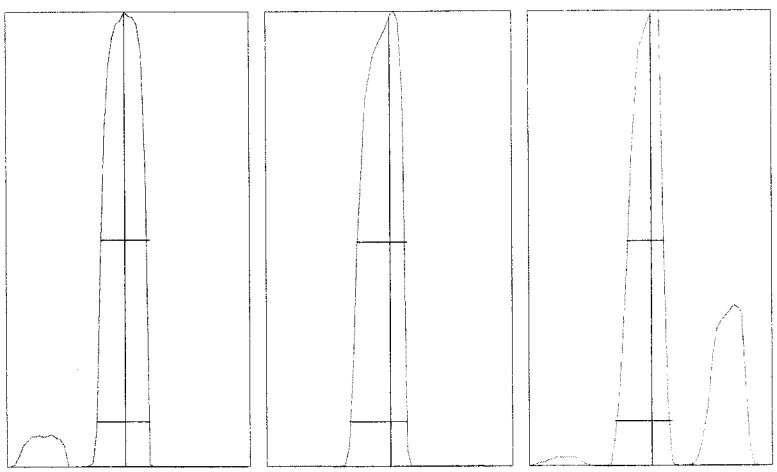
Tune Report

Tune File : NORM.U
Comment :



Integration Time:	0.1000 sec	
Sampling Period:	1.5300 sec	
n:	200	
Oxide:	156/140	1.586%
Doubly Charged:	70/140	1.364%

m/z	Range	Count	Mean	RSD%	Background
6	5,000	2044.0	1986.3	2.65	1.10
7	50,000	29283.0	29079.0	1.25	1.00
59	20,000	14853.0	14704.3	1.44	0.80
63	100	59.0	61.7	13.85	0.60
70	500	261.0	238.6	7.70	1.40
75	20	11.0	9.9	29.28	1.10
78	200	176.0	161.1	7.71	1.00
89	20,000	18187.0	18209.5	1.29	1.30
115	20,000	15792.0	15640.2	1.26	1.90
118	100	61.0	54.9	12.29	2.40
137	2,000	1745.0	1799.2	2.57	3.00
205	20,000	10768.0	10629.8	1.38	4.50
238	20,000	16051.0	16184.4	1.21	4.50
156/140	5	1.642%	1.636%	7.81	
70/140	5	1.648%	1.500%	7.83	



m/z:	7	89	205
Height:	29,234	18,456	10,810
Axis:	7.00	89.05	205.05
W-50%:	0.60	0.60	0.45
W-10%:	0.6500	0.700	0.700

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Jul 29, 2009 16:51:29
Printed : Jul 29, 2009 16:51:32

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===

RF Power	:	1550 W
RF Matching	:	1.7 V
Smpl Depth	:	7.5 mm
Torch-H	:	-0.8 mm
Torch-V	:	-0.3 mm
Carrier Gas	:	0.84 L/min
Makeup Gas	:	0.21 L/min
Optional Gas	:	--- %
Nebulizer Pump	:	0.1 rps
Sample Pump	:	--- rps
S/C Temp	:	2 degC

===Ion Lenses===

Extract 1	:	0 V
Extract 2	:	-170 V
Omega Bias-ce	:	-30 V
Omega Lens-ce	:	0 V
Cell Entrance	:	-30 V
QP Focus	:	7 V
Cell Exit	:	-30 V

===Octopole Parameters===

OctP RF	:	180 V
OctP Bias	:	-18 V

===Q-Pole Parameters===

AMU Gain	:	132
AMU Offset	:	123
Axis Gain	:	1.0006
Axis Offset	:	-0.04
QP Bias	:	-1 V

===Detector Parameters===

Discriminator	:	8 mV
Analog HV	:	1720 V
Pulse HV	:	1390 V

===Reaction Cell===

Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

Generated : Jul 29, 2009 16:51:29
Printed : Jul 29, 2009 16:51:35

P/A Factor Tuning Report

Acquired:Jul 29 2009 05:11 pm

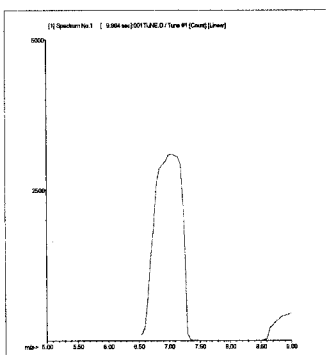
Mass[amu]	Element	P/A Factor
6	Li	0.061766
7	(Li)	Sensitivity too low
9	Be	0.068562
45	Sc	0.080782
51	V	0.082272
52	Cr	0.084596
53	(Cr)	Sensitivity too low
55	Mn	0.085872
59	Co	0.087899
60	Ni	0.089522
63	Cu	0.090794
66	Zn	0.090682
72	Ge	0.090147
75	As	0.089695
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
95	Mo	0.091337
98	(Mo)	0.090805
99	(Mo)	0.091659
106	(Cd)	0.093972
107	Ag	Sensitivity too low
108	(Cd)	0.094501
111	Cd	0.094532
114	Cd	0.094404
115	In	0.093586
118	Sn	0.093763
121	Sb	0.093661
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
205	Tl	0.099282
206	(Pb)	0.098467
207	(Pb)	0.098629
208	Pb	0.097694
232	Th	0.096941
238	U	0.097032

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

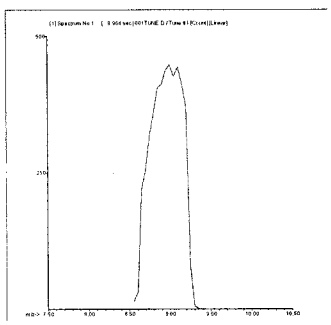
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\001TUNE.D
Date Acquired: Jul 29 2009 05:41 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32927	32678	32939	33233	32798	32985	0.64	5.00	
9 Be	4643	4585	4575	4586	4679	4790	1.98	5.00	
24 Mg	25379	25673	25303	25368	25176	25373	0.72	5.00	
59 Co	110171	111931	109672	110602	108807	109843	1.06	5.00	
115 In	1374029	1366412	1370475	1371171	1380395	1381691	0.49	5.00	
208 Pb	66951	67738	66972	67145	65946	66955	0.96	5.00	
238 U	128273	129392	128484	128073	127731	127686	0.55	5.00	

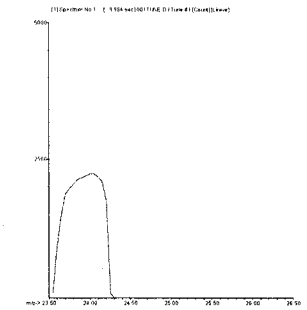


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



9 Be
Mass Calib.
Actual: 9.05
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPCHEM\1\DATA\AG072909A.B\001TUNE.D



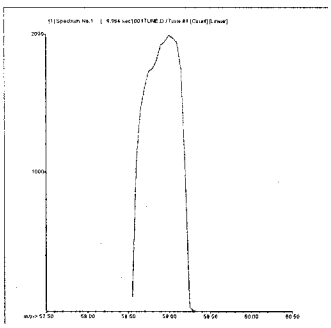
24 Mg

Mass Calib.

Actual:	24.00		
Required:	23.90	-	24.10
Flag:			

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



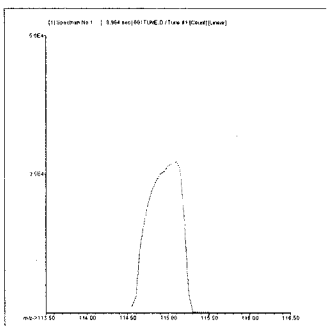
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



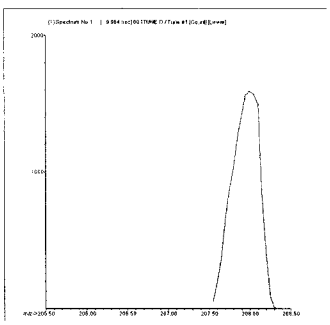
115 In

Mass Calib.

Actual:	115.05		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



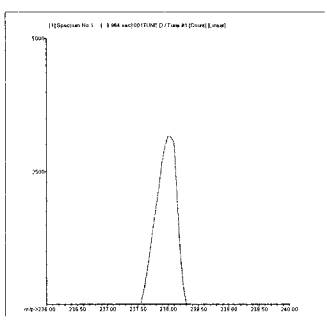
208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.60
Required:	0.90
Flag:	



238 U

Mass Calib.

Actual:	238.00		
Required:	237.90	-	238.10
Flag:			

Peak Width

Actual:	0.60
Required:	0.90
Flag:	

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\002CALB.D\002CALB.D#
Date Acquired: Jul 29 2009 05:44 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:45 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	3	173.21
51	V	72	1	-259	59.46
52	Cr	72	1	2410	5.18
55	Mn	72	1	667	13.61
59	Co	72	1	113	28.36
60	Ni	72	1	63	18.23
63	Cu	72	1	550	3.15
66	Zn	72	1	253	10.72
75	As	72	1	93	13.19
78	Se	72	1	573	5.61
95	Mo	72	1	97	31.60
107	Ag	115	1	7	86.60
111	Cd	115	1	0	1521.20
118	Sn	115	1	1974	1.63
121	Sb	115	1	21	24.12
137	Ba	115	1	22	17.32
205	Tl	165	1	213	1.56
208	Pb	165	1	300	9.49
232	Th	165	1	80	33.07
238	U	165	1	104	15.74

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	591605	3.25
45	Sc	1	2199258	0.33
72	Ge	1	981801	0.69
115	In	1	2489615	0.38
165	Ho	1	3618933	0.85

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

DG 7/30/09

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#
Date Acquired: Jul 29 2009 05:47 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:45 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
51	V	72	1	-644	125.37
52	Cr	72	1	2330	8.22
55	Mn	72	1	823	9.12
59	Co	72	1	70	42.86
60	Ni	72	1	60	57.74
63	Cu	72	1	410	16.90
66	Zn	72	1	381	2.19
75	As	72	1	71	36.06
78	Se	72	1	673	9.07
95	Mo	72	1	107	28.64
107	Ag	115	1	20	50.00
111	Cd	115	1	4	599.19
118	Sn	115	1	2077	6.41
121	Sb	115	1	19	10.19
137	Ba	115	1	16	65.47
205	Tl	165	1	187	7.78
208	Pb	165	1	239	4.26
232	Th	165	1	130	23.08
238	U	165	1	32	11.95

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	588268	2.50
45	Sc	1	2200954	0.25
72	Ge	1	981711	0.69
115	In	1	2501611	0.98
165	Ho	1	3594508	0.74

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\004ICAL.D\004ICAL.D#
Date Acquired: Jul 29 2009 05:49 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:47 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	85590	1.19
51	V	72	1	1372249	1.47
52	Cr	72	1	1369993	1.22
55	Mn	72	1	1468746	0.40
59	Co	72	1	1736210	0.95
60	Ni	72	1	394629	1.25
63	Cu	72	1	945328	0.84
66	Zn	72	1	192192	0.36
75	As	72	1	158313	0.57
78	Se	72	1	28353	1.71
95	Mo	72	1	411295	0.49
107	Ag	115	1	1196793	1.67
111	Cd	115	1	225711	0.95
118	Sn	115	1	605291	1.39
121	Sb	115	1	685171	0.78
137	Ba	115	1	285093	0.89
205	Tl	165	1	1890445	0.60
208	Pb	165	1	2627740	0.46
232	Th	165	1	2225694	2.81
238	U	165	1	2708464	0.51

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	569615	1.13	588268	96.8	30 - 120	
45	Sc	1	2178844	1.00	2200954	99.0	30 - 120	
72	Ge	1	976230	0.67	981711	99.4	30 - 120	
115	In	1	2489071	1.59	2501611	99.5	30 - 120	
165	Ho	1	3579215	1.05	3594508	99.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\005 ICV.D\005 ICV.D#
Date Acquired: Jul 29 2009 05:52 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	38.32	ppb	1.77	40	95.8	90 - 110	
51 V	72	1	38.77	ppb	1.76	40	96.9	90 - 110	
52 Cr	72	1	39.09	ppb	0.56	40	97.7	90 - 110	
55 Mn	72	1	39.36	ppb	0.69	40	98.4	90 - 110	
59 Co	72	1	38.65	ppb	0.23	40	96.6	90 - 110	
60 Ni	72	1	39.89	ppb	1.17	40	99.7	90 - 110	
63 Cu	72	1	39.33	ppb	0.13	40	98.3	90 - 110	
66 Zn	72	1	39.51	ppb	0.28	40	98.8	90 - 110	
75 As	72	1	39.14	ppb	0.80	40	97.9	90 - 110	
78 Se	72	1	40.48	ppb	3.16	40	101.2	90 - 110	
95 Mo	72	1	38.96	ppb	0.92	40	97.4	90 - 110	
107 Ag	115	1	39.33	ppb	1.84	40	98.3	90 - 110	
111 Cd	115	1	40.14	ppb	1.02	40	100.4	90 - 110	
118 Sn	115	1	39.45	ppb	0.67	40	98.6	90 - 110	
121 Sb	115	1	38.16	ppb	0.16	40	95.4	90 - 110	
137 Ba	115	1	39.29	ppb	1.63	40	98.2	90 - 110	
205 Tl	165	1	40.90	ppb	1.44	40	102.3	90 - 110	
208 Pb	165	1	40.65	ppb	1.38	40	101.6	90 - 110	
232 Th	165	1	44.58	ppb	3.18	40	111.5	90 - 110	Fail
238 U	165	1	40.52	ppb	0.85	40	101.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	580403	1.58	588268	98.7	30 - 120	
45 Sc	1	2152445	0.82	2200954	97.8	30 - 120	
72 Ge	1	979011	0.93	981711	99.7	30 - 120	
115 In	1	2472252	0.65	2501611	98.8	30 - 120	
165 Ho	1	3549200	0.66	3594508	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\006WASH.D\006WASH.D#
Date Acquired: Jul 29 2009 05:55 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.007 ppb	9.87	1.30	
51 V	72	1	5.201 ppb	0.08	6.50	
52 Cr	72	1	2.134 ppb	2.59	2.60	
55 Mn	72	1	1.026 ppb	3.86	1.30	
59 Co	72	1	1.045 ppb	2.92	1.30	
60 Ni	72	1	2.101 ppb	5.09	2.60	
63 Cu	72	1	2.107 ppb	2.14	2.60	
66 Zn	72	1	10.640 ppb	1.18	13.00	
75 As	72	1	5.291 ppb	3.52	6.50	
78 Se	72	1	4.535 ppb	23.07	6.50	
95 Mo	72	1	2.129 ppb	2.80	2.60	
107 Ag	115	1	5.273 ppb	2.19	6.50	
111 Cd	115	1	1.087 ppb	9.42	1.30	
118 Sn	115	1	10.750 ppb	2.17	13.00	
121 Sb	115	1	2.255 ppb	2.44	2.60	
137 Ba	115	1	1.081 ppb	2.33	1.30	
205 Tl	165	1	1.182 ppb	1.95	1.30	
208 Pb	165	1	1.099 ppb	0.62	1.30	
232 Th	165	1	2.924 ppb	0.94	2.60	
238 U	165	1	1.124 ppb	2.38	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	572754	0.50	588268	97.4	30 - 120	
45 Sc	1	2165273	1.40	2200954	98.4	30 - 120	
72 Ge	1	963707	1.10	981711	98.2	30 - 120	
115 In	1	2458754	0.90	2501611	98.3	30 - 120	
165 Ho	1	3524675	0.48	3594508	98.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\007 ICB.D\007 ICB.D#
Date Acquired: Jul 29 2009 05:57 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	173.19	1.00	
51 V	72	1	0.03	ppb	129.46	1.00	
52 Cr	72	1	0.00	ppb	221.15	1.00	
55 Mn	72	1	-0.01	ppb	77.08	1.00	
59 Co	72	1	0.00	ppb	97.02	1.00	
60 Ni	72	1	0.00	ppb	758.32	1.00	
63 Cu	72	1	0.01	ppb	26.02	1.00	
66 Zn	72	1	0.21	ppb	6.08	1.00	
75 As	72	1	0.00	ppb	662.87	1.00	
78 Se	72	1	-0.34	ppb	21.66	1.00	
95 Mo	72	1	0.03	ppb	32.40	1.00	
107 Ag	115	1	0.00	ppb	44.25	1.00	
111 Cd	115	1	0.00	ppb	325.55	1.00	
118 Sn	115	1	0.10	ppb	28.46	1.00	
121 Sb	115	1	0.07	ppb	28.97	1.00	
137 Ba	115	1	0.01	ppb	26.86	1.00	
205 Tl	165	1	0.03	ppb	14.09	1.00	
208 Pb	165	1	0.00	ppb	90.93	1.00	
232 Th	165	1	0.27	ppb	3.43	1.00	
238 U	165	1	0.00	ppb	9.71	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	570877	0.96	588268	97.0	30 - 120	
45 Sc	1	2160997	0.38	2200954	98.2	30 - 120	
72 Ge	1	960769	1.16	981711	97.9	30 - 120	
115 In	1	2454869	0.14	2501611	98.1	30 - 120	
165 Ho	1	3533720	0.28	3594508	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\008RLST.D\008RLST.D#
Date Acquired: Jul 29 2009 06:00 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	1.00	ppb	7.53	1	100.1	50 - 150	
51 V	72	1	1.02	ppb	5.28	1	101.8	50 - 150	
52 Cr	72	1	1.02	ppb	5.58	1	101.7	50 - 150	
55 Mn	72	1	1.01	ppb	3.15	1	101.2	50 - 150	
59 Co	72	1	1.01	ppb	2.79	1	100.6	50 - 150	
60 Ni	72	1	1.08	ppb	10.89	1	108.0	50 - 150	
63 Cu	72	1	1.04	ppb	0.79	1	104.2	50 - 150	
66 Zn	72	1	10.81	ppb	1.76	10	108.1	50 - 150	
75 As	72	1	1.05	ppb	0.34	1	104.9	50 - 150	
78 Se	72	1	0.94	ppb	12.87	1	94.5	50 - 150	
95 Mo	72	1	1.03	ppb	6.66	1	103.0	50 - 150	
107 Ag	115	1	1.02	ppb	2.10	1	102.4	50 - 150	
111 Cd	115	1	1.06	ppb	2.57	1	105.6	50 - 150	
118 Sn	115	1	10.74	ppb	0.18	10	107.4	50 - 150	
121 Sb	115	1	1.05	ppb	2.81	1	104.7	50 - 150	
137 Ba	115	1	1.04	ppb	1.47	1	104.1	50 - 150	
205 Tl	165	1	1.08	ppb	1.76	1	108.0	50 - 150	
208 Pb	165	1	1.07	ppb	1.61	1	107.0	50 - 150	
232 Th	165	1	1.16	ppb	0.70	1	116.1	50 - 150	
238 U	165	1	1.07	ppb	1.60	1	107.1	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	571842	0.91	588268	97.2	30 - 120	
45 Sc	1	2177029	1.78	2200954	98.9	30 - 120	
72 Ge	1	961305	0.98	981711	97.9	30 - 120	
115 In	1	2459150	0.51	2501611	98.3	30 - 120	
165 Ho	1	3534152	0.17	3594508	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\009AFCE.D\009AFCE.D#
Date Acquired: Jul 29 2009 06:03 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.18	ppb	23.07	0	87.4	80 - 120	
51 V	72	1	0.23	ppb	4.11	0	113.0	80 - 120	
52 Cr	72	1	0.27	ppb	3.68	0	134.2	80 - 120	
55 Mn	72	1	0.21	ppb	8.61	0	104.6	80 - 120	
59 Co	72	1	0.21	ppb	8.94	0	102.4	80 - 120	
60 Ni	72	1	0.18	ppb	12.94	0	84.0	80 - 120	
63 Cu	72	1	0.21	ppb	7.04	0	99.5	80 - 120	
66 Zn	72	1	2.04	ppb	2.85	2	94.2	80 - 120	
75 As	72	1	0.21	ppb	6.16	0	99.8	80 - 120	
78 Se	72	1	-0.27	ppb	15.94	0	-143.1	80 - 120	
95 Mo	72	1	0.23	ppb	12.47	0	110.7	80 - 120	
107 Ag	115	1	0.19	ppb	8.15	0	94.9	80 - 120	
111 Cd	115	1	0.20	ppb	14.53	0	93.7	80 - 120	
118 Sn	115	1	3.28	ppb	3.04	2	152.6	80 - 120	
121 Sb	115	1	0.22	ppb	2.56	0	106.5	80 - 120	
137 Ba	115	1	0.18	ppb	10.15	0	88.6	80 - 120	
205 Tl	165	1	0.22	ppb	4.98	0	103.8	80 - 120	
208 Pb	165	1	0.21	ppb	1.05	0	98.3	80 - 120	
232 Th	165	1	0.39	ppb	6.01	0	169.1	80 - 120	
238 U	165	1	0.22	ppb	4.93	0	101.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	569507	1.02	588268	96.8	30 - 120	
45 Sc	1	2165717	0.84	2200954	98.4	30 - 120	
72 Ge	1	957306	2.05	981711	97.5	30 - 120	
115 In	1	2479513	1.06	2501611	99.1	30 - 120	
165 Ho	1	3547194	1.23	3594508	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\010SMPL.D\010SMPL.D#
Date Acquired: Jul 29 2009 06:06 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:50 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
51 V	72	1	-0.01	-0.01	ppb	504.43	3600	
52 Cr	72	1	0.05	0.05	ppb	35.67	3600	
55 Mn	72	1	0.01	0.01	ppb	45.26	3600	
59 Co	72	1	0.00	0.00	ppb	287.79	3600	
60 Ni	72	1	0.02	0.02	ppb	27.89	3600	
63 Cu	72	1	0.03	0.03	ppb	33.75	3600	
66 Zn	72	1	0.12	0.12	ppb	26.45	3600	
75 As	72	1	0.00	0.00	ppb	336.58	3600	
78 Se	72	1	1.35	1.35	ppb	42.93	3600	
95 Mo	72	1	0.01	0.01	ppb	122.22	3600	
107 Ag	115	1	0.00	0.00	ppb	42.13	3600	
111 Cd	115	1	0.01	0.01	ppb	116.51	3600	
118 Sn	115	1	1.50	1.50	ppb	1.98	3600	
121 Sb	115	1	0.02	0.02	ppb	3.46	3600	
137 Ba	115	1	0.01	0.01	ppb	63.43	3600	
205 Tl	165	1	0.01	0.01	ppb	16.35	3600	
208 Pb	165	1	0.00	0.00	ppb	30.78	3600	
232 Th	165	1	0.11	0.11	ppb	4.62	1000	
238 U	165	1	0.00	0.00	ppb	97.32	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	574461	0.53	588268	97.7	30 - 120	
45 Sc	1	2179181	1.23	2200954	99.0	30 - 120	
72 Ge	1	953265	1.98	981711	97.1	30 - 120	
115 In	1	2468609	0.68	2501611	98.7	30 - 120	
165 Ho	1	3530603	0.80	3594508	98.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\011ICSA.D\011ICSA.D#
Date Acquired: Jul 29 2009 06:08 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:50 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.01 ppb	86.61	1.00	
51	V	72	1	-0.36 ppb	30.27	1.00	
52	Cr	72	1	1.20 ppb	3.15	1.00	
55	Mn	72	1	2.40 ppb	1.93	1.00	
59	Co	72	1	0.11 ppb	9.03	1.00	
60	Ni	72	1	1.11 ppb	6.11	1.00	
63	Cu	72	1	0.50 ppb	7.62	1.00	
66	Zn	72	1	3.70 ppb	2.46	10.00	
75	As	72	1	0.49 ppb	8.46	1.00	
78	Se	72	1	-0.19 ppb	288.98	1.00	
95	Mo	72	1	2096.00 ppb	0.90	2000.00	
107	Ag	115	1	0.07 ppb	5.83	1.00	
111	Cd	115	1	0.38 ppb	21.27	1.00	
118	Sn	115	1	1.74 ppb	6.80	10.00	
121	Sb	115	1	0.24 ppb	2.57	1.00	
137	Ba	115	1	1.55 ppb	2.35	1.00	
205	Tl	165	1	0.06 ppb	24.19	1.00	
208	Pb	165	1	0.15 ppb	3.40	1.00	
232	Th	165	1	0.23 ppb	4.54	1.00	
238	U	165	1	0.03 ppb	13.28	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	545657	0.47	588268	92.8	30 - 120	
45	Sc	1	1900793	1.11	2200954	86.4	30 - 120	
72	Ge	1	826009	0.45	981711	84.1	30 - 120	
115	In	1	2109939	1.17	2501611	84.3	30 - 120	
165	Ho	1	3188382	1.03	3594508	88.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\012ICSB.D\012ICSB.D#
Date Acquired: Jul 29 2009 06:11 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:50 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	89.71	0.70	100	89.7	80 - 120	
51 V	72	1	105.20	0.25	100	105.2	80 - 120	
52 Cr	72	1	103.80	0.11	100	103.8	80 - 120	
55 Mn	72	1	104.10	1.06	100	104.1	80 - 120	
59 Co	72	1	98.77	0.92	100	98.8	80 - 120	
60 Ni	72	1	94.97	0.85	100	95.0	80 - 120	
63 Cu	72	1	89.57	1.36	100	89.6	80 - 120	
66 Zn	72	1	97.42	0.22	100	97.4	80 - 120	
75 As	72	1	99.38	0.33	100	99.4	80 - 120	
78 Se	72	1	99.59	1.93	100	99.6	80 - 120	
95 Mo	72	1	2212.00	0.69	2100	105.3	80 - 120	
107 Ag	115	1	83.76	6.72	100	83.8	80 - 120	
111 Cd	115	1	93.38	1.71	100	93.4	80 - 120	
118 Sn	115	1	103.60	1.39	100	103.6	80 - 120	
121 Sb	115	1	100.50	2.40	100	100.5	80 - 120	
137 Ba	115	1	104.00	2.29	100	104.0	80 - 120	
205 Tl	165	1	97.98	1.05	100	98.0	80 - 120	
208 Pb	165	1	95.75	0.26	100	95.8	80 - 120	
232 Th	165	1	118.40	2.74	100	118.4	80 - 120	
238 U	165	1	105.30	0.50	100	105.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	571149	0.94	588268	97.1	30 - 120	
45 Sc	1	1943593	0.40	2200954	88.3	30 - 120	
72 Ge	1	825102	0.58	981711	84.0	30 - 120	
115 In	1	2171625	1.46	2501611	86.8	30 - 120	
165 Ho	1	3313473	0.55	3594508	92.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File:	C:\ICPCHEM\1\DATA\AG072909A.B\013SMPL.D\013SMPL.D#
Date Acquired:	Jul 29 2009 06:14 pm
Acq. Method:	NormISIS.M
Operator:	TEL
Sample Name:	RINSE
Misc Info:	
Vial Number:	1101
Current Method:	C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File:	C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update:	Jul 29 2009 05:50 pm
Sample Type:	SA
Dilution Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	113.18	3600	
51 V	72	1	0.04	0.04	ppb	35.61	3600	
52 Cr	72	1	0.01	0.01	ppb	133.36	3600	
55 Mn	72	1	0.01	0.01	ppb	60.05	3600	
59 Co	72	1	0.02	0.02	ppb	33.80	3600	
60 Ni	72	1	0.02	0.02	ppb	6.12	3600	
63 Cu	72	1	0.03	0.03	ppb	18.01	3600	
66 Zn	72	1	-0.05	-0.05	ppb	11.05	3600	
75 As	72	1	0.03	0.03	ppb	19.18	3600	
78 Se	72	1	-0.41	-0.41	ppb	58.25	3600	
95 Mo	72	1	1.69	1.69	ppb	9.39	3600	
107 Ag	115	1	0.02	0.02	ppb	34.94	3600	
111 Cd	115	1	0.02	0.02	ppb	79.52	3600	
118 Sn	115	1	0.04	0.04	ppb	46.62	3600	
121 Sb	115	1	0.05	0.05	ppb	18.21	3600	
137 Ba	115	1	0.02	0.02	ppb	30.59	3600	
205 Tl	165	1	0.02	0.02	ppb	25.40	3600	
208 Pb	165	1	0.03	0.03	ppb	16.96	3600	
232 Th	165	1	0.41	0.41	ppb	9.21	1000	
238 U	165	1	0.03	0.03	ppb	11.29	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	616225	2.12	588268	104.8	30 - 120	
45 Sc	1	2193476	0.66	2200954	99.7	30 - 120	
72 Ge	1	990493	0.39	981711	100.9	30 - 120	
115 In	1	2510529	0.06	2501611	100.4	30 - 120	
165 Ho	1	3716473	0.61	3594508	103.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\014 LR.D\014 LR.D#
Date Acquired: Jul 29 2009 06:17 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:50 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	958.50 ppb	2.48	1000	95.9	90 - 110	
51 V	72	1	941.40 ppb	0.05	1000	94.1	90 - 110	
52 Cr	72	1	973.40 ppb	0.76	1000	97.3	90 - 110	
55 Mn	72	1	980.00 ppb	1.09	1000	98.0	90 - 110	
59 Co	72	1	975.30 ppb	1.58	1000	97.5	90 - 110	
60 Ni	72	1	995.90 ppb	0.59	1000	99.6	90 - 110	
63 Cu	72	1	960.90 ppb	0.31	1000	96.1	90 - 110	
66 Zn	72	1	997.40 ppb	0.33	1000	99.7	90 - 110	
75 As	72	1	996.00 ppb	0.40	1000	99.6	90 - 110	
78 Se	72	1	999.30 ppb	1.75	1000	99.9	90 - 110	
95 Mo	72	1	1036.00 ppb	0.51	1000	103.6	90 - 110	
107 Ag	115	1	965.70 ppb	1.23	1000	96.6	90 - 110	
111 Cd	115	1	998.10 ppb	1.20	1000	99.8	90 - 110	
118 Sn	115	1	994.50 ppb	0.63	1000	99.5	90 - 110	
121 Sb	115	1	981.50 ppb	0.44	1000	98.2	90 - 110	
137 Ba	115	1	1010.00 ppb	0.80	1000	101.0	90 - 110	
205 Tl	165	1	984.40 ppb	1.58	1000	98.4	90 - 110	
208 Pb	165	1	969.10 ppb	0.64	1000	96.9	90 - 110	
232 Th	165	1	1142.00 ppb	1.55	1000	114.2	90 - 110	Fail
238 U	165	1	998.00 ppb	0.61	1000	99.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	582173	1.57	588268	99.0	30 - 120	
45 Sc	1	2133765	1.14	2200954	96.9	30 - 120	
72 Ge	1	941454	0.42	981711	95.9	30 - 120	
115 In	1	2437731	0.57	2501611	97.4	30 - 120	
165 Ho	1	3606597	0.54	3594508	100.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\015SMPL.D\015SMPL.D#
Date Acquired: Jul 29 2009 06:19 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 05:50 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.09	0.09	ppb	36.93	3600	
51 V	72	1	0.13	0.13	ppb	12.66	3600	
52 Cr	72	1	0.11	0.11	ppb	13.01	3600	
55 Mn	72	1	0.11	0.11	ppb	19.27	3600	
59 Co	72	1	0.13	0.13	ppb	11.73	3600	
60 Ni	72	1	0.12	0.12	ppb	25.78	3600	
63 Cu	72	1	0.14	0.14	ppb	8.15	3600	
66 Zn	72	1	0.07	0.07	ppb	49.98	3600	
75 As	72	1	0.18	0.18	ppb	1.65	3600	
78 Se	72	1	0.10	0.10	ppb	195.92	3600	
95 Mo	72	1	0.95	0.95	ppb	5.48	3600	
107 Ag	115	1	0.16	0.16	ppb	29.80	3600	
111 Cd	115	1	0.14	0.14	ppb	11.37	3600	
118 Sn	115	1	1.18	1.18	ppb	9.12	3600	
121 Sb	115	1	0.58	0.58	ppb	5.32	3600	
137 Ba	115	1	0.12	0.12	ppb	14.71	3600	
205 Tl	165	1	0.24	0.24	ppb	15.69	3600	
208 Pb	165	1	0.14	0.14	ppb	19.31	3600	
232 Th	165	1	2.85	2.85	ppb	10.44	1000	
238 U	165	1	0.21	0.21	ppb	9.95	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	585495	0.54	588268	99.5	30 - 120	
45 Sc	1	2184547	0.54	2200954	99.3	30 - 120	
72 Ge	1	980509	1.38	981711	99.9	30 - 120	
115 In	1	2512580	0.46	2501611	100.4	30 - 120	
165 Ho	1	3654254	0.21	3594508	101.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\016 CCV.D\016 CCV.D#
Date Acquired: Jul 29 2009 06:22 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	49.30	ppb	2.73	50	98.6	90 - 110	
51 V	72	1	49.09	ppb	1.41	50	98.2	90 - 110	
52 Cr	72	1	49.61	ppb	1.82	50	99.2	90 - 110	
55 Mn	72	1	49.56	ppb	0.89	50	99.1	90 - 110	
59 Co	72	1	49.95	ppb	2.04	50	99.9	90 - 110	
60 Ni	72	1	50.40	ppb	2.13	50	100.8	90 - 110	
63 Cu	72	1	49.32	ppb	2.28	50	98.6	90 - 110	
66 Zn	72	1	50.76	ppb	1.92	50	101.5	90 - 110	
75 As	72	1	50.63	ppb	1.77	50	101.3	90 - 110	
78 Se	72	1	50.24	ppb	5.28	50	100.5	90 - 110	
95 Mo	72	1	49.93	ppb	0.87	50	99.9	90 - 110	
107 Ag	115	1	50.13	ppb	1.89	50	100.3	90 - 110	
111 Cd	115	1	50.43	ppb	1.57	50	100.9	90 - 110	
118 Sn	115	1	50.50	ppb	0.66	50	101.0	90 - 110	
121 Sb	115	1	50.88	ppb	1.20	50	101.8	90 - 110	
137 Ba	115	1	50.66	ppb	1.38	50	101.3	90 - 110	
205 Tl	165	1	51.73	ppb	1.80	50	103.5	90 - 110	
208 Pb	165	1	51.34	ppb	0.94	50	102.7	90 - 110	
232 Th	165	1	52.82	ppb	3.68	50	105.6	90 - 110	
238 U	165	1	52.07	ppb	0.42	50	104.1	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	583654	2.27	588268	99.2	30 - 120	
45 Sc	1	2185191	1.15	2200954	99.3	30 - 120	
72 Ge	1	986001	1.18	981711	100.4	30 - 120	
115 In	1	2504548	0.73	2501611	100.1	30 - 120	
165 Ho	1	3615394	0.60	3594508	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\017 CCB.D\017 CCB.D#
Date Acquired: Jul 29 2009 06:25 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.012	ppb	173.16	1.00	
51 V	72	1	0.052	ppb	85.11	1.00	
52 Cr	72	1	0.013	ppb	53.19	1.00	
55 Mn	72	1	-0.004	ppb	243.60	1.00	
59 Co	72	1	0.013	ppb	43.30	1.00	
60 Ni	72	1	0.016	ppb	39.92	1.00	
63 Cu	72	1	0.020	ppb	21.24	1.00	
66 Zn	72	1	0.557	ppb	5.20	1.00	
75 As	72	1	0.023	ppb	34.33	1.00	
78 Se	72	1	-0.198	ppb	120.30	1.00	
95 Mo	72	1	0.167	ppb	20.95	1.00	
107 Ag	115	1	0.012	ppb	32.94	1.00	
111 Cd	115	1	0.013	ppb	93.68	1.00	
118 Sn	115	1	0.273	ppb	13.21	1.00	
121 Sb	115	1	0.109	ppb	13.59	1.00	
137 Ba	115	1	0.008	ppb	49.68	1.00	
205 Tl	165	1	0.048	ppb	7.10	1.00	
208 Pb	165	1	0.011	ppb	2.72	1.00	
232 Th	165	1	0.949	ppb	6.98	1.00	
238 U	165	1	0.024	ppb	8.73	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	580978	1.04	588268	98.8	30 - 120	
45 Sc	1	2160340	1.46	2200954	98.2	30 - 120	
72 Ge	1	984627	0.15	981711	100.3	30 - 120	
115 In	1	2512528	0.18	2501611	100.4	30 - 120	
165 Ho	1	3587980	0.45	3594508	99.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\018WASH.D\018WASH.D#
Date Acquired: Jul 29 2009 06:27 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 05:50 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.042 ppb	14.00	1.30	
51 V	72	1	5.147 ppb	1.00	6.50	
52 Cr	72	1	2.140 ppb	1.76	2.60	
55 Mn	72	1	1.041 ppb	2.12	1.30	
59 Co	72	1	1.050 ppb	1.21	1.30	
60 Ni	72	1	2.135 ppb	3.51	2.60	
63 Cu	72	1	2.124 ppb	2.41	2.60	
66 Zn	72	1	10.870 ppb	1.53	13.00	
75 As	72	1	5.363 ppb	2.05	6.50	
78 Se	72	1	4.731 ppb	10.99	6.50	
95 Mo	72	1	2.203 ppb	5.53	2.60	
107 Ag	115	1	5.308 ppb	2.31	6.50	
111 Cd	115	1	1.061 ppb	7.56	1.30	
118 Sn	115	1	10.860 ppb	1.49	13.00	
121 Sb	115	1	2.099 ppb	1.07	2.60	
137 Ba	115	1	1.099 ppb	2.69	1.30	
205 Tl	165	1	1.150 ppb	2.52	1.30	
208 Pb	165	1	1.094 ppb	1.75	1.30	
232 Th	165	1	2.459 ppb	0.71	2.60	
238 U	165	1	1.121 ppb	0.64	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	587259	2.87	588268	99.8	30 - 120	
45 Sc	1	2169614	0.35	2200954	98.6	30 - 120	
72 Ge	1	979556	0.83	981711	99.8	30 - 120	
115 In	1	2502853	0.74	2501611	100.0	30 - 120	
165 Ho	1	3615857	0.85	3594508	100.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 07/29/2009

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#
Date Acquired: Jul 29 2009 08:34 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 08:32 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	3	173.21
51	V	72	1	-581	95.80
52	Cr	72	1	1237	3.20
55	Mn	72	1	990	11.25
59	Co	72	1	63	40.08
60	Ni	72	1	50	40.36
63	Cu	72	1	4111	4.73
66	Zn	72	1	312	8.37
75	As	72	1	63	17.37
78	Se	72	1	720	13.08
95	Mo	72	1	320	28.19
107	Ag	115	1	33	74.91
111	Cd	115	1	6	381.21
118	Sn	115	1	1726	49.04
121	Sb	115	1	41	31.19
137	Ba	115	1	93	5.47
205	Tl	165	1	207	14.69
208	Pb	165	1	313	14.24
232	Th	165	1	283	16.56
238	U	165	1	128	20.47

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	274453	0.49
45	Sc	1	1197981	0.89
72	Ge	1	570253	0.58
115	In	1	1621079	0.73
165	Ho	1	2413334	0.53

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\065ICAL.D\065ICAL.D#
Date Acquired: Jul 29 2009 08:37 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 08:35 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	40333	0.22
51	V	72	1	722164	1.17
52	Cr	72	1	726368	0.48
55	Mn	72	1	796053	0.43
59	Co	72	1	953045	2.20
60	Ni	72	1	212732	1.05
63	Cu	72	1	509445	0.91
66	Zn	72	1	106923	0.91
75	As	72	1	92990	0.65
78	Se	72	1	17859	1.41
95	Mo	72	1	242381	0.58
107	Ag	115	1	717810	0.43
111	Cd	115	1	139111	0.72
118	Sn	115	1	382404	1.10
121	Sb	115	1	437775	0.89
137	Ba	115	1	189455	0.72
205	Tl	165	1	1371791	1.04
208	Pb	165	1	1860956	2.24
232	Th	165	1	1710234	3.35
238	U	165	1	2052262	1.40

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	265988	1.64	274453	96.9	30 - 120	
45	Sc	1	1178252	1.14	1197981	98.4	30 - 120	
72	Ge	1	548097	0.59	570253	96.1	30 - 120	
115	In	1	1591551	1.09	1621079	98.2	30 - 120	
165	Ho	1	2380954	1.08	2413334	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\066 CCV.D\066 CCV.D#
Date Acquired: Jul 29 2009 08:39 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.18	ppb	2.28	50	100.4	90 - 110	
51 V	72	1	50.18	ppb	0.87	50	100.4	90 - 110	
52 Cr	72	1	49.47	ppb	1.39	50	98.9	90 - 110	
55 Mn	72	1	50.06	ppb	1.34	50	100.1	90 - 110	
59 Co	72	1	48.55	ppb	1.52	50	97.1	90 - 110	
60 Ni	72	1	50.54	ppb	1.78	50	101.1	90 - 110	
63 Cu	72	1	49.74	ppb	0.56	50	99.5	90 - 110	
66 Zn	72	1	50.05	ppb	1.22	50	100.1	90 - 110	
75 As	72	1	50.52	ppb	0.46	50	101.0	90 - 110	
78 Se	72	1	51.30	ppb	3.93	50	102.6	90 - 110	
95 Mo	72	1	50.76	ppb	1.06	50	101.5	90 - 110	
107 Ag	115	1	49.64	ppb	0.89	50	99.3	90 - 110	
111 Cd	115	1	49.67	ppb	0.28	50	99.3	90 - 110	
118 Sn	115	1	49.93	ppb	2.09	50	99.9	90 - 110	
121 Sb	115	1	50.00	ppb	0.36	50	100.0	90 - 110	
137 Ba	115	1	49.67	ppb	0.94	50	99.3	90 - 110	
205 Tl	165	1	49.43	ppb	0.94	50	98.9	90 - 110	
208 Pb	165	1	50.17	ppb	0.55	50	100.3	90 - 110	
232 Th	165	1	50.87	ppb	2.00	50	101.7	90 - 110	
238 U	165	1	50.09	ppb	1.30	50	100.2	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	263717	0.76	274453	96.1	30 - 120	
45 Sc	1	1165679	2.54	1197981	97.3	30 - 120	
72 Ge	1	544705	0.90	570253	95.5	30 - 120	
115 In	1	1591964	0.52	1621079	98.2	30 - 120	
165 Ho	1	2384684	0.86	2413334	98.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\067 CCB.D\067 CCB.D#
Date Acquired: Jul 29 2009 08:42 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.008	ppb	168.51	1.00	
51 V	72	1	0.079	ppb	28.18	1.00	
52 Cr	72	1	0.033	ppb	57.13	1.00	
55 Mn	72	1	-0.037	ppb	17.68	1.00	
59 Co	72	1	0.016	ppb	42.97	1.00	
60 Ni	72	1	0.019	ppb	64.87	1.00	
63 Cu	72	1	-0.210	ppb	16.76	1.00	
66 Zn	72	1	0.505	ppb	0.98	1.00	
75 As	72	1	0.014	ppb	52.75	1.00	
78 Se	72	1	0.435	ppb	94.58	1.00	
95 Mo	72	1	0.021	ppb	50.29	1.00	
107 Ag	115	1	0.006	ppb	86.89	1.00	
111 Cd	115	1	0.020	ppb	57.36	1.00	
118 Sn	115	1	0.045	ppb	88.12	1.00	
121 Sb	115	1	0.058	ppb	18.87	1.00	
137 Ba	115	1	-0.017	ppb	26.76	1.00	
205 Tl	165	1	0.040	ppb	8.32	1.00	
208 Pb	165	1	0.013	ppb	22.72	1.00	
232 Th	165	1	0.949	ppb	9.80	1.00	
238 U	165	1	0.016	ppb	6.33	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	266242	1.69	274453	97.0	30 - 120	
45 Sc	1	1178718	0.64	1197981	98.4	30 - 120	
72 Ge	1	562485	0.25	570253	98.6	30 - 120	
115 In	1	1609431	0.16	1621079	99.3	30 - 120	
165 Ho	1	2418370	0.54	2413334	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\068WASH.D\068WASH.D#
Date Acquired: Jul 29 2009 08:45 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.060 ppb	14.80	1.30	
51 V	72	1	5.297 ppb	1.75	6.50	
52 Cr	72	1	2.033 ppb	0.79	2.60	
55 Mn	72	1	0.966 ppb	2.74	1.30	
59 Co	72	1	1.040 ppb	5.70	1.30	
60 Ni	72	1	1.995 ppb	4.78	2.60	
63 Cu	72	1	2.210 ppb	3.83	2.60	
66 Zn	72	1	10.300 ppb	0.91	13.00	
75 As	72	1	5.120 ppb	2.14	6.50	
78 Se	72	1	6.075 ppb	6.14	6.50	
95 Mo	72	1	2.102 ppb	4.81	2.60	
107 Ag	115	1	5.159 ppb	0.78	6.50	
111 Cd	115	1	1.067 ppb	3.81	1.30	
118 Sn	115	1	10.650 ppb	1.03	13.00	
121 Sb	115	1	2.068 ppb	3.73	2.60	
137 Ba	115	1	1.066 ppb	4.36	1.30	
205 Tl	165	1	1.088 ppb	1.07	1.30	
208 Pb	165	1	1.069 ppb	1.47	1.30	
232 Th	165	1	2.332 ppb	4.44	2.60	
238 U	165	1	1.082 ppb	1.02	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	255345	1.01	274453	93.0	30 - 120	
45 Sc	1	1132981	1.53	1197981	94.6	30 - 120	
72 Ge	1	532988	0.77	570253	93.5	30 - 120	
115 In	1	1531917	0.80	1621079	94.5	30 - 120	
165 Ho	1	2335598	0.41	2413334	96.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\069ICSA.D\069ICSA.D#
Date Acquired: Jul 29 2009 08:48 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 08:37 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.01 ppb	154.46	1.00	
51	V	72	1	-0.44 ppb	23.62	1.00	
52	Cr	72	1	1.19 ppb	4.42	1.00	
55	Mn	72	1	2.59 ppb	0.72	1.00	
59	Co	72	1	0.13 ppb	12.10	1.00	
60	Ni	72	1	1.36 ppb	8.17	1.00	
63	Cu	72	1	0.78 ppb	7.05	1.00	
66	Zn	72	1	3.51 ppb	1.87	10.00	
75	As	72	1	0.38 ppb	4.36	1.00	
78	Se	72	1	1.28 ppb	54.85	1.00	
95	Mo	72	1	2046.00 ppb	1.11	2000.00	
107	Ag	115	1	0.07 ppb	14.90	1.00	
111	Cd	115	1	0.46 ppb	42.19	1.00	
118	Sn	115	1	1.59 ppb	8.89	10.00	
121	Sb	115	1	0.25 ppb	5.67	1.00	
137	Ba	115	1	1.54 ppb	1.41	1.00	
205	Tl	165	1	0.05 ppb	31.27	1.00	
208	Pb	165	1	0.13 ppb	5.16	1.00	
232	Th	165	1	1.01 ppb	28.50	1.00	
238	U	165	1	0.03 ppb	5.51	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	293482	0.74	274453	106.9	30 - 120	
45	Sc	1	1223263	1.91	1197981	102.1	30 - 120	
72	Ge	1	553242	0.91	570253	97.0	30 - 120	
115	In	1	1527168	1.64	1621079	94.2	30 - 120	
165	Ho	1	2327577	1.12	2413334	96.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\070ICSB.D\070ICSB.D#
Date Acquired: Jul 29 2009 08:51 pm
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 29 2009 08:37 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	90.64	1.14	100	90.6	80 - 120	
51 V	72	1	104.20	1.50	100	104.2	80 - 120	
52 Cr	72	1	102.20	0.43	100	102.2	80 - 120	
55 Mn	72	1	102.00	0.48	100	102.0	80 - 120	
59 Co	72	1	96.84	0.36	100	96.8	80 - 120	
60 Ni	72	1	95.35	0.97	100	95.4	80 - 120	
63 Cu	72	1	91.01	0.08	100	91.0	80 - 120	
66 Zn	72	1	92.02	0.58	100	92.0	80 - 120	
75 As	72	1	96.31	0.54	100	96.3	80 - 120	
78 Se	72	1	97.97	1.57	100	98.0	80 - 120	
95 Mo	72	1	2144.00	1.33	2100	102.1	80 - 120	
107 Ag	115	1	81.70	4.42	100	81.7	80 - 120	
111 Cd	115	1	93.46	1.40	100	93.5	80 - 120	
118 Sn	115	1	102.10	0.97	100	102.1	80 - 120	
121 Sb	115	1	97.62	0.79	100	97.6	80 - 120	
137 Ba	115	1	102.80	1.16	100	102.8	80 - 120	
205 Tl	165	1	93.41	1.04	100	93.4	80 - 120	
208 Pb	165	1	92.28	0.23	100	92.3	80 - 120	
232 Th	165	1	108.50	1.98	100	108.5	80 - 120	
238 U	165	1	98.21	1.75	100	98.2	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	302556	0.28	274453	110.2	30 - 120	
45 Sc	1	1246612	0.42	1197981	104.1	30 - 120	
72 Ge	1	552682	0.16	570253	96.9	30 - 120	
115 In	1	1538951	0.70	1621079	94.9	30 - 120	
165 Ho	1	2372405	0.55	2413334	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\071WASH.D\071WASH.D#
Date Acquired: Jul 29 2009 08:53 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.031 ppb	88.29	1.30	
51 V	72	1	0.084 ppb	24.86	6.50	
52 Cr	72	1	0.015 ppb	157.79	2.60	
55 Mn	72	1	-0.029 ppb	17.04	1.30	
59 Co	72	1	0.015 ppb	11.49	1.30	
60 Ni	72	1	0.006 ppb	154.96	2.60	
63 Cu	72	1	-0.143 ppb	48.52	2.60	
66 Zn	72	1	-0.111 ppb	18.70	13.00	
75 As	72	1	0.008 ppb	132.82	6.50	
78 Se	72	1	-0.498 ppb	32.75	6.50	
95 Mo	72	1	1.523 ppb	13.91	2.60	
107 Ag	115	1	0.022 ppb	54.04	6.50	
111 Cd	115	1	0.024 ppb	21.78	1.30	
118 Sn	115	1	-0.064 ppb	51.02	13.00	
121 Sb	115	1	0.038 ppb	20.01	2.60	
137 Ba	115	1	-0.024 ppb	6.81	1.30	
205 Tl	165	1	0.021 ppb	14.10	1.30	
208 Pb	165	1	0.022 ppb	28.94	1.30	
232 Th	165	1	0.473 ppb	9.58	2.60	
238 U	165	1	0.026 ppb	13.82	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	286193	0.77	274453	104.3	30 - 120	
45 Sc	1	1206679	0.28	1197981	100.7	30 - 120	
72 Ge	1	569605	0.57	570253	99.9	30 - 120	
115 In	1	1629284	1.30	1621079	100.5	30 - 120	
165 Ho	1	2438496	1.17	2413334	101.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\072 CCV.D\072 CCV.D#
Date Acquired: Jul 29 2009 08:56 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.89	ppb	2.84	50	97.8	90 - 110	
51 V	72	1	50.34	ppb	1.11	50	100.7	90 - 110	
52 Cr	72	1	49.69	ppb	0.78	50	99.4	90 - 110	
55 Mn	72	1	49.74	ppb	0.79	50	99.5	90 - 110	
59 Co	72	1	48.82	ppb	0.43	50	97.6	90 - 110	
60 Ni	72	1	49.72	ppb	1.10	50	99.4	90 - 110	
63 Cu	72	1	49.63	ppb	1.48	50	99.3	90 - 110	
66 Zn	72	1	49.45	ppb	0.91	50	98.9	90 - 110	
75 As	72	1	49.70	ppb	0.93	50	99.4	90 - 110	
78 Se	72	1	49.69	ppb	2.40	50	99.4	90 - 110	
95 Mo	72	1	50.63	ppb	1.36	50	101.3	90 - 110	
107 Ag	115	1	50.07	ppb	2.62	50	100.1	90 - 110	
111 Cd	115	1	49.95	ppb	2.16	50	99.9	90 - 110	
118 Sn	115	1	49.84	ppb	2.03	50	99.7	90 - 110	
121 Sb	115	1	49.78	ppb	2.16	50	99.6	90 - 110	
137 Ba	115	1	49.80	ppb	1.28	50	99.6	90 - 110	
205 Tl	165	1	49.06	ppb	1.49	50	98.1	90 - 110	
208 Pb	165	1	49.61	ppb	1.63	50	99.2	90 - 110	
232 Th	165	1	48.89	ppb	0.33	50	97.8	90 - 110	
238 U	165	1	49.75	ppb	1.11	50	99.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	270938	1.52	274453	98.7	30 - 120	
45 Sc	1	1182028	0.56	1197981	98.7	30 - 120	
72 Ge	1	545587	0.97	570253	95.7	30 - 120	
115 In	1	1585225	1.05	1621079	97.8	30 - 120	
165 Ho	1	2416718	0.44	2413334	100.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\073 CCB.D\073 CCB.D#
Date Acquired: Jul 29 2009 08:59 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	5896.30	1.00	
51 V	72	1	0.042	ppb	124.89	1.00	
52 Cr	72	1	0.008	ppb	315.81	1.00	
55 Mn	72	1	-0.041	ppb	18.23	1.00	
59 Co	72	1	0.007	ppb	77.04	1.00	
60 Ni	72	1	-0.005	ppb	49.64	1.00	
63 Cu	72	1	-0.389	ppb	7.34	1.00	
66 Zn	72	1	0.494	ppb	6.02	1.00	
75 As	72	1	-0.005	ppb	70.91	1.00	
78 Se	72	1	-0.887	ppb	16.60	1.00	
95 Mo	72	1	0.136	ppb	27.84	1.00	
107 Ag	115	1	0.011	ppb	0.65	1.00	
111 Cd	115	1	0.016	ppb	70.64	1.00	
118 Sn	115	1	-0.031	ppb	121.37	1.00	
121 Sb	115	1	0.044	ppb	18.93	1.00	
137 Ba	115	1	-0.034	ppb	9.24	1.00	
205 Tl	165	1	0.022	ppb	0.74	1.00	
208 Pb	165	1	0.008	ppb	31.61	1.00	
232 Th	165	1	0.760	ppb	7.53	1.00	
238 U	165	1	0.013	ppb	10.71	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	266509	1.14	274453	97.1	30 - 120	
45 Sc	1	1163212	0.97	1197981	97.1	30 - 120	
72 Ge	1	548536	0.23	570253	96.2	30 - 120	
115 In	1	1563351	0.46	1621079	96.4	30 - 120	
165 Ho	1	2363295	0.33	2413334	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\074WASH.D\074WASH.D#
Date Acquired: Jul 29 2009 09:02 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 29 2009 08:37 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.002 ppb	14.52	1.30	
51 V	72	1	5.155 ppb	4.34	6.50	
52 Cr	72	1	2.087 ppb	5.05	2.60	
55 Mn	72	1	0.985 ppb	3.61	1.30	
59 Co	72	1	0.997 ppb	3.16	1.30	
60 Ni	72	1	2.126 ppb	3.05	2.60	
63 Cu	72	1	1.645 ppb	2.73	2.60	
66 Zn	72	1	10.330 ppb	2.06	13.00	
75 As	72	1	5.159 ppb	0.94	6.50	
78 Se	72	1	3.834 ppb	21.16	6.50	
95 Mo	72	1	2.100 ppb	3.38	2.60	
107 Ag	115	1	5.274 ppb	1.72	6.50	
111 Cd	115	1	1.027 ppb	2.41	1.30	
118 Sn	115	1	10.360 ppb	1.61	13.00	
121 Sb	115	1	2.004 ppb	0.57	2.60	
137 Ba	115	1	1.006 ppb	6.04	1.30	
205 Tl	165	1	1.094 ppb	2.57	1.30	
208 Pb	165	1	1.090 ppb	1.94	1.30	
232 Th	165	1	2.305 ppb	0.57	2.60	
238 U	165	1	1.086 ppb	1.03	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	261138	0.71	274453	95.1	30 - 120	
45 Sc	1	1139501	0.08	1197981	95.1	30 - 120	
72 Ge	1	537073	1.22	570253	94.2	30 - 120	
115 In	1	1551192	0.36	1621079	95.7	30 - 120	
165 Ho	1	2329860	0.79	2413334	96.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\064CALB.D\064CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: _____

Date: 7/30/09

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\AG072909A.B\170CALB.D\170CALB.D#
Date Acquired:	Jul 30 2009 01:26 am
Acq. Method:	NormISIS.M
Operator:	TEL
Sample Name:	Cal Blank
Misc Info:	
Vial Number:	2101
Current Method:	C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File:	C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update:	Jul 30 2009 01:24 am
Sample Type:	CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	3	173.20
51	V	72	1	-226	142.48
52	Cr	72	1	1123	5.04
55	Mn	72	1	463	8.28
59	Co	72	1	73	80.08
60	Ni	72	1	97	39.44
63	Cu	72	1	417	20.87
66	Zn	72	1	516	4.83
75	As	72	1	37	30.50
78	Se	72	1	377	6.52
95	Mo	72	1	223	19.03
107	Ag	115	1	7	173.20
111	Cd	115	1	3	430.01
118	Sn	115	1	863	5.82
121	Sb	115	1	19	90.54
137	Ba	115	1	44	30.62
205	Tl	165	1	127	3.93
208	Pb	165	1	340	18.34
232	Th	165	1	93	26.52
238	U	165	1	16	11.78

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	203703	0.89
45	Sc	1	966465	1.54
72	Ge	1	464181	0.69
115	In	1	1354906	0.29
165	Ho	1	2047051	0.64

Tune File#	1	c:\icpchem\1\7500\he.u
Tune File#	2	C:\ICPCHEM\1\7500\
Tune File#	3	C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\171ICAL.D\171ICAL.D#
Date Acquired: Jul 30 2009 01:29 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 01:27 am
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	30336	1.95
51	V	72	1	603718	0.65
52	Cr	72	1	599208	0.16
55	Mn	72	1	664667	0.40
59	Co	72	1	771032	1.32
60	Ni	72	1	178446	1.70
63	Cu	72	1	418329	1.11
66	Zn	72	1	87527	0.36
75	As	72	1	78744	0.41
78	Se	72	1	14975	0.11
95	Mo	72	1	205820	1.67
107	Ag	115	1	605603	0.45
111	Cd	115	1	117482	1.12
118	Sn	115	1	329704	0.74
121	Sb	115	1	372718	0.32
137	Ba	115	1	164885	0.18
205	Tl	165	1	1207401	1.74
208	Pb	165	1	1649332	1.05
232	Th	165	1	1597652	3.03
238	U	165	1	1826356	1.15

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	198504	0.88	203703	97.4	30 - 120	
45	Sc	1	964213	0.70	966465	99.8	30 - 120	
72	Ge	1	451839	0.94	464181	97.3	30 - 120	
115	In	1	1345027	0.66	1354906	99.3	30 - 120	
165	Ho	1	2048539	0.37	2047051	100.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\170CALB.D\170CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\172 CCV.D\172 CCV.D#
Date Acquired: Jul 30 2009 01:31 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 01:29 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	52.00	ppb	1.27	50	104.0	90 - 110	
51 V	72	1	49.32	ppb	1.33	50	98.6	90 - 110	
52 Cr	72	1	49.94	ppb	0.86	50	99.9	90 - 110	
55 Mn	72	1	49.79	ppb	0.28	50	99.6	90 - 110	
59 Co	72	1	50.05	ppb	1.01	50	100.1	90 - 110	
60 Ni	72	1	50.11	ppb	0.86	50	100.2	90 - 110	
63 Cu	72	1	50.42	ppb	0.70	50	100.8	90 - 110	
66 Zn	72	1	50.07	ppb	1.07	50	100.1	90 - 110	
75 As	72	1	49.98	ppb	1.05	50	100.0	90 - 110	
78 Se	72	1	48.56	ppb	3.70	50	97.1	90 - 110	
95 Mo	72	1	50.55	ppb	1.29	50	101.1	90 - 110	
107 Ag	115	1	49.73	ppb	2.14	50	99.5	90 - 110	
111 Cd	115	1	50.39	ppb	2.07	50	100.8	90 - 110	
118 Sn	115	1	50.32	ppb	2.06	50	100.6	90 - 110	
121 Sb	115	1	50.22	ppb	1.62	50	100.4	90 - 110	
137 Ba	115	1	49.94	ppb	0.88	50	99.9	90 - 110	
205 Tl	165	1	49.91	ppb	1.71	50	99.8	90 - 110	
208 Pb	165	1	50.06	ppb	2.03	50	100.1	90 - 110	
232 Th	165	1	50.61	ppb	1.05	50	101.2	90 - 110	
238 U	165	1	51.17	ppb	1.43	50	102.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	193743	2.17	203703	95.1	30 - 120	
45 Sc	1	945627	1.48	966465	97.8	30 - 120	
72 Ge	1	442784	0.97	464181	95.4	30 - 120	
115 In	1	1328543	1.81	1354906	98.1	30 - 120	
165 Ho	1	2019786	1.06	2047051	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\170CALB.D\170CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\173 CCB.D\173 CCB.D#
Date Acquired: Jul 30 2009 01:34 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 01:29 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.012	ppb	164.66	1.00	
51 V	72	1	0.074	ppb	41.89	1.00	
52 Cr	72	1	0.011	ppb	97.90	1.00	
55 Mn	72	1	-0.006	ppb	19.78	1.00	
59 Co	72	1	0.001	ppb	1020.00	1.00	
60 Ni	72	1	-0.023	ppb	100.04	1.00	
63 Cu	72	1	-0.038	ppb	9.72	1.00	
66 Zn	72	1	-0.197	ppb	15.10	1.00	
75 As	72	1	0.025	ppb	20.83	1.00	
78 Se	72	1	-0.337	ppb	64.45	1.00	
95 Mo	72	1	0.047	ppb	52.26	1.00	
107 Ag	115	1	0.016	ppb	10.79	1.00	
111 Cd	115	1	0.017	ppb	60.40	1.00	
118 Sn	115	1	0.197	ppb	28.44	1.00	
121 Sb	115	1	0.059	ppb	13.15	1.00	
137 Ba	115	1	-0.016	ppb	7.10	1.00	
205 Tl	165	1	0.043	ppb	16.49	1.00	
208 Pb	165	1	0.004	ppb	81.08	1.00	
232 Th	165	1	0.506	ppb	7.54	1.00	
238 U	165	1	0.016	ppb	12.37	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	194947	0.58	203703	95.7	30 - 120	
45 Sc	1	922150	1.16	966465	95.4	30 - 120	
72 Ge	1	450906	0.35	464181	97.1	30 - 120	
115 In	1	1324689	0.53	1354906	97.8	30 - 120	
165 Ho	1	2030428	0.35	2047051	99.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\170CALB.D\170CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\174WASH.D\174WASH.D#
Date Acquired: Jul 30 2009 01:37 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 01:29 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.881 ppb	14.27	1.30	
51 V	72	1	5.175 ppb	0.74	6.50	
52 Cr	72	1	2.075 ppb	2.99	2.60	
55 Mn	72	1	1.010 ppb	2.16	1.30	
59 Co	72	1	1.034 ppb	0.19	1.30	
60 Ni	72	1	2.010 ppb	2.49	2.60	
63 Cu	72	1	2.005 ppb	3.34	2.60	
66 Zn	72	1	10.140 ppb	1.66	13.00	
75 As	72	1	5.151 ppb	3.38	6.50	
78 Se	72	1	5.075 ppb	15.35	6.50	
95 Mo	72	1	2.016 ppb	6.94	2.60	
107 Ag	115	1	5.219 ppb	1.18	6.50	
111 Cd	115	1	1.042 ppb	11.53	1.30	
118 Sn	115	1	10.990 ppb	0.85	13.00	
121 Sb	115	1	2.068 ppb	1.43	2.60	
137 Ba	115	1	1.012 ppb	4.06	1.30	
205 Tl	165	1	1.088 ppb	0.78	1.30	
208 Pb	165	1	1.053 ppb	2.01	1.30	
232 Th	165	1	2.124 ppb	1.50	2.60	
238 U	165	1	1.077 ppb	2.70	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	203476	1.66	203703	99.9	30 - 120	
45 Sc	1	985446	0.89	966465	102.0	30 - 120	
72 Ge	1	473026	0.55	464181	101.9	30 - 120	
115 In	1	1373450	1.22	1354906	101.4	30 - 120	
165 Ho	1	2087645	1.40	2047051	102.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\170CALB.D\170CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

…"During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: _____

Date: 7/30/09

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#
Date Acquired: Jul 30 2009 05:23 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:20 am
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
51	V	72	1	33	780.29
52	Cr	72	1	947	21.88
55	Mn	72	1	373	6.61
59	Co	72	1	50	40.76
60	Ni	72	1	103	29.76
63	Cu	72	1	357	12.88
66	Zn	72	1	477	3.61
75	As	72	1	29	17.33
78	Se	72	1	283	17.09
95	Mo	72	1	180	8.69
107	Ag	115	1	10	173.19
111	Cd	115	1	7	268.99
118	Sn	115	1	867	11.30
121	Sb	115	1	16	44.27
137	Ba	115	1	38	10.56
205	Tl	165	1	119	19.80
208	Pb	165	1	316	3.07
232	Th	165	1	93	59.18
238	U	165	1	16	62.49

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	166972	0.38
45	Sc	1	865432	0.69
72	Ge	1	427674	1.30
115	In	1	1254291	0.80
165	Ho	1	1928832	0.58

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\256ICAL.D\256ICAL.D#
Date Acquired: Jul 30 2009 05:25 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:23 am
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	25309	2.15
51	V	72	1	528436	0.48
52	Cr	72	1	523821	0.68
55	Mn	72	1	592926	0.35
59	Co	72	1	684260	0.76
60	Ni	72	1	156644	1.48
63	Cu	72	1	372258	0.60
66	Zn	72	1	84313	0.40
75	As	72	1	71713	0.31
78	Se	72	1	13874	0.90
95	Mo	72	1	187364	1.22
107	Ag	115	1	550070	1.43
111	Cd	115	1	107844	1.16
118	Sn	115	1	301386	1.14
121	Sb	115	1	347240	1.56
137	Ba	115	1	153237	0.77
205	Tl	165	1	1121720	0.81
208	Pb	165	1	1537103	0.98
232	Th	165	1	1505824	3.24
238	U	165	1	1736779	0.94

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	163086	0.80	166972	97.7	30 - 120	
45	Sc	1	845885	1.08	865432	97.7	30 - 120	
72	Ge	1	412069	0.72	427674	96.4	30 - 120	
115	In	1	1247252	0.57	1254291	99.4	30 - 120	
165	Ho	1	1921976	0.09	1928832	99.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\257 CCV.D\257 CCV.D#
Date Acquired: Jul 30 2009 05:28 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.78	ppb	3.92	50	97.6	90 - 110	
51 V	72	1	50.43	ppb	1.82	50	100.9	90 - 110	
52 Cr	72	1	50.16	ppb	1.12	50	100.3	90 - 110	
55 Mn	72	1	49.83	ppb	0.39	50	99.7	90 - 110	
59 Co	72	1	50.24	ppb	0.42	50	100.5	90 - 110	
60 Ni	72	1	50.05	ppb	1.27	50	100.1	90 - 110	
63 Cu	72	1	49.95	ppb	0.93	50	99.9	90 - 110	
66 Zn	72	1	46.47	ppb	0.86	50	92.9	90 - 110	
75 As	72	1	49.18	ppb	0.36	50	98.4	90 - 110	
78 Se	72	1	49.54	ppb	4.41	50	99.1	90 - 110	
95 Mo	72	1	49.91	ppb	2.15	50	99.8	90 - 110	
107 Ag	115	1	48.99	ppb	2.16	50	98.0	90 - 110	
111 Cd	115	1	48.60	ppb	1.36	50	97.2	90 - 110	
118 Sn	115	1	49.16	ppb	1.61	50	98.3	90 - 110	
121 Sb	115	1	49.06	ppb	1.27	50	98.1	90 - 110	
137 Ba	115	1	49.13	ppb	1.30	50	98.3	90 - 110	
205 Tl	165	1	50.58	ppb	0.99	50	101.2	90 - 110	
208 Pb	165	1	50.69	ppb	1.29	50	101.4	90 - 110	
232 Th	165	1	51.21	ppb	3.34	50	102.4	90 - 110	
238 U	165	1	51.34	ppb	0.86	50	102.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	158883	1.26	166972	95.2	30 - 120	
45 Sc	1	841185	1.07	865432	97.2	30 - 120	
72 Ge	1	404042	1.30	427674	94.5	30 - 120	
115 In	1	1242202	0.72	1254291	99.0	30 - 120	
165 Ho	1	1867758	1.96	1928832	96.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\258 CCB.D\258 CCB.D#
Date Acquired: Jul 30 2009 05:31 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.053	ppb	114.33	1.00	
51 V	72	1	-0.012	ppb	319.97	1.00	
52 Cr	72	1	0.007	ppb	51.62	1.00	
55 Mn	72	1	0.002	ppb	818.85	1.00	
59 Co	72	1	0.013	ppb	46.99	1.00	
60 Ni	72	1	-0.010	ppb	134.15	1.00	
63 Cu	72	1	-0.036	ppb	25.86	1.00	
66 Zn	72	1	0.513	ppb	7.95	1.00	
75 As	72	1	0.023	ppb	21.46	1.00	
78 Se	72	1	0.434	ppb	180.05	1.00	
95 Mo	72	1	0.031	ppb	29.72	1.00	
107 Ag	115	1	0.018	ppb	12.59	1.00	
111 Cd	115	1	0.002	ppb	717.17	1.00	
118 Sn	115	1	0.218	ppb	11.79	1.00	
121 Sb	115	1	0.064	ppb	6.42	1.00	
137 Ba	115	1	0.001	ppb	2257.20	1.00	
205 Tl	165	1	0.051	ppb	12.81	1.00	
208 Pb	165	1	0.009	ppb	28.99	1.00	
232 Th	165	1	0.587	ppb	10.49	1.00	
238 U	165	1	0.022	ppb	11.88	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	160954	0.33	166972	96.4	30 - 120	
45 Sc	1	836479	1.39	865432	96.7	30 - 120	
72 Ge	1	409705	0.21	427674	95.8	30 - 120	
115 In	1	1219479	0.78	1254291	97.2	30 - 120	
165 Ho	1	1863794	1.01	1928832	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\259WASH.D\259WASH.D#
Date Acquired: Jul 30 2009 05:34 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.907 ppb	24.77	1.30	
51 V	72	1	5.225 ppb	3.05	6.50	
52 Cr	72	1	2.185 ppb	1.76	2.60	
55 Mn	72	1	1.014 ppb	11.00	1.30	
59 Co	72	1	1.025 ppb	5.93	1.30	
60 Ni	72	1	1.967 ppb	8.43	2.60	
63 Cu	72	1	2.039 ppb	1.26	2.60	
66 Zn	72	1	9.565 ppb	0.70	13.00	
75 As	72	1	5.080 ppb	0.33	6.50	
78 Se	72	1	4.990 ppb	13.49	6.50	
95 Mo	72	1	1.932 ppb	3.69	2.60	
107 Ag	115	1	5.263 ppb	4.35	6.50	
111 Cd	115	1	1.082 ppb	2.77	1.30	
118 Sn	115	1	10.630 ppb	2.40	13.00	
121 Sb	115	1	1.994 ppb	0.83	2.60	
137 Ba	115	1	1.061 ppb	1.84	1.30	
205 Tl	165	1	1.093 ppb	1.69	1.30	
208 Pb	165	1	1.058 ppb	1.53	1.30	
232 Th	165	1	2.119 ppb	4.14	2.60	
238 U	165	1	1.085 ppb	0.69	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	158399	1.36	166972	94.9	30 - 120	
45 Sc	1	819701	0.47	865432	94.7	30 - 120	
72 Ge	1	404473	0.96	427674	94.6	30 - 120	
115 In	1	1211314	0.29	1254291	96.6	30 - 120	
165 Ho	1	1871081	1.08	1928832	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\260 BLK.D\260 BLK.D#
Date Acquired: Jul 30 2009 05:36 am
Operator: TEL
Sample Name: LGRXNB
Misc Info: BLANK 9202240 6020
Vial Number: 4504
Current Method: C:\ICPCHEM\1\DATA\AG072909A.B\NormISIS.M
Calibration File: C:\ICPCHEM\1\DATA\AG072909A.B\NormISIS.C
Last Cal Update: Jul 30 2009 02:15 pm
Sample Type: BLK
Total Dil Factor: 4.00

QC Summary:
Analytes: Fail
ISTD: Fail

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.024 ppb	173.21	2.00	
51 V	72	1	-8.024 ppb	6.58	2.00	
52 Cr	72	1	3.082 ppb	1.63	2.00	Fail
55 Mn	72	1	0.306 ppb	3.13	2.00	
59 Co	72	1	-0.002 ppb	120.62	2.00	
60 Ni	72	1	-0.025 ppb	66.27	2.00	
63 Cu	72	1	0.742 ppb	19.37	2.00	
66 Zn	72	1	0.833 ppb	18.12	2.00	
75 As	72	1	4.928 ppb	1.94	2.00	Fail
78 Se	72	1	0.266 ppb	101.69	2.00	
95 Mo	72	1	-0.012 ppb	282.02	2.00	
107 Ag	115	1	0.064 ppb	10.88	2.00	
111 Cd	115	1	0.037 ppb	47.97	2.00	
118 Sn	115	1	0.932 ppb	7.13	2.00	
121 Sb	115	1	0.238 ppb	5.85	2.00	
137 Ba	115	1	0.009 ppb	112.15	2.00	
205 Tl	165	1	0.073 ppb	30.16	2.00	
208 Pb	165	1	0.066 ppb	20.35	2.00	
232 Th	165	1	0.136 ppb	30.66	2.00	
238 U	165	1	0.002 ppb	37.42	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	275605	1.87	166972	165.1	30 - 120	IS Fail
45 Sc	1	1130847	0.86	865432	130.7	30 - 120	IS Fail
72 Ge	1	507021	0.73	427674	118.6	30 - 120	
115 In	1	1479466	0.87	1254291	118.0	30 - 120	
165 Ho	1	2266883	0.50	1928832	117.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
2 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\268 CCV.D\268 CCV.D#
Date Acquired: Jul 30 2009 05:59 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.55	ppb	1.63	50	97.1	90 - 110	
51 V	72	1	48.94	ppb	1.28	50	97.9	90 - 110	
52 Cr	72	1	50.37	ppb	0.59	50	100.7	90 - 110	
55 Mn	72	1	49.12	ppb	0.77	50	98.2	90 - 110	
59 Co	72	1	49.75	ppb	0.17	50	99.5	90 - 110	
60 Ni	72	1	49.70	ppb	1.47	50	99.4	90 - 110	
63 Cu	72	1	49.77	ppb	1.41	50	99.5	90 - 110	
66 Zn	72	1	46.70	ppb	0.38	50	93.4	90 - 110	
75 As	72	1	48.83	ppb	0.73	50	97.7	90 - 110	
78 Se	72	1	45.70	ppb	0.28	50	91.4	90 - 110	
95 Mo	72	1	49.44	ppb	0.78	50	98.9	90 - 110	
107 Ag	115	1	49.12	ppb	1.85	50	98.2	90 - 110	
111 Cd	115	1	49.38	ppb	2.19	50	98.8	90 - 110	
118 Sn	115	1	49.15	ppb	2.98	50	98.3	90 - 110	
121 Sb	115	1	48.43	ppb	1.56	50	96.9	90 - 110	
137 Ba	115	1	49.10	ppb	1.41	50	98.2	90 - 110	
205 Tl	165	1	50.22	ppb	0.67	50	100.4	90 - 110	
208 Pb	165	1	50.28	ppb	0.18	50	100.6	90 - 110	
232 Th	165	1	49.39	ppb	2.87	50	98.8	90 - 110	
238 U	165	1	51.30	ppb	0.20	50	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	166383	1.04	166972	99.6	30 - 120	
45 Sc	1	818165	1.42	865432	94.5	30 - 120	
72 Ge	1	394932	0.66	427674	92.3	30 - 120	
115 In	1	1218418	0.49	1254291	97.1	30 - 120	
165 Ho	1	1899902	0.89	1928832	98.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\269 CCB.D\269 CCB.D#
Date Acquired: Jul 30 2009 06:01 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.026	ppb	86.62	1.00	
51 V	72	1	-0.121	ppb	162.24	1.00	
52 Cr	72	1	0.033	ppb	41.80	1.00	
55 Mn	72	1	0.027	ppb	64.90	1.00	
59 Co	72	1	-0.004	ppb	37.55	1.00	
60 Ni	72	1	-0.041	ppb	48.70	1.00	
63 Cu	72	1	-0.027	ppb	63.61	1.00	
66 Zn	72	1	-0.432	ppb	5.02	1.00	
75 As	72	1	0.083	ppb	5.01	1.00	
78 Se	72	1	0.145	ppb	186.44	1.00	
95 Mo	72	1	-0.021	ppb	228.94	1.00	
107 Ag	115	1	0.014	ppb	19.56	1.00	
111 Cd	115	1	-0.003	ppb	365.66	1.00	
118 Sn	115	1	0.089	ppb	39.09	1.00	
121 Sb	115	1	0.046	ppb	13.74	1.00	
137 Ba	115	1	-0.015	ppb	8.03	1.00	
205 Tl	165	1	0.012	ppb	38.14	1.00	
208 Pb	165	1	0.005	ppb	35.19	1.00	
232 Th	165	1	0.563	ppb	10.21	1.00	
238 U	165	1	0.009	ppb	16.58	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167121	0.51	166972	100.1	30 - 120	
45 Sc	1	811187	0.48	865432	93.7	30 - 120	
72 Ge	1	399103	0.20	427674	93.3	30 - 120	
115 In	1	1214357	1.25	1254291	96.8	30 - 120	
165 Ho	1	1910773	0.54	1928832	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\270WASH.D\270WASH.D#
Date Acquired: Jul 30 2009 06:04 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1206
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.912 ppb	43.58	1.30	
51 V	72	1	4.895 ppb	5.37	6.50	
52 Cr	72	1	2.115 ppb	1.21	2.60	
55 Mn	72	1	1.074 ppb	5.14	1.30	
59 Co	72	1	1.021 ppb	7.18	1.30	
60 Ni	72	1	1.969 ppb	1.76	2.60	
63 Cu	72	1	1.957 ppb	2.38	2.60	
66 Zn	72	1	9.071 ppb	1.86	13.00	
75 As	72	1	4.776 ppb	1.44	6.50	
78 Se	72	1	4.373 ppb	13.76	6.50	
95 Mo	72	1	1.965 ppb	4.32	2.60	
107 Ag	115	1	5.059 ppb	1.06	6.50	
111 Cd	115	1	1.057 ppb	5.91	1.30	
118 Sn	115	1	11.540 ppb	1.17	13.00	
121 Sb	115	1	1.896 ppb	2.61	2.60	
137 Ba	115	1	1.053 ppb	5.57	1.30	
205 Tl	165	1	1.074 ppb	0.69	1.30	
208 Pb	165	1	1.057 ppb	0.45	1.30	
232 Th	165	1	2.199 ppb	3.55	2.60	
238 U	165	1	1.089 ppb	1.17	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	162242	0.92	166972	97.2	30 - 120	
45 Sc	1	792112	1.52	865432	91.5	30 - 120	
72 Ge	1	387620	1.11	427674	90.6	30 - 120	
115 In	1	1181923	1.27	1254291	94.2	30 - 120	
165 Ho	1	1850392	1.34	1928832	95.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\271 BLK.D\271 BLK.D#
Date Acquired: Jul 30 2009 06:07 am
Operator: TEL
Sample Name: LGXRHBF
Misc Info: BLANK 9204219 6020
Vial Number: 2201
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	-0.203 ppb	36.95	2.00	
52 Cr	72	1	0.038 ppb	23.08	2.00	
55 Mn	72	1	0.044 ppb	10.89	2.00	
59 Co	72	1	-0.001 ppb	460.18	2.00	
60 Ni	72	1	-0.045 ppb	31.32	2.00	
63 Cu	72	1	0.000 ppb	4431.10	2.00	
66 Zn	72	1	0.277 ppb	1.64	2.00	
75 As	72	1	0.041 ppb	8.24	2.00	
78 Se	72	1	-0.163 ppb	198.77	2.00	
95 Mo	72	1	-0.072 ppb	12.01	2.00	
107 Ag	115	1	0.007 ppb	15.26	2.00	
111 Cd	115	1	0.001 ppb	280.93	2.00	
118 Sn	115	1	1.068 ppb	4.51	2.00	
121 Sb	115	1	0.021 ppb	33.90	2.00	
137 Ba	115	1	0.008 ppb	14.15	2.00	
205 Tl	165	1	0.007 ppb	33.03	2.00	
208 Pb	165	1	0.003 ppb	41.08	2.00	
232 Th	165	1	0.077 ppb	7.03	2.00	
238 U	165	1	0.003 ppb	39.67	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	162186	1.75	166972	97.1	30 - 120	
45 Sc	1	789769	0.92	865432	91.3	30 - 120	
72 Ge	1	389072	0.71	427674	91.0	30 - 120	
115 In	1	1181563	0.41	1254291	94.2	30 - 120	
165 Ho	1	1873773	0.37	1928832	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\272 LCS.D\272 LCS.D#
Date Acquired: Jul 30 2009 06:10 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGXRHCF
Misc Info: LCS
Vial Number: 2202
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	40.67	7.42	40	101.7	80 - 120	
51 V	72	1	42.28	1.68	40	105.7	80 - 120	
52 Cr	72	1	42.50	0.61	40	106.3	80 - 120	
55 Mn	72	1	42.15	1.32	40	105.4	80 - 120	
59 Co	72	1	42.16	1.05	40	105.4	80 - 120	
60 Ni	72	1	42.21	1.07	40	105.5	80 - 120	
63 Cu	72	1	42.47	0.18	40	106.2	80 - 120	
66 Zn	72	1	38.11	0.53	40	95.3	80 - 120	
75 As	72	1	40.60	0.86	40	101.5	80 - 120	
78 Se	72	1	39.13	1.77	40	97.8	80 - 120	
95 Mo	72	1	42.47	1.35	40	106.2	80 - 120	
107 Ag	115	1	41.14	2.10	40	102.9	80 - 120	
111 Cd	115	1	40.51	0.91	40	101.3	80 - 120	
118 Sn	115	1	1.16	5.34	40	2.9	80 - 120	
121 Sb	115	1	39.88	0.97	40	99.7	80 - 120	
137 Ba	115	1	40.58	1.48	40	101.5	80 - 120	
205 Tl	165	1	42.15	1.72	40	105.4	80 - 120	
208 Pb	165	1	42.23	1.99	40	105.6	80 - 120	
232 Th	165	1	42.49	1.64	40	106.2	80 - 120	
238 U	165	1	43.25	1.77	40	108.1	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	156586	0.95	166972	93.8	30 - 120	
45 Sc	1	779861	0.66	865432	90.1	30 - 120	
72 Ge	1	374492	0.19	427674	87.6	30 - 120	
115 In	1	1180139	0.59	1254291	94.1	30 - 120	
165 Ho	1	1835222	0.85	1928832	95.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\273AREF.D\273AREF.D#
Date Acquired: Jul 30 2009 06:12 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWDF 5X
Misc Info: D9G220275
Vial Number: 2203
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.36	0.07	ppb	34.03	3600	
51 V	72	1	46.46	9.29	ppb	1.68	3600	
52 Cr	72	1	506.50	101.30	ppb	0.16	3600	
55 Mn	72	1	1,032.50	206.50	ppb	0.56	3600	
59 Co	72	1	0.74	0.15	ppb	6.69	3600	
60 Ni	72	1	4.80	0.96	ppb	1.70	3600	
63 Cu	72	1	0.42	0.08	ppb	12.66	3600	
66 Zn	72	1	-0.58	-0.12	ppb	34.20	3600	
75 As	72	1	86.65	17.33	ppb	1.48	3600	
78 Se	72	1	6.56	1.31	ppb	73.90	3600	
95 Mo	72	1	25.62	5.12	ppb	2.07	3600	
107 Ag	115	1	0.08	0.02	ppb	23.24	3600	
111 Cd	115	1	0.13	0.03	ppb	85.03	3600	
118 Sn	115	1	6.49	1.30	ppb	8.44	3600	
121 Sb	115	1	0.38	0.08	ppb	4.35	3600	
137 Ba	115	1	16.84	3.37	ppb	4.37	3600	
205 Tl	165	1	0.29	0.06	ppb	11.65	3600	
208 Pb	165	1	0.05	0.01	ppb	46.01	3600	
232 Th	165	1	4.07	0.81	ppb	25.20	1000	
238 U	165	1	24.01	4.80	ppb	1.16	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148110	0.84	166972	88.7	30 - 120	
45 Sc	1	725451	0.16	865432	83.8	30 - 120	
72 Ge	1	337855	0.03	427674	79.0	30 - 120	
115 In	1	1046720	1.15	1254291	83.5	30 - 120	
165 Ho	1	1718928	1.06	1928832	89.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\274SDIL.D\274SDIL.D#
Date Acquired: Jul 30 2009 06:15 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWDP25F
Misc Info: SERIAL DILUTION
Vial Number: 2204
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG072909A.B\273AREF.D\273AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.00	ppb	0.00	0.01	0.0	90 - 110	
51 V	72	1	1.65	ppb	10.81	1.86	88.7	90 - 110	
52 Cr	72	1	20.11	ppb	2.32	20.26	99.3	90 - 110	
55 Mn	72	1	40.72	ppb	1.53	41.30	98.6	90 - 110	
59 Co	72	1	0.03	ppb	38.22	0.03	111.4	90 - 110	
60 Ni	72	1	0.28	ppb	37.17	0.19	147.7	90 - 110	
63 Cu	72	1	-0.01	ppb	98.23	0.02	-64.3	90 - 110	
66 Zn	72	1	-0.38	ppb	8.09	-0.02	1615.8	90 - 110	
75 As	72	1	3.29	ppb	1.83	3.47	95.0	90 - 110	
78 Se	72	1	0.57	ppb	151.32	0.26	217.3	90 - 110	
95 Mo	72	1	0.87	ppb	10.86	1.02	84.6	90 - 110	
107 Ag	115	1	0.00	ppb	284.56	0.00	-13.5	90 - 110	
111 Cd	115	1	0.01	ppb	384.87	0.01	131.6	90 - 110	
118 Sn	115	1	1.30	ppb	0.23	0.26	500.8	90 - 110	
121 Sb	115	1	0.02	ppb	51.72	0.02	103.9	90 - 110	
137 Ba	115	1	0.66	ppb	9.11	0.67	98.4	90 - 110	
205 Tl	165	1	0.01	ppb	10.15	0.01	122.6	90 - 110	
208 Pb	165	1	0.00	ppb	44.82	0.00	-197.3	90 - 110	
232 Th	165	1	0.11	ppb	10.30	0.16	68.7	90 - 110	
238 U	165	1	0.98	ppb	0.55	0.96	101.9	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	150561	2.05	166972	90.2	30 - 120	
45 Sc	1	742339	0.53	865432	85.8	30 - 120	
72 Ge	1	357057	0.85	427674	83.5	30 - 120	
115 In	1	1094918	0.50	1254291	87.3	30 - 120	
165 Ho	1	1750541	0.44	1928832	90.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 07/30/09 11:28:21

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LGWWDP25F** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG072909A # 274
Acquired: 07/30/2009 06:15:00
Calibrated: 07/30/2009 05:23:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0.36190	100		*	
7440-62-2	Vanadium	51	7577	41.200	46.460	11.3		*	
7440-47-3	Chromium	52	91917	503.00	506.60	0.711		*	
7439-96-5	Manganese	55	209363	1018.0	1032.0	1.36		*	
7440-48-4	Cobalt	59	237	0.82100	0.73720	11.4		*	
7440-02-0	Nickel	60	470	7.0900	4.7990	47.7		*	
7440-50-8	Copper	63	263	-0.26855	0.41750	164		*	
7440-66-6	Zinc	66	125	-9.3800	-0.58090			*	
7440-38-2	Arsenic	75	2069	82.300	86.670	5.04	0.21	NC	☑
7782-49-2	Selenium	78	303	14.250	6.5600	117	0.70	NC	☑
7439-98-7	Molybdenum	95	1557	21.675	25.620	15.4		*	
7440-22-4	Silver	107	7	-0.01049	0.07754	114		*	
7440-43-9	Cadmium	111	12	0.17090	0.12990	31.6		*	
7440-31-5	Tin	118	4187	32.505	6.4870	401		*	
7440-36-0	Antimony	121	62	0.39865	0.38390	3.84		*	
7440-39-3	Barium	137	924	16.575	16.840	1.57		*	
7440-28-0	Thallium	205	252	0.35315	0.28800	22.6		*	
7439-92-1	Lead	208	234	-0.09270	0.04699	297		*	
7440-61-1	Uranium	238	15500	24.475	24.010	1.94		*	
7440-29-1	Thorium	232	1617	2.7935	4.0670	31.3		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\275PDS.D\275PDS.D#
Date Acquired: Jul 30 2009 06:18 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWZF
Misc Info: POST DIGESTION SPIKE
Vial Number: 2205
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	182.00	0.07	ppb	0.38	200	91.0	75 - 125	
51 V	72	1	217.70	9.29	ppb	0.17	200	104.0	75 - 125	
52 Cr	72	1	304.20	101.30	ppb	0.51	200	101.0	75 - 125	
55 Mn	72	1	399.50	206.50	ppb	1.36	200	98.3	75 - 125	
59 Co	72	1	195.50	0.15	ppb	0.85	200	97.7	75 - 125	
60 Ni	72	1	186.40	0.96	ppb	0.90	200	92.8	75 - 125	
63 Cu	72	1	182.90	0.08	ppb	0.53	200	91.4	75 - 125	
66 Zn	72	1	170.80	-0.12	ppb	1.09	200	85.4	75 - 125	
75 As	72	1	208.10	17.33	ppb	1.09	200	95.8	75 - 125	
78 Se	72	1	192.80	1.31	ppb	1.38	200	95.8	75 - 125	
95 Mo	72	1	212.20	5.12	ppb	1.17	200	103.5	75 - 125	
107 Ag	115	1	44.43	0.02	ppb	0.76	50	88.8	75 - 125	
111 Cd	115	1	185.30	0.03	ppb	1.06	200	92.6	75 - 125	
118 Sn	115	1	178.60	1.30	ppb	0.74	200	88.7	75 - 125	
121 Sb	115	1	189.90	0.08	ppb	1.00	200	94.9	75 - 125	
137 Ba	115	1	200.60	3.37	ppb	0.99	200	98.6	75 - 125	
205 Tl	165	1	188.60	0.06	ppb	1.75	200	94.3	75 - 125	
208 Pb	165	1	185.10	0.01	ppb	1.09	200	92.5	75 - 125	
232 Th	165	1	0.06	0.81	ppb	9.95	200	0.0	75 - 125	
238 U	165	1	201.30	4.80	ppb	0.69	200	98.3	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	145977	0.56	166972	87.4	30 - 120	
45 Sc	1	715850	0.67	865432	82.7	30 - 120	
72 Ge	1	331043	0.95	427674	77.4	30 - 120	
115 In	1	1042365	0.32	1254291	83.1	30 - 120	
165 Ho	1	1715505	1.15	1928832	88.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 07/30/09 11:28:24

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LGWWDZF** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG072909A # 275
Acquired: 07/30/2009 06:18:00
Calibrated: 07/30/2009 05:23:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	41239	182.00	0.07238	91.0	200		☑
7440-62-2	Vanadium	51	924186	217.70	9.2920	104	200		☐
7440-47-3	Chromium	52	1278530	304.20	101.32	101	200		☑
7439-96-5	Manganese	55	1901930	399.50	206.40	96.6	200		☐
7440-48-4	Cobalt	59	1074740	195.50	0.14744	97.7	200		☑
7440-02-0	Nickel	60	234452	186.40	0.95980	92.7	200		☑
7440-50-8	Copper	63	546582	182.90	0.08350	91.4	200		☑
7440-66-6	Zinc	66	115405	170.80	-0.11618	85.4	200		☑
7440-38-2	Arsenic	75	119887	208.10	17.334	95.4	200		☑
7782-49-2	Selenium	78	21287	192.80	1.3120	95.7	200		☑
7439-98-7	Molybdenum	95	319217	212.20	5.1240	104	200		☐
7440-22-4	Silver	107	204251	44.430	0.01551	88.8	50.0		☐
7440-43-9	Cadmium	111	166982	185.30	0.02598	92.6	200		☑
7440-31-5	Tin	118	449183	178.60	1.2974	88.7	200		☐
7440-36-0	Antimony	121	551205	189.90	0.07678	94.9	200		☑
7440-39-3	Barium	137	256902	200.60	3.3680	98.6	200		☐
7440-28-0	Thallium	205	1887980	188.60	0.05760	94.3	200		☑
7439-92-1	Lead	208	2538600	185.10	0.00940	92.5	200		☐
7440-61-1	Uranium	238	3120580	201.30	4.8020	98.2	200		☑
7440-29-1	Thorium	232	953	0.06476	0.81340				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\276_MS.D\276_MS.D#
Date Acquired: Jul 30 2009 06:21 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWDSF 5X
Misc Info: MATRIX SPIKE
Vial Number: 2206
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.45	0.07	ppb	8.15	40	18.6	50 - 150	
51 V	72	1	16.63	9.29	ppb	8.05	40	33.7	50 - 150	
52 Cr	72	1	106.30	101.30	ppb	1.70	40	75.2	50 - 150	
55 Mn	72	1	210.80	206.50	ppb	1.94	40	85.5	50 - 150	
59 Co	72	1	8.20	0.15	ppb	0.58	40	20.4	50 - 150	
60 Ni	72	1	8.64	0.96	ppb	4.43	40	21.1	50 - 150	
63 Cu	72	1	7.81	0.08	ppb	3.92	40	19.5	50 - 150	
66 Zn	72	1	6.82	-0.12	ppb	0.74	40	17.1	50 - 150	
75 As	72	1	24.51	17.33	ppb	1.16	40	42.8	50 - 150	
78 Se	72	1	8.43	1.31	ppb	8.44	40	20.4	50 - 150	
95 Mo	72	1	14.04	5.12	ppb	1.08	40	31.1	50 - 150	
107 Ag	115	1	7.54	0.02	ppb	2.56	40	18.9	50 - 150	
111 Cd	115	1	7.82	0.03	ppb	4.67	40	19.5	50 - 150	
118 Sn	115	1	1.41	1.30	ppb	2.50	40	3.4	50 - 150	
121 Sb	115	1	8.14	0.08	ppb	1.22	40	20.3	50 - 150	
137 Ba	115	1	11.50	3.37	ppb	1.76	40	26.5	50 - 150	
205 Tl	165	1	8.03	0.06	ppb	0.78	40	20.1	50 - 150	
208 Pb	165	1	7.89	0.01	ppb	0.13	40	19.7	50 - 150	
232 Th	165	1	8.67	0.81	ppb	1.84	40	21.3	50 - 150	
238 U	165	1	13.33	4.80	ppb	0.79	40	29.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	145031	0.74	166972	86.9	30 - 120	
45 Sc	1	709515	0.90	865432	82.0	30 - 120	
72 Ge	1	327993	1.18	427674	76.7	30 - 120	
115 In	1	1031622	0.82	1254291	82.2	30 - 120	
165 Ho	1	1695871	0.25	1928832	87.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\277 MSD.D\277 MSD.D#
Date Acquired: Jul 30 2009 06:23 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWDDF 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 2207
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG072909A.B\276 MS.D\276 MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	7.75	ppb	7.83	7.45	3.94	20	
51 V	72	1	17.95	ppb	5.06	16.63	7.63	20	
52 Cr	72	1	110.90	ppb	0.89	106.30	4.24	20	
55 Mn	72	1	216.50	ppb	1.72	210.80	2.67	20	
59 Co	72	1	8.25	ppb	1.04	8.20	0.55	20	
60 Ni	72	1	8.98	ppb	1.58	8.64	3.86	20	
63 Cu	72	1	7.93	ppb	1.32	7.81	1.52	20	
66 Zn	72	1	7.06	ppb	0.70	6.82	3.49	20	
75 As	72	1	25.69	ppb	2.31	24.51	4.70	20	
78 Se	72	1	9.25	ppb	10.35	8.43	9.33	20	
95 Mo	72	1	14.00	ppb	1.03	14.04	0.29	20	
107 Ag	115	1	7.68	ppb	1.78	7.54	1.81	20	
111 Cd	115	1	8.05	ppb	3.66	7.82	2.89	20	
118 Sn	115	1	1.35	ppb	2.80	1.41	3.99	20	
121 Sb	115	1	8.27	ppb	0.86	8.14	1.54	20	
137 Ba	115	1	11.72	ppb	1.95	11.50	1.89	20	
205 Tl	165	1	8.17	ppb	1.01	8.03	1.74	20	
208 Pb	165	1	8.09	ppb	1.64	7.89	2.49	20	
232 Th	165	1	8.96	ppb	0.69	8.67	3.20	20	
238 U	165	1	13.76	ppb	0.80	13.33	3.17	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	143937	1.19	166972	86.2	30 - 120	
45 Sc	1	698784	0.26	865432	80.7	30 - 120	
72 Ge	1	324645	0.63	427674	75.9	30 - 120	
115 In	1	1020367	0.60	1254291	81.4	30 - 120	
165 Ho	1	1673552	0.35	1928832	86.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\278 CCV.D\278 CCV.D#
Date Acquired: Jul 30 2009 06:26 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.70	ppb	3.42	50	97.4	90 - 110	
51 V	72	1	48.89	ppb	1.54	50	97.8	90 - 110	
52 Cr	72	1	49.61	ppb	1.48	50	99.2	90 - 110	
55 Mn	72	1	49.51	ppb	0.90	50	99.0	90 - 110	
59 Co	72	1	49.31	ppb	1.25	50	98.6	90 - 110	
60 Ni	72	1	49.40	ppb	1.03	50	98.8	90 - 110	
63 Cu	72	1	49.69	ppb	1.05	50	99.4	90 - 110	
66 Zn	72	1	46.41	ppb	0.78	50	92.8	90 - 110	
75 As	72	1	49.14	ppb	0.56	50	98.3	90 - 110	
78 Se	72	1	52.07	ppb	6.66	50	104.1	90 - 110	
95 Mo	72	1	49.22	ppb	0.32	50	98.4	90 - 110	
107 Ag	115	1	48.42	ppb	0.78	50	96.8	90 - 110	
111 Cd	115	1	48.92	ppb	0.62	50	97.8	90 - 110	
118 Sn	115	1	48.92	ppb	1.19	50	97.8	90 - 110	
121 Sb	115	1	48.45	ppb	0.97	50	96.9	90 - 110	
137 Ba	115	1	49.04	ppb	1.27	50	98.1	90 - 110	
205 Tl	165	1	50.79	ppb	0.08	50	101.6	90 - 110	
208 Pb	165	1	50.94	ppb	0.16	50	101.9	90 - 110	
232 Th	165	1	49.83	ppb	3.56	50	99.7	90 - 110	
238 U	165	1	52.02	ppb	0.05	50	104.0	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148468	1.49	166972	88.9	30 - 120	
45 Sc	1	725397	0.85	865432	83.8	30 - 120	
72 Ge	1	355190	2.18	427674	83.1	30 - 120	
115 In	1	1129742	1.41	1254291	90.1	30 - 120	
165 Ho	1	1764799	1.15	1928832	91.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\279 CCB.D\279 CCB.D#
Date Acquired: Jul 30 2009 06:29 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.029	ppb	86.61	1.00	
51 V	72	1	-0.108	ppb	35.38	1.00	
52 Cr	72	1	0.015	ppb	178.45	1.00	
55 Mn	72	1	0.010	ppb	178.31	1.00	
59 Co	72	1	0.006	ppb	129.22	1.00	
60 Ni	72	1	-0.036	ppb	30.62	1.00	
63 Cu	72	1	-0.041	ppb	47.75	1.00	
66 Zn	72	1	-0.410	ppb	5.17	1.00	
75 As	72	1	0.061	ppb	18.50	1.00	
78 Se	72	1	0.093	ppb	348.57	1.00	
95 Mo	72	1	-0.012	ppb	174.51	1.00	
107 Ag	115	1	0.013	ppb	47.28	1.00	
111 Cd	115	1	0.002	ppb	441.34	1.00	
118 Sn	115	1	0.143	ppb	19.41	1.00	
121 Sb	115	1	0.056	ppb	10.23	1.00	
137 Ba	115	1	-0.009	ppb	89.36	1.00	
205 Tl	165	1	0.025	ppb	21.77	1.00	
208 Pb	165	1	0.004	ppb	122.86	1.00	
232 Th	165	1	0.639	ppb	7.01	1.00	
238 U	165	1	0.012	ppb	8.64	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	146482	1.73	166972	87.7	30 - 120	
45 Sc	1	725382	1.09	865432	83.8	30 - 120	
72 Ge	1	355695	0.99	427674	83.2	30 - 120	
115 In	1	1097014	0.38	1254291	87.5	30 - 120	
165 Ho	1	1759080	0.34	1928832	91.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\280WASH.D\280WASH.D#
Date Acquired: Jul 30 2009 06:32 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1206
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.113 ppb	33.30	1.30	
51 V	72	1	4.897 ppb	1.83	6.50	
52 Cr	72	1	2.102 ppb	4.64	2.60	
55 Mn	72	1	1.048 ppb	3.09	1.30	
59 Co	72	1	0.983 ppb	2.46	1.30	
60 Ni	72	1	1.914 ppb	3.92	2.60	
63 Cu	72	1	1.936 ppb	3.28	2.60	
66 Zn	72	1	8.976 ppb	1.04	13.00	
75 As	72	1	4.902 ppb	2.41	6.50	
78 Se	72	1	4.738 ppb	27.33	6.50	
95 Mo	72	1	1.958 ppb	8.67	2.60	
107 Ag	115	1	5.039 ppb	1.99	6.50	
111 Cd	115	1	1.020 ppb	3.79	1.30	
118 Sn	115	1	11.770 ppb	3.02	13.00	
121 Sb	115	1	1.910 ppb	3.15	2.60	
137 Ba	115	1	1.010 ppb	5.40	1.30	
205 Tl	165	1	1.079 ppb	1.00	1.30	
208 Pb	165	1	1.044 ppb	0.87	1.30	
232 Th	165	1	2.289 ppb	0.36	2.60	
238 U	165	1	1.086 ppb	1.65	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	142760	0.55	166972	85.5	30 - 120	
45 Sc	1	719746	0.05	865432	83.2	30 - 120	
72 Ge	1	350549	0.85	427674	82.0	30 - 120	
115 In	1	1090839	1.11	1254291	87.0	30 - 120	
165 Ho	1	1745098	0.72	1928832	90.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\281 BLK.D\281 BLK.D#
Date Acquired: Jul 30 2009 06:34 am
Operator: TEL
Sample Name: LGXP7B
Misc Info: BLANK 9204215 6020
Vial Number: 2208
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.000 ppb	0.00	2.00	
51 V	72	1	-0.031 ppb	270.10	2.00	
52 Cr	72	1	0.106 ppb	18.91	2.00	
55 Mn	72	1	0.176 ppb	9.25	2.00	
59 Co	72	1	0.004 ppb	83.34	2.00	
60 Ni	72	1	0.002 ppb	1009.50	2.00	
63 Cu	72	1	0.022 ppb	52.89	2.00	
66 Zn	72	1	-0.050 ppb	38.90	2.00	
75 As	72	1	0.041 ppb	30.02	2.00	
78 Se	72	1	0.233 ppb	319.91	2.00	
95 Mo	72	1	-0.035 ppb	53.29	2.00	
107 Ag	115	1	0.002 ppb	150.06	2.00	
111 Cd	115	1	0.008 ppb	44.77	2.00	
118 Sn	115	1	0.842 ppb	6.84	2.00	
121 Sb	115	1	0.029 ppb	17.42	2.00	
137 Ba	115	1	0.010 ppb	30.50	2.00	
205 Tl	165	1	0.014 ppb	72.86	2.00	
208 Pb	165	1	0.003 ppb	221.94	2.00	
232 Th	165	1	0.189 ppb	22.22	2.00	
238 U	165	1	0.002 ppb	30.87	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	136737	0.75	166972	81.9	30 - 120	
45 Sc	1	697363	0.27	865432	80.6	30 - 120	
72 Ge	1	333428	0.65	427674	78.0	30 - 120	
115 In	1	1059869	0.76	1254291	84.5	30 - 120	
165 Ho	1	1690400	0.42	1928832	87.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\282 LCS.D\282 LCS.D#
Date Acquired: Jul 30 2009 06:37 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGXP7C
Misc Info: LCS
Vial Number: 2209
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	37.33	4.36	40	93.3	80 - 120	
51 V	72	1	40.40	1.18	40	101.0	80 - 120	
52 Cr	72	1	40.58	0.99	40	101.5	80 - 120	
55 Mn	72	1	40.57	0.61	40	101.4	80 - 120	
59 Co	72	1	40.43	0.71	40	101.1	80 - 120	
60 Ni	72	1	39.49	0.77	40	98.7	80 - 120	
63 Cu	72	1	39.88	1.34	40	99.7	80 - 120	
66 Zn	72	1	34.33	0.57	40	85.8	80 - 120	
75 As	72	1	36.72	0.75	40	91.8	80 - 120	
78 Se	72	1	37.20	3.55	40	93.0	80 - 120	
95 Mo	72	1	40.80	3.09	40	102.0	80 - 120	
107 Ag	115	1	38.74	2.01	40	96.9	80 - 120	
111 Cd	115	1	37.46	2.68	40	93.7	80 - 120	
118 Sn	115	1	0.85	5.33	40	2.1	80 - 120	
121 Sb	115	1	37.31	1.41	40	93.3	80 - 120	
137 Ba	115	1	39.85	1.82	40	99.6	80 - 120	
205 Tl	165	1	40.54	0.80	40	101.4	80 - 120	
208 Pb	165	1	40.65	0.52	40	101.6	80 - 120	
232 Th	165	1	43.53	2.70	40	108.8	80 - 120	
238 U	165	1	41.89	0.99	40	104.7	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	135985	0.81	166972	81.4	30 - 120	
45 Sc	1	682182	0.60	865432	78.8	30 - 120	
72 Ge	1	325381	0.92	427674	76.1	30 - 120	
115 In	1	1048603	2.00	1254291	83.6	30 - 120	
165 Ho	1	1666577	0.15	1928832	86.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\283AREF.D\283AREF.D#
Date Acquired: Jul 30 2009 06:40 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWA 5X
Misc Info: D9G220275
Vial Number: 2210
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.39	0.08	ppb	35.19	3600	
51 V	72	1	87.55	17.51	ppb	4.08	3600	
52 Cr	72	1	519.00	103.80	ppb	0.50	3600	
55 Mn	72	1	41,850.00	8370.00	ppb	0.64	3600	>LDR
59 Co	72	1	264.75	52.95	ppb	0.84	3600	
60 Ni	72	1	95.25	19.05	ppb	1.88	3600	
63 Cu	72	1	108.25	21.65	ppb	1.41	3600	
66 Zn	72	1	117.20	23.44	ppb	0.87	3600	
75 As	72	1	91.00	18.20	ppb	1.06	3600	
78 Se	72	1	5.27	1.05	ppb	62.63	3600	
95 Mo	72	1	3.28	0.66	ppb	3.14	3600	
107 Ag	115	1	0.55	0.11	ppb	5.50	3600	
111 Cd	115	1	3.51	0.70	ppb	8.28	3600	
118 Sn	115	1	6.70	1.34	ppb	6.64	3600	
121 Sb	115	1	1.09	0.22	ppb	7.78	3600	
137 Ba	115	1	755.50	151.10	ppb	2.81	3600	
205 Tl	165	1	1.43	0.29	ppb	10.78	3600	
208 Pb	165	1	23.75	4.75	ppb	2.93	3600	
232 Th	165	1	6.15	1.23	ppb	11.99	1000	
238 U	165	1	27.43	5.49	ppb	1.35	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	136525	2.19	166972	81.8	30 - 120	
45 Sc	1	676188	0.35	865432	78.1	30 - 120	
72 Ge	1	313890	0.81	427674	73.4	30 - 120	
115 In	1	987252	2.74	1254291	78.7	30 - 120	
165 Ho	1	1637918	1.28	1928832	84.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\284SDIL.D\284SDIL.D#
Date Acquired: Jul 30 2009 06:43 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWAP25
Misc Info: SERIAL DILUTION
Vial Number: 2211
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG072909A.B\283AREF.D\283AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.02	ppb	173.24	0.02	98.4	90 - 110	
51 V	72	1	3.07	ppb	11.19	3.50	87.8	90 - 110	
52 Cr	72	1	20.18	ppb	0.36	20.76	97.2	90 - 110	
55 Mn	72	1	1622.00	ppb	1.82	1674.00	96.9	90 - 110	
59 Co	72	1	10.34	ppb	0.48	10.59	97.6	90 - 110	
60 Ni	72	1	3.99	ppb	2.75	3.81	104.8	90 - 110	
63 Cu	72	1	4.46	ppb	2.36	4.33	103.1	90 - 110	
66 Zn	72	1	4.25	ppb	1.01	4.69	90.6	90 - 110	
75 As	72	1	3.51	ppb	4.23	3.64	96.4	90 - 110	
78 Se	72	1	0.44	ppb	150.61	0.21	210.6	90 - 110	
95 Mo	72	1	0.13	ppb	41.39	0.13	102.5	90 - 110	
107 Ag	115	1	0.02	ppb	59.72	0.02	72.1	90 - 110	
111 Cd	115	1	0.13	ppb	16.05	0.14	93.5	90 - 110	
118 Sn	115	1	1.26	ppb	6.39	0.27	471.6	90 - 110	
121 Sb	115	1	0.05	ppb	29.31	0.04	108.4	90 - 110	
137 Ba	115	1	29.78	ppb	1.50	30.22	98.5	90 - 110	
205 Tl	165	1	0.05	ppb	1.83	0.06	95.2	90 - 110	
208 Pb	165	1	0.97	ppb	1.67	0.95	101.6	90 - 110	
232 Th	165	1	0.22	ppb	4.40	0.25	90.5	90 - 110	
238 U	165	1	1.11	ppb	1.88	1.10	101.4	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	137487	1.15	166972	82.3	30 - 120	
45 Sc	1	694235	0.42	865432	80.2	30 - 120	
72 Ge	1	333565	0.94	427674	78.0	30 - 120	
115 In	1	1030312	0.88	1254291	82.1	30 - 120	
165 Ho	1	1683348	0.55	1928832	87.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 07/30/09 11:28:28

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LGWWAP25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500** | Channel 272
File: AG072909A # 284 | Method 6020_
Acquired: 07/30/2009 06:43:00 | ICPMS_024
Calibrated: 07/30/2009 05:23:00 | Matrix: AQUEOUS | Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9	3	0.38785	0.39400	1.56		*	
7440-62-2	Vanadium	51	13173	76.850	87.570	12.2		*	
7440-47-3	Chromium	52	86148	504.50	518.90	2.78		*	
7439-96-5	Manganese	55	7777900	40540	41850	3.13		*	
7440-48-4	Cobalt	59	57310	258.50	264.70	2.34		*	
7440-02-0	Nickel	60	5138	99.800	95.230	4.80		*	
7440-50-8	Copper	63	13717	111.60	108.30	3.05		*	
7440-66-6	Zinc	66	3256	106.20	117.20	9.39		*	
7440-38-2	Arsenic	75	2059	87.750	91.000	3.57	0.21	NC	☑
7782-49-2	Selenium	78	270	11.090	5.2660	111	0.70	NC	☑
7439-98-7	Molybdenum	95	343	3.3580	3.2770	2.47		*	
7440-22-4	Silver	107	80	0.39400	0.54630	27.9		*	
7440-43-9	Cadmium	111	123	3.2825	3.5100	6.48		*	
7440-31-5	Tin	118	3851	31.610	6.7010	372		*	
7440-36-0	Antimony	121	149	1.1860	1.0930	8.51		*	
7440-39-3	Barium	137	37713	744.50	755.60	1.47		*	
7440-28-0	Thallium	205	639	1.3620	1.4300	4.76		*	
7439-92-1	Lead	208	13266	24.130	23.750	1.60		*	
7440-61-1	Uranium	238	16931	27.805	27.430	1.37		*	
7440-29-1	Thorium	232	3014	5.5600	6.1460	9.53		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\285PDS.D\285PDS.D#
Date Acquired: Jul 30 2009 06:46 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWAZ
Misc Info: POST DIGESTION SPIKE
Vial Number: 2212
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	183.90	0.08	ppb	0.60	200	91.9	75 - 125	
51 V	72	1	228.30	17.51	ppb	3.06	200	105.0	75 - 125	
52 Cr	72	1	304.70	103.80	ppb	1.95	200	100.3	75 - 125	
55 Mn	72	1	8317.00	8370.00	ppb	2.00	200	97.0	75 - 125	
59 Co	72	1	248.20	52.95	ppb	1.10	200	98.1	75 - 125	
60 Ni	72	1	204.80	19.05	ppb	1.01	200	93.5	75 - 125	
63 Cu	72	1	203.40	21.65	ppb	0.23	200	91.8	75 - 125	
66 Zn	72	1	193.60	23.44	ppb	0.40	200	86.6	75 - 125	
75 As	72	1	207.30	18.20	ppb	0.40	200	95.0	75 - 125	
78 Se	72	1	195.20	1.05	ppb	1.29	200	97.1	75 - 125	
95 Mo	72	1	208.70	0.66	ppb	0.84	200	104.0	75 - 125	
107 Ag	115	1	43.84	0.11	ppb	1.46	50	87.5	75 - 125	
111 Cd	115	1	184.30	0.70	ppb	1.20	200	91.8	75 - 125	
118 Sn	115	1	177.20	1.34	ppb	1.51	200	88.0	75 - 125	
121 Sb	115	1	185.50	0.22	ppb	1.19	200	92.6	75 - 125	
137 Ba	115	1	338.20	151.10	ppb	1.82	200	96.3	75 - 125	
205 Tl	165	1	192.50	0.29	ppb	1.12	200	96.1	75 - 125	
208 Pb	165	1	193.30	4.75	ppb	0.20	200	94.4	75 - 125	
232 Th	165	1	0.62	1.23	ppb	1.61	200	0.3	75 - 125	
238 U	165	1	204.80	5.49	ppb	0.25	200	99.7	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	135756	0.45	166972	81.3	30 - 120	
45 Sc	1	672888	0.24	865432	77.8	30 - 120	
72 Ge	1	313976	0.41	427674	73.4	30 - 120	
115 In	1	1011552	1.86	1254291	80.6	30 - 120	
165 Ho	1	1644783	0.51	1928832	85.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 07/30/09 11:28:32

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LGWWAZ** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG072909A # 285
Acquired: 07/30/2009 06:46:00
Calibrated: 07/30/2009 05:23:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	38736	183.90	0.07880	91.9	200		☑
7440-62-2	Vanadium	51	919273	228.30	17.514	105	200		☐
7440-47-3	Chromium	52	1214540	304.70	103.78	100	200		☑
7439-96-5	Manganese	55	37551100	8317.0	8370.0	0.00	200	*	☐
7440-48-4	Cobalt	59	1293930	248.20	52.940	97.6	200		☑
7440-02-0	Nickel	60	244346	204.80	19.046	92.9	200		☑
7440-50-8	Copper	63	576672	203.40	21.660	90.9	200		☑
7440-66-6	Zinc	66	124071	193.60	23.440	85.1	200		☑
7440-38-2	Arsenic	75	113244	207.30	18.200	94.6	200		☑
7782-49-2	Selenium	78	20436	195.20	1.0532	97.1	200		☑
7439-98-7	Molybdenum	95	297794	208.70	0.65540	104	200		☐
7440-22-4	Silver	107	195577	43.840	0.10926	87.5	50.0		☐
7440-43-9	Cadmium	111	161220	184.30	0.70200	91.8	200		☑
7440-31-5	Tin	118	432539	177.20	1.3402	87.9	200		☐
7440-36-0	Antimony	121	522370	185.50	0.21860	92.6	200		☑
7440-39-3	Barium	137	420151	338.20	151.12	93.5	200		☐
7440-28-0	Thallium	205	1848230	192.50	0.28600	96.1	200		☑
7439-92-1	Lead	208	2542690	193.30	4.7500	94.3	200		☐
7440-61-1	Uranium	238	3044350	204.80	5.4860	99.7	200		☑
7440-29-1	Thorium	232	8110	0.62320	1.2292				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG072909A.B\286_MS.D\286_MS.D#
Date Acquired:	Jul 30 2009 06:48 am
Acq. Method:	NormISIS.M
Operator:	TEL
Sample Name:	LGWWAS 5X
Misc Info:	MATRIX SPIKE
Vial Number:	2301
Current Method:	C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File:	C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update:	Jul 30 2009 05:26 am
Sample Type:	MS
Prep Dil. Factor:	5.00
Autodil Factor:	Undiluted
Final Dil Factor:	5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Spike Ref. File: ---

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	8.04	0.08	ppb	3.72	40	20.1	50 - 150	
51 V	72	1	22.26	17.51	ppb	4.87	40	38.7	50 - 150	
52 Cr	72	1	111.50	103.80	ppb	0.55	40	77.5	50 - 150	
55 Mn	72	1	7506.00	8370.00	ppb	0.47	40	89.3	50 - 150	
59 Co	72	1	52.51	52.95	ppb	0.94	40	56.5	50 - 150	
60 Ni	72	1	24.94	19.05	ppb	0.60	40	42.2	50 - 150	
63 Cu	72	1	25.89	21.65	ppb	1.66	40	42.0	50 - 150	
66 Zn	72	1	26.64	23.44	ppb	2.32	40	42.0	50 - 150	
75 As	72	1	24.04	18.20	ppb	0.53	40	41.3	50 - 150	
78 Se	72	1	7.48	1.05	ppb	2.63	40	18.2	50 - 150	
95 Mo	72	1	2.67	0.66	ppb	6.61	40	6.6	50 - 150	
107 Ag	115	1	7.22	0.11	ppb	6.06	40	18.0	50 - 150	
111 Cd	115	1	8.40	0.70	ppb	2.89	40	20.6	50 - 150	
118 Sn	115	1	1.62	1.34	ppb	6.56	40	3.9	50 - 150	
121 Sb	115	1	5.69	0.22	ppb	2.66	40	14.1	50 - 150	
137 Ba	115	1	126.50	151.10	ppb	1.67	40	66.2	50 - 150	
205 Tl	165	1	8.12	0.29	ppb	0.46	40	20.1	50 - 150	
208 Pb	165	1	11.01	4.75	ppb	1.01	40	24.6	50 - 150	
232 Th	165	1	9.27	1.23	ppb	2.44	40	22.5	50 - 150	
238 U	165	1	14.09	5.49	ppb	1.36	40	31.0	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	137599	1.16	166972	82.4	30 - 120	
45 Sc	1	693512	0.64	865432	80.1	30 - 120	
72 Ge	1	319395	0.13	427674	74.7	30 - 120	
115 In	1	1008815	1.16	1254291	80.4	30 - 120	
165 Ho	1	1648496	0.72	1928832	85.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\287 MSD.D\287 MSD.D#
Date Acquired: Jul 30 2009 06:51 am
Acq. Method: NormISIS.M
Operator: TEL
Sample Name: LGWWAD 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 2302
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal. Update: Jul 30 2009 05:26 am
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG072909A.B\286 MS.D\286 MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	7.97	ppb	4.85	8.04	0.87	20	
51 V	72	1	22.23	ppb	2.72	22.26	0.13	20	
52 Cr	72	1	111.10	ppb	0.78	111.50	0.36	20	
55 Mn	72	1	7495.00	ppb	0.95	7506.00	0.15	20	
59 Co	72	1	53.00	ppb	0.23	52.51	0.93	20	
60 Ni	72	1	25.52	ppb	1.39	24.94	2.30	20	
63 Cu	72	1	26.43	ppb	0.84	25.89	2.06	20	
66 Zn	72	1	26.69	ppb	0.31	26.64	0.19	20	
75 As	72	1	23.76	ppb	1.97	24.04	1.17	20	
78 Se	72	1	6.55	ppb	10.11	7.48	13.29	20	
95 Mo	72	1	2.89	ppb	3.69	2.67	8.10	20	
107 Ag	115	1	7.31	ppb	3.17	7.22	1.23	20	
111 Cd	115	1	8.26	ppb	2.54	8.40	1.69	20	
118 Sn	115	1	1.41	ppb	10.63	1.62	13.27	20	
121 Sb	115	1	5.81	ppb	1.52	5.69	2.02	20	
137 Ba	115	1	127.90	ppb	1.37	126.50	1.10	20	
205 Tl	165	1	8.15	ppb	0.86	8.11	0.43	20	
208 Pb	165	1	10.99	ppb	1.44	11.01	0.18	20	
232 Th	165	1	9.46	ppb	2.05	9.27	2.02	20	
238 U	165	1	13.97	ppb	0.76	14.09	0.86	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	139903	0.77	166972	83.8	30 - 120	
45 Sc	1	700426	0.86	865432	80.9	30 - 120	
72 Ge	1	321116	0.31	427674	75.1	30 - 120	
115 In	1	1010948	1.72	1254291	80.6	30 - 120	
165 Ho	1	1680251	0.16	1928832	87.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File :C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\288 CCV.D\288 CCV.D#
Date Acquired: Jul 30 2009 06:54 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.54	ppb	2.15	50	97.1	90 - 110	
51 V	72	1	48.95	ppb	1.12	50	97.9	90 - 110	
52 Cr	72	1	49.80	ppb	0.28	50	99.6	90 - 110	
55 Mn	72	1	51.24	ppb	0.71	50	102.5	90 - 110	
59 Co	72	1	49.29	ppb	0.38	50	98.6	90 - 110	
60 Ni	72	1	49.15	ppb	0.91	50	98.3	90 - 110	
63 Cu	72	1	48.86	ppb	1.20	50	97.7	90 - 110	
66 Zn	72	1	46.28	ppb	0.48	50	92.6	90 - 110	
75 As	72	1	49.31	ppb	0.59	50	98.6	90 - 110	
78 Se	72	1	49.32	ppb	7.04	50	98.6	90 - 110	
95 Mo	72	1	49.82	ppb	2.44	50	99.6	90 - 110	
107 Ag	115	1	48.57	ppb	2.29	50	97.1	90 - 110	
111 Cd	115	1	49.06	ppb	2.59	50	98.1	90 - 110	
118 Sn	115	1	49.30	ppb	2.90	50	98.6	90 - 110	
121 Sb	115	1	48.48	ppb	1.64	50	97.0	90 - 110	
137 Ba	115	1	49.65	ppb	1.57	50	99.3	90 - 110	
205 Tl	165	1	50.57	ppb	0.67	50	101.1	90 - 110	
208 Pb	165	1	50.68	ppb	0.91	50	101.4	90 - 110	
232 Th	165	1	50.09	ppb	2.09	50	100.2	90 - 110	
238 U	165	1	51.76	ppb	1.28	50	103.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	144668	1.90	166972	86.6	30 - 120	
45 Sc	1	734703	1.63	865432	84.9	30 - 120	
72 Ge	1	358890	1.91	427674	83.9	30 - 120	
115 In	1	1128451	1.20	1254291	90.0	30 - 120	
165 Ho	1	1769675	1.06	1928832	91.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\289 CCB.D\289 CCB.D#
Date Acquired: Jul 30 2009 06:57 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.015	ppb	173.18	1.00	
51 V	72	1	-0.022	ppb	200.09	1.00	
52 Cr	72	1	0.025	ppb	74.93	1.00	
55 Mn	72	1	0.341	ppb	15.87	1.00	
59 Co	72	1	0.007	ppb	48.63	1.00	
60 Ni	72	1	-0.044	ppb	40.96	1.00	
63 Cu	72	1	-0.037	ppb	23.09	1.00	
66 Zn	72	1	-0.433	ppb	3.81	1.00	
75 As	72	1	0.042	ppb	32.07	1.00	
78 Se	72	1	0.404	ppb	151.99	1.00	
95 Mo	72	1	0.006	ppb	550.92	1.00	
107 Ag	115	1	0.014	ppb	44.67	1.00	
111 Cd	115	1	-0.002	ppb	244.97	1.00	
118 Sn	115	1	0.141	ppb	6.10	1.00	
121 Sb	115	1	0.053	ppb	27.05	1.00	
137 Ba	115	1	-0.007	ppb	55.98	1.00	
205 Tl	165	1	0.024	ppb	5.50	1.00	
208 Pb	165	1	0.001	ppb	92.99	1.00	
232 Th	165	1	0.596	ppb	12.14	1.00	
238 U	165	1	0.015	ppb	7.63	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	146394	0.83	166972	87.7	30 - 120	
45 Sc	1	740051	0.53	865432	85.5	30 - 120	
72 Ge	1	364162	1.50	427674	85.1	30 - 120	
115 In	1	1113291	0.32	1254291	88.8	30 - 120	
165 Ho	1	1762004	0.63	1928832	91.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG072909A.B\290WASH.D\290WASH.D#
Date Acquired: Jul 30 2009 06:59 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1206
Current Method: C:\ICPCHEM\1\METHODS\NormISIS.M
Calibration File: C:\ICPCHEM\1\CALIB\NormISIS.C
Last Cal Update: Jul 30 2009 05:26 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.011 ppb	26.00	1.30	
51 V	72	1	4.940 ppb	1.84	6.50	
52 Cr	72	1	2.060 ppb	3.23	2.60	
55 Mn	72	1	1.099 ppb	3.99	1.30	
59 Co	72	1	0.987 ppb	4.64	1.30	
60 Ni	72	1	1.941 ppb	7.44	2.60	
63 Cu	72	1	2.028 ppb	6.16	2.60	
66 Zn	72	1	8.941 ppb	3.50	13.00	
75 As	72	1	4.941 ppb	3.94	6.50	
78 Se	72	1	4.787 ppb	9.23	6.50	
95 Mo	72	1	2.010 ppb	7.02	2.60	
107 Ag	115	1	5.140 ppb	2.68	6.50	
111 Cd	115	1	1.001 ppb	2.22	1.30	
118 Sn	115	1	11.420 ppb	3.11	13.00	
121 Sb	115	1	1.888 ppb	3.05	2.60	
137 Ba	115	1	1.039 ppb	4.95	1.30	
205 Tl	165	1	1.078 ppb	1.33	1.30	
208 Pb	165	1	1.052 ppb	3.51	1.30	
232 Th	165	1	2.324 ppb	2.99	2.60	
238 U	165	1	1.063 ppb	2.59	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	142336	0.23	166972	85.2	30 - 120	
45 Sc	1	724904	0.81	865432	83.8	30 - 120	
72 Ge	1	352388	0.59	427674	82.4	30 - 120	
115 In	1	1106855	0.84	1254291	88.2	30 - 120	
165 Ho	1	1736149	1.16	1928832	90.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G230298

Client: Northgate Environmental

Batch(es) #: 9205162

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: 8/3/09

Metals Raw Data RoadMap

LotID			Metal	WorkOrder	Anal Date	TestDesc	Batch	File Id	Instr
D9G230298	1	D	SE	LG07X1AH	20090801	6020TOTA	9205162	AG073109B	024
D9G230298	1	S	SE	LG07X1AG	20090801	6020TOTA	9205162	AG073109B	024
D9G230298	1	D	AS	LG07X1AF	20090801	6020TOTA	9205162	AG073109B	024
D9G230298	1	S	AS	LG07X1AE	20090801	6020TOTA	9205162	AG073109B	024
D9G230298	1		SE	LG07X1AC	20090801	6020TOTA	9205162	AG073109B	024
D9G230298	1		AS	LG07X1AA	20090801	6020TOTA	9205162	AG073109B	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9205162**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: JNW

Prep Date: ~~07/24/09~~ 7/28/09 JNW
Due Date: 08/04/09

Lot	Work Order			Initial Weight/Volume
D9G240000 Water	**LG1L5**	B	Due Date: SDG:	50 mL
D9G240000 Water	**LG1L5**	C	Due Date: SDG:	50 mL
D9G230298 Water	**LG07X** Total		Due Date: 08/04/09 SDG:	50 mL
D9G230298 Water	**LG07X** Total	S	Due Date: 08/04/09 SDG:	50 mL
D9G230298 Water	**LG07X** Total	D	Due Date: 08/04/09 SDG:	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

checked 7/21/09

8/3/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9205162 **ALLIQUOTTED BY:** JKH
PREP DATE: 7/28/2008 **DIGESTED BY:** JRW

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☐ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 25894 Block & Cup # : 2/34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	1200	92	1615	95
HNO3	1630	95	1700	95
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials JRW

COMMENTS:

I certify that all information above is correct and complete.

Signature: Jay Wilk ***Date:*** 7/28/08

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Jul-31-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures | Lot No.: B2-ZN02045 | Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 | Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures | Lot No.: B2-SE02003 | Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 | Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures | Lot No.: B2-SN02016 | Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 | Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 | Lot No.: H02026 | Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se — Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn — Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4426-09, ICP-MS (024) INT STD BRC — Analyst: LILLT

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 07-24-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock — Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009
Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4561-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-31-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)
Volume (ml): 1,000.0

Parent Std No.: STD4560-09, NITRIC ACID
Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4562-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)
Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1
Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2
Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD4563-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000

K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD4564-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000

Date Prep./Opened: 07-31-2009

Date Expires(1): 08-01-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4562-09, ICP-MS HIGH CAL STD Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010
Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD4565-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)

Parent Std No.: STD4564-09, ICP-MS HIGH RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD4566-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-31-2009 (1 Month)
pipettes: Met 8

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)
Al	1,000.0	100,000

C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4567-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00

Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

STD4568-09, ICP-MS HIGH LR STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000
Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00

K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

STD4569-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)
Date Expires(2): 04-21-2010 (None)

Parent Std No.: STD3113-09, ICP-MS TA ICV A Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400
Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

STD4570-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000
Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

STD4571-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 07-31-2009
Date Expires(1): 08-01-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

Reviewed By: LRD 07/31/09

File AG073109E

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
2	Cal Blank				1.0	07/31/09 17:28		☐
3	Cal Blank				1.0	07/31/09 17:31		☐
4	100 ppb				1.0	07/31/09 17:34		☐
5	ICV				1.0	07/31/09 17:36		☐
6	RLIV				1.0	07/31/09 17:39		☐
7	ICB				1.0	07/31/09 17:44		☐
8	RL STD				1.0	07/31/09 17:47		☐
9	AFCEE RL				1.0	07/31/09 17:50		☐
10	ALTSe				1.0	07/31/09 17:53		☐
11	ICSA				1.0	07/31/09 17:56		☐
12	~~ICSAB~~				~~1.0~~	~~07/31/09 17:59~~	WT 8/3/09 Did not use.	☐
13	RINSE				1.0	07/31/09 18:02		☐
14	LR				1.0	07/31/09 18:05		☐
15	RINSE				1.0	07/31/09 18:07		☐
16	ICSAB				1.0	07/31/09 18:12		☐
17	RINSE				1.0	07/31/09 18:15		☐
18	CCV				1.0	07/31/09 18:18		☐
19	CCB				1.0	07/31/09 18:21		☐
20	RLCV				1.0	07/31/09 18:24		☐
21	LGMGHB	D9G170000	9198137	46	1.0	07/31/09 18:27		☐
22	LGMGHC	D9G170000	9198137	46	1.0	07/31/09 18:30		☐
23	LGJD3	D9G150267-2	9198137	46	1.0	07/31/09 18:33		☐
24	LGJD4	D9G150267-3	9198137	46	1.0	07/31/09 18:36	Ni, Be only. 8/3/09	☐
25	LGJD5	D9G150267-4	9198137	46	1.0	07/31/09 18:39		☐
26	LGJD5P5	D9G150267	9198137		5.0	07/31/09 18:41		☐
27	LGJD5Z	D9G150267-4	9198137		1.0	07/31/09 18:44		☐
28	LGJD5S	D9G150267-4	9198137	46	1.0	07/31/09 18:47		☐
29	LGJD5D	D9G150267-4	9198137	46	1.0	07/31/09 18:50		☐
30	CCV				1.0	07/31/09 18:53		☐
31	CCB				1.0	07/31/09 18:56		☐
32	RLCV				1.0	07/31/09 18:59		☐
33	LGJED	D9G150267-5	9198137	46	1.0	07/31/09 19:02		☐
34	LGJEF	D9G150267-6	9198137	46	1.0	07/31/09 19:05		☐
35	LGJEJ	D9G150267-7	9198137	46	1.0	07/31/09 19:08		☐
36	LGJEK	D9G150267-8	9198137	46	1.0	07/31/09 19:11		☐
37	LGJEL	D9G150267-9	9198137	46	1.0	07/31/09 19:14		☐
38	LGJEP	D9G150267-10	9198137	46	1.0	07/31/09 19:17		☐
39	LGJER	D9G150267-11	9198137	46	1.0	07/31/09 19:20		☐
40	LGJET	D9G150267-12	9198137	46	1.0	07/31/09 19:22		☐
41	CCV				1.0	07/31/09 19:25		☐
42	CCB				1.0	07/31/09 19:28		☐
43	RLCV				1.0	07/31/09 19:31		☐
44	LGQ7TB	D9G210000	9202068	46	1.0	07/31/09 19:34		☐
45	LGQ7TC	D9G210000	9202068	46	1.0	07/31/09 19:37		☐
46	LGLW8	D9G160318-1	9202068	46	1.0	07/31/09 19:40		☐
47	LGLW8P5	D9G160318	9202068		5.0	07/31/09 19:43		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
48	LGLW8Z	D9G160318-1	9202068		1.0	07/31/09 19:46		☐
49	LGLW8S	D9G160318-1	9202068	46	1.0	07/31/09 19:49		☐
50	LGLW8D	D9G160318-1	9202068	46	1.0	07/31/09 19:52		☐
51	LGLXE	D9G160318-2	9202068	46	1.0	07/31/09 19:55		☐
52	CCV				1.0	07/31/09 19:58		☐
53	CCB				1.0	07/31/09 20:01		☐
54	RLCV				1.0	07/31/09 20:04		☐
55	ICSA				1.0	07/31/09 20:07		☐
56	ICSAB				1.0	07/31/09 20:10		☐
57	WASH				1.0	07/31/09 20:12		☐
58	CCV				1.0	07/31/09 20:15		☐
59	CCB				1.0	07/31/09 20:18		☐
60	RLCV				1.0	07/31/09 20:21		☐
61	LGQ2GQ	D9G200204-9	9202364	U1	1.0	07/31/09 20:24		☐
62	LGQ2HQ	D9G200204-10	9202364	U1	1.0	07/31/09 20:27		☐
63	LGQ2JQ	D9G200204-11	9202364	U1	1.0	07/31/09 20:30		☐
64	LGQ2KQ	D9G200204-12	9202364	U1	1.0	07/31/09 20:33		☐
65	LGQ2LQ	D9G200204-13	9202364	U1	1.0	07/31/09 20:36		☐
66	LGQ2MQ	D9G200204-14	9202364	U1	1.0	07/31/09 20:39		☐
67	LGQ2NQ	D9G200204-15	9202364	U1	1.0	07/31/09 20:42		☐
68	CCV				1.0	07/31/09 20:45		☐
69	CCB				1.0	07/31/09 20:48		☐
70	RLCV				1.0	07/31/09 20:51		☐
71	~~LGXFPB~~	~~D9G230000~~	~~9204156~~		~~1.0~~	~~07/31/09 20:53~~		☐
72	LGXFPC	D9G230000	9204156		1.0	07/31/09 20:56		☐
73	LGV1D 5X	D9G220173-1	9204156	MS	5.0	07/31/09 20:59		☐
74	LGV1DP25	D9G220173	9204156		25.0	07/31/09 21:02		☐
75	LGV1DZ	D9G220173-1	9204156		1.0	07/31/09 21:05		☐
76	LGV1DS 5X	D9G220173-1	9204156	MS	5.0	07/31/09 21:08		☐
77	LGV1DD 5X	D9G220173-1	9204156	MS	5.0	07/31/09 21:11		☐
78	CCV				1.0	07/31/09 21:14		☐
79	CCB				1.0	07/31/09 21:17		☐
80	RLCV				1.0	07/31/09 21:20		☐
81	LGV1L 5X	D9G220173-2	9204156	MS	5.0	07/31/09 21:23		☐
82	LGV1M 5X	D9G220173-3	9204156	MS	5.0	07/31/09 21:26		☐
83	LGV1N 10X	D9G220173-4	9204156	MS	10.0	07/31/09 21:30		☐
84	LGV1P 10X	D9G220173-5	9204156	MS	10.0	07/31/09 21:33		☐
85	RINSE				1.0	07/31/09 21:37		☐
86	RINSE				1.0	07/31/09 21:40		☐
87	RINSE				1.0	07/31/09 21:43		☐
88	RINSE				1.0	07/31/09 21:46		☐
89	RINSE				1.0	07/31/09 21:49		☐
90	RINSE				1.0	07/31/09 21:52		☐
91	~~Cal Blank~~				~~1.0~~	~~07/31/09 21:55~~	KF 8/3/09 did not use.	☐
92	Cal Blank				1.0	07/31/09 21:57		☐
93	100 ppb				1.0	07/31/09 22:00		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
94	CCV				1.0	07/31/09 22:03		
95	CCB				1.0	07/31/09 22:06		
96	RLCV				1.0	07/31/09 22:09		
97	ICSA				1.0	07/31/09 22:12		
98	ICSAB				1.0	07/31/09 22:15		
99	WASH				1.0	07/31/09 22:18		
100	CCV				1.0	07/31/09 22:23		
101	CCB				1.0	07/31/09 22:26		
102	RLCV				1.0	07/31/09 22:29		
103	~~LGXFPB~~	~~D9G230000~~	~~9204156~~		~~1.0~~	~~07/31/09 22:32~~		
104	~~LGXFPC~~	~~D9G230000~~	~~9204156~~		~~1.0~~	~~07/31/09 22:35~~	KF 8/3/09 Did not use.	
105	LGV1D 5X	D9G220173-1	9204156	MS	5.0	07/31/09 22:38		
106	LGV1DP25	D9G220173	9204156		25.0	07/31/09 22:41		
107	LGV1DZ	D9G220173-1	9204156		1.0	07/31/09 22:44		
108	LGV1DS 5X	D9G220173-1	9204156	MS	5.0	07/31/09 22:47		
109	LGV1DD 5X	D9G220173-1	9204156	MS	5.0	07/31/09 22:50		
110	CCV				1.0	07/31/09 22:53		
111	CCB				1.0	07/31/09 22:56		
112	RLCV				1.0	07/31/09 22:59		
113	LGV1L 5X	D9G220173-2	9204156	MS	5.0	07/31/09 23:02		
114	LGV1M 5X	D9G220173-3	9204156	MS	5.0	07/31/09 23:05		
115	LGV1N 10X	D9G220173-4	9204156	MS	10.0	07/31/09 23:08		
116	LGV1P 10X	D9G220173-5	9204156	MS	10.0	07/31/09 23:10		
117	LGV1Q 20X	D9G220173-6	9204156	MS	20.0	07/31/09 23:13		
118	LGV1T 10X	D9G220173-7	9204156	MS	10.0	07/31/09 23:16		
119	LGV1V 5X	D9G220173-8	9204156	MS	5.0	07/31/09 23:19		
120	CCV				1.0	07/31/09 23:22		
121	CCB				1.0	07/31/09 23:25		
122	RLCV				1.0	07/31/09 23:28		
123	~~LG1J4B~~	~~D9G240000~~	~~9205120~~	~~MS~~	~~1.0~~	~~07/31/09 23:31~~		
124	LG1J4C	D9G240000	9205120	MS	1.0	07/31/09 23:34		
125	LGX8R 5X	D9G230197-1	9205120	MS	5.0	07/31/09 23:37		
126	LGX80 10X	D9G230197-2	9205120	MS	10.0	07/31/09 23:40		
127	LGX83 5X	D9G230197-3	9205120	MS	5.0	07/31/09 23:43		
128	LGX85 5X	D9G230197-4	9205120	MS	5.0	07/31/09 23:46		
129	LGX85P25	D9G230197	9205120		25.0	07/31/09 23:49		
130	LGX85Z	D9G230197-4	9205120		1.0	07/31/09 23:52		
131	CCV				1.0	07/31/09 23:55		
132	CCB				1.0	07/31/09 23:58		
133	RLCV				1.0	08/01/09 00:01		
134	LGX85S 5X	D9G230197-4	9205120	MS	5.0	08/01/09 00:03		
135	LGX85D 5X	D9G230197-4	9205120	MS	5.0	08/01/09 00:06		
136	LGX87 10X	D9G230197-5	9205120	MS	10.0	08/01/09 00:09		
137	LGX9A 5X	D9G230197-6	9205120	MS	5.0	08/01/09 00:12		
138	LGX9C 5X	D9G230197-7	9205120	MS	5.0	08/01/09 00:15		
139	~~LG02Q 40X~~	~~D9G230277-1~~	~~9205120~~	~~MS~~	~~40.0~~	~~08/01/09 00:18~~	KF 11/3/09 Did not use.	

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
140	~~LG021 40X~~	~~D9G230277-2~~	~~9205120~~	~~MS~~	~~40.0~~	~~08/01/09 00:21~~		
141	CCV				1.0	08/01/09 00:24		
142	CCB				1.0	08/01/09 00:27		
143	RLCV				1.0	08/01/09 00:30		
144	RINSE				1.0	08/01/09 00:33		
145	RINSE				1.0	08/01/09 00:36		
146	RINSE				1.0	08/01/09 00:39		
147	RINSE				1.0	08/01/09 00:42		
148	RINSE				1.0	08/01/09 00:45		
149	~~Cal Blank~~				1.0	~~08/01/09 00:48~~	N.T 8/3/09 did not use.	
150	Cal Blank				1.0	08/01/09 00:51		
151	100 ppb				1.0	08/01/09 00:53		
152	CCV				1.0	08/01/09 00:56		
153	CCB				1.0	08/01/09 00:59		
154	RLCV				1.0	08/01/09 01:02		
155	LG4KLB	D9G270000	9208139	04	1.0	08/01/09 01:05		
156	LG4KLC	D9G270000	9208139	04	1.0	08/01/09 01:08		
157	LG1WC	D9G240128-1	9208139	04	1.0	08/01/09 01:11		
158	LG1WQ	D9G240128-2	9208139	04	1.0	08/01/09 01:14		
159	LG0RV	D9G230254-1	9208139	04	1.0	08/01/09 01:17		
160	LG1XL	D9G240136-1	9208139	04	1.0	08/01/09 01:20		
161	CCV				1.0	08/01/09 01:23		
162	CCB				1.0	08/01/09 01:26		
163	RLCV				1.0	08/01/09 01:29		
164	LG1XQ	D9G240136-2	9208139	04	1.0	08/01/09 01:32		
165	LG1XQP5	D9G240136	9208139		5.0	08/01/09 01:35		
166	LG1XQZ	D9G240136-2	9208139		1.0	08/01/09 01:38		
167	LG1XQS	D9G240136-2	9208139	04	1.0	08/01/09 01:41		
168	LG1XQD	D9G240136-2	9208139	04	1.0	08/01/09 01:44		
169	CCV				1.0	08/01/09 01:47		
170	CCB				1.0	08/01/09 01:50		
171	RLCV	N.T 8/3/09			1.0	08/01/09 01:53		
172	LG1L5BC	D9G240000	9205162	MS	1.0	08/01/09 01:56		
173	LG1L5CB	D9G240000	9205162	MS	1.0	08/01/09 01:59		
174	LG07X 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:02		
175	LG07XP25	D9G230298	9205162		25.0	08/01/09 02:05		
176	LG07XZ	D9G230298-1	9205162		1.0	08/01/09 02:08		
177	LG07XS 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:10		
178	LG07XD 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:13		
179	CCV				1.0	08/01/09 02:16		
180	CCB				1.0	08/01/09 02:19		
181	RLCV				1.0	08/01/09 02:22		
182	LGXLNB	D9G230000	9204201	04	1.0	08/01/09 02:25		
183	LGXLNC	D9G230000	9204201	04	1.0	08/01/09 02:28		
184	LGV14	D9G220178-1	9204201	04	1.0	08/01/09 02:31		
185	LGV16	D9G220178-2	9204201	04	1.0	08/01/09 02:34		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
186	LGV18	D9G220178-3	9204201	04	1.0	08/01/09 02:37		
187	LGV19	D9G220178-4	9204201	04	1.0	08/01/09 02:40		
188	LGV19P5	D9G220178	9204201		5.0	08/01/09 02:43		
189	LGV19Z	D9G220178-4	9204201		1.0	08/01/09 02:46		
190	LGV19S	D9G220178-4	9204201	04	1.0	08/01/09 02:49		
191	CCV				1.0	08/01/09 02:52		
192	CCB				1.0	08/01/09 02:55		
193	RLCV				1.0	08/01/09 02:58		
194	LGV19D	D9G220178-4	9204201	04	1.0	08/01/09 03:01		
195	LGV2C	D9G220178-5	9204201	04	1.0	08/01/09 03:04		
196	LGV2F	D9G220178-6	9204201	04	1.0	08/01/09 03:07		
197	LGV2H	D9G220178-7	9204201	04	1.0	08/01/09 03:10		
198	LGV2K	D9G220178-8	9204201	04	1.0	08/01/09 03:13		
199	LGV2L	D9G220178-9	9204201	04	1.0	08/01/09 03:16		
200	LGV2M	D9G220178-10	9204201	04	1.0	08/01/09 03:19		
201	LGV2N	D9G220178-11	9204201	04	1.0	08/01/09 03:22		
202	CCV				1.0	08/01/09 03:25		
203	CCB				1.0	08/01/09 03:28		
204	RLCV				1.0	08/01/09 03:31		
205	LGVTQB	D9G220000	9203243	MS	1.0	08/01/09 03:34		
206	LGVTQC	D9G220000	9203243	MS	1.0	08/01/09 03:37		
207	LGVTQL	D9G220000	9203243	MS	1.0	08/01/09 03:40		
208	LGT2T	D9G210319-28	9203243	U2	1.0	08/01/09 03:42		
209	LGT2TP5	D9G210319	9203243		5.0	08/01/09 03:45		
210	LGT2TZ	D9G210319-28	9203243		1.0	08/01/09 03:48		
211	LGT22	D9G210319-29	9203243	U2	1.0	08/01/09 03:51		
212	LGT24	D9G210319-30	9203243	U2	1.0	08/01/09 03:54		
213	CCV				1.0	08/01/09 03:57		
214	CCB				1.0	08/01/09 04:00		
215	RLCV				1.0	08/01/09 04:03		
216	~~RINSE~~				~~1.0~~	~~08/01/09 04:06~~		
217	RINSE				1.0	08/01/09 04:09		
218	RINSE				1.0	08/01/09 04:12		
219	RINSE				1.0	08/01/09 04:15		
220	RINSE				1.0	08/01/09 04:18		
221	Cal Blank				1.0	08/01/09 04:21		
222	Cal Blank				1.0	08/01/09 04:24		
223	100 ppb				1.0	08/01/09 04:27		
224	CCV				1.0	08/01/09 04:30		
225	CCB				1.0	08/01/09 04:33		
226	RLCV				1.0	08/01/09 04:36		
227	LG1K1B	D9G240000	9205137	MS	1.0	08/01/09 04:39		
228	LG1K1C	D9G240000	9205137	MS	1.0	08/01/09 04:42		
229	LGVPL 5X	F9G220144-1	9205137	MS	5.0	08/01/09 04:44		
230	LGVPW 5X	F9G220144-2	9205137	MS	5.0	08/01/09 04:48		
231	~~LGXP1 5X~~	~~F9G230140-1~~	~~9205137~~	~~MS~~	~~5.0~~	~~08/01/09 04:51~~	KF 8/3/09 did not use,	

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
232	LGXQA 5X	F9G230140-2	9205137	MS	5.0	08/01/09 04:54		
233	CCV				1.0	08/01/09 04:57		
234	CCB				1.0	08/01/09 04:59		
235	RLCV				1.0	08/01/09 05:02		
236	LGXQAP25	F9G230140	9205137		25.0	08/01/09 05:05		
237	LGXQAZ	F9G230140-2	9205137		1.0	08/01/09 05:08		
238	LGXQAS 5X	F9G230140-2	9205137	MS	5.0	08/01/09 05:11		
239	LGXQAD 5X	F9G230140-2	9205137	MS	5.0	08/01/09 05:14		
240	LGXQC 5X	F9G230140-3	9205137	MS	5.0	08/01/09 05:17		
241	CCV				1.0	08/01/09 05:20		
242	CCB				1.0	08/01/09 05:23		
243	RLCV				1.0	08/01/09 05:26		
244	LG4FQB	D9G270000	9208086	MS	1.0	08/01/09 05:29		
245	LG4FQC	D9G270000	9208086	MS	1.0	08/01/09 05:32		
246	LG2PG 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:35		
247	LG2PGP25	F9G240237	9208086		25.0	08/01/09 05:38		
248	LG2PGZ	F9G240237-1	9208086		1.0	08/01/09 05:41		
249	LG2PGS 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:44		
250	LG2PGD 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:47		
251	LG3K2 5X	F9G250110-1	9208086	MS	5.0	08/01/09 05:50		
252	CCV				1.0	08/01/09 05:53		
253	CCB				1.0	08/01/09 05:56		
254	RLCV				1.0	08/01/09 05:59		
255	LG7JRB	D9G290000	9210189	MS	1.0	08/01/09 06:02		
256	LG7JRC	D9G290000	9210189	MS	1.0	08/01/09 06:05		
257	LG5N7 5X	F9G280117-1	9210189	MS	5.0	08/01/09 06:08		
258	LG5QV 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:11		
259	LG5QVP25	F9G280117	9210189		25.0	08/01/09 06:14		
260	LG5QVZ	F9G280117-2	9210189		1.0	08/01/09 06:17		
261	LG5QVS 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:20		
262	LG5QVD 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:23		
263	CCV				1.0	08/01/09 06:26		
264	CCB				1.0	08/01/09 06:29		
265	RLCV				1.0	08/01/09 06:32		
266	RINSE				1.0	08/01/09 06:35		
267	RINSE				1.0	08/01/09 06:38	VL 8/3/09 Did not use.	
268	Cal Blank				1.0	08/01/09 06:41		
269	100 ppb				1.0	08/01/09 06:44		
270	CCV				1.0	08/01/09 06:47		
271	CCB				1.0	08/01/09 06:50		
272	RLCV				1.0	08/01/09 06:53		
273	LGV04B	D9G220000	9203272	46	1.0	08/01/09 06:56		
274	LGV04C	D9G220000	9203272	46	1.0	08/01/09 06:59		
275	LGT0P	D9G210319-1	9203272	U1	1.0	08/01/09 07:02		
276	LGT0PP5	D9G210319	9203272		5.0	08/01/09 07:05		
277	LGT0PZ	D9G210319-1	9203272		1.0	08/01/09 07:08		

Denver

RUN SUMMARY

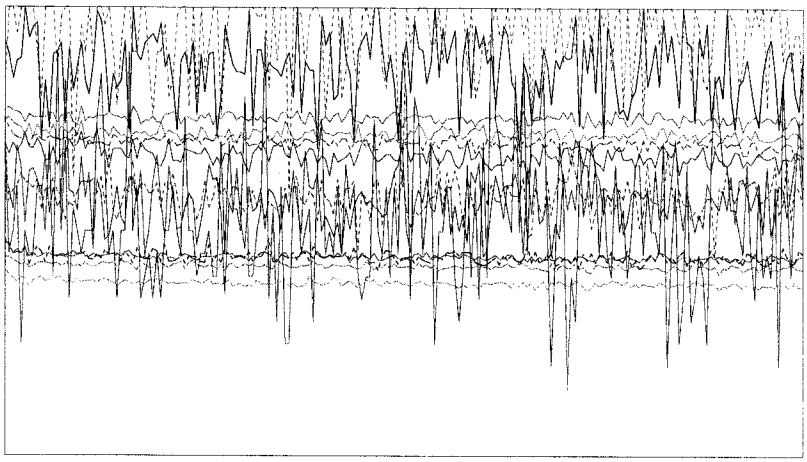
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/03/09 10:39:23

File ID: AG073109B **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
278	LGT0PS	D9G210319-1	9203272	U1	1.0	08/01/09 07:10		☐
279	LGT0PD	D9G210319-1	9203272	U1	1.0	08/01/09 07:13		☐
280	LGT00	D9G210319-2	9203272	U1	1.0	08/01/09 07:16		☐
281	LGT02	D9G210319-3	9203272	U1	1.0	08/01/09 07:19		☐
282	CCV				1.0	08/01/09 07:22		☐
283	CCB				1.0	08/01/09 07:25		☐
284	RLCV				1.0	08/01/09 07:28		☐
285	LGT03	D9G210319-4	9203272	U1	1.0	08/01/09 07:31		☐
286	LGT04	D9G210319-5	9203272	U1	1.0	08/01/09 07:34		☐
287	LGT05	D9G210319-6	9203272	U1	1.0	08/01/09 07:37		☐
288	LGT07	D9G210319-7	9203272	U1	1.0	08/01/09 07:40		☐
289	LGT1E	D9G210319-8	9203272	U1	1.0	08/01/09 07:43		☐
290	LGT1H	D9G210319-10	9203272	U1	1.0	08/01/09 07:46		☐
291	LGT1K	D9G210319-11	9203272	U1	1.0	08/01/09 07:49		☐
292	LGT1L	D9G210319-12	9203272	U1	1.0	08/01/09 07:52		☐
293	CCV				1.0	08/01/09 07:55		☐
294	CCB				1.0	08/01/09 07:58		☐
295	RLCV				1.0	08/01/09 08:01		☐
296	~~LGV1JB~~	~~D9G220000~~	~~9203274~~	~~46~~	~~1.0~~	~~08/01/09 08:04~~		☐
297	LGV1JC	D9G220000	9203274	46	1.0	~~08/01/09~~ 08:07		☐
298	LGT1N	D9G210319-13	9203274	U1	1.0	08/01/09 08:10		☐
299	LGT1V	D9G210319-14	9203274	U1	1.0	08/01/09 08:13		☐
300	LGT1X	D9G210319-15	9203274	U1	1.0	08/01/09 08:16		☐
301	LGT10	D9G210319-16	9203274	U1	1.0	08/01/09 08:19		☐
302	~~LGT10P5~~	~~D9G210319~~	~~9203274~~		~~5.0~~	~~08/01/09 08:22~~	VT 8/12/09 Did not use.	☐

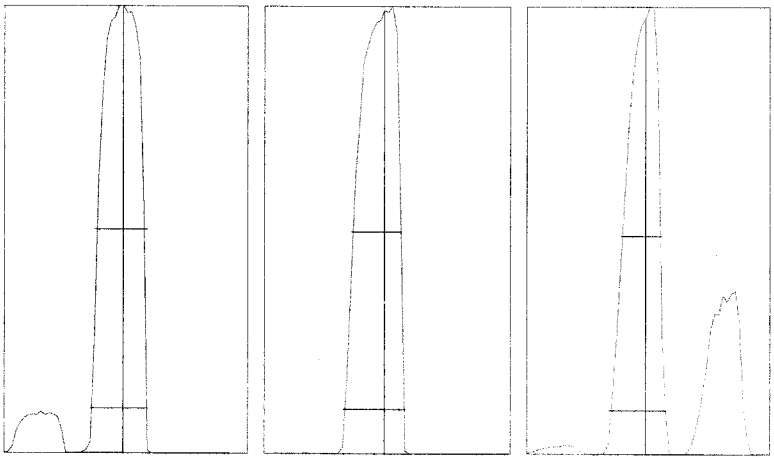
Tune Report

Tune File : NORM.U
Comment :



Integration Time: 0.1000 sec
Sampling Period: 1.5300 sec
n: 200
Oxide: 156/140 1.292%
Doubly Charged: 70/140 0.858%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1337.0	1341.1	2.82	0.70
7	20,000	14994.0	15051.5	1.35	0.90
59	20,000	14082.0	14360.4	1.58	0.70
63	200	113.0	114.0	10.71	0.70
70	200	180.0	173.9	9.03	0.80
75	20	12.0	10.6	29.92	0.70
78	500	280.0	290.5	6.66	0.80
89	50,000	20812.0	21165.7	1.43	0.90
115	50,000	18880.0	19269.2	1.65	1.00
118	50	38.0	49.1	13.91	1.10
137	5,000	2257.0	2218.1	2.63	1.70
205	20,000	13786.0	13965.9	1.58	2.40
238	50,000	22215.0	22206.6	1.51	2.80
156/140	2	1.284%	1.329%	7.37	
70/140	2	0.917%	0.890%	9.06	



m/z:	7	89	205
Height:	15,035	21,068	13,885
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.60	0.50
W-10%:	0.700	0.7500	0.700

Integration Time: 0.1000 sec
Acquisition Time: 22.7600 sec

Y axis : Linear

Generated : Jul 31, 2009 15:38:01
Printed : Jul 31, 2009 15:38:04

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1550 W	Extract 1	:	0 V	AMU Gain	:	132
RF Matching	:	1.7 V	Extract 2	:	-165 V	AMU Offset	:	123
Smpl Depth	:	7.5 mm	Omega Bias-ce	:	-34 V	Axis Gain	:	1.0006
Torch-H	:	-0.8 mm	Omega Lens-ce	:	1 V	Axis Offset	:	-0.04
Torch-V	:	-0.3 mm	Cell Entrance	:	-30 V	QP Bias	:	-1 V
Carrier Gas	:	0.81 L/min	QP Focus	:	7 V			
Makeup Gas	:	0.21 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1720 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1390 V
S/C Temp	:	2 degC	OctP Bias	:	-18 V			

===Reaction Cell===

Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

Generated : Jul 31, 2009 15:38:01
Printed : Jul 31, 2009 15:38:07

P/A Factor Tuning Report

Acquired:Jul 31 2009 03:57 pm

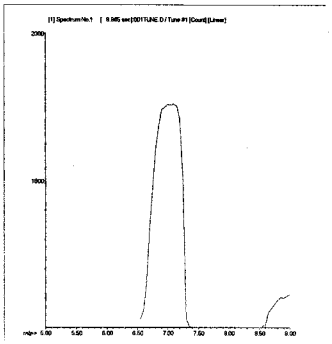
Mass[amu]	Element	P/A Factor
6	Li	0.061089
7	(Li)	Sensitivity too low
9	Be	0.067847
23	Na	0.075018
24	Mg	0.077358
27	Al	0.079175
39	K	0.078832
43	Ca	Sensitivity too low
45	Sc	0.079945
51	V	0.080841
52	Cr	0.083260
53	(Cr)	Sensitivity too low
55	Mn	0.084562
57	Fe	Sensitivity too low
59	Co	0.087198
60	Ni	0.088334
63	Cu	0.089743
66	Zn	0.089335
72	Ge	0.088881
75	As	0.088324
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.089986
98	(Mo)	0.089369
99	(Mo)	0.090422
105	Pd	0.092435
106	(Cd)	0.092347
107	Ag	Sensitivity too low
108	(Cd)	0.093080
111	Cd	0.093016
115	In	0.092114
118	Sn	0.092177
121	Sb	0.092035
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.098257
206	(Pb)	0.097061
207	(Pb)	0.096933
208	Pb	0.095985
232	Th	0.095360
238	U	0.095338

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

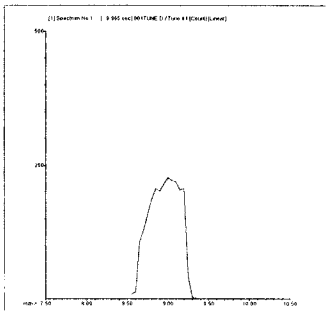
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\001TUNE.D
Date Acquired: Jul 31 2009 05:25 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	16182	16178	15903	16343	16278	16208	**1.04**	5.00	
9 Be	2349	2448	2282	2399	2322	2291	**3.06**	5.00	
24 Mg	15258	15575	15067	15161	15394	15090	**1.44**	5.00	
59 Co	56570	56321	56794	56973	56351	56410	**0.52**	5.00	
115 In	1007855	1005545	1011315	1008923	1004508	1008983	**0.28**	5.00	
208 Pb	61753	62739	61983	62343	61108	60592	**1.43**	5.00	
238 U	128679	131129	130037	128801	126336	127090	**1.55**	5.00	

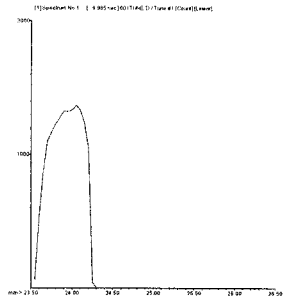


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

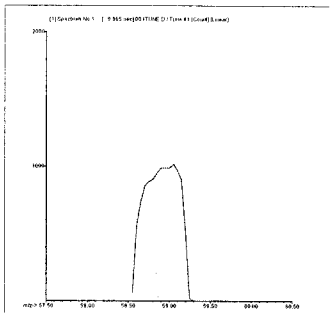


9 Be
Mass Calib.
Actual: 9.05
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

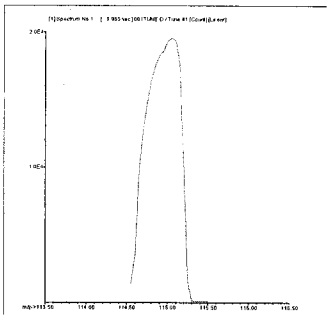
C:\ICPCHEM\1\DATA\AG073109B.B\001TUNE.D



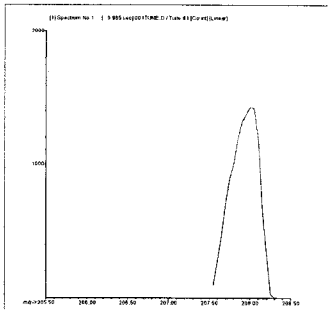
24 Mg
Mass Calib.
Actual: 24.00
Required: 23.90 - 24.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



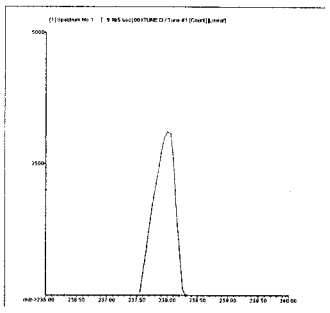
59 Co
Mass Calib.
Actual: 59.00
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



208 Pb
Mass Calib.
Actual: 207.95
Required: 207.90 - 208.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



238 U
Mass Calib.
Actual: 238.00
Required: 237.90 - 238.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\002CALB.D\002CALB.D#
Date Acquired: Jul 31 2009 05:28 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	105615	0.72
24	Mg	6	1	4264	8.01
27	Al	45	1	4821	9.42
39	K	45	1	251652	0.21
43	Ca	45	1	23	24.74
51	V	72	1	-88	469.92
52	Cr	72	1	1543	11.12
55	Mn	72	1	437	13.42
57	Fe	72	1	813	10.01
59	Co	72	1	33	34.64
60	Ni	72	1	37	31.49
63	Cu	72	1	513	25.72
66	Zn	72	1	264	9.85
75	As	72	1	40	45.83
78	Se	72	1	397	18.92
93	Nb	72	1	33	69.28
95	Mo	72	1	193	7.90
105	Pd	115	1	3	173.21
107	Ag	115	1	13	43.30
111	Cd	115	1	13	66.14
118	Sn	115	1	730	7.25
121	Sb	115	1	40	36.32
137	Ba	115	1	41	20.41
182	W	165	1	643	7.82
195	Pt	165	1	93	16.37
205	Tl	165	1	132	23.29
208	Pb	165	1	256	12.87
232	Th	165	1	357	8.57
238	U	165	1	110	10.50

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	291595	0.52
45	Sc	1	1262017	1.28
72	Ge	1	620816	0.47
115	In	1	1778931	0.46
165	Ho	1	3104524	0.74

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#
Date Acquired:	Jul 31 2009 05:31 pm
Acq. Method:	6020isis.M
Operator:	TEL
Sample Name:	Cal Blank
Misc Info:	
Vial Number:	2101
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update:	Jul 31 2009 05:29 pm
Sample Type:	CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	104961	1.29
24	Mg	6	1	6622	1.96
27	Al	45	1	3781	4.51
39	K	45	1	250813	0.81
43	Ca	45	1	17	91.65
51	V	72	1	36	778.47
52	Cr	72	1	1590	10.89
55	Mn	72	1	320	23.59
57	Fe	72	1	720	7.73
59	Co	72	1	33	45.83
60	Ni	72	1	40	25.00
63	Cu	72	1	363	4.20
66	Zn	72	1	835	3.55
75	As	72	1	41	16.99
78	Se	72	1	460	15.22
93	Nb	72	1	30	33.33
95	Mo	72	1	187	8.18
105	Pd	115	1	10	100.00
107	Ag	115	1	13	86.60
111	Cd	115	1	12	31.49
118	Sn	115	1	560	14.62
121	Sb	115	1	30	29.40
137	Ba	115	1	37	48.11
182	W	165	1	673	25.26
195	Pt	165	1	110	50.62
205	Tl	165	1	88	4.38
208	Pb	165	1	253	3.48
232	Th	165	1	287	10.66
238	U	165	1	64	19.58

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	292032	1.00
45	Sc	1	1263643	0.58
72	Ge	1	621750	0.27
115	In	1	1776649	0.59
165	Ho	1	3099305	0.81

Tune File#	1	c:\icpchem\1\7500\he.u
Tune File#	2	C:\ICPCHEM\1\7500\
Tune File#	3	C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\004ICAL.D\004ICAL.D#
Date Acquired: Jul 31 2009 05:34 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:31 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	40052	0.22
23	Na	6	1	27617870	0.23
24	Mg	6	1	17321740	0.90
27	Al	45	1	15181560	0.55
39	K	45	1	24598360	0.75
43	Ca	45	1	62370	0.48
51	V	72	1	688069	0.82
52	Cr	72	1	690862	0.79
55	Mn	72	1	761889	0.93
57	Fe	72	1	1821472	0.62
59	Co	72	1	855551	0.43
60	Ni	72	1	190991	0.36
63	Cu	72	1	450884	0.50
66	Zn	72	1	109465	0.77
75	As	72	1	91415	0.39
78	Se	72	1	16300	3.29
93	Nb	72	1	2460344	0.77
95	Mo	72	1	246092	0.36
105	Pd	115	1	308876	0.80
107	Ag	115	1	680741	0.99
111	Cd	115	1	144983	0.68
118	Sn	115	1	400265	0.86
121	Sb	115	1	495422	0.49
137	Ba	115	1	197704	0.98
182	W	165	1	728834	0.93
195	Pt	165	1	482860	0.44
205	Tl	165	1	1636664	0.58
208	Pb	165	1	2215157	0.89
232	Th	165	1	2447881	0.69
238	U	165	1	2592930	0.16

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	283459	0.73	292032	97.1	30 - 120	
45	Sc	1	1252656	0.77	1263643	99.1	30 - 120	
72	Ge	1	595620	0.49	621750	95.8	30 - 120	
115	In	1	1733571	0.71	1776649	97.6	30 - 120	
165	Ho	1	3067401	0.50	3099305	99.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\005_ICV.D\005_ICV.D#
Date Acquired: Jul 31 2009 05:36 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	40.79	ppb	0.09	40	102.0	90 - 110	
23 Na	6	1	4052.00	ppb	2.43	4000	101.3	90 - 110	
24 Mg	6	1	4083.00	ppb	1.37	4000	102.1	90 - 110	
27 Al	45	1	4058.00	ppb	0.61	4000	101.5	90 - 110	
39 K	45	1	4020.00	ppb	0.93	4000	100.5	90 - 110	
43 Ca	45	1	4158.00	ppb	1.84	4000	104.0	90 - 110	
51 V	72	1	39.93	ppb	0.62	40	99.8	90 - 110	
52 Cr	72	1	40.25	ppb	0.29	40	100.6	90 - 110	
55 Mn	72	1	41.06	ppb	1.71	40	102.7	90 - 110	
57 Fe	72	1	4053.00	ppb	0.57	4000	101.3	90 - 110	
59 Co	72	1	39.93	ppb	0.14	40	99.8	90 - 110	
60 Ni	72	1	39.97	ppb	1.75	40	99.9	90 - 110	
63 Cu	72	1	41.13	ppb	1.03	40	102.8	90 - 110	
66 Zn	72	1	40.51	ppb	1.02	40	101.3	90 - 110	
75 As	72	1	40.00	ppb	0.47	40	100.0	90 - 110	
78 Se	72	1	41.77	ppb	2.47	40	104.4	90 - 110	
93 Nb	72	1	67.57	ppb	1.69	80	84.5	90 - 110	Fail
95 Mo	72	1	39.98	ppb	1.09	40	100.0	90 - 110	
105 Pd	115	1	39.88	ppb	0.62	40	99.7	90 - 110	
107 Ag	115	1	39.89	ppb	0.97	40	99.7	90 - 110	
111 Cd	115	1	39.85	ppb	0.59	40	99.6	90 - 110	
118 Sn	115	1	38.87	ppb	1.43	40	97.2	90 - 110	
121 Sb	115	1	39.04	ppb	0.40	40	97.6	90 - 110	
137 Ba	115	1	39.56	ppb	1.47	40	98.9	90 - 110	
182 W	165	1	39.98	ppb	1.63	40	100.0	90 - 110	
195 Pt	165	1	39.94	ppb	0.41	40	99.9	90 - 110	
205 Tl	165	1	40.69	ppb	0.81	40	101.7	90 - 110	
208 Pb	165	1	41.56	ppb	0.84	40	103.9	90 - 110	
232 Th	165	1	39.95	ppb	1.25	40	99.9	90 - 110	
238 U	165	1	40.23	ppb	0.54	40	100.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	283449	1.13	292032	97.1	30 - 120	
45 Sc	1	1257882	0.22	1263643	99.5	30 - 120	
72 Ge	1	599978	0.58	621750	96.5	30 - 120	
115 In	1	1773262	0.64	1776649	99.8	30 - 120	
165 Ho	1	3079154	0.24	3099305	99.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\006WASH.D\006WASH.D#
Date Acquired: Jul 31 2009 05:39 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.917 ppb	28.70	1.30	
23 Na	6	1	54.600 ppb	2.04	65.00	
24 Mg	6	1	53.620 ppb	2.14	65.00	
27 Al	45	1	32.730 ppb	0.79	39.00	
39 K	45	1	111.700 ppb	1.77	130.00	
43 Ca	45	1	53.680 ppb	22.60	65.00	
51 V	72	1	5.087 ppb	2.91	6.50	
52 Cr	72	1	2.160 ppb	1.65	2.60	
55 Mn	72	1	1.062 ppb	3.03	1.30	
57 Fe	72	1	52.660 ppb	4.08	65.00	
59 Co	72	1	1.067 ppb	6.99	1.30	
60 Ni	72	1	2.149 ppb	1.74	2.60	
63 Cu	72	1	2.121 ppb	8.88	2.60	
66 Zn	72	1	9.620 ppb	1.79	13.00	
75 As	72	1	5.146 ppb	1.99	6.50	
78 Se	72	1	3.920 ppb	30.69	6.50	
93 Nb	72	1	4.953 ppb	10.63	52.00	
95 Mo	72	1	2.185 ppb	5.89	2.60	
105 Pd	115	1	0.031 ppb	43.12	1.30	
107 Ag	115	1	5.245 ppb	0.58	6.50	
111 Cd	115	1	1.074 ppb	5.34	1.30	
118 Sn	115	1	10.110 ppb	2.80	13.00	
121 Sb	115	1	2.164 ppb	2.34	2.60	
137 Ba	115	1	1.031 ppb	3.40	1.30	
182 W	165	1	0.097 ppb	40.10	6.50	
195 Pt	165	1	0.007 ppb	19.76	1.30	
205 Tl	165	1	1.143 ppb	2.16	1.30	
208 Pb	165	1	1.093 ppb	1.71	1.30	
232 Th	165	1	2.638 ppb	3.91	2.60	
238 U	165	1	1.106 ppb	2.36	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	283156	0.11	292032	97.0	30 - 120	
45 Sc	1	1236589	0.41	1263643	97.9	30 - 120	
72 Ge	1	604025	0.75	621750	97.1	30 - 120	
115 In	1	1769686	0.52	1776649	99.6	30 - 120	
165 Ho	1	3058294	0.74	3099305	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\007_ICB.D\007_ICB.D#
Date Acquired: Jul 31 2009 05:44 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	-1.09	ppb	43.09	20.00	
24 Mg	6	1	0.05	ppb	311.98	20.00	
27 Al	45	1	0.03	ppb	104.08	20.00	
39 K	45	1	0.71	ppb	394.63	20.00	
43 Ca	45	1	2.19	ppb	195.12	20.00	
51 V	72	1	-0.02	ppb	70.29	1.00	
52 Cr	72	1	-0.02	ppb	92.16	1.00	
55 Mn	72	1	0.01	ppb	42.81	1.00	
57 Fe	72	1	0.07	ppb	612.27	20.00	
59 Co	72	1	0.00	ppb	101.57	1.00	
60 Ni	72	1	0.01	ppb	65.33	1.00	
63 Cu	72	1	0.02	ppb	54.58	1.00	
66 Zn	72	1	-0.06	ppb	39.86	10.00	
75 As	72	1	-0.01	ppb	157.98	1.00	
78 Se	72	1	0.05	ppb	81.80	1.00	
93 Nb	72	1	1.97	ppb	14.16	2.00	
95 Mo	72	1	0.00	ppb	385.31	1.00	
105 Pd	115	1	0.01	ppb	77.87	1.00	
107 Ag	115	1	0.00	ppb	122.86	1.00	
111 Cd	115	1	0.00	ppb	708.40	1.00	
118 Sn	115	1	0.10	ppb	71.66	10.00	
121 Sb	115	1	0.06	ppb	21.97	1.00	
137 Ba	115	1	0.00	ppb	254.18	1.00	
182 W	165	1	0.03	ppb	58.66	5.00	
195 Pt	165	1	0.00	ppb	50.17	1.00	
205 Tl	165	1	0.02	ppb	16.09	1.00	
208 Pb	165	1	0.00	ppb	167.73	1.00	
232 Th	165	1	0.16	ppb	9.56	2.00	
238 U	165	1	0.00	ppb	71.19	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	285893	0.33	292032	97.9	30 - 120	
45 Sc	1	1232715	1.61	1263643	97.6	30 - 120	
72 Ge	1	615396	0.56	621750	99.0	30 - 120	
115 In	1	1758908	0.25	1776649	99.0	30 - 120	
165 Ho	1	3059285	1.23	3099305	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\008RLST.D\008RLST.D#
Date Acquired: Jul 31 2009 05:47 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	1.01	ppb	16.56	1	100.6	50 - 150	
23 Na	6	1	105.30	ppb	0.63	100	105.3	50 - 150	
24 Mg	6	1	106.70	ppb	0.66	100	106.7	50 - 150	
27 Al	45	1	107.30	ppb	1.43	100	107.3	50 - 150	
39 K	45	1	106.50	ppb	2.65	100	106.5	50 - 150	
43 Ca	45	1	108.80	ppb	2.62	100	108.8	50 - 150	
51 V	72	1	0.99	ppb	3.27	1	98.8	50 - 150	
52 Cr	72	1	1.02	ppb	3.35	1	101.5	50 - 150	
55 Mn	72	1	1.01	ppb	2.39	1	100.8	50 - 150	
57 Fe	72	1	103.60	ppb	1.91	100	103.6	50 - 150	
59 Co	72	1	1.06	ppb	0.67	1	105.9	50 - 150	
60 Ni	72	1	1.09	ppb	10.30	1	109.0	50 - 150	
63 Cu	72	1	1.05	ppb	8.84	1	104.8	50 - 150	
66 Zn	72	1	10.63	ppb	0.81	10	106.3	50 - 150	
75 As	72	1	0.97	ppb	1.20	1	96.9	50 - 150	
78 Se	72	1	0.41	ppb	213.75	1	40.5	50 - 150	Fail
93 Nb	72	1	3.04	ppb	6.29	2	152.0	50 - 150	Fail
95 Mo	72	1	0.95	ppb	1.14	1	94.7	50 - 150	
105 Pd	115	1	1.03	ppb	4.42	1	103.2	50 - 150	
107 Ag	115	1	1.03	ppb	4.44	1	103.0	50 - 150	
111 Cd	115	1	1.04	ppb	5.96	1	103.5	50 - 150	
118 Sn	115	1	10.33	ppb	2.04	10	103.3	50 - 150	
121 Sb	115	1	0.99	ppb	3.90	1	99.2	50 - 150	
137 Ba	115	1	0.99	ppb	5.11	1	98.7	50 - 150	
182 W	165	1	1.00	ppb	4.34	1	99.5	50 - 150	
195 Pt	165	1	1.04	ppb	10.30	1	104.0	50 - 150	
205 Tl	165	1	1.07	ppb	1.49	1	106.5	50 - 150	
208 Pb	165	1	1.05	ppb	1.30	1	105.4	50 - 150	
232 Th	165	1	0.99	ppb	0.99	1	99.2	50 - 150	
238 U	165	1	1.08	ppb	0.82	1	107.8	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	286089	0.71	292032	98.0	30 - 120	
45 Sc	1	1261591	1.07	1263643	99.8	30 - 120	
72 Ge	1	613747	0.44	621750	98.7	30 - 120	
115 In	1	1774867	1.04	1776649	99.9	30 - 120	
165 Ho	1	3069225	0.28	3099305	99.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

2 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\009AFCE.D\009AFCE.D#
Date Acquired: Jul 31 2009 05:50 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.18	ppb	83.77	0	90.0	80 - 120	
23 Na	6	1	19.99	ppb	3.56	21	94.9	80 - 120	
24 Mg	6	1	19.75	ppb	0.79	21	92.5	80 - 120	
27 Al	45	1	21.06	ppb	0.56	21	98.1	80 - 120	
39 K	45	1	20.33	ppb	8.65	21	95.4	80 - 120	
43 Ca	45	1	30.84	ppb	5.64	22	141.7	80 - 120	
51 V	72	1	0.19	ppb	33.68	0	95.6	80 - 120	
52 Cr	72	1	0.18	ppb	4.77	0	87.2	80 - 120	
55 Mn	72	1	0.20	ppb	11.82	0	99.5	80 - 120	
57 Fe	72	1	20.15	ppb	9.74	21	97.2	80 - 120	
59 Co	72	1	0.21	ppb	8.59	0	96.8	80 - 120	
60 Ni	72	1	0.23	ppb	16.03	0	105.1	80 - 120	
63 Cu	72	1	0.23	ppb	14.96	0	111.2	80 - 120	
66 Zn	72	1	1.60	ppb	5.36	2	75.3	80 - 120	
75 As	72	1	0.17	ppb	6.35	0	88.7	80 - 120	
78 Se	72	1	-0.04	ppb	372.72	0	-54.1	80 - 120	
93 Nb	72	1	1.30	ppb	14.16	1	213.6	80 - 120	
95 Mo	72	1	0.20	ppb	12.48	0	106.8	80 - 120	
105 Pd	115	1	0.22	ppb	9.64	0	108.6	80 - 120	
107 Ag	115	1	0.19	ppb	22.71	0	91.0	80 - 120	
111 Cd	115	1	0.17	ppb	16.40	0	81.5	80 - 120	
118 Sn	115	1	2.07	ppb	1.32	2	100.3	80 - 120	
121 Sb	115	1	0.22	ppb	3.23	0	112.0	80 - 120	
137 Ba	115	1	0.19	ppb	11.11	0	98.7	80 - 120	
182 W	165	1	0.22	ppb	6.19	0	108.2	80 - 120	
195 Pt	165	1	0.20	ppb	5.91	0	97.6	80 - 120	
205 Tl	165	1	0.21	ppb	3.91	0	98.7	80 - 120	
208 Pb	165	1	0.21	ppb	3.34	0	101.9	80 - 120	
232 Th	165	1	0.26	ppb	7.53	0	131.3	80 - 120	
238 U	165	1	0.21	ppb	3.56	0	97.7	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	287927	1.06	292032	98.6	30 - 120	
45 Sc	1	1259643	1.19	1263643	99.7	30 - 120	
72 Ge	1	613449	0.61	621750	98.7	30 - 120	
115 In	1	1785577	0.87	1776649	100.5	30 - 120	
165 Ho	1	3080228	0.05	3099305	99.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\010SMPL.D\010SMPL.D#
Date Acquired: Jul 31 2009 05:53 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-0.84	-0.84	ppb	60.11	100000	
24 Mg	6	1	-1.63	-1.63	ppb	6.87	100000	
27 Al	45	1	-0.23	-0.23	ppb	65.21	100000	
39 K	45	1	0.23	0.23	ppb	344.14	100000	
43 Ca	45	1	1.15	1.15	ppb	220.14	100000	
51 V	72	1	-0.06	-0.06	ppb	70.19	3600	
52 Cr	72	1	-0.01	-0.01	ppb	20.34	3600	
55 Mn	72	1	0.00	0.00	ppb	201.25	18000	
57 Fe	72	1	0.57	0.57	ppb	33.43	100000	
59 Co	72	1	0.00	0.00	ppb	43.06	3600	
60 Ni	72	1	0.00	0.00	ppb	329.79	3600	
63 Cu	72	1	0.02	0.02	ppb	129.52	3600	
66 Zn	72	1	-0.38	-0.38	ppb	5.78	3600	
75 As	72	1	-0.01	-0.01	ppb	14.34	3600	
78 Se	72	1	2.00	2.00	ppb	34.98	3600	
93 Nb	72	1	0.71	0.71	ppb	12.46	2000	
95 Mo	72	1	0.00	0.00	ppb	390.95	3600	
105 Pd	115	1	0.01	0.01	ppb	24.94	1000	
107 Ag	115	1	0.00	0.00	ppb	89.15	3600	
111 Cd	115	1	0.00	0.00	ppb	61.88	3600	
118 Sn	115	1	0.02	0.02	ppb	36.39	3600	
121 Sb	115	1	0.02	0.02	ppb	19.58	3600	
137 Ba	115	1	-0.01	-0.01	ppb	44.70	3600	
182 W	165	1	0.02	0.02	ppb	66.08	1000	
195 Pt	165	1	0.01	0.01	ppb	124.56	1000	
205 Tl	165	1	0.01	0.01	ppb	12.39	3600	
208 Pb	165	1	0.00	0.00	ppb	44.80	3600	
232 Th	165	1	0.05	0.05	ppb	8.39	1000	
238 U	165	1	0.00	0.00	ppb	50.20	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	286596	0.55	292032	98.1	30 - 120	
45 Sc	1	1237491	1.03	1263643	97.9	30 - 120	
72 Ge	1	615534	0.67	621750	99.0	30 - 120	
115 In	1	1758431	0.24	1776649	99.0	30 - 120	
165 Ho	1	3075332	0.69	3099305	99.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\011ICSA.D\011ICSA.D#
Date Acquired: Jul 31 2009 05:56 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.00 ppb	0.00	1.00	
23	Na	6	1	100500.00 ppb	0.44	100.00	
24	Mg	6	1	99270.00 ppb	1.15	100.00	
27	Al	45	1	99490.00 ppb	0.87	100.00	
39	K	45	1	100500.00 ppb	0.85	100.00	
43	Ca	45	1	103300.00 ppb	1.04	100.00	
51	V	72	1	-0.50 ppb	35.70	1.00	
52	Cr	72	1	0.69 ppb	3.97	1.00	
55	Mn	72	1	3.47 ppb	1.73	1.00	
57	Fe	72	1	93870.00 ppb	0.37	100.00	
59	Co	72	1	1.45 ppb	1.04	1.00	
60	Ni	72	1	1.67 ppb	3.64	1.00	
63	Cu	72	1	1.69 ppb	6.37	1.00	
66	Zn	72	1	3.39 ppb	0.55	10.00	
75	As	72	1	0.51 ppb	4.70	1.00	
78	Se	72	1	-0.17 ppb	94.74	1.00	
93	Nb	72	1	1.19 ppb	12.80	2.00	
95	Mo	72	1	1934.00 ppb	1.27	2000.00	
105	Pd	115	1	0.07 ppb	47.39	1.00	
107	Ag	115	1	0.04 ppb	27.10	1.00	
111	Cd	115	1	3.03 ppb	3.85	1.00	
118	Sn	115	1	0.40 ppb	5.03	10.00	
121	Sb	115	1	0.27 ppb	2.66	1.00	
137	Ba	115	1	0.06 ppb	4.32	1.00	
182	W	165	1	0.13 ppb	6.23	5.00	
195	Pt	165	1	0.00 ppb	273.07	1.00	
205	Tl	165	1	0.03 ppb	53.73	1.00	
208	Pb	165	1	0.13 ppb	1.27	1.00	
232	Th	165	1	0.11 ppb	14.92	2.00	
238	U	165	1	0.00 ppb	78.89	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	291106	1.54	292032	99.7	30 - 120	
45	Sc	1	1268536	1.47	1263643	100.4	30 - 120	
72	Ge	1	599394	0.57	621750	96.4	30 - 120	
115	In	1	1634423	2.00	1776649	92.0	30 - 120	
165	Ho	1	2944252	0.66	3099305	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\012ICSB.D\012ICSB.D#
Date Acquired: Jul 31 2009 05:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

DJW 7/31/09

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	109.50	0.76	100	109.5	80 - 120	
23 Na	6	1	11130.00	0.95	110000	10.1	80 - 120	Fail
24 Mg	6	1	11050.00	1.20	110000	10.0	80 - 120	Fail
27 Al	45	1	11300.00	0.38	110000	10.3	80 - 120	Fail
39 K	45	1	11430.00	0.74	110000	10.4	80 - 120	Fail
43 Ca	45	1	11310.00	1.19	110000	10.3	80 - 120	Fail
51 V	72	1	109.70	2.22	100	109.7	80 - 120	
52 Cr	72	1	109.50	0.65	100	109.5	80 - 120	
55 Mn	72	1	111.10	1.18	100	111.1	80 - 120	
57 Fe	72	1	11000.00	1.21	110000	10.0	80 - 120	Fail
59 Co	72	1	111.00	1.38	100	111.0	80 - 120	
60 Ni	72	1	110.60	0.74	100	110.6	80 - 120	
63 Cu	72	1	110.20	0.76	100	110.2	80 - 120	
66 Zn	72	1	112.40	0.57	100	112.4	80 - 120	
75 As	72	1	111.20	0.35	100	111.2	80 - 120	
78 Se	72	1	109.50	1.72	100	109.5	80 - 120	
93 Nb	72	1	220.50	1.30	200	110.3	80 - 120	
95 Mo	72	1	112.40	0.08	2100	5.4	80 - 120	Fail
105 Pd	115	1	109.20	1.80	100	109.2	80 - 120	
107 Ag	115	1	111.30	2.20	100	111.3	80 - 120	
111 Cd	115	1	111.00	1.32	100	111.0	80 - 120	
118 Sn	115	1	111.10	1.06	100	111.1	80 - 120	
121 Sb	115	1	111.80	1.03	100	111.8	80 - 120	
137 Ba	115	1	110.70	0.98	100	110.7	80 - 120	
182 W	165	1	109.40	1.13	100	109.4	80 - 120	
195 Pt	165	1	108.70	1.55	100	108.7	80 - 120	
205 Tl	165	1	111.20	0.63	100	111.2	80 - 120	
208 Pb	165	1	111.40	0.70	100	111.4	80 - 120	
232 Th	165	1	109.90	0.69	100	109.9	80 - 120	
238 U	165	1	108.50	0.61	100	108.5	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	297534	1.25	292032	101.9	30 - 120	
45 Sc	1	1291099	0.46	1263643	102.2	30 - 120	
72 Ge	1	625354	0.75	621750	100.6	30 - 120	
115 In	1	1797634	0.89	1776649	101.2	30 - 120	
165 Ho	1	3137481	0.11	3099305	101.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

7 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\013SMPL.D\013SMPL.D#
Date Acquired: Jul 31 2009 06:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.21	3600	
23 Na	6	1	7.64	7.64	ppb	20.45	100000	
24 Mg	6	1	3.06	3.06	ppb	20.27	100000	
27 Al	45	1	5.09	5.09	ppb	16.84	100000	
39 K	45	1	1.86	1.86	ppb	194.58	100000	
43 Ca	45	1	6.51	6.51	ppb	48.46	100000	
51 V	72	1	0.00	0.00	ppb	2044.20	3600	
52 Cr	72	1	0.01	0.01	ppb	105.13	3600	
55 Mn	72	1	0.01	0.01	ppb	132.25	18000	
57 Fe	72	1	5.24	5.24	ppb	20.54	100000	
59 Co	72	1	0.01	0.01	ppb	48.39	3600	
60 Ni	72	1	0.01	0.01	ppb	159.88	3600	
63 Cu	72	1	0.01	0.01	ppb	123.74	3600	
66 Zn	72	1	-0.49	-0.49	ppb	2.16	3600	
75 As	72	1	0.01	0.01	ppb	50.21	3600	
78 Se	72	1	-0.55	-0.55	ppb	45.22	3600	
93 Nb	72	1	3.56	3.56	ppb	11.81	2000	
95 Mo	72	1	0.30	0.30	ppb	16.23	3600	
105 Pd	115	1	0.08	0.08	ppb	15.44	1000	
107 Ag	115	1	0.02	0.02	ppb	20.47	3600	
111 Cd	115	1	0.01	0.01	ppb	56.21	3600	
118 Sn	115	1	0.11	0.11	ppb	1.90	3600	
121 Sb	115	1	0.27	0.27	ppb	6.85	3600	
137 Ba	115	1	0.00	0.00	ppb	40.38	3600	
182 W	165	1	0.09	0.09	ppb	2.91	1000	
195 Pt	165	1	0.01	0.01	ppb	68.55	1000	
205 Tl	165	1	0.04	0.04	ppb	11.08	3600	
208 Pb	165	1	0.02	0.02	ppb	17.98	3600	
232 Th	165	1	0.36	0.36	ppb	13.82	1000	
238 U	165	1	0.02	0.02	ppb	3.07	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	302311	0.46	292032	103.5	30 - 120	
45 Sc	1	1318386	1.49	1263643	104.3	30 - 120	
72 Ge	1	644922	0.63	621750	103.7	30 - 120	
115 In	1	1863879	0.85	1776649	104.9	30 - 120	
165 Ho	1	3188844	0.56	3099305	102.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\014_LR.D\014_LR.D#
Date Acquired: Jul 31 2009 06:05 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	963.40 ppb	1.23	1000	96.3	90 - 110	
23 Na	6	1	100600.00 ppb	1.11	100000	100.6	90 - 110	
24 Mg	6	1	100000.00 ppb	1.67	100000	100.0	90 - 110	
27 Al	45	1	99230.00 ppb	0.98	100000	99.2	90 - 110	
39 K	45	1	99510.00 ppb	0.76	100000	99.5	90 - 110	
43 Ca	45	1	102200.00 ppb	1.65	100000	102.2	90 - 110	
51 V	72	1	954.70 ppb	1.49	1000	95.5	90 - 110	
52 Cr	72	1	946.90 ppb	0.93	1000	94.7	90 - 110	
55 Mn	72	1	937.60 ppb	0.90	1000	93.8	90 - 110	
57 Fe	72	1	92700.00 ppb	0.48	100000	92.7	90 - 110	
59 Co	72	1	913.00 ppb	0.56	1000	91.3	90 - 110	
60 Ni	72	1	942.60 ppb	1.32	1000	94.3	90 - 110	
63 Cu	72	1	904.40 ppb	1.40	1000	90.4	90 - 110	
66 Zn	72	1	925.70 ppb	1.24	1000	92.6	90 - 110	
75 As	72	1	974.90 ppb	0.16	1000	97.5	90 - 110	
78 Se	72	1	934.50 ppb	0.69	1000	93.5	90 - 110	
93 Nb	72	1	2153.00 ppb	0.47	2000	107.7	90 - 110	
95 Mo	72	1	999.90 ppb	1.63	1000	100.0	90 - 110	
105 Pd	115	1	948.80 ppb	1.55	1000	94.9	90 - 110	
107 Ag	115	1	903.40 ppb	0.51	1000	90.3	90 - 110	
111 Cd	115	1	963.60 ppb	0.79	1000	96.4	90 - 110	
118 Sn	115	1	979.50 ppb	0.83	1000	98.0	90 - 110	
121 Sb	115	1	980.00 ppb	1.11	1000	98.0	90 - 110	
137 Ba	115	1	1003.00 ppb	0.47	1000	100.3	90 - 110	
182 W	165	1	987.90 ppb	0.28	1000	98.8	90 - 110	
195 Pt	165	1	948.10 ppb	0.19	1000	94.8	90 - 110	
205 Tl	165	1	927.60 ppb	0.35	1000	92.8	90 - 110	
208 Pb	165	1	918.80 ppb	0.14	1000	91.9	90 - 110	
232 Th	165	1	964.00 ppb	0.59	1000	96.4	90 - 110	
238 U	165	1	938.40 ppb	0.74	1000	93.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	261536	1.27	292032	89.6	30 - 120	
45 Sc	1	1175803	1.10	1263643	93.0	30 - 120	
72 Ge	1	562435	0.57	621750	90.5	30 - 120	
115 In	1	1552129	1.03	1776649	87.4	30 - 120	
165 Ho	1	2753290	0.08	3099305	88.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\015SMPL.D\015SMPL.D#
Date Acquired: Jul 31 2009 06:07 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.13	0.13	ppb	98.22	3600	
23 Na	6	1	23.44	23.44	ppb	16.47	100000	
24 Mg	6	1	12.31	12.31	ppb	19.37	100000	
27 Al	45	1	13.84	13.84	ppb	15.93	100000	
39 K	45	1	14.62	14.62	ppb	34.55	100000	
43 Ca	45	1	19.48	19.48	ppb	71.56	100000	
51 V	72	1	0.09	0.09	ppb	21.51	3600	
52 Cr	72	1	0.12	0.12	ppb	24.40	3600	
55 Mn	72	1	0.12	0.12	ppb	17.84	18000	
57 Fe	72	1	14.79	14.79	ppb	14.67	100000	
59 Co	72	1	0.13	0.13	ppb	24.73	3600	
60 Ni	72	1	0.13	0.13	ppb	39.51	3600	
63 Cu	72	1	0.18	0.18	ppb	32.35	3600	
66 Zn	72	1	-0.32	-0.32	ppb	9.94	3600	
75 As	72	1	0.18	0.18	ppb	16.12	3600	
78 Se	72	1	0.00	0.00	ppb	19757.00	3600	
93 Nb	72	1	3.04	3.04	ppb	3.58	2000	
95 Mo	72	1	0.60	0.60	ppb	6.77	3600	
105 Pd	115	1	0.45	0.45	ppb	12.75	1000	
107 Ag	115	1	0.14	0.14	ppb	25.40	3600	
111 Cd	115	1	0.13	0.13	ppb	26.27	3600	
118 Sn	115	1	0.29	0.29	ppb	12.63	3600	
121 Sb	115	1	0.64	0.64	ppb	2.51	3600	
137 Ba	115	1	0.13	0.13	ppb	25.24	3600	
182 W	165	1	0.42	0.42	ppb	10.59	1000	
195 Pt	165	1	0.14	0.14	ppb	25.29	1000	
205 Tl	165	1	0.18	0.18	ppb	28.22	3600	
208 Pb	165	1	0.16	0.16	ppb	15.41	3600	
232 Th	165	1	0.73	0.73	ppb	12.85	1000	
238 U	165	1	0.21	0.21	ppb	5.49	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	299193	1.22	292032	102.5	30 - 120	
45 Sc	1	1299874	0.66	1263643	102.9	30 - 120	
72 Ge	1	635638	0.61	621750	102.2	30 - 120	
115 In	1	1815139	1.28	1776649	102.2	30 - 120	
165 Ho	1	3097860	0.23	3099305	100.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\016ICSB.D\016ICSB.D#
Date Acquired: Jul 31 2009 06:12 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	99.89	1.42	100	99.9	80 - 120	
23 Na	6	1	108100.00	0.45	110000	98.3	80 - 120	
24 Mg	6	1	106700.00	0.66	110000	97.0	80 - 120	
27 Al	45	1	107700.00	0.79	110000	97.9	80 - 120	
39 K	45	1	108300.00	1.65	110000	98.5	80 - 120	
43 Ca	45	1	110100.00	1.21	110000	100.1	80 - 120	
51 V	72	1	101.10	0.22	100	101.1	80 - 120	
52 Cr	72	1	99.29	0.34	100	99.3	80 - 120	
55 Mn	72	1	102.40	1.00	100	102.4	80 - 120	
57 Fe	72	1	103100.00	0.51	110000	93.7	80 - 120	
59 Co	72	1	97.74	0.51	100	97.7	80 - 120	
60 Ni	72	1	96.81	0.25	100	96.8	80 - 120	
63 Cu	72	1	95.58	0.43	100	95.6	80 - 120	
66 Zn	72	1	98.46	0.19	100	98.5	80 - 120	
75 As	72	1	101.80	0.53	100	101.8	80 - 120	
78 Se	72	1	107.40	1.65	100	107.4	80 - 120	
93 Nb	72	1	201.00	1.17	200	100.5	80 - 120	
95 Mo	72	1	2026.00	0.35	2100	96.5	80 - 120	
105 Pd	115	1	97.16	2.10	100	97.2	80 - 120	
107 Ag	115	1	91.89	1.32	100	91.9	80 - 120	
111 Cd	115	1	98.95	1.59	100	99.0	80 - 120	
118 Sn	115	1	99.50	1.32	100	99.5	80 - 120	
121 Sb	115	1	100.50	1.04	100	100.5	80 - 120	
137 Ba	115	1	99.80	1.63	100	99.8	80 - 120	
182 W	165	1	100.20	0.96	100	100.2	80 - 120	
195 Pt	165	1	94.46	0.30	100	94.5	80 - 120	
205 Tl	165	1	94.78	0.14	100	94.8	80 - 120	
208 Pb	165	1	94.54	0.71	100	94.5	80 - 120	
232 Th	165	1	98.76	0.56	100	98.8	80 - 120	
238 U	165	1	96.47	0.99	100	96.5	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	292929	0.35	292032	100.3	30 - 120	
45 Sc	1	1276946	0.78	1263643	101.1	30 - 120	
72 Ge	1	593950	0.11	621750	95.5	30 - 120	
115 In	1	1650613	1.10	1776649	92.9	30 - 120	
165 Ho	1	2928208	0.59	3099305	94.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\017SMPL.D\017SMPL.D#
Date Acquired: Jul 31 2009 06:15 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.02	0.02	ppb	0.67	3600	
23 Na	6	1	28.30	28.30	ppb	13.38	100000	
24 Mg	6	1	13.93	13.93	ppb	17.37	100000	
27 Al	45	1	14.94	14.94	ppb	15.00	100000	
39 K	45	1	10.22	10.22	ppb	43.11	100000	
43 Ca	45	1	24.77	24.77	ppb	25.34	100000	
51 V	72	1	0.01	0.01	ppb	788.83	3600	
52 Cr	72	1	0.01	0.01	ppb	212.09	3600	
55 Mn	72	1	0.02	0.02	ppb	31.75	18000	
57 Fe	72	1	14.70	14.70	ppb	17.52	100000	
59 Co	72	1	0.02	0.02	ppb	3.52	3600	
60 Ni	72	1	0.03	0.03	ppb	86.25	3600	
63 Cu	72	1	0.04	0.04	ppb	48.82	3600	
66 Zn	72	1	-0.47	-0.47	ppb	3.65	3600	
75 As	72	1	0.05	0.05	ppb	27.35	3600	
78 Se	72	1	-0.23	-0.23	ppb	155.26	3600	
93 Nb	72	1	3.71	3.71	ppb	12.79	2000	
95 Mo	72	1	1.19	1.19	ppb	10.46	3600	
105 Pd	115	1	0.07	0.07	ppb	40.50	1000	
107 Ag	115	1	0.03	0.03	ppb	13.44	3600	
111 Cd	115	1	0.02	0.02	ppb	31.26	3600	
118 Sn	115	1	0.10	0.10	ppb	14.29	3600	
121 Sb	115	1	0.31	0.31	ppb	4.08	3600	
137 Ba	115	1	0.01	0.01	ppb	27.46	3600	
182 W	165	1	0.11	0.11	ppb	23.38	1000	
195 Pt	165	1	0.04	0.04	ppb	16.44	1000	
205 Tl	165	1	0.03	0.03	ppb	14.65	3600	
208 Pb	165	1	0.03	0.03	ppb	21.57	3600	
232 Th	165	1	0.25	0.25	ppb	10.01	1000	
238 U	165	1	0.04	0.04	ppb	2.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	315107	0.67	292032	107.9	30 - 120	
45 Sc	1	1343503	0.49	1263643	106.3	30 - 120	
72 Ge	1	658757	0.65	621750	106.0	30 - 120	
115 In	1	1877408	0.61	1776649	105.7	30 - 120	
165 Ho	1	3219478	0.56	3099305	103.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\018_CCV.D\018_CCV.D#
Date Acquired: Jul 31 2009 06:18 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	49.51	ppb	0.35	50	99.0	90 - 110	
23 Na	6	1	4975.00	ppb	0.86	5000	99.5	90 - 110	
24 Mg	6	1	4991.00	ppb	0.82	5000	99.8	90 - 110	
27 Al	45	1	5039.00	ppb	0.83	5000	100.8	90 - 110	
39 K	45	1	5072.00	ppb	1.18	5000	101.4	90 - 110	
43 Ca	45	1	5114.00	ppb	1.51	5000	102.3	90 - 110	
51 V	72	1	49.92	ppb	0.26	50	99.8	90 - 110	
52 Cr	72	1	50.02	ppb	0.22	50	100.0	90 - 110	
55 Mn	72	1	50.32	ppb	0.31	50	100.6	90 - 110	
57 Fe	72	1	5095.00	ppb	1.36	5000	101.9	90 - 110	
59 Co	72	1	49.90	ppb	0.10	50	99.8	90 - 110	
60 Ni	72	1	50.49	ppb	0.97	50	101.0	90 - 110	
63 Cu	72	1	51.17	ppb	0.52	50	102.3	90 - 110	
66 Zn	72	1	49.88	ppb	0.40	50	99.8	90 - 110	
75 As	72	1	49.99	ppb	0.68	50	100.0	90 - 110	
78 Se	72	1	50.16	ppb	2.96	50	100.3	90 - 110	
93 Nb	72	1	97.95	ppb	1.51	100	98.0	90 - 110	
95 Mo	72	1	49.60	ppb	1.56	50	99.2	90 - 110	
105 Pd	115	1	50.76	ppb	3.06	50	101.5	90 - 110	
107 Ag	115	1	50.77	ppb	1.83	50	101.5	90 - 110	
111 Cd	115	1	49.91	ppb	1.98	50	99.8	90 - 110	
118 Sn	115	1	50.06	ppb	1.50	50	100.1	90 - 110	
121 Sb	115	1	49.79	ppb	0.97	50	99.6	90 - 110	
137 Ba	115	1	49.78	ppb	2.41	50	99.6	90 - 110	
182 W	165	1	50.56	ppb	1.81	50	101.1	90 - 110	
195 Pt	165	1	50.67	ppb	1.92	50	101.3	90 - 110	
205 Tl	165	1	50.93	ppb	1.82	50	101.9	90 - 110	
208 Pb	165	1	51.77	ppb	2.11	50	103.5	90 - 110	
232 Th	165	1	50.45	ppb	0.83	50	100.9	90 - 110	
238 U	165	1	50.36	ppb	1.94	50	100.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	304900	0.49	292032	104.4	30 - 120	
45 Sc	1	1333771	0.46	1263643	105.5	30 - 120	
72 Ge	1	641832	0.48	621750	103.2	30 - 120	
115 In	1	1843850	1.03	1776649	103.8	30 - 120	
165 Ho	1	3166069	0.93	3099305	102.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\019_CCB.D\019_CCB.D#
Date Acquired: Jul 31 2009 06:21 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.015	ppb	86.61	1.00	
23 Na	6	1	2.157	ppb	45.46	20.00	
24 Mg	6	1	-0.240	ppb	149.50	20.00	
27 Al	45	1	1.277	ppb	15.71	20.00	
39 K	45	1	-4.692	ppb	17.90	20.00	
43 Ca	45	1	4.380	ppb	52.37	20.00	
51 V	72	1	-0.003	ppb	630.52	1.00	
52 Cr	72	1	0.027	ppb	97.16	1.00	
55 Mn	72	1	0.031	ppb	4.84	1.00	
57 Fe	72	1	1.613	ppb	31.65	20.00	
59 Co	72	1	0.007	ppb	69.78	1.00	
60 Ni	72	1	0.007	ppb	241.43	1.00	
63 Cu	72	1	0.013	ppb	47.18	1.00	
66 Zn	72	1	-0.580	ppb	2.00	10.00	
75 As	72	1	0.008	ppb	101.12	1.00	
78 Se	72	1	-0.596	ppb	43.25	1.00	
93 Nb	72	1	3.995	ppb	10.66	2.00	Fail NR
95 Mo	72	1	0.120	ppb	27.50	1.00	
105 Pd	115	1	0.044	ppb	21.46	1.00	
107 Ag	115	1	0.018	ppb	18.29	1.00	
111 Cd	115	1	0.009	ppb	86.17	1.00	
118 Sn	115	1	0.093	ppb	13.33	10.00	
121 Sb	115	1	0.234	ppb	8.90	1.00	
137 Ba	115	1	-0.004	ppb	62.63	1.00	
182 W	165	1	0.075	ppb	9.77	5.00	
195 Pt	165	1	0.010	ppb	48.90	1.00	
205 Tl	165	1	0.024	ppb	11.78	1.00	
208 Pb	165	1	0.009	ppb	35.30	1.00	
232 Th	165	1	0.376	ppb	10.77	2.00	
238 U	165	1	0.016	ppb	8.26	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	309400	0.84	292032	105.9	30 - 120	
45 Sc	1	1332542	0.32	1263643	105.5	30 - 120	
72 Ge	1	653934	0.55	621750	105.2	30 - 120	
115 In	1	1880083	0.70	1776649	105.8	30 - 120	
165 Ho	1	3197475	1.22	3099305	103.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

1 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\020WASH.D\020WASH.D#
Date Acquired: Jul 31 2009 06:24 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.047 ppb	17.78	1.30	
23 Na	6	1	53.350 ppb	1.97	65.00	
24 Mg	6	1	52.400 ppb	1.61	65.00	
27 Al	45	1	31.850 ppb	0.92	39.00	
39 K	45	1	104.200 ppb	1.26	130.00	
43 Ca	45	1	55.520 ppb	20.66	65.00	
51 V	72	1	5.005 ppb	0.81	6.50	
52 Cr	72	1	2.052 ppb	0.67	2.60	
55 Mn	72	1	1.010 ppb	2.68	1.30	
57 Fe	72	1	51.810 ppb	0.62	65.00	
59 Co	72	1	1.049 ppb	1.49	1.30	
60 Ni	72	1	2.078 ppb	7.15	2.60	
63 Cu	72	1	2.058 ppb	2.63	2.60	
66 Zn	72	1	9.572 ppb	1.00	13.00	
75 As	72	1	5.022 ppb	2.49	6.50	
78 Se	72	1	4.447 ppb	27.32	6.50	
93 Nb	72	1	2.335 ppb	13.95	52.00	
95 Mo	72	1	1.988 ppb	1.89	2.60	
105 Pd	115	1	0.027 ppb	29.53	1.30	
107 Ag	115	1	5.357 ppb	0.49	6.50	
111 Cd	115	1	1.046 ppb	1.69	1.30	
118 Sn	115	1	10.240 ppb	1.24	13.00	
121 Sb	115	1	1.999 ppb	2.95	2.60	
137 Ba	115	1	1.040 ppb	2.53	1.30	
182 W	165	1	0.034 ppb	29.72	6.50	
195 Pt	165	1	0.006 ppb	122.18	1.30	
205 Tl	165	1	1.097 ppb	1.27	1.30	
208 Pb	165	1	1.087 ppb	1.04	1.30	
232 Th	165	1	2.030 ppb	1.41	2.60	
238 U	165	1	1.091 ppb	0.65	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	306644	1.05	292032	105.0	30 - 120	
45 Sc	1	1335926	0.76	1263643	105.7	30 - 120	
72 Ge	1	651952	0.69	621750	104.9	30 - 120	
115 In	1	1863395	0.21	1776649	104.9	30 - 120	
165 Ho	1	3169690	0.66	3099305	102.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\052_CCV.D\052_CCV.D#
Date Acquired: Jul 31 2009 07:58 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	51.27	ppb	3.84	50	102.5	90 - 110	
23 Na	6	1	5247.00	ppb	1.73	5000	104.9	90 - 110	
24 Mg	6	1	5323.00	ppb	0.36	5000	106.5	90 - 110	
27 Al	45	1	4947.00	ppb	1.53	5000	98.9	90 - 110	
39 K	45	1	5170.00	ppb	1.85	5000	103.4	90 - 110	
43 Ca	45	1	5151.00	ppb	2.03	5000	103.0	90 - 110	
51 V	72	1	49.41	ppb	1.53	50	98.8	90 - 110	
52 Cr	72	1	49.13	ppb	1.68	50	98.3	90 - 110	
55 Mn	72	1	49.17	ppb	0.48	50	98.3	90 - 110	
57 Fe	72	1	4904.00	ppb	0.62	5000	98.1	90 - 110	
59 Co	72	1	49.48	ppb	0.23	50	99.0	90 - 110	
60 Ni	72	1	50.33	ppb	0.45	50	100.7	90 - 110	
63 Cu	72	1	50.74	ppb	0.48	50	101.5	90 - 110	
66 Zn	72	1	48.91	ppb	0.94	50	97.8	90 - 110	
75 As	72	1	51.19	ppb	0.18	50	102.4	90 - 110	
78 Se	72	1	49.89	ppb	2.15	50	99.8	90 - 110	
93 Nb	72	1	92.36	ppb	1.86	100	92.4	90 - 110	
95 Mo	72	1	49.14	ppb	0.72	50	98.3	90 - 110	
105 Pd	115	1	49.55	ppb	0.92	50	99.1	90 - 110	
107 Ag	115	1	49.50	ppb	1.01	50	99.0	90 - 110	
111 Cd	115	1	48.49	ppb	0.37	50	97.0	90 - 110	
118 Sn	115	1	49.38	ppb	1.65	50	98.8	90 - 110	
121 Sb	115	1	49.23	ppb	0.62	50	98.5	90 - 110	
137 Ba	115	1	50.95	ppb	1.51	50	101.9	90 - 110	
182 W	165	1	49.46	ppb	1.21	50	98.9	90 - 110	
195 Pt	165	1	50.86	ppb	0.57	50	101.7	90 - 110	
205 Tl	165	1	51.41	ppb	1.84	50	102.8	90 - 110	
208 Pb	165	1	52.14	ppb	1.72	50	104.3	90 - 110	
232 Th	165	1	51.86	ppb	2.44	50	103.7	90 - 110	
238 U	165	1	51.28	ppb	1.48	50	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	217124	0.89	292032	74.3	30 - 120	
45 Sc	1	1052947	0.74	1263643	83.3	30 - 120	
72 Ge	1	514225	0.63	621750	82.7	30 - 120	
115 In	1	1520052	0.49	1776649	85.6	30 - 120	
165 Ho	1	2630496	1.00	3099305	84.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\053_CCB.D\053_CCB.D#
Date Acquired: Jul 31 2009 08:01 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.021	ppb	173.21	1.00	
23 Na	6	1	-8.974	ppb	2.18	20.00	
24 Mg	6	1	-2.331	ppb	7.76	20.00	
27 Al	45	1	0.342	ppb	128.53	20.00	
39 K	45	1	-9.581	ppb	13.54	20.00	
43 Ca	45	1	1.096	ppb	296.35	20.00	
51 V	72	1	0.011	ppb	378.44	1.00	
52 Cr	72	1	0.017	ppb	241.79	1.00	
55 Mn	72	1	0.039	ppb	41.42	1.00	
57 Fe	72	1	2.787	ppb	16.20	20.00	
59 Co	72	1	0.004	ppb	42.15	1.00	
60 Ni	72	1	0.007	ppb	254.58	1.00	
63 Cu	72	1	0.002	ppb	492.94	1.00	
66 Zn	72	1	-0.591	ppb	2.20	10.00	
75 As	72	1	0.005	ppb	84.01	1.00	
78 Se	72	1	-0.852	ppb	28.19	1.00	
93 Nb	72	1	3.464	ppb	8.80	2.00	Fail
95 Mo	72	1	-0.026	ppb	64.29	1.00	
105 Pd	115	1	0.035	ppb	21.67	1.00	
107 Ag	115	1	0.011	ppb	67.01	1.00	
111 Cd	115	1	-0.002	ppb	354.87	1.00	
118 Sn	115	1	0.098	ppb	11.10	10.00	
121 Sb	115	1	0.185	ppb	4.97	1.00	
137 Ba	115	1	0.004	ppb	170.48	1.00	
182 W	165	1	0.057	ppb	29.23	5.00	
195 Pt	165	1	0.006	ppb	139.32	1.00	
205 Tl	165	1	0.029	ppb	22.58	1.00	
208 Pb	165	1	0.008	ppb	23.12	1.00	
232 Th	165	1	0.366	ppb	9.90	2.00	
238 U	165	1	0.014	ppb	8.69	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	226027	0.51	292032	77.4	30 - 120	
45 Sc	1	1077156	1.20	1263643	85.2	30 - 120	
72 Ge	1	539041	0.26	621750	86.7	30 - 120	
115 In	1	1576529	0.33	1776649	88.7	30 - 120	
165 Ho	1	2650521	0.26	3099305	85.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\054WASH.D\054WASH.D#
Date Acquired: Jul 31 2009 08:04 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.139 ppb	20.63	1.30	
23 Na	6	1	46.570 ppb	2.02	65.00	
24 Mg	6	1	54.990 ppb	1.04	65.00	
27 Al	45	1	30.930 ppb	3.40	39.00	
39 K	45	1	101.800 ppb	3.45	130.00	
43 Ca	45	1	59.910 ppb	21.00	65.00	
51 V	72	1	5.130 ppb	2.18	6.50	
52 Cr	72	1	2.028 ppb	1.99	2.60	
55 Mn	72	1	1.023 ppb	0.48	1.30	
57 Fe	72	1	49.560 ppb	1.40	65.00	
59 Co	72	1	0.985 ppb	4.93	1.30	
60 Ni	72	1	2.047 ppb	5.84	2.60	
63 Cu	72	1	2.018 ppb	2.18	2.60	
66 Zn	72	1	9.268 ppb	2.46	13.00	
75 As	72	1	5.119 ppb	0.39	6.50	
78 Se	72	1	4.603 ppb	3.09	6.50	
93 Nb	72	1	1.899 ppb	16.38	52.00	
95 Mo	72	1	1.920 ppb	2.73	2.60	
105 Pd	115	1	0.010 ppb	74.38	1.30	
107 Ag	115	1	5.230 ppb	2.35	6.50	
111 Cd	115	1	0.939 ppb	6.73	1.30	
118 Sn	115	1	10.110 ppb	1.11	13.00	
121 Sb	115	1	1.945 ppb	2.61	2.60	
137 Ba	115	1	1.008 ppb	5.87	1.30	
182 W	165	1	0.023 ppb	41.11	6.50	
195 Pt	165	1	0.001 ppb	310.61	1.30	
205 Tl	165	1	1.108 ppb	1.29	1.30	
208 Pb	165	1	1.099 ppb	1.67	1.30	
232 Th	165	1	2.077 ppb	2.25	2.60	
238 U	165	1	1.093 ppb	2.38	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	225836	0.27	292032	77.3	30 - 120	
45 Sc	1	1090359	1.31	1263643	86.3	30 - 120	
72 Ge	1	539320	0.19	621750	86.7	30 - 120	
115 In	1	1575530	0.43	1776649	88.7	30 - 120	
165 Ho	1	2662464	0.79	3099305	85.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\055ICSA.D\055ICSA.D#
Date Acquired: Jul 31 2009 08:07 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.00 ppb	0.00	1.00	
23	Na	6	1	100700.00 ppb	1.47	100.00	
24	Mg	6	1	99310.00 ppb	0.69	100.00	
27	Al	45	1	96180.00 ppb	0.94	100.00	
39	K	45	1	99780.00 ppb	0.44	100.00	
43	Ca	45	1	103000.00 ppb	0.63	100.00	
51	V	72	1	-0.49 ppb	41.49	1.00	
52	Cr	72	1	0.67 ppb	7.43	1.00	
55	Mn	72	1	3.64 ppb	1.19	1.00	
57	Fe	72	1	92610.00 ppb	0.64	100.00	
59	Co	72	1	1.53 ppb	2.55	1.00	
60	Ni	72	1	1.86 ppb	7.08	1.00	
63	Cu	72	1	1.63 ppb	3.17	1.00	
66	Zn	72	1	3.19 ppb	1.72	10.00	
75	As	72	1	0.51 ppb	17.65	1.00	
78	Se	72	1	-0.35 ppb	136.79	1.00	
93	Nb	72	1	2.55 ppb	14.18	2.00	
95	Mo	72	1	1982.00 ppb	0.91	2000.00	
105	Pd	115	1	0.09 ppb	26.71	1.00	
107	Ag	115	1	0.06 ppb	32.03	1.00	
111	Cd	115	1	3.15 ppb	3.81	1.00	
118	Sn	115	1	0.45 ppb	16.80	10.00	
121	Sb	115	1	0.31 ppb	4.78	1.00	
137	Ba	115	1	0.07 ppb	27.33	1.00	
182	W	165	1	0.11 ppb	17.64	5.00	
195	Pt	165	1	0.00 ppb	29.21	1.00	
205	Tl	165	1	0.05 ppb	42.80	1.00	
208	Pb	165	1	0.13 ppb	3.68	1.00	
232	Th	165	1	0.24 ppb	36.15	2.00	
238	U	165	1	0.00 ppb	60.72	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	231220	1.43	292032	79.2	30 - 120	
45	Sc	1	1080833	0.49	1263643	85.5	30 - 120	
72	Ge	1	515457	0.53	621750	82.9	30 - 120	
115	In	1	1452327	0.39	1776649	81.7	30 - 120	
165	Ho	1	2584460	0.50	3099305	83.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\056ICSB.D\056ICSB.D#
Date Acquired: Jul 31 2009 08:10 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 05:34 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	96.66	1.32	100	96.7	80 - 120	
23 Na	6	1	109300.00	2.21	110000	99.4	80 - 120	
24 Mg	6	1	107900.00	2.27	110000	98.1	80 - 120	
27 Al	45	1	104400.00	1.13	110000	94.9	80 - 120	
39 K	45	1	108800.00	0.70	110000	98.9	80 - 120	
43 Ca	45	1	109700.00	0.68	110000	99.7	80 - 120	
51 V	72	1	98.87	0.50	100	98.9	80 - 120	
52 Cr	72	1	97.01	0.51	100	97.0	80 - 120	
55 Mn	72	1	99.92	1.28	100	99.9	80 - 120	
57 Fe	72	1	101600.00	0.63	110000	92.4	80 - 120	
59 Co	72	1	97.09	0.43	100	97.1	80 - 120	
60 Ni	72	1	96.08	0.72	100	96.1	80 - 120	
63 Cu	72	1	94.66	0.30	100	94.7	80 - 120	
66 Zn	72	1	95.13	0.24	100	95.1	80 - 120	
75 As	72	1	102.50	1.02	100	102.5	80 - 120	
78 Se	72	1	107.10	2.16	100	107.1	80 - 120	
93 Nb	72	1	196.80	1.04	200	98.4	80 - 120	
95 Mo	72	1	2071.00	1.25	2100	98.6	80 - 120	
105 Pd	115	1	95.27	1.18	100	95.3	80 - 120	
107 Ag	115	1	90.03	1.06	100	90.0	80 - 120	
111 Cd	115	1	97.10	0.88	100	97.1	80 - 120	
118 Sn	115	1	98.49	0.30	100	98.5	80 - 120	
121 Sb	115	1	98.36	0.81	100	98.4	80 - 120	
137 Ba	115	1	101.10	0.78	100	101.1	80 - 120	
182 W	165	1	98.96	1.10	100	99.0	80 - 120	
195 Pt	165	1	95.02	1.72	100	95.0	80 - 120	
205 Tl	165	1	95.50	0.36	100	95.5	80 - 120	
208 Pb	165	1	96.59	1.35	100	96.6	80 - 120	
232 Th	165	1	101.00	0.68	100	101.0	80 - 120	
238 U	165	1	98.79	0.30	100	98.8	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	234709	1.53	292032	80.4	30 - 120	
45 Sc	1	1087079	0.34	1263643	86.0	30 - 120	
72 Ge	1	517324	0.39	621750	83.2	30 - 120	
115 In	1	1482835	0.79	1776649	83.5	30 - 120	
165 Ho	1	2629686	0.55	3099305	84.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\057WASH.D\057WASH.D#
Date Acquired: Jul 31 2009 08:12 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.009 ppb	173.23	1.30	
23 Na	6	1	23.780 ppb	20.00	65.00	
24 Mg	6	1	16.940 ppb	15.25	65.00	
27 Al	45	1	17.960 ppb	15.47	39.00	
39 K	45	1	9.558 ppb	43.47	130.00	
43 Ca	45	1	17.620 ppb	35.52	65.00	
51 V	72	1	-0.013 ppb	287.80	6.50	
52 Cr	72	1	0.009 ppb	170.33	2.60	
55 Mn	72	1	0.031 ppb	34.55	1.30	
57 Fe	72	1	18.160 ppb	11.79	65.00	
59 Co	72	1	0.019 ppb	31.48	1.30	
60 Ni	72	1	0.024 ppb	71.61	2.60	
63 Cu	72	1	0.014 ppb	102.86	2.60	
66 Zn	72	1	-0.463 ppb	1.30	13.00	
75 As	72	1	0.046 ppb	22.54	6.50	
78 Se	72	1	-0.577 ppb	119.55	6.50	
93 Nb	72	1	5.201 ppb	12.79	52.00	
95 Mo	72	1	1.487 ppb	4.00	2.60	
105 Pd	115	1	0.040 ppb	49.80	1.30	
107 Ag	115	1	0.027 ppb	42.72	6.50	
111 Cd	115	1	0.021 ppb	74.84	1.30	
118 Sn	115	1	0.102 ppb	30.96	13.00	
121 Sb	115	1	0.231 ppb	11.74	2.60	
137 Ba	115	1	0.016 ppb	14.05	1.30	
182 W	165	1	0.086 ppb	6.26	6.50	
195 Pt	165	1	0.022 ppb	31.05	1.30	
205 Tl	165	1	0.029 ppb	11.39	1.30	
208 Pb	165	1	0.026 ppb	6.17	1.30	
232 Th	165	1	0.470 ppb	13.98	2.60	
238 U	165	1	0.030 ppb	3.85	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	261634	0.38	292032	89.6	30 - 120	
45 Sc	1	1192040	1.22	1263643	94.3	30 - 120	
72 Ge	1	596414	0.49	621750	95.9	30 - 120	
115 In	1	1748781	1.10	1776649	98.4	30 - 120	
165 Ho	1	2934304	0.73	3099305	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\058_CCV.D\058_CCV.D#
Date Acquired: Jul 31 2009 08:15 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.56	ppb	4.69	50	101.1	90 - 110	
23 Na	6	1	5098.00	ppb	1.44	5000	102.0	90 - 110	
24 Mg	6	1	5118.00	ppb	0.96	5000	102.4	90 - 110	
27 Al	45	1	4945.00	ppb	1.35	5000	98.9	90 - 110	
39 K	45	1	5138.00	ppb	1.44	5000	102.8	90 - 110	
43 Ca	45	1	5182.00	ppb	1.14	5000	103.6	90 - 110	
51 V	72	1	50.42	ppb	0.46	50	100.8	90 - 110	
52 Cr	72	1	49.50	ppb	0.99	50	99.0	90 - 110	
55 Mn	72	1	49.14	ppb	0.68	50	98.3	90 - 110	
57 Fe	72	1	4985.00	ppb	1.28	5000	99.7	90 - 110	
59 Co	72	1	49.94	ppb	0.19	50	99.9	90 - 110	
60 Ni	72	1	50.90	ppb	0.51	50	101.8	90 - 110	
63 Cu	72	1	50.89	ppb	0.77	50	101.8	90 - 110	
66 Zn	72	1	48.83	ppb	0.07	50	97.7	90 - 110	
75 As	72	1	51.34	ppb	0.18	50	102.7	90 - 110	
78 Se	72	1	49.19	ppb	3.22	50	98.4	90 - 110	
93 Nb	72	1	100.80	ppb	0.98	100	100.8	90 - 110	
95 Mo	72	1	50.54	ppb	0.97	50	101.1	90 - 110	
105 Pd	115	1	50.82	ppb	2.19	50	101.6	90 - 110	
107 Ag	115	1	50.76	ppb	1.60	50	101.5	90 - 110	
111 Cd	115	1	49.63	ppb	1.87	50	99.3	90 - 110	
118 Sn	115	1	50.07	ppb	1.25	50	100.1	90 - 110	
121 Sb	115	1	49.60	ppb	0.34	50	99.2	90 - 110	
137 Ba	115	1	51.01	ppb	2.42	50	102.0	90 - 110	
182 W	165	1	49.51	ppb	1.74	50	99.0	90 - 110	
195 Pt	165	1	50.95	ppb	1.99	50	101.9	90 - 110	
205 Tl	165	1	51.03	ppb	1.54	50	102.1	90 - 110	
208 Pb	165	1	51.76	ppb	1.53	50	103.5	90 - 110	
232 Th	165	1	50.93	ppb	0.76	50	101.9	90 - 110	
238 U	165	1	50.50	ppb	0.84	50	101.0	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	255191	0.81	292032	87.4	30 - 120	
45 Sc	1	1185329	1.06	1263643	93.8	30 - 120	
72 Ge	1	581113	1.00	621750	93.5	30 - 120	
115 In	1	1682625	0.70	1776649	94.7	30 - 120	
165 Ho	1	2902399	0.38	3099305	93.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\059_CCB.D\059_CCB.D#
Date Acquired: Jul 31 2009 08:18 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-5.576	ppb	8.44	20.00	
24 Mg	6	1	-1.379	ppb	20.33	20.00	
27 Al	45	1	0.680	ppb	46.51	20.00	
39 K	45	1	-9.854	ppb	12.48	20.00	
43 Ca	45	1	7.909	ppb	88.04	20.00	
51 V	72	1	0.006	ppb	19.67	1.00	
52 Cr	72	1	0.045	ppb	13.39	1.00	
55 Mn	72	1	0.028	ppb	24.79	1.00	
57 Fe	72	1	0.457	ppb	122.28	20.00	
59 Co	72	1	0.008	ppb	23.56	1.00	
60 Ni	72	1	0.013	ppb	45.89	1.00	
63 Cu	72	1	-0.012	ppb	152.74	1.00	
66 Zn	72	1	-0.579	ppb	1.01	10.00	
75 As	72	1	0.011	ppb	135.29	1.00	
78 Se	72	1	-0.224	ppb	265.25	1.00	
93 Nb	72	1	4.331	ppb	12.10	2.00	Fail
95 Mo	72	1	0.120	ppb	24.73	1.00	
105 Pd	115	1	0.040	ppb	28.07	1.00	
107 Ag	115	1	0.011	ppb	22.79	1.00	
111 Cd	115	1	0.013	ppb	54.75	1.00	
118 Sn	115	1	0.050	ppb	81.73	10.00	
121 Sb	115	1	0.204	ppb	3.46	1.00	
137 Ba	115	1	0.008	ppb	99.69	1.00	
182 W	165	1	0.058	ppb	18.87	5.00	
195 Pt	165	1	0.012	ppb	123.24	1.00	
205 Tl	165	1	0.025	ppb	22.67	1.00	
208 Pb	165	1	0.011	ppb	18.22	1.00	
232 Th	165	1	0.363	ppb	13.93	2.00	
238 U	165	1	0.014	ppb	12.18	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	256421	0.32	292032	87.8	30 - 120	
45 Sc	1	1206288	0.65	1263643	95.5	30 - 120	
72 Ge	1	598365	0.52	621750	96.2	30 - 120	
115 In	1	1726880	0.32	1776649	97.2	30 - 120	
165 Ho	1	2913259	1.20	3099305	94.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\060WASH.D\060WASH.D#
Date Acquired: Jul 31 2009 08:21 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 05:34 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.999 ppb	8.58	1.30	
23 Na	6	1	46.080 ppb	1.85	65.00	
24 Mg	6	1	52.500 ppb	0.33	65.00	
27 Al	45	1	30.610 ppb	3.74	39.00	
39 K	45	1	100.400 ppb	1.38	130.00	
43 Ca	45	1	71.040 ppb	8.02	65.00	
51 V	72	1	5.083 ppb	2.96	6.50	
52 Cr	72	1	2.107 ppb	5.13	2.60	
55 Mn	72	1	1.016 ppb	1.93	1.30	
57 Fe	72	1	50.940 ppb	1.14	65.00	
59 Co	72	1	1.002 ppb	4.93	1.30	
60 Ni	72	1	1.920 ppb	4.66	2.60	
63 Cu	72	1	2.187 ppb	4.37	2.60	
66 Zn	72	1	9.343 ppb	1.44	13.00	
75 As	72	1	5.099 ppb	1.87	6.50	
78 Se	72	1	4.162 ppb	8.69	6.50	
93 Nb	72	1	2.544 ppb	11.70	52.00	
95 Mo	72	1	2.061 ppb	2.25	2.60	
105 Pd	115	1	0.019 ppb	37.02	1.30	
107 Ag	115	1	5.303 ppb	0.52	6.50	
111 Cd	115	1	1.002 ppb	7.31	1.30	
118 Sn	115	1	10.160 ppb	1.11	13.00	
121 Sb	115	1	1.933 ppb	1.74	2.60	
137 Ba	115	1	0.964 ppb	6.19	1.30	
182 W	165	1	0.022 ppb	3.43	6.50	
195 Pt	165	1	-0.001 ppb	2142.60	1.30	
205 Tl	165	1	1.086 ppb	1.51	1.30	
208 Pb	165	1	1.089 ppb	1.72	1.30	
232 Th	165	1	1.995 ppb	2.08	2.60	
238 U	165	1	1.097 ppb	1.50	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	257268	0.95	292032	88.1	30 - 120	
45 Sc	1	1190756	0.83	1263643	94.2	30 - 120	
72 Ge	1	589738	0.40	621750	94.9	30 - 120	
115 In	1	1706534	0.76	1776649	96.1	30 - 120	
165 Ho	1	2885691	0.62	3099305	93.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 07/31/2009

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#
Date Acquired:	Jul 31 2009 09:57 pm
Acq. Method:	6020isis.M
Operator:	TEL
Sample Name:	Cal Blank
Misc Info:	
Vial Number:	2101
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update:	Jul 31 2009 09:55 pm
Sample Type:	CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	100026	1.35
24	Mg	6	1	12873	2.86
27	Al	45	1	3254	2.39
39	K	45	1	198025	1.46
43	Ca	45	1	77	64.94
51	V	72	1	-13	2927.30
52	Cr	72	1	1370	7.71
55	Mn	72	1	290	15.16
57	Fe	72	1	800	18.32
59	Co	72	1	40	42.67
60	Ni	72	1	27	86.61
63	Cu	72	1	287	8.60
66	Zn	72	1	729	1.86
75	As	72	1	47	24.70
78	Se	72	1	287	19.86
93	Nb	72	1	1737	13.52
95	Mo	72	1	173	32.27
105	Pd	115	1	3	173.18
107	Ag	115	1	13	114.81
111	Cd	115	1	7	1.50
118	Sn	115	1	1150	6.34
121	Sb	115	1	308	7.09
137	Ba	115	1	48	27.04
182	W	165	1	653	8.44
195	Pt	165	1	73	28.55
205	Tl	165	1	59	16.64
208	Pb	165	1	28930	1.49
232	Th	165	1	720	12.92
238	U	165	1	51	16.40

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	221385	0.67
45	Sc	1	1034918	0.85
72	Ge	1	528092	0.68
115	In	1	1547460	1.49
165	Ho	1	2673655	0.28

Tune File#	1	c:\icpchem\1\7500\he.u
Tune File#	2	C:\ICPCHEM\1\7500\
Tune File#	3	C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\093ICAL.D\093ICAL.D#
Date Acquired: Jul 31 2009 10:00 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 09:58 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	28141	1.61
23	Na	6	1	20006410	0.95
24	Mg	6	1	12594260	0.81
27	Al	45	1	11198630	0.95
39	K	45	1	19527520	1.35
43	Ca	45	1	48343	1.74
51	V	72	1	540968	0.59
52	Cr	72	1	538083	0.46
55	Mn	72	1	602504	0.81
57	Fe	72	1	1445443	1.44
59	Co	72	1	673265	0.61
60	Ni	72	1	153082	0.18
63	Cu	72	1	364284	0.84
66	Zn	72	1	89648	0.02
75	As	72	1	75091	0.63
78	Se	72	1	13193	2.66
93	Nb	72	1	2010464	2.47
95	Mo	72	1	199888	1.04
105	Pd	115	1	254990	1.98
107	Ag	115	1	561664	1.76
111	Cd	115	1	118540	1.07
118	Sn	115	1	332085	1.26
121	Sb	115	1	409193	0.79
137	Ba	115	1	168464	1.13
182	W	165	1	602921	0.84
195	Pt	165	1	403097	0.64
205	Tl	165	1	1389432	0.89
208	Pb	165	1	1868131	0.78
232	Th	165	1	2109239	0.43
238	U	165	1	2204291	0.70

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	203154	1.44	221385	91.8	30 - 120	
45	Sc	1	960185	0.88	1034918	92.8	30 - 120	
72	Ge	1	473313	1.40	528092	89.6	30 - 120	
115	In	1	1428524	0.57	1547460	92.3	30 - 120	
165	Ho	1	2535701	0.49	2673655	94.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\094_CCV.D\094_CCV.D#
Date Acquired: Jul 31 2009 10:03 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	51.57	ppb	0.45	50	103.1	90 - 110	
23 Na	6	1	5018.00	ppb	0.48	5000	100.4	90 - 110	
24 Mg	6	1	5013.00	ppb	0.55	5000	100.3	90 - 110	
27 Al	45	1	5051.00	ppb	2.01	5000	101.0	90 - 110	
39 K	45	1	5031.00	ppb	0.51	5000	100.6	90 - 110	
43 Ca	45	1	5074.00	ppb	2.26	5000	101.5	90 - 110	
51 V	72	1	50.03	ppb	0.51	50	100.1	90 - 110	
52 Cr	72	1	50.12	ppb	1.11	50	100.2	90 - 110	
55 Mn	72	1	49.16	ppb	1.17	50	98.3	90 - 110	
57 Fe	72	1	4919.00	ppb	0.25	5000	98.4	90 - 110	
59 Co	72	1	49.98	ppb	0.48	50	100.0	90 - 110	
60 Ni	72	1	50.06	ppb	2.65	50	100.1	90 - 110	
63 Cu	72	1	50.07	ppb	0.82	50	100.1	90 - 110	
66 Zn	72	1	47.57	ppb	0.52	50	95.1	90 - 110	
75 As	72	1	49.90	ppb	0.27	50	99.8	90 - 110	
78 Se	72	1	48.46	ppb	3.35	50	96.9	90 - 110	
93 Nb	72	1	103.50	ppb	1.34	100	103.5	90 - 110	
95 Mo	72	1	50.35	ppb	0.34	50	100.7	90 - 110	
105 Pd	115	1	50.45	ppb	0.07	50	100.9	90 - 110	
107 Ag	115	1	50.41	ppb	0.82	50	100.8	90 - 110	
111 Cd	115	1	49.95	ppb	1.64	50	99.9	90 - 110	
118 Sn	115	1	49.43	ppb	2.11	50	98.9	90 - 110	
121 Sb	115	1	49.66	ppb	0.56	50	99.3	90 - 110	
137 Ba	115	1	49.43	ppb	0.94	50	98.9	90 - 110	
182 W	165	1	49.95	ppb	0.63	50	99.9	90 - 110	
195 Pt	165	1	50.30	ppb	0.16	50	100.6	90 - 110	
205 Tl	165	1	50.67	ppb	0.53	50	101.3	90 - 110	
208 Pb	165	1	50.99	ppb	0.65	50	102.0	90 - 110	
232 Th	165	1	50.81	ppb	0.66	50	101.6	90 - 110	
238 U	165	1	50.73	ppb	1.30	50	101.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	202063	0.82	221385	91.3	30 - 120	
45 Sc	1	946103	0.73	1034918	91.4	30 - 120	
72 Ge	1	474328	0.62	528092	89.8	30 - 120	
115 In	1	1434835	0.18	1547460	92.7	30 - 120	
165 Ho	1	2523525	0.45	2673655	94.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG073109B.B\095_CCB.D\095_CCB.D#
Date Acquired:	Jul 31 2009 10:06 pm
Operator:	TEL
Sample Name:	CCB
Misc Info:	
Vial Number:	1307
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update:	Jul 31 2009 10:01 pm
Sample Type:	CCB
Total Dil Factor:	1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.023	ppb	86.64	1.00	
23 Na	6	1	-2.963	ppb	16.64	20.00	
24 Mg	6	1	1.040	ppb	42.39	20.00	
27 Al	45	1	1.705	ppb	27.00	20.00	
39 K	45	1	4.350	ppb	26.18	20.00	
43 Ca	45	1	-7.902	ppb	64.74	20.00	
51 V	72	1	-0.063	ppb	141.66	1.00	
52 Cr	72	1	0.002	ppb	1317.30	1.00	
55 Mn	72	1	0.049	ppb	36.99	1.00	
57 Fe	72	1	1.186	ppb	67.61	20.00	
59 Co	72	1	0.008	ppb	102.80	1.00	
60 Ni	72	1	0.038	ppb	52.51	1.00	
63 Cu	72	1	-0.010	ppb	198.72	1.00	
66 Zn	72	1	-0.343	ppb	5.79	10.00	
75 As	72	1	-0.003	ppb	707.53	1.00	
78 Se	72	1	-0.022	ppb	1340.70	1.00	
93 Nb	72	1	4.361	ppb	9.55	2.00	Fail
95 Mo	72	1	0.015	ppb	275.96	1.00	
105 Pd	115	1	0.040	ppb	33.07	1.00	
107 Ag	115	1	0.014	ppb	55.55	1.00	
111 Cd	115	1	0.010	ppb	16.71	1.00	
118 Sn	115	1	-0.084	ppb	39.65	10.00	
121 Sb	115	1	0.169	ppb	9.17	1.00	
137 Ba	115	1	0.002	ppb	383.33	1.00	
182 W	165	1	0.081	ppb	7.48	5.00	
195 Pt	165	1	0.017	ppb	79.81	1.00	
205 Tl	165	1	0.037	ppb	20.07	1.00	
208 Pb	165	1	-1.468	ppb	0.08	1.00	
232 Th	165	1	0.334	ppb	7.47	2.00	
238 U	165	1	0.018	ppb	17.64	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	209648	0.23	221385	94.7	30 - 120	
45 Sc	1	976865	0.85	1034918	94.4	30 - 120	
72 Ge	1	502407	0.28	528092	95.1	30 - 120	
115 In	1	1496582	1.65	1547460	96.7	30 - 120	
165 Ho	1	2570249	0.47	2673655	96.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\096WASH.D\096WASH.D#
Date Acquired: Jul 31 2009 10:09 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.874 ppb	9.12	1.30	
23 Na	6	1	45.010 ppb	4.28	65.00	
24 Mg	6	1	48.340 ppb	1.82	65.00	
27 Al	45	1	30.710 ppb	2.02	39.00	
39 K	45	1	108.400 ppb	3.87	130.00	
43 Ca	45	1	48.940 ppb	12.88	65.00	
51 V	72	1	5.013 ppb	0.40	6.50	
52 Cr	72	1	2.005 ppb	7.30	2.60	
55 Mn	72	1	1.013 ppb	1.65	1.30	
57 Fe	72	1	46.830 ppb	5.51	65.00	
59 Co	72	1	1.055 ppb	1.64	1.30	
60 Ni	72	1	2.017 ppb	6.49	2.60	
63 Cu	72	1	2.066 ppb	3.15	2.60	
66 Zn	72	1	8.969 ppb	0.52	13.00	
75 As	72	1	4.900 ppb	2.81	6.50	
78 Se	72	1	5.417 ppb	11.95	6.50	
93 Nb	72	1	2.331 ppb	13.46	52.00	
95 Mo	72	1	1.916 ppb	5.49	2.60	
105 Pd	115	1	0.034 ppb	45.50	1.30	
107 Ag	115	1	5.318 ppb	2.42	6.50	
111 Cd	115	1	1.045 ppb	5.94	1.30	
118 Sn	115	1	9.966 ppb	1.75	13.00	
121 Sb	115	1	1.912 ppb	2.15	2.60	
137 Ba	115	1	1.045 ppb	7.00	1.30	
182 W	165	1	0.031 ppb	50.56	6.50	
195 Pt	165	1	0.009 ppb	67.46	1.30	
205 Tl	165	1	1.071 ppb	0.37	1.30	
208 Pb	165	1	-0.384 ppb	6.63	1.30	
232 Th	165	1	1.942 ppb	1.63	2.60	
238 U	165	1	1.075 ppb	1.63	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	212246	1.16	221385	95.9	30 - 120	
45 Sc	1	988972	1.44	1034918	95.6	30 - 120	
72 Ge	1	502609	0.48	528092	95.2	30 - 120	
115 In	1	1495239	0.97	1547460	96.6	30 - 120	
165 Ho	1	2600399	0.95	2673655	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\097ICSA.D\097ICSA.D#
Date Acquired: Jul 31 2009 10:12 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 10:01 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.00 ppb	0.00	1.00	
23 Na	6	1	99250.00 ppb	0.66	100.00	
24 Mg	6	1	96590.00 ppb	1.12	100.00	
27 Al	45	1	96860.00 ppb	0.96	100.00	
39 K	45	1	96260.00 ppb	1.10	100.00	
43 Ca	45	1	101000.00 ppb	1.77	100.00	
51 V	72	1	-0.76 ppb	28.91	1.00	
52 Cr	72	1	0.68 ppb	8.40	1.00	
55 Mn	72	1	3.53 ppb	3.67	1.00	
57 Fe	72	1	90880.00 ppb	0.76	100.00	
59 Co	72	1	1.49 ppb	1.77	1.00	
60 Ni	72	1	1.76 ppb	5.37	1.00	
63 Cu	72	1	1.54 ppb	5.15	1.00	
66 Zn	72	1	2.80 ppb	0.21	10.00	
75 As	72	1	0.54 ppb	6.47	1.00	
78 Se	72	1	0.37 ppb	40.20	1.00	
93 Nb	72	1	3.27 ppb	12.12	2.00	
95 Mo	72	1	1948.00 ppb	1.39	2000.00	
105 Pd	115	1	0.12 ppb	4.67	1.00	
107 Ag	115	1	0.05 ppb	15.74	1.00	
111 Cd	115	1	3.16 ppb	1.75	1.00	
118 Sn	115	1	0.17 ppb	20.78	10.00	
121 Sb	115	1	0.26 ppb	11.09	1.00	
137 Ba	115	1	0.06 ppb	17.59	1.00	
182 W	165	1	0.17 ppb	16.75	5.00	
195 Pt	165	1	0.01 ppb	98.00	1.00	
205 Tl	165	1	0.03 ppb	37.69	1.00	
208 Pb	165	1	-1.37 ppb	0.21	1.00	
232 Th	165	1	0.32 ppb	34.17	2.00	
238 U	165	1	0.00 ppb	60.78	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	208473	1.56	221385	94.2	30 - 120	
45 Sc	1	976316	0.96	1034918	94.3	30 - 120	
72 Ge	1	480245	0.87	528092	90.9	30 - 120	
115 In	1	1342246	1.19	1547460	86.7	30 - 120	
165 Ho	1	2454002	0.41	2673655	91.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\098ICSB.D\098ICSB.D#
Date Acquired: Jul 31 2009 10:15 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Jul 31 2009 10:01 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	102.10	2.61	100	102.1	80 - 120	
23 Na	6	1	107000.00	1.25	110000	97.3	80 - 120	
24 Mg	6	1	105200.00	0.80	110000	95.6	80 - 120	
27 Al	45	1	105000.00	0.42	110000	95.5	80 - 120	
39 K	45	1	103900.00	0.35	110000	94.5	80 - 120	
43 Ca	45	1	107800.00	0.57	110000	98.0	80 - 120	
51 V	72	1	98.59	0.38	100	98.6	80 - 120	
52 Cr	72	1	97.67	0.18	100	97.7	80 - 120	
55 Mn	72	1	98.80	0.79	100	98.8	80 - 120	
57 Fe	72	1	100200.00	1.40	110000	91.1	80 - 120	
59 Co	72	1	96.35	0.12	100	96.4	80 - 120	
60 Ni	72	1	94.16	0.73	100	94.2	80 - 120	
63 Cu	72	1	93.31	0.46	100	93.3	80 - 120	
66 Zn	72	1	91.70	0.35	100	91.7	80 - 120	
75 As	72	1	99.06	0.75	100	99.1	80 - 120	
78 Se	72	1	101.10	1.63	100	101.1	80 - 120	
93 Nb	72	1	193.50	1.34	200	96.8	80 - 120	
95 Mo	72	1	2063.00	1.14	2100	98.2	80 - 120	
105 Pd	115	1	96.26	0.73	100	96.3	80 - 120	
107 Ag	115	1	91.37	1.86	100	91.4	80 - 120	
111 Cd	115	1	97.35	1.50	100	97.4	80 - 120	
118 Sn	115	1	99.31	0.77	100	99.3	80 - 120	
121 Sb	115	1	99.76	1.13	100	99.8	80 - 120	
137 Ba	115	1	100.00	1.12	100	100.0	80 - 120	
182 W	165	1	98.88	0.68	100	98.9	80 - 120	
195 Pt	165	1	94.90	1.01	100	94.9	80 - 120	
205 Tl	165	1	93.80	0.81	100	93.8	80 - 120	
208 Pb	165	1	94.82	0.82	100	94.8	80 - 120	
232 Th	165	1	96.95	1.28	100	97.0	80 - 120	
238 U	165	1	97.19	1.15	100	97.2	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	198740	1.92	221385	89.8	30 - 120	
45 Sc	1	935151	0.57	1034918	90.4	30 - 120	
72 Ge	1	452268	1.79	528092	85.6	30 - 120	
115 In	1	1316961	1.34	1547460	85.1	30 - 120	
165 Ho	1	2393300	0.65	2673655	89.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\099WASH.D\099WASH.D#
Date Acquired: Jul 31 2009 10:18 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.035 ppb	100.20	1.30	
23 Na	6	1	36.560 ppb	15.21	65.00	
24 Mg	6	1	15.340 ppb	16.42	65.00	
27 Al	45	1	18.140 ppb	12.67	39.00	
39 K	45	1	16.970 ppb	23.85	130.00	
43 Ca	45	1	11.670 ppb	29.79	65.00	
51 V	72	1	-0.023 ppb	258.64	6.50	
52 Cr	72	1	0.017 ppb	108.45	2.60	
55 Mn	72	1	0.024 ppb	24.81	1.30	
57 Fe	72	1	16.790 ppb	8.52	65.00	
59 Co	72	1	0.019 ppb	27.97	1.30	
60 Ni	72	1	0.020 ppb	101.83	2.60	
63 Cu	72	1	-0.006 ppb	541.33	2.60	
66 Zn	72	1	-0.194 ppb	18.29	13.00	
75 As	72	1	0.020 ppb	39.61	6.50	
78 Se	72	1	-0.196 ppb	318.83	6.50	
93 Nb	72	1	5.290 ppb	12.81	52.00	
95 Mo	72	1	1.487 ppb	8.18	2.60	
105 Pd	115	1	0.025 ppb	52.88	1.30	
107 Ag	115	1	0.021 ppb	27.52	6.50	
111 Cd	115	1	0.015 ppb	63.80	1.30	
118 Sn	115	1	-0.125 ppb	16.91	13.00	
121 Sb	115	1	0.076 ppb	16.37	2.60	
137 Ba	115	1	0.008 ppb	80.20	1.30	
182 W	165	1	0.060 ppb	32.93	6.50	
195 Pt	165	1	0.018 ppb	65.01	1.30	
205 Tl	165	1	0.020 ppb	26.40	1.30	
208 Pb	165	1	-1.461 ppb	0.23	1.30	
232 Th	165	1	0.423 ppb	13.66	2.60	
238 U	165	1	0.025 ppb	6.67	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	207826	0.43	221385	93.9	30 - 120	
45 Sc	1	980815	1.03	1034918	94.8	30 - 120	
72 Ge	1	496824	0.12	528092	94.1	30 - 120	
115 In	1	1489989	1.52	1547460	96.3	30 - 120	
165 Ho	1	2579238	0.73	2673655	96.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\100_CCV.D\100_CCV.D#
Date Acquired: Jul 31 2009 10:23 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.62	ppb	2.40	50	101.2	90 - 110	
23 Na	6	1	5046.00	ppb	0.79	5000	100.9	90 - 110	
24 Mg	6	1	5075.00	ppb	0.49	5000	101.5	90 - 110	
27 Al	45	1	5013.00	ppb	1.42	5000	100.3	90 - 110	
39 K	45	1	5002.00	ppb	1.14	5000	100.0	90 - 110	
43 Ca	45	1	4999.00	ppb	3.43	5000	100.0	90 - 110	
51 V	72	1	49.49	ppb	0.13	50	99.0	90 - 110	
52 Cr	72	1	49.52	ppb	1.76	50	99.0	90 - 110	
55 Mn	72	1	49.00	ppb	0.50	50	98.0	90 - 110	
57 Fe	72	1	4894.00	ppb	0.07	5000	97.9	90 - 110	
59 Co	72	1	50.22	ppb	0.90	50	100.4	90 - 110	
60 Ni	72	1	49.55	ppb	1.98	50	99.1	90 - 110	
63 Cu	72	1	50.47	ppb	1.32	50	100.9	90 - 110	
66 Zn	72	1	47.58	ppb	0.96	50	95.2	90 - 110	
75 As	72	1	49.65	ppb	0.75	50	99.3	90 - 110	
78 Se	72	1	48.98	ppb	4.88	50	98.0	90 - 110	
93 Nb	72	1	98.31	ppb	2.39	100	98.3	90 - 110	
95 Mo	72	1	49.68	ppb	0.19	50	99.4	90 - 110	
105 Pd	115	1	50.84	ppb	1.33	50	101.7	90 - 110	
107 Ag	115	1	50.61	ppb	2.38	50	101.2	90 - 110	
111 Cd	115	1	49.73	ppb	1.61	50	99.5	90 - 110	
118 Sn	115	1	49.56	ppb	2.00	50	99.1	90 - 110	
121 Sb	115	1	49.50	ppb	1.36	50	99.0	90 - 110	
137 Ba	115	1	50.27	ppb	1.49	50	100.5	90 - 110	
182 W	165	1	50.35	ppb	1.20	50	100.7	90 - 110	
195 Pt	165	1	50.39	ppb	2.02	50	100.8	90 - 110	
205 Tl	165	1	50.59	ppb	1.26	50	101.2	90 - 110	
208 Pb	165	1	51.19	ppb	1.17	50	102.4	90 - 110	
232 Th	165	1	50.83	ppb	1.10	50	101.7	90 - 110	
238 U	165	1	50.68	ppb	1.10	50	101.4	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	207453	0.57	221385	93.7	30 - 120	
45 Sc	1	984428	1.04	1034918	95.1	30 - 120	
72 Ge	1	494836	0.81	528092	93.7	30 - 120	
115 In	1	1474469	0.79	1547460	95.3	30 - 120	
165 Ho	1	2565735	0.10	2673655	96.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\101_CCB.D\101_CCB.D#
Date Acquired: Jul 31 2009 10:26 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.023	ppb	86.64	1.00	
23 Na	6	1	-2.886	ppb	17.57	20.00	
24 Mg	6	1	-2.925	ppb	10.09	20.00	
27 Al	45	1	1.229	ppb	23.60	20.00	
39 K	45	1	3.623	ppb	31.38	20.00	
43 Ca	45	1	-5.508	ppb	142.96	20.00	
51 V	72	1	-0.012	ppb	677.40	1.00	
52 Cr	72	1	0.008	ppb	186.61	1.00	
55 Mn	72	1	0.033	ppb	25.66	1.00	
57 Fe	72	1	1.048	ppb	60.12	20.00	
59 Co	72	1	0.008	ppb	28.02	1.00	
60 Ni	72	1	0.019	ppb	74.63	1.00	
63 Cu	72	1	0.003	ppb	483.21	1.00	
66 Zn	72	1	-0.379	ppb	10.84	10.00	
75 As	72	1	0.002	ppb	773.66	1.00	
78 Se	72	1	0.307	ppb	101.04	1.00	
93 Nb	72	1	4.175	ppb	10.22	2.00	Fail
95 Mo	72	1	0.082	ppb	11.73	1.00	
105 Pd	115	1	0.028	ppb	21.51	1.00	
107 Ag	115	1	0.014	ppb	26.31	1.00	
111 Cd	115	1	0.010	ppb	147.38	1.00	
118 Sn	115	1	-0.099	ppb	30.16	10.00	
121 Sb	115	1	0.128	ppb	8.66	1.00	
137 Ba	115	1	-0.007	ppb	72.83	1.00	
182 W	165	1	0.064	ppb	27.50	5.00	
195 Pt	165	1	0.016	ppb	97.25	1.00	
205 Tl	165	1	0.027	ppb	9.37	1.00	
208 Pb	165	1	-1.469	ppb	0.32	1.00	
232 Th	165	1	0.341	ppb	10.36	2.00	
238 U	165	1	0.014	ppb	10.26	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	212638	1.64	221385	96.0	30 - 120	
45 Sc	1	1005573	1.09	1034918	97.2	30 - 120	
72 Ge	1	510241	0.11	528092	96.6	30 - 120	
115 In	1	1508972	1.23	1547460	97.5	30 - 120	
165 Ho	1	2606438	1.06	2673655	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\102WASH.D\102WASH.D#
Date Acquired: Jul 31 2009 10:29 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Jul 31 2009 10:01 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.996 ppb	20.65	1.30	
23 Na	6	1	51.100 ppb	1.58	65.00	
24 Mg	6	1	53.830 ppb	0.98	65.00	
27 Al	45	1	32.190 ppb	1.31	39.00	
39 K	45	1	109.800 ppb	2.13	130.00	
43 Ca	45	1	50.110 ppb	2.89	65.00	
51 V	72	1	4.968 ppb	1.20	6.50	
52 Cr	72	1	2.079 ppb	4.78	2.60	
55 Mn	72	1	1.028 ppb	2.75	1.30	
57 Fe	72	1	49.250 ppb	3.69	65.00	
59 Co	72	1	1.025 ppb	7.34	1.30	
60 Ni	72	1	1.983 ppb	9.35	2.60	
63 Cu	72	1	2.068 ppb	4.71	2.60	
66 Zn	72	1	8.961 ppb	1.73	13.00	
75 As	72	1	4.913 ppb	1.60	6.50	
78 Se	72	1	4.971 ppb	29.75	6.50	
93 Nb	72	1	2.277 ppb	15.20	52.00	
95 Mo	72	1	2.068 ppb	3.44	2.60	
105 Pd	115	1	0.010 ppb	37.60	1.30	
107 Ag	115	1	5.249 ppb	2.33	6.50	
111 Cd	115	1	1.025 ppb	4.62	1.30	
118 Sn	115	1	10.010 ppb	3.53	13.00	
121 Sb	115	1	1.908 ppb	3.13	2.60	
137 Ba	115	1	1.014 ppb	2.05	1.30	
182 W	165	1	0.001 ppb	844.04	6.50	
195 Pt	165	1	0.011 ppb	77.15	1.30	
205 Tl	165	1	1.088 ppb	1.94	1.30	
208 Pb	165	1	-0.380 ppb	4.56	1.30	
232 Th	165	1	1.967 ppb	2.18	2.60	
238 U	165	1	1.082 ppb	0.76	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	209898	0.87	221385	94.8	30 - 120	
45 Sc	1	992506	0.75	1034918	95.9	30 - 120	
72 Ge	1	503754	0.84	528092	95.4	30 - 120	
115 In	1	1495576	0.39	1547460	96.6	30 - 120	
165 Ho	1	2578898	0.37	2673655	96.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\092CALB.D\092CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

…"During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: _____

Date: 8/3/09

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#
Date Acquired: Aug 1 2009 12:51 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:48 am
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	3	173.20
23	Na	6	1	94370	0.67
24	Mg	6	1	4644	1.86
27	Al	45	1	2004	2.00
39	K	45	1	159901	0.59
43	Ca	45	1	83	14.13
51	V	72	1	-92	408.02
52	Cr	72	1	1040	15.13
55	Mn	72	1	300	15.36
57	Fe	72	1	540	7.35
59	Co	72	1	10	173.20
60	Ni	72	1	53	46.72
63	Cu	72	1	223	32.54
66	Zn	72	1	655	4.77
75	As	72	1	38	15.93
78	Se	72	1	223	12.91
93	Nb	72	1	2394	21.26
95	Mo	72	1	237	20.84
105	Pd	115	1	3	173.23
107	Ag	115	1	17	33.78
111	Cd	115	1	9	86.63
118	Sn	115	1	943	9.27
121	Sb	115	1	173	17.57
137	Ba	115	1	33	35.05
182	W	165	1	563	9.36
195	Pt	165	1	130	28.29
205	Tl	165	1	18	22.07
208	Pb	165	1	16408	0.99
232	Th	165	1	943	6.89
238	U	165	1	21	35.91

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	159651	0.21
45	Sc	1	781139	0.59
72	Ge	1	405203	0.82
115	In	1	1233666	1.19
165	Ho	1	2155808	0.56

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\151ICAL.D\151ICAL.D#
Date Acquired: Aug 1 2009 12:53 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:51 am
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	21179	1.09
23	Na	6	1	15164670	1.92
24	Mg	6	1	9457555	0.77
27	Al	45	1	8515683	1.67
39	K	45	1	15077630	1.18
43	Ca	45	1	37904	2.78
51	V	72	1	424606	1.91
52	Cr	72	1	418996	0.89
55	Mn	72	1	461644	0.98
57	Fe	72	1	1116340	1.08
59	Co	72	1	525129	0.86
60	Ni	72	1	118440	0.47
63	Cu	72	1	284797	0.27
66	Zn	72	1	67790	0.58
75	As	72	1	59264	0.70
78	Se	72	1	10888	1.30
93	Nb	72	1	1661112	2.62
95	Mo	72	1	162029	0.91
105	Pd	115	1	205367	0.35
107	Ag	115	1	451507	1.91
111	Cd	115	1	94624	0.71
118	Sn	115	1	266491	0.70
121	Sb	115	1	327024	1.18
137	Ba	115	1	138332	0.56
182	W	165	1	493229	1.35
195	Pt	165	1	331432	1.70
205	Tl	165	1	1152480	0.18
208	Pb	165	1	1584832	1.59
232	Th	165	1	1773735	1.37
238	U	165	1	1846284	0.53

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	151611	1.24	159651	95.0	30 - 120	
45	Sc	1	730308	0.20	781139	93.5	30 - 120	
72	Ge	1	371938	1.38	405203	91.8	30 - 120	
115	In	1	1163677	1.48	1233666	94.3	30 - 120	
165	Ho	1	2076313	0.27	2155808	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\152_CCV.D\152_CCV.D#
Date Acquired: Aug 1 2009 12:56 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	51.78	ppb	4.91	50	103.6	90 - 110	
23 Na	6	1	5005.00	ppb	1.04	5000	100.1	90 - 110	
24 Mg	6	1	5084.00	ppb	0.41	5000	101.7	90 - 110	
27 Al	45	1	5039.00	ppb	0.30	5000	100.8	90 - 110	
39 K	45	1	5056.00	ppb	1.35	5000	101.1	90 - 110	
43 Ca	45	1	5092.00	ppb	1.93	5000	101.8	90 - 110	
51 V	72	1	49.33	ppb	1.34	50	98.7	90 - 110	
52 Cr	72	1	50.01	ppb	0.71	50	100.0	90 - 110	
55 Mn	72	1	50.11	ppb	0.79	50	100.2	90 - 110	
57 Fe	72	1	4937.00	ppb	0.82	5000	98.7	90 - 110	
59 Co	72	1	50.13	ppb	0.71	50	100.3	90 - 110	
60 Ni	72	1	50.03	ppb	0.67	50	100.1	90 - 110	
63 Cu	72	1	50.24	ppb	0.16	50	100.5	90 - 110	
66 Zn	72	1	48.33	ppb	0.72	50	96.7	90 - 110	
75 As	72	1	49.93	ppb	0.78	50	99.9	90 - 110	
78 Se	72	1	49.49	ppb	2.44	50	99.0	90 - 110	
93 Nb	72	1	97.24	ppb	0.60	100	97.2	90 - 110	
95 Mo	72	1	49.68	ppb	1.35	50	99.4	90 - 110	
105 Pd	115	1	50.36	ppb	2.72	50	100.7	90 - 110	
107 Ag	115	1	50.98	ppb	2.18	50	102.0	90 - 110	
111 Cd	115	1	50.71	ppb	1.67	50	101.4	90 - 110	
118 Sn	115	1	51.00	ppb	1.94	50	102.0	90 - 110	
121 Sb	115	1	50.63	ppb	0.76	50	101.3	90 - 110	
137 Ba	115	1	50.22	ppb	1.83	50	100.4	90 - 110	
182 W	165	1	49.39	ppb	0.72	50	98.8	90 - 110	
195 Pt	165	1	49.40	ppb	0.74	50	98.8	90 - 110	
205 Tl	165	1	50.03	ppb	0.46	50	100.1	90 - 110	
208 Pb	165	1	49.55	ppb	1.10	50	99.1	90 - 110	
232 Th	165	1	51.56	ppb	0.52	50	103.1	90 - 110	
238 U	165	1	51.63	ppb	0.58	50	103.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	149709	0.40	159651	93.8	30 - 120	
45 Sc	1	722066	0.49	781139	92.4	30 - 120	
72 Ge	1	371211	0.75	405203	91.6	30 - 120	
115 In	1	1152969	0.97	1233666	93.5	30 - 120	
165 Ho	1	2083355	0.65	2155808	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\153_CCB.D\153_CCB.D#
Date Acquired: Aug 1 2009 12:59 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1305
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.016	ppb	167.27	1.00	
23 Na	6	1	-10.130	ppb	5.61	20.00	
24 Mg	6	1	-2.260	ppb	8.11	20.00	
27 Al	45	1	-0.597	ppb	37.83	20.00	
39 K	45	1	1.551	ppb	44.18	20.00	
43 Ca	45	1	-12.010	ppb	44.66	20.00	
51 V	72	1	-0.026	ppb	422.03	1.00	
52 Cr	72	1	-0.014	ppb	92.75	1.00	
55 Mn	72	1	-0.010	ppb	10.19	1.00	
57 Fe	72	1	-0.405	ppb	90.64	20.00	
59 Co	72	1	0.012	ppb	35.59	1.00	
60 Ni	72	1	0.008	ppb	185.20	1.00	
63 Cu	72	1	-0.005	ppb	494.63	1.00	
66 Zn	72	1	-0.460	ppb	4.14	10.00	
75 As	72	1	-0.009	ppb	113.86	1.00	
78 Se	72	1	0.368	ppb	187.33	1.00	
93 Nb	72	1	4.061	ppb	12.05	2.00	Fail
95 Mo	72	1	-0.031	ppb	137.58	1.00	
105 Pd	115	1	0.045	ppb	26.02	1.00	
107 Ag	115	1	0.013	ppb	40.59	1.00	
111 Cd	115	1	0.003	ppb	202.04	1.00	
118 Sn	115	1	-0.120	ppb	10.65	10.00	
121 Sb	115	1	0.175	ppb	6.43	1.00	
137 Ba	115	1	0.004	ppb	93.89	1.00	
182 W	165	1	0.072	ppb	14.06	5.00	
195 Pt	165	1	-0.015	ppb	32.01	1.00	
205 Tl	165	1	0.043	ppb	10.78	1.00	
208 Pb	165	1	-0.989	ppb	0.44	1.00	
232 Th	165	1	0.318	ppb	14.18	2.00	
238 U	165	1	0.015	ppb	8.31	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154367	1.02	159651	96.7	30 - 120	
45 Sc	1	749026	0.14	781139	95.9	30 - 120	
72 Ge	1	385543	0.48	405203	95.1	30 - 120	
115 In	1	1187358	1.03	1233666	96.2	30 - 120	
165 Ho	1	2087549	1.13	2155808	96.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\154WASH.D\154WASH.D#
Date Acquired: Aug 1 2009 01:02 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1206
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.066 ppb	40.21	1.30	
23 Na	6	1	43.010 ppb	3.26	65.00	
24 Mg	6	1	53.960 ppb	2.27	65.00	
27 Al	45	1	32.030 ppb	1.02	39.00	
39 K	45	1	109.900 ppb	3.16	130.00	
43 Ca	45	1	41.610 ppb	31.63	65.00	
51 V	72	1	4.814 ppb	0.60	6.50	
52 Cr	72	1	2.057 ppb	3.01	2.60	
55 Mn	72	1	1.077 ppb	3.26	1.30	
57 Fe	72	1	52.650 ppb	3.84	65.00	
59 Co	72	1	1.081 ppb	2.76	1.30	
60 Ni	72	1	2.220 ppb	5.77	2.60	
63 Cu	72	1	2.079 ppb	0.55	2.60	
66 Zn	72	1	9.296 ppb	1.10	13.00	
75 As	72	1	4.994 ppb	6.51	6.50	
78 Se	72	1	5.116 ppb	11.07	6.50	
93 Nb	72	1	2.262 ppb	18.02	52.00	
95 Mo	72	1	1.816 ppb	12.83	2.60	
105 Pd	115	1	0.019 ppb	14.33	1.30	
107 Ag	115	1	5.503 ppb	2.28	6.50	
111 Cd	115	1	1.047 ppb	1.21	1.30	
118 Sn	115	1	10.550 ppb	1.47	13.00	
121 Sb	115	1	2.005 ppb	3.14	2.60	
137 Ba	115	1	1.057 ppb	5.03	1.30	
182 W	165	1	0.020 ppb	80.64	6.50	
195 Pt	165	1	-0.021 ppb	16.87	1.30	
205 Tl	165	1	1.110 ppb	1.50	1.30	
208 Pb	165	1	0.096 ppb	14.60	1.30	
232 Th	165	1	1.985 ppb	1.30	2.60	
238 U	165	1	1.096 ppb	1.19	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154392	0.29	159651	96.7	30 - 120	
45 Sc	1	755246	0.21	781139	96.7	30 - 120	
72 Ge	1	387717	0.52	405203	95.7	30 - 120	
115 In	1	1194907	0.75	1233666	96.9	30 - 120	
165 Ho	1	2110994	0.65	2155808	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\169_CCV.D\169_CCV.D#
Date Acquired: Aug 1 2009 01:47 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	52.42	ppb	3.64	50	104.8	90 - 110	
23 Na	6	1	5029.00	ppb	0.83	5000	100.6	90 - 110	
24 Mg	6	1	5085.00	ppb	0.20	5000	101.7	90 - 110	
27 Al	45	1	5097.00	ppb	0.18	5000	101.9	90 - 110	
39 K	45	1	5059.00	ppb	1.44	5000	101.2	90 - 110	
43 Ca	45	1	5228.00	ppb	5.21	5000	104.6	90 - 110	
51 V	72	1	50.31	ppb	1.23	50	100.6	90 - 110	
52 Cr	72	1	50.11	ppb	0.78	50	100.2	90 - 110	
55 Mn	72	1	50.71	ppb	1.27	50	101.4	90 - 110	
57 Fe	72	1	4947.00	ppb	1.14	5000	98.9	90 - 110	
59 Co	72	1	50.27	ppb	0.24	50	100.5	90 - 110	
60 Ni	72	1	50.56	ppb	1.45	50	101.1	90 - 110	
63 Cu	72	1	50.03	ppb	0.72	50	100.1	90 - 110	
66 Zn	72	1	49.22	ppb	1.97	50	98.4	90 - 110	
75 As	72	1	49.69	ppb	0.45	50	99.4	90 - 110	
78 Se	72	1	47.40	ppb	3.56	50	94.8	90 - 110	
93 Nb	72	1	86.13	ppb	1.18	100	86.1	90 - 110	Fail
95 Mo	72	1	49.60	ppb	0.95	50	99.2	90 - 110	
105 Pd	115	1	50.89	ppb	1.02	50	101.8	90 - 110	
107 Ag	115	1	50.61	ppb	1.60	50	101.2	90 - 110	
111 Cd	115	1	50.93	ppb	1.35	50	101.9	90 - 110	
118 Sn	115	1	50.52	ppb	2.11	50	101.0	90 - 110	
121 Sb	115	1	50.45	ppb	0.23	50	100.9	90 - 110	
137 Ba	115	1	50.88	ppb	1.49	50	101.8	90 - 110	
182 W	165	1	49.47	ppb	0.34	50	98.9	90 - 110	
195 Pt	165	1	50.24	ppb	0.68	50	100.5	90 - 110	
205 Tl	165	1	50.73	ppb	0.87	50	101.5	90 - 110	
208 Pb	165	1	50.07	ppb	0.59	50	100.1	90 - 110	
232 Th	165	1	53.14	ppb	1.37	50	106.3	90 - 110	
238 U	165	1	52.20	ppb	0.72	50	104.4	90 - 110	

NR

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	146521	0.84	159651	91.8	30 - 120	
45 Sc	1	700778	1.16	781139	89.7	30 - 120	
72 Ge	1	357075	1.23	405203	88.1	30 - 120	
115 In	1	1114680	0.59	1233666	90.4	30 - 120	
165 Ho	1	2023038	0.56	2155808	93.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\170_CCB.D\170_CCB.D#
Date Acquired: Aug 1 2009 01:50 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	-0.015	ppb	0.00	1.00	
23 Na	6	1	-19.250	ppb	2.14	20.00	
24 Mg	6	1	0.824	ppb	40.52	20.00	
27 Al	45	1	0.909	ppb	14.49	20.00	
39 K	45	1	3.996	ppb	50.05	20.00	
43 Ca	45	1	-6.359	ppb	86.29	20.00	
51 V	72	1	0.018	ppb	267.51	1.00	
52 Cr	72	1	0.012	ppb	51.56	1.00	
55 Mn	72	1	0.028	ppb	36.36	1.00	
57 Fe	72	1	0.930	ppb	62.22	20.00	
59 Co	72	1	0.012	ppb	50.43	1.00	
60 Ni	72	1	0.015	ppb	162.46	1.00	
63 Cu	72	1	0.000	ppb	5722.30	1.00	
66 Zn	72	1	-0.513	ppb	9.35	10.00	
75 As	72	1	-0.008	ppb	144.57	1.00	
78 Se	72	1	-0.047	ppb	810.54	1.00	
93 Nb	72	1	3.219	ppb	10.90	2.00	Fail NR
95 Mo	72	1	-0.073	ppb	17.05	1.00	
105 Pd	115	1	0.020	ppb	29.54	1.00	
107 Ag	115	1	0.007	ppb	48.71	1.00	
111 Cd	115	1	0.007	ppb	137.79	1.00	
118 Sn	115	1	-0.080	ppb	60.73	10.00	
121 Sb	115	1	0.159	ppb	10.25	1.00	
137 Ba	115	1	0.010	ppb	41.09	1.00	
182 W	165	1	0.049	ppb	50.10	5.00	
195 Pt	165	1	-0.009	ppb	105.68	1.00	
205 Tl	165	1	0.035	ppb	11.64	1.00	
208 Pb	165	1	-0.989	ppb	0.34	1.00	
232 Th	165	1	0.361	ppb	13.46	2.00	
238 U	165	1	0.018	ppb	8.31	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	148261	0.08	159651	92.9	30 - 120	
45 Sc	1	721895	0.90	781139	92.4	30 - 120	
72 Ge	1	372379	0.32	405203	91.9	30 - 120	
115 In	1	1150035	0.98	1233666	93.2	30 - 120	
165 Ho	1	2061232	1.33	2155808	95.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\171WASH.D\171WASH.D#
Date Acquired: Aug 1 2009 01:53 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.946 ppb	40.04	1.30	
23 Na	6	1	30.710 ppb	3.78	65.00	
24 Mg	6	1	52.420 ppb	3.22	65.00	
27 Al	45	1	30.310 ppb	4.59	39.00	
39 K	45	1	109.300 ppb	0.79	130.00	
43 Ca	45	1	49.820 ppb	15.95	65.00	
51 V	72	1	4.835 ppb	3.04	6.50	
52 Cr	72	1	1.964 ppb	4.52	2.60	
55 Mn	72	1	1.035 ppb	7.10	1.30	
57 Fe	72	1	50.230 ppb	2.70	65.00	
59 Co	72	1	1.043 ppb	3.55	1.30	
60 Ni	72	1	2.142 ppb	0.86	2.60	
63 Cu	72	1	2.089 ppb	6.76	2.60	
66 Zn	72	1	9.014 ppb	0.73	13.00	
75 As	72	1	4.772 ppb	1.24	6.50	
78 Se	72	1	5.030 ppb	11.54	6.50	
93 Nb	72	1	1.618 ppb	16.45	52.00	
95 Mo	72	1	1.905 ppb	5.22	2.60	
105 Pd	115	1	0.018 ppb	1.54	1.30	
107 Ag	115	1	5.152 ppb	1.57	6.50	
111 Cd	115	1	1.052 ppb	6.46	1.30	
118 Sn	115	1	10.190 ppb	2.49	13.00	
121 Sb	115	1	1.978 ppb	2.42	2.60	
137 Ba	115	1	1.018 ppb	2.04	1.30	
182 W	165	1	0.016 ppb	48.48	6.50	
195 Pt	165	1	-0.010 ppb	81.73	1.30	
205 Tl	165	1	1.071 ppb	1.05	1.30	
208 Pb	165	1	0.050 ppb	37.79	1.30	
232 Th	165	1	1.956 ppb	2.22	2.60	
238 U	165	1	1.074 ppb	2.72	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	151036	1.10	159651	94.6	30 - 120	
45 Sc	1	731007	0.89	781139	93.6	30 - 120	
72 Ge	1	374216	0.37	405203	92.4	30 - 120	
115 In	1	1159790	1.42	1233666	94.0	30 - 120	
165 Ho	1	2056832	1.91	2155808	95.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\172_BLK.D\172_BLK.D#
Date Acquired: Aug 1 2009 01:56 am
Operator: TEL
Sample Name: ~~LG1L5B~~ LG1L5C 8/3/09
Misc Info: LCS ~~BLANK~~ 9205162 6020
Vial Number: 3301
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	39.040 ppb	6.32	2.00	Fail
23 Na	6	1	-16.910 ppb	7.22	40.00	
24 Mg	6	1	-1.654 ppb	5.02	40.00	
27 Al	45	1	48.630 ppb	2.33	40.00	Fail
39 K	45	1	0.558 ppb	196.56	40.00	
43 Ca	45	1	-11.530 ppb	49.09	40.00	
51 V	72	1	39.780 ppb	0.53	2.00	Fail
52 Cr	72	1	40.500 ppb	1.09	2.00	Fail
55 Mn	72	1	40.720 ppb	1.19	2.00	Fail
57 Fe	72	1	3.337 ppb	36.80	40.00	
59 Co	72	1	40.410 ppb	1.25	2.00	Fail
60 Ni	72	1	41.770 ppb	1.86	2.00	Fail
63 Cu	72	1	41.730 ppb	0.91	2.00	Fail
66 Zn	72	1	37.830 ppb	1.62	20.00	Fail
75 As	72	1	38.560 ppb	1.07	2.00	Fail
78 Se	72	1	37.170 ppb	6.17	2.00	Fail
93 Nb	72	1	1.190 ppb	19.78	4.00	
95 Mo	72	1	39.630 ppb	1.51	2.00	Fail
105 Pd	115	1	0.003 ppb	145.07	2.00	
107 Ag	115	1	40.820 ppb	0.93	2.00	Fail
111 Cd	115	1	39.870 ppb	0.76	2.00	Fail
118 Sn	115	1	0.876 ppb	8.95	20.00	
121 Sb	115	1	39.850 ppb	0.50	2.00	Fail
137 Ba	115	1	40.030 ppb	1.89	2.00	Fail
182 W	165	1	-0.004 ppb	222.41	10.00	
195 Pt	165	1	-0.030 ppb	11.99	2.00	
205 Tl	165	1	40.880 ppb	0.79	2.00	Fail
208 Pb	165	1	40.410 ppb	0.42	2.00	Fail
232 Th	165	1	38.240 ppb	2.02	4.00	Fail
238 U	165	1	41.860 ppb	1.04	2.00	Fail

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	147091	2.08	159651	92.1	30 - 120	
45 Sc	1	709638	0.28	781139	90.8	30 - 120	
72 Ge	1	358449	0.64	405203	88.5	30 - 120	
115 In	1	1134747	0.39	1233666	92.0	30 - 120	
165 Ho	1	2047957	0.21	2155808	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

20 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG073109B.B\173_LCS.D\173_LCS.D#
Date Acquired:	Aug 1 2009 01:59 am
Acq. Method:	6020isis.M
Operator:	TEL
Sample Name:	~~LC1L5C~~ LG1L5B KL 8/3/09
Misc Info:	~~LCS~~ Blank
Vial Number:	3302
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update:	Aug 01 2009 12:54 am
Sample Type:	LCS
Prep Dil. Factor:	1.00
Autodil Factor:	Undiluted
Final Dil Factor:	1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	-0.01	0.00	40	0.0	80 - 120	
23 Na	6	1	-13.46	8.10	4000	-0.3	80 - 120	
24 Mg	6	1	-0.10	193.68	4000	0.0	80 - 120	
27 Al	45	1	2.94	7.37	4000	0.1	80 - 120	
39 K	45	1	2.97	61.90	4000	0.1	80 - 120	
43 Ca	45	1	-5.40	159.64	4000	-0.1	80 - 120	
51 V	72	1	0.00	969.28	40	0.0	80 - 120	
52 Cr	72	1	0.04	80.80	40	0.1	80 - 120	
55 Mn	72	1	0.24	5.80	40	0.6	80 - 120	
57 Fe	72	1	3.10	17.45	4000	0.1	80 - 120	
59 Co	72	1	0.01	84.79	40	0.0	80 - 120	
60 Ni	72	1	0.05	15.92	40	0.1	80 - 120	
63 Cu	72	1	0.11	28.36	40	0.3	80 - 120	
66 Zn	72	1	-0.10	20.77	40	-0.2	80 - 120	
75 As	72	1	0.00	180.39	40	0.0	80 - 120	
78 Se	72	1	0.14	345.52	40	0.3	80 - 120	
93 Nb	72	1	0.75	20.70	80	0.9	80 - 120	
95 Mo	72	1	-0.07	16.35	40	-0.2	80 - 120	
105 Pd	115	1	0.01	64.81	40	0.0	80 - 120	
107 Ag	115	1	0.01	108.43	40	0.0	80 - 120	
111 Cd	115	1	0.01	49.49	40	0.0	80 - 120	
118 Sn	115	1	0.81	6.85	40	2.0	80 - 120	
121 Sb	115	1	0.03	11.17	40	0.1	80 - 120	
137 Ba	115	1	0.03	24.78	40	0.1	80 - 120	
182 W	165	1	0.00	#######	40	0.0	80 - 120	
195 Pt	165	1	-0.01	22.34	40	0.0	80 - 120	
205 Tl	165	1	0.04	15.16	40	0.1	80 - 120	
208 Pb	165	1	-0.94	0.68	40	-2.3	80 - 120	
232 Th	165	1	1.22	22.34	40	3.0	80 - 120	
238 U	165	1	0.02	10.42	40	0.1	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	146739	0.96	159651	91.9	30 - 120	
45 Sc	1	718857	0.40	781139	92.0	30 - 120	
72 Ge	1	366811	0.23	405203	90.5	30 - 120	
115 In	1	1148414	1.36	1233666	93.1	30 - 120	
165 Ho	1	2070542	0.33	2155808	96.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\174AREF.D\174AREF.D#
Date Acquired: Aug 1 2009 02:02 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG07X 5X
Misc Info: D9G230298
Vial Number: 3303
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:54 am
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	-0.07	-0.01	ppb	0.00	3600	
23 Na	6	1	397,850.00	79570.00	ppb	1.28	100000	
24 Mg	6	1	254,050.00	50810.00	ppb	1.52	100000	
27 Al	45	1	95.00	19.00	ppb	3.91	100000	
39 K	45	1	13,430.00	2686.00	ppb	1.06	100000	
43 Ca	45	1	712,000.00	142400.00	ppb	0.64	100000	>LDR
51 V	72	1	31.03	6.21	ppb	0.76	3600	
52 Cr	72	1	170.50	34.10	ppb	0.71	3600	
55 Mn	72	1	214.00	42.80	ppb	1.37	18000	
57 Fe	72	1	3,047.00	609.40	ppb	0.77	100000	
59 Co	72	1	4.83	0.97	ppb	5.57	3600	
60 Ni	72	1	15.50	3.10	ppb	6.19	3600	
63 Cu	72	1	0.94	0.19	ppb	7.10	3600	
66 Zn	72	1	1.15	0.23	ppb	23.56	3600	
75 As	72	1	54.80	10.96	ppb	1.78	3600	
78 Se	72	1	11.51	2.30	ppb	24.55	3600	
93 Nb	72	1	2.98	0.60	ppb	14.32	2000	
95 Mo	72	1	1.45	0.29	ppb	17.11	3600	
105 Pd	115	1	22.34	4.47	ppb	3.36	1000	
107 Ag	115	1	0.04	0.01	ppb	35.59	3600	
111 Cd	115	1	0.02	0.00	ppb	129.67	3600	
118 Sn	115	1	3.33	0.67	ppb	8.30	3600	
121 Sb	115	1	0.05	0.01	ppb	13.49	3600	
137 Ba	115	1	36.98	7.40	ppb	0.33	3600	
182 W	165	1	0.35	0.07	ppb	17.05	1000	
195 Pt	165	1	0.22	0.04	ppb	22.04	1000	
205 Tl	165	1	0.14	0.03	ppb	28.71	3600	
208 Pb	165	1	-4.74	-0.95	ppb	0.50	3600	
232 Th	165	1	1.61	0.32	ppb	14.43	1000	
238 U	165	1	130.15	26.03	ppb	1.60	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	161038	1.21	159651	100.9	30 - 120	
45 Sc	1	759929	1.95	781139	97.3	30 - 120	
72 Ge	1	374236	1.29	405203	92.4	30 - 120	
115 In	1	1145613	1.03	1233666	92.9	30 - 120	
165 Ho	1	2118322	2.37	2155808	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\175SDIL.D\175SDIL.D#
Date Acquired: Aug 1 2009 02:05 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG07XP25
Misc Info: SERIAL DILUTION
Vial Number: 3304
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:54 am
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG073109B.B\174AREF.D\174AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	-0.01	ppb	0.00	0.00	500.0	90 - 110	
23 Na	6	1	16380.00	ppb	2.14	15914.00	102.9	90 - 110	
24 Mg	6	1	10550.00	ppb	1.96	10162.00	103.8	90 - 110	
27 Al	45	1	14.26	ppb	2.07	3.80	375.3	90 - 110	
39 K	45	1	575.00	ppb	1.09	537.20	107.0	90 - 110	
43 Ca	45	1	29550.00	ppb	1.04	28480.00	103.8	90 - 110	
51 V	72	1	1.15	ppb	17.13	1.24	92.7	90 - 110	
52 Cr	72	1	7.17	ppb	3.95	6.82	105.1	90 - 110	
55 Mn	72	1	8.57	ppb	3.66	8.56	100.1	90 - 110	
57 Fe	72	1	128.50	ppb	2.19	121.88	105.4	90 - 110	
59 Co	72	1	0.21	ppb	13.76	0.19	111.0	90 - 110	
60 Ni	72	1	0.89	ppb	8.54	0.62	144.1	90 - 110	
63 Cu	72	1	0.03	ppb	68.15	0.04	90.5	90 - 110	
66 Zn	72	1	-0.56	ppb	10.55	0.05	-1230.3	90 - 110	
75 As	72	1	2.15	ppb	1.39	2.19	98.1	90 - 110	
78 Se	72	1	0.11	ppb	727.77	0.46	23.5	90 - 110	
93 Nb	72	1	0.32	ppb	25.33	0.12	269.6	90 - 110	
95 Mo	72	1	-0.06	ppb	22.99	0.06	-103.2	90 - 110	
105 Pd	115	1	0.90	ppb	4.48	0.89	100.9	90 - 110	
107 Ag	115	1	0.00	ppb	2612.90	0.00	9.1	90 - 110	
111 Cd	115	1	0.00	ppb	303.26	0.00	-234.6	90 - 110	
118 Sn	115	1	0.59	ppb	2.65	0.13	445.7	90 - 110	
121 Sb	115	1	0.01	ppb	64.02	0.00	656.1	90 - 110	
137 Ba	115	1	1.48	ppb	2.52	1.48	99.9	90 - 110	
182 W	165	1	0.03	ppb	16.89	0.01	188.8	90 - 110	
195 Pt	165	1	0.05	ppb	59.88	0.01	524.6	90 - 110	
205 Tl	165	1	0.01	ppb	47.41	0.01	93.9	90 - 110	
208 Pb	165	1	-0.18	ppb	3.84	-0.19	97.1	90 - 110	
232 Th	165	1	0.05	ppb	11.04	0.06	83.1	90 - 110	
238 U	165	1	5.31	ppb	0.69	5.21	102.0	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	163693	1.48	159651	102.5	30 - 120	
45 Sc	1	769043	0.47	781139	98.5	30 - 120	
72 Ge	1	389888	0.76	405203	96.2	30 - 120	
115 In	1	1197760	1.30	1233666	97.1	30 - 120	
165 Ho	1	2184212	1.36	2155808	101.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/03/09 10:40:27

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG07XP25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG073109B # 175
Acquired: 08/01/2009 02:05:00
Calibrated: 08/01/2009 00:51:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		-0.37280	-0.07456			*	
7440-62-2	Vanadium	51	5035	28.775	31.030	7.27		*	
7440-47-3	Chromium	52	32421	179.30	170.50	5.16		*	
7439-96-5	Manganese	55	41739	214.25	214.00	0.117		*	
7440-48-4	Cobalt	59	1190	5.3650	4.8310	11.1		*	
7440-02-0	Nickel	60	1160	22.330	15.500	44.1		*	
7440-50-8	Copper	63	317	0.84850	0.93790	9.53		*	
7440-66-6	Zinc	66	233	-14.105	1.1460	1330		*	
7440-38-2	Arsenic	75	1371	53.750	54.820	1.95	0.21	NC	☑
7782-49-2	Selenium	78	227	2.7105	11.510	76.5	0.70	NC	☑
7439-98-7	Molybdenum	95	127	-1.4925	1.4470	203		*	
7440-22-4	Silver	107	17	0.00318	0.03506	90.9		*	
7440-43-9	Cadmium	111	7	-0.04991	0.02127	335		*	
7440-31-5	Tin	118	2540	14.850	3.3320	346		*	
7440-36-0	Antimony	121	211	0.31685	0.04827	556		*	
7440-39-3	Barium	137	2135	36.925	36.980	0.149		*	
7440-28-0	Thallium	205	80	0.12800	0.13630	6.09		*	
7439-92-1	Lead	208	13588	-4.5975	-4.7370			*	
7440-61-1	Uranium	238	103158	132.75	130.10	2.04		*	
7440-23-5	Sodium	23	26758900	409550	397800	2.95		*	
7439-95-4	Magnesium	24	10769700	263750	254100	3.80		*	
7429-90-5	Aluminum	27	14761	356.60	94.990	275		*	
7440-09-7	Potassium	39	1061270	14375	13430	7.04		*	
7440-70-2	Calcium	43	117794	739000	712200	3.76		*	
7439-89-6	Iron	57	15549	3212.5	3047.0	5.43		*	
7440-03-1	Niobium	93	5101	8.0450	2.9850	170		*	
7440-05-3	Palladium	105	1910	22.545	22.340	0.918		*	
7440-33-7	Tungsten	182	707	0.65550	0.34720	88.8		*	
7440-06-4	Platinum	195	297	1.1765	0.22430	425		*	
7440-29-1	Thorium	232	1950	1.3340	1.6060	16.9		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: [signature] Date: 8/3/09

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\176PDS.D\176PDS.D#
Date Acquired: Aug 1 2009 02:08 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG07XZ
Misc Info: POST DIGESTION SPIKE
Vial Number: 3305
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:54 am
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	193.70	-0.01	ppb	2.81	200	96.9	75 - 125	
23 Na	6	1	77850.00	79570.00	ppb	0.98	200000	27.8	75 - 125	
24 Mg	6	1	49550.00	50810.00	ppb	1.02	200000	19.8	75 - 125	
27 Al	45	1	18.89	19.00	ppb	1.10	200000	0.0	75 - 125	
39 K	45	1	2691.00	2686.00	ppb	2.22	200000	1.3	75 - 125	
43 Ca	45	1	141300.00	142400.00	ppb	1.15	200000	41.3	75 - 125	
51 V	72	1	204.20	6.21	ppb	2.98	200	99.0	75 - 125	
52 Cr	72	1	230.60	34.10	ppb	2.48	200	98.5	75 - 125	
55 Mn	72	1	239.80	42.80	ppb	1.50	200	98.8	75 - 125	
57 Fe	72	1	609.50	609.40	ppb	1.21	200000	0.3	75 - 125	
59 Co	72	1	194.80	0.97	ppb	1.05	200	96.9	75 - 125	
60 Ni	72	1	191.70	3.10	ppb	0.67	200	94.4	75 - 125	
63 Cu	72	1	187.20	0.19	ppb	0.42	200	93.5	75 - 125	
66 Zn	72	1	184.40	0.23	ppb	0.63	200	92.1	75 - 125	
75 As	72	1	209.30	10.96	ppb	0.16	200	99.2	75 - 125	
78 Se	72	1	205.10	2.30	ppb	2.70	200	101.4	75 - 125	
93 Nb	72	1	0.39	0.60	ppb	20.62	400	0.1	75 - 125	
95 Mo	72	1	199.40	0.29	ppb	1.30	200	99.6	75 - 125	
105 Pd	115	1	4.24	4.47	ppb	3.01	200	2.1	75 - 125	
107 Ag	115	1	45.18	0.01	ppb	1.62	50	90.3	75 - 125	
111 Cd	115	1	193.70	0.00	ppb	0.59	200	96.8	75 - 125	
118 Sn	115	1	180.50	0.67	ppb	0.87	200	90.0	75 - 125	
121 Sb	115	1	198.40	0.01	ppb	0.84	200	99.2	75 - 125	
137 Ba	115	1	205.30	7.40	ppb	1.00	200	99.0	75 - 125	
182 W	165	1	0.05	0.07	ppb	40.38	200	0.0	75 - 125	
195 Pt	165	1	0.00	0.04	ppb	#######	200	0.0	75 - 125	
205 Tl	165	1	186.00	0.03	ppb	1.34	200	93.0	75 - 125	
208 Pb	165	1	183.20	-0.95	ppb	0.95	200	92.0	75 - 125	
232 Th	165	1	0.08	0.32	ppb	21.73	200	0.0	75 - 125	
238 U	165	1	211.50	26.03	ppb	0.16	200	93.6	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	163179	2.25	159651	102.2	30 - 120	
45 Sc	1	754628	0.41	781139	96.6	30 - 120	
72 Ge	1	374827	0.39	405203	92.5	30 - 120	
115 In	1	1166298	0.56	1233666	94.5	30 - 120	
165 Ho	1	2164178	1.07	2155808	100.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/03/09 10:40:31

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG07XZ** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG073109B # 176
Acquired: 08/01/2009 02:08:00
Calibrated: 08/01/2009 00:51:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	44131	193.70	-0.01491	96.8	200		☑
7440-62-2	Vanadium	51	873919	204.20	6.2060	99.0	200		☐
7440-47-3	Chromium	52	972519	230.60	34.100	98.2	200		☑
7439-96-5	Manganese	55	1115180	239.80	42.800	98.5	200		☐
7440-48-4	Cobalt	59	1030950	194.80	0.96620	96.9	200		☐
7440-02-0	Nickel	60	228730	191.70	3.1000	94.3	200		☑
7440-50-8	Copper	63	536979	187.20	0.18758	93.5	200		☐
7440-66-6	Zinc	66	125500	184.40	0.22920	92.1	200		☐
7440-38-2	Arsenic	75	124965	209.30	10.964	99.2	200		☑
7782-49-2	Selenium	78	22289	205.10	2.3020	101	200		☑
7439-98-7	Molybdenum	95	325487	199.40	0.28940	99.6	200		☐
7440-22-4	Silver	107	204475	45.180	0.00701	90.3	50.0		☑
7440-43-9	Cadmium	111	183745	193.70	0.00425	96.8	200		☑
7440-31-5	Tin	118	481399	180.50	0.66640	89.9	200		☑
7440-36-0	Antimony	121	650135	198.40	0.00965	99.2	200		☑
7440-39-3	Barium	137	284659	205.30	7.3960	99.0	200		☑
7440-28-0	Thallium	205	2234650	186.00	0.02726	93.0	200		☑
7439-92-1	Lead	208	3012670	183.20	-0.94740	91.6	200		☑
7440-61-1	Uranium	238	4069400	211.50	26.020	92.7	200		☐
7440-23-5	Sodium	23	26417000	77850	79560				
7439-95-4	Magnesium	24	50404800	49550	50820				
7429-90-5	Aluminum	27	18553	18.890	18.998				
7440-09-7	Potassium	39	4304720	2691.0	2686.0				
7440-70-2	Calcium	43	552374	141300	142440				
7439-89-6	Iron	57	69032	609.50	609.40				
7440-03-1	Niobium	93	5511	0.39420	0.59700				
7440-05-3	Palladium	105	8723	4.2360	4.4680				
7440-33-7	Tungsten	182	840	0.05335	0.06944				
7440-06-4	Platinum	195	127	-0.00119	0.04486				
7440-29-1	Thorium	232	2477	0.08291	0.32120				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: [signature] Date: 8/3/09

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\177_MS.D\177_MS.D#
Date Acquired: Aug 1 2009 02:10 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG07XS 5X
Misc Info: MATRIX SPIKE
Vial Number: 3306
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:54 am
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	7.20	-0.01	ppb	4.02	40	18.0	50 - 150	
23 Na	6	1	78150.00	79570.00	ppb	1.30	4000	93.5	50 - 150	
24 Mg	6	1	49470.00	50810.00	ppb	0.86	4000	90.3	50 - 150	
27 Al	45	1	28.77	19.00	ppb	1.56	4000	0.7	50 - 150	
39 K	45	1	2638.00	2686.00	ppb	1.98	4000	39.5	50 - 150	
43 Ca	45	1	139100.00	142400.00	ppb	1.19	4000	95.0	50 - 150	
51 V	72	1	13.98	6.21	ppb	3.65	40	30.3	50 - 150	
52 Cr	72	1	40.93	34.10	ppb	0.45	40	55.2	50 - 150	
55 Mn	72	1	45.03	42.80	ppb	0.28	40	54.4	50 - 150	
57 Fe	72	1	588.20	609.40	ppb	0.42	4000	12.8	50 - 150	
59 Co	72	1	8.65	0.97	ppb	1.08	40	21.1	50 - 150	
60 Ni	72	1	10.42	3.10	ppb	1.83	40	24.2	50 - 150	
63 Cu	72	1	7.61	0.19	ppb	1.43	40	18.9	50 - 150	
66 Zn	72	1	7.10	0.23	ppb	2.06	40	17.6	50 - 150	
75 As	72	1	18.68	10.96	ppb	0.65	40	36.7	50 - 150	
78 Se	72	1	11.22	2.30	ppb	27.80	40	26.5	50 - 150	
93 Nb	72	1	0.22	0.60	ppb	32.76	80	0.3	50 - 150	
95 Mo	72	1	8.32	0.29	ppb	3.09	40	20.6	50 - 150	
105 Pd	115	1	4.38	4.47	ppb	4.38	40	9.8	50 - 150	
107 Ag	115	1	7.71	0.01	ppb	1.44	40	19.3	50 - 150	
111 Cd	115	1	7.79	0.00	ppb	0.75	40	19.5	50 - 150	
118 Sn	115	1	1.00	0.67	ppb	7.10	40	2.5	50 - 150	
121 Sb	115	1	8.26	0.01	ppb	2.14	40	20.6	50 - 150	
137 Ba	115	1	15.23	7.40	ppb	2.19	40	32.1	50 - 150	
182 W	165	1	0.03	0.07	ppb	70.75	40	0.1	50 - 150	
195 Pt	165	1	0.01	0.04	ppb	81.76	40	0.0	50 - 150	
205 Tl	165	1	7.70	0.03	ppb	1.40	40	19.2	50 - 150	
208 Pb	165	1	6.82	-0.95	ppb	0.51	40	17.5	50 - 150	
232 Th	165	1	7.31	0.32	ppb	3.67	40	18.1	50 - 150	
238 U	165	1	33.53	26.03	ppb	1.31	40	50.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	167420	0.49	159651	104.9	30 - 120	
45 Sc	1	787968	2.51	781139	100.9	30 - 120	
72 Ge	1	385857	0.35	405203	95.2	30 - 120	
115 In	1	1183462	2.11	1233666	95.9	30 - 120	
165 Ho	1	2173828	1.12	2155808	100.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\178_MSD.D\178_MSD.D#
Date Acquired: Aug 1 2009 02:13 am
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG07XD 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 3307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 01 2009 12:54 am
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG073109B.B\177_MS.D\177_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.22	ppb	7.93	7.20	13.28	20	
23 Na	6	1	78570.00	ppb	2.83	78150.00	0.54	20	
24 Mg	6	1	49890.00	ppb	1.51	49470.00	0.85	20	
27 Al	45	1	28.29	ppb	2.75	28.77	1.68	20	
39 K	45	1	2651.00	ppb	1.20	2638.00	0.49	20	
43 Ca	45	1	140700.00	ppb	1.50	139100.00	1.14	20	
51 V	72	1	13.73	ppb	0.50	13.98	1.80	20	
52 Cr	72	1	41.73	ppb	0.31	40.93	1.94	20	
55 Mn	72	1	50.65	ppb	0.99	45.03	11.75	20	
57 Fe	72	1	605.40	ppb	1.25	588.20	2.88	20	
59 Co	72	1	9.04	ppb	1.00	8.65	4.35	20	
60 Ni	72	1	10.78	ppb	3.96	10.42	3.40	20	
63 Cu	72	1	8.00	ppb	1.20	7.61	5.01	20	
66 Zn	72	1	7.29	ppb	1.04	7.10	2.67	20	
75 As	72	1	19.04	ppb	1.02	18.68	1.91	20	
78 Se	72	1	9.66	ppb	8.65	11.22	14.92	20	
93 Nb	72	1	0.15	ppb	52.29	0.22	37.65	20	
95 Mo	72	1	8.51	ppb	2.60	8.32	2.28	20	
105 Pd	115	1	4.28	ppb	1.38	4.38	2.26	20	
107 Ag	115	1	7.77	ppb	1.90	7.71	0.76	20	
111 Cd	115	1	8.22	ppb	1.80	7.79	5.37	20	
118 Sn	115	1	0.70	ppb	11.76	1.00	34.95	20	
121 Sb	115	1	8.27	ppb	1.08	8.26	0.13	20	
137 Ba	115	1	15.46	ppb	0.75	15.23	1.50	20	
182 W	165	1	0.05	ppb	18.70	0.03	37.34	20	
195 Pt	165	1	-0.01	ppb	30.00	0.01	1318.88	20	
205 Tl	165	1	7.85	ppb	0.79	7.70	1.93	20	
208 Pb	165	1	6.99	ppb	1.23	6.82	2.48	20	
232 Th	165	1	7.78	ppb	0.37	7.31	6.23	20	
238 U	165	1	33.72	ppb	1.61	33.53	0.57	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	167417	0.97	159651	104.9	30 - 120	
45 Sc	1	780126	0.85	781139	99.9	30 - 120	
72 Ge	1	385692	0.98	405203	95.2	30 - 120	
115 In	1	1194796	1.18	1233666	96.8	30 - 120	
165 Ho	1	2190651	0.93	2155808	101.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\179_CCV.D\179_CCV.D#
Date Acquired: Aug 1 2009 02:16 am
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.91	ppb	2.04	50	97.8	90 - 110	
23 Na	6	1	4925.00	ppb	1.77	5000	98.5	90 - 110	
24 Mg	6	1	4990.00	ppb	1.63	5000	99.8	90 - 110	
27 Al	45	1	5062.00	ppb	0.57	5000	101.2	90 - 110	
39 K	45	1	5065.00	ppb	0.56	5000	101.3	90 - 110	
43 Ca	45	1	5034.00	ppb	0.75	5000	100.7	90 - 110	
51 V	72	1	49.09	ppb	1.46	50	98.2	90 - 110	
52 Cr	72	1	49.82	ppb	0.33	50	99.6	90 - 110	
55 Mn	72	1	50.19	ppb	1.17	50	100.4	90 - 110	
57 Fe	72	1	5000.00	ppb	0.47	5000	100.0	90 - 110	
59 Co	72	1	49.94	ppb	1.27	50	99.9	90 - 110	
60 Ni	72	1	49.68	ppb	0.81	50	99.4	90 - 110	
63 Cu	72	1	49.92	ppb	0.93	50	99.8	90 - 110	
66 Zn	72	1	48.80	ppb	1.01	50	97.6	90 - 110	
75 As	72	1	49.54	ppb	0.18	50	99.1	90 - 110	
78 Se	72	1	50.43	ppb	5.75	50	100.9	90 - 110	
93 Nb	72	1	86.04	ppb	0.37	100	86.0	90 - 110	Fail
95 Mo	72	1	49.94	ppb	1.75	50	99.9	90 - 110	
105 Pd	115	1	50.30	ppb	1.86	50	100.6	90 - 110	
107 Ag	115	1	50.04	ppb	2.43	50	100.1	90 - 110	
111 Cd	115	1	50.52	ppb	2.12	50	101.0	90 - 110	
118 Sn	115	1	49.94	ppb	2.71	50	99.9	90 - 110	
121 Sb	115	1	49.59	ppb	0.82	50	99.2	90 - 110	
137 Ba	115	1	49.93	ppb	1.72	50	99.9	90 - 110	
182 W	165	1	49.49	ppb	1.50	50	99.0	90 - 110	
195 Pt	165	1	49.94	ppb	1.79	50	99.9	90 - 110	
205 Tl	165	1	50.51	ppb	1.24	50	101.0	90 - 110	
208 Pb	165	1	49.92	ppb	0.85	50	99.8	90 - 110	
232 Th	165	1	51.95	ppb	1.00	50	103.9	90 - 110	
238 U	165	1	52.23	ppb	0.78	50	104.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	154377	2.19	159651	96.7	30 - 120	
45 Sc	1	722981	0.60	781139	92.6	30 - 120	
72 Ge	1	369885	0.93	405203	91.3	30 - 120	
115 In	1	1170776	0.56	1233666	94.9	30 - 120	
165 Ho	1	2102773	1.32	2155808	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\180_CCB.D\180_CCB.D#
Date Acquired: Aug 1 2009 02:19 am
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.016	ppb	331.88	1.00	
23 Na	6	1	-13.310	ppb	3.14	20.00	
24 Mg	6	1	2.629	ppb	19.22	20.00	
27 Al	45	1	0.704	ppb	29.85	20.00	
39 K	45	1	2.313	ppb	51.45	20.00	
43 Ca	45	1	-3.006	ppb	54.66	20.00	
51 V	72	1	-0.030	ppb	171.52	1.00	
52 Cr	72	1	0.008	ppb	357.39	1.00	
55 Mn	72	1	0.022	ppb	9.95	1.00	
57 Fe	72	1	0.154	ppb	631.06	20.00	
59 Co	72	1	0.008	ppb	84.84	1.00	
60 Ni	72	1	-0.002	ppb	445.20	1.00	
63 Cu	72	1	-0.007	ppb	29.56	1.00	
66 Zn	72	1	-0.532	ppb	5.81	10.00	
75 As	72	1	0.010	ppb	123.46	1.00	
78 Se	72	1	0.219	ppb	193.41	1.00	
93 Nb	72	1	3.116	ppb	13.31	2.00	Fail
95 Mo	72	1	-0.063	ppb	49.02	1.00	
105 Pd	115	1	0.035	ppb	8.46	1.00	
107 Ag	115	1	0.009	ppb	92.58	1.00	
111 Cd	115	1	0.000	ppb	1984.50	1.00	
118 Sn	115	1	-0.092	ppb	41.33	10.00	
121 Sb	115	1	0.135	ppb	14.44	1.00	
137 Ba	115	1	0.007	ppb	126.71	1.00	
182 W	165	1	0.042	ppb	40.16	5.00	
195 Pt	165	1	0.000	ppb	6799.30	1.00	
205 Tl	165	1	0.035	ppb	14.08	1.00	
208 Pb	165	1	-0.984	ppb	0.39	1.00	
232 Th	165	1	0.317	ppb	19.63	2.00	
238 U	165	1	0.019	ppb	5.69	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	153255	0.57	159651	96.0	30 - 120	
45 Sc	1	731780	0.74	781139	93.7	30 - 120	
72 Ge	1	374787	0.14	405203	92.5	30 - 120	
115 In	1	1177474	0.77	1233666	95.4	30 - 120	
165 Ho	1	2095725	0.95	2155808	97.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG073109B.B\181WASH.D\181WASH.D#
Date Acquired: Aug 1 2009 02:22 am
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 01 2009 12:54 am
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.299 ppb	28.58	1.30	
23 Na	6	1	33.670 ppb	3.15	65.00	
24 Mg	6	1	51.770 ppb	1.91	65.00	
27 Al	45	1	30.450 ppb	3.33	39.00	
39 K	45	1	108.700 ppb	1.85	130.00	
43 Ca	45	1	49.690 ppb	19.25	65.00	
51 V	72	1	4.931 ppb	2.76	6.50	
52 Cr	72	1	2.109 ppb	4.08	2.60	
55 Mn	72	1	0.939 ppb	5.44	1.30	
57 Fe	72	1	52.800 ppb	2.06	65.00	
59 Co	72	1	1.033 ppb	2.91	1.30	
60 Ni	72	1	1.902 ppb	7.07	2.60	
63 Cu	72	1	2.075 ppb	3.65	2.60	
66 Zn	72	1	9.184 ppb	1.12	13.00	
75 As	72	1	4.970 ppb	3.20	6.50	
78 Se	72	1	5.676 ppb	23.70	6.50	
93 Nb	72	1	1.586 ppb	19.87	52.00	
95 Mo	72	1	1.865 ppb	5.27	2.60	
105 Pd	115	1	0.018 ppb	72.18	1.30	
107 Ag	115	1	5.377 ppb	1.59	6.50	
111 Cd	115	1	0.989 ppb	9.71	1.30	
118 Sn	115	1	9.910 ppb	1.89	13.00	
121 Sb	115	1	1.939 ppb	2.58	2.60	
137 Ba	115	1	1.032 ppb	4.94	1.30	
182 W	165	1	0.011 ppb	83.56	6.50	
195 Pt	165	1	-0.019 ppb	32.84	1.30	
205 Tl	165	1	1.088 ppb	1.30	1.30	
208 Pb	165	1	0.056 ppb	22.53	1.30	
232 Th	165	1	1.910 ppb	4.16	2.60	
238 U	165	1	1.074 ppb	0.73	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	155999	0.96	159651	97.7	30 - 120	
45 Sc	1	741837	0.27	781139	95.0	30 - 120	
72 Ge	1	380535	0.49	405203	93.9	30 - 120	
115 In	1	1186721	0.84	1233666	96.2	30 - 120	
165 Ho	1	2112591	0.81	2155808	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Semivolatile GC

Supporting Documentation

Sample Sequence, Chromatograms

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G230301

Client: Northgate

Method: 8141

Associated Samples: 1

Batch #(s): 9205274

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: [signature] 8/10/09

GC SEMIVOLATILE ORGANIC EXTRACTION LOG SHEETS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/29/09
Time: 17:20:24

LEV 1	LEV 2		LEV 1	LEV 2	
Y	Y	Blank	Y	Y	Weights/Volumes
Y	Y	Check	Y	Y	Spike & Surrogate Worksheet
Y	Y	MS/MSD	Y	Y	Vial contains correct volume
—	—		Y	Y	Labels, greenbars, worksheets computer batch: correct & all match
			Y	Y	Anomalies to Extraction Method

— Expanded Deliverable
— COC Completed
— Bench Sheet Copied
— Package Submitted to AnalyticalGrc
— Bench Sheet Copied per COC

Extractionist: 008726 Dane Q. Oberhill
009580 David Bourgery

Concentrationist: 006563 Lisa Hubbs

Reviewer/Date: HUBBSL / 7/29/09

****
* *
* **QC BATCH: 9205274** *
* *
****

PREP DATE: 7/24/09 12:00
COMP DATE: 7/29/09 14:30

Compounds, Organophosphorus (8141A)
LIQ/LIQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/28/09	8/04/09	D9G230301-001 **LG074-1-AA**	DR	09	P2	WATER	**1060mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/07/09	D9G230306-001 **LG08H-1-AA**		09	P2	WATER	**1026mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/07/09	D9G230306-002 **LG08K-1-AA**		09	P2	WATER	**1039mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/07/09	D9G230306-003 **LG08L-1-AA**		09	P2	WATER	**1048mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/07/09	D9G230306-004 **LG08M-1-AA**		09	P2	WATER	**1050mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/07/09	D9G230306-005 **LG08V-1-AA**		09	P2	WATER	**1050mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	8/04/09	D9G230309-001 **LG085-1-AA**	DR	09	P2	WATER	**1052mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/29/09
Time: 17:20:24

QC BATCH: 9205274

PREP DATE: 7/24/09 12:00
COMP DATE: 7/29/09 14:30

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADJ1	ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/28/09	8/04/09	D9G230310-001 **LG09C-1-AA**	DR	09	P2	WATER	**1051mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	0/00/00	D9G240000-274 **LG1WF-1-AA**B		09	P2	WATER	**1000mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	0/00/00	D9G240000-274 **LG1WF-1-AC**C		09	P2	WATER	**1000mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0844 7-22-09 1ML GSV0675 6-4-09
COMMENTS:															
7/28/09	0/00/00	D9G240000-274 **LG1WF-1-AD**L	R	09	P2	WATER	**1000mL** 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0844 7-22-09 1ML GSV0675 6-4-09
COMMENTS:															

DV-OP-0006/7 BAL:M27995 NA2SO4:G45627 ELGA WATER+NACL:G47617 MECL2:H22J00
S/S:DO-A W:KA S/S:DB-A W:KH SHARE QC:274/278
TURBOVAP A/B/C@40C HEX:H11E04 PIP:CON-6

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 11

GC SEMIVOLATILE INSTRUMENT LOG SHEETS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV860-09				
4	Vial 4	OPP L6 GSV870-09				
5	Vial 5	OPP L5 GSV871-09				
6	Vial 6	OPP L4 GSV872-09				
7	Vial 7	OPP L3 GSV873-09				
8	Vial 8	OPP L2 GSV874-09				
9	Vial 9	OPP L1 GSV875-09				
10	Vial 10	OPP SS GSV895-09				
11	Vial 11	LG1WF1AA,MB				
12	Vial 12	LG1WF1AC,LCS				
13	Vial 13	LG1WF1AD,LCSD				
14	Vial 14	LG0741AA,301-1				
15	Vial 15	LG08H1AA,306-1				
16	Vial 16	LG08K1AA,306-2				
17	Vial 17	LG08L1AA,306-3				
18	Vial 18	LG08M1AA,306-4				
19	Vial 19	LG08V1AA,306-5				
20	Vial 20	LG0851AA,309-1				
21	Vial 21	LG09C1AA,310-1				
22	Vial 22	OPP CCV GSV0861				
23	Vial 23	LG4A21AA,MB				
24	Vial 24	LG4A21AC,LCS				
25	Vial 25	LG4A21AD,LCSD				
26	Vial 26	LGWWX2AA,280-1				
27	Vial 27	LGWW42AA,280-3				
28	Vial 28	LGWW52AA,280-4				
29	Vial 29	LG34H1AA,MB				
30	Vial 30	LG34H1AC,LCS				
31	Vial 31	LG34H1AD,LCSD				
32	Vial 32	LG2W11AA,270-1				
33	Vial 33	LG4781AA,MB				
34	Vial 34	LG4781AC,LCS				
35	Vial 35	LG4781AD,LCSD				
36	Vial 36	LGQD32AA,150-3				
37	Vial 37	OPP CCV GSV0861				
38	Vial 38	LG5GL1AA,BLK				
39	Vial 39	LG5GL1AC,LCS				
40	Vial 40	LGNRG1AC,293-11				
41	Vial 41	LGNRG1CM,293-11S				
42	Vial 42	LGNRG1CN,293-11D				
43	Vial 43	LGRCC1AA,BLK				
44	Vial 44	LGRCC1AC,LCS				
45	Vial 45	LGL5K1AE,333-4				
46	Vial 46	LGL5K1DA,333-4S				
47	Vial 47	LGL5K1DC,333-4D				
48	Vial 48	LGL5P1AQ,333-5				
49	Vial 49	LGNQV1AC,293-3				
50	Vial 50	LGNQW1AN,293-4				
51	Vial 51	LGNQ01AR,293-6				
52	Vial 52	OPP CCV GSV0827~~61~~ 09 8/6/09				
53	Vial 53	LGNQ21AA,293-7				
54	Vial 54	LGNQ51AN,293-8				
55	Vial 55	LGNQ81AF,293-9				
56	Vial 56	LGNRC1AR,293-10				
57	Vial 57	LGNRJ1AN,293-12				
58	Vial 58	LGNRK1AR,293-13				

9205274

9207019

9206111

9208404

9209010

9202116

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LGNRL1A1,293-14				
60	Vial 60	LGNRP1AN,293-16				
61	Vial 61	LGNRR1A4,293-17				
62	Vial 62	LGN151AC,293-21				
63	Vial 63	OPP CCV GSV0861				
64	Vial 64	OPP L1 GSV0862				

Sequence Table (Back Injector):

No entries - empty table!

GC SEMIVOLATILE
CONTINUING CALIBRATION DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 21:37
Lab File ID: 022F2201.D
Lab Sample ID: OPP CCV GSV0861
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.5000	2.2894	8.4	15.0	
2	Dichlorvos	2.5000	2.4217	3.1	15.0	
3	Chlormefos	2.5000	2.3502	6.0	15.0	
4	Mevinphos	2.5000	2.4676	1.3	15.0	
5	Demeton-O	0.8125	0.7810	3.9	15.0	
6	Thionazin	2.5000	2.3878	4.5	15.0	
7	Ethoprop	2.5000	2.4234	3.1	15.0	
8	Phorate	2.5000	2.3517	5.9	15.0	
10	Naled	2.5000	2.5641	2.6	15.0	
146	Sulfotepp	2.5000	2.3918	4.3	15.0	
10	Simazine	2.5000	2.2483	10.1	15.0	
12	Diazinon	2.5000	2.3629	5.5	15.0	
150	Atrazine	2.5000	2.1657	13.4	15.0	
13	Propazine	2.5000	2.3100	7.6	15.0	
14	Disulfoton	2.5000	2.3069	7.7	15.0	
15	Demeton-S	1.7000	1.6253	4.4	15.0	
16	Dimethoate	2.5000	2.3616	5.5	15.0	
17	Ronnel	2.5000	2.3782	4.9	15.0	
148	Merphos-A (Merphos)	2.5000	2.2678	9.3	999.0	
18	Chlorpyrifos	2.5000	2.4625	1.5	15.0	
19	Fenthion	2.5000	2.2228	11.1	15.0	
20	Trichloronate	2.5000	2.4557	1.8	15.0	
21	Anilazine	2.5000	0.3309	86.8	15.0	<-
23	Methyl Parathion	2.5000	2.3812	4.8	15.0	
24	Malathion	2.5000	2.4278	2.9	15.0	
25	Tokuthion	2.5000	2.4362	2.6	15.0	
26	Parathion	2.5000	2.4009	4.0	15.0	
149	Merphos-B (Merphos Oxone)	2.5000	3.4478	37.9	999.0	
27	Tetrachlorvinphos (stirophos)	2.5000	2.4420	2.3	15.0	
28	Carbophenothion methyl	2.5000	2.3958	4.2	15.0	
28	Bolstar	2.5000	2.3733	5.1	15.0	
30	Carbophenothion	2.5000	2.3754	5.0	15.0	
29	Triphenyl phosphate	2.5000	2.4300	2.8	15.0	
30	Fensulfothion	2.5000	2.3544	5.8	15.0	
35	Phosmet / EPN	5.0000	4.7724	4.6	15.0	
33	Famphur	2.5000	2.4226	3.1	15.0	
34	Azinphos-methyl	2.5000	2.3026	7.9	15.0	
35	Azinphos-ethyl	2.5000	2.3076	7.7	15.0	
36	Coumaphos	2.5000	2.3238	7.0	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 21:37
Lab Sample ID: OPP CCV GSV0861
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.5000	2.3597	5.6	15.0
40 Total Demeton	2.5000	2.4063	3.7	15.0

Average %D = 8.03

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\022F2201.D
Lab Smp Id: OPP CCV GSV0861 Client Smp ID: OPP CCV GSV0861
Inj Date : 06-AUG-2009 21:37
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP CCV GSV0861
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 09:12 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.571	4.572	(0.245)	858215	2.50000	2.289
	2 Dichlorvos	6.328	6.331	(0.339)	616413	2.50000	2.422
$	3 Chlormefos	7.156	7.159	(0.383)	698400	2.50000	2.350
	4 Mevinphos	8.949	8.952	(0.479)	448137	2.50000	2.468
	5 Demeton-O	9.453	9.457	(0.506)	143172	0.81250	0.7810
	6 Thionazin	9.698	9.701	(0.519)	655293	2.50000	2.388
	7 Ethoprop	10.204	10.209	(0.546)	414466	2.50000	2.423
	8 Phorate	10.244	10.247	(0.548)	626450	2.50000	2.352
	9 Naled	10.633	10.637	(0.569)	110068	2.50000	2.564
	10 Sulfotepp	10.716	10.721	(0.574)	814471	2.50000	2.392 (A)
*	11 Tributylphosphate	10.819	10.827	(1.000)	524243	2.00000	
	12 Simazine	11.109	11.114	(0.595)	107396	2.50000	2.248 (A)
	13 Diazinon	11.251	11.256	(0.602)	438361	2.50000	2.363 (M)
	14 Atrazine	11.276	11.282	(0.604)	207453	2.50000	2.166 (AM)
	15 Propazine	11.443	11.449	(0.613)	157150	2.50000	2.310
	16 Disulfoton	11.724	11.729	(0.628)	435375	2.50000	2.307
	17 Demeton-S	11.791	11.796	(0.631)	384206	1.70000	1.625
	18 Dimethoate	12.896	12.901	(0.690)	564026	2.50000	2.362
	19 Ronnel	13.224	13.229	(0.708)	403101	2.50000	2.378
	20 Merphos-A (Merphos)	13.354	13.359	(1.234)	322476	2.50000	2.268 (A)
	21 Chlorpyrifos	14.034	14.039	(0.751)	393968	2.50000	2.462
	22 Fenthion	14.288	14.289	(0.765)	366542	2.50000	2.223
	23 Trichloronate	14.318	14.326	(0.767)	539813	2.50000	2.456
	24 Anilazine	14.843	14.851	(0.795)	521	2.50000	0.3309
	25 Methyl Parathion	15.104	15.109	(0.809)	469723	2.50000	2.381 (A)
	26 Malathion	15.379	15.386	(0.823)	360858	2.50000	2.428
	27 Tokuthion	16.086	16.091	(0.861)	392751	2.50000	2.436
	28 Parathion	16.221	16.226	(0.868)	430916	2.50000	2.401
	29 Merphos-B (Merphos Oxone)	16.283	16.287	(1.505)	169036	2.50000	3.448 (A)
	30 Tetrachlorvinphos (stirophos)	16.759	16.764	(0.897)	256409	2.50000	2.442
	31 Carbophenothion methyl	16.873	16.876	(0.903)	390442	2.50000	2.396
	32 Bolstar	17.256	17.259	(0.924)	365327	2.50000	2.373
	33 Carbophenothion	17.339	17.341	(0.928)	407209	2.50000	2.375 (A)

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
$	34 Triphenyl phosphate	18.121	18.122	(0.970)	312876	2.50000	2.430
	35 Fensulfothion	18.393	18.396	(0.985)	347337	2.50000	2.354
*	36 TOCP	18.679	18.682	(1.000)	266956	2.00000	
	37 Phosmet / EPN	18.763	18.766	(1.004)	684732	5.00000	4.772
	38 Famphur	18.859	18.864	(1.010)	468197	2.50000	2.423
	39 Azinphos-methyl	19.004	19.012	(1.017)	399240	2.50000	2.303
	40 Azinphos-ethyl	19.216	19.224	(1.029)	425990	2.50000	2.308
	41 Coumaphos	20.129	20.141	(1.078)	309701	2.50000	2.324
S	42 Merphos				491512	2.50000	2.360(A)
M	43 Total Demeton				527378	2.50000	2.406

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

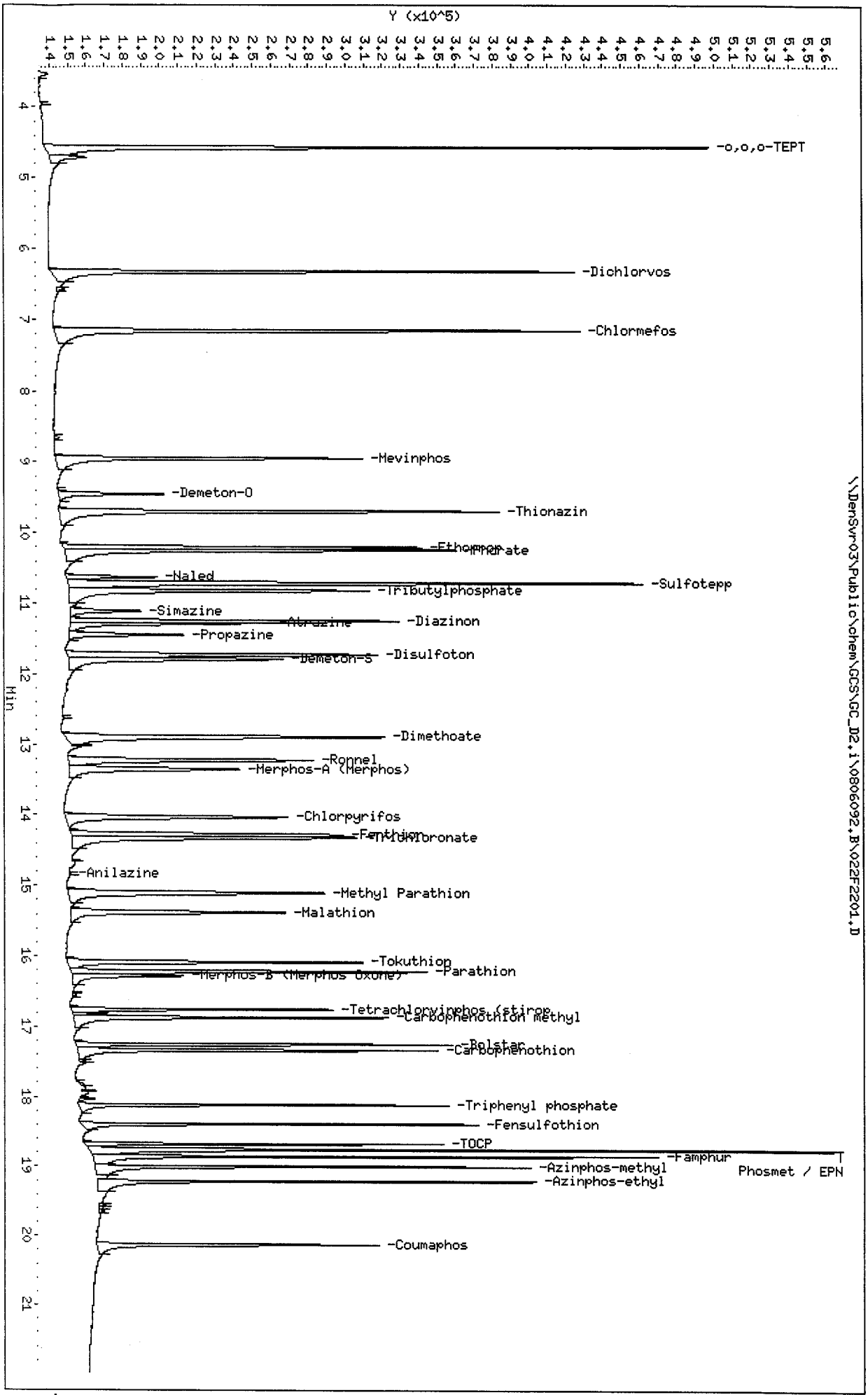
Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Lab Smp Id: OPP CCV GSV0861
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 07-AUG-2009
Calibration Time: 04:28
Client Smp ID: OPP CCV GSV0861
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	654091	327046	1308182	524243	-19.85
36 TOCP	355327	177664	710654	266956	-24.87

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.82	10.32	11.32	10.82	0.03
36 TOCP	18.68	18.18	19.18	18.68	0.01

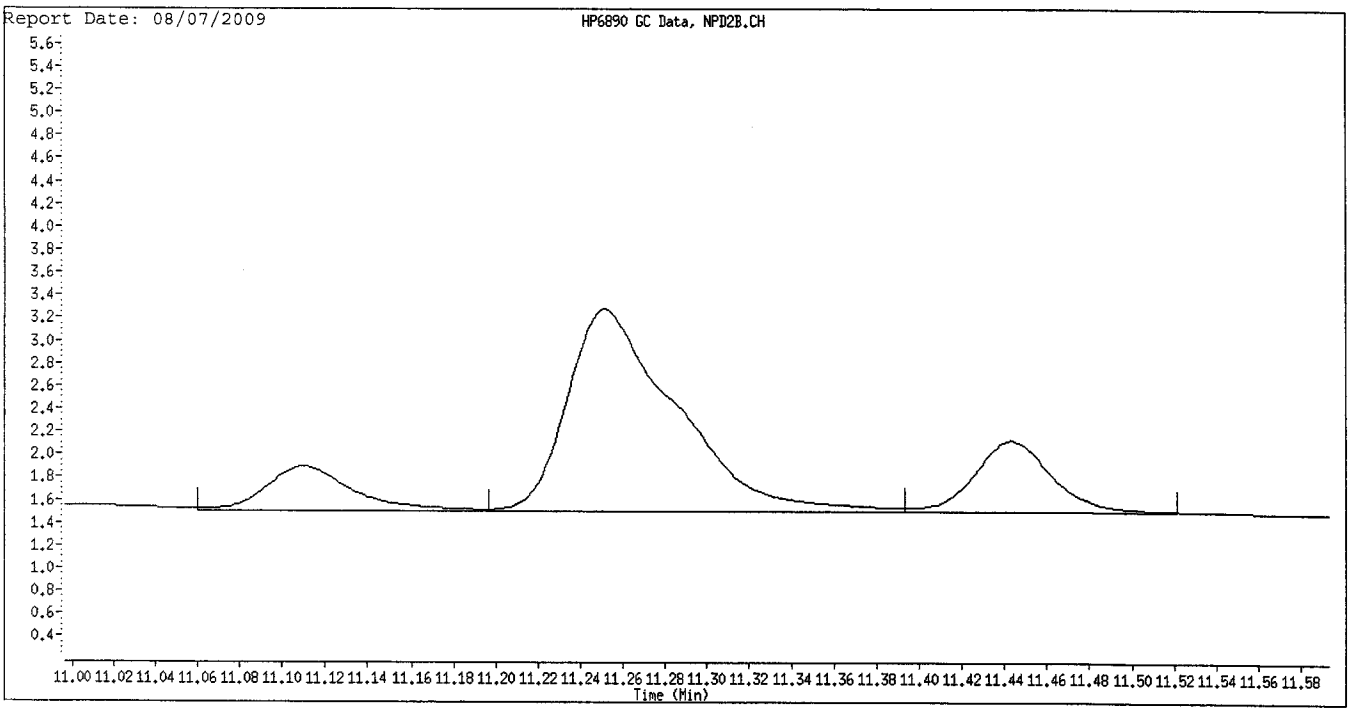
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



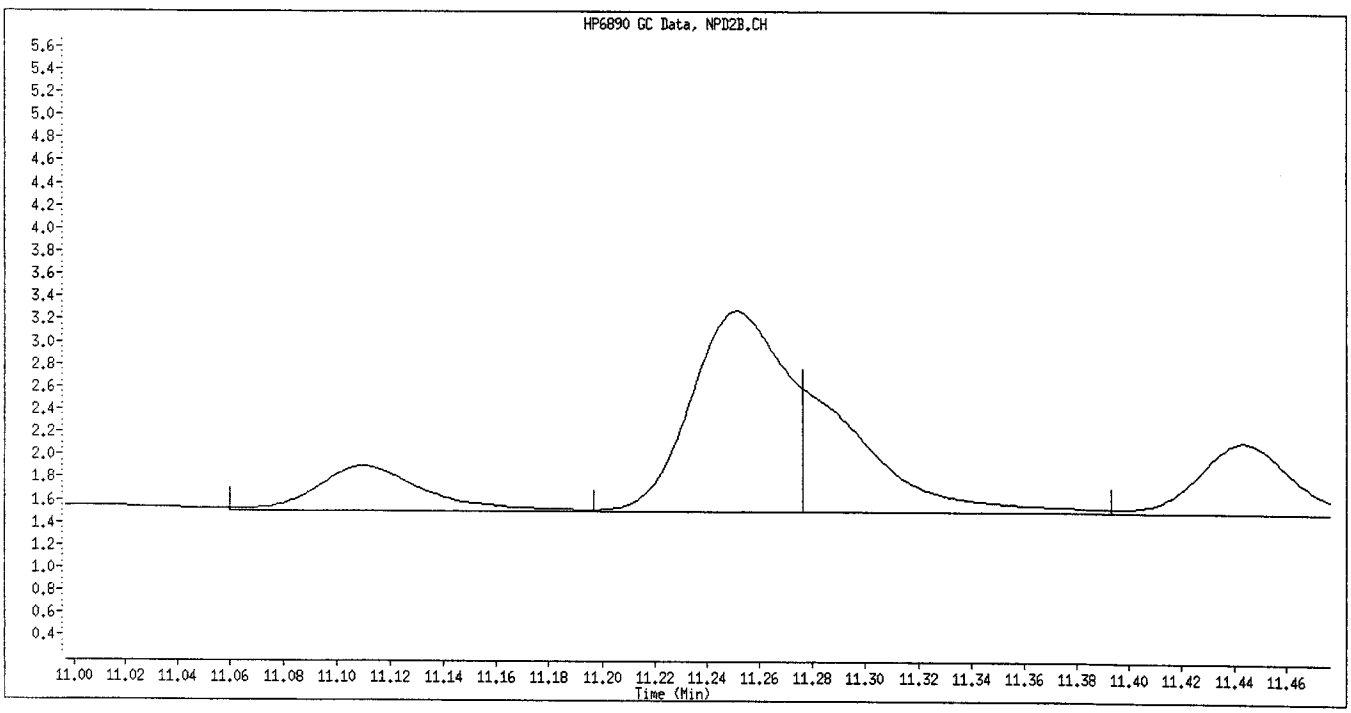
Data File: \\DenSvr03\Public\chem\GCS\GC_D2,i\0806092,B\022F2201,D
Date : 06-AUG-2009 21:37
Client ID: OPP CCV GSV0861
Sample Info: OPP CCV GSV0861
Column phase: RTx-OPPest

Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 022F2201.D
Inj. Date and Time: 06-AUG-2009 21:37
Instrument ID: GC_D2.i
Client ID: OPP CCV GSV0861
Compound Name: Diazinon
CAS #:



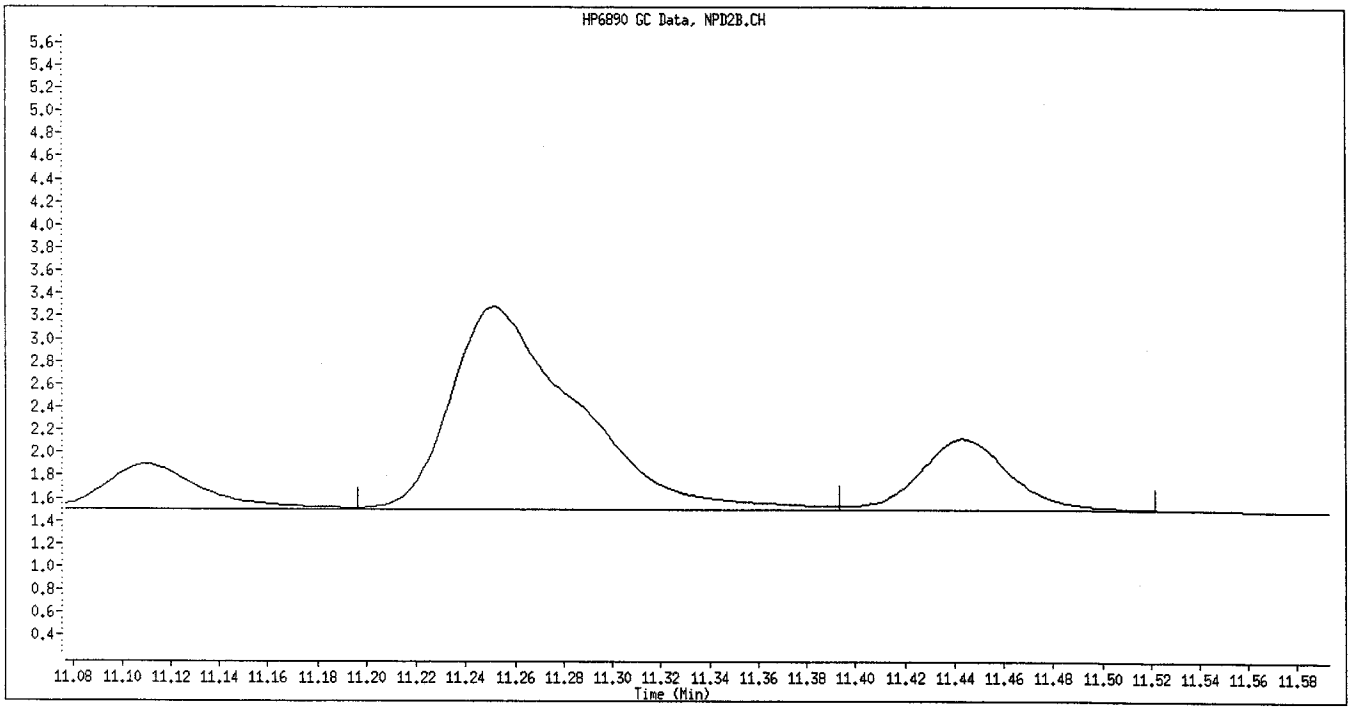
Original Integration



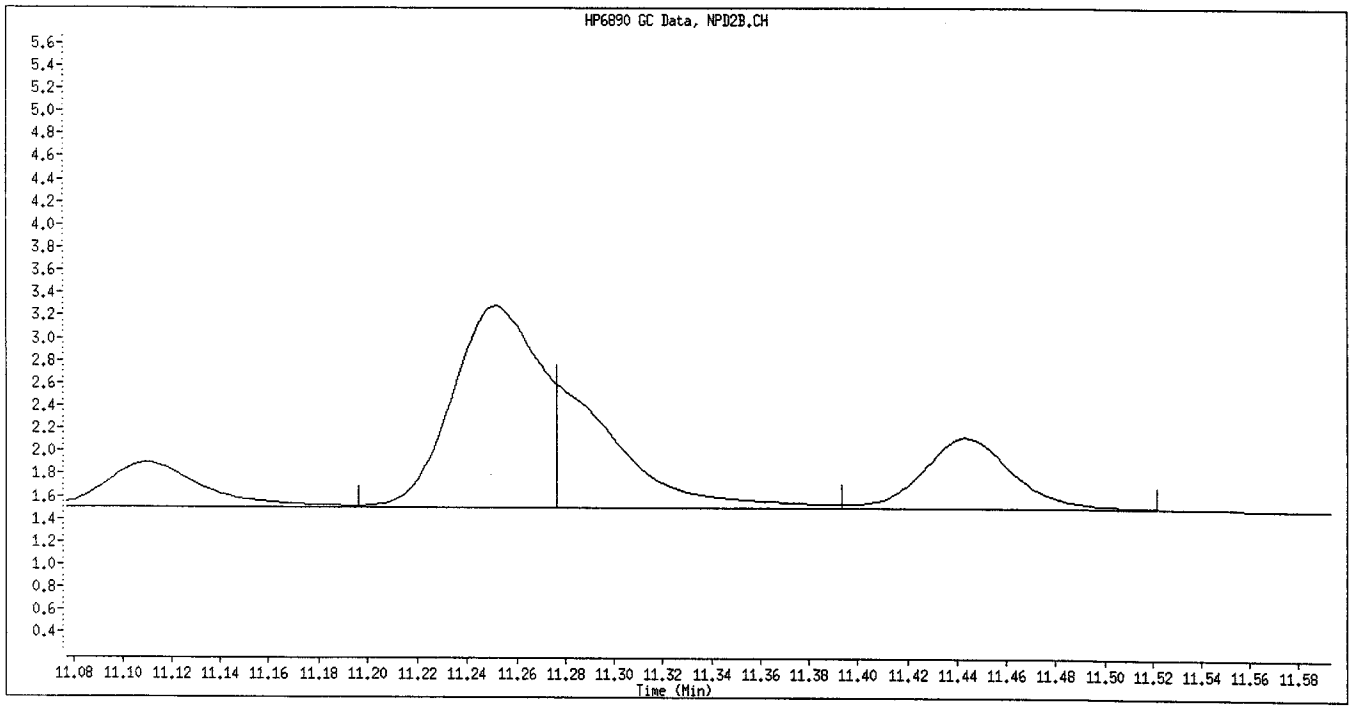
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 022F2201.D
Inj. Date and Time: 06-AUG-2009 21:37
Instrument ID: GC_D2.i
Client ID: OPP CCV GSV0861
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 21:37
Lab File ID: 022F2201.D
Lab Sample ID: OPP CCV GSV0861
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.5000	2.4723	1.1	15.0	
2	Dichlorvos	2.5000	2.4137	3.5	15.0	
3	Mevinphos	2.5000	2.5218	0.9	15.0	
4	Chlormefos	2.5000	2.5381	1.5	15.0	
5	Thionazin	2.5000	2.4187	3.3	15.0	
6	Demeton-O	0.8125	0.8593	5.8	15.0	
7	Ethoprop	2.5000	2.5588	2.4	15.0	
8	Naled	2.5000	2.6215	4.9	15.0	
9	Sulfotepp	2.5000	2.4738	1.0	15.0	
10	Phorate	2.5000	2.5215	0.9	15.0	
11	Dimethoate	2.5000	2.4656	1.4	15.0	
12	Demeton-S	1.7000	1.7040	0.2	15.0	
13	Simazine	2.5000	2.7072	8.3	15.0	
14	Atrazine	2.5000	2.5289	1.2	15.0	
15	propazine	2.5000	2.4775	0.9	15.0	
17	Disulfoton	2.5000	2.3173	7.3	15.0	
16	Diazinon	2.5000	2.5344	1.4	15.0	
18	Methyl Parathion	2.5000	2.4621	1.5	15.0	
19	Ronnel	2.5000	2.4542	1.8	15.0	
20	Malathion	2.5000	2.5129	0.5	15.0	
21	Fenthion	2.5000	2.4523	1.9	15.0	
22	Parathion	2.5000	2.4410	2.4	15.0	
23	Chlorpyrifos	2.5000	2.7661	10.6	15.0	
24	Trichloronate	2.5000	2.5003	0.0	15.0	
25	Anilazine	2.5000	1.0200	59.2	15.0	<-
148	Merphos-A (Merphos)	2.5000	2.1661	13.4	999.0	
26	Tetrachlorvinphos (Stirophos)	2.5000	2.4164	3.3	15.0	
28	Tokuthion	2.5000	2.4366	2.5	15.0	
149	Merphos-B (Merphos Oxone)	2.5000	3.2567	30.3	999.0	
29	Carbophenothion-methyl	2.5000	2.3906	4.4	15.0	
29	Fensulfothion	2.5000	2.4277	2.9	15.0	
30	Bolstar / Famphur	5.0000	4.8882	2.2	15.0	
32	Carbophenothion	2.5000	2.6667	6.7	15.0	
31	Triphenyl phosphate	2.5000	2.4879	0.5	15.0	
34	Phosmet	2.5000	2.3447	6.2	15.0	
32	EPN	2.5000	2.3937	4.3	15.0	
33	Azinphos-methyl	2.5000	2.5236	0.9	15.0	
35	Azinphos-ethyl	2.5000	2.4944	0.2	15.0	
36	Coumaphos	2.5000	2.4683	1.3	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/022F2201.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 21:37
Lab Sample ID: OPP CCV GSV0861
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.5000	2.4091	3.6	15.0
40 Total Demeton	2.5000	2.5633	2.5	15.0

Average %D = 5.10

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\022F2201.D
Lab Smp Id: OPP CCV GSV0861 Client Smp ID: OPP CCV GSV0861
Inj Date : 06-AUG-2009 21:37
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP CCV GSV0861
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 09:02 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 22 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.186	3.182	(0.179)	427782	2.50000	2.472
	2 Dichlorvos	4.003	4.001	(0.225)	312761	2.50000	2.414
	3 Mevinphos	5.643	5.644	(0.318)	153835	2.50000	2.522
$	4 Chlormefos	5.734	5.736	(0.323)	355681	2.50000	2.538
	5 Thionazin	7.389	7.392	(0.416)	286364	2.50000	2.419
	6 Demeton-O	7.526	7.529	(0.424)	117685	0.81250	0.8593
	7 Ethoprop	7.724	7.727	(0.435)	297847	2.50000	2.559
	8 Naled	7.928	7.931	(0.446)	65321	2.50000	2.621
*	9 Tributylphosphate	7.978	7.984	(1.000)	249612	2.00000	
	10 Sulfotepp	8.309	8.311	(0.468)	392206	2.50000	2.474
	11 Phorate	8.399	8.404	(0.473)	297486	2.50000	2.521
	12 Dimethoate	8.533	8.536	(0.480)	344777	2.50000	2.466
	13 Demeton-S	8.706	8.711	(0.490)	188394	1.70000	1.704
	14 Simazine	8.801	8.807	(0.495)	140890	2.50000	2.707
	15 Atrazine	8.969	8.974	(0.505)	131642	2.50000	2.529
	16 propazine	9.113	9.121	(0.513)	113638	2.50000	2.477
	17 Disulfoton	9.729	9.734	(0.548)	153447	2.50000	2.317
	18 Diazinon	9.763	9.767	(0.550)	340324	2.50000	2.534
	19 Methyl Parathion	10.579	10.584	(0.595)	212057	2.50000	2.462
	20 Ronnel	11.098	11.102	(0.625)	200355	2.50000	2.454
	21 Malathion	11.651	11.656	(0.656)	185794	2.50000	2.513
	22 Fenthion	11.784	11.789	(0.663)	189901	2.50000	2.452
	23 Parathion	11.873	11.879	(0.668)	195359	2.50000	2.441
	24 Chlorpyrifos	11.916	11.922	(0.671)	332492	2.50000	2.766
	25 Trichloronate	12.339	12.346	(0.695)	235221	2.50000	2.500
	26 Anilazine	12.673	12.684	(0.713)	3145	2.50000	1.020
	27 Merphos-A (Merphos)	13.036	13.042	(0.734)	166343	2.50000	2.166
	28 Tetrachlorvinphos (Stirophos)	13.654	13.662	(0.769)	134736	2.50000	2.416
	29 Tokuthion	14.276	14.282	(0.804)	215218	2.50000	2.437
	30 Merphos-B (Merphos Oxone)	14.474	14.482	(0.815)	75492	2.50000	3.257
	31 Carbophenothion-methyl	15.061	15.069	(0.848)	166227	2.50000	2.391
	32 Fensulfothion	15.204	15.209	(0.856)	218456	2.50000	2.428
	33 Bolstar / Famphur	15.929	15.936	(0.897)	401163	5.00000	4.888

		Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34	Carbophenothion	16.079	16.085	(0.905)	237404	2.50000	2.667
$	35	Triphenyl phosphate	16.614	16.619	(0.935)	157841	2.50000	2.488 (A)
	36	Phosmet	16.876	16.882	(0.950)	174731	2.50000	2.345
	37	EPN	17.063	17.067	(0.960)	190387	2.50000	2.394
	38	Azinphos-methyl	17.403	17.407	(0.980)	186935	2.50000	2.524
*	39	TOCP	17.766	17.771	(1.000)	125761	2.00000	
	40	Azinphos-ethyl	17.853	17.857	(1.005)	209548	2.50000	2.494
	41	Coumaphos	18.303	18.306	(1.030)	156393	2.50000	2.468
S	42	Merphos				241835	2.50000	2.409
M	43	Total Demeton				306079	2.50000	2.563

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

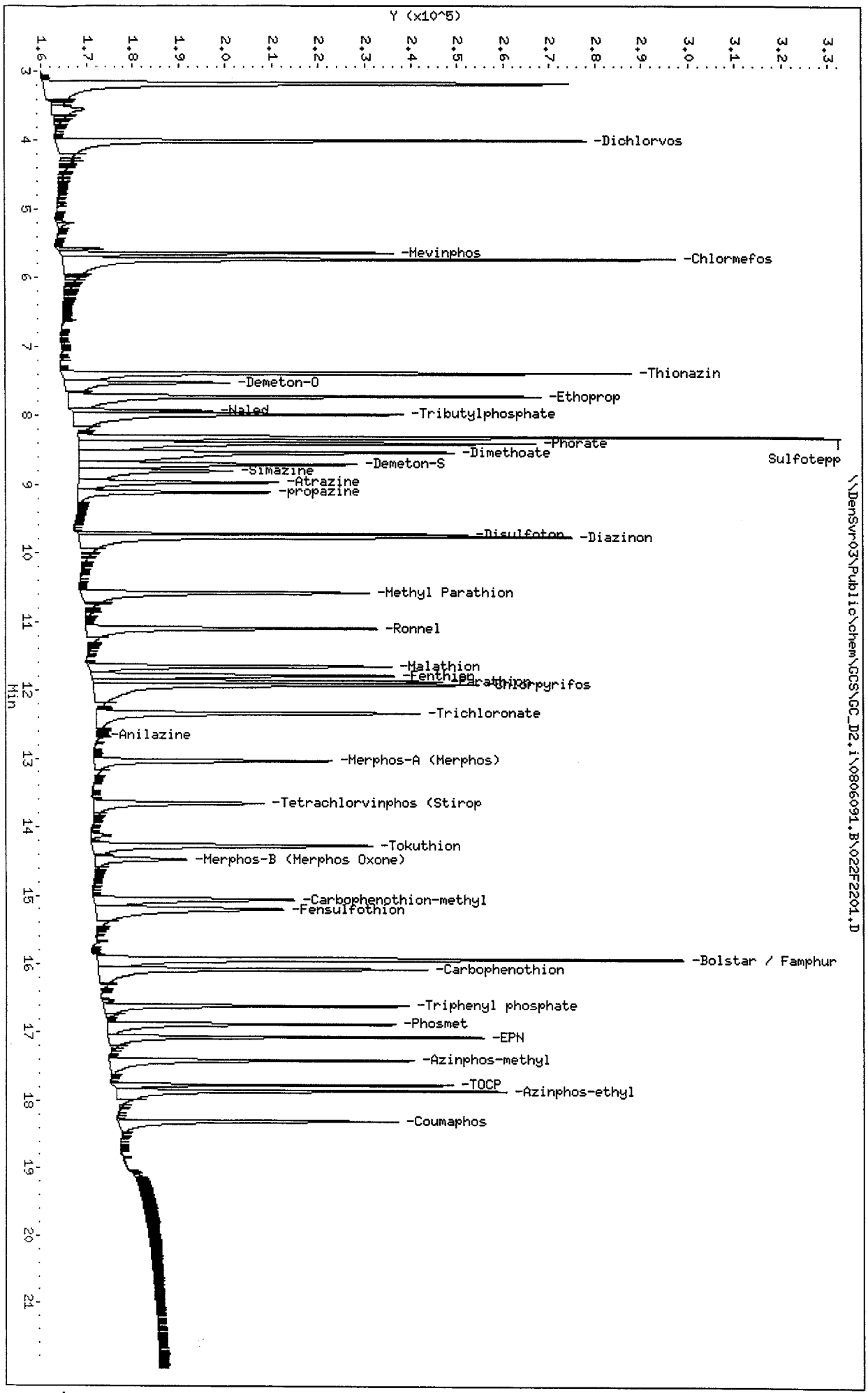
Instrument ID: GC_D2.i
Lab File ID: 022F2201.D
Lab Smp Id: OPP CCV GSV0861
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 07-AUG-2009
Calibration Time: 04:28
Client Smp ID: OPP CCV GSV0861
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	321331	160666	642662	249612	-22.32
39 TOCP	171665	85833	343330	125761	-26.74

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.00
39 TOCP	17.77	17.27	18.27	17.77	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File: \\DenSvr03\Public\chem\GCS\GC_D2,i\0806091,B\022F2201,D
Date : 06-AUG-2009 21:37
Client ID: OPP CCV GSV0861
Sample Info: OPP CCV GSV0861
Column phase: RTx-1MS

Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0.32

GC SEMIVOLATILE SAMPLE DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\011F1101.D
Lab Smp Id: LG1WF1AA Client Smp ID: BLANK
Inj Date : 06-AUG-2009 16:37
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AA,MB
Misc Info :
Comment   :
Method   : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:35 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	1	o,o,o-TEPT	Compound Not Detected.					
	2	Dichlorvos	Compound Not Detected.					
$	3	Chlormefos	7.158	7.159	(0.383)	233462	0.68857	1.377
	4	Mevinphos	8.943	8.952	(0.479)	281	0.06151	0.1230
	5	Demeton-O	Compound Not Detected.					
	6	Thionazin	Compound Not Detected.					
	7	Ethoprop	Compound Not Detected.					
	8	Phorate	Compound Not Detected.					
	9	Naled	Compound Not Detected.					
	10	Sulfotepp	Compound Not Detected.					
*	11	Tributylphosphate	10.824	10.827	(1.000)	469288	2.00000	
	12	Simazine	Compound Not Detected.					
	13	Diazinon	Compound Not Detected.					
	14	Atrazine	Compound Not Detected.					
	15	Propazine	Compound Not Detected.					
	16	Disulfoton	Compound Not Detected.					
	17	Demeton-S	Compound Not Detected.					
	18	Dimethoate	Compound Not Detected.					
	19	Ronnel	Compound Not Detected.					
	20	Merphos-A (Merphos)	Compound Not Detected.					
	21	Chlorpyrifos	Compound Not Detected.					
	22	Fenthion	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23	Trichloronate	Compound Not Detected.					
	24	Anilazine	Compound Not Detected.					
	25	Methyl Parathion	Compound Not Detected.					
	26	Malathion	Compound Not Detected.					
	27	Tokuthion	Compound Not Detected.					
	28	Parathion	Compound Not Detected.					
	29	Merphos-B (Merphos Oxone)	Compound Not Detected.					
	30	Tetrachlorvinphos (stirophos)	Compound Not Detected.					
	31	Carbophenothion methyl	Compound Not Detected.					
	32	Bolstar	Compound Not Detected.					
	33	Carbophenothion	Compound Not Detected.					
$	34	Triphenyl phosphate	18.121	18.122	(0.970)	135428	0.90928	1.818
	35	Fensulfothion	Compound Not Detected.					
*	36	TOCP	18.681	18.682	(1.000)	310084	2.00000	
	37	Phosmet / EPN	Compound Not Detected.					
	38	Famphur	Compound Not Detected.					
	39	Azinphos-methyl	Compound Not Detected.					
	40	Azinphos-ethyl	Compound Not Detected.					
	41	Coumaphos	Compound Not Detected.					
S	42	Merphos	Compound Not Detected.					
M	43	Total Demeton	Compound Not Detected.					

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 011F1101.D
Lab Smp Id: LG1WF1AA
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: BLANK
Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	469288	7.84
36 TOCP	224627	112314	449254	310084	38.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.82	-0.01
36 TOCP	18.68	18.18	19.18	18.68	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AA Client Smp ID: BLANK
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: BLANK
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 Chlormefos	2.000	1.377	68.86	48-114
$ 34 Triphenyl phosphat	2.000	1.818	90.93	50-150

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\011F1101.D

Date : 06-AUG-2009 16:37

Client ID: BLANK

Instrument: GC_D2.i

Sample Info: LG1WF1AA,MB

Operator: MPK/TLW

Column phase: RTx-OPPest

Column diameter: 0.32

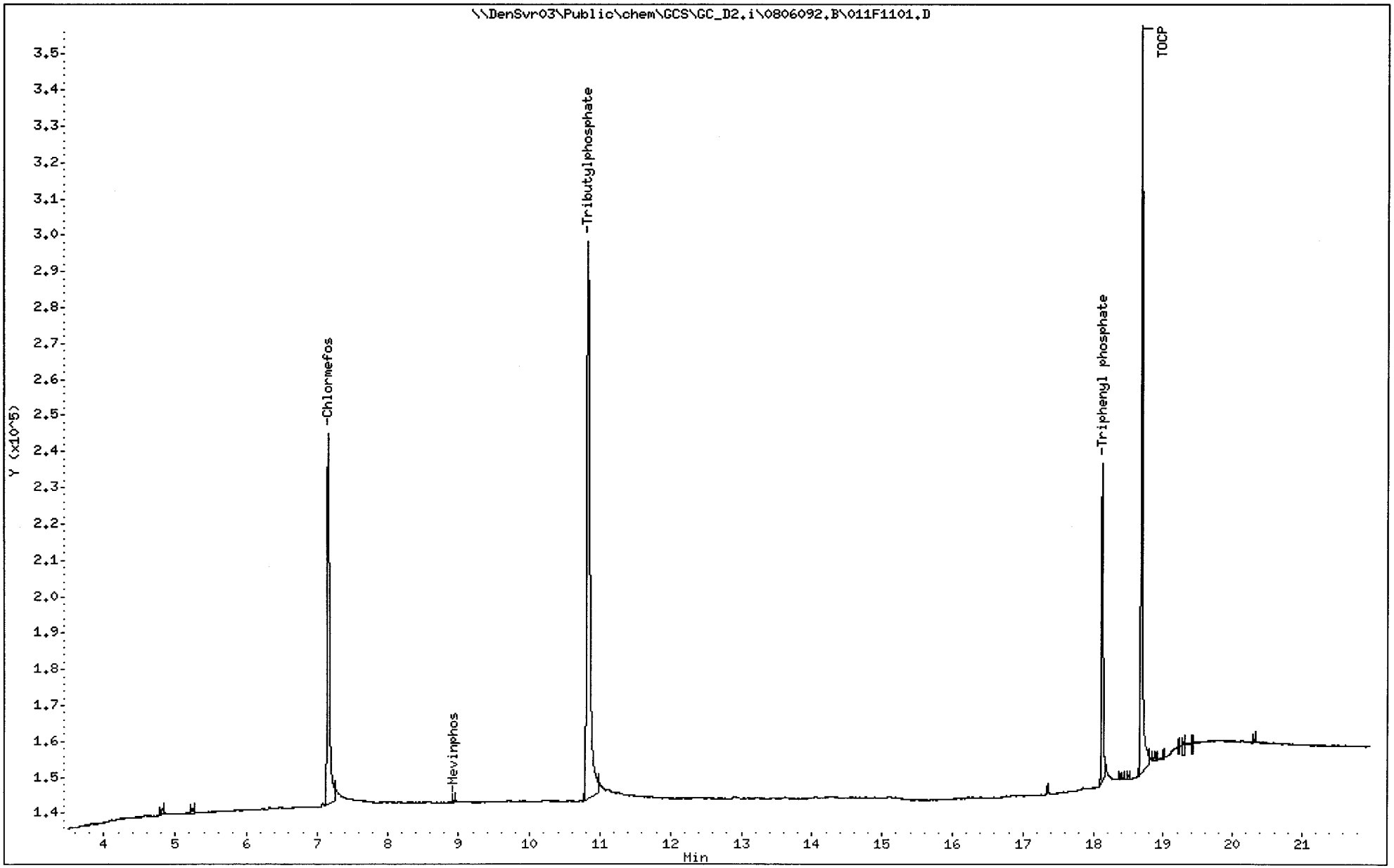


Table of Contents

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\011F1101.D
Lab Smp Id: LG1WF1AA Client Smp ID: BLANK
Inj Date : 06-AUG-2009 16:37
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AA,MB
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:29 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 11 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
1	o,o,o-TEPT	Compound Not Detected.					
2	Dichlorvos	Compound Not Detected.					
3	Mevinphos	Compound Not Detected.					
$ 4	Chlormefos	5.734	5.736	(0.323)	103045	0.58636	1.173
5	Thionazin	7.386	7.392	(0.416)	63	0.02716	0.05433
6	Demeton-O	Compound Not Detected.					
7	Ethoprop	Compound Not Detected.					
8	Naled	7.913	7.931	(0.445)	149	0.20550	0.4110
* 9	Tributylphosphate	7.981	7.984	(1.000)	219264	2.00000	
10	Sulfotepp	Compound Not Detected.					
11	Phorate	Compound Not Detected.					
12	Dimethoate	8.533	8.536	(0.480)	353	0.09300	0.1860
13	Demeton-S	Compound Not Detected.					
14	Simazine	Compound Not Detected.					
15	Atrazine	Compound Not Detected.					
16	propazine	Compound Not Detected.					
17	Disulfoton	9.723	9.734	(0.547)	107	0.04056	0.08113
18	Diazinon	Compound Not Detected.					
19	Methyl Parathion	Compound Not Detected.					
20	Ronnel	11.124	11.102	(0.626)	70	0.03069	0.06137
21	Malathion	Compound Not Detected.					
22	Fenthion	Compound Not Detected.					

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/L)
	23 Parathion	Compound Not Detected.					
	24 Chlorpyrifos	Compound Not Detected.					
	25 Trichloronate	Compound Not Detected.					
	26 Anilazine	12.683	12.684	(0.714)	103	0.30957	0.6191
	27 Merphos-A (Merphos)	13.036	13.042	(0.734)	144	0.00745	0.01490
	28 Tetrachlorvinphos (Stirophos)	13.659	13.662	(0.769)	85	0.06356	0.1271
	29 Tokuthion	Compound Not Detected.					
	30 Merphos-B (Merphos Oxone)	Compound Not Detected.					
	31 Carbophenothion-methyl	Compound Not Detected.					
	32 Fensulfothion	Compound Not Detected.					
	33 Bolstar / Famphur	Compound Not Detected.					
	34 Carbophenothion	Compound Not Detected.					
$	35 Triphenyl phosphate	16.616	16.619	(0.935)	78158	0.94097	1.882
	36 Phosmet	16.874	16.882	(0.950)	264	0.07541	0.1508
	37 EPN	Compound Not Detected.					
	38 Azinphos-methyl	Compound Not Detected.					
*	39 TOCP	17.768	17.771	(1.000)	157711	2.00000	
	40 Azinphos-ethyl	Compound Not Detected.					
	41 Coumaphos	Compound Not Detected.					
S	42 Merphos				144	0.00202	0.004044
M	43 Total Demeton	Compound Not Detected.					

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 011F1101.D
Lab Smp Id: LG1WF1AA
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: BLANK
Level: LOW
Sample Type: WATER
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	219264	15.12
39 TOCP	106323	53162	212646	157711	48.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.01
39 TOCP	17.77	17.27	18.27	17.77	-0.00

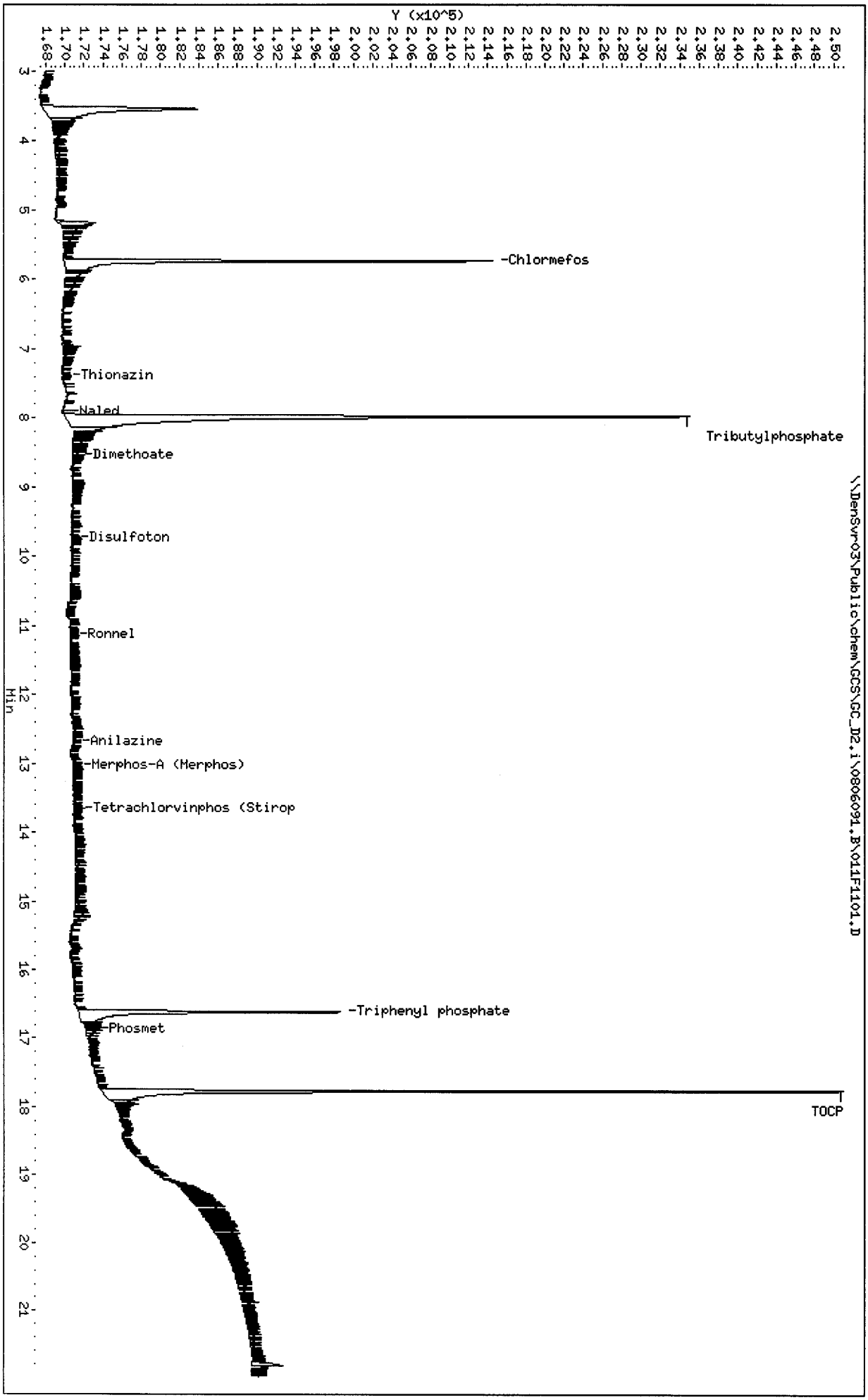
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AA Client Smp ID: BLANK
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: BLANK
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Chlormefos	2.000	1.173	58.64	48-114
$ 35 Triphenyl phosphat	2.000	1.882	94.10	50-150



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Date : 06-AUG-2009 16:37
Client ID: BLANK
Sample Info: LG1WF1AA,MB
Column phase: RTx-1MS
Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\012F1201.D
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Inj Date : 06-AUG-2009 17:04
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AC,LCS
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 09:12 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	1 o,o,o-TEPT	4.569	4.572	(0.245)	492567	1.37947	2.759
	2 Dichlorvos	6.329	6.331	(0.339)	394538	1.71262	3.425
$	3 Chlormefos	7.156	7.159	(0.383)	200181	0.75433	1.509
	4 Mevinphos	8.949	8.952	(0.479)	256885	1.58146	3.163
	5 Demeton-O	9.454	9.457	(0.506)	238437	1.41775	2.836
	6 Thionazin	9.697	9.701	(0.519)	434949	1.75286	3.506
	7 Ethoprop	10.206	10.209	(0.546)	280972	1.81815	3.636
	8 Phorate	10.244	10.247	(0.548)	332266	1.37503	2.750
	9 Naled	10.634	10.637	(0.569)	65356	1.74214	3.484
	10 Sulfotepp	10.717	10.721	(0.574)	462118	1.49195	2.984(A)
*	11 Tributylphosphate	10.822	10.827	(1.000)	456634	2.00000	
	12 Simazine	11.111	11.114	(0.595)	95029	2.19311	4.386(A)
	13 Diazinon	11.252	11.256	(0.602)	289883	1.72325	3.446(M)
	14 Atrazine	11.277	11.282	(0.604)	141149	1.56484	3.130(AM)
	15 Propazine	11.444	11.449	(0.613)	105828	1.72913	3.458
	16 Disulfoton	11.726	11.729	(0.628)	266506	1.56328	3.126(M)
	17 Demeton-S	11.779	11.796	(0.631)	29855	0.17254	0.3451(RM)
	18 Dimethoate	12.896	12.901	(0.690)	336923	1.56856	3.137
	19 Ronnel	13.226	13.229	(0.708)	281507	1.83358	3.667
	20 Merphos-A (Merphos)	Compound Not Detected.					
	21 Chlorpyrifos	14.037	14.039	(0.751)	256180	1.77272	3.545
	22 Fenthion	14.286	14.289	(0.765)	232195	1.58135	3.163

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23 Trichloronate	14.321	14.326	(0.767)	328851	1.58671	3.173
	24 Anilazine	14.846	14.851	(0.795)	2508	0.60849	1.217(R)
	25 Methyl Parathion	15.106	15.109	(0.809)	312560	1.75744	3.515
	26 Malathion	15.381	15.386	(0.823)	206900	1.54458	3.089
	27 Tokuthion	16.087	16.091	(0.861)	253754	1.73797	3.476
	28 Parathion	16.222	16.226	(0.868)	281272	1.72799	3.456
	29 Merphos-B (Merphos Oxone)	16.284	16.287	(1.505)	301985	8.95195	17.90(A)
	30 Tetrachlorvinphos (stirophos)	16.759	16.764	(0.897)	191046	2.00871	4.017
	31 Carbophenothion methyl	16.874	16.876	(0.903)	262379	1.78601	3.572
	32 Bolstar	17.257	17.259	(0.924)	250404	1.79005	3.580
	33 Carbophenothion	17.339	17.341	(0.928)	267616	1.72568	3.451(A)
$	34 Triphenyl phosphate	18.121	18.122	(0.970)	119759	1.02881	2.058
	35 Fensulfothion	18.392	18.396	(0.985)	255457	1.91114	3.822
*	36 TOCP	18.681	18.682	(1.000)	242163	2.00000	
	37 Phosmet / EPN	18.762	18.766	(1.004)	491127	3.73818	7.476
	38 Famphur	18.861	18.864	(1.010)	309533	1.74936	3.499
	39 Azinphos-methyl	19.007	19.012	(1.017)	263473	1.67517	3.350
	40 Azinphos-ethyl	19.217	19.224	(1.029)	289876	1.70197	3.404
	41 Coumaphos	20.132	20.141	(1.078)	218749	1.81382	3.628
S	42 Merphos				301985	1.61051	3.221
M	43 Total Demeton				268292	1.59029	3.180

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 012F1201.D
Lab Smp Id: LG1WF1AC
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 21:37
Client Smp ID: LCS
Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	524243	262122	1048486	456634	-12.90
36 TOCP	266956	133478	533912	242163	-9.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.82	10.32	11.32	10.82	0.03
36 TOCP	18.68	18.18	19.18	18.68	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCS
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

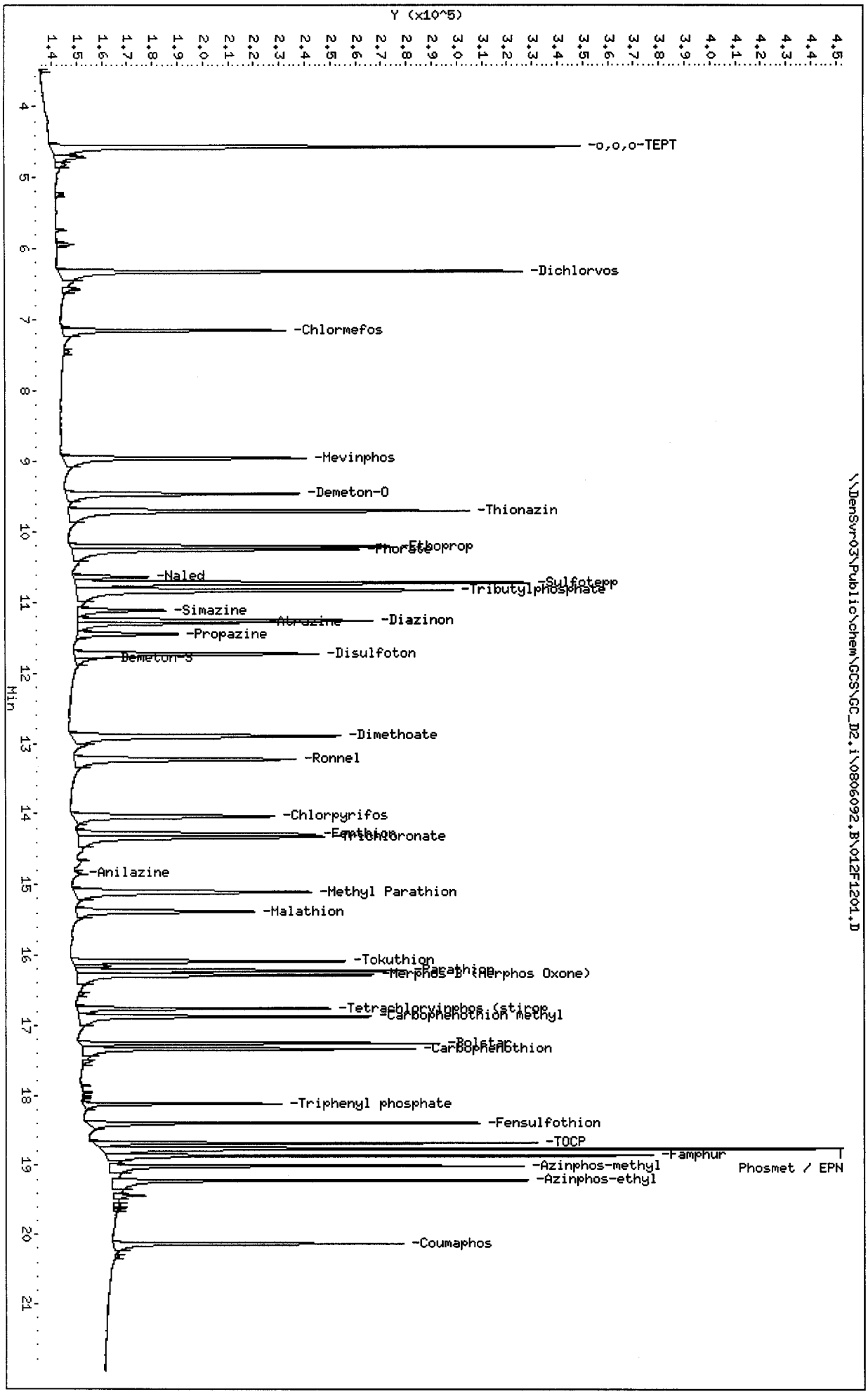
	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1	o,o,o-TEPT	4.000	2.759	68.97	36-119
	2	Dichlorvos	4.000	3.425	85.63	50-120
$	3	Chlormefos	2.000	1.509	75.43	58-114
	4	Mevinphos	4.000	3.163	79.07	35-108
	5	Demeton-O	2.800	2.836	101.27	36-119
	6	Thionazin	4.000	3.506	87.64	65-116
	7	Ethoprop	4.000	3.636	90.91	36-119
	8	Phorate	4.000	2.750	68.75	36-119
	9	Naled	4.000	3.484	87.11	36-119
	10	Sulfotepp	4.000	2.984	74.60	36-119
	12	Simazine	4.000	4.386	109.66	36-119
	13	Diazinon	4.000	3.446	86.16	36-119
	14	Atrazine	4.000	3.130	78.24	36-119
	15	Propazine	4.000	3.458	86.46	36-119
	16	Disulfoton	4.000	3.126	78.16	61-103
	17	Demeton-S	1.200	0.3451	28.76*	36-119
	18	Dimethoate	4.000	3.137	78.43	28-82
	19	Ronnel	4.000	3.667	91.68	62-99
	21	Chlorpyrifos	4.000	3.545	88.64	66-101
	22	Fenthion	4.000	3.163	79.07	36-119
	23	Trichloronate	4.000	3.173	79.34	36-119
	24	Anilazine	4.000	1.217	30.42*	36-119
	25	Methyl Parathion	4.000	3.515	87.87	36-119
	26	Malathion	4.000	3.089	77.23	36-119
	27	Tokuthion	4.000	3.476	86.90	36-119
	28	Parathion	4.000	3.456	86.40	36-119
	30	Tetrachlorvinphos	4.000	4.017	100.44	36-119
	31	Carbophenothion me	4.000	3.572	89.30	36-119
	32	Bolstar	4.000	3.580	89.50	36-119
	33	Carbophenothion	4.000	3.451	86.28	36-119
$	34	Triphenyl phosphat	2.000	2.058	102.88	36-119
	35	Fensulfothion	4.000	3.822	95.56	20-105
	37	Phosmet / EPN	8.000	7.476	93.45	36-119
	38	Famphur	4.000	3.499	87.47	61-108
	39	Azinphos-methyl	4.000	3.350	83.76	55-103
	40	Azinphos-ethyl	4.000	3.404	85.10	36-119
	41	Coumaphos	4.000	3.628	90.69	36-119
S	42	Merphos	4.000	3.221	80.53	36-119
M	43	Total Demeton	4.000	3.180	79.51	47-100

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCS
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 Chlormefos	2.000	1.509	75.43	48-114
$ 34 Triphenyl phosphat	2.000	2.058	102.88	50-150



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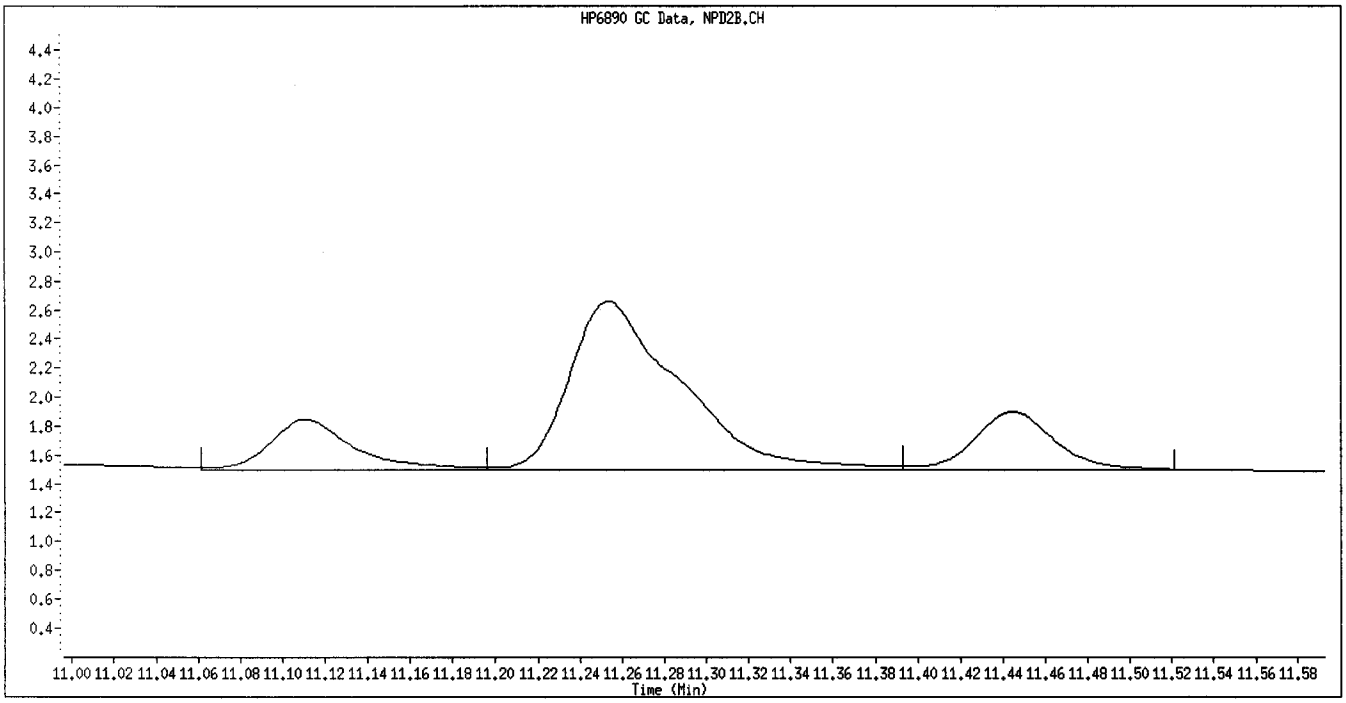
Date : 06-AUG-2009 17:04
Client ID: LCS
Sample Info: LG1WF1AC,LCS
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 012F1201.D
Inj. Date and Time: 06-AUG-2009 17:04
Instrument ID: GC_D2.i
Client ID: LCS
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



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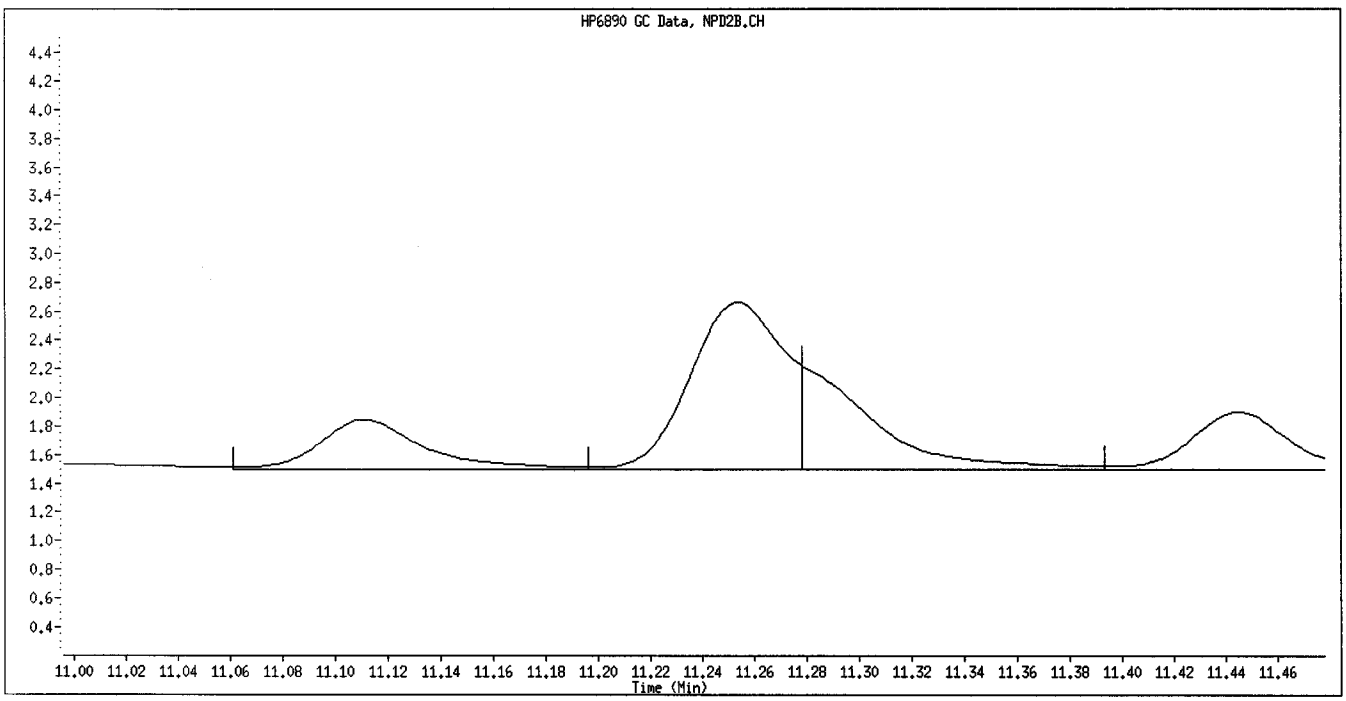
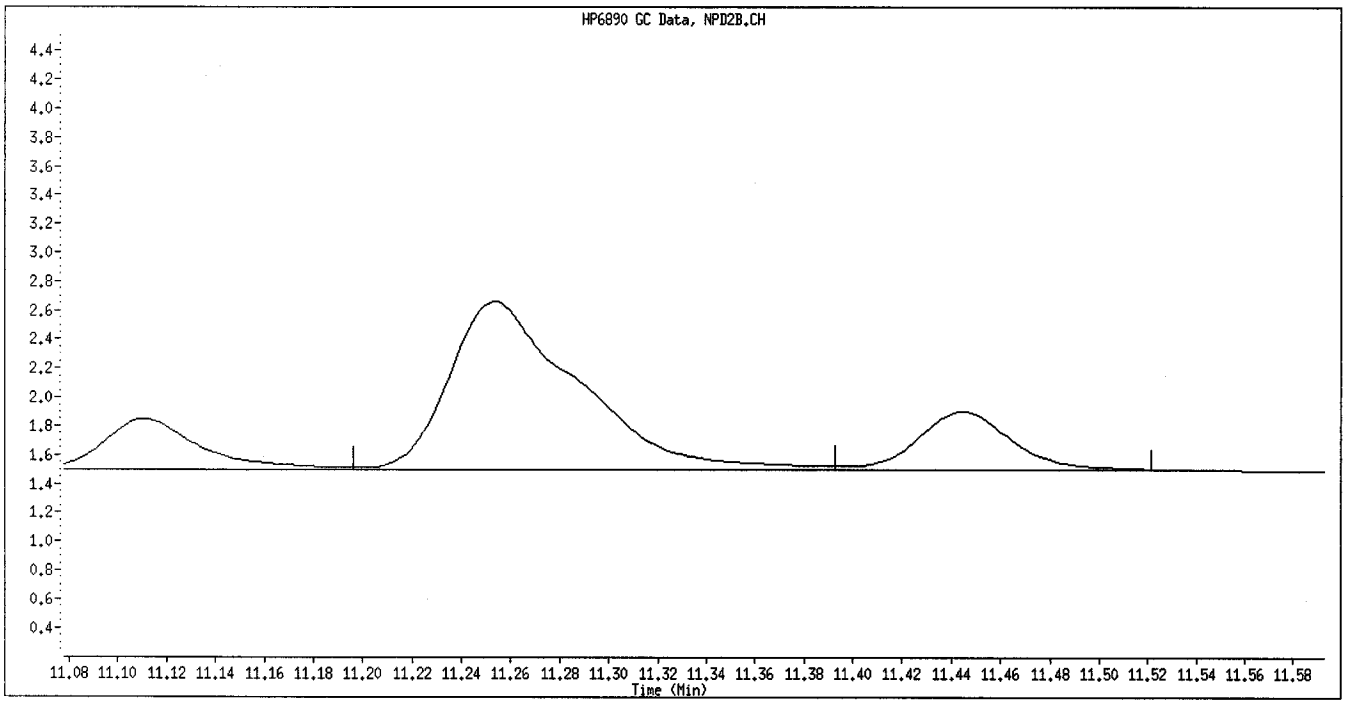


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 012F1201.D
Inj. Date and Time: 06-AUG-2009 17:04
Instrument ID: GC_D2.i
Client ID: LCS
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



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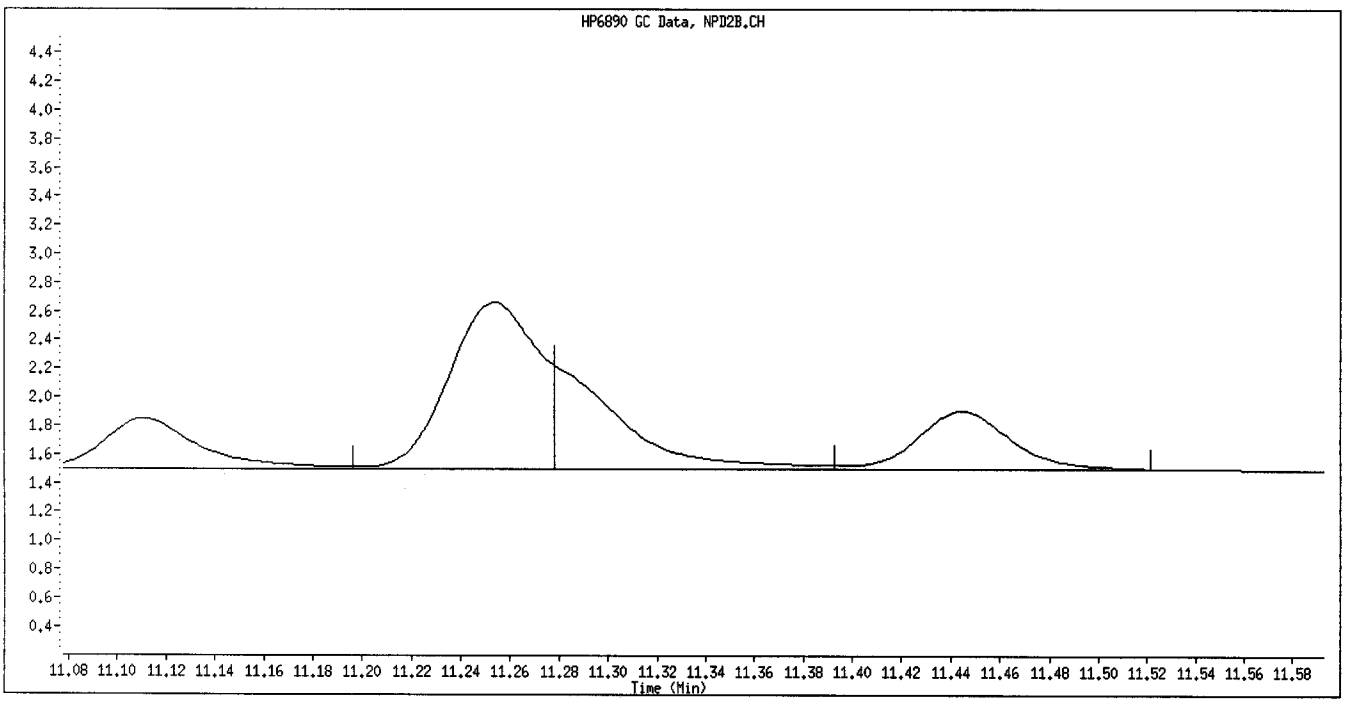
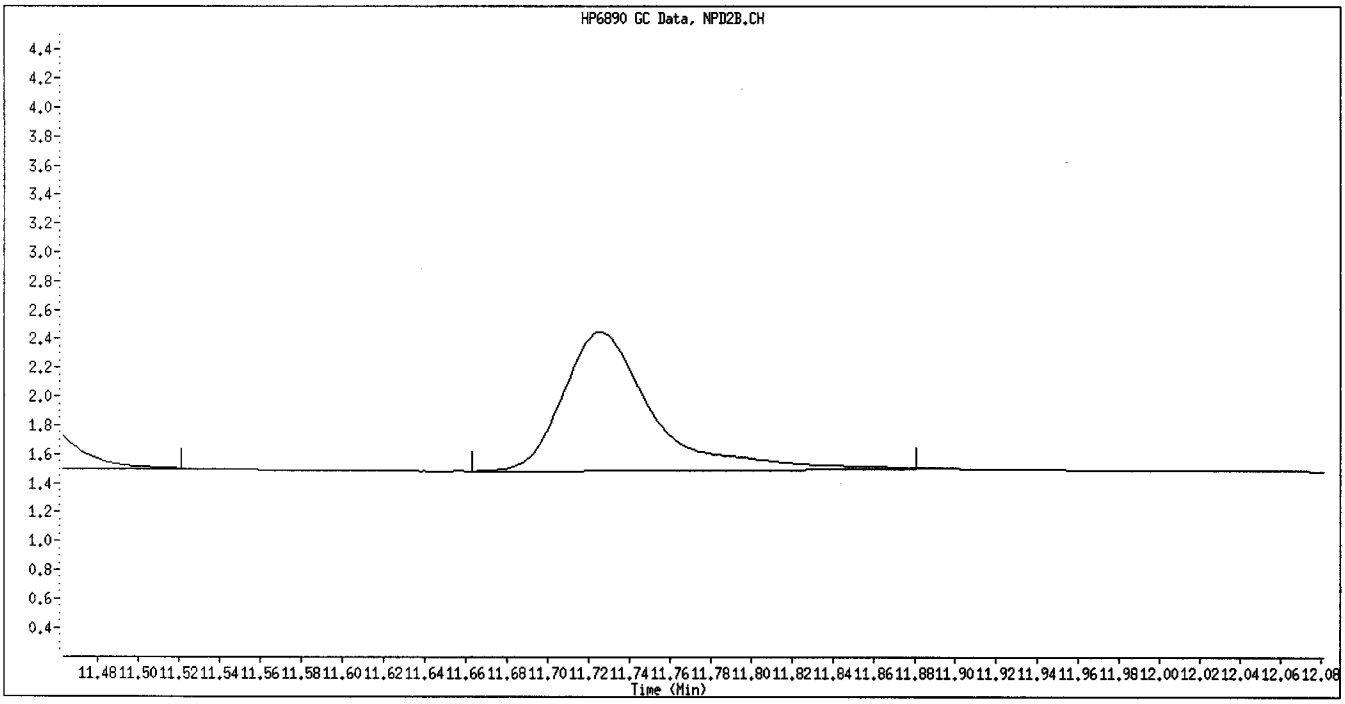


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 012F1201.D
Inj. Date and Time: 06-AUG-2009 17:04
Instrument ID: GC_D2.i
Client ID: LCS
Compound Name: Disulfoton
CAS #: 298-04-4
Report Date: 08/07/2009



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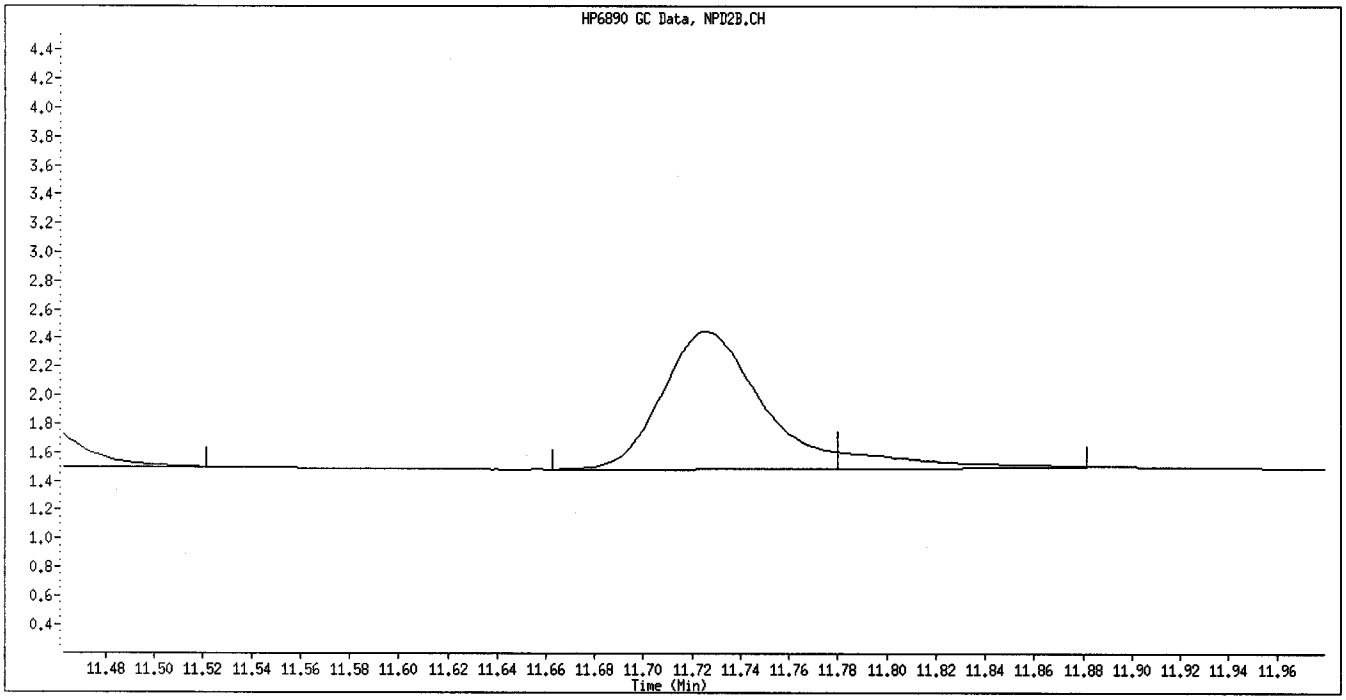

Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 012F1201.D
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Instrument ID: GC_D2.i
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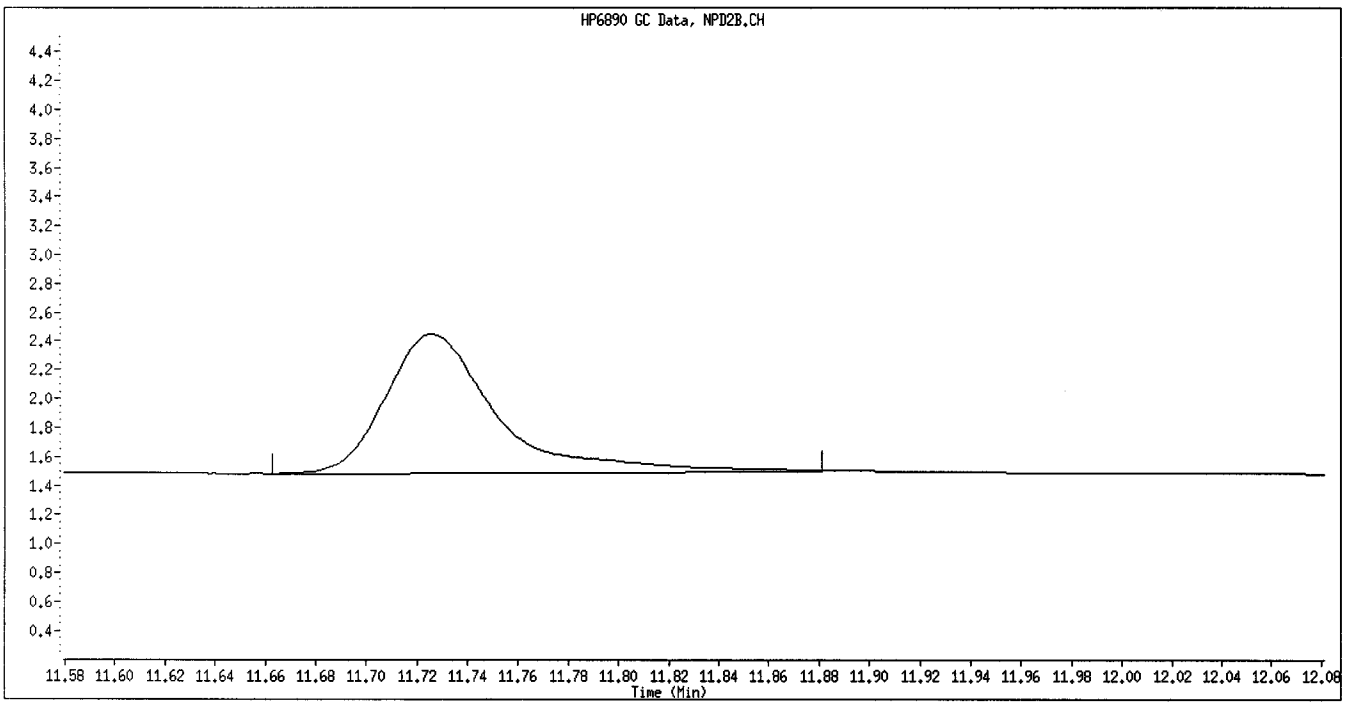
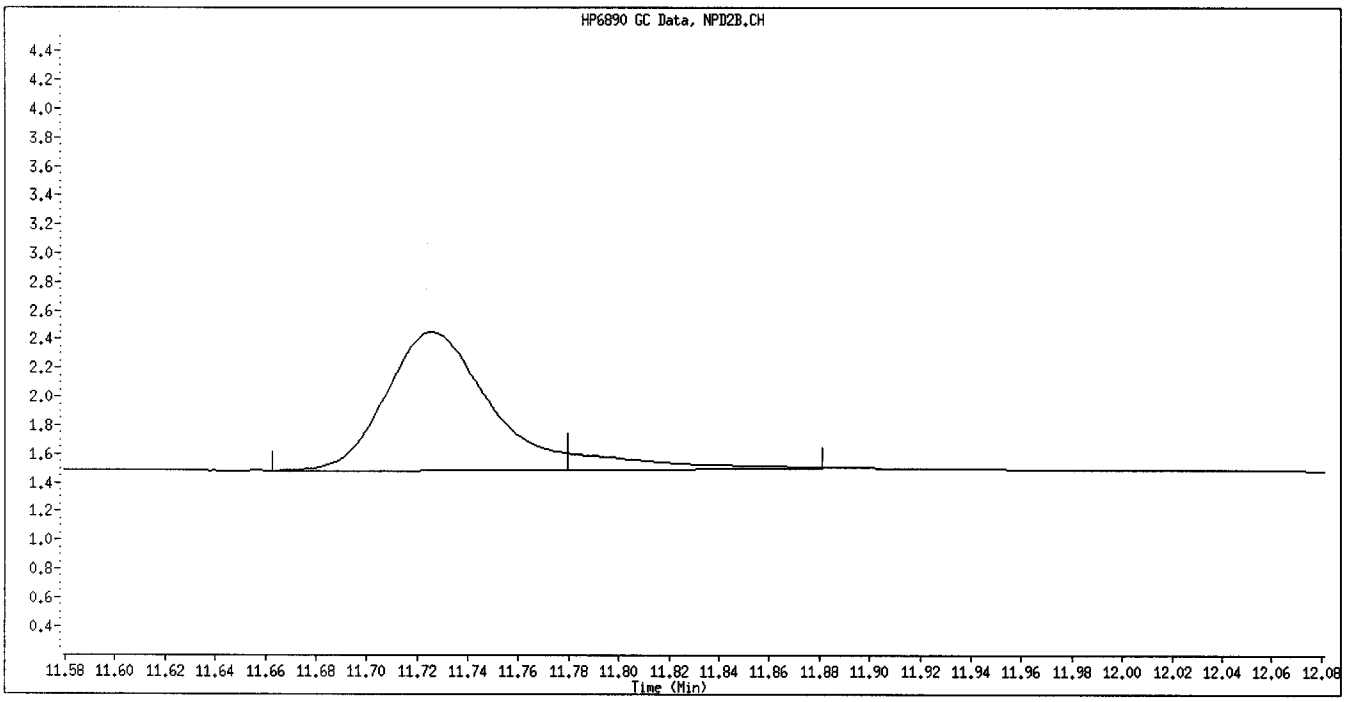
Compound Name: Demeton-S
CAS #: 126-75-0
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\012F1201.D
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Inj Date : 06-AUG-2009 17:04
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AC,LCS
Misc Info : IS - GSV0633-09
Comment   :
Method   : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:29 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 12 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	1 o,o,o-TEPT	3.179	3.182	(0.179)	222844	1.38524	2.770
	2 Dichlorvos	3.999	4.001	(0.225)	185724	1.54533	3.091
	3 Mevinphos	5.642	5.644	(0.318)	84336	1.48287	2.966
$	4 Chlormefos	5.734	5.736	(0.323)	95075	0.72771	1.455
	5 Thionazin	7.389	7.392	(0.416)	191160	1.73937	3.479
	6 Demeton-O	7.526	7.529	(0.424)	159017	1.24384	2.488
	7 Ethoprop	7.724	7.727	(0.435)	211100	1.95311	3.906
	8 Naled	7.927	7.931	(0.446)	38762	1.74165	3.483
*	9 Tributylphosphate	7.979	7.984	(1.000)	214506	2.00000	
	10 Sulfotepp	8.311	8.311	(0.468)	216805	1.44504	2.890
	11 Phorate	8.401	8.404	(0.473)	138826	1.20224	2.404(R)
	12 Dimethoate	8.532	8.536	(0.480)	186456	1.46843	2.937
	13 Demeton-S	8.699	8.711	(0.490)	8277	0.09774	0.1955
	14 Simazine	8.802	8.807	(0.495)	70942	1.49540	2.991
	15 Atrazine	8.969	8.974	(0.505)	79252	1.65115	3.302
	16 propazine	9.114	9.121	(0.513)	69051	1.63043	3.261
	17 Disulfoton	9.731	9.734	(0.548)	79170	1.29992	2.600
	18 Diazinon	9.764	9.767	(0.550)	224312	1.78426	3.568
	19 Methyl Parathion	10.581	10.584	(0.596)	135793	1.70395	3.408
	20 Ronnel	11.099	11.102	(0.625)	128610	1.69911	3.398
	21 Malathion	11.651	11.656	(0.656)	106480	1.54211	3.084
	22 Fenthion	11.786	11.789	(0.663)	115971	1.62012	3.240

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23 Parathion	11.872	11.879	(0.668)	121218	1.64202	3.284
	24 Chlorpyrifos	11.919	11.922	(0.671)	196441	1.75290	3.506
	25 Trichloronate	12.341	12.346	(0.695)	139125	1.59540	3.191
	26 Anilazine	12.676	12.684	(0.713)	1999	0.78782	1.576(R)
	27 Merphos-A (Merphos)	13.041	13.042	(0.734)	153	0.00809	0.01618
	28 Tetrachlorvinphos (Stirophos)	13.654	13.662	(0.768)	94909	1.84093	3.682
	29 Tokuthion	14.277	14.282	(0.804)	146909	1.78034	3.561
	30 Merphos-B (Merphos Oxone)	14.474	14.482	(0.815)	152905	7.15907	14.32(A)
	31 Carbophenothion-methyl	15.064	15.069	(0.848)	113242	1.75108	3.502
	32 Fensulfothion	15.199	15.209	(0.855)	161393	1.93202	3.864
	33 Bolstar / Famphur	15.931	15.936	(0.897)	280126	3.65982	7.320
	34 Carbophenothion	16.081	16.085	(0.905)	148947	1.79453	3.589
$	35 Triphenyl phosphate	16.614	16.619	(0.935)	63051	1.02687	2.054
	36 Phosmet	16.877	16.882	(0.950)	133159	1.92980	3.860
	37 EPN	17.062	17.067	(0.960)	140087	1.89772	3.795
	38 Azinphos-methyl	17.404	17.407	(0.980)	128596	1.87739	3.755
*	39 TOCP	17.767	17.771	(1.000)	117249	2.00000	
	40 Azinphos-ethyl	17.854	17.857	(1.005)	141284	1.75033	3.501
	41 Coumaphos	18.304	18.306	(1.030)	109099	1.86349	3.727
S	42 Merphos				153058	1.63572	3.271
M	43 Total Demeton				167294	1.34159	2.683

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 012F1201.D
Lab Smp Id: LG1WF1AC
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: LCS
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	214506	12.62
39 TOCP	106323	53162	212646	117249	10.28

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.03
39 TOCP	17.77	17.27	18.27	17.77	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCS
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

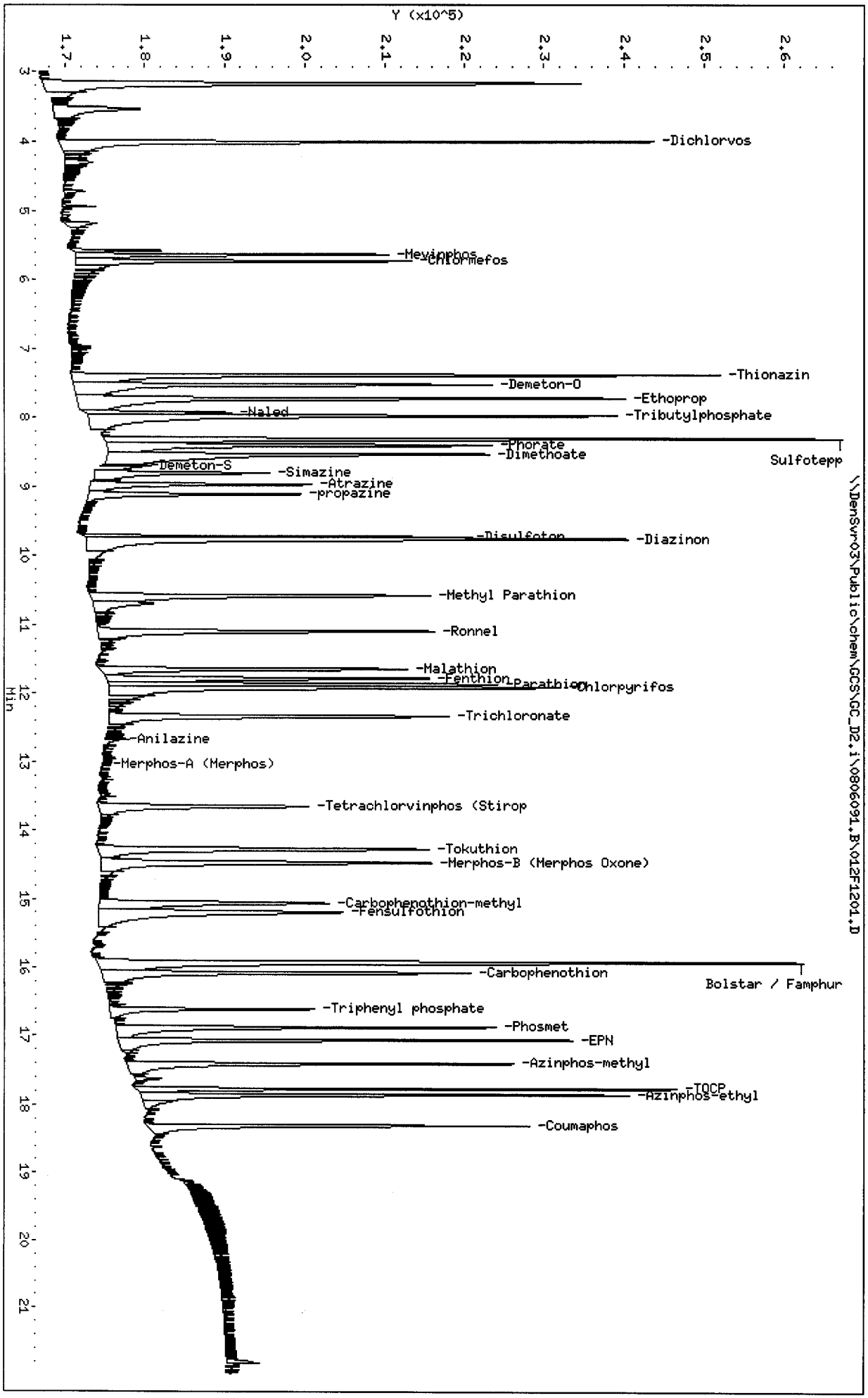
	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1	o,o,o-TEPT	4.000	2.770	69.26	36-119
	2	Dichlorvos	4.000	3.091	77.27	50-120
	3	Mevinphos	4.000	2.966	74.14	35-108
$	4	Chlormefos	2.000	1.455	72.77	48-114
	5	Thionazin	4.000	3.479	86.97	65-116
	7	Ethoprop	4.000	3.906	97.66	65-108
	8	Naled	4.000	3.483	87.08	36-119
	10	Sulfotepp	4.000	2.890	72.25	69-103
	11	Phorate	4.000	2.404	60.11*	62-104
	12	Dimethoate	4.000	2.937	73.42	28-115
	14	Simazine	4.000	2.991	74.77	47-109
	15	Atrazine	4.000	3.302	82.56	36-119
	16	propazine	4.000	3.261	81.52	36-119
	17	Disulfoton	4.000	2.600	65.00	36-119
	18	Diazinon	4.000	3.568	89.21	36-119
	19	Methyl Parathion	4.000	3.408	85.20	68-119
	20	Ronnel	4.000	3.398	84.96	62-115
	21	Malathion	4.000	3.084	77.11	67-115
	22	Fenthion	4.000	3.240	81.01	36-119
	23	Parathion	4.000	3.284	82.10	36-119
	24	Chlorpyrifos	4.000	3.506	87.65	36-119
	25	Trichloronate	4.000	3.191	79.77	36-119
	26	Anilazine	4.000	1.576	39.39*	47-115
	28	Tetrachlorvinphos	4.000	3.682	92.05	36-119
	29	Tokuthion	4.000	3.561	89.02	36-119
	31	Carbophenothion-me	4.000	3.502	87.55	36-119
	32	Fensulfothion	4.000	3.864	96.60	61-115
	33	Bolstar / Famphur	8.000	7.320	91.50	36-119
	34	Carbophenothion	4.000	3.589	89.73	36-119
$	35	Triphenyl phosphat	2.000	2.054	102.69	50-150
	36	Phosmet	4.000	3.860	96.49	36-119
	37	EPN	4.000	3.795	94.89	36-119
	38	Azinphos-methyl	4.000	3.755	93.87	55-115
	40	Azinphos-ethyl	4.000	3.501	87.52	36-119
	41	Coumaphos	4.000	3.727	93.17	62-115
S	42	Merphos	4.000	3.271	81.79	36-119
M	43	Total Demeton	4.000	2.683	67.08	47-115

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AC Client Smp ID: LCS
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCS
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Chlormefos	2.000	1.455	72.77	48-114
$ 35 Triphenyl phosphat	2.000	2.054	102.69	50-150



Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\012F1201.D
Date : 06-AUG-2009 17:04
Client ID: LCS
Sample Info: LG1WF1AC,LCS
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\013F1301.D
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Inj Date : 06-AUG-2009 17:31
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AD,LCSD
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 09:12 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 13 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/L)
1	o,o,o-TEPT	4.570	4.572	(0.245)	434273	1.24868	2.497
2	Dichlorvos	6.329	6.331	(0.339)	366684	1.64566	3.291
$ 3	Chlormefos	7.157	7.159	(0.383)	179546	0.70054	1.401
4	Mevinphos	8.950	8.952	(0.479)	236339	1.50677	3.014
5	Demeton-O	9.455	9.457	(0.506)	201962	1.24359	2.487
6	Thionazin	9.697	9.701	(0.519)	391012	1.63020	3.260
7	Ethoprop	10.207	10.209	(0.546)	258923	1.73305	3.466
8	Phorate	10.244	10.247	(0.548)	290159	1.24108	2.482
9	Naled	10.635	10.637	(0.569)	59058	1.63928	3.278
10	Sulfotepp	10.719	10.721	(0.574)	426449	1.42251	2.845(A)
* 11	Tributylphosphate	10.822	10.827	(1.000)	424461	2.00000	
12	Simazine	11.112	11.114	(0.595)	87506	2.08728	4.174(A)
13	Diazinon	11.252	11.256	(0.602)	262249	1.61147	3.223(M)
14	Atrazine	11.277	11.282	(0.604)	132971	1.51976	3.040(AM)
15	Propazine	11.445	11.449	(0.613)	96093	1.62619	3.252
16	Disulfoton	11.727	11.729	(0.628)	231562	1.40596	2.812(M)
17	Demeton-S	11.779	11.796	(0.631)	21083	0.13577	0.2715(RM)
18	Dimethoate	12.897	12.901	(0.690)	321324	1.54671	3.093
19	Ronnel	13.227	13.229	(0.708)	262511	1.76768	3.535
20	Merphos-A (Merphos)	Compound Not Detected.					
21	Chlorpyrifos	14.037	14.039	(0.751)	235365	1.68470	3.369
22	Fenthion	14.289	14.289	(0.765)	203307	1.44026	2.880

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23 Trichloronate	14.320	14.326	(0.767)	310173	1.54205	3.084
	24 Anilazine	14.847	14.851	(0.795)	1873	0.53047	1.061(R)
	25 Methyl Parathion	15.107	15.109	(0.809)	298157	1.73330	3.467
	26 Malathion	15.382	15.386	(0.823)	195060	1.50577	3.012
	27 Tokuthion	16.089	16.091	(0.861)	235645	1.66851	3.337
	28 Parathion	16.222	16.226	(0.868)	257988	1.63822	3.276
	29 Merphos-B (Merphos Oxone)	16.285	16.287	(1.505)	277151	8.79260	17.58(A)
	30 Tetrachlorvinphos (stirophos)	16.760	16.764	(0.897)	173437	1.88579	3.772
	31 Carbophenothion methyl	16.875	16.876	(0.903)	226333	1.59704	3.194
	32 Bolstar	17.257	17.259	(0.924)	225713	1.66681	3.334
	33 Carbophenothion	17.340	17.341	(0.928)	245025	1.63396	3.268(A)
$	34 Triphenyl phosphate	18.120	18.122	(0.970)	107561	0.95547	1.911
	35 Fensulfothion	18.394	18.396	(0.985)	232507	1.79855	3.597
*	36 TOCP	18.680	18.682	(1.000)	234298	2.00000	
	37 Phosmet / EPN	18.762	18.766	(1.004)	445973	3.49808	6.996
	38 Famphur	18.860	18.864	(1.010)	283262	1.65139	3.303
	39 Azinphos-methyl	19.007	19.012	(1.017)	238092	1.56461	3.129
	40 Azinphos-ethyl	19.219	19.224	(1.029)	264556	1.59885	3.198
	41 Coumaphos	20.134	20.141	(1.078)	203462	1.74446	3.489
S	42 Merphos				277151	1.52965	3.059
M	43 Total Demeton				223045	1.37936	2.759

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 013F1301.D
Lab Smp Id: LG1WF1AD
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 21:37
Client Smp ID: LCSD
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 Tributylphosphate	524243	262122	1048486	424461	-19.03
36 TOCP	266956	133478	533912	234298	-12.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.82	10.32	11.32	10.82	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCSD
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

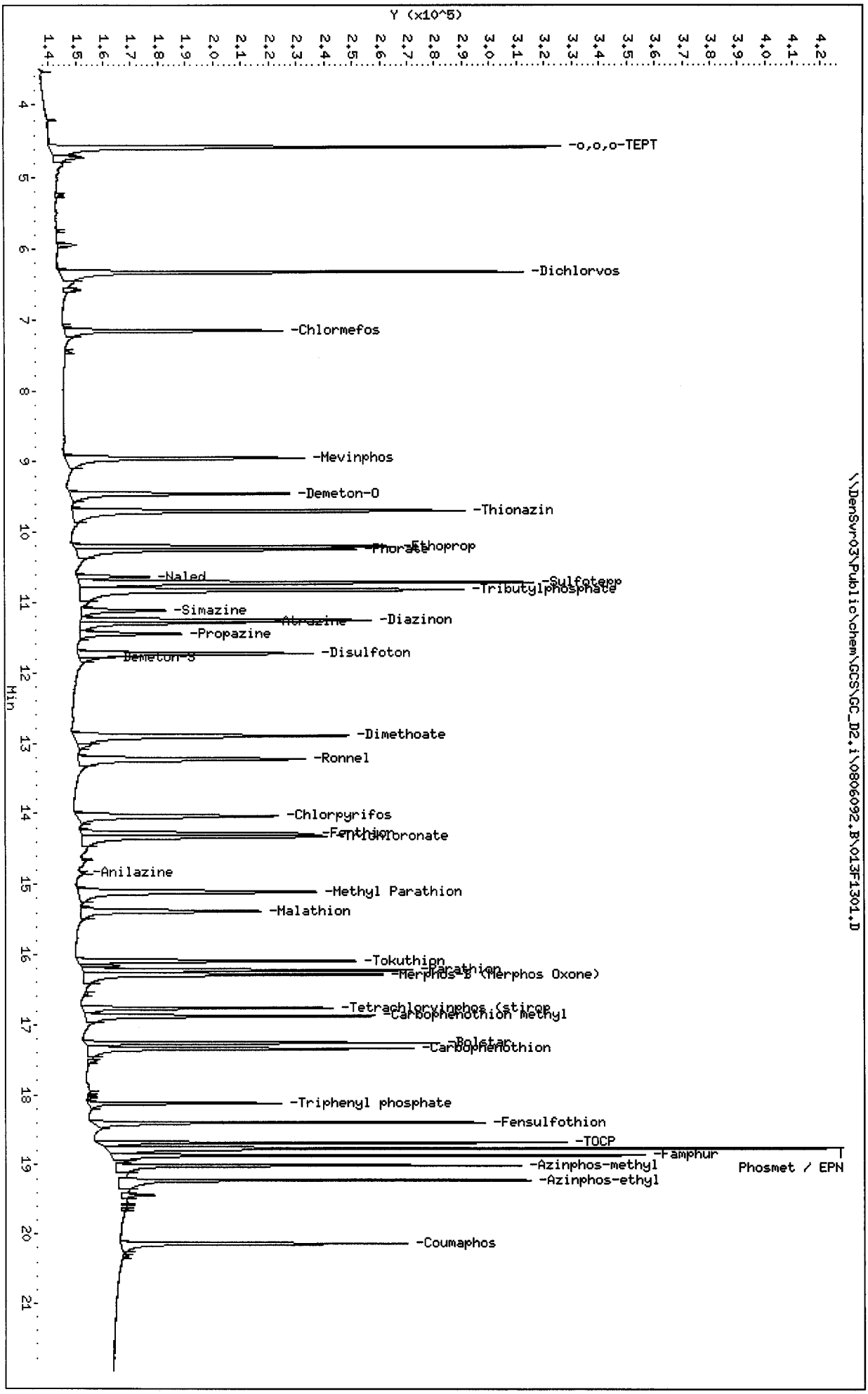
	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1	o,o,o-TEPT	4.000	2.497	62.43	36-119
	2	Dichlorvos	4.000	3.291	82.28	50-120
$	3	Chlormefos	2.000	1.401	70.05	58-114
	4	Mevinphos	4.000	3.014	75.34	35-108
	5	Demeton-O	2.800	2.487	88.83	36-119
	6	Thionazin	4.000	3.260	81.51	65-116
	7	Ethoprop	4.000	3.466	86.65	36-119
	8	Phorate	4.000	2.482	62.05	36-119
	9	Naled	4.000	3.278	81.96	36-119
	10	Sulfotepp	4.000	2.845	71.13	36-119
	12	Simazine	4.000	4.174	104.36	36-119
	13	Diazinon	4.000	3.223	80.57	36-119
	14	Atrazine	4.000	3.040	75.99	36-119
	15	Propazine	4.000	3.252	81.31	36-119
	16	Disulfoton	4.000	2.812	70.30	61-103
	17	Demeton-S	1.200	0.2715	22.63*	36-119
	18	Dimethoate	4.000	3.093	77.34	28-82
	19	Ronnel	4.000	3.535	88.38	62-99
	21	Chlorpyrifos	4.000	3.369	84.23	66-101
	22	Fenthion	4.000	2.880	72.01	36-119
	23	Trichloronate	4.000	3.084	77.10	36-119
	24	Anilazine	4.000	1.061	26.52*	36-119
	25	Methyl Parathion	4.000	3.467	86.67	36-119
	26	Malathion	4.000	3.012	75.29	36-119
	27	Tokuthion	4.000	3.337	83.43	36-119
	28	Parathion	4.000	3.276	81.91	36-119
	30	Tetrachlorvinphos	4.000	3.772	94.29	36-119
	31	Carbophenothion me	4.000	3.194	79.85	36-119
	32	Bolstar	4.000	3.334	83.34	36-119
	33	Carbophenothion	4.000	3.268	81.70	36-119
$	34	Triphenyl phosphat	2.000	1.911	95.55	36-119
	35	Fensulfothion	4.000	3.597	89.93	20-105
	37	Phosmet / EPN	8.000	6.996	87.45	36-119
	38	Famphur	4.000	3.303	82.57	61-108
	39	Azinphos-methyl	4.000	3.129	78.23	55-103
	40	Azinphos-ethyl	4.000	3.198	79.94	36-119
	41	Coumaphos	4.000	3.489	87.22	36-119
S	42	Merphos	4.000	3.059	76.48	36-119
M	43	Total Demeton	4.000	2.759	68.97	47-100

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCSD
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

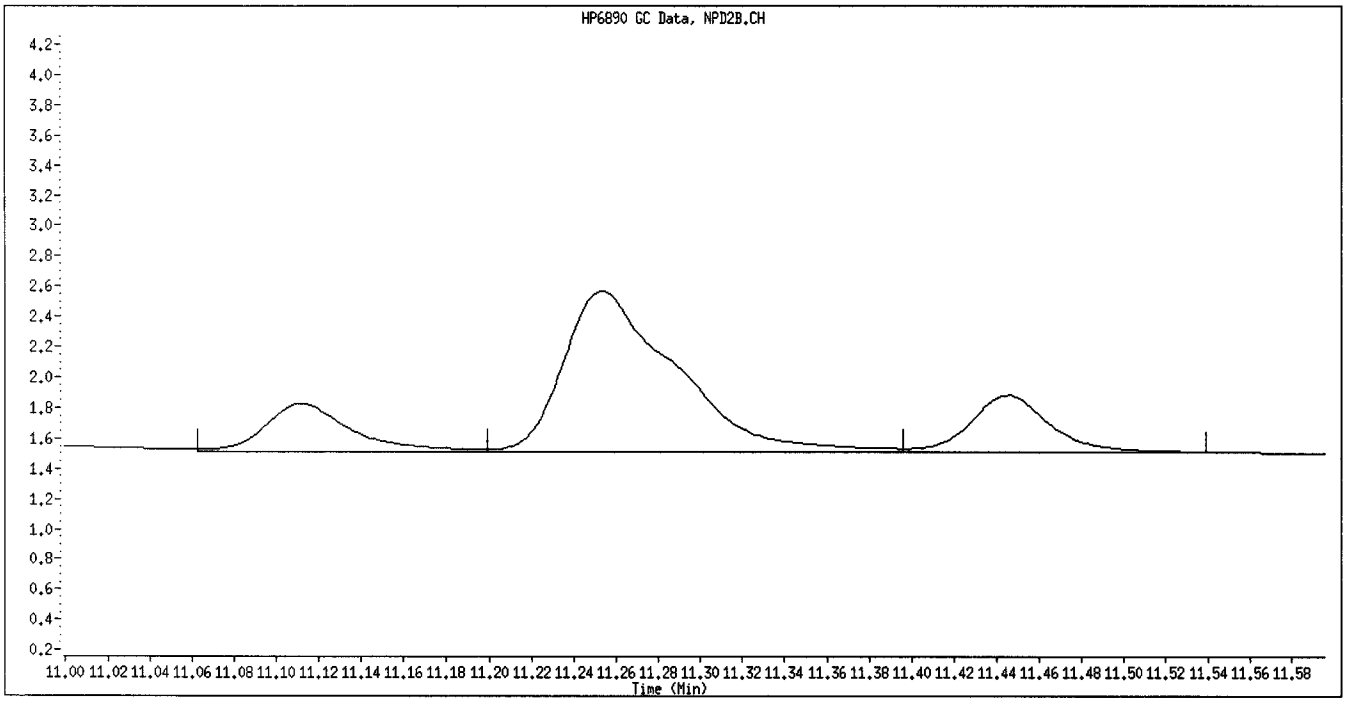
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 Chlormefos	2.000	1.401	70.05	48-114
$ 34 Triphenyl phosphat	2.000	1.911	95.55	50-150



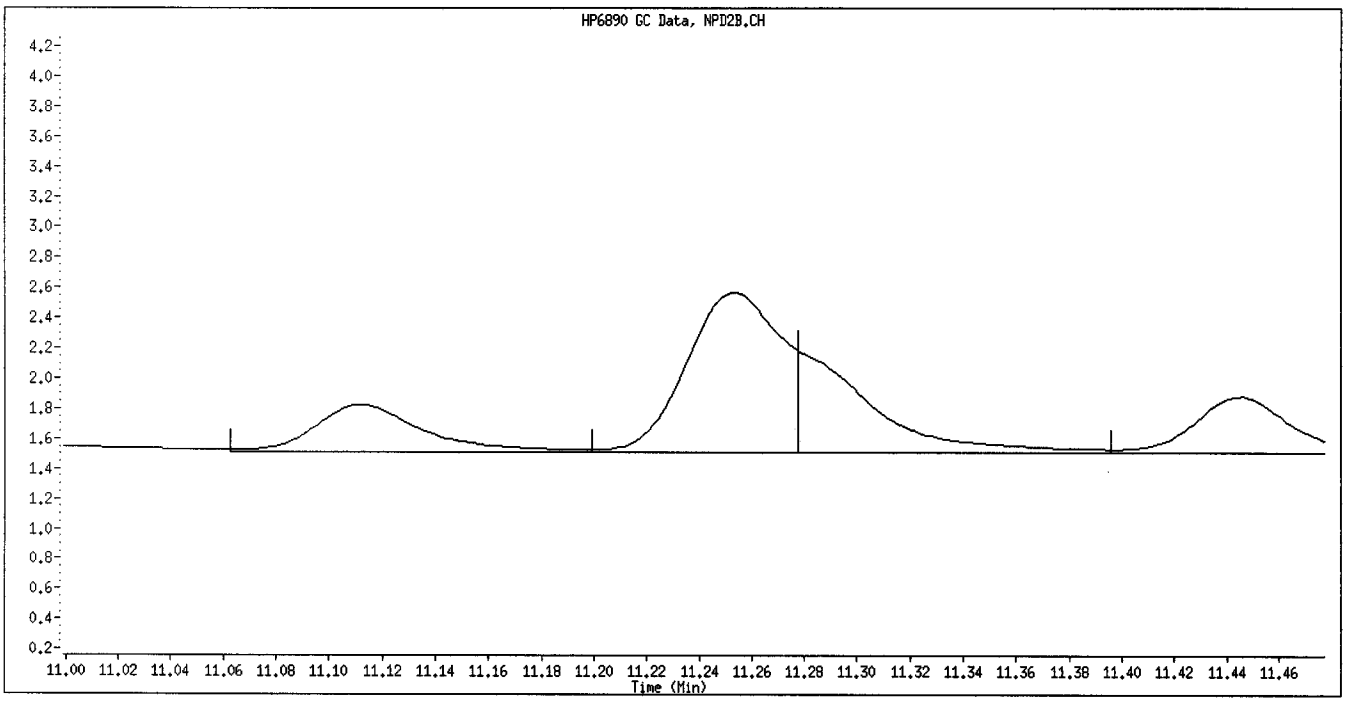
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\013F1301.D
Date : 06-AUG-2009 17:31
Client ID: LCSD
Sample Info: LG1WF1AD,LCSD
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 013F1301.D
Inj. Date and Time: 06-AUG-2009 17:31
Instrument ID: GC_D2.i
Client ID: LCSD
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



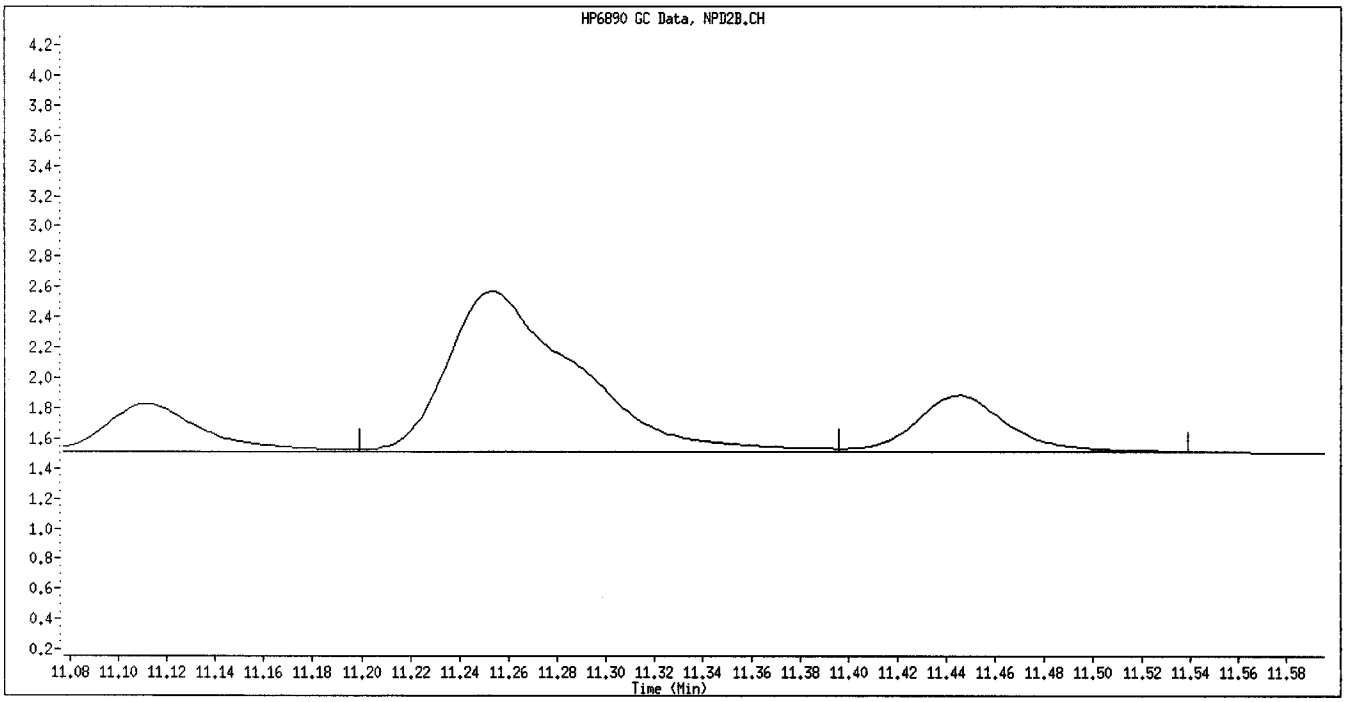
Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 013F1301.D
Inj. Date and Time: 06-AUG-2009 17:31
Instrument ID: GC_D2.i
Client ID: LCSD
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



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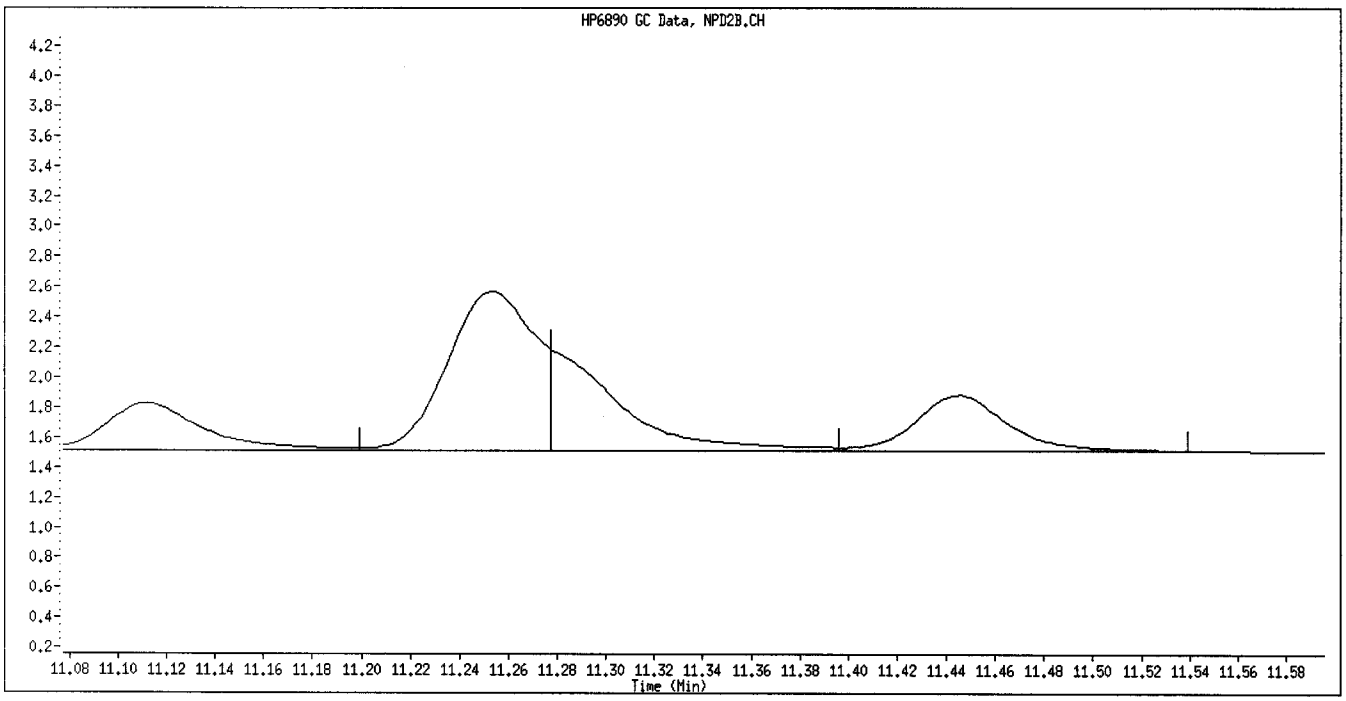
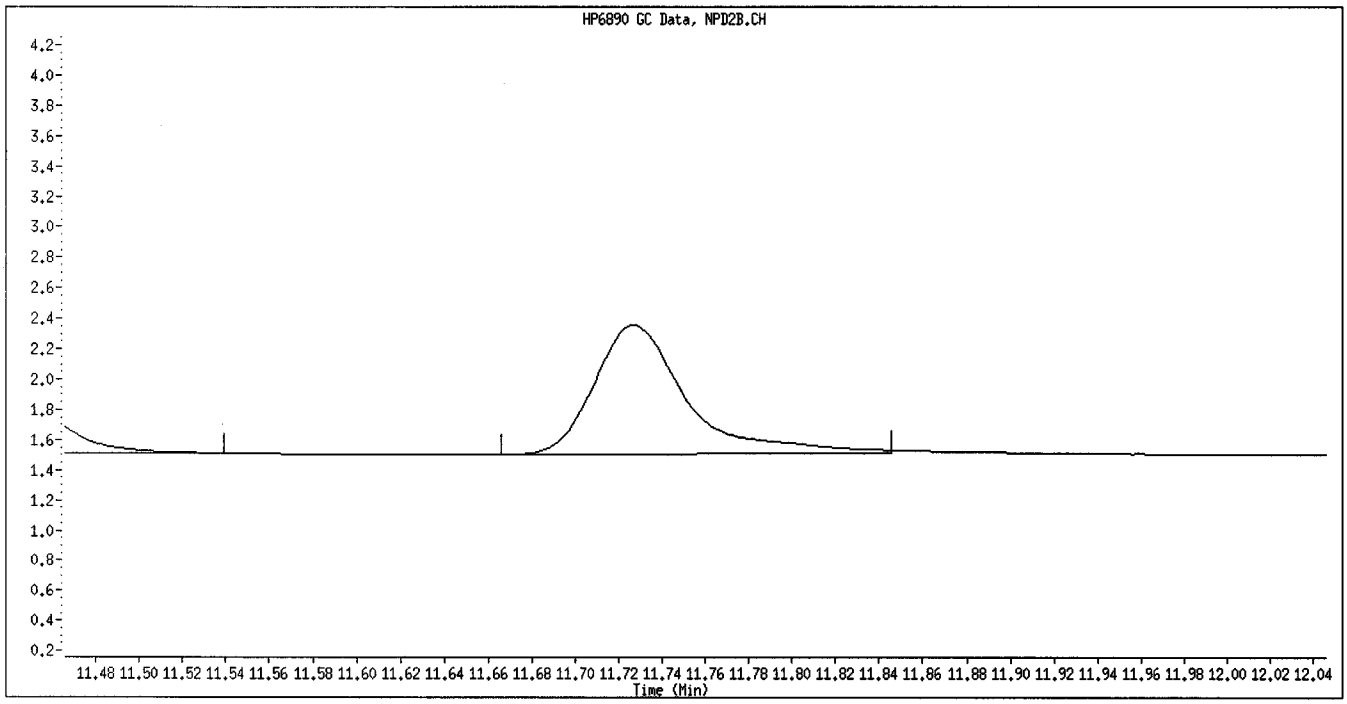


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 013F1301.D
Inj. Date and Time: 06-AUG-2009 17:31
Instrument ID: GC_D2.i
Client ID: LCSD
Compound Name: Disulfoton
CAS #: 298-04-4
Report Date: 08/07/2009



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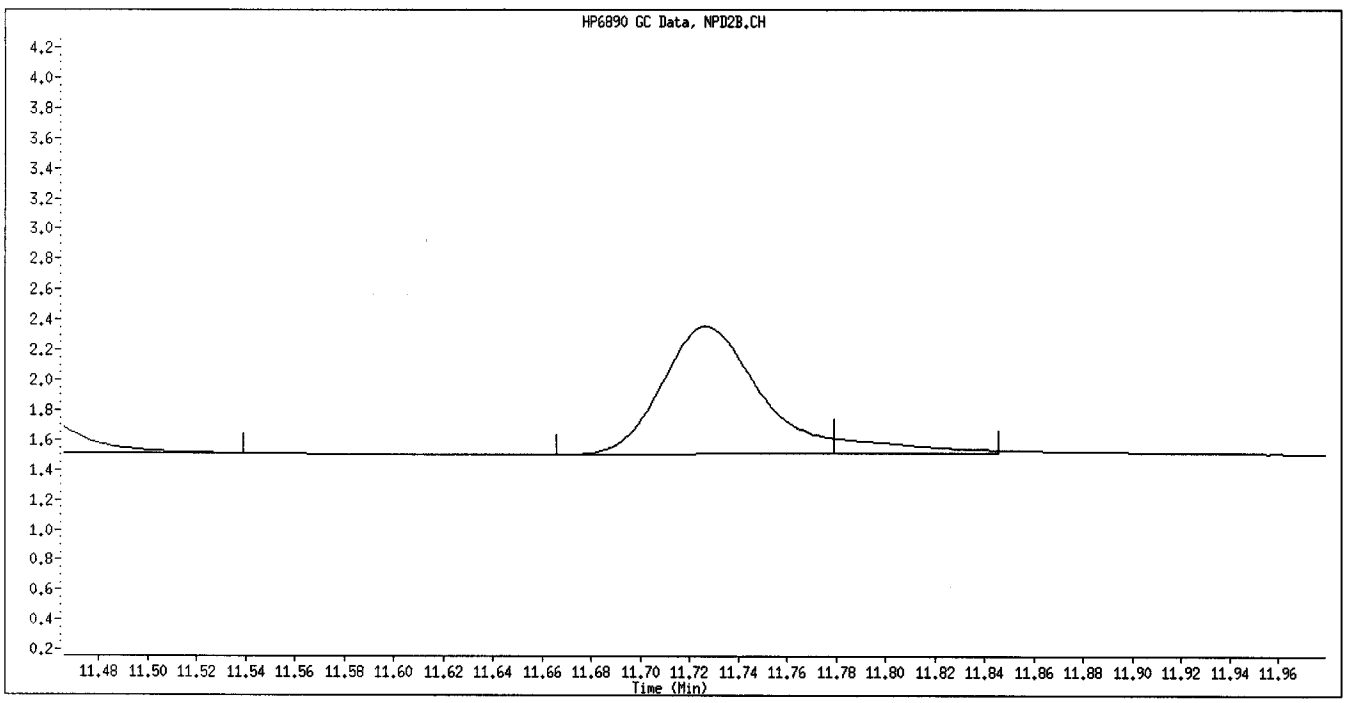
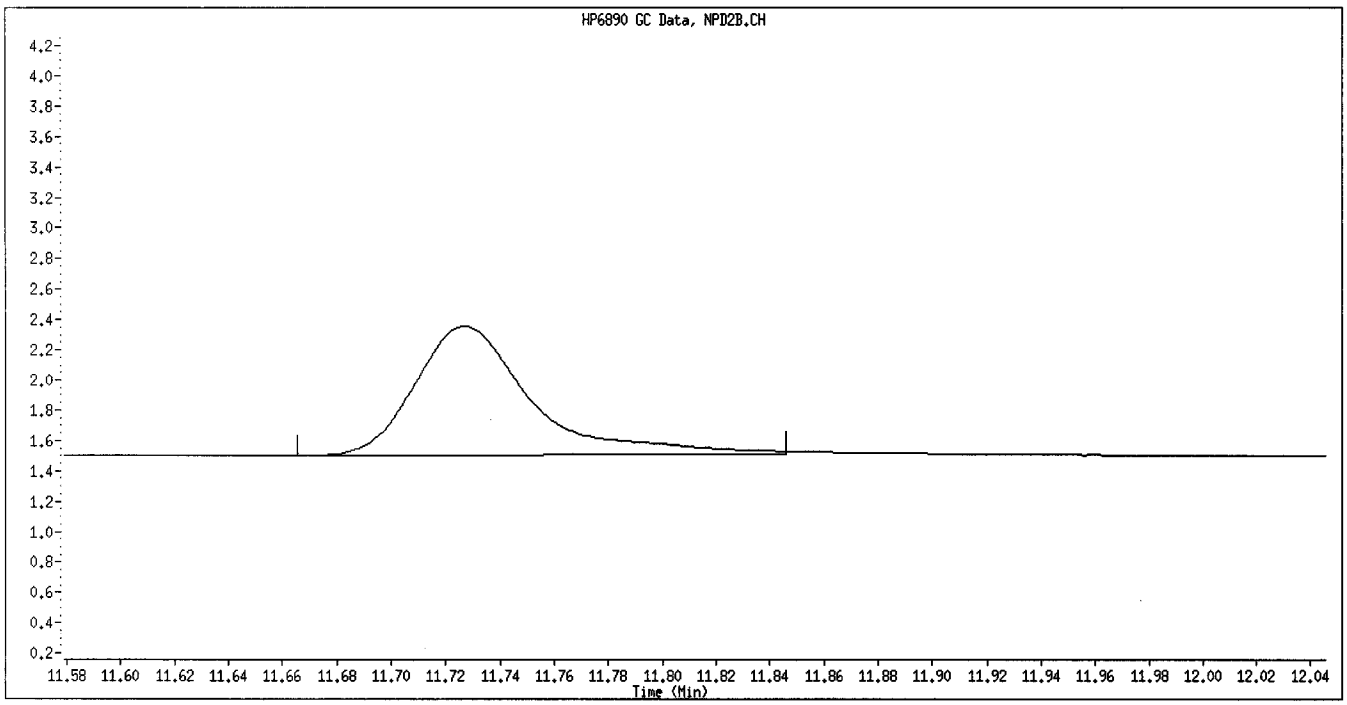


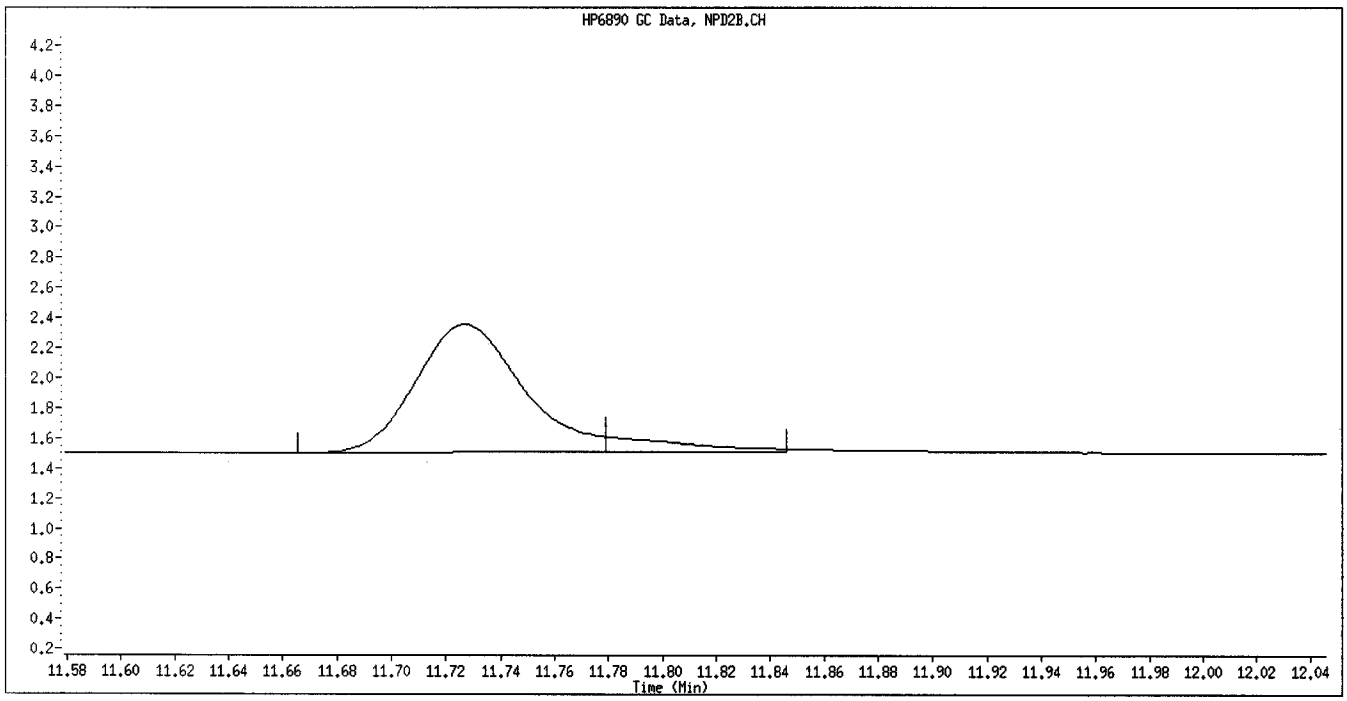
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 013F1301.D
Inj. Date and Time: 06-AUG-2009 17:31
Instrument ID: GC_D2.i
Client ID: LCSD
Compound Name: Demeton-S
CAS #: 126-75-0
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\013F1301.D
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Inj Date : 06-AUG-2009 17:31
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG1WF1AD,LCSD
Misc Info : IS - GSV0633-09
Comment   :
Method   : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:29 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 13 QC Sample: LCSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1000.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
1	o,o,o-TEPT	3.180	3.182	(0.179)	204762	1.29543	2.591
2	Dichlorvos	4.000	4.001	(0.225)	180388	1.52716	3.054
3	Mevinphos	5.642	5.644	(0.318)	77981	1.39485	2.790
$ 4	Chlormefos	5.734	5.736	(0.323)	102446	0.79769	1.595
5	Thionazin	7.390	7.392	(0.416)	175420	1.62554	3.251
6	Demeton-O	7.527	7.529	(0.424)	116460	0.92758	1.855
7	Ethoprop	7.724	7.727	(0.435)	193921	1.82737	3.655
8	Naled	7.929	7.931	(0.446)	36070	1.65946	3.319
* 9	Tributylphosphate	7.980	7.984	(1.000)	217157	2.00000	
10	Sulfotepp	8.310	8.311	(0.468)	215201	1.45968	2.919
11	Phorate	8.402	8.404	(0.473)	146385	1.29835	2.597
12	Dimethoate	8.534	8.536	(0.480)	201957	1.60875	3.217
13	Demeton-S	8.705	8.711	(0.490)	22567	0.23864	0.4773
14	Simazine	8.804	8.807	(0.495)	69693	1.49453	2.989
15	Atrazine	8.970	8.974	(0.505)	76212	1.61639	3.233
16	propazine	9.115	9.121	(0.513)	64930	1.56160	3.123
17	Disulfoton	9.735	9.734	(0.548)	69778	1.16959	2.339
18	Diazinon	9.765	9.767	(0.550)	209447	1.69356	3.387
19	Methyl Parathion	10.580	10.584	(0.595)	125087	1.59935	3.199
20	Ronnel	11.099	11.102	(0.625)	121649	1.63608	3.272
21	Malathion	11.652	11.656	(0.656)	99689	1.46841	2.937
22	Fenthion	11.787	11.789	(0.663)	105585	1.50350	3.007

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/L)
	23 Parathion	11.875	11.879	(0.668)	111743	1.54309	3.086
	24 Chlorpyrifos	11.920	11.922	(0.671)	180406	1.63767	3.275
	25 Trichloronate	12.340	12.346	(0.695)	128752	1.50346	3.007
	26 Anilazine	12.679	12.684	(0.714)	1790	0.74353	1.487(R)
	27 Merphos-A (Merphos)	13.055	13.042	(0.735)	51	0.00668	0.01336
	28 Tetrachlorvinphos (Stirophos)	13.655	13.662	(0.769)	83535	1.65487	3.310
	29 Tokuthion	14.279	14.282	(0.804)	136610	1.68343	3.367
	30 Merphos-B (Merphos Oxone)	14.479	14.482	(0.815)	147913	7.04401	14.09(A)
	31 Carbophenothion-methyl	15.065	15.069	(0.848)	102775	1.61793	3.236
	32 Fensulfothion	15.202	15.209	(0.856)	151134	1.84240	3.685
	33 Bolstar / Famphur	15.930	15.936	(0.897)	257465	3.42162	6.843
	34 Carbophenothion	16.080	16.085	(0.905)	132968	1.62973	3.259
$	35 Triphenyl phosphate	16.615	16.619	(0.935)	54431	0.89349	1.787
	36 Phosmet	16.877	16.882	(0.950)	119506	1.76822	3.536
	37 EPN	17.064	17.067	(0.960)	123588	1.70734	3.415
	38 Azinphos-methyl	17.405	17.407	(0.980)	112442	1.67642	3.353
*	39 TOCP	17.769	17.771	(1.000)	115255	2.00000	
	40 Azinphos-ethyl	17.855	17.857	(1.005)	131728	1.65020	3.300
	41 Coumaphos	18.304	18.306	(1.030)	102892	1.79056	3.581
S	42 Merphos				147964	1.60865	3.217
M	43 Total Demeton				139027	1.16622	2.332

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
R - Spike/Surrogate failed recovery limits.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 013F1301.D
Lab Smp Id: LG1WF1AD
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: LCSD
Level: LOW
Sample Type: WATER

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	217157	14.01
39 TOCP	106323	53162	212646	115255	8.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.02
39 TOCP	17.77	17.27	18.27	17.77	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCSD
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

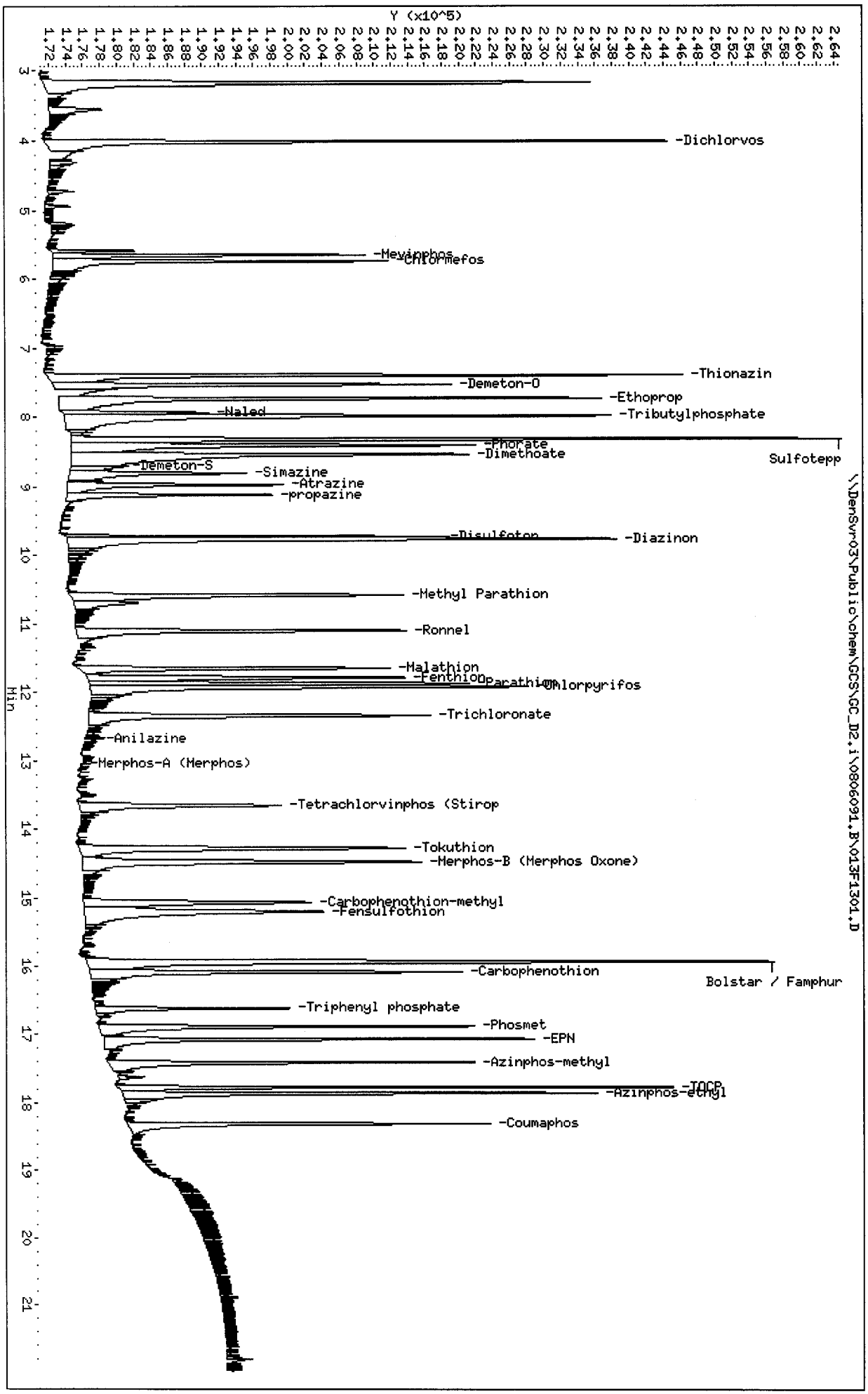
	SPIKE	COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
	1	o,o,o-TEPT	4.000	2.591	64.77	36-119
	2	Dichlorvos	4.000	3.054	76.36	50-120
	3	Mevinphos	4.000	2.790	69.74	35-108
$	4	Chlormefos	2.000	1.595	79.77	48-114
	5	Thionazin	4.000	3.251	81.28	65-116
	7	Ethoprop	4.000	3.655	91.37	65-108
	8	Naled	4.000	3.319	82.97	36-119
	10	Sulfotepp	4.000	2.919	72.98	69-103
	11	Phorate	4.000	2.597	64.92	62-104
	12	Dimethoate	4.000	3.217	80.44	28-115
	14	Simazine	4.000	2.989	74.73	47-109
	15	Atrazine	4.000	3.233	80.82	36-119
	16	propazine	4.000	3.123	78.08	36-119
	17	Disulfoton	4.000	2.339	58.48	36-119
	18	Diazinon	4.000	3.387	84.68	36-119
	19	Methyl Parathion	4.000	3.199	79.97	68-119
	20	Ronnel	4.000	3.272	81.80	62-115
	21	Malathion	4.000	2.937	73.42	67-115
	22	Fenthion	4.000	3.007	75.18	36-119
	23	Parathion	4.000	3.086	77.15	36-119
	24	Chlorpyrifos	4.000	3.275	81.88	36-119
	25	Trichloronate	4.000	3.007	75.17	36-119
	26	Anilazine	4.000	1.487	37.18*	47-115
	28	Tetrachlorvinphos	4.000	3.310	82.74	36-119
	29	Tokuthion	4.000	3.367	84.17	36-119
	31	Carbophenothion-me	4.000	3.236	80.90	36-119
	32	Fensulfothion	4.000	3.685	92.12	61-115
	33	Bolstar / Famphur	8.000	6.843	85.54	36-119
	34	Carbophenothion	4.000	3.259	81.49	36-119
$	35	Triphenyl phosphat	2.000	1.787	89.35	50-150
	36	Phosmet	4.000	3.536	88.41	36-119
	37	EPN	4.000	3.415	85.37	36-119
	38	Azinphos-methyl	4.000	3.353	83.82	55-115
	40	Azinphos-ethyl	4.000	3.300	82.51	36-119
	41	Coumaphos	4.000	3.581	89.53	62-115
S	42	Merphos	4.000	3.217	80.43	36-119
M	43	Total Demeton	4.000	2.332	58.31	47-115

TestAmerica

RECOVERY REPORT

Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCSD
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Chlormefos	2.000	1.595	79.77	48-114
$ 35 Triphenyl phosphat	2.000	1.787	89.35	50-150



Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\013F1301.D
Date : 06-AUG-2009 17:31
Client ID: LCSD
Sample Info: LG1WF1AD,LCSD
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\014F1401.D
Lab Smp Id: LG0741AA Client Smp ID: M-97B
Inj Date : 06-AUG-2009 17:59
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG0741AA,301-1
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:35 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1060.000	Volume of Sample Extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	1 o,o,o-TEPT	Compound Not Detected.					
	2 Dichlorvos	Compound Not Detected.					
$	3 Chlormefos	7.156	7.159	(0.383)	184241	0.66134	1.248
	4 Mevinphos	Compound Not Detected.					
	5 Demeton-O	Compound Not Detected.					
	6 Thionazin	Compound Not Detected.					
	7 Ethoprop	Compound Not Detected.					
	8 Phorate	Compound Not Detected.					
	9 Naled	Compound Not Detected.					
	10 Sulfotepp	Compound Not Detected.					
*	11 Tributylphosphate	10.823	10.827	(1.000)	400521	2.00000	
	12 Simazine	Compound Not Detected.					
	13 Diazinon	Compound Not Detected.					
	14 Atrazine	Compound Not Detected.					
	15 Propazine	Compound Not Detected.					
	16 Disulfoton	Compound Not Detected.					
	17 Demeton-S	Compound Not Detected.					
	18 Dimethoate	Compound Not Detected.					
	19 Ronnel	Compound Not Detected.					
	20 Merphos-A (Merphos)	Compound Not Detected.					
	21 Chlorpyrifos	14.105	14.039	(0.755)	6078	0.06597	0.1245
	22 Fenthion	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23	Trichloronate	Compound Not Detected.					
	24	Anilazine	Compound Not Detected.					
	25	Methyl Parathion	Compound Not Detected.					
	26	Malathion	Compound Not Detected.					
	27	Tokuthion	Compound Not Detected.					
	28	Parathion	Compound Not Detected.					
	29	Merphos-B (Merphos Oxone)	Compound Not Detected.					
	30	Tetrachlorvinphos (stirophos)	Compound Not Detected.					
	31	Carbophenothion methyl	Compound Not Detected.					
	32	Bolstar	Compound Not Detected.					
	33	Carbophenothion	Compound Not Detected.					
$	34	Triphenyl phosphate	18.123	18.122	(0.970)	94899	0.77552	1.463
	35	Fensulfothion	Compound Not Detected.					
*	36	TOCP	18.680	18.682	(1.000)	255054	2.00000	
	37	Phosmet / EPN	Compound Not Detected.					
	38	Famphur	Compound Not Detected.					
	39	Azinphos-methyl	Compound Not Detected.					
	40	Azinphos-ethyl	Compound Not Detected.					
	41	Coumaphos	Compound Not Detected.					
S	42	Merphos	Compound Not Detected.					
M	43	Total Demeton	Compound Not Detected.					

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 014F1401.D
Lab Smp Id: LG0741AA
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: M-97B
Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	400521	-7.96
36 TOCP	224627	112314	449254	255054	13.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.82	-0.02
36 TOCP	18.68	18.18	19.18	18.68	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen23-JUL-2009 00:00 Client SDG: D9G2303
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG0741AA Client Smp ID: M-97B
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 3 Chlormefos	1.887	1.248	66.13	48-114
$ 34 Triphenyl phosphat	1.887	1.463	77.55	50-150

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\014F1401.D

Date : 06-AUG-2009 17:59

Client ID: M-97B

Instrument: GC_D2.i

Sample Info: LG0741AA,301-1

Operator: MPK/TLW

Column phase: RTx-OPPest

Column diameter: 0.32

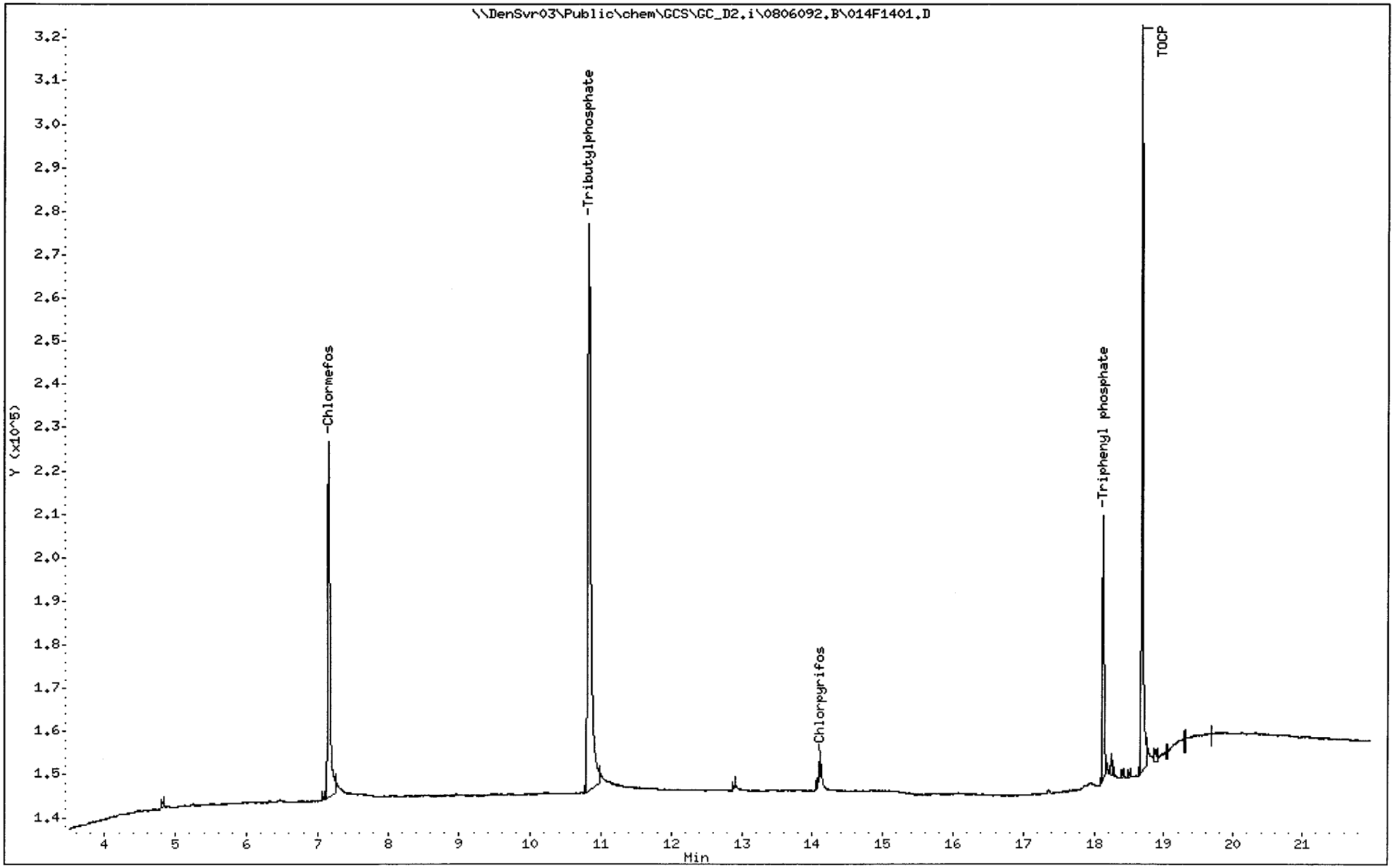


Table of Contents

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\014F1401.D
Lab Smp Id: LG0741AA Client Smp ID: M-97B
Inj Date : 06-AUG-2009 17:59
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : LG0741AA,301-1
Misc Info : IS - GSV0633-09
Comment   :
Method   : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:29 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

Concentration Formula: Amt * DF * Vf / Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vf	2000.000	Final Extract Volume (uL)
Vs	1060.000	Volume of Sample extracted (mL)
Cpnd Variable		Local Compound Variable

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
1	o,o,o-TEPT	Compound Not Detected.					
2	Dichlorvos	Compound Not Detected.					
3	Mevinphos	Compound Not Detected.					
$ 4	Chlormefos	5.733	5.736	(0.323)	78236	0.51465	0.9710
5	Thionazin	7.396	7.392	(0.416)	195	0.02825	0.05329
6	Demeton-O	Compound Not Detected.					
7	Ethoprop	Compound Not Detected.					
8	Naled	7.926	7.931	(0.446)	61	0.20318	0.3834
* 9	Tributylphosphate	7.980	7.984	(1.000)	212343	2.00000	
10	Sulfotepp	Compound Not Detected.					
11	Phorate	Compound Not Detected.					
12	Dimethoate	8.530	8.536	(0.480)	410	0.09367	0.1767
13	Demeton-S	Compound Not Detected.					
14	Simazine	Compound Not Detected.					
15	Atrazine	Compound Not Detected.					
16	propazine	Compound Not Detected.					
17	Disulfoton	9.725	9.734	(0.547)	103	0.04071	0.07681
18	Diazinon	Compound Not Detected.					
19	Methyl Parathion	Compound Not Detected.					
20	Ronnel	11.106	11.102	(0.625)	436	0.03487	0.06580
21	Malathion	Compound Not Detected.					
22	Fenthion	Compound Not Detected.					

		Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/L)
	23	Parathion	Compound Not Detected.					
	24	Chlorpyrifos	11.911	11.922	(0.670)	56	4e-004	0.0008103(a)
	25	Trichloronate	Compound Not Detected.					
	26	Anilazine	12.681	12.684	(0.714)	132	0.31874	0.6014
	27	Merphos-A (Merphos)	13.041	13.042	(0.734)	291	0.00944	0.01781
	28	Tetrachlorvinphos (Stirophos)	13.660	13.662	(0.769)	221	0.06594	0.1244
	29	Tokuthion	Compound Not Detected.					
	30	Merphos-B (Merphos Oxone)	Compound Not Detected.					
	31	Carbophenothion-methyl	Compound Not Detected.					
	32	Fensulfothion	Compound Not Detected.					
	33	Bolstar / Famphur	Compound Not Detected.					
	34	Carbophenothion	Compound Not Detected.					
$	35	Triphenyl phosphate	16.616	16.619	(0.935)	51366	0.69847	1.318
	36	Phosmet	16.881	16.882	(0.950)	426	0.07778	0.1468
	37	EPN	Compound Not Detected.					
	38	Azinphos-methyl	Compound Not Detected.					
*	39	TOCP	17.768	17.771	(1.000)	136425	2.00000	
	40	Azinphos-ethyl	Compound Not Detected.					
	41	Coumaphos	Compound Not Detected.					
S	42	Merphos				291	0.00355	0.006698
M	43	Total Demeton	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 014F1401.D
Lab Smp Id: LG0741AA
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: M-97B
Level: LOW
Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	212343	11.48
39 TOCP	106323	53162	212646	136425	28.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.02
39 TOCP	17.77	17.27	18.27	17.77	-0.00

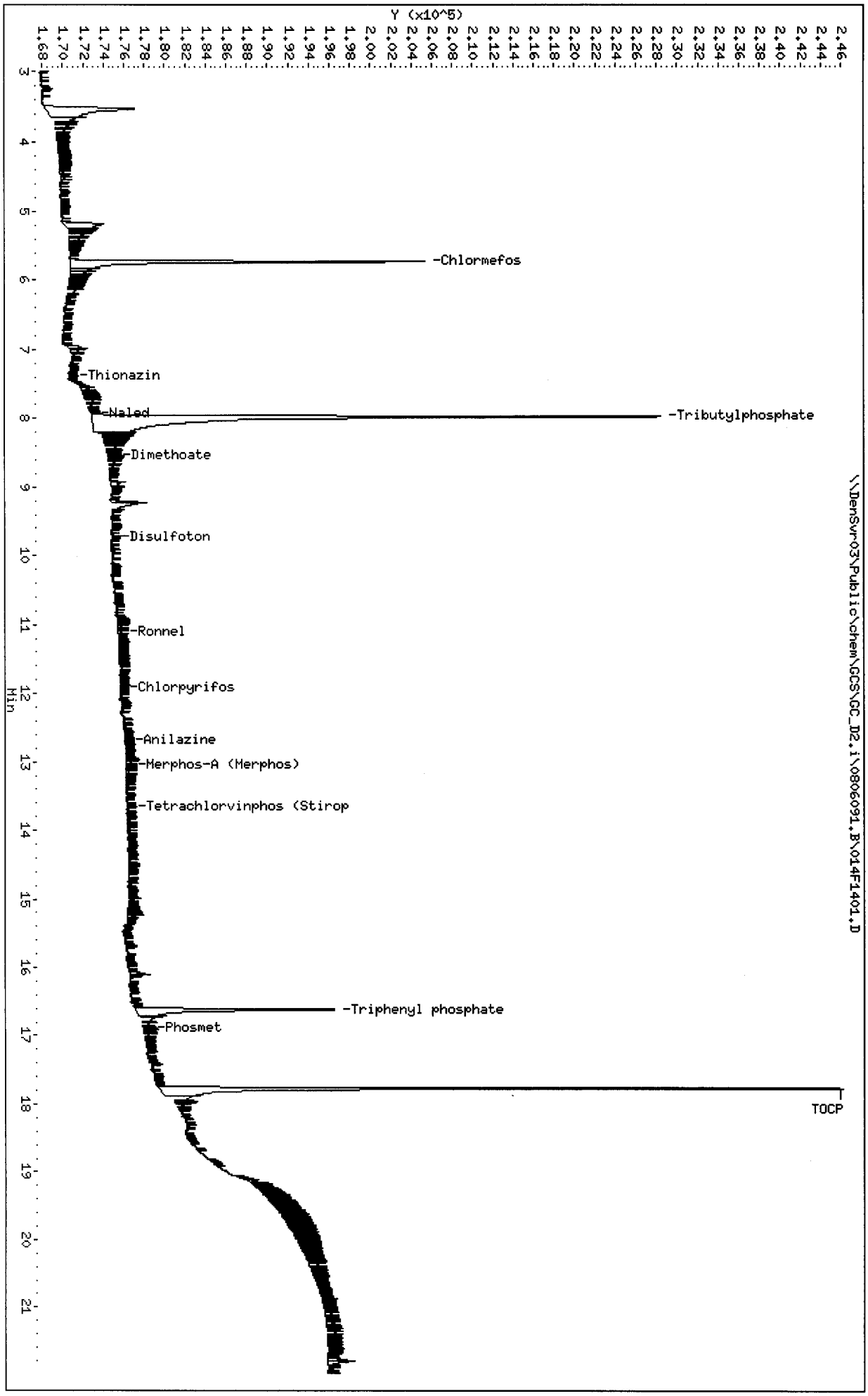
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

TestAmerica

RECOVERY REPORT

Client Name: Northgate Environmen23-JUL-2009 00:00 Client SDG: D9G2303
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG0741AA Client Smp ID: M-97B
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: SAMPLE
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 4 Chlormefos	1.887	0.9710	51.47	48-114
$ 35 Triphenyl phosphat	1.887	1.318	69.85	50-150



Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\014F1401.D
Date : 06-AUG-2009 17:59
Client ID: M-97B
Sample Info: LG0741AA,301-1
Column phase: RTx-1MS

\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\014F1401.D

Instrument: GC_D2.i
Operator: MPK/TLM
Column diameter: 0.32

GC SEMIVOLATILE
INITIAL CALIBRATION DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

GC and HPLC ICAL Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

608 8081 8082 8151 (8141)
TPH/DRO Other SV 614
8310 8330 Other HPLC_____

601 602 8021 BTEX
TPH/GRO Other Volatile GC_____

Calibration Date: 080609
Instrument ID: D2

Review Items	--- Level 1 --- Yes	No	N/A	Level 2	Comments
Initial Calibration					
1. Are correct data files used?	✓			✓	
2. Is there a sufficient number of calibration points used?	✓			✓	
3. Are reasons for removal of points documented?			✓	✓	
4. Is linearity acceptable, 8000 Series: linear least-squares regression with r ≥ 0.990, (DOD projects require r ≥ 0.995) quadratic fit COD r^2> 0.990, or average response factors with RSD ≤ 20%? 600 Series: < 10% RSD or linear regression	✓			✓	
5. Are the correct RT windows applied to the ICAL integration?	✓			✓	
6. Are DDT & Endrin breakdown < 15%?			✓	✓	
7. Is each manual integration completely documented, signed and appropriate?	✓			✓	
8. Is traceability of standards properly documented?	✓			✓	
9. Was second level hand calculation performed? (document analyte checked)	-----	-----	-----	✓	
10. Was second-source ICV performed & recovery 85-115%?		✓		✓	Primary Include %R Phorate -18.8%, Simazine +47.8% Anilazine -45.9%, Carbophenothion-methyl -35.7% Secondary Include %R Phorate -15.9%, Anilazine -46.5%, Carbophenothion-methyl -31.9%, Phosmet +16.8%

1st Level Reviewer: Jessica D. Williams Date: 8/7/09
2nd Level Reviewer: [signature] Date: 8/7/09

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	HEXANE				
3	Vial 3	OPP L7 GSV860-09				
4	Vial 4	OPP L6 GSV870-09				
5	Vial 5	OPP L5 GSV871-09				
6	Vial 6	OPP L4 GSV872-09				
7	Vial 7	OPP L3 GSV873-09				
8	Vial 8	OPP L2 GSV874-09				
9	Vial 9	OPP L1 GSV875-09				
10	Vial 10	OPP SS GSV895-09				
11	Vial 11	LG1WF1AA,MB				
12	Vial 12	LG1WF1AC,LCS				
13	Vial 13	LG1WF1AD,LCSD				
14	Vial 14	LG0741AA,301-1				
15	Vial 15	LG08H1AA,306-1				
16	Vial 16	LG08K1AA,306-2				
17	Vial 17	LG08L1AA,306-3				
18	Vial 18	LG08M1AA,306-4				
19	Vial 19	LG08V1AA,306-5				
20	Vial 20	LG0851AA,309-1				
21	Vial 21	LG09C1AA,310-1				
22	Vial 22	OPP CCV GSV0861				
23	Vial 23	LG4A21AA,MB				
24	Vial 24	LG4A21AC,LCS				
25	Vial 25	LG4A21AD,LCSD				
26	Vial 26	LGWWX2AA,280-1				
27	Vial 27	LGWW42AA,280-3				
28	Vial 28	LGWW52AA,280-4				
29	Vial 29	LG34H1AA,MB				
30	Vial 30	LG34H1AC,LCS				
31	Vial 31	LG34H1AD,LCSD				
32	Vial 32	LG2W11AA,270-1				
33	Vial 33	LG4781AA,MB				
34	Vial 34	LG4781AC,LCS				
35	Vial 35	LG4781AD,LCSD				
36	Vial 36	LGQD32AA,150-3				
37	Vial 37	OPP CCV GSV0861				
38	Vial 38	LG5GL1AA,BLK				
39	Vial 39	LG5GL1AC,LCS				
40	Vial 40	LGNRG1AC,293-11				
41	Vial 41	LGNRG1CM,293-11S				
42	Vial 42	LGNRG1CN,293-11D				
43	Vial 43	LGRCC1AA,BLK				
44	Vial 44	LGRCC1AC,LCS				
45	Vial 45	LGL5K1AE,333-4				
46	Vial 46	LGL5K1DA,333-4S				
47	Vial 47	LGL5K1DC,333-4D				
48	Vial 48	LGL5P1AQ,333-5				
49	Vial 49	LGNQV1AC,293-3				
50	Vial 50	LGNQW1AN,293-4				
51	Vial 51	LGNQ01AR,293-6				
52	Vial 52	OPP CCV GSV0861				
53	Vial 53	LGNQ21AA,293-7				
54	Vial 54	LGNQ51AN,293-8				
55	Vial 55	LGNQ81AF,293-9				
56	Vial 56	LGNRC1AR,293-10				
57	Vial 57	LGNRJ1AN,293-12				
58	Vial 58	LGNRK1AR,293-13				

9205274

9207019

9206111

9208404

9209010

9202116

Sequence: C:\HPCHEM\1\SEQUENCE\080609.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
59	Vial 59	LGNRL1A1,293-14				
60	Vial 60	LGNRP1AN,293-16				
61	Vial 61	LGNRR1A4,293-17				
62	Vial 62	LGN151AC,293-21				
63	Vial 63	OPP CCV GSV0861				
64	Vial 64	OPP L1 GSV0862				

Sequence Table (Back Injector):

No entries - empty table!

Report Date : 07-Aug-2009 08:22

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Calibration File Names:
Level 1: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0901.D
Level 2: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\008F0801.D
Level 3: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Level 4: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Level 5: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Level 6: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Level 7: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
1 o,o,o-TEPT	60356	153069	357384	597394	802659	1041312					
	1296938						QUAD	0.01686	0.29632	0.01695	0.99817
2 Dichlorvos	38766	97090	236382	406483	566931	787168					
	950818						WLINR	0.00661	1.91742		0.99400
4 Mevinphos	20784	60215	167787	298068	405911	548507					
	692828						WLINR	0.03011	1.39464		0.99361
5 Demeton-O	7328	19905	53507	94931	130704	182737					
	232018						WLINR	0.00965	1.40814		0.99537

* All weighted linear are 1/x

Table of Contents

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Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
6 Thionazin	39406	100910	258226	454067	611871	818651					
	1041567						WLINR	0.01060	2.07443		0.99371
7 Ethoprop	24521	60173	159361	281813	387345	497993					
	660025						WLINR	0.01405	1.29635		0.99379
8 Phorate	1.78952	1.78180	2.41601	2.03409	1.95213	2.03577					
	1.96064						AVRG		1.99571		10.65160
9 Naled	2364	7971	31013	65369	94924	134238					
	177821						WLINR	0.09225	0.34653		0.99568
10 Sulfotepp	55071	134184	332322	579913	760467	1002600					
	1259867						WLINR	-0.00543	2.53962		0.99109
12 Simazine	0.33611	0.32249	0.41548	0.36084	0.35491	0.35967					
	0.35556						AVRG		0.35786		8.12302
13 Diazinon	29119	70741	176119	316941	403319	549406					
	703582						WLINR	0.00128	1.39137		0.99303

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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
14 Atrazine	13368	36826	88458	146146	208979	258175					
	318216						QUAD	0.04814	1.04463	0.36910	0.99723
15 Propazine	7831	23609	62163	114010	152109	202004					
	262507						WLINR	0.02772	0.52221		0.99451
16 Disulfoton	26551	70798	177395	316424	423156	558998					
	713903						WLINR	0.01013	1.42645		0.99357
17 Demeton-S	19550	57025	140910	267435	350018	493144					
	620416						WLINR	0.01822	1.81159		0.99636
18 Dimethoate	30901	85451	220034	399590	527786	710490					
	919664						WLINR	0.01960	1.81946		0.99451
19 Ronnel	25402	64796	158537	282907	372707	501398					
	650233						WLINR	0.00596	1.27627		0.99446
20 Merphos-A (Merphos)	20208	55934	138362	252361	335820	462632					
	609259						LINR	-0.10408	0.49687		0.99129

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Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	5.0000 Level 7											
21 Chlorpyrifos	21237	60607	149544	268415	353328	483833						
	599989						WLINR	0.01332	1.21172		0.99346	
22 Fenthion	18776	40748	140951	281601	376566	475563						
	662162						WLINR	0.04827	1.29154		0.99254	
23 Trichloronate	35440	108594	224757	386484	481097	670271						
	791153						LINR	-0.09506	1.52853		0.98987	<-
24 Anilazine	+++++	1365	5446	10658	16270	23122						
	29754						WLINR	0.13324	0.06056		0.99580	
25 Methyl Parathion	26057	70514	178679	323523	438809	589284						
	764532						WLINR	0.02018	1.50337		0.99568	
26 Malathion	20378	55317	137907	244307	331835	446246						
	564841						WLINR	0.01372	1.12630		0.99453	
27 Tokuthion	23347	61910	155275	272176	360235	477103						
	601635						WLINR	0.00493	1.21273		0.99184	

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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	5.0000 Level 7										
28 Parathion	27796	68378	173641	303707	400079	532806					
	666755						WLINR	0.00066	1.34536		0.99155
29 Merphos-B (Merphos Oxone)	8193	19053	50092	87050	117192	160245					
	209905						QUAD	0.00002	3.99353	4.19550	0.99655
30 Tetrachlorvinphos (stirophos)	14633	40546	99267	176428	235430	312270					
	393087						WLINR	0.00822	0.79198		0.99305
31 Carbophenothion methyl	19335	59783	150574	273834	369428	485153					
	614237						WLINR	0.02156	1.24332		0.99364
32 Bolstar	24830	62262	148685	262486	345976	452745					
	568413						WLINR	-0.00656	1.14690		0.99176
33 Carbophenothion	23920	66481	158258	291027	391840	507573					
	638239						WLINR	0.00858	1.29364		0.99369
35 Fensulfothion	21641	55100	144111	244410	324575	446385					
	548194						WLINR	0.00601	1.11094		0.99082

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TestAmerica

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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

	Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
		5.0000 Level 7										
	37 Phosmet / EPN	61420	132515	285475	484535	635473	836790					
		1052841						WLINR	-0.08428	1.03825		0.99225
	38 Famphur	38915	86915	188482	312731	418546	576217					
		728950						WLINR	-0.02995	1.41294		0.99395
	39 Azinphos-methyl	1.19112	1.27363	1.50428	1.26080	1.25557	1.29235					
		1.31504						AVRG		1.29897		7.57335
	40 Azinphos-ethyl	45196	86455	186617	298611	415808	530700					
		679524						WLINR	-0.05818	1.31662		0.99218
	41 Coumaphos	20239	47205	126050	215546	296355	403154					
		505521						WLINR	0.00994	1.00707		0.99325
S	42 Merphos	28401	74987	188454	339411	453012	622877					
		819164						WLINR	0.01904	1.58612		0.99575
M	43 Total Demeton	26878	76930	194417	362366	480722	675881					
		852434						WLINR	0.02754	1.68935		0.99620

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TestAmerica

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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 3 Chlormefos	44458	109656	277425	488546	662346	889230						
	1130949							WLINR	0.00857	2.24268		0.99438
$ 34 Triphenyl phosphate	19386	48811	123629	218925	290427	377570						
	480212							WLINR	0.00300	0.96701		0.99176

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Last Edit : 07-Aug-2009 08:22 GC_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Wt Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

Table of Contents

Report Date: 07-Aug-2009 08:22

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Start Cal Date: 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Last Cal Level: 1
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
06-AUG-2009 15:42	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
06-AUG-2009 15:15	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
06-AUG-2009 14:47	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
06-AUG-2009 14:20	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
06-AUG-2009 13:52	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
06-AUG-2009 13:25	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
06-AUG-2009 12:58	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0301.D

Continuing Calibration

Ccal Level Mode: BY SAMPLE

06-AUG-2009 16:09	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\010F1001.D		

Report Date : 07-Aug-2009 08:20 Page 1

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Calibration File Names:
Level 1: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
Level 2: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Level 3: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
Level 4: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Level 5: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Level 6: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Level 7: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D

SEE CALIBRATION HISTORY

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
1 o,o,o-TEPT	27235	69103	176667	273888	380611	530397	667873	WLINR	0.00437	2.76150		0.99070
2 Dichlorvos	19624	49660	121959	217219	299105	394344	494964	WLINR	0.01094	2.07952		0.99581
3 Mevinphos	0.70987	0.83613	1.19746	0.99299	1.02111	1.00792	1.02544	AVRG		0.97013		16.02289
5 Thionazin	16347	46078	116071	198904	270134	356552	452629	WLINR	0.01337	1.90395		0.99350

*All weighted linear are 1/x

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
6 Demeton-O	7663	16576	43609	67743	105619	133217	171892	WLINR	0.00170	2.18668		0.99112
7 Ethoprop	17439	42559	102655	203616	270063	352360	445757	WLINR	0.01650	1.87535		0.99723
8 Naled	789	5395	17781	39234	55026	79043	104555	WLINR	0.10055	0.42919		0.99646
10 Sulfotepp	31103	72734	161301	272812	358937	470909	591692	WLINR	-0.02666	2.46816		0.99294
11 Phorate	20942	55180	119141	206533	269371	355358	443267	LINR	-0.05994	1.79112		0.99682
12 Dimethoate	13628	46073	123499	234736	318948	429609	550587	WLINR	0.04553	2.30912		0.99695
13 Demeton-S	9874	30199	72778	131092	169836	227643	283901	WLINR	0.00915	1.77734		0.99385

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
14 Simazine	5806	17101	46770	90943	120316	160354	196470	WLINR	0.03618	0.85037		0.99565
15 Atrazine	7433	16880	47483	89027	116845	160200	201963	WLINR	0.02564	0.84498		0.99545
16 propazine	6444	16038	42201	77939	101930	142131	177792	WLINR	0.02257	0.74299		0.99593
17 Disulfoton	9740	23733	62379	107216	145630	207119	259283	WLINR	0.01965	1.07126		0.99471
18 Diazinon	24787	54615	135177	234306	300229	416271	491284	WLINR	-0.01278	2.11415		0.99219
19 Methyl Parathion	10381	33545	83612	148922	192341	260459	329756	WLINR	0.02055	1.39298		0.99344
20 Ronnel	11310	31990	79747	132002	186402	242078	319724	WLINR	0.01501	1.31436		0.99292

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
21 Malathion	12017	30837	73542	127531	167962	219045	280372	WLINR	-0.00342	1.17261		0.99300	
22 Fenthion	10574	28555	72130	132190	176698	231332	301629	WLINR	0.02002	1.25197		0.99537	
23 Parathion	10134	28660	75321	134353	181496	240220	313652	WLINR	0.02603	1.30048		0.99472	
24 Chlorpyrifos	1.88134	1.87231	2.27378	1.86707	1.79826	1.72943	1.95897	AVRG		1.91159		9.15814	
25 Trichloronate	14112	36498	89537	154049	208922	282505	371970	WLINR	0.01257	1.51131		0.99446	
26 Anilazine	+++++	826	2826	5841	7461	13218	16019	WLINR	0.14526	0.06857		0.98603	<-
27 Merphos-A (Merphos)	11430	31853	75953	132917	173016	233543	287727	WLINR	0.00298	1.22464		0.99330	

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
28 Tetrachlorvinphos (Stirophos)	7254	19289	48409	93046	128125	170697	219679	WLINR	0.03119	0.91025		0.99771
29 Tokuthion	15121	36242	88378	154338	197028	265806	332126	WLINR	-0.00681	1.39687		0.99278
30 Merphos-B (Merphos Oxone)	4672	7669	24451	42858	51369	69404	89437	LINR	-0.03580	0.36071		0.99146
31 Carbophenothion-methyl	10831	26053	67846	118446	158558	210590	263905	WLINR	0.00785	1.11309		0.99378
32 Fensulfothion	11896	32630	87310	153756	208297	266554	345436	WLINR	0.01989	1.45488		0.99290
33 Bolstar / Famphur	24720	69693	166272	286233	372086	489394	612450	WLINR	-0.00260	1.30376		0.99138
34 Carbophenothion	1.12961	1.32850	1.77066	1.37892	1.53211	1.27764	1.49316	AVRG		1.41580		14.57304

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
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Quant Method : ISTD
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Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

	Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
		5.0000 Level 7											
	36 Phosmet	8837	25724	69014	125340	163123	221328						
		277254						WLINR	0.03634	1.22307		0.98684	<-
	37 EPN	11005	28342	73819	140325	177040	245612						
		303505						WLINR	0.02030	1.28670		0.99525	
	38 Azinphos-methyl	10147	23048	68525	125256	168294	229655						
		284466						WLINR	0.02923	1.20596		0.99461	
	40 Azinphos-ethyl	26756	43178	85913	151651	188903	249137						
		302773						WLINR	-0.09682	1.23973		0.99481	
	41 Coumaphos	8196	20857	56878	104402	142605	195717						
		249968						WLINR	0.03297	1.03529		0.99625	
S	42 Merphos	16102	39522	100404	175775	224385	302947						
		377164						WLINR	0.00044	1.59699		0.99227	
M	43 Total Demeton	17537	46775	116387	198835	275455	360860						
		455793						WLINR	0.00996	1.91689		0.99407	

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TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
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Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.2000000 Level 1	0.5000000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	5.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 4 Chlormefos	1.95470	1.89064	2.71720	2.26391	2.28818	2.26782	2.21766	AVRG		2.22859		12.07406
$ 35 Triphenyl phosphate	8112	25724	65323	113284	142596	191433	241166	LINR	-0.03420	0.98195		0.99469

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Quant Method : ISTD
Target Version : 4.14
Integrator : Falcon
Method file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Last Edit : 07-Aug-2009 08:18 GC_D2.i

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response

Report Date: 07-Aug-2009 08:20

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Start Cal Date: 06-AUG-2009 12:58
End Cal Date : 06-AUG-2009 15:42
Last Cal Level: 1
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.20000		
06-AUG-2009 15:42	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
Cal Level: 2 , Cal Amount: 0.50000		
06-AUG-2009 15:15	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Cal Level: 3 , Cal Amount: 1.00000		
06-AUG-2009 14:47	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
Cal Level: 4 , Cal Amount: 2.00000		
06-AUG-2009 14:20	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Cal Level: 5 , Cal Amount: 3.00000		
06-AUG-2009 13:52	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Cal Level: 6 , Cal Amount: 4.00000		
06-AUG-2009 13:25	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Cal Level: 7 , Cal Amount: 5.00000		
06-AUG-2009 12:58	8141A	\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D

Continuing Calibration

Ccal Level Mode: BY SAMPLE

06-AUG-2009 16:09	8141A	
\\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\010F1001.D		

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.0000	2.2018	10.1	15.0	
2	Dichlorvos	2.0000	2.0536	2.7	15.0	
3	Chlormefos	2.0000	1.7144	14.3	15.0	
4	Mevinphos	2.0000	1.7730	11.3	15.0	
5	Demeton-O	0.6500	2.1449	230.0	15.0	<- OK, see total demeton
6	Thionazin	2.0000	2.2025	10.1	15.0	
7	Ethoprop	2.0000	1.9689	1.6	15.0	
8	Phorate	2.0000	1.6238	18.8	15.0	<-
10	Naled	2.0000	1.8455	7.7	15.0	
146	Sulfotepp	2.0000	1.9576	2.1	15.0	
10	Simazine	2.0000	2.9567	47.8	15.0	<-
12	Diazinon	2.0000	1.9089	4.6	15.0	
150	Atrazine	2.0000	1.9657	1.7	15.0	
13	Propazine	2.0000	2.1279	6.4	15.0	
14	Disulfoton	2.0000	2.0805	4.0	15.0	
15	Demeton-S	1.3600	0.1525	88.8	15.0	<- OK, see total demeton
16	Dimethoate	2.0000	2.1765	8.8	15.0	
17	Ronnel	2.0000	2.0870	4.4	15.0	
148	Merphos-A (Merphos)	2.0000	0.1919	90.4	999.0	
18	Chlorpyrifos	2.0000	2.0011	0.1	15.0	
19	Fenthion	2.0000	1.9599	2.0	15.0	
20	Trichloronate	2.0000	1.8191	9.0	15.0	
21	Anilazine	2.0000	1.0823	45.9	15.0	<-
23	Methyl Parathion	2.0000	1.9807	1.0	15.0	
24	Malathion	2.0000	1.8696	6.5	15.0	
25	Tokuthion	2.0000	1.9788	1.1	15.0	
26	Parathion	2.0000	2.1534	7.7	15.0	
149	Merphos-B (Merphos Oxone)	2.0000	8.1236	306.2	999.0	
27	Tetrachlorvinphos (stirophos)	2.0000	2.0968	4.8	15.0	
28	Carbophenothion methyl	2.0000	1.2860	35.7	15.0	<-
28	Bolstar	2.0000	2.1205	6.0	15.0	
30	Carbophenothion	2.0000	2.2562	12.8	15.0	
29	Triphenyl phosphate	2.0000	1.8593	7.0	15.0	
30	Fensulfothion	2.0000	2.0203	1.0	15.0	
35	Phosmet / EPN	4.0000	4.5605	14.0	15.0	
33	Famphur	2.0000	2.2966	14.8	15.0	
34	Azinphos-methyl	2.0000	1.9330	3.4	15.0	
35	Azinphos-ethyl	2.0000	2.0948	4.7	15.0	
36	Coumaphos	2.0000	1.9872	0.6	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 16:09
Lab File ID: 010F1001.D
Lab Sample ID: OPP SS GSV895-09
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
22 Merphos	2.0000	1.7882	10.6	15.0
40 Total Demeton	2.0000	2.2974	14.9	15.0

Average %D = 26.2

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Analysis Type: NONE

Injection Date: 06-AUG-2009 16:09
Lab Sample ID: OPP SS GSV895-09
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

	COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D	
1	o,o,o-TEPT	2.0000	2.2717	13.6	15.0	
2	Dichlorvos	2.0000	1.9502	2.5	15.0	
3	Mevinphos	2.0000	1.7488	12.6	15.0	
4	Chlormefos	2.0000	1.7199	14.0	15.0	
5	Thionazin	2.0000	2.2734	13.7	15.0	
6	Demeton-O	0.6500	1.8115	178.7	15.0	<- ok, see total demeton
7	Ethoprop	2.0000	2.2525	12.6	15.0	
8	Naled	2.0000	1.9804	1.0	15.0	
9	Sulfotepp	2.0000	1.9605	2.0	15.0	
10	Phorate	2.0000	1.6813	15.9	15.0	<-
11	Dimethoate	2.0000	2.1879	9.4	15.0	
12	Demeton-S	1.3600	0.3317	75.6	15.0	<- ok, see total demeton
13	Simazine	2.0000	2.1647	8.2	15.0	
14	Atrazine	2.0000	2.0483	2.4	15.0	
15	propazine	2.0000	2.0269	1.3	15.0	
17	Disulfoton	2.0000	2.0679	3.4	15.0	
16	Diazinon	2.0000	1.9798	1.0	15.0	
18	Methyl Parathion	2.0000	2.0407	2.0	15.0	
19	Ronnel	2.0000	2.1116	5.6	15.0	
20	Malathion	2.0000	1.9633	1.8	15.0	
21	Fenthion	2.0000	1.9795	1.0	15.0	
22	Parathion	2.0000	2.1558	7.8	15.0	
23	Chlorpyrifos	2.0000	2.0550	2.7	15.0	
24	Trichloronate	2.0000	1.9193	4.0	15.0	
25	Anilazine	2.0000	1.0705	46.5	15.0	<-
148	Merphos-A (Merphos)	2.0000	0.2808	86.0	999.0	
26	Tetrachlorvinphos (Stirophos)	2.0000	1.8972	5.1	15.0	
28	Tokuthion	2.0000	2.0419	2.1	15.0	
149	Merphos-B (Merphos Oxone)	2.0000	7.5483	277.4	999.0	
29	Carbophenothion-methyl	2.0000	1.3628	31.9	15.0	<-
29	Fensulfothion	2.0000	1.9401	3.0	15.0	
30	Bolstar / Famphur	4.0000	4.4316	10.8	15.0	
32	Carbophenothion	2.0000	2.2043	10.2	15.0	
31	Triphenyl phosphate	2.0000	1.8916	5.4	15.0	
34	Phosmet	2.0000	2.3364	16.8	15.0	<-
32	EPN	2.0000	2.2899	14.5	15.0	
33	Azinphos-methyl	2.0000	1.9194	4.0	15.0	
35	Azinphos-ethyl	2.0000	2.1107	5.5	15.0	
36	Coumaphos	2.0000	2.1006	5.0	15.0	

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B/010F1001.D
Report Date: 08/07/2009

CONTINUING CALIBRATION COMPOUNDS
PERCENT DRIFT REPORT

Instrument ID: GC_D2.i
Injection Date: 06-AUG-2009 16:09
Lab File ID: 010F1001.D
Lab Sample ID: OPP SS GSV895-09
Analysis Type: NONE
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
27 Merphos	2.0000	1.9328	3.4	15.0
40 Total Demeton	2.0000	2.1432	7.2	15.0

Average %D = 22.6

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0301.D
Lab Smp Id: OPP L7 GSV860-09 Client Smp ID: OPP L7 GSV860-09
Inj Date : 06-AUG-2009 12:58
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L7 GSV860-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:21 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:15 Cal File: 008F0801.D
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.571	4.572	(0.245)	1296938	5.00000	5.009 (A)
	2 Dichlorvos	6.331	6.331	(0.339)	950818	5.00000	4.752
$	3 Chlormefos	7.159	7.159	(0.383)	1130949	5.00000	4.837
	4 Mevinphos	8.953	8.952	(0.479)	692828	5.00000	4.808
	5 Demeton-O	9.458	9.457	(0.506)	232018	1.62500	1.594
	6 Thionazin	9.699	9.701	(0.519)	1041567	5.00000	4.820
	7 Ethoprop	10.211	10.209	(0.547)	660025	5.00000	4.894
	8 Phorate	10.248	10.247	(0.549)	1025721	5.00000	4.912
	9 Naled	10.638	10.637	(0.569)	177821	5.00000	5.089 (A)
	10 Sulfotepp	10.721	10.721	(0.574)	1259867	5.00000	4.730 (A)
*	11 Tributylphosphate	10.828	10.827	(1.000)	482265	2.00000	
	12 Simazine	11.114	11.114	(0.595)	186013	5.00000	4.968 (A)
	13 Diazinon	11.256	11.256	(0.602)	703582	5.00000	4.835 (M)
	14 Atrazine	11.283	11.282	(0.604)	318216	5.00000	4.980 (AM)
	15 Propazine	11.449	11.449	(0.613)	262507	5.00000	4.860
	16 Disulfoton	11.729	11.729	(0.628)	713903	5.00000	4.803
	17 Demeton-S	11.796	11.796	(0.631)	620416	3.40000	3.310
	18 Dimethoate	12.901	12.901	(0.691)	919664	5.00000	4.870
	19 Ronnel	13.229	13.229	(0.708)	650233	5.00000	4.881
	20 Merphos-A (Merphos)	13.359	13.359	(1.234)	609259	5.00000	4.877 (A)
	21 Chlorpyrifos	14.041	14.039	(0.752)	599989	5.00000	4.759
	22 Fenthion	14.291	14.289	(0.765)	662162	5.00000	4.996
	23 Trichloronate	14.326	14.326	(0.767)	791153	5.00000	4.757
	24 Anilazine	14.849	14.851	(0.795)	29754	5.00000	4.962
	25 Methyl Parathion	15.109	15.109	(0.809)	764532	5.00000	4.901 (A)
	26 Malathion	15.384	15.386	(0.823)	564841	5.00000	4.820
	27 Tokuthion	16.091	16.091	(0.861)	601635	5.00000	4.751
	28 Parathion	16.226	16.226	(0.869)	666755	5.00000	4.738
	29 Merphos-B (Merphos Oxone)	16.286	16.287	(1.504)	209905	5.00000	5.066 (A)
	30 Tetrachlorvinphos (stirophos)	16.763	16.764	(0.897)	393087	5.00000	4.760
	31 Carbophenothion methyl	16.876	16.876	(0.903)	614237	5.00000	4.765
	32 Bolstar	17.259	17.259	(0.924)	568413	5.00000	4.724
	33 Carbophenothion	17.343	17.341	(0.928)	638239	5.00000	4.732 (A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.123	18.122	(0.970)	480212	5.00000	4.752
	35 Fensulfothion	18.394	18.396	(0.985)	548194	5.00000	4.728
*	36 TOCP	18.683	18.682	(1.000)	209263	2.00000	
	37 Phosmet / EPN	18.766	18.766	(1.004)	1052841	10.0000	9.523(A)
	38 Famphur	18.864	18.864	(1.010)	728950	5.00000	4.871
	39 Azinphos-methyl	19.013	19.012	(1.018)	687974	5.00000	5.062(A)
	40 Azinphos-ethyl	19.226	19.224	(1.029)	679524	5.00000	4.816
	41 Coumaphos	20.143	20.141	(1.078)	505521	5.00000	4.817
S	42 Merphos				819164	5.00000	4.846(A)
M	43 Total Demeton				852434	5.00000	4.904

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

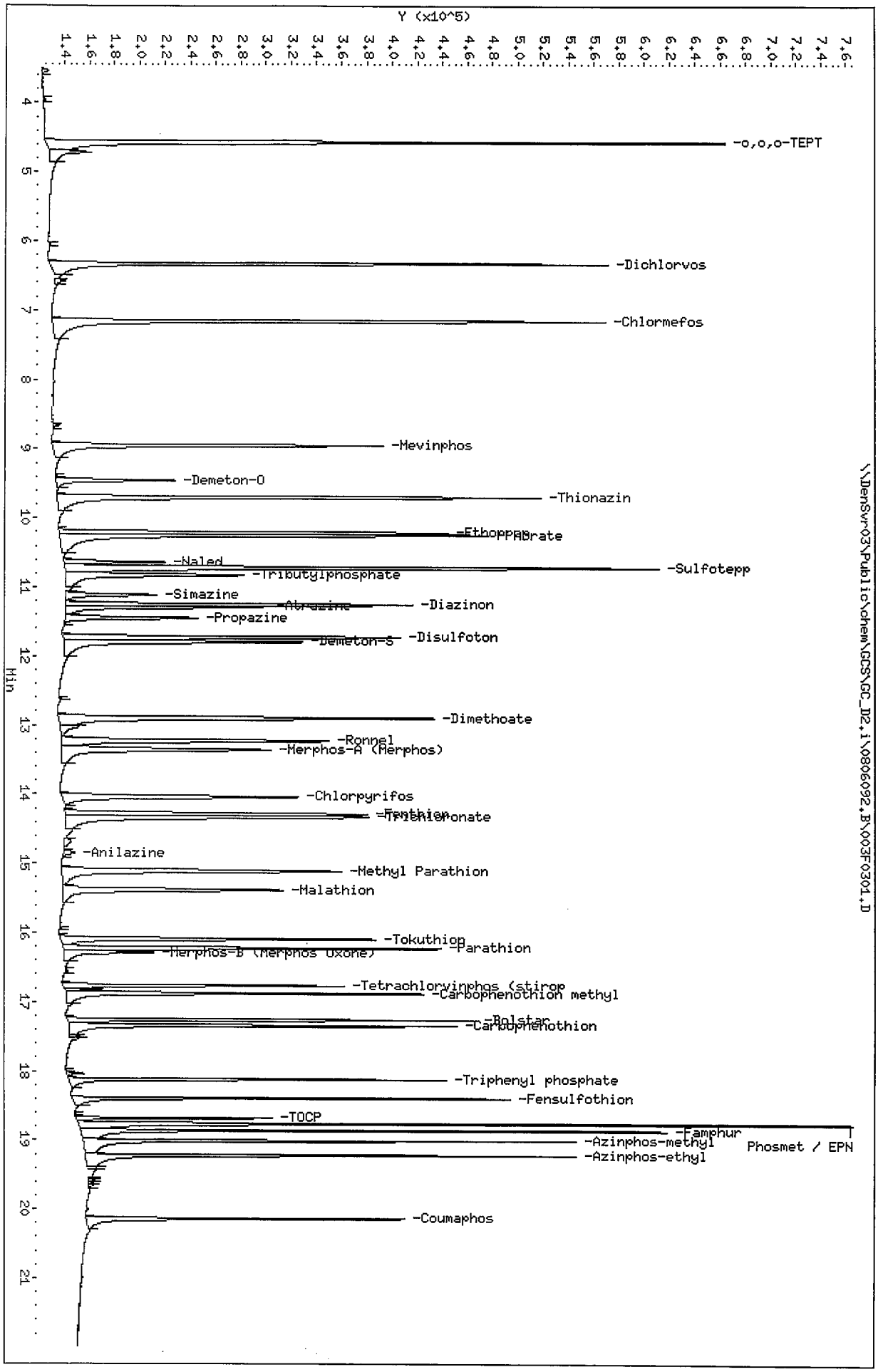
Instrument ID: GC_D2.i
Lab File ID: 003F0301.D
Lab Smp Id: OPP L7 GSV860-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L7 GSV860-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	482265	10.82
36 TOCP	224627	112314	449254	209263	-6.84

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

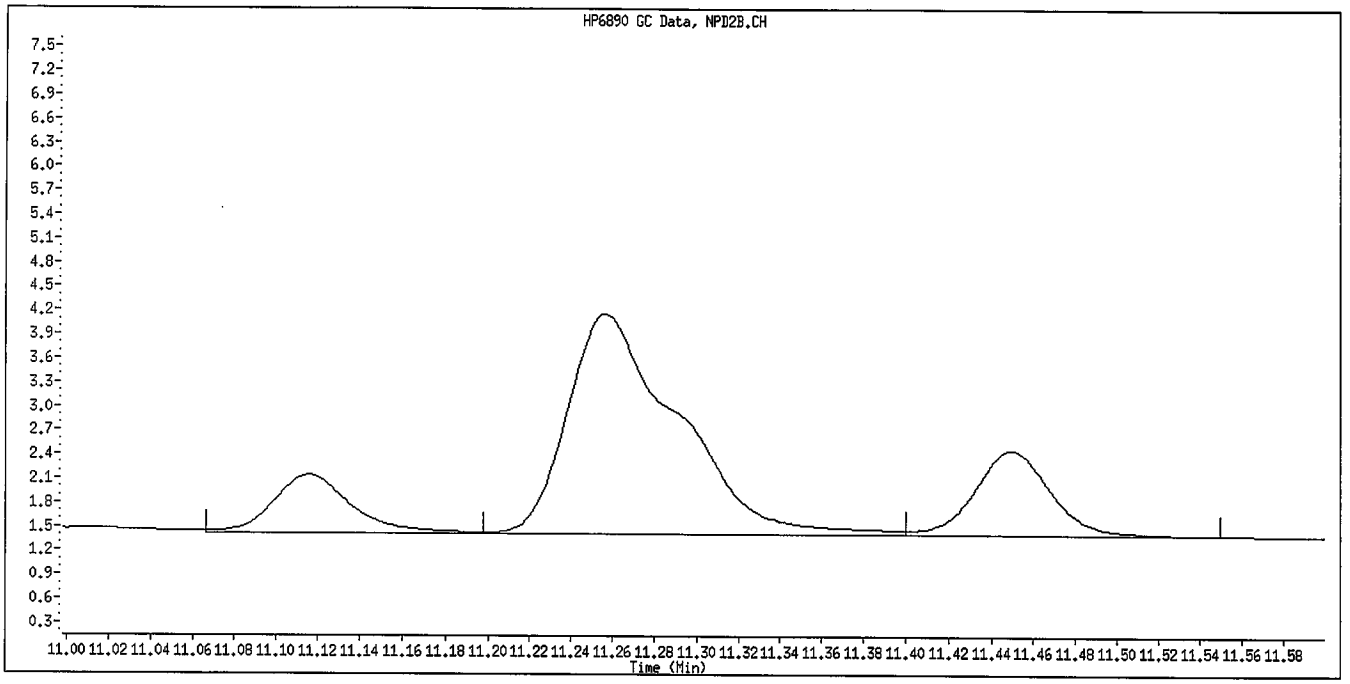
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



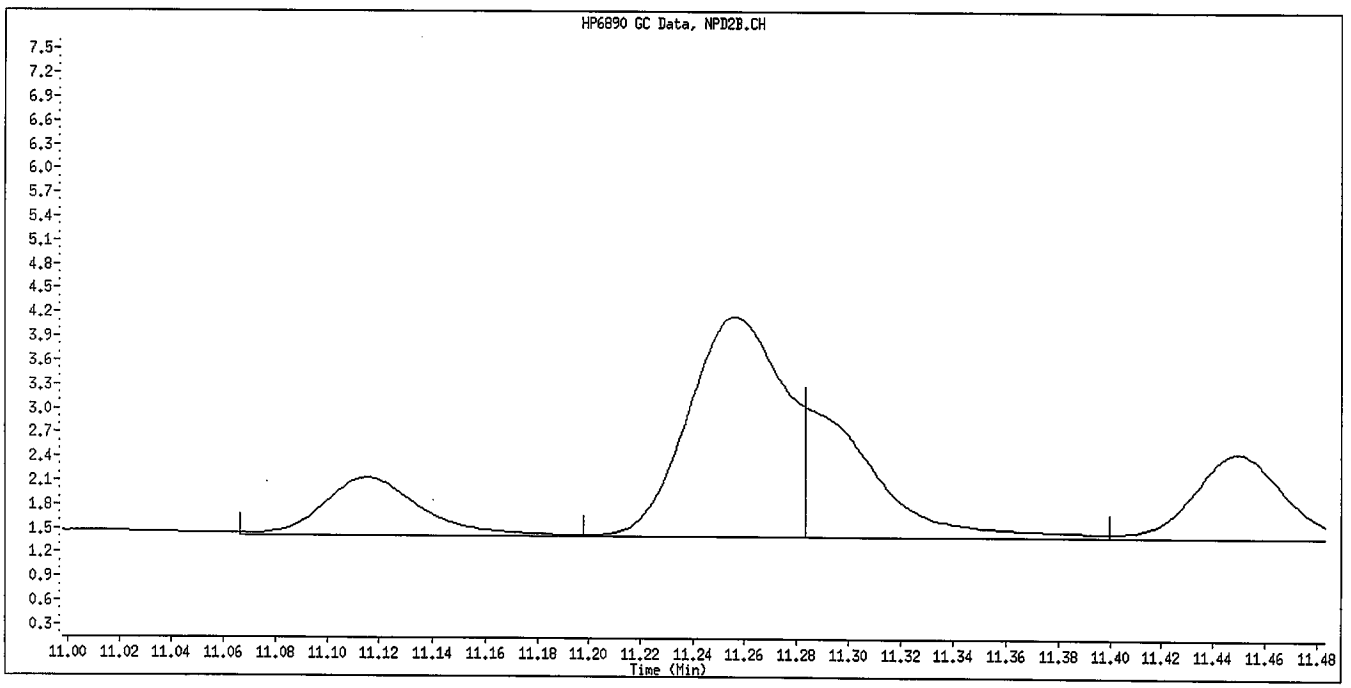
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\003F0304.D
Date : 06-AUG-2009 12:58
Client ID: OPP L7 GSV860-09
Sample Info: OPP L7 GSV860-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 003F0301.D
Inj. Date and Time: 06-AUG-2009 12:58
Instrument ID: GC_D2.i
Client ID: OPP L7 GSV860-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

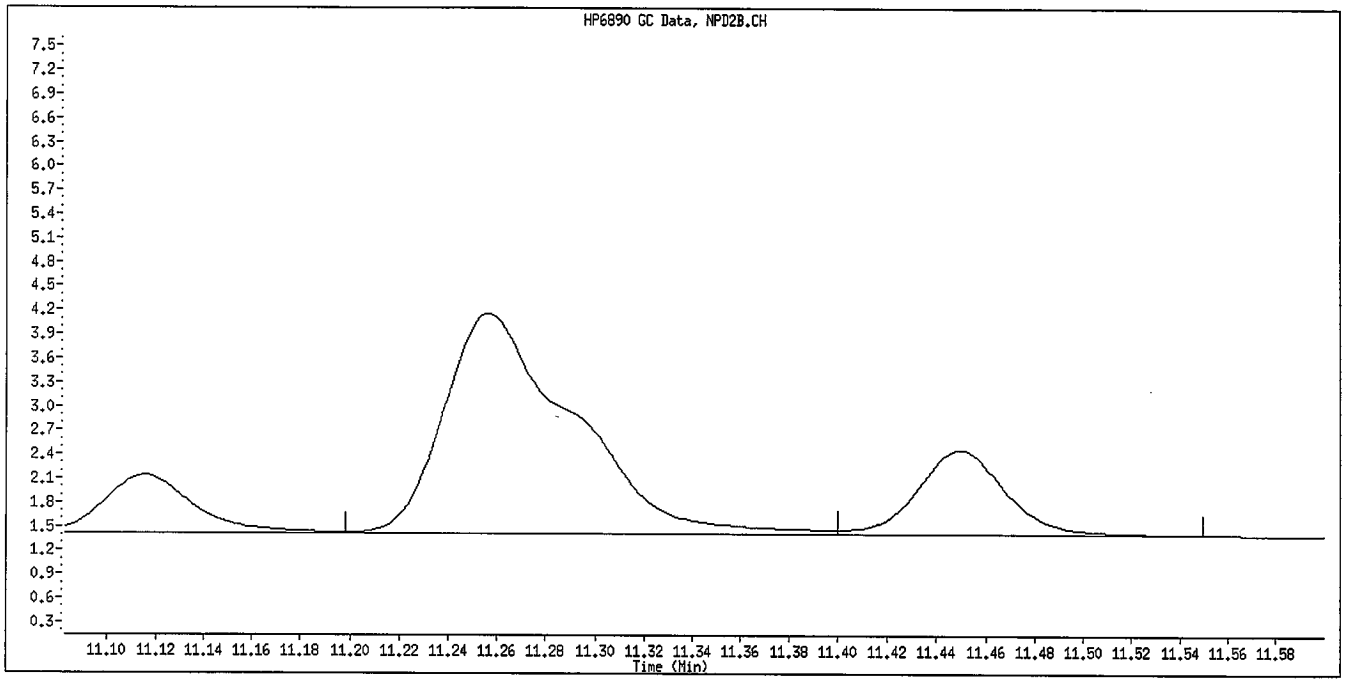


Manual Integration

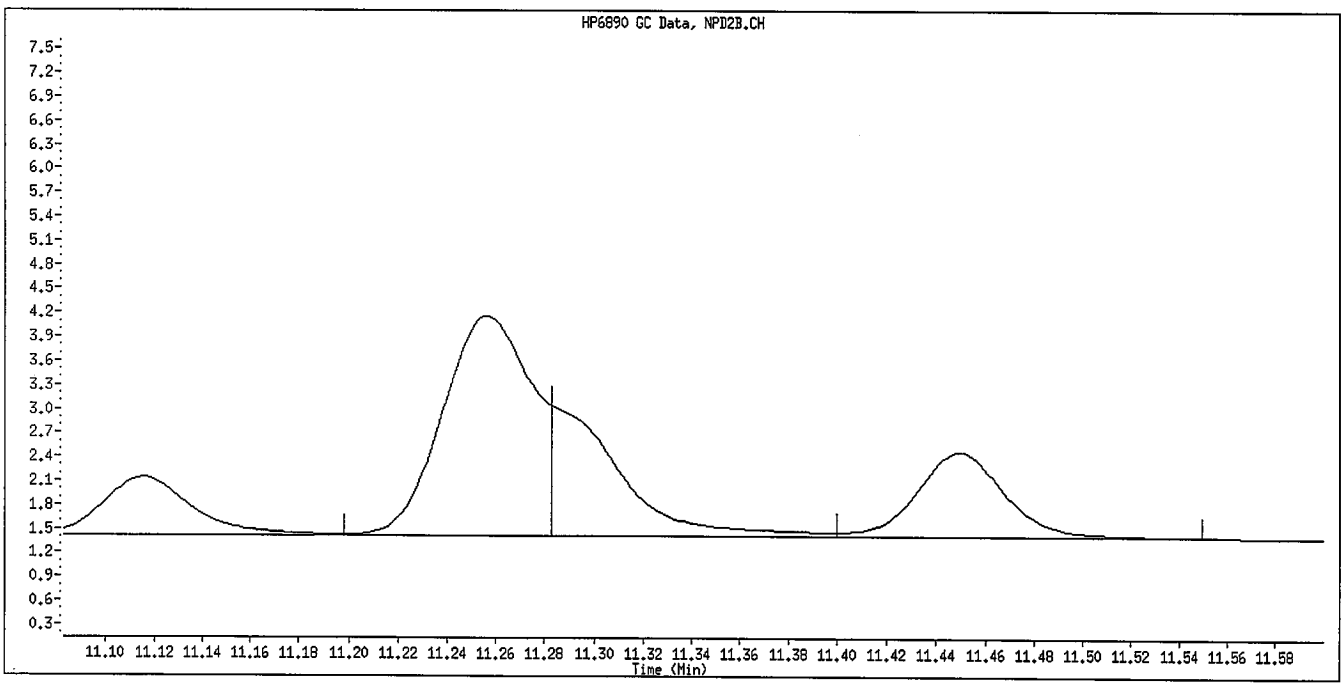
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LF8716

Data File Name: 003F0301.D
Inj. Date and Time: 06-AUG-2009 12:58
Instrument ID: GC_D2.i
Client ID: OPP L7 GSV860-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CF8716

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Lab Smp Id: OPP L6 GSV870-09 Client Smp ID: OPP L6 GSV870-09
Inj Date : 06-AUG-2009 13:25
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L6 GSV870-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:21 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 12:58 Cal File: 003F0301.D
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.571	4.572	(0.245)	1041312	4.00000	4.014
	2 Dichlorvos	6.331	6.331	(0.339)	787168	4.00000	4.098
$	3 Chlormefos	7.159	7.159	(0.383)	889230	4.00000	3.962
	4 Mevinphos	8.952	8.952	(0.479)	548507	4.00000	3.973
	5 Demeton-O	9.457	9.457	(0.506)	182737	1.30000	1.310
	6 Thionazin	9.699	9.701	(0.519)	818651	4.00000	3.948
	7 Ethoprop	10.209	10.209	(0.546)	497993	4.00000	3.850
	8 Phorate	10.247	10.247	(0.548)	818426	4.00000	4.080
	9 Naled	10.636	10.637	(0.569)	134238	4.00000	4.039
	10 Sulfotepp	10.721	10.721	(0.574)	1002600	4.00000	3.917(A)
*	11 Tributylphosphate	10.827	10.827	(1.000)	446635	2.00000	
	12 Simazine	11.114	11.114	(0.595)	144594	4.00000	4.020(A)
	13 Diazinon	11.256	11.256	(0.602)	549406	4.00000	3.931(M)
	14 Atrazine	11.281	11.282	(0.604)	258175	4.00000	3.997(AM)
	15 Propazine	11.447	11.449	(0.613)	202004	4.00000	3.904
	16 Disulfoton	11.729	11.729	(0.628)	558998	4.00000	3.919
	17 Demeton-S	11.796	11.796	(0.631)	493144	2.72000	2.745
	18 Dimethoate	12.901	12.901	(0.691)	710490	4.00000	3.924
	19 Ronnel	13.229	13.229	(0.708)	501398	4.00000	3.921
	20 Merphos-A (Merphos)	13.357	13.359	(1.234)	462632	4.00000	3.961(A)
	21 Chlorpyrifos	14.039	14.039	(0.751)	483833	4.00000	3.999
	22 Fenthion	14.287	14.289	(0.765)	475563	4.00000	3.760
	23 Trichloronate	14.326	14.326	(0.767)	670271	4.00000	4.173
	24 Anilazine	14.847	14.851	(0.795)	23122	4.00000	4.065
	25 Methyl Parathion	15.109	15.109	(0.809)	589284	4.00000	3.940(A)
	26 Malathion	15.382	15.386	(0.823)	446246	4.00000	3.970
	27 Tokuthion	16.091	16.091	(0.861)	477103	4.00000	3.924
	28 Parathion	16.226	16.226	(0.869)	532806	4.00000	3.942
	29 Merphos-B (Merphos Oxone)	16.286	16.287	(1.504)	160245	4.00000	3.946(A)
	30 Tetrachlorvinphos (stirophos)	16.762	16.764	(0.897)	312270	4.00000	3.940
	31 Carbophenothion methyl	16.876	16.876	(0.903)	485153	4.00000	3.926
	32 Bolstar	17.259	17.259	(0.924)	452745	4.00000	3.914
	33 Carbophenothion	17.342	17.341	(0.928)	507573	4.00000	3.921(A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.122	18.122	(0.970)	377570	4.00000	3.891
	35 Fensulfothion	18.396	18.396	(0.985)	446385	4.00000	4.010
*	36 TOCP	18.682	18.682	(1.000)	201011	2.00000	
	37 Phosmet / EPN	18.766	18.766	(1.004)	836790	8.00000	7.850(A)
	38 Famphur	18.864	18.864	(1.010)	576217	4.00000	3.998
	39 Azinphos-methyl	19.012	19.012	(1.018)	519554	4.00000	3.980
	40 Azinphos-ethyl	19.226	19.224	(1.029)	530700	4.00000	3.894
	41 Coumaphos	20.141	20.141	(1.078)	403154	4.00000	4.003
S	42 Merphos				622877	4.00000	3.841(A)
M	43 Total Demeton				675881	4.00000	4.055

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

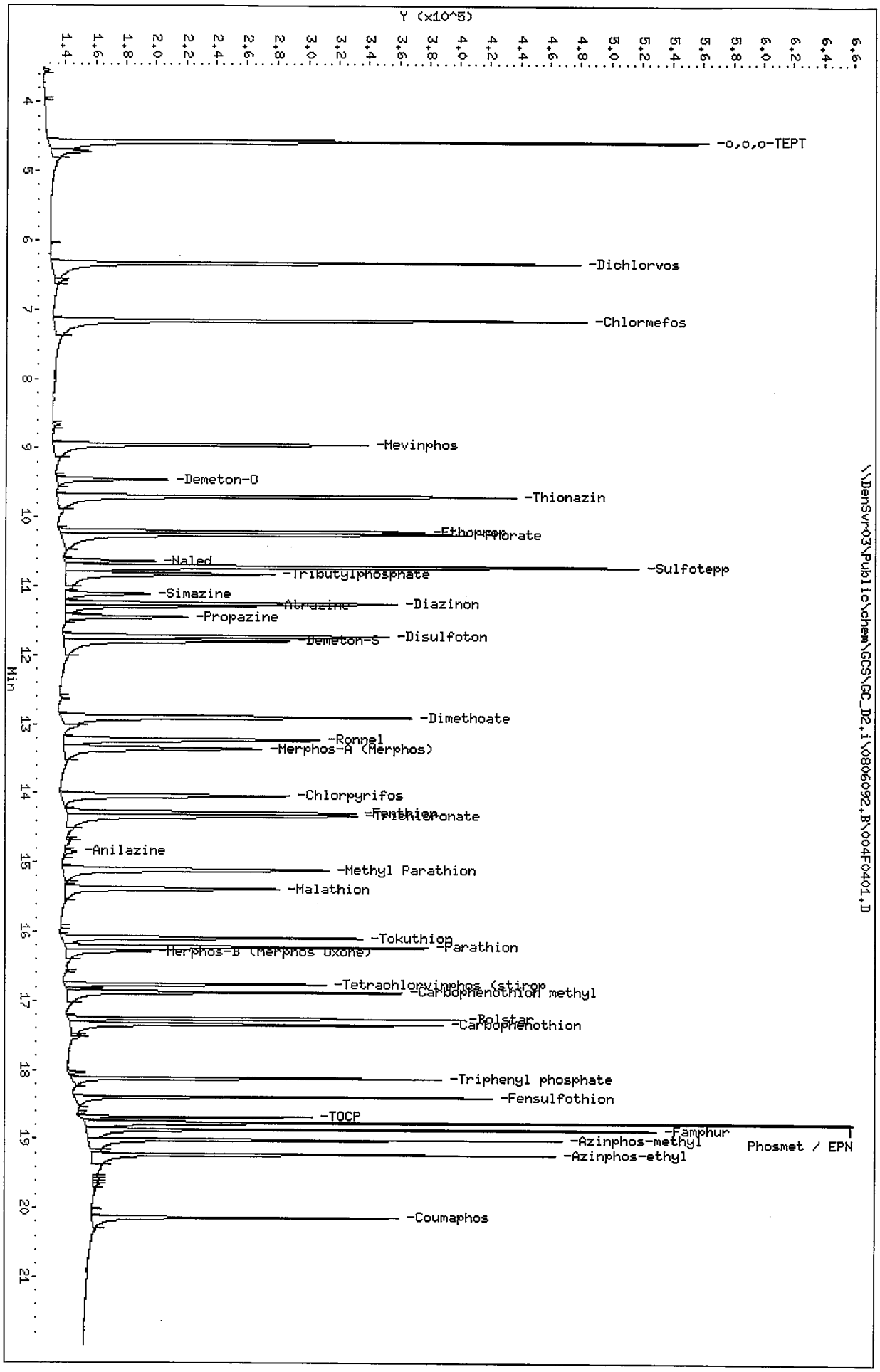
Instrument ID: GC_D2.i
Lab File ID: 004F0401.D
Lab Smp Id: OPP L6 GSV870-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L6 GSV870-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	446635	2.64
36 TOCP	224627	112314	449254	201011	-10.51

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

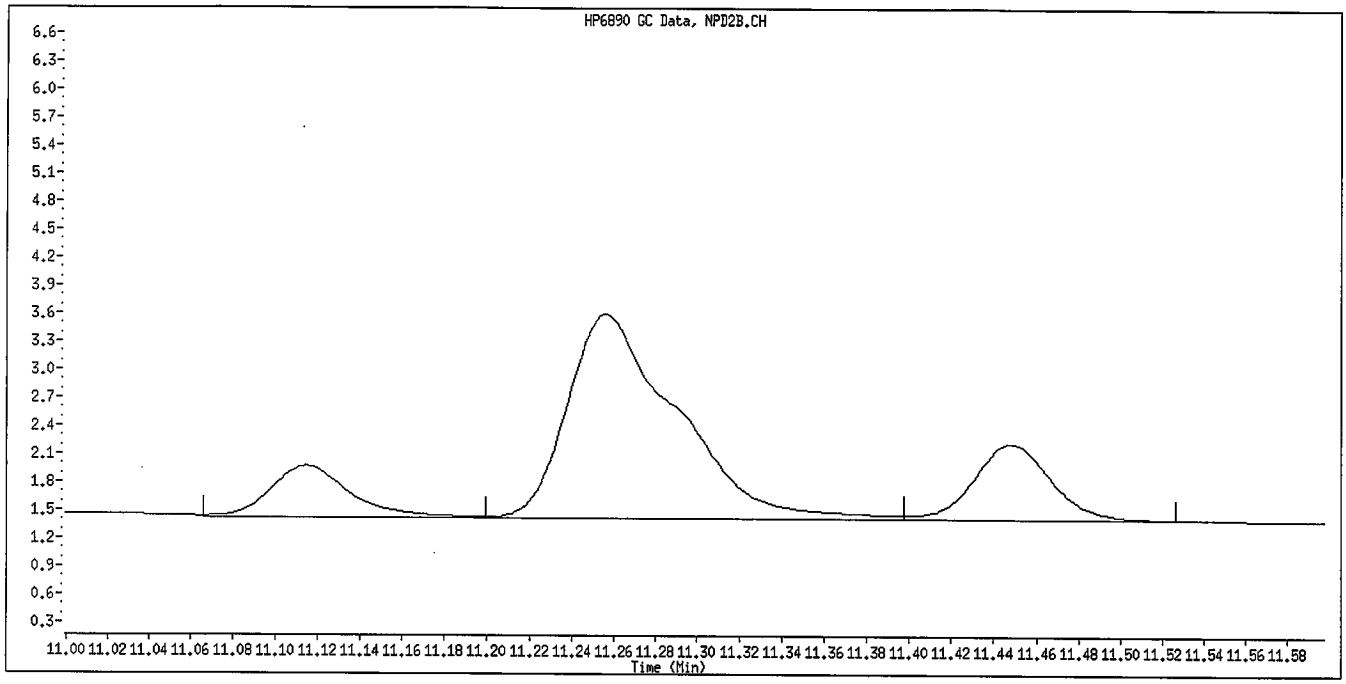
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



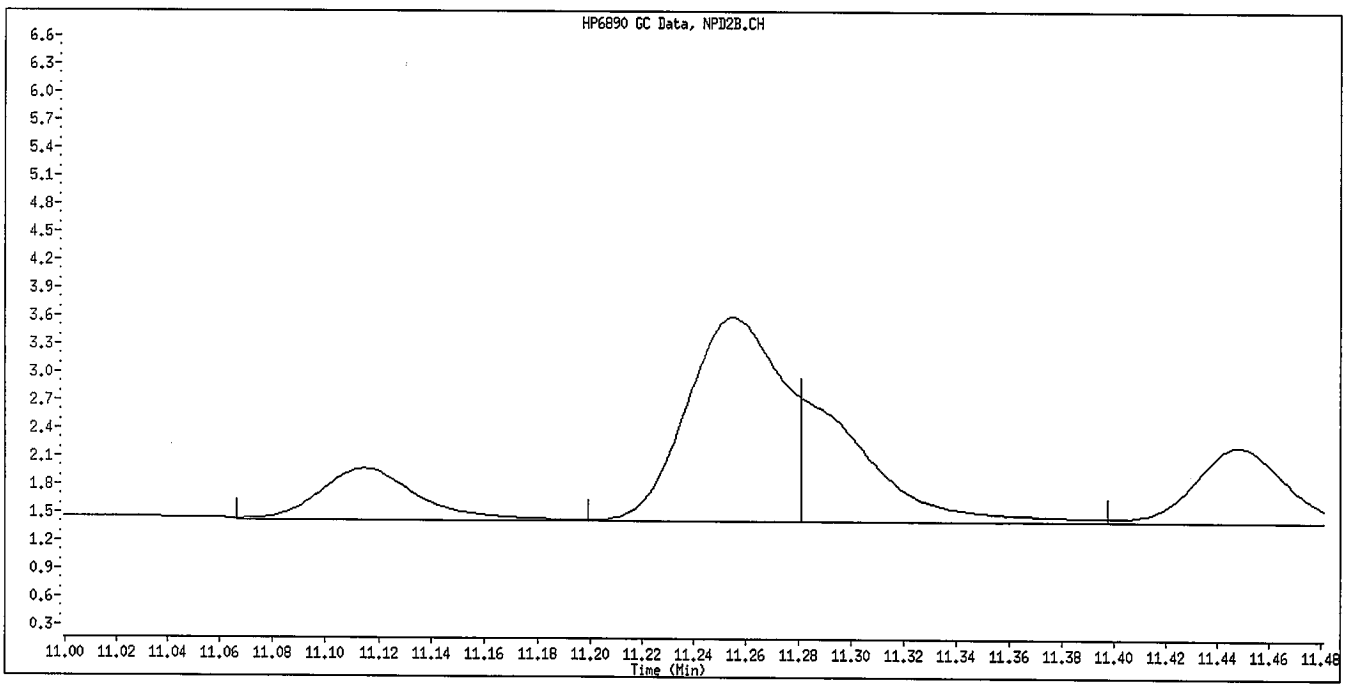
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\004F0401.D
Date : 06-AUG-2009 13:25
Client ID: OPP L6 GSV870-09
Sample Info: OPP L6 GSV870-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: HPK/TLW
Column diameter: 0.32

Data File Name: 004F0401.D
Inj. Date and Time: 06-AUG-2009 13:25
Instrument ID: GC_D2.i
Client ID: OPP L6 GSV870-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



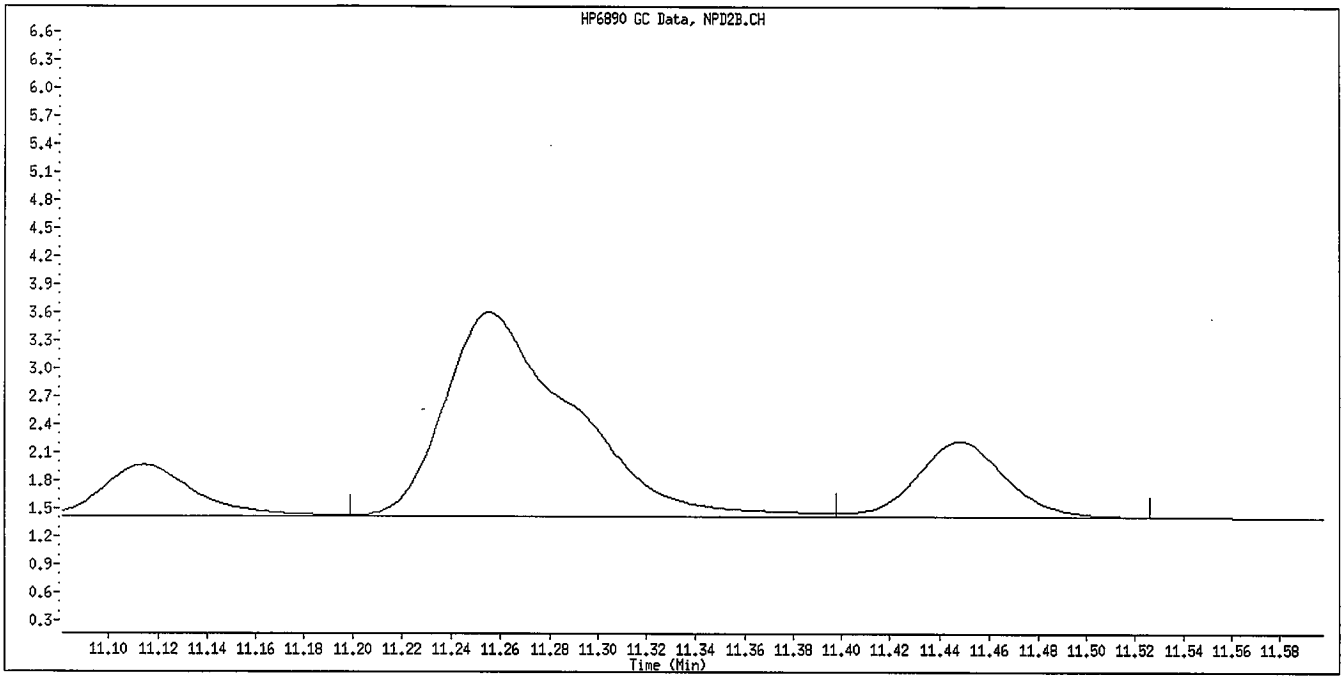
Original Integration



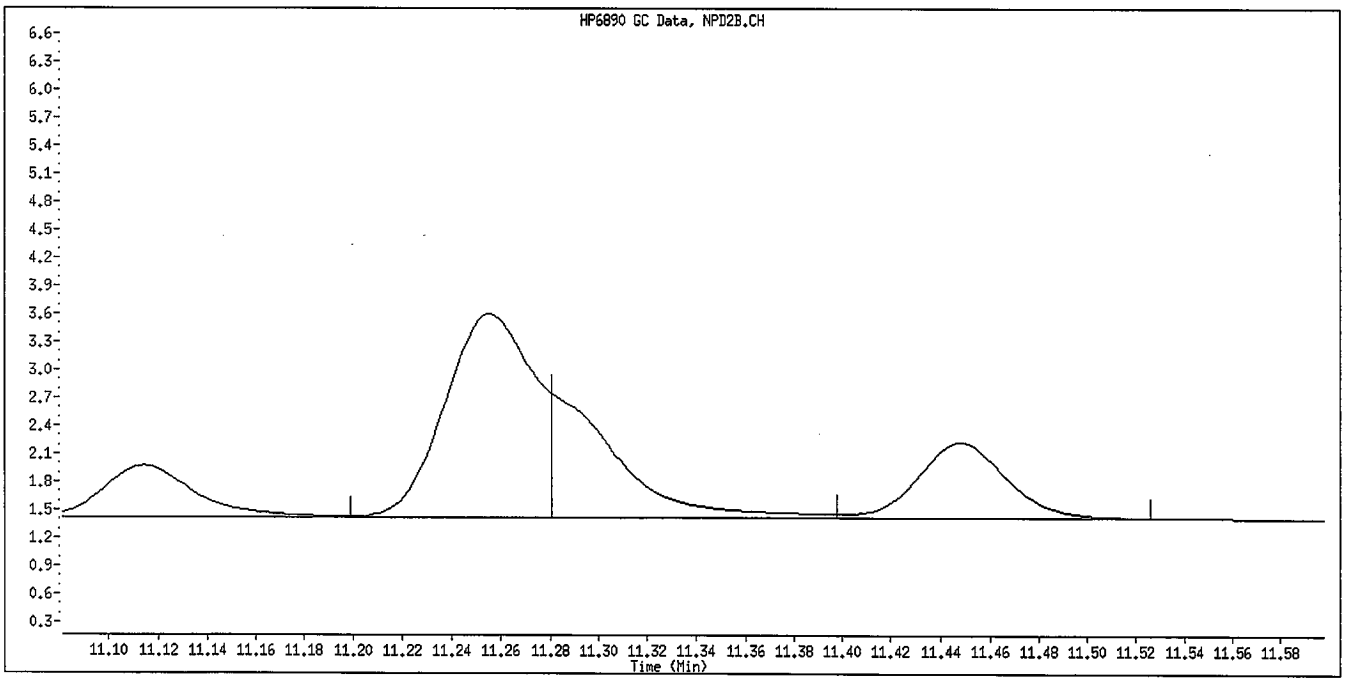
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 004F0401.D
Inj. Date and Time: 06-AUG-2009 13:25
Instrument ID: GC_D2.i
Client ID: OPP L6 GSV870-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Lab Smp Id: OPP L5 GSV871-09 Client Smp ID: OPP L5 GSV871-09
Inj Date : 06-AUG-2009 13:52
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L5 GSV871-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:21 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 13:25 Cal File: 004F0401.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.572	4.572	(0.245)	802659	3.00000	2.966
	2 Dichlorvos	6.330	6.331	(0.339)	566931	3.00000	2.977
$	3 Chlormefos	7.159	7.159	(0.383)	662346	3.00000	2.978
	4 Mevinphos	8.952	8.952	(0.479)	405911	3.00000	2.978
	5 Demeton-O	9.457	9.457	(0.506)	130704	0.97500	0.9497
	6 Thionazin	9.700	9.701	(0.519)	611871	3.00000	2.978
	7 Ethoprop	10.209	10.209	(0.546)	387345	3.00000	3.023
	8 Phorate	10.247	10.247	(0.548)	584252	3.00000	2.934
	9 Naled	10.637	10.637	(0.569)	94924	3.00000	2.930
	10 Sulfotepp	10.720	10.721	(0.574)	760467	3.00000	2.991(A)
*	11 Tributylphosphate	10.827	10.827	(1.000)	419384	2.00000	
	12 Simazine	11.114	11.114	(0.595)	106222	3.00000	2.975(A)
	13 Diazinon	11.255	11.256	(0.602)	403319	3.00000	2.908(M)
	14 Atrazine	11.279	11.282	(0.604)	208979	3.00000	3.094(AM)
	15 Propazine	11.449	11.449	(0.613)	152109	3.00000	2.975
	16 Disulfoton	11.729	11.729	(0.628)	423156	3.00000	2.994
	17 Demeton-S	11.795	11.796	(0.631)	350018	2.04000	1.973
	18 Dimethoate	12.900	12.901	(0.691)	527786	3.00000	2.947
	19 Ronnel	13.229	13.229	(0.708)	372707	3.00000	2.939
	20 Merphos-A (Merphos)	13.359	13.359	(1.234)	335820	3.00000	3.015(A)
	21 Chlorpyrifos	14.039	14.039	(0.751)	353328	3.00000	2.949
	22 Fenthion	14.289	14.289	(0.765)	376566	3.00000	3.019
	23 Trichloronate	14.325	14.326	(0.767)	481097	3.00000	2.965
	24 Anilazine	14.850	14.851	(0.795)	16270	3.00000	2.959(M)
	25 Methyl Parathion	15.109	15.109	(0.809)	438809	3.00000	2.966(A)
	26 Malathion	15.385	15.386	(0.824)	331835	3.00000	2.981
	27 Tokuthion	16.090	16.091	(0.861)	360235	3.00000	2.987
	28 Parathion	16.225	16.226	(0.869)	400079	3.00000	2.982
	29 Merphos-B (Merphos Oxone)	16.287	16.287	(1.504)	117192	3.00000	2.887(A)
	30 Tetrachlorvinphos (stirophos)	16.764	16.764	(0.897)	235430	3.00000	2.996
	31 Carbophenothion methyl	16.877	16.876	(0.903)	369428	3.00000	3.021
	32 Bolstar	17.259	17.259	(0.924)	345976	3.00000	3.011
	33 Carbophenothion	17.342	17.341	(0.928)	391840	3.00000	3.053(A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.122	18.122	(0.970)	290427	3.00000	3.016
	35 Fensulfothion	18.395	18.396	(0.985)	324575	3.00000	2.940
*	36 TOCP	18.682	18.682	(1.000)	199526	2.00000	
	37 Phosmet / EPN	18.765	18.766	(1.004)	635473	6.00000	5.967(A)
	38 Famphur	18.864	18.864	(1.010)	418546	3.00000	2.909
	39 Azinphos-methyl	19.012	19.012	(1.018)	375778	3.00000	2.900
	40 Azinphos-ethyl	19.224	19.224	(1.029)	415808	3.00000	3.049
	41 Coumaphos	20.140	20.141	(1.078)	296355	3.00000	2.970
S	42 Merphos				453012	3.00000	2.866(A)
M	43 Total Demeton				480722	3.00000	2.923

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

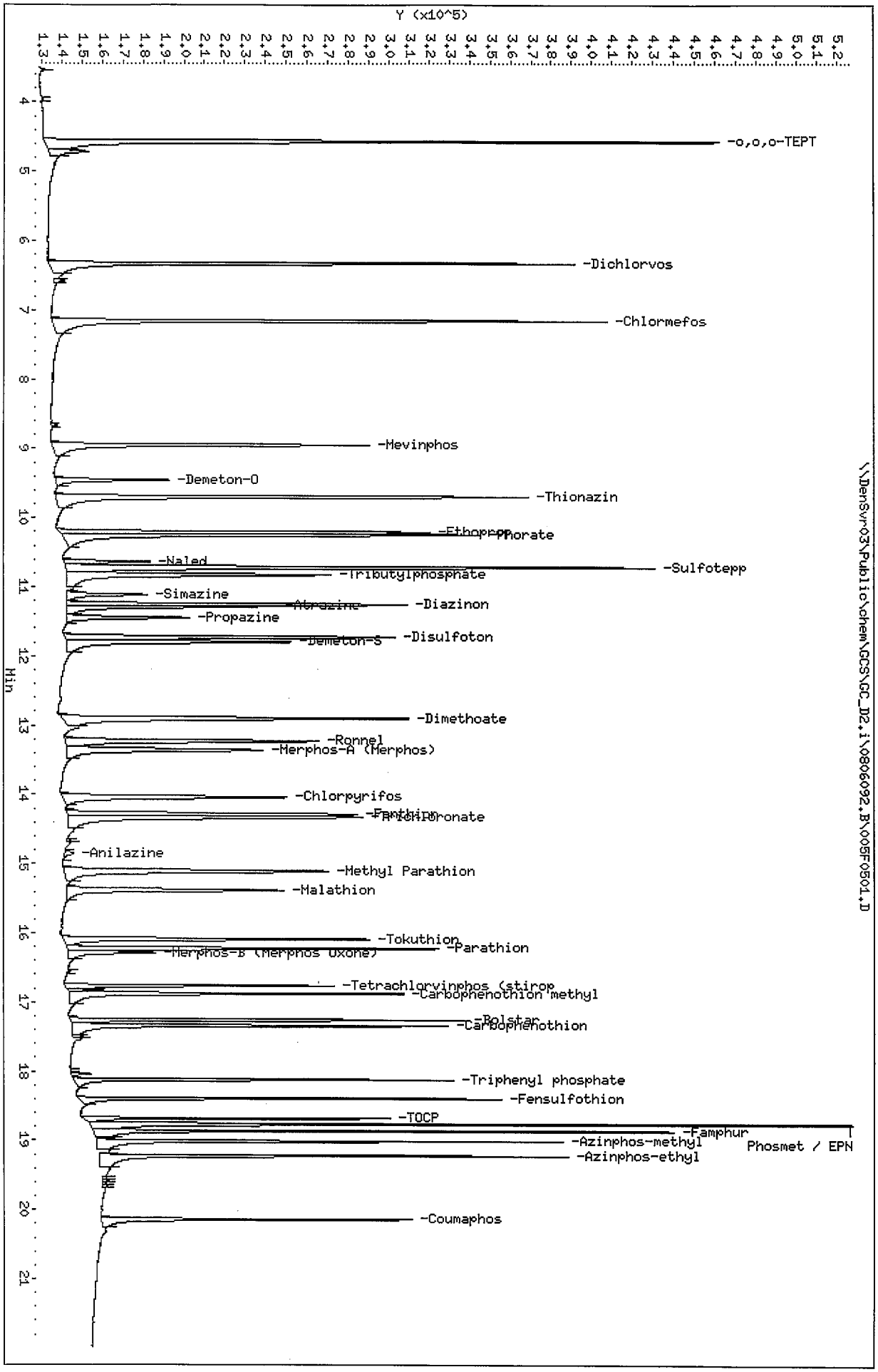
Instrument ID: GC_D2.i
Lab File ID: 005F0501.D
Lab Smp Id: OPP L5 GSV871-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L5 GSV871-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	419384	-3.63
36 TOCP	224627	112314	449254	199526	-11.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

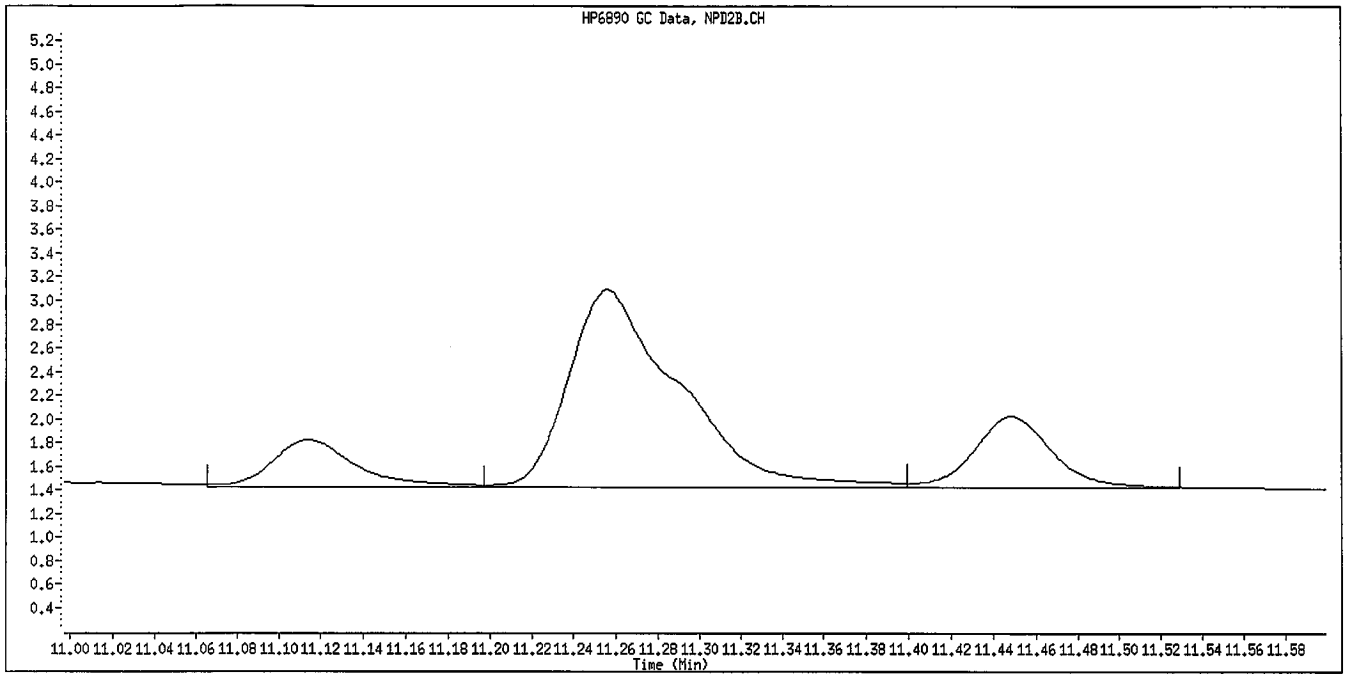
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



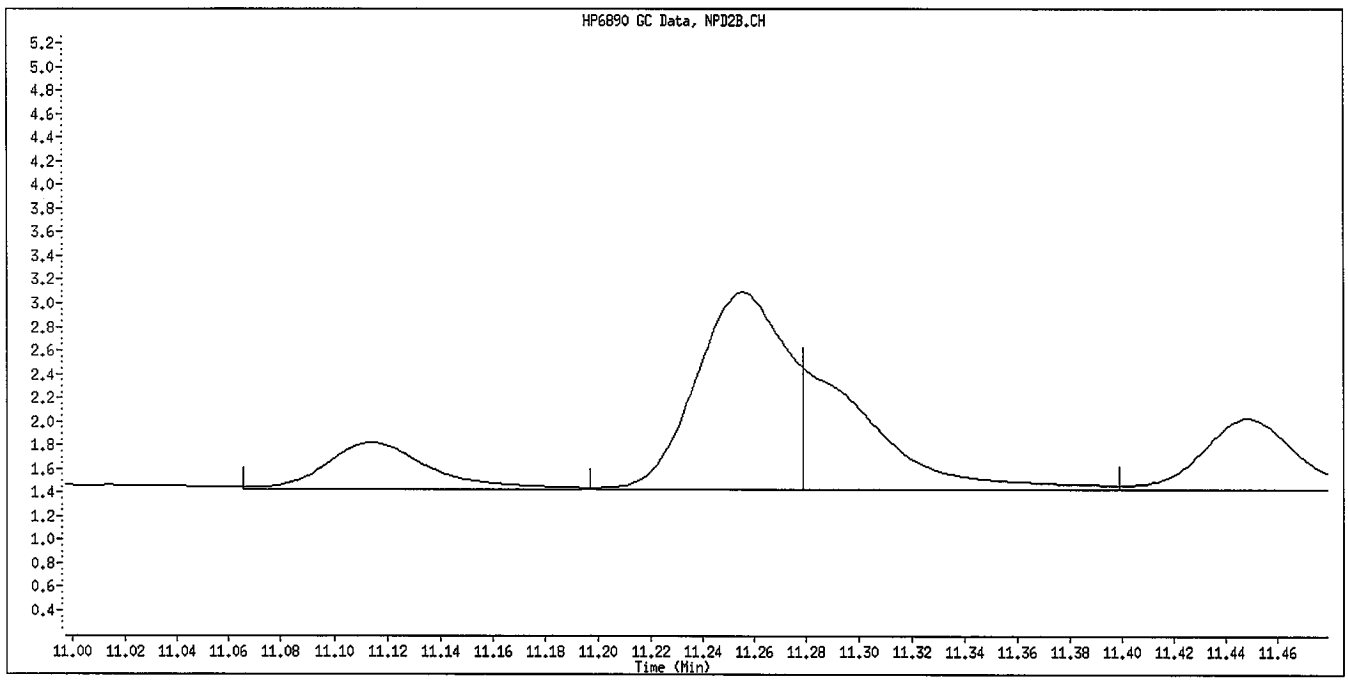
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\005F0501.D
Date : 06-AUG-2009 13:52
Client ID: OPP L5 GSV871-09
Sample Info: OPP L5 GSV871-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 005F0501.D
Inj. Date and Time: 06-AUG-2009 13:52
Instrument ID: GC_D2.i
Client ID: OPP L5 GSV871-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

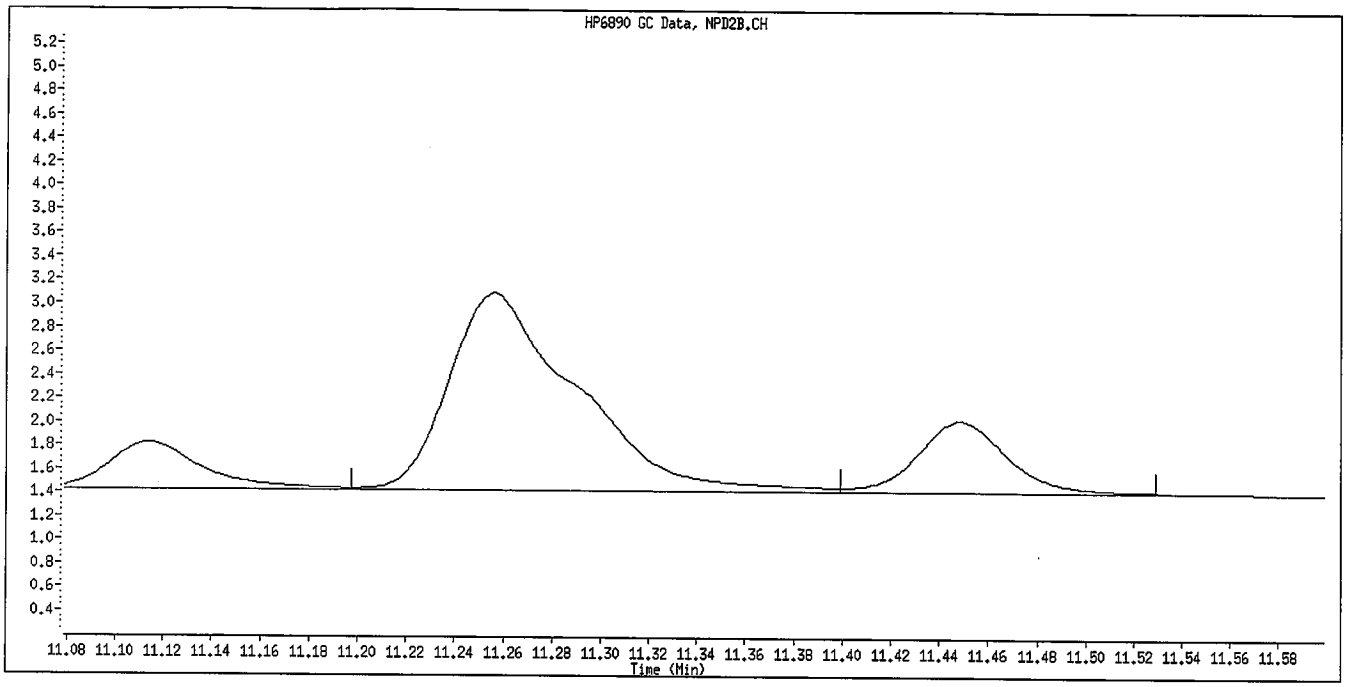


Manual Integration

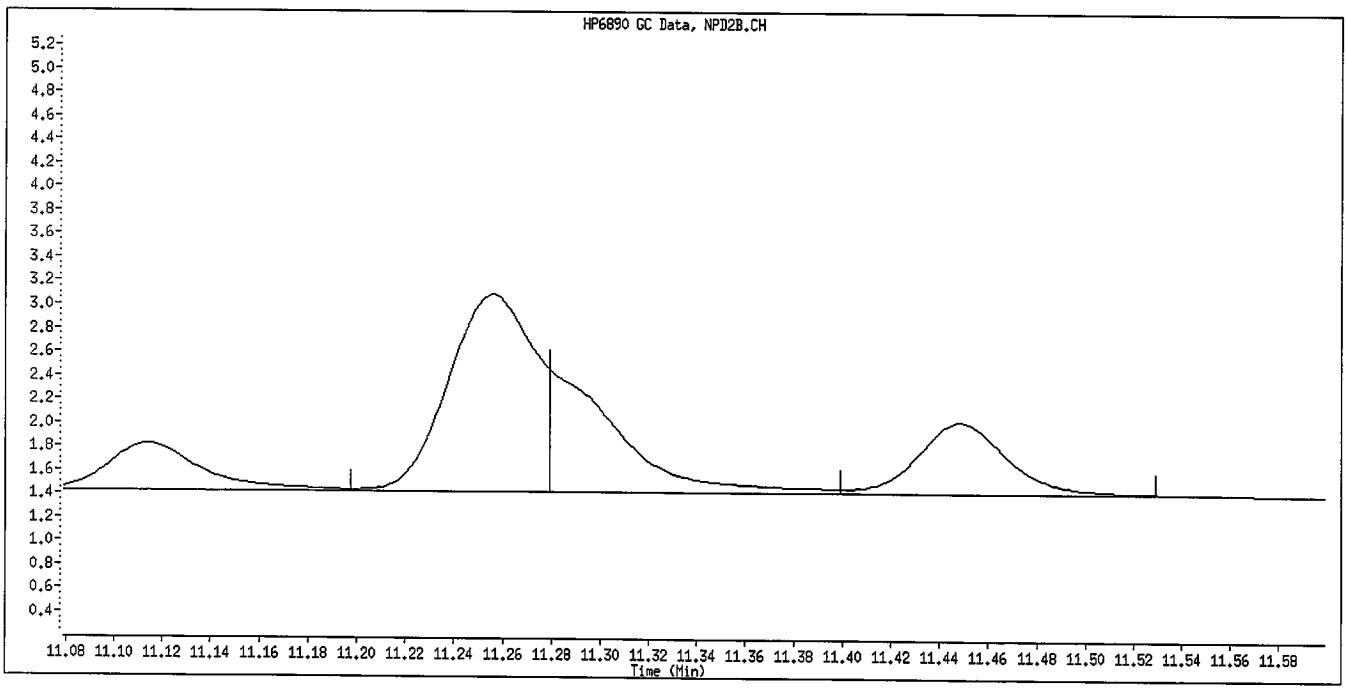
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

1587109

Data File Name: 005F0501.D
Inj. Date and Time: 06-AUG-2009 13:52
Instrument ID: GC_D2.i
Client ID: OPP L5 GSV871-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



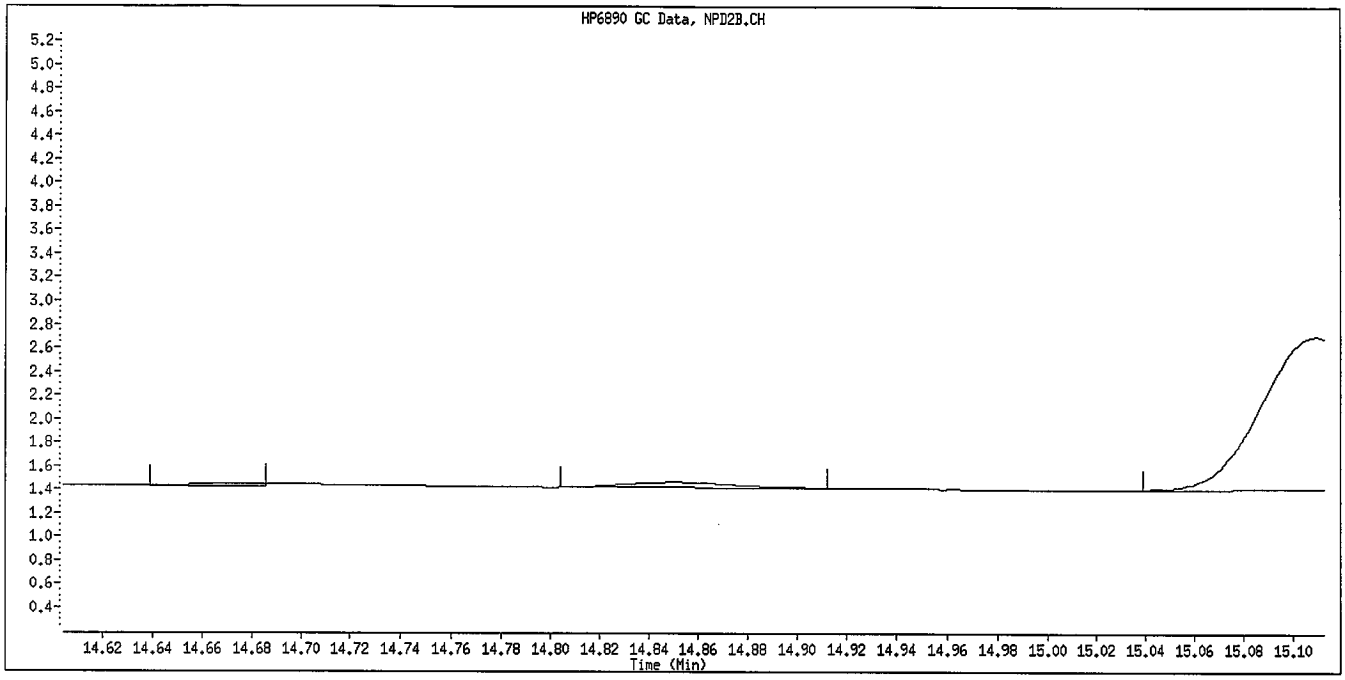
Original Integration



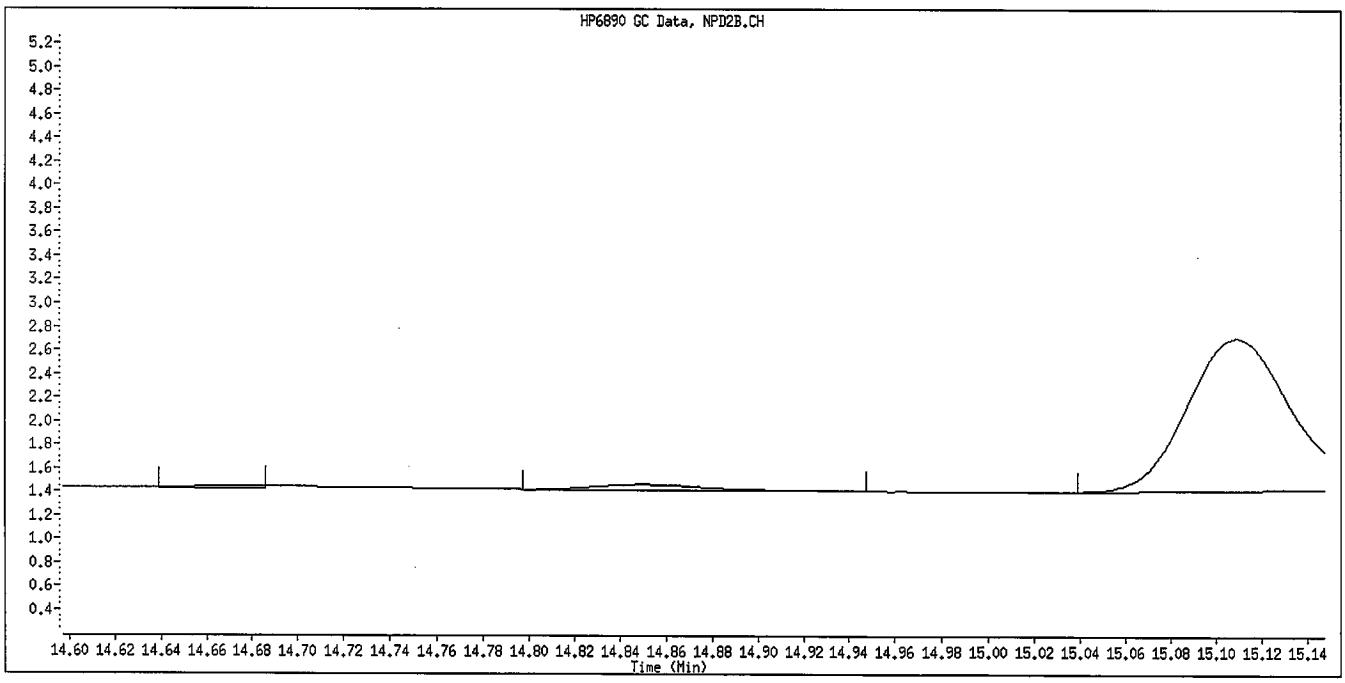
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 005F0501.D
Inj. Date and Time: 06-AUG-2009 13:52
Instrument ID: GC_D2.i
Client ID: OPP L5 GSV871-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Lab Smp Id: OPP L4 GSV872-09 Client Smp ID: OPP L4 GSV872-09
Inj Date : 06-AUG-2009 14:20
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L4 GSV872-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:22 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 13:52 Cal File: 005F0501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.572	4.572	(0.245)	597394	2.00000	1.917
	2 Dichlorvos	6.330	6.331	(0.339)	406483	2.00000	1.962
$	3 Chlormefos	7.160	7.159	(0.383)	488546	2.00000	2.020
	4 Mevinphos	8.953	8.952	(0.479)	298068	2.00000	2.025
	5 Demeton-O	9.457	9.457	(0.506)	94931	0.65000	0.6390
	6 Thionazin	9.700	9.701	(0.519)	454067	2.00000	2.033
	7 Ethoprop	10.210	10.209	(0.547)	281813	2.00000	2.026
	8 Phorate	10.248	10.247	(0.549)	442549	2.00000	2.038
	9 Naled	10.637	10.637	(0.569)	65369	2.00000	1.918
	10 Sulfotepp	10.720	10.721	(0.574)	579913	2.00000	2.088 (A)
*	11 Tributylphosphate	10.828	10.827	(1.000)	423354	2.00000	
	12 Simazine	11.115	11.114	(0.595)	78507	2.00000	2.017 (A)
	13 Diazinon	11.255	11.256	(0.602)	316941	2.00000	2.096 (M)
	14 Atrazine	11.282	11.282	(0.604)	146146	2.00000	1.833 (AM)
	15 Propazine	11.448	11.449	(0.613)	114010	2.00000	2.062
	16 Disulfoton	11.730	11.729	(0.628)	316424	2.00000	2.059
	17 Demeton-S	11.795	11.796	(0.631)	267435	1.36000	1.393
	18 Dimethoate	12.902	12.901	(0.691)	399590	2.00000	2.058
	19 Ronnel	13.230	13.229	(0.708)	282907	2.00000	2.050
	20 Merphos-A (Merphos)	13.360	13.359	(1.234)	252361	2.00000	2.191 (A)
	21 Chlorpyrifos	14.040	14.039	(0.752)	268415	2.00000	2.063
	22 Fenthion	14.290	14.289	(0.765)	281601	2.00000	2.101
	23 Trichloronate	14.327	14.326	(0.767)	386484	2.00000	2.134
	24 Anilazine	14.852	14.851	(0.795)	10658	2.00000	1.884 (M)
	25 Methyl Parathion	15.110	15.109	(0.809)	323523	2.00000	2.019 (A)
	26 Malathion	15.385	15.386	(0.824)	244307	2.00000	2.021
	27 Tokuthion	16.092	16.091	(0.861)	272176	2.00000	2.073
	28 Parathion	16.225	16.226	(0.869)	303707	2.00000	2.076
	29 Merphos-B (Merphos Oxone)	16.287	16.287	(1.504)	87050	2.00000	1.997 (A)
	30 Tetrachlorvinphos (stirophos)	16.763	16.764	(0.897)	176428	2.00000	2.064
	31 Carbophenothion methyl	16.877	16.876	(0.903)	273834	2.00000	2.068
	32 Bolstar	17.258	17.259	(0.924)	262486	2.00000	2.091
	33 Carbophenothion	17.342	17.341	(0.928)	291027	2.00000	2.085 (A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.123	18.122	(0.970)	218925	2.00000	2.087
	35 Fensulfothion	18.395	18.396	(0.985)	244410	2.00000	2.034
*	36 TOCP	18.682	18.682	(1.000)	217566	2.00000	
	37 Phosmet / EPN	18.765	18.766	(1.004)	484535	4.00000	4.121
	38 Famphur	18.862	18.864	(1.010)	312731	2.00000	1.975
	39 Azinphos-methyl	19.008	19.012	(1.017)	274308	2.00000	1.941
	40 Azinphos-ethyl	19.220	19.224	(1.029)	298611	2.00000	1.968
	41 Coumaphos	20.135	20.141	(1.078)	215546	2.00000	1.987
S	42 Merphos				339411	2.00000	1.995
M	43 Total Demeton				362366	2.00000	2.032

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

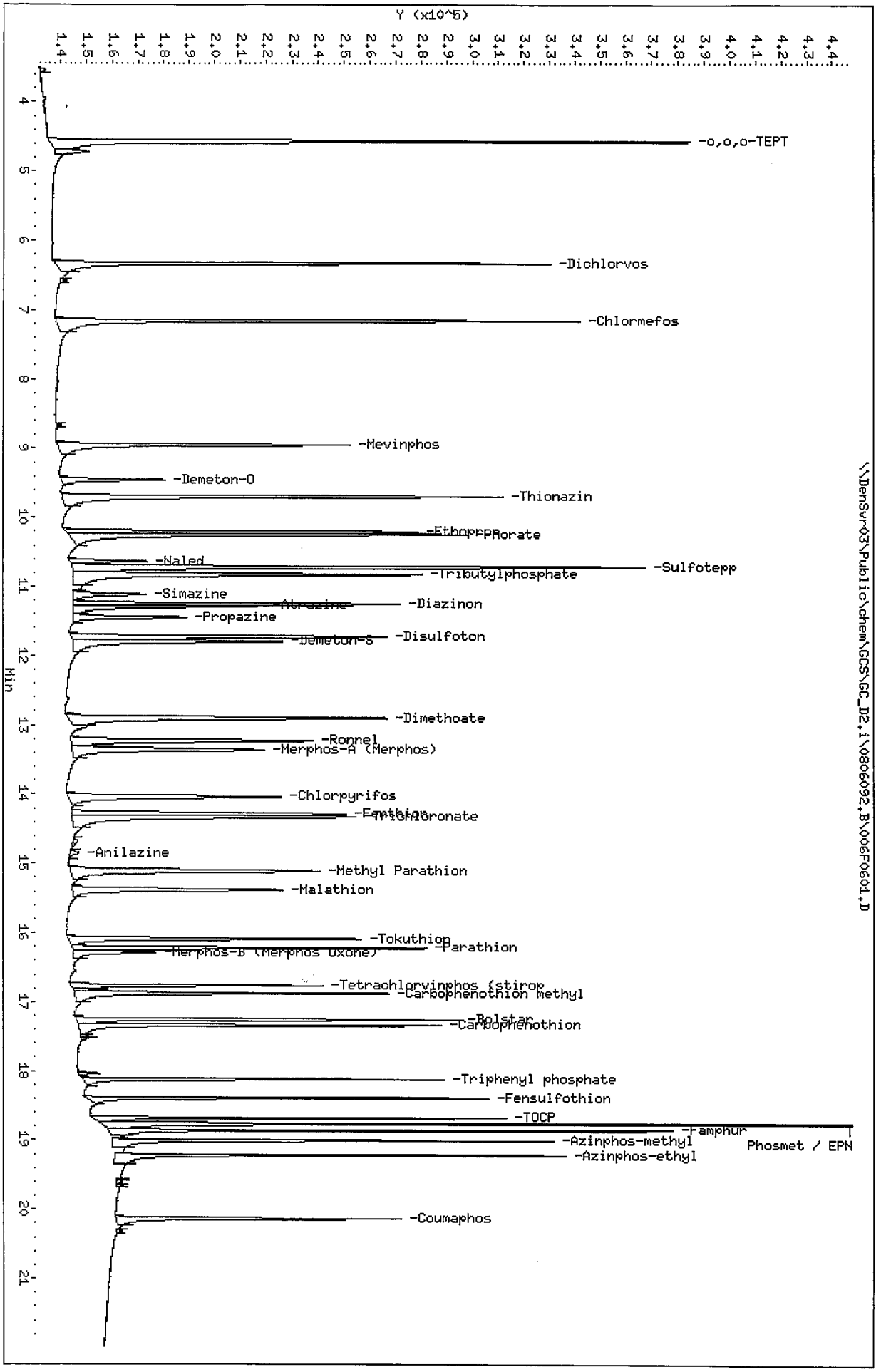
Instrument ID: GC_D2.i
Lab File ID: 006F0601.D
Lab Smp Id: OPP L4 GSV872-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L4 GSV872-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	423354	-2.71
36 TOCP	224627	112314	449254	217566	-3.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.03
36 TOCP	18.68	18.18	19.18	18.68	0.01

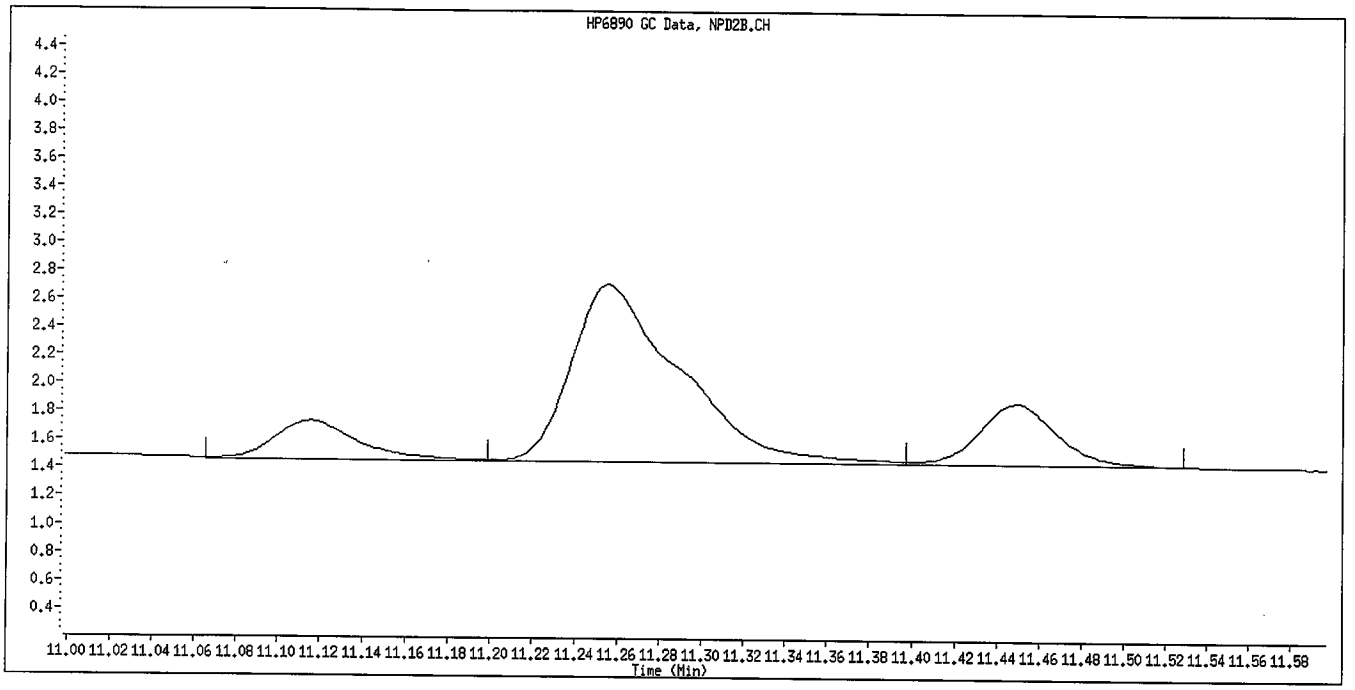
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



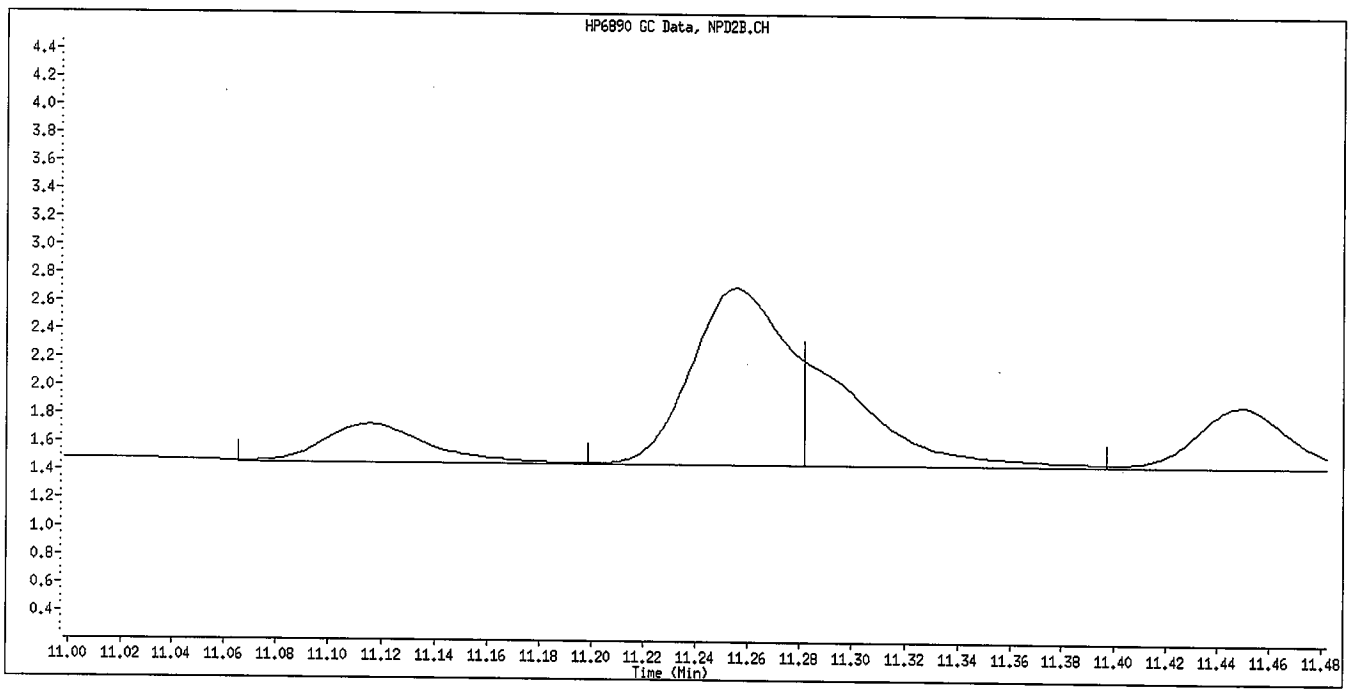
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\006F0601.D
Date : 06-AUG-2009 14:20
Client ID: OPP L4 GSV872-09
Sample Info: OPP L4 GSV872-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 006F0601.D
Inj. Date and Time: 06-AUG-2009 14:20
Instrument ID: GC_D2.i
Client ID: OPP L4 GSV872-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



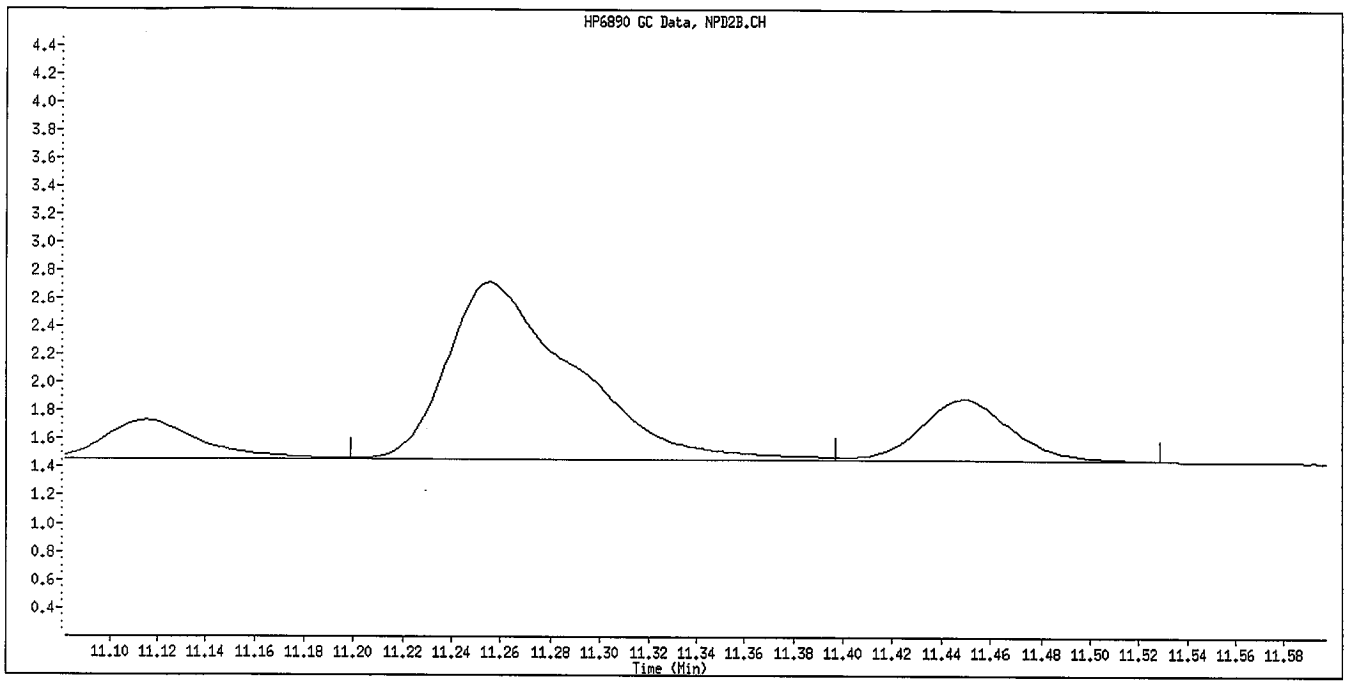
Original Integration



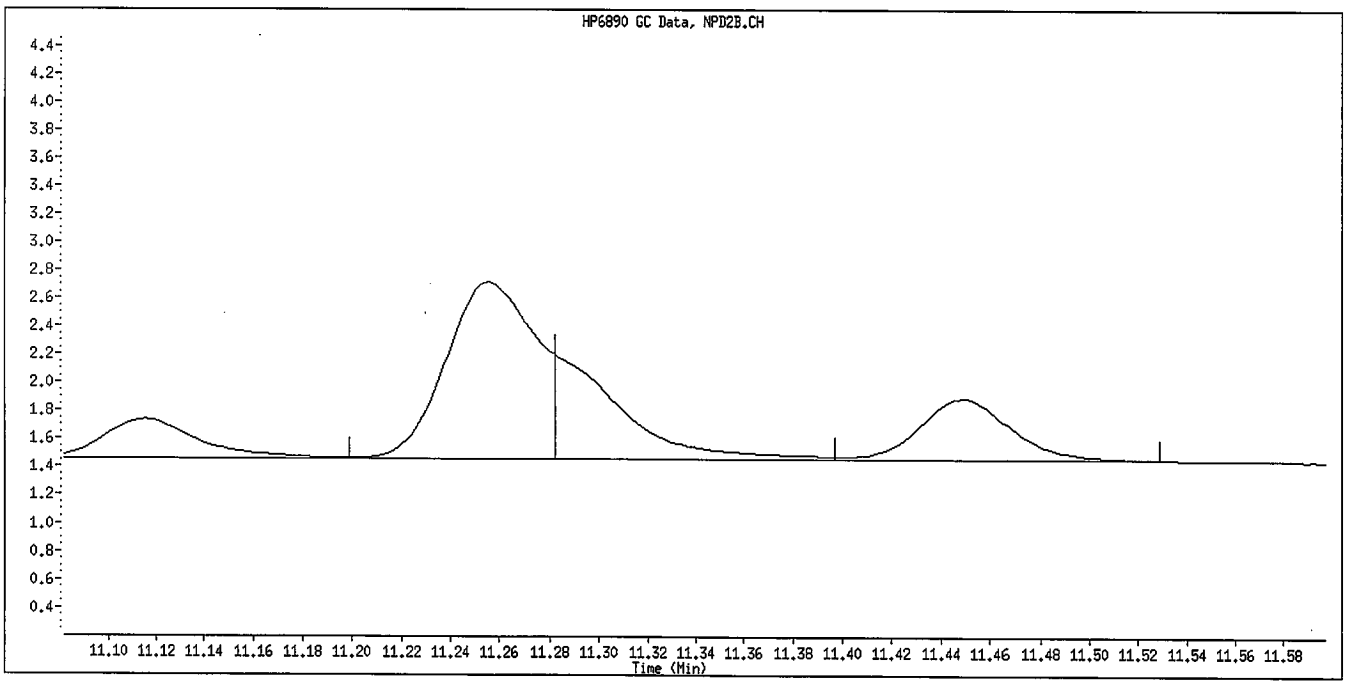
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 006F0601.D
Inj. Date and Time: 06-AUG-2009 14:20
Instrument ID: GC_D2.i
Client ID: OPP L4 GSV872-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



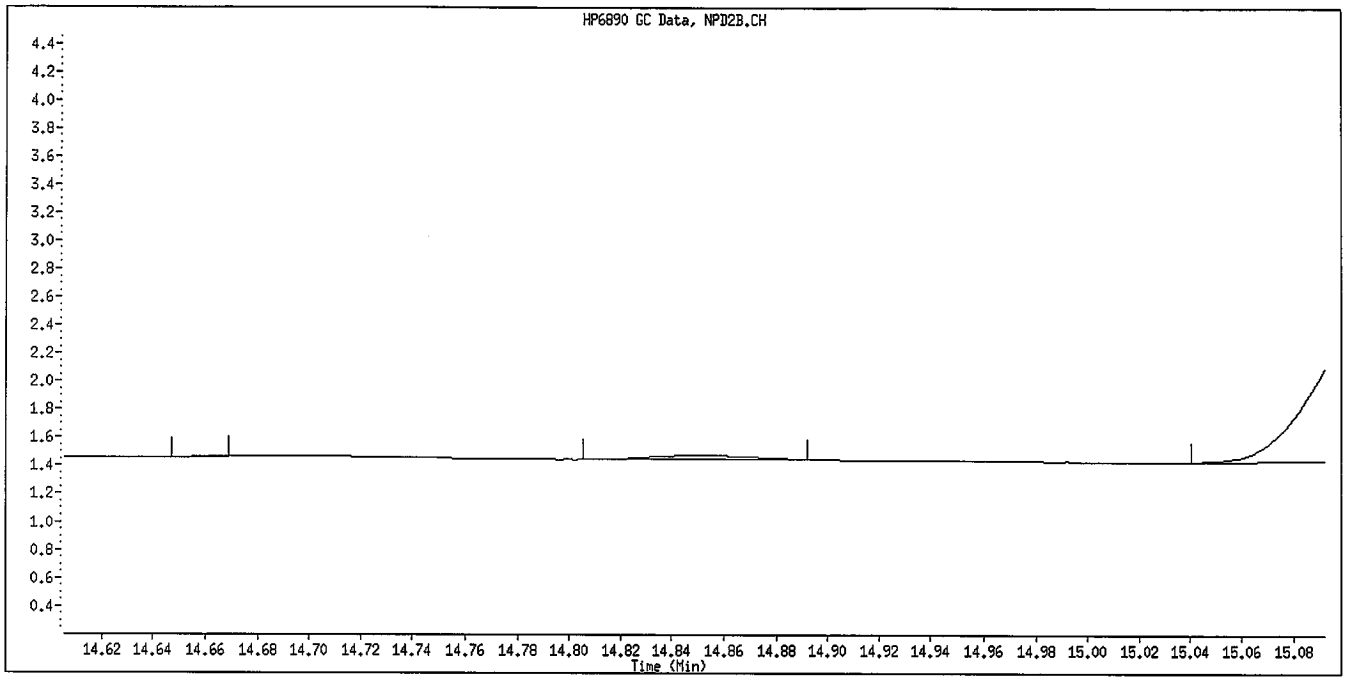
Original Integration



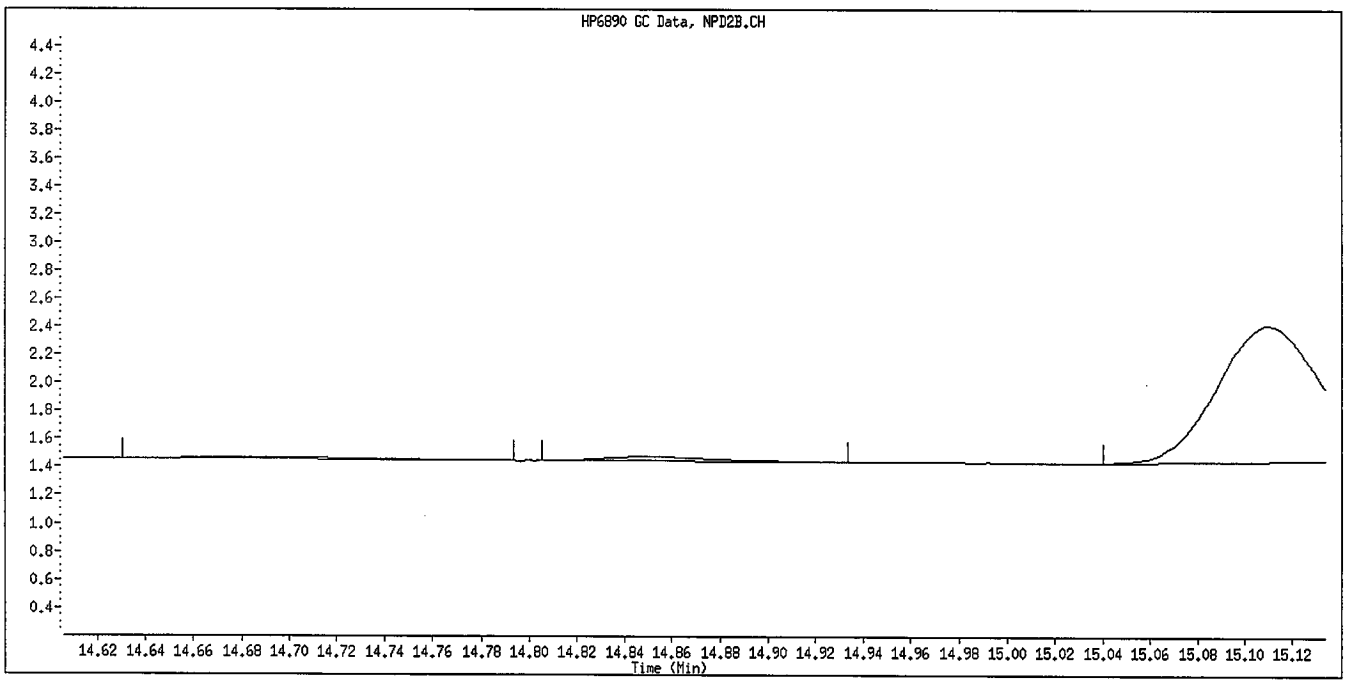
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 006F0601.D
Inj. Date and Time: 06-AUG-2009 14:20
Instrument ID: GC_D2.i
Client ID: OPP L4 GSV872-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event 10/8/09

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Lab Smp Id: OPP L3 GSV873-09 Client Smp ID: OPP L3 GSV873-09
Inj Date : 06-AUG-2009 14:47
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L3 GSV873-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:22 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 14:20 Cal File: 006F0601.D
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.571	4.572	(0.245)	357384	1.00000	1.159
	2 Dichlorvos	6.330	6.331	(0.339)	236382	1.00000	1.205
$	3 Chlormefos	7.158	7.159	(0.383)	277425	1.00000	1.213
	4 Mevinphos	8.953	8.952	(0.479)	167787	1.00000	1.224
	5 Demeton-O	9.456	9.457	(0.506)	53507	0.32500	0.3868
	6 Thionazin	9.700	9.701	(0.519)	258226	1.00000	1.225
	7 Ethoprop	10.210	10.209	(0.547)	159361	1.00000	1.217
	8 Phorate	10.246	10.247	(0.548)	249826	1.00000	1.211
	9 Naled	10.636	10.637	(0.569)	31013	1.00000	1.050
	10 Sulfotepp	10.720	10.721	(0.574)	332322	1.00000	1.254(A)
*	11 Tributylphosphate	10.826	10.827	(1.000)	377917	2.00000	
	12 Simazine	11.115	11.114	(0.595)	42962	1.00000	1.161(A)
	13 Diazinon	11.255	11.256	(0.602)	176119	1.00000	1.227(M)
	14 Atrazine	11.280	11.282	(0.604)	88458	1.00000	1.125(AM)
	15 Propazine	11.448	11.449	(0.613)	62163	1.00000	1.207
	16 Disulfoton	11.728	11.729	(0.628)	177395	1.00000	1.223
	17 Demeton-S	11.796	11.796	(0.631)	140910	0.68000	0.7886
	18 Dimethoate	12.903	12.901	(0.691)	220034	1.00000	1.209
	19 Ronnel	13.230	13.229	(0.708)	158537	1.00000	1.213
	20 Merphos-A (Merphos)	13.358	13.359	(1.234)	138362	1.00000	1.266(A)
	21 Chlorpyrifos	14.040	14.039	(0.752)	149544	1.00000	1.220
	22 Fenthion	14.293	14.289	(0.765)	140951	1.00000	1.152
	23 Trichloronate	14.323	14.326	(0.767)	224757	1.00000	1.232
	24 Anilazine	14.855	14.851	(0.795)	5446	1.00000	1.136(M)
	25 Methyl Parathion	15.110	15.109	(0.809)	178679	1.00000	1.190
	26 Malathion	15.385	15.386	(0.824)	137907	1.00000	1.212
	27 Tokuthion	16.090	16.091	(0.861)	155275	1.00000	1.248
	28 Parathion	16.223	16.226	(0.868)	173641	1.00000	1.249
	29 Merphos-B (Merphos Oxone)	16.286	16.287	(1.504)	50092	1.00000	1.206(A)
	30 Tetrachlorvinphos (stirophos)	16.763	16.764	(0.897)	99267	1.00000	1.228
	31 Carbophenothion methyl	16.876	16.876	(0.903)	150574	1.00000	1.214
	32 Bolstar	17.258	17.259	(0.924)	148685	1.00000	1.241
	33 Carbophenothion	17.341	17.341	(0.928)	158258	1.00000	1.200(A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.123	18.122	(0.970)	123629	1.00000	1.242
	35 Fensulfothion	18.395	18.396	(0.985)	144111	1.00000	1.266
*	36 TOCP	18.681	18.682	(1.000)	206809	2.00000	
	37 Phosmet / EPN	18.765	18.766	(1.004)	285475	2.00000	2.490
	38 Famphur	18.861	18.864	(1.010)	188482	1.00000	1.230
	39 Azinphos-methyl	19.010	19.012	(1.018)	155549	1.00000	1.158
	40 Azinphos-ethyl	19.220	19.224	(1.029)	186617	1.00000	1.254
	41 Coumaphos	20.135	20.141	(1.078)	126050	1.00000	1.230
S	42 Merphos				188454	1.00000	1.175
M	43 Total Demeton				194417	1.00000	1.175

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

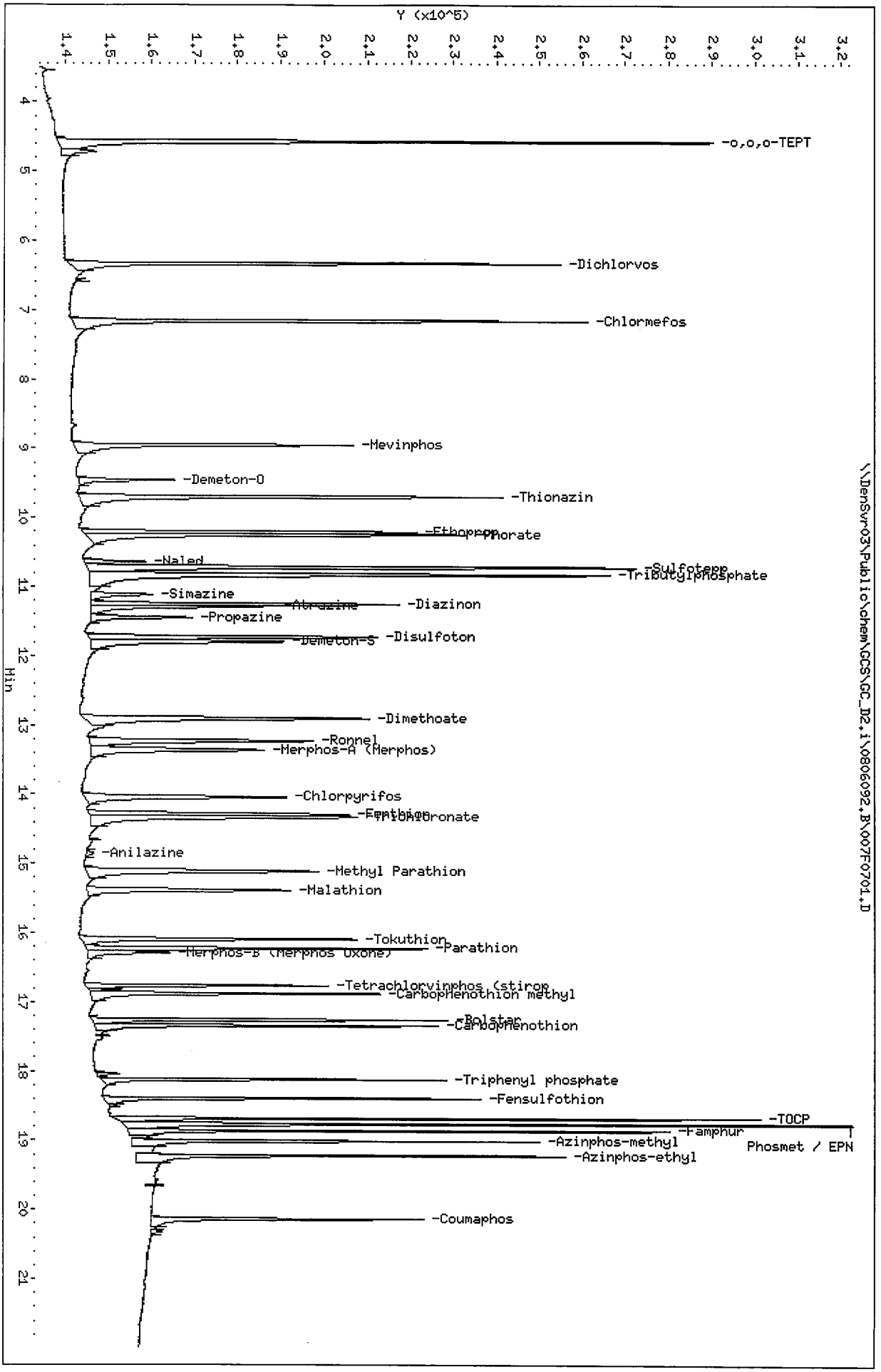
Instrument ID: GC_D2.i
Lab File ID: 007F0701.D
Lab Smp Id: OPP L3 GSV873-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L3 GSV873-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	377917	-13.15
36 TOCP	224627	112314	449254	206809	-7.93

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.01
36 TOCP	18.68	18.18	19.18	18.68	0.01

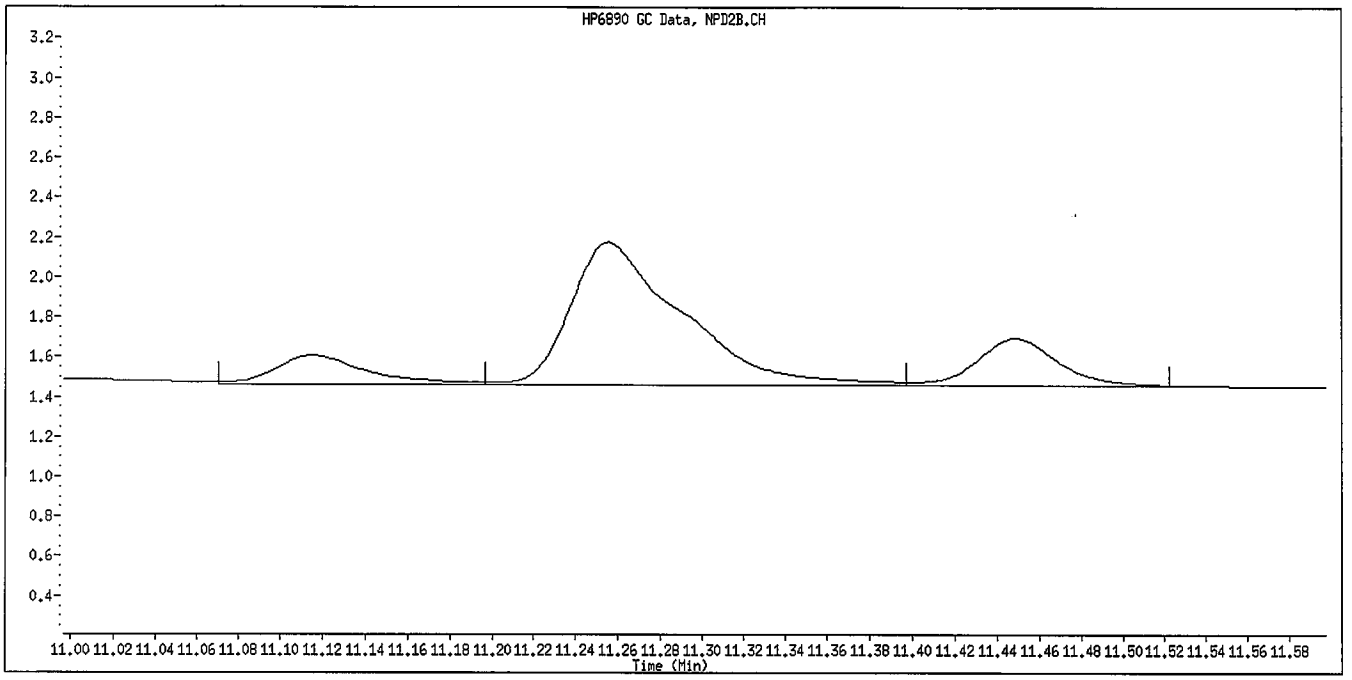
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



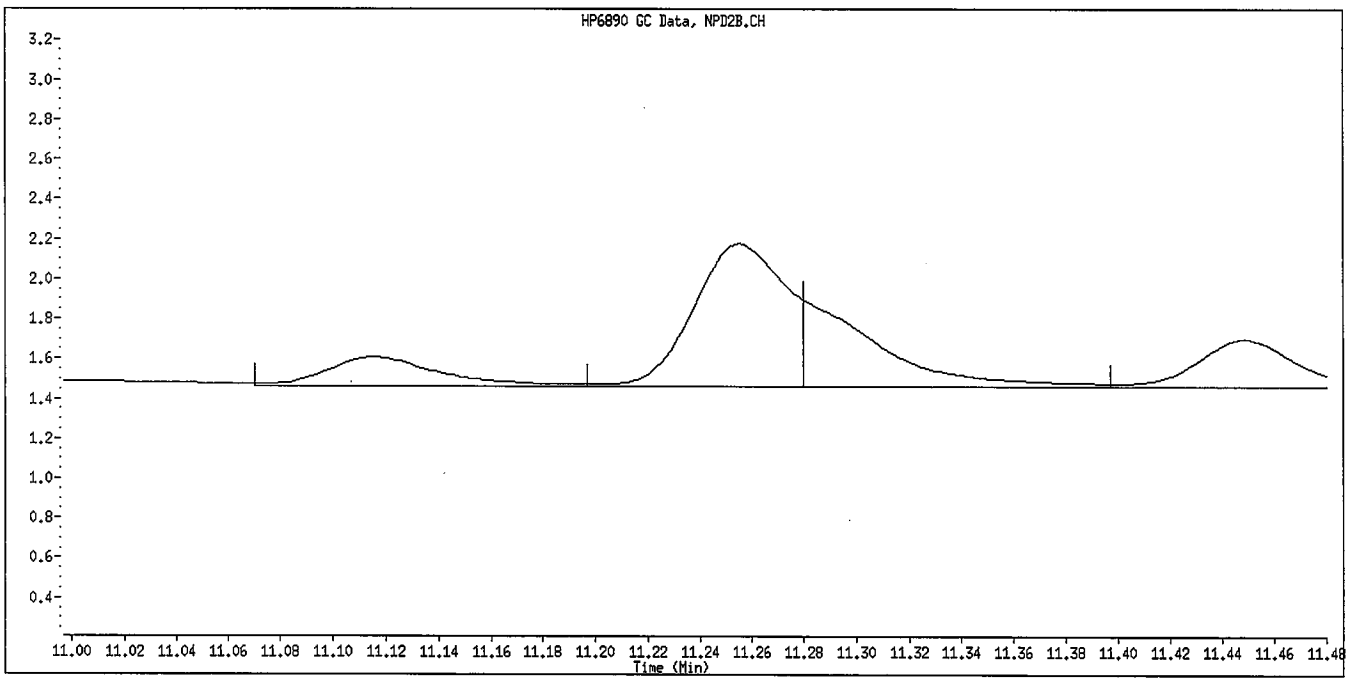
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\007F0701.D
Date : 06-AUG-2009 14:47
Client ID: OPP L3 GSV873-09
Sample Info: OPP L3 GSV873-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 007F0701.D
Inj. Date and Time: 06-AUG-2009 14:47
Instrument ID: GC_D2.i
Client ID: OPP L3 GSV873-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

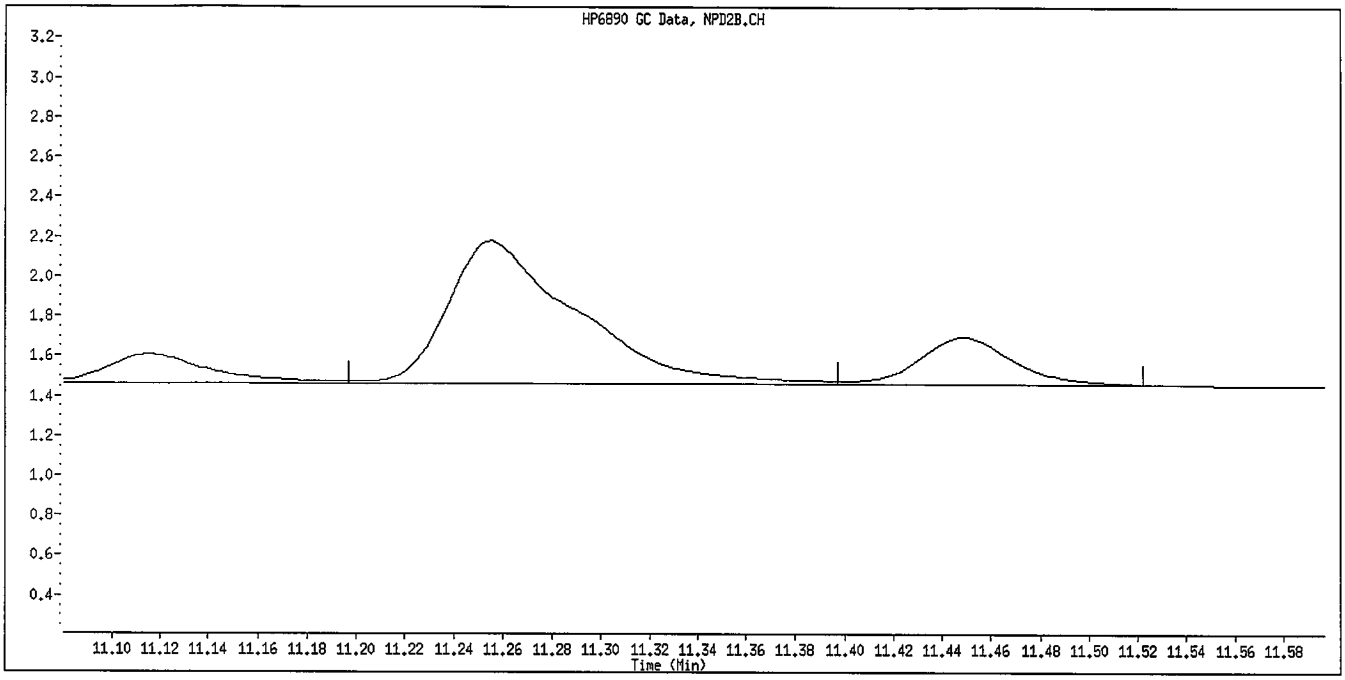
1K8/7/09

MANUALLY UPDATED
BASELINE

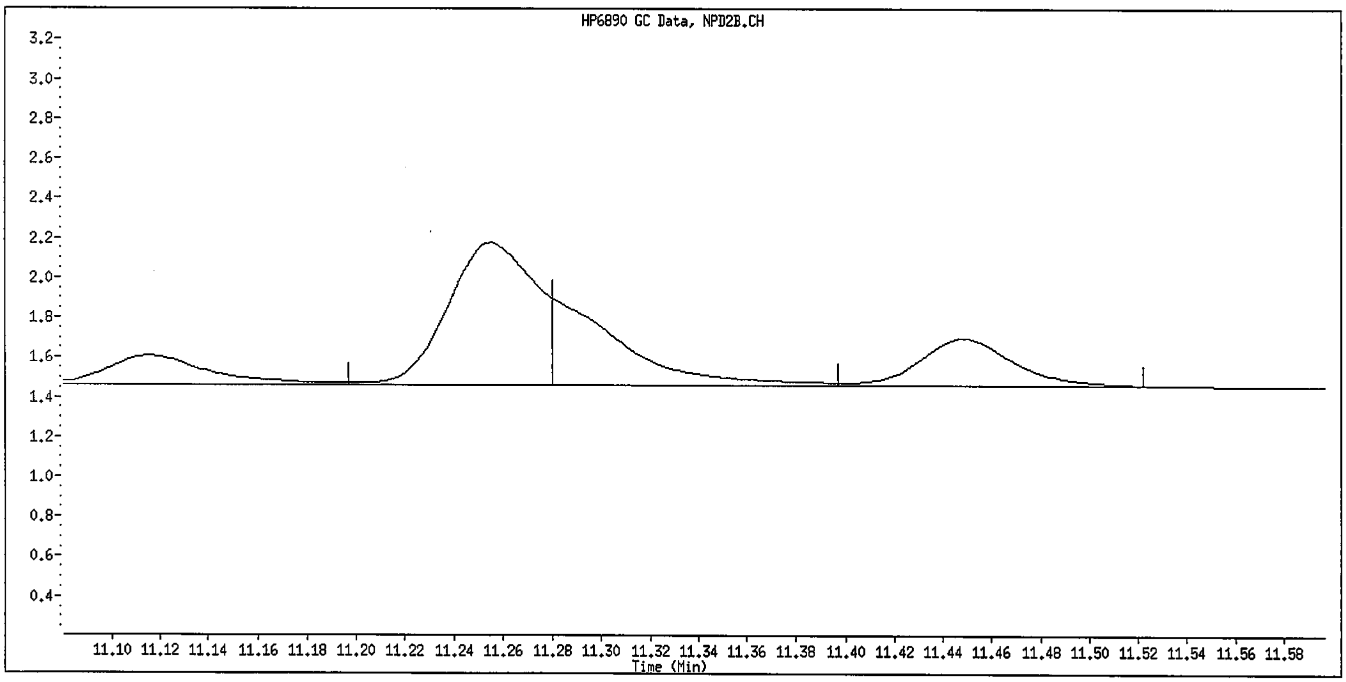
8/7/09

Table of Contents

Data File Name: 007F0701.D
Inj. Date and Time: 06-AUG-2009 14:47
Instrument ID: GC_D2.i
Client ID: OPP L3 GSV873-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



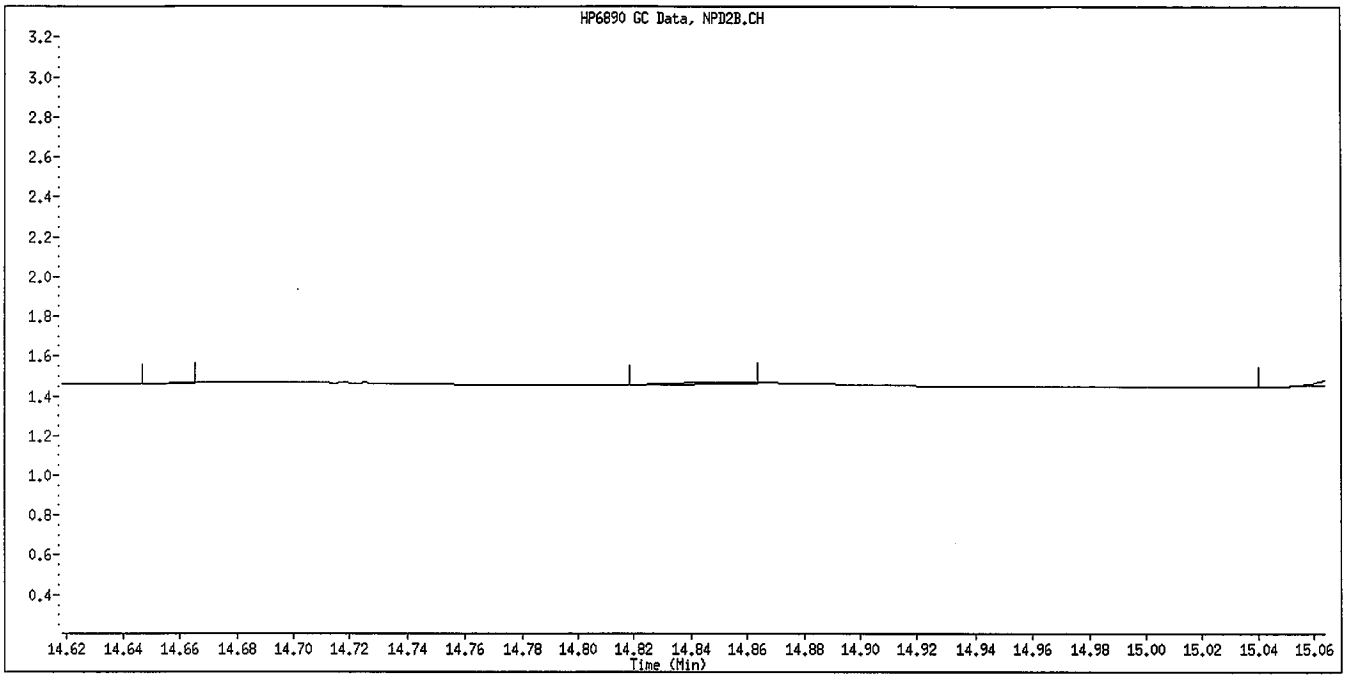
Original Integration



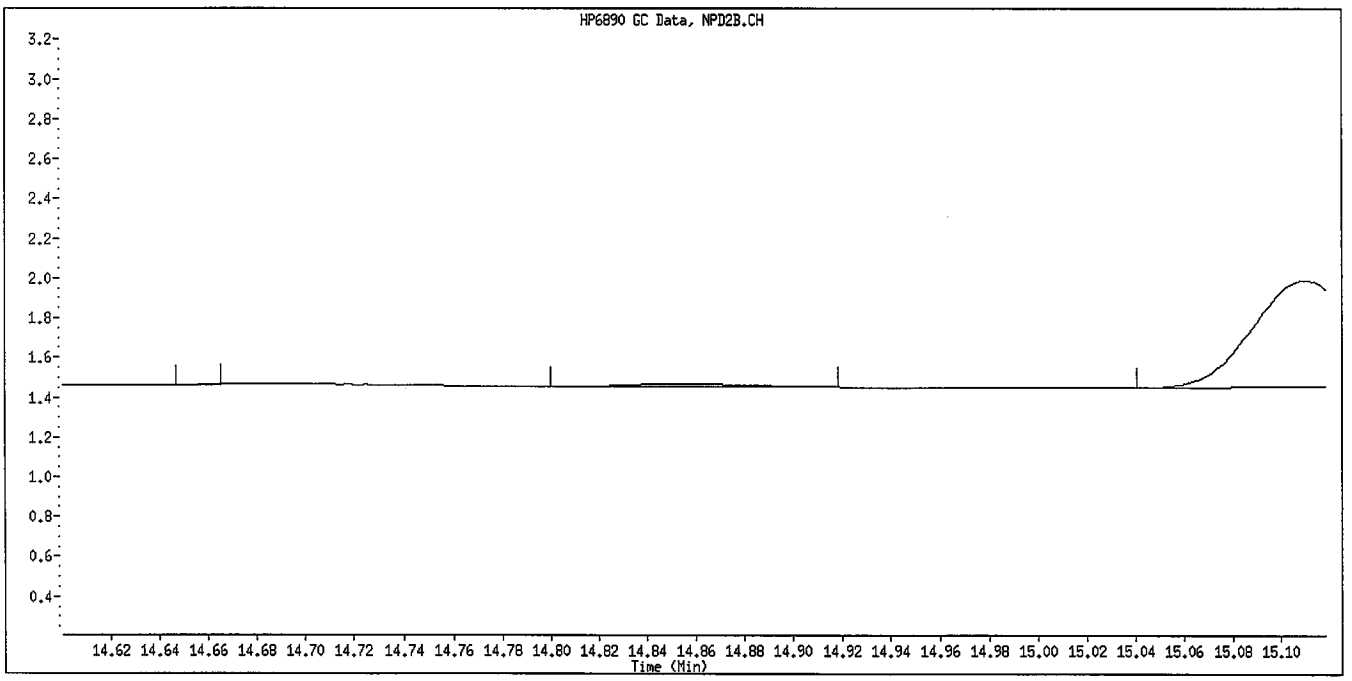
Manual Integration

MANUALLY UPDATED BASELINE

Data File Name: 007F0701.D
Inj. Date and Time: 06-AUG-2009 14:47
Instrument ID: GC_D2.i
Client ID: OPP L3 GSV873-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\008F0801.D
Lab Smp Id: OPP L2 GSV874-09 Client Smp ID: OPP L2 GSV874-09
Inj Date : 06-AUG-2009 15:15
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L2 GSV874-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:22 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 14:47 Cal File: 007F0701.D
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.573	4.572	(0.245)	153069	0.50000	0.4450
	2 Dichlorvos	6.331	6.331	(0.339)	97090	0.50000	0.4554
$	3 Chlormefos	7.158	7.159	(0.383)	109656	0.50000	0.4442
	4 Mevinphos	8.954	8.952	(0.479)	60215	0.50000	0.4373
	5 Demeton-O	9.456	9.457	(0.506)	19905	0.16250	0.1427
	6 Thionazin	9.699	9.701	(0.519)	100910	0.50000	0.4460
	7 Ethoprop	10.209	10.209	(0.546)	60173	0.50000	0.4335
	8 Phorate	10.246	10.247	(0.548)	102012	0.50000	0.4464
	9 Naled	10.636	10.637	(0.569)	7971	0.50000	0.3854
	10 Sulfotepp	10.719	10.721	(0.574)	134184	0.50000	0.4506(A)
*	11 Tributylphosphate	10.828	10.827	(1.000)	380678	2.00000	
	12 Simazine	11.116	11.114	(0.595)	18463	0.50000	0.4506(A)
	13 Diazinon	11.256	11.256	(0.602)	70741	0.50000	0.4466(M)
	14 Atrazine	11.279	11.282	(0.604)	36826	0.50000	0.4513(AM)
	15 Propazine	11.448	11.449	(0.613)	23609	0.50000	0.4503
	16 Disulfoton	11.729	11.729	(0.628)	70798	0.50000	0.4537
	17 Demeton-S	11.796	11.796	(0.631)	57025	0.34000	0.3113
	18 Dimethoate	12.908	12.901	(0.691)	85451	0.50000	0.4494
	19 Ronnel	13.231	13.229	(0.708)	64796	0.50000	0.4553
	20 Merphos-A (Merphos)	13.358	13.359	(1.234)	55934	0.50000	0.3832(A)
	21 Chlorpyrifos	14.039	14.039	(0.751)	60607	0.50000	0.4634
	22 Fenthion	14.291	14.289	(0.765)	40748	0.50000	0.3721
	23 Trichloronate	14.326	14.326	(0.767)	108594	0.50000	0.4303
	24 Anilazine	14.851	14.851	(0.795)	1365	0.50000	0.4633(M)
	25 Methyl Parathion	15.111	15.109	(0.809)	70514	0.50000	0.4500
	26 Malathion	15.383	15.386	(0.823)	55317	0.50000	0.4564
	27 Tokuthion	16.093	16.091	(0.861)	61910	0.50000	0.4557
	28 Parathion	16.226	16.226	(0.869)	68378	0.50000	0.4452
	29 Merphos-B (Merphos Oxone)	16.288	16.287	(1.504)	19053	0.50000	0.4208(A)
	30 Tetrachlorvinphos (stirophos)	16.764	16.764	(0.897)	40546	0.50000	0.4636
	31 Carbophenothion methyl	16.878	16.876	(0.903)	59783	0.50000	0.4630
	32 Bolstar	17.259	17.259	(0.924)	62262	0.50000	0.4610
	33 Carbophenothion	17.343	17.341	(0.928)	66481	0.50000	0.4660(A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.123	18.122	(0.970)	48811	0.50000	0.4468
	35 Fensulfothion	18.398	18.396	(0.985)	55100	0.50000	0.4452
*	36 TOCP	18.683	18.682	(1.000)	229009	2.00000	
	37 Phosmet / EPN	18.766	18.766	(1.004)	132515	1.00000	0.9461
	38 Famphur	18.863	18.864	(1.010)	86915	0.50000	0.4773
	39 Azinphos-methyl	19.011	19.012	(1.018)	72918	0.50000	0.4902
	40 Azinphos-ethyl	19.223	19.224	(1.029)	86455	0.50000	0.4571
	41 Coumaphos	20.138	20.141	(1.078)	47205	0.50000	0.4292
S	42 Merphos				74987	0.50000	0.4360
M	43 Total Demeton				76930	0.50000	0.4541

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

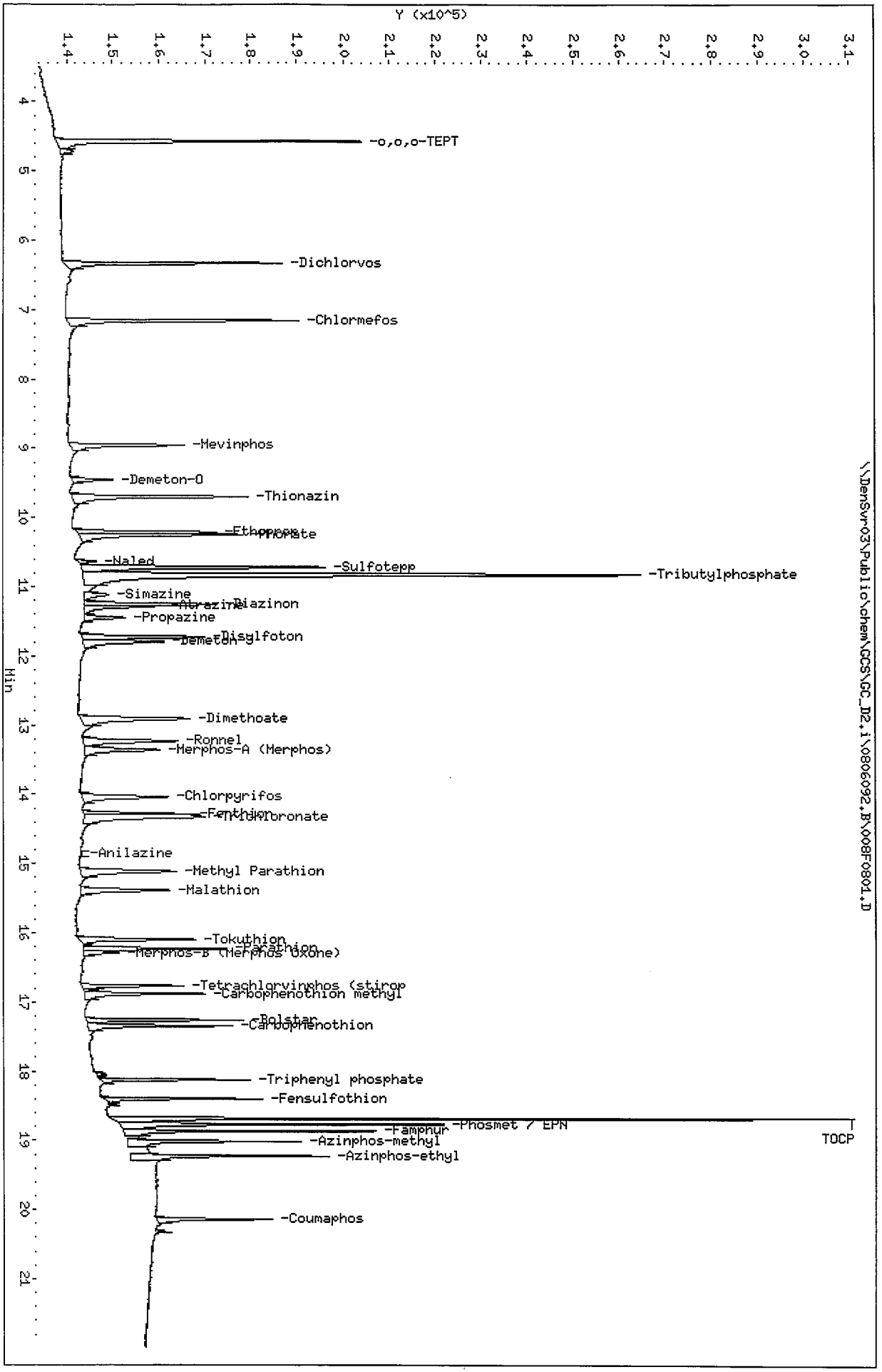
Instrument ID: GC_D2.i
Lab File ID: 008F0801.D
Lab Smp Id: OPP L2 GSV874-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L2 GSV874-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	380678	-12.52
36 TOCP	224627	112314	449254	229009	1.95

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



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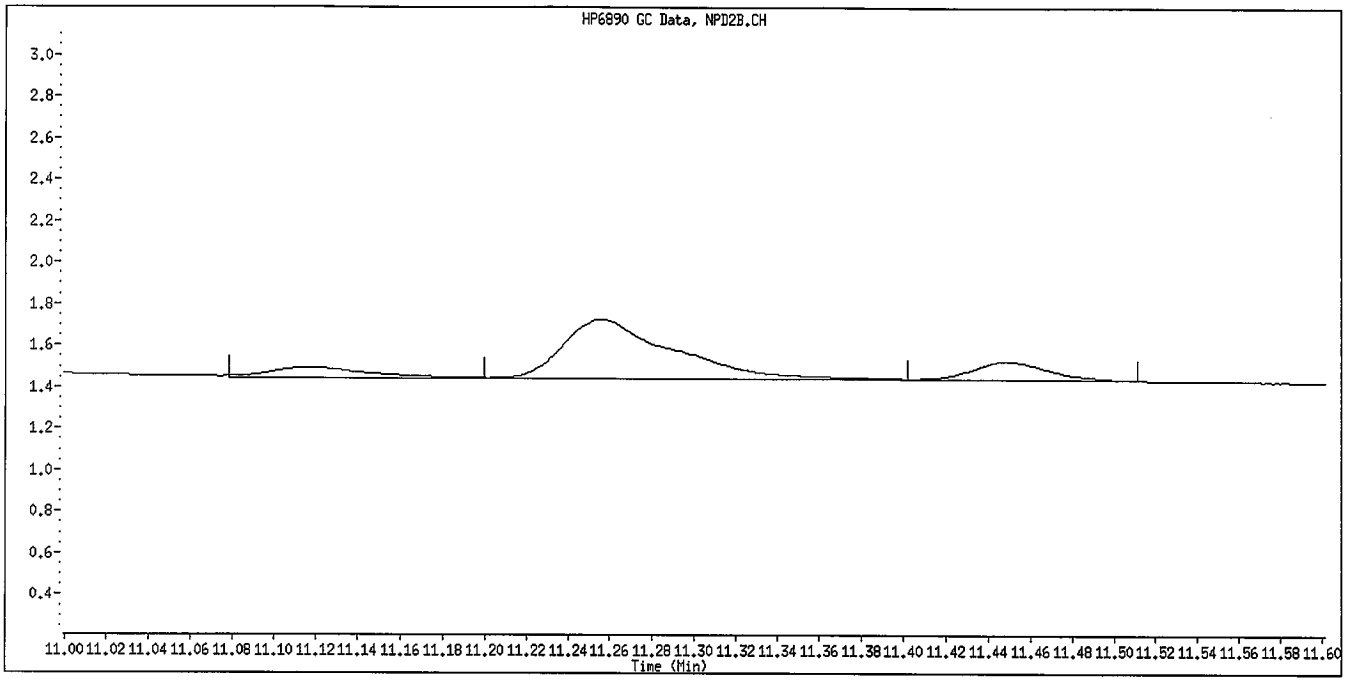
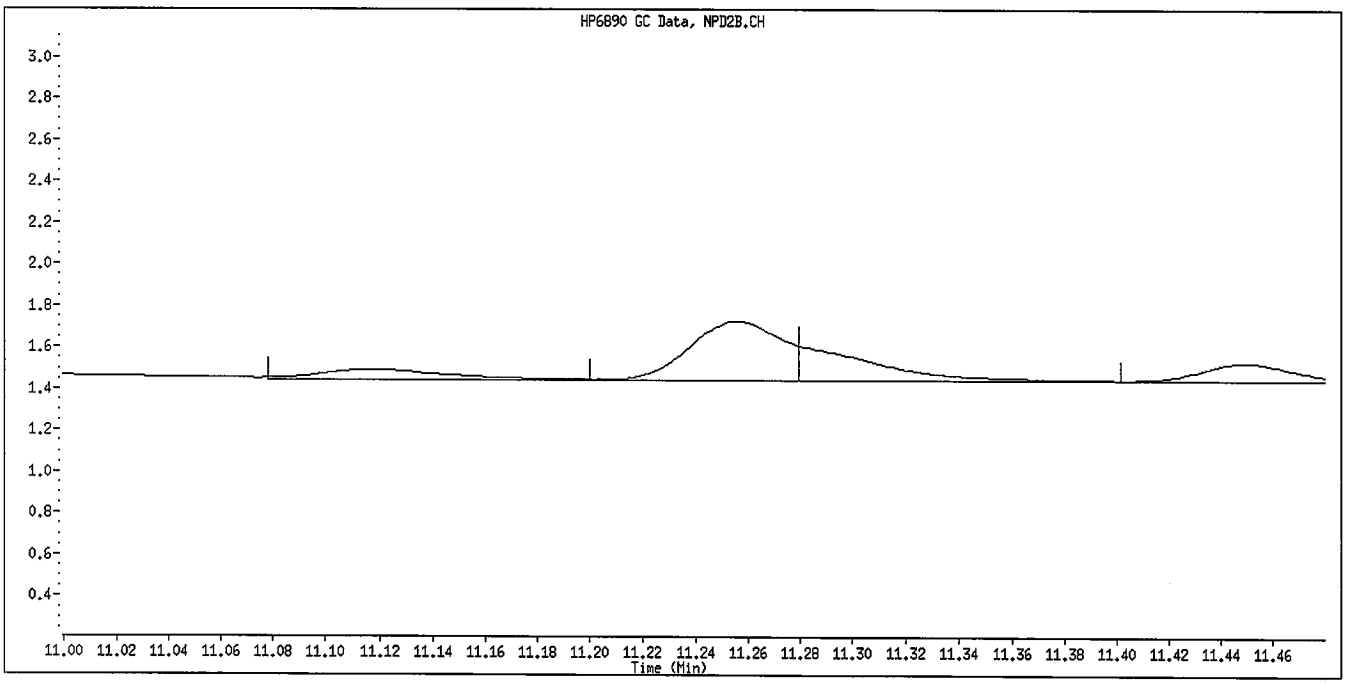
Date : 06-AUG-2009 15:15
Client ID: OPP L2 GSV874-09
Sample Info: OPP L2 GSV874-09
Column phase: RTx-OPPest

Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



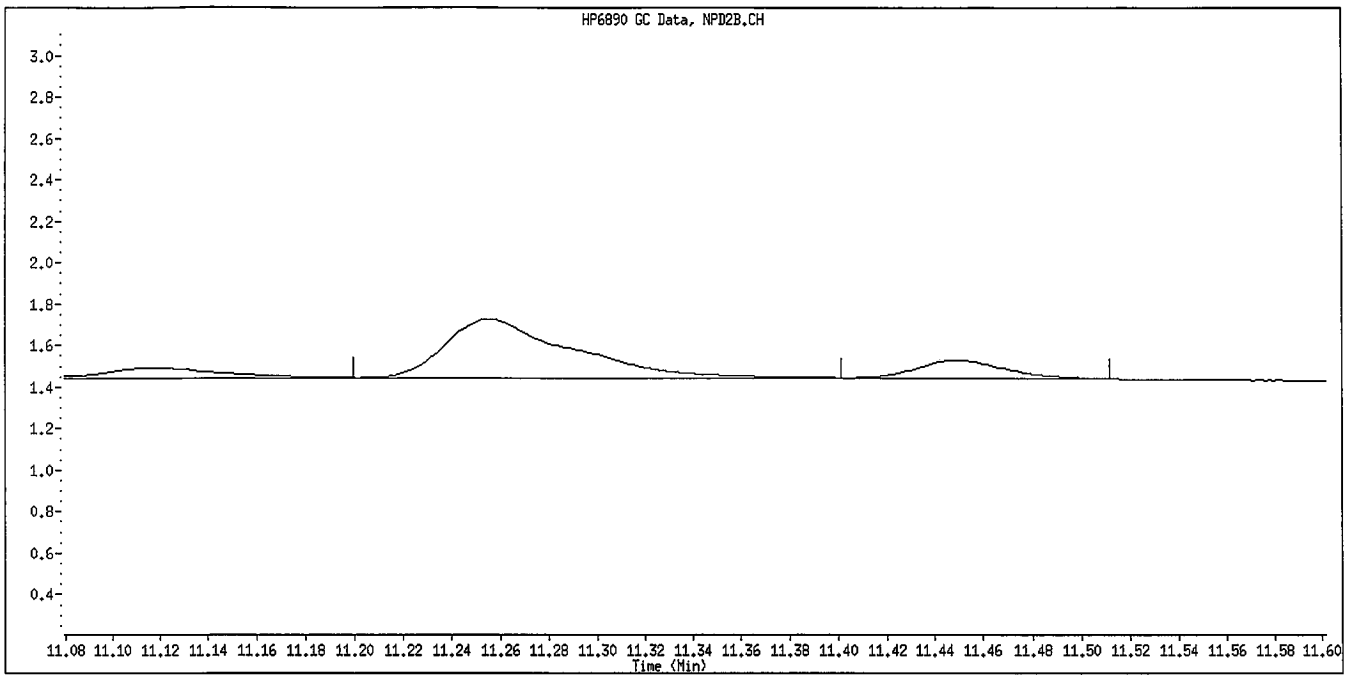
Original Integration



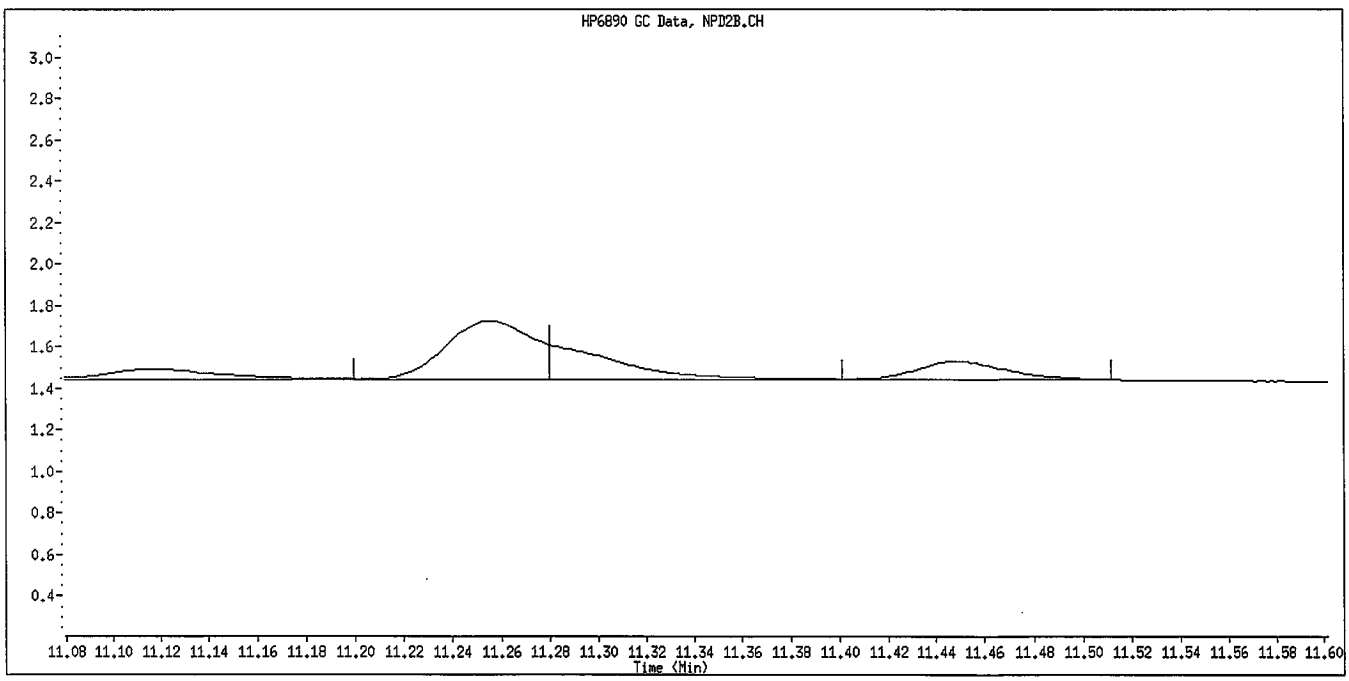
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event IR87Coa

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



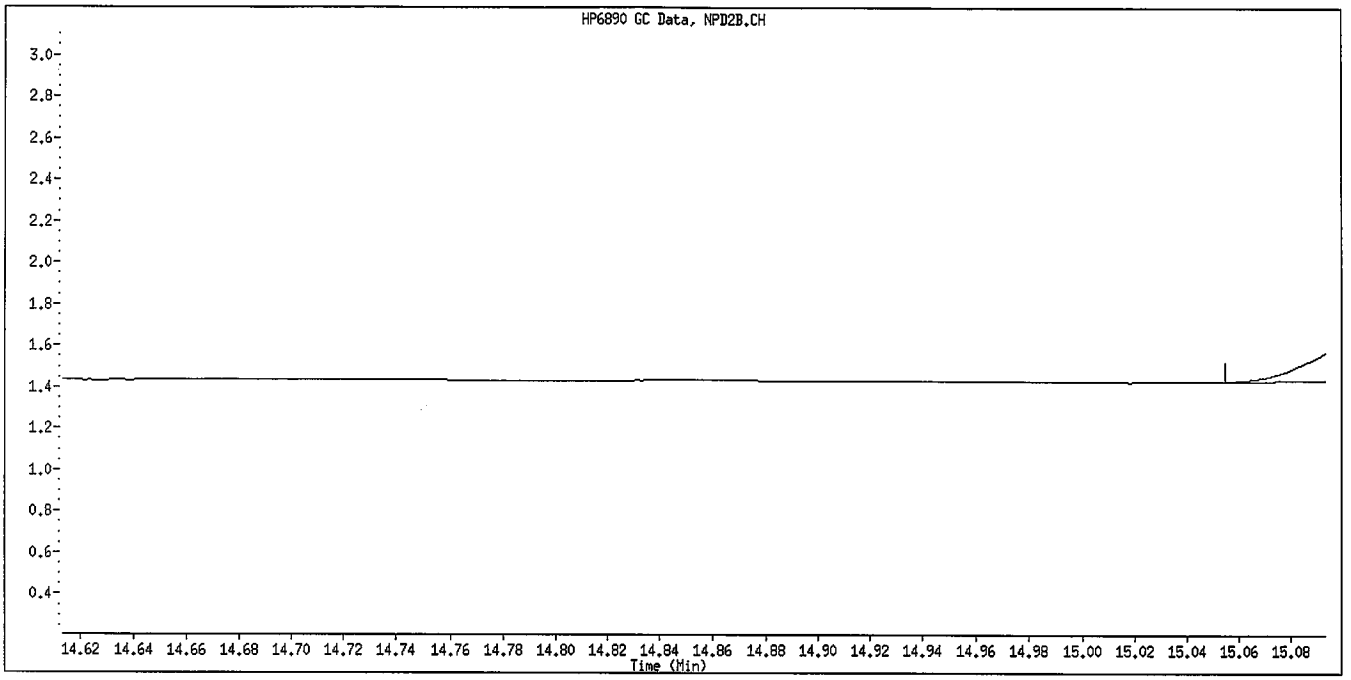
Original Integration



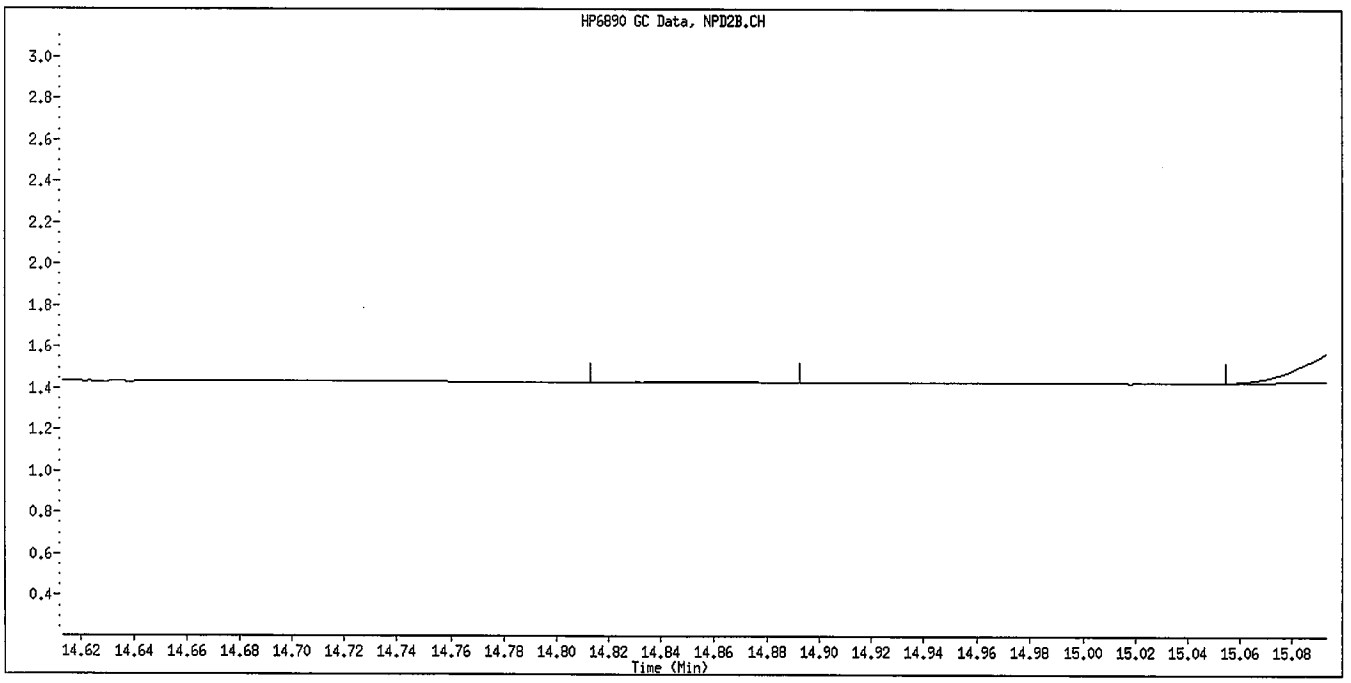
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event 18-8176

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0901.D
Lab Smp Id: OPP L1 GSV875-09 Client Smp ID: OPP L1 GSV875-09
Inj Date : 06-AUG-2009 15:42
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L1 GSV875-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:22 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:15 Cal File: 008F0801.D
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.571	4.572	(0.245)	60356	0.20000	0.1898
	2 Dichlorvos	6.331	6.331	(0.339)	38766	0.20000	0.1871
$	3 Chlormefos	7.157	7.159	(0.383)	44458	0.20000	0.1876
	4 Mevinphos	8.956	8.952	(0.479)	20784	0.20000	0.1884
	5 Demeton-O	9.456	9.457	(0.506)	7328	0.06500	0.06404
	6 Thionazin	9.701	9.701	(0.519)	39406	0.20000	0.1845
	7 Ethoprop	10.211	10.209	(0.547)	24521	0.20000	0.1907
	8 Phorate	10.247	10.247	(0.548)	41625	0.20000	0.1793
	9 Naled	10.639	10.637	(0.569)	2364	0.20000	0.2431 (M)
	10 Sulfotepp	10.721	10.721	(0.574)	55071	0.20000	0.1756 (A)
*	11 Tributylphosphate	10.827	10.827	(1.000)	378115	2.00000	
	12 Simazine	11.119	11.114	(0.595)	7818	0.20000	0.1878 (AM)
	13 Diazinon	11.256	11.256	(0.602)	29119	0.20000	0.1825 (M)
	14 Atrazine	11.282	11.282	(0.604)	13368	0.20000	0.2188 (AM)
	15 Propazine	11.452	11.449	(0.613)	7831	0.20000	0.1844
	16 Disulfoton	11.729	11.729	(0.628)	26551	0.20000	0.1803
	17 Demeton-S	11.799	11.796	(0.632)	19550	0.13600	0.1292
	18 Dimethoate	12.916	12.901	(0.691)	30901	0.20000	0.1852
	19 Ronnel	13.232	13.229	(0.708)	25402	0.20000	0.1830
	20 Merphos-A (Merphos)	13.357	13.359	(1.234)	20208	0.20000	0.006952 (A)
	21 Chlorpyrifos	14.044	14.039	(0.752)	21237	0.20000	0.1773
	22 Fenthion	14.301	14.289	(0.765)	18776	0.20000	0.2215
	23 Trichloronate	14.327	14.326	(0.767)	35440	0.20000	0.009229
	24 Anilazine	Compound Not Detected.					
	25 Methyl Parathion	15.114	15.109	(0.809)	26057	0.20000	0.1894
	26 Malathion	15.384	15.386	(0.823)	20378	0.20000	0.1830
	27 Tokuthion	16.091	16.091	(0.861)	23347	0.20000	0.1754
	28 Parathion	16.226	16.226	(0.869)	27796	0.20000	0.1790 (M)
	29 Merphos-B (Merphos Oxone)	16.286	16.287	(1.504)	8193	0.20000	0.1770 (AM)
	30 Tetrachlorvinphos (stirophos)	16.764	16.764	(0.897)	14633	0.20000	0.1753
	31 Carbophenothion methyl	16.879	16.876	(0.903)	19335	0.20000	0.1768
	32 Bolstar	17.261	17.259	(0.924)	24830	0.20000	0.1730
	33 Carbophenothion	17.344	17.341	(0.928)	23920	0.20000	0.1761 (A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.124	18.122	(0.970)	19386	0.20000	0.1784
	35 Fensulfothion	18.399	18.396	(0.985)	21641	0.20000	0.1795
*	36 TOCP	18.682	18.682	(1.000)	232604	2.00000	
	37 Phosmet / EPN	18.766	18.766	(1.004)	61420	0.40000	0.3401
	38 Famphur	18.862	18.864	(1.010)	38915	0.20000	0.1769
	39 Azinphos-methyl	19.011	19.012	(1.018)	27706	0.20000	0.1834
	40 Azinphos-ethyl	19.222	19.224	(1.029)	45196	0.20000	0.1788
	41 Coumaphos	20.136	20.141	(1.078)	20239	0.20000	0.1927
S	42 Merphos				28401	0.20000	0.1920
M	43 Total Demeton				26878	0.20000	0.1933

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 009F0901.D
Lab Smp Id: OPP L1 GSV875-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L1 GSV875-0
Level:
Sample Type:

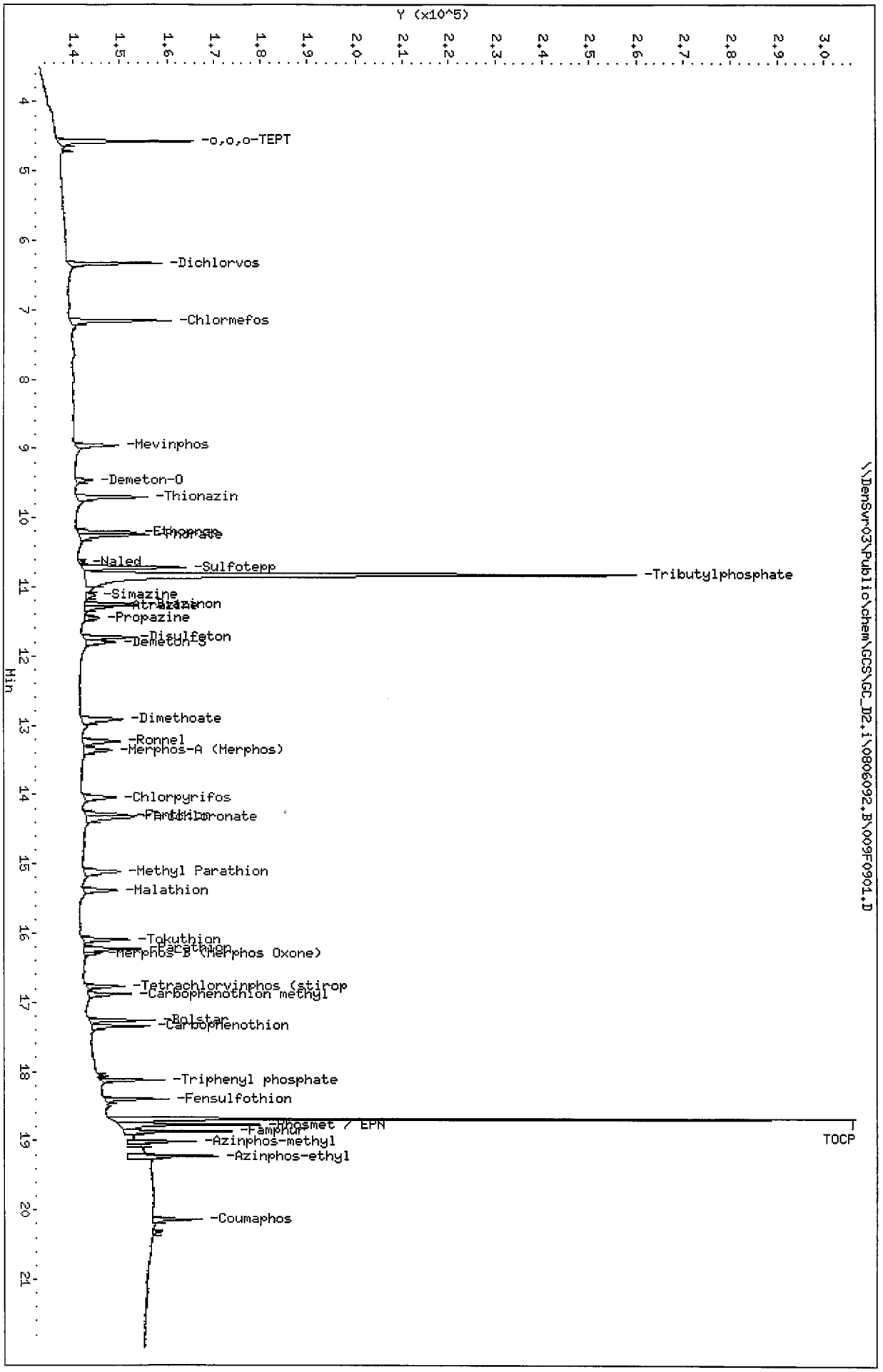
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	435161	217581	870322	378115	-13.11
36 TOCP	224627	112314	449254	232604	3.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

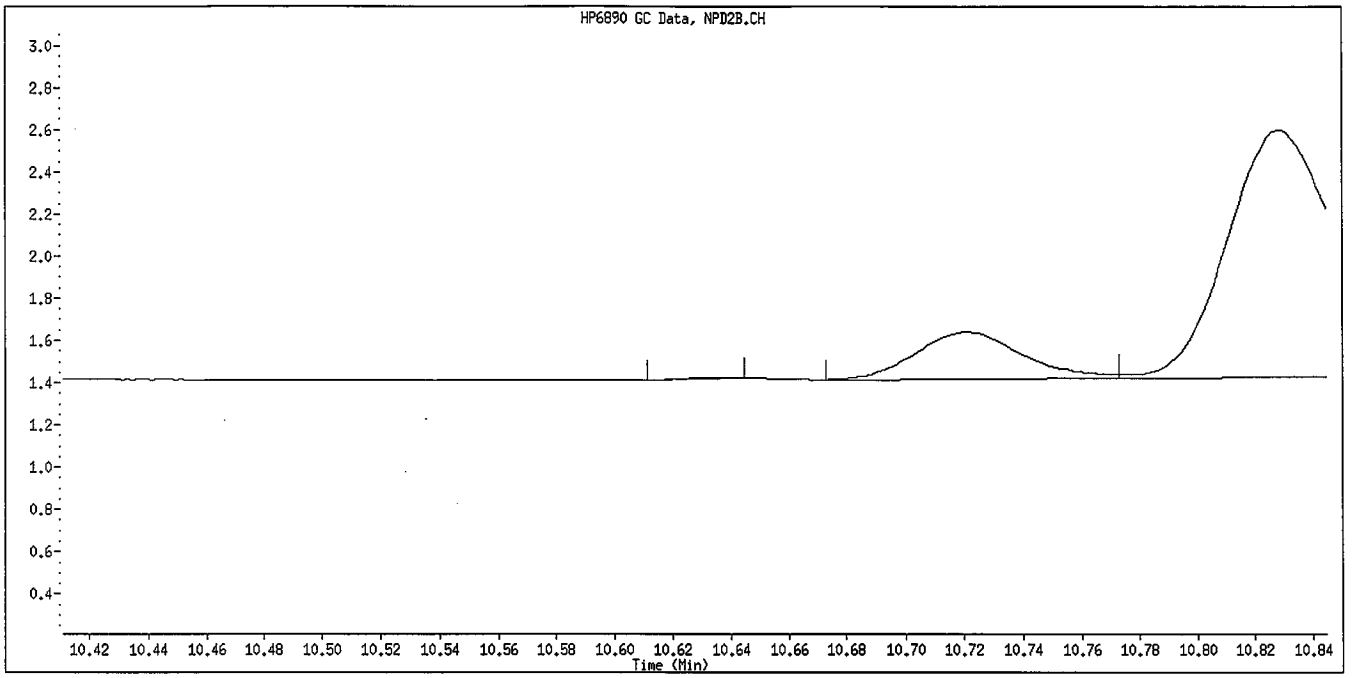
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\009F0904.D
Date : 06-AUG-2009 15:42
Client ID: OPP L1 GSV875-09
Sample Info: OPP L1 GSV875-09
Column phase: RTx-OPPest

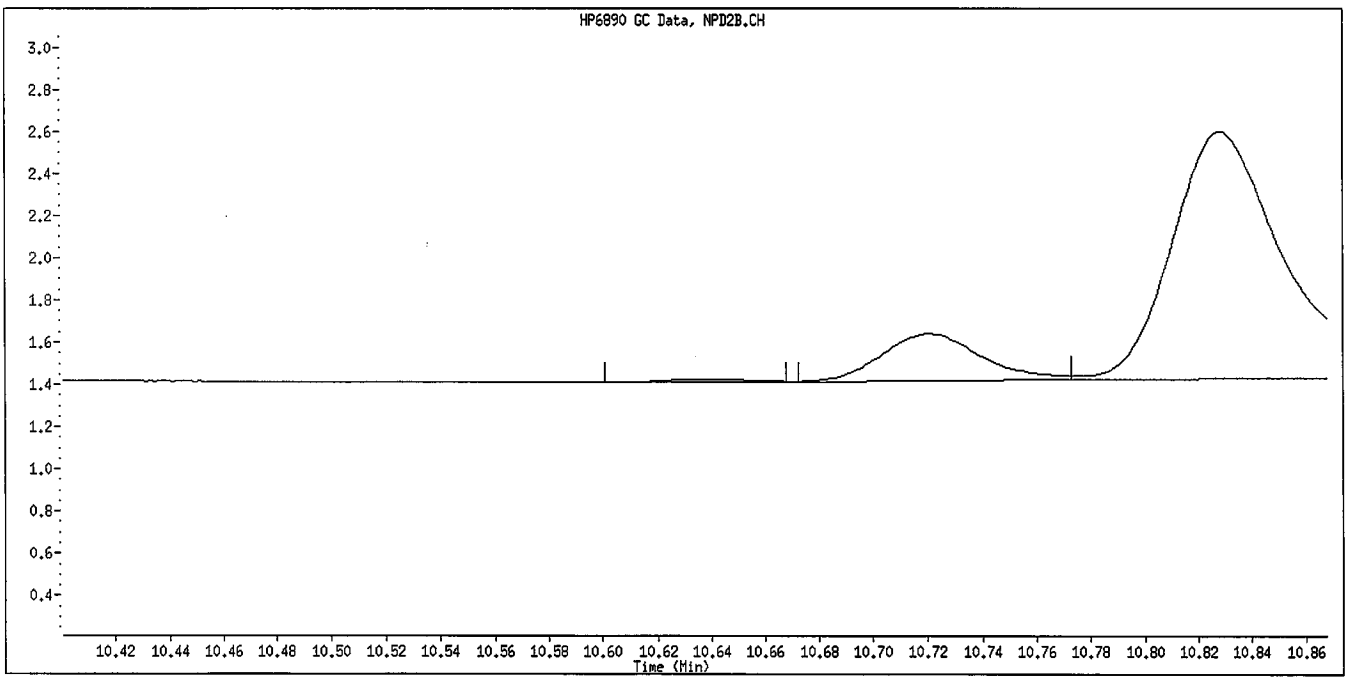
Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32



Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Naled
CAS #:
Report Date: 08/07/2009



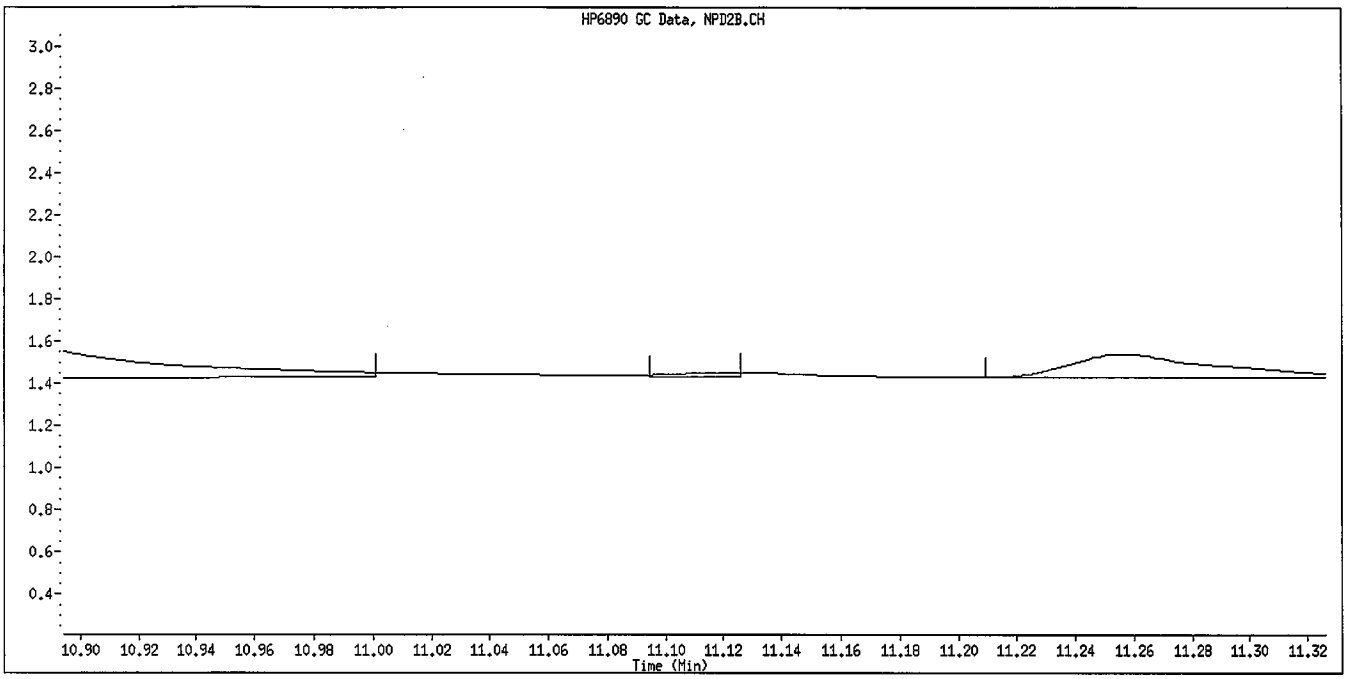
Original Integration



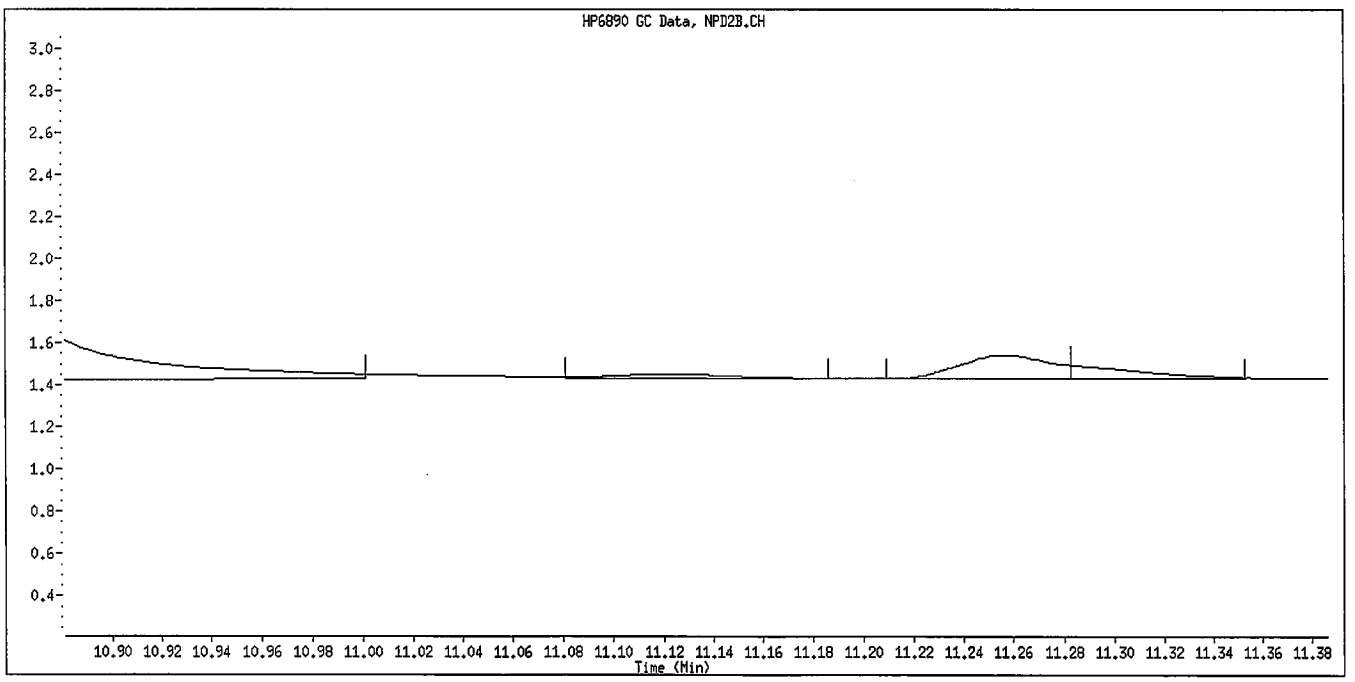
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Simazine
CAS #:
Report Date: 08/07/2009



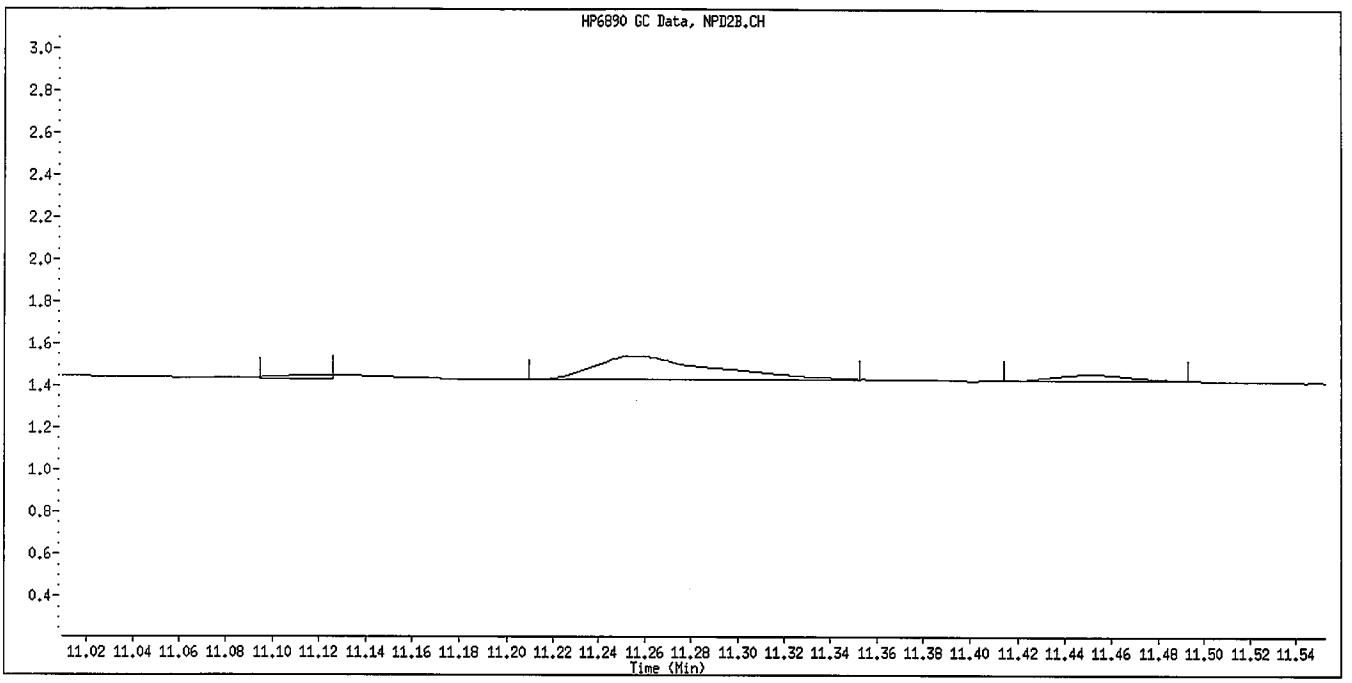
Original Integration



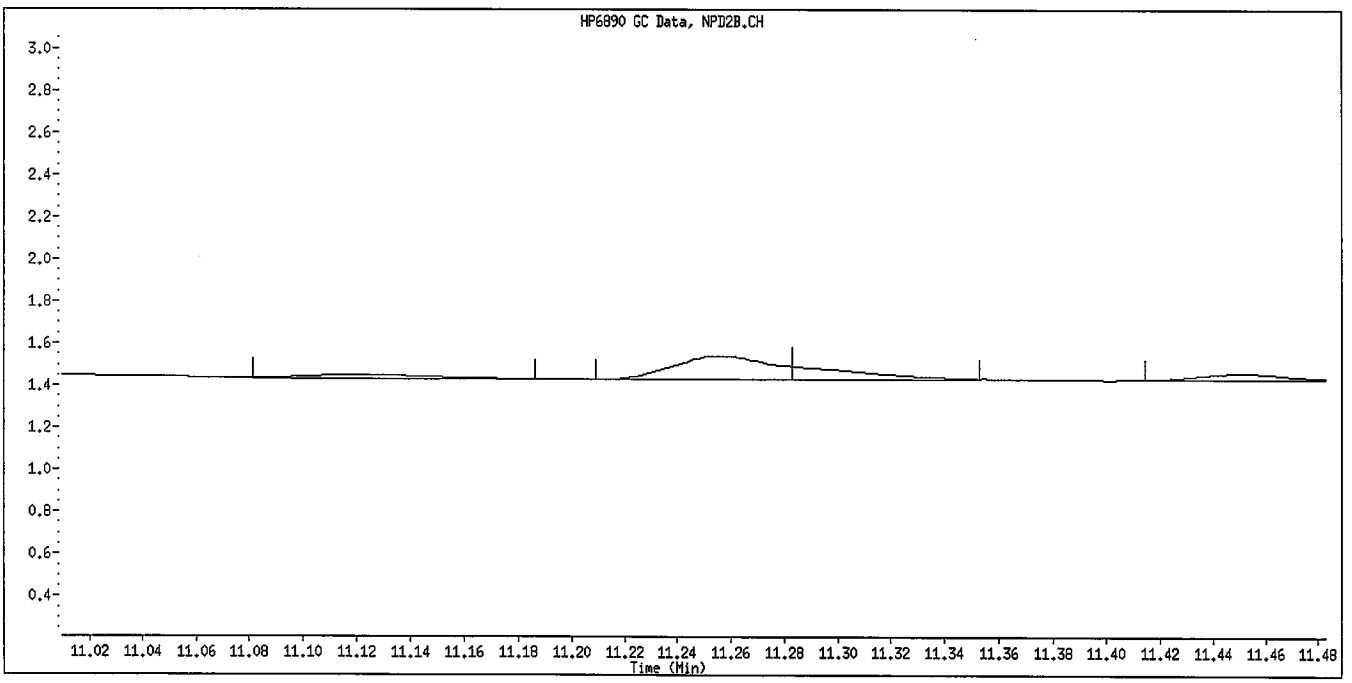
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event CF 817605

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

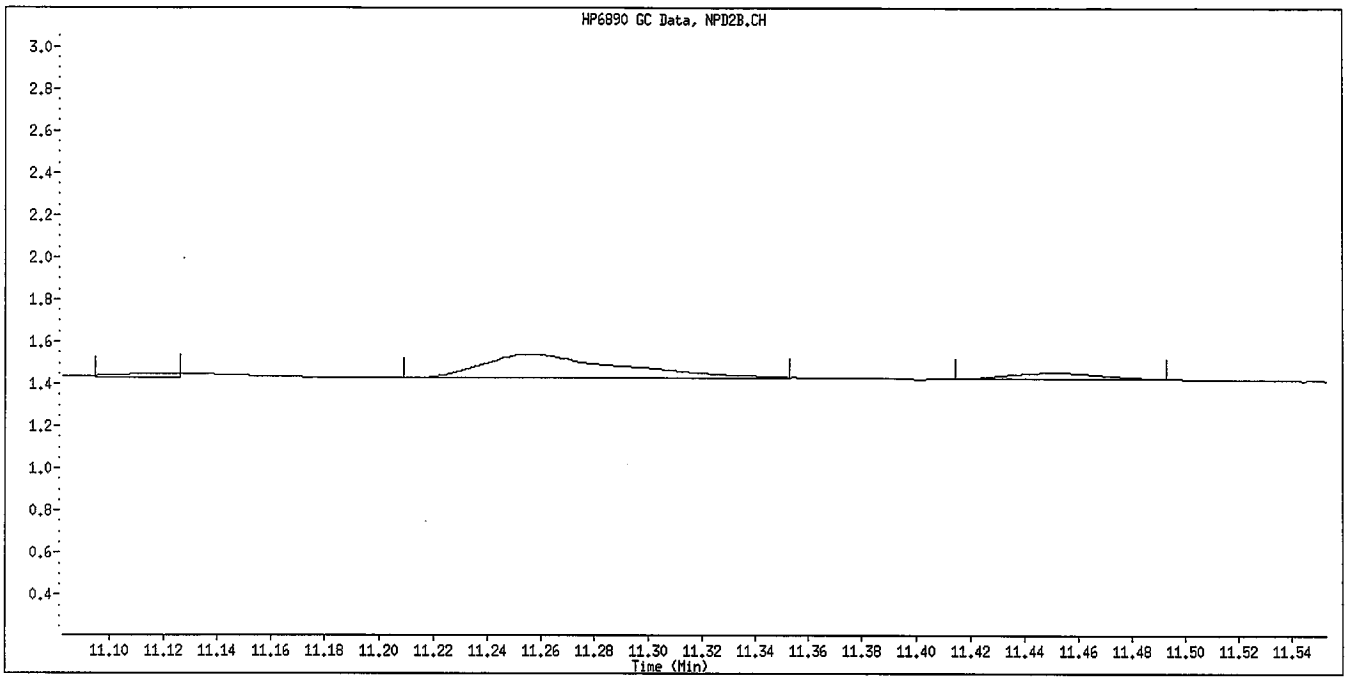


Manual Integration

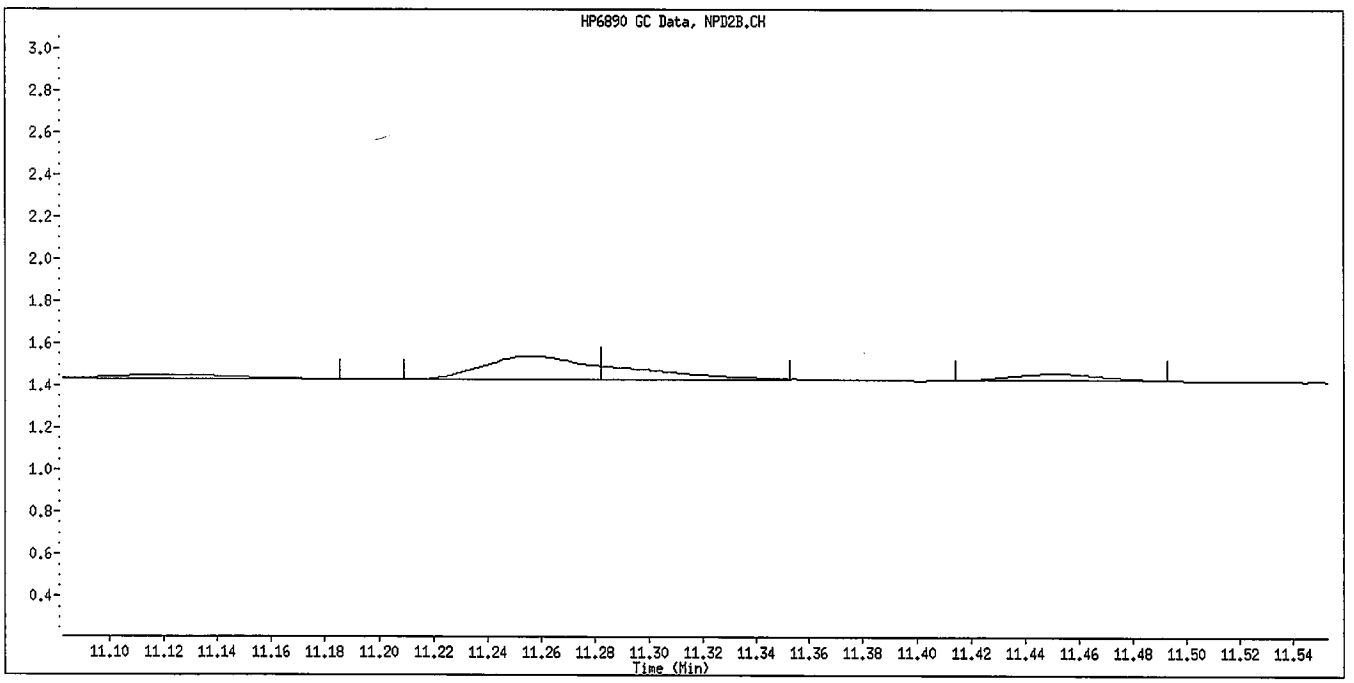
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

IF 87(0)

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



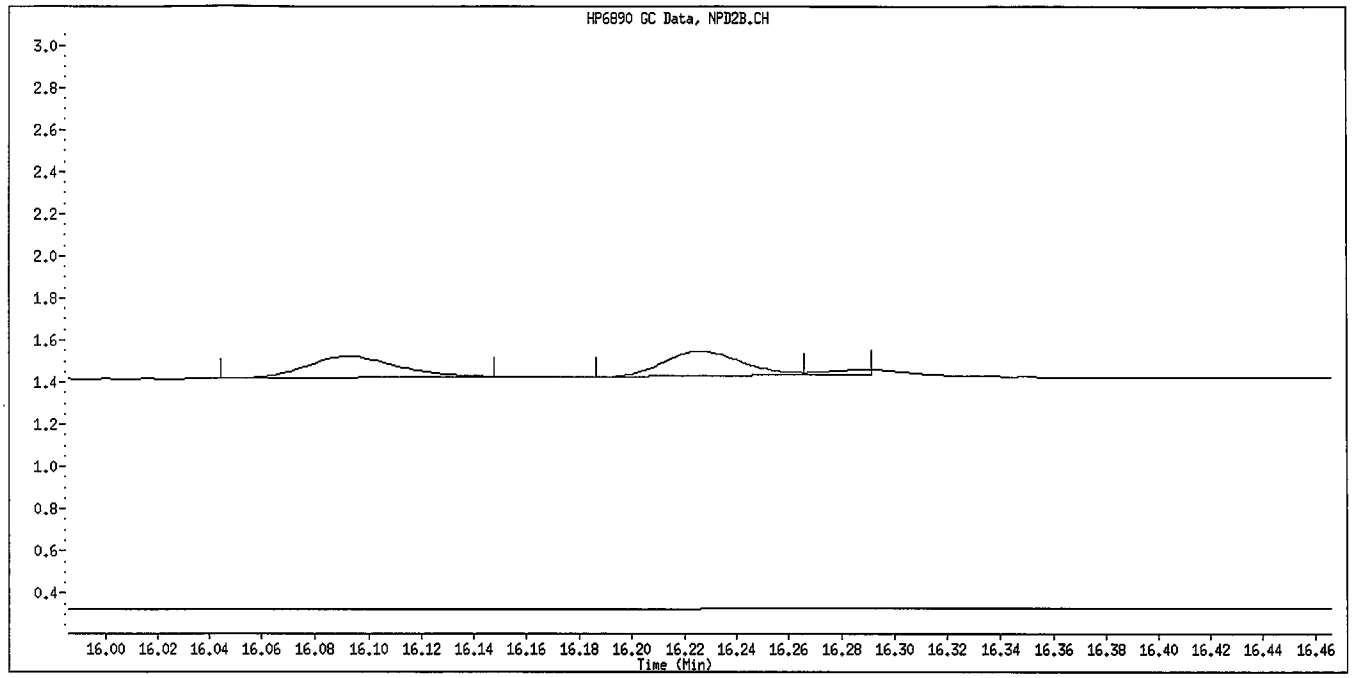
Original Integration



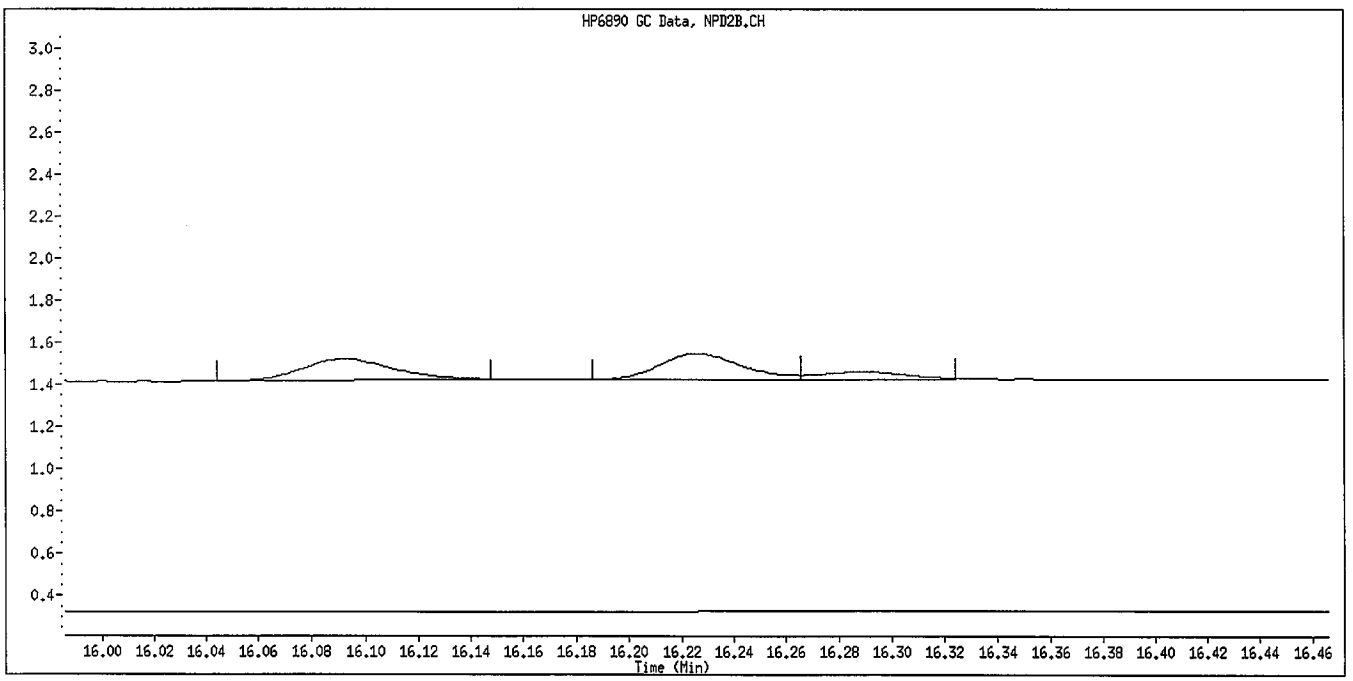
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Parathion
CAS #:
Report Date: 08/07/2009



Original Integration

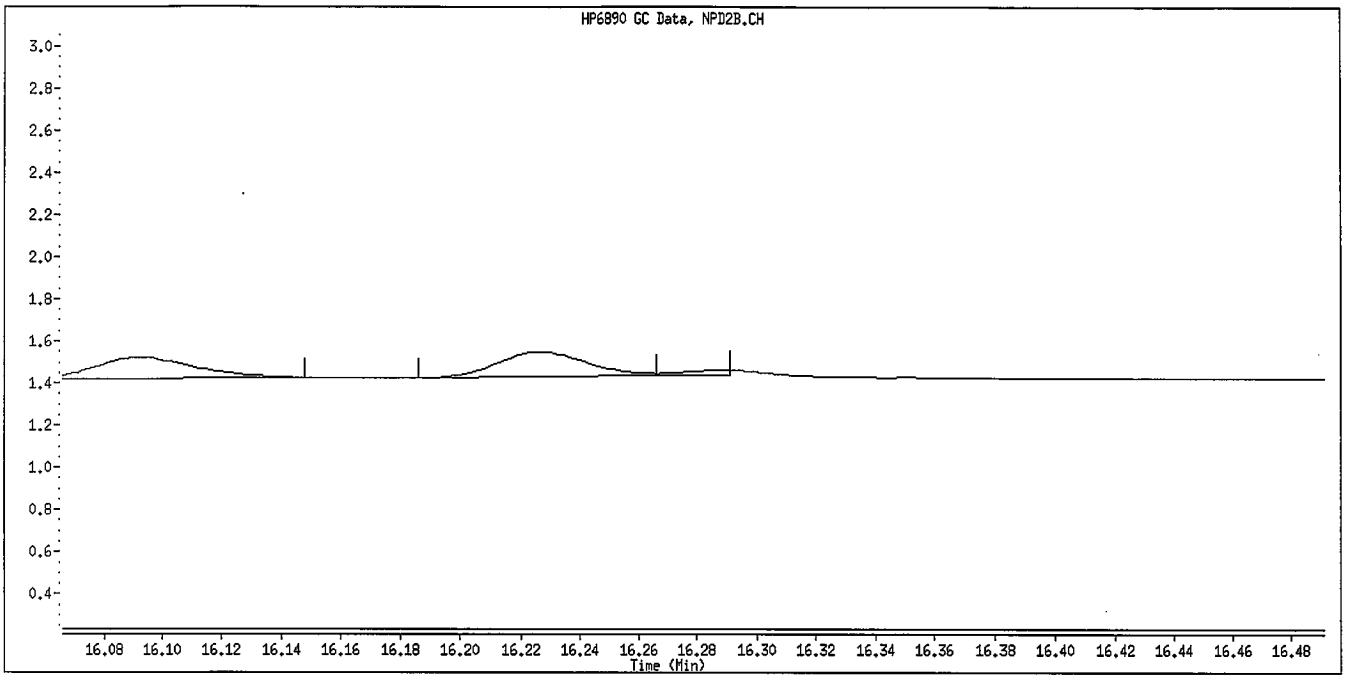


Manual Integration

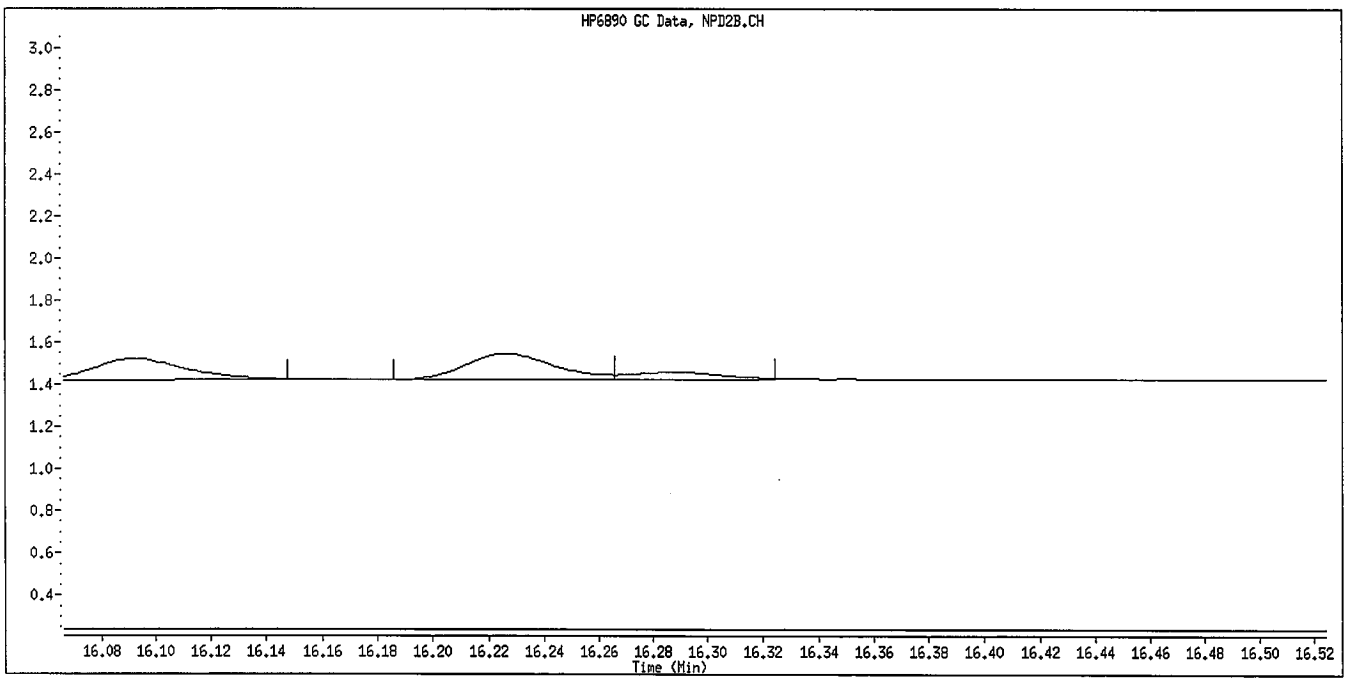
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CF 8/7/09

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Merphos-B (Merphos Oxone)
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\010F1001.D
Lab Smp Id: OPP SS GSV895-09 Client Smp ID: OPP SS GSV895-09
Inj Date : 06-AUG-2009 16:09
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP SS GSV895-09
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Meth Date : 07-Aug-2009 08:35 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	4.572	4.572	(0.245)	697756	2.00000	2.202
	2 Dichlorvos	6.330	6.331	(0.339)	439391	2.00000	2.054
$	3 Chlormefos	7.158	7.159	(0.383)	427509	2.00000	1.714
	4 Mevinphos	8.952	8.952	(0.479)	268292	2.00000	1.773
	5 Demeton-O	9.455	9.457	(0.506)	336174	0.65000	2.145
	6 Thionazin	9.698	9.701	(0.519)	508200	2.00000	2.202
	7 Ethoprop	10.208	10.209	(0.546)	282578	2.00000	1.969
	8 Phorate	10.245	10.247	(0.548)	363972	2.00000	1.624
	9 Naled	10.635	10.637	(0.569)	64646	2.00000	1.845
	10 Sulfotepp	10.718	10.721	(0.574)	561486	2.00000	1.958 (A)
*	11 Tributylphosphate	10.825	10.827	(1.000)	435161	2.00000	
	12 Simazine	11.113	11.114	(0.595)	118838	2.00000	2.957 (A)
	13 Diazinon	11.255	11.256	(0.603)	297909	2.00000	1.909 (M)
	14 Atrazine	11.278	11.282	(0.604)	160477	2.00000	1.966 (AM)
	15 Propazine	11.447	11.449	(0.613)	121551	2.00000	2.128
	16 Disulfoton	11.727	11.729	(0.628)	330072	2.00000	2.080 (M)
	17 Demeton-S	11.783	11.796	(0.631)	23610	1.36000	0.1525 (M)
	18 Dimethoate	12.898	12.901	(0.690)	436763	2.00000	2.176
	19 Ronnel	13.227	13.229	(0.708)	297455	2.00000	2.087
	20 Merphos-A (Merphos)	13.353	13.359	(1.234)	43250	2.00000	0.1919 (A)
	21 Chlorpyrifos	14.038	14.039	(0.752)	268711	2.00000	2.001
	22 Fenthion	14.288	14.289	(0.765)	270289	2.00000	1.960
	23 Trichloronate	14.322	14.326	(0.767)	344940	2.00000	1.819
	24 Anilazine	14.848	14.851	(0.795)	5549	2.00000	1.082 (M)
	25 Methyl Parathion	15.107	15.109	(0.809)	327630	2.00000	1.981
	26 Malathion	15.382	15.386	(0.823)	233030	2.00000	1.870
	27 Tokuthion	16.088	16.091	(0.861)	268180	2.00000	1.979
	28 Parathion	16.223	16.226	(0.868)	325177	2.00000	2.153
	29 Merphos-B (Merphos Oxone)	16.285	16.287	(1.504)	268523	2.00000	8.124 (A)
	30 Tetrachlorvinphos (stirophos)	16.762	16.764	(0.897)	185045	2.00000	2.097
	31 Carbophenothion methyl	16.875	16.876	(0.903)	173552	2.00000	1.286
	32 Bolstar	17.258	17.259	(0.924)	274834	2.00000	2.120
	33 Carbophenothion	17.340	17.341	(0.928)	325315	2.00000	2.256 (A)

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	34 Triphenyl phosphate	18.122	18.122	(0.970)	201283	2.00000	1.859
	35 Fensulfothion	18.393	18.396	(0.985)	250576	2.00000	2.020
*	36 TOCP	18.680	18.682	(1.000)	224627	2.00000	
	37 Phosmet / EPN	18.763	18.766	(1.004)	551449	4.00000	4.560
	38 Famphur	18.860	18.864	(1.010)	373958	2.00000	2.296
	39 Azinphos-methyl	19.007	19.012	(1.017)	282002	2.00000	1.933
	40 Azinphos-ethyl	19.217	19.224	(1.029)	326980	2.00000	2.095
	41 Coumaphos	20.132	20.141	(1.078)	222524	2.00000	1.987
S	42 Merphos				311773	2.00000	1.788
M	43 Total Demeton				359784	2.00000	2.297

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

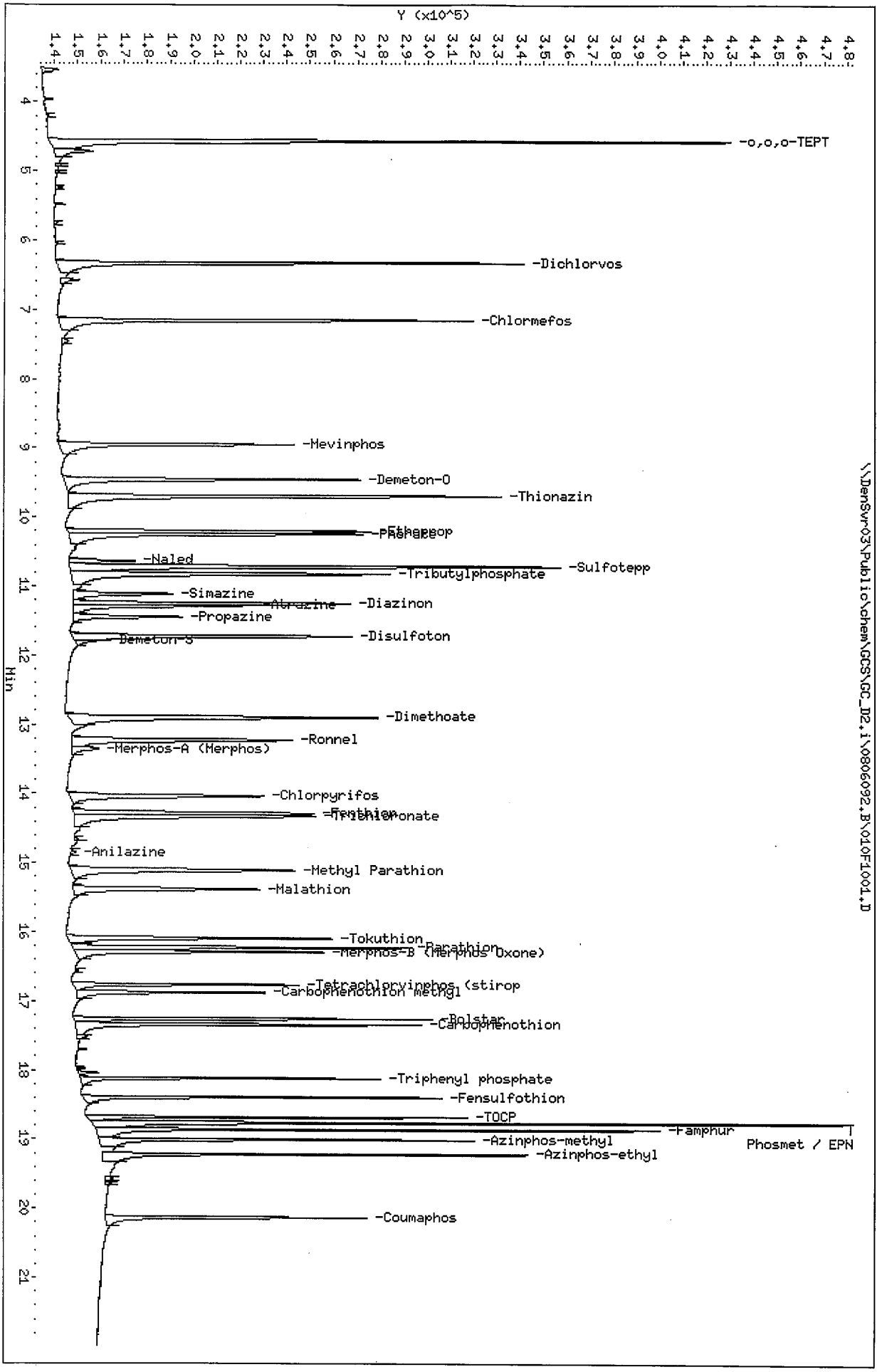
Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Lab Smp Id: OPP SS GSV895-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
Misc Info:

Calibration Date: 07-AUG-2009
Calibration Time: 04:28
Client Smp ID: OPP SS GSV895-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	654091	327046	1308182	435161	-33.47
36 TOCP	355327	177664	710654	224627	-36.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
11 Tributylphosphate	10.82	10.32	11.32	10.83	0.08
36 TOCP	18.68	18.18	19.18	18.68	0.01

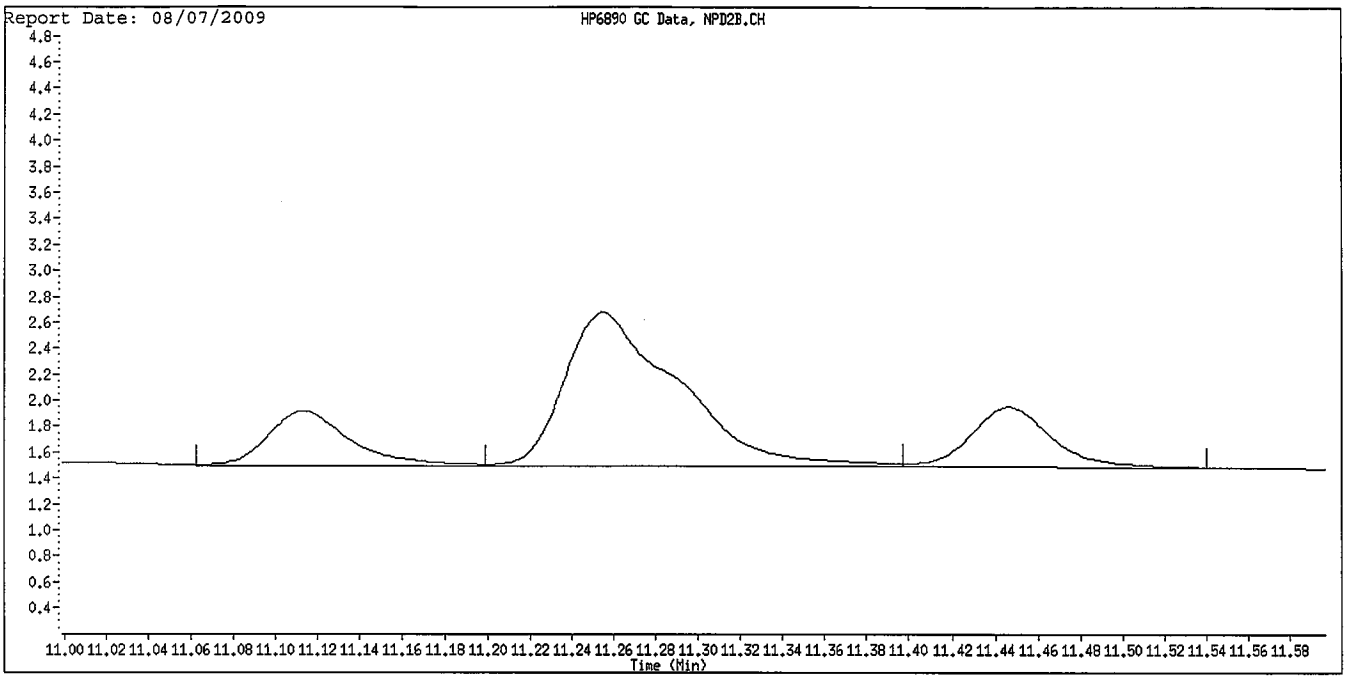
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



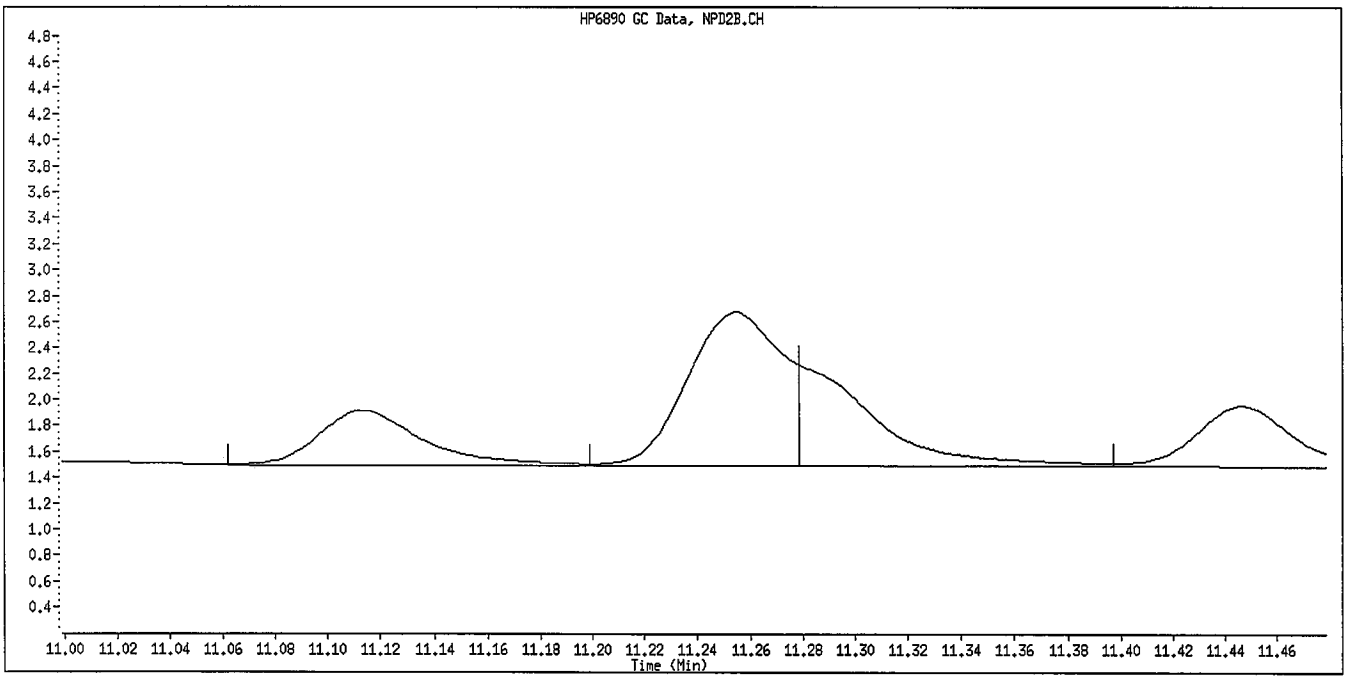
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\010F1001.D
Date : 06-AUG-2009 16:09
Client ID: OPP SS GSV895-09
Sample Info: OPP SS GSV895-09
Column phase: RTx-OPPest

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Diazinon
CAS #:



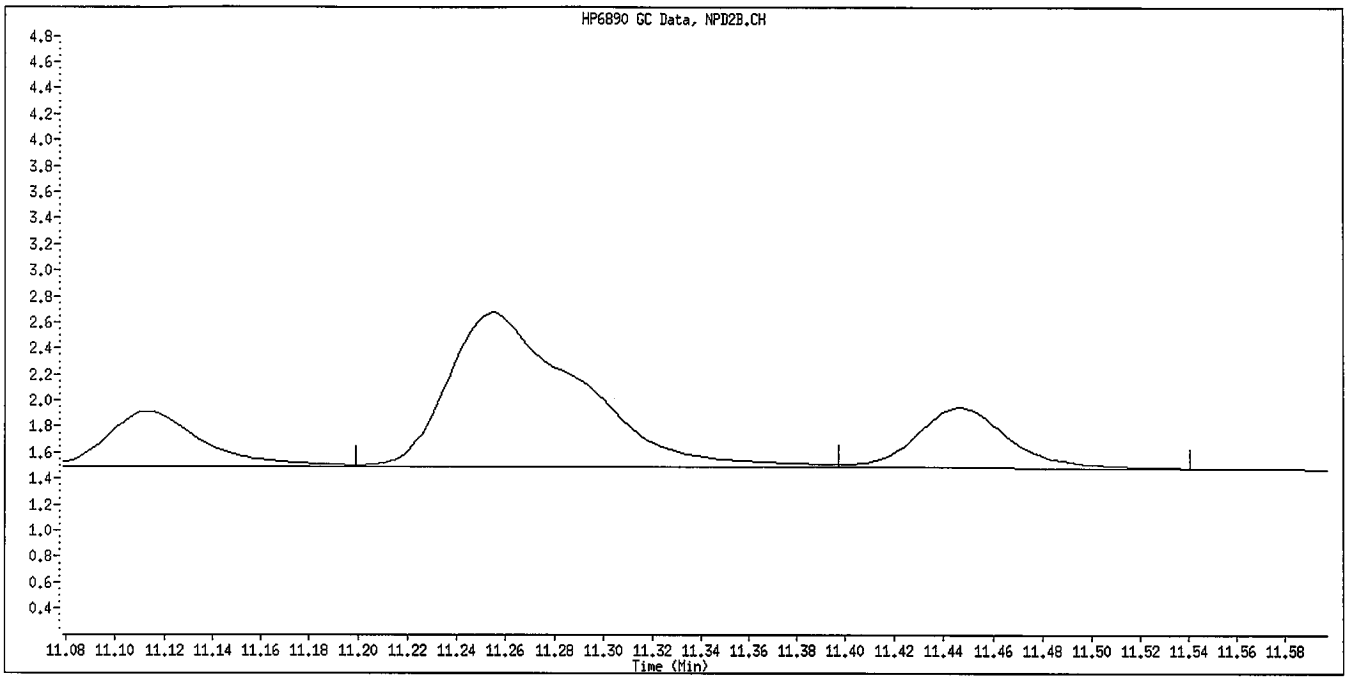
Original Integration



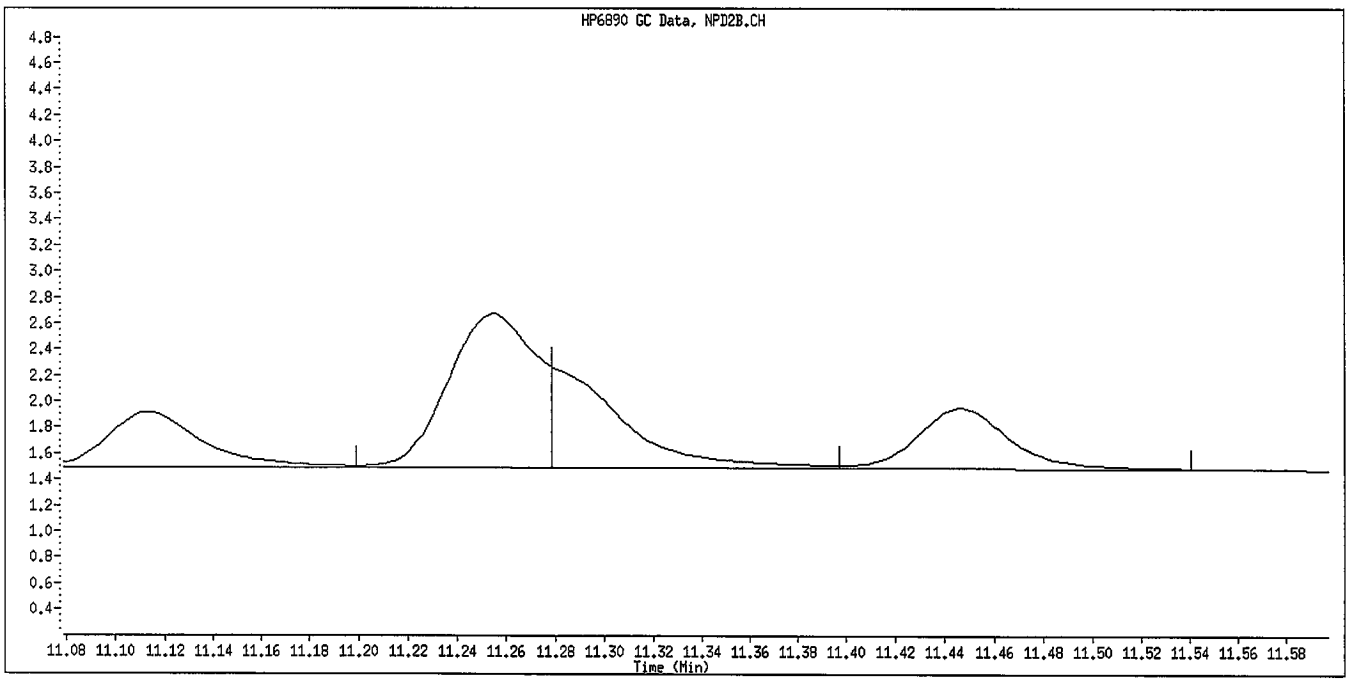
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



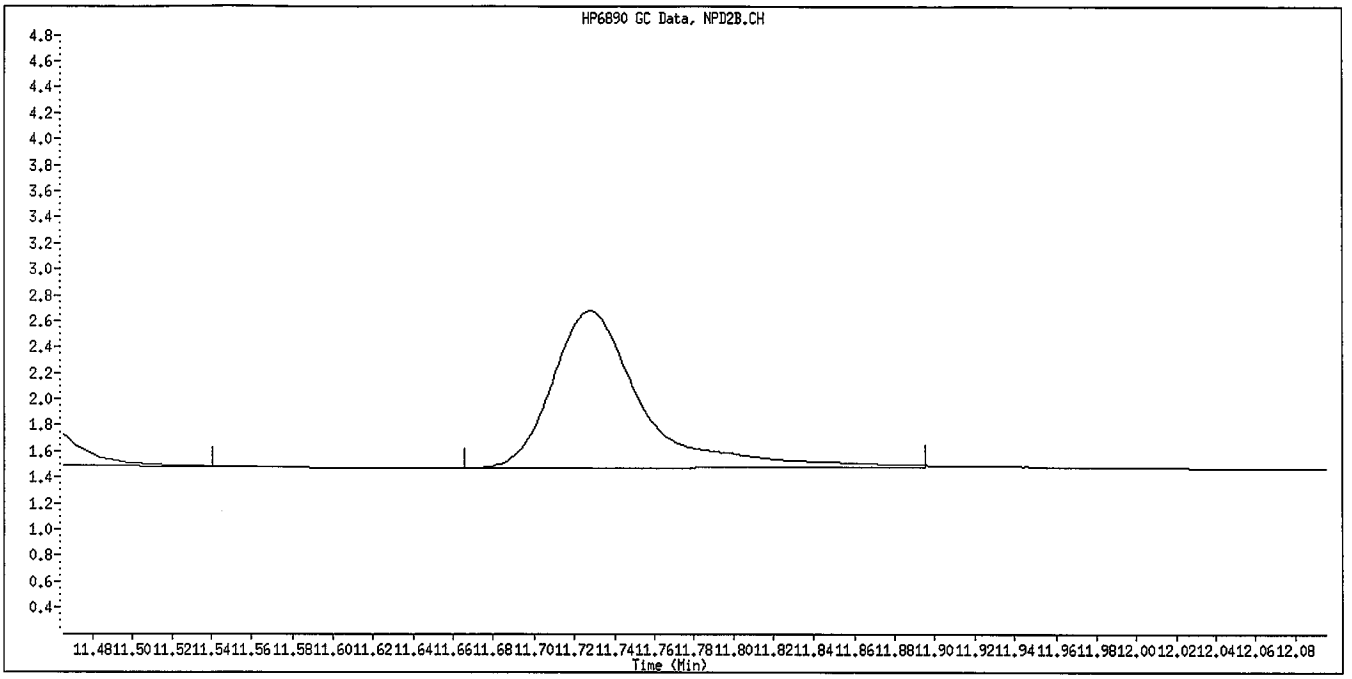
Original Integration



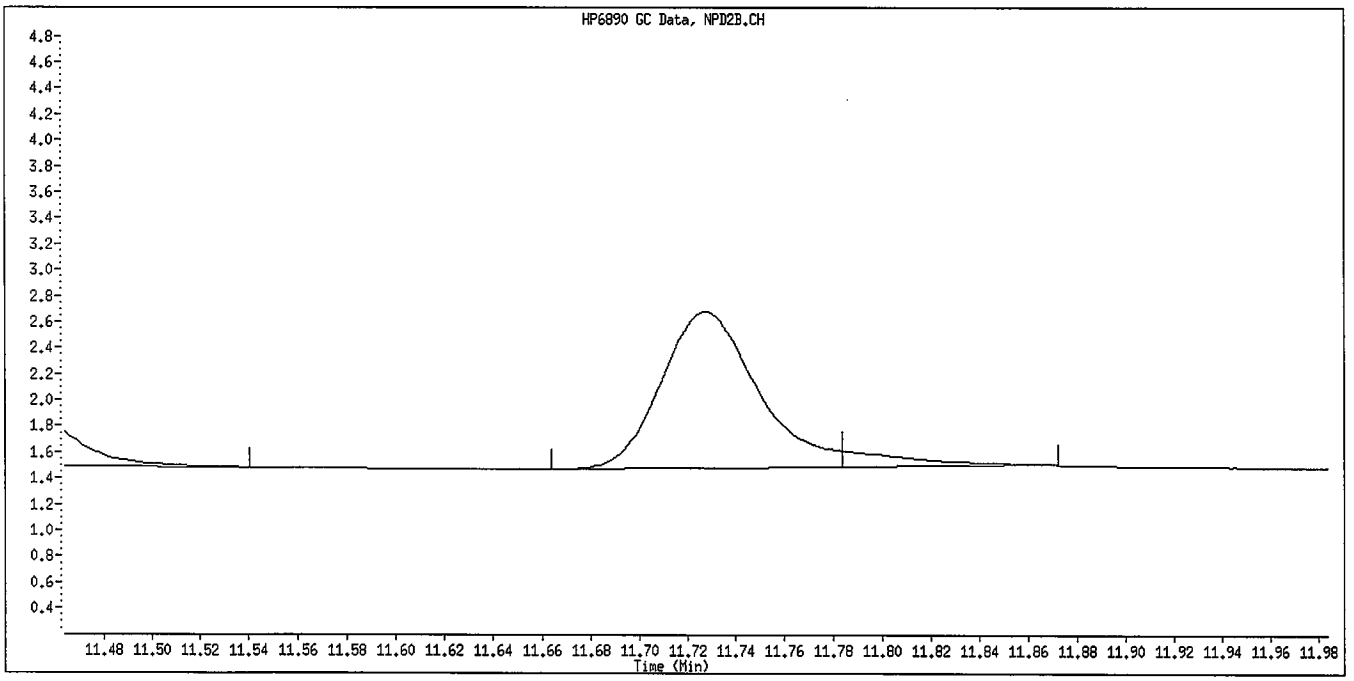
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Disulfoton
CAS #: 298-04-4
Report Date: 08/07/2009



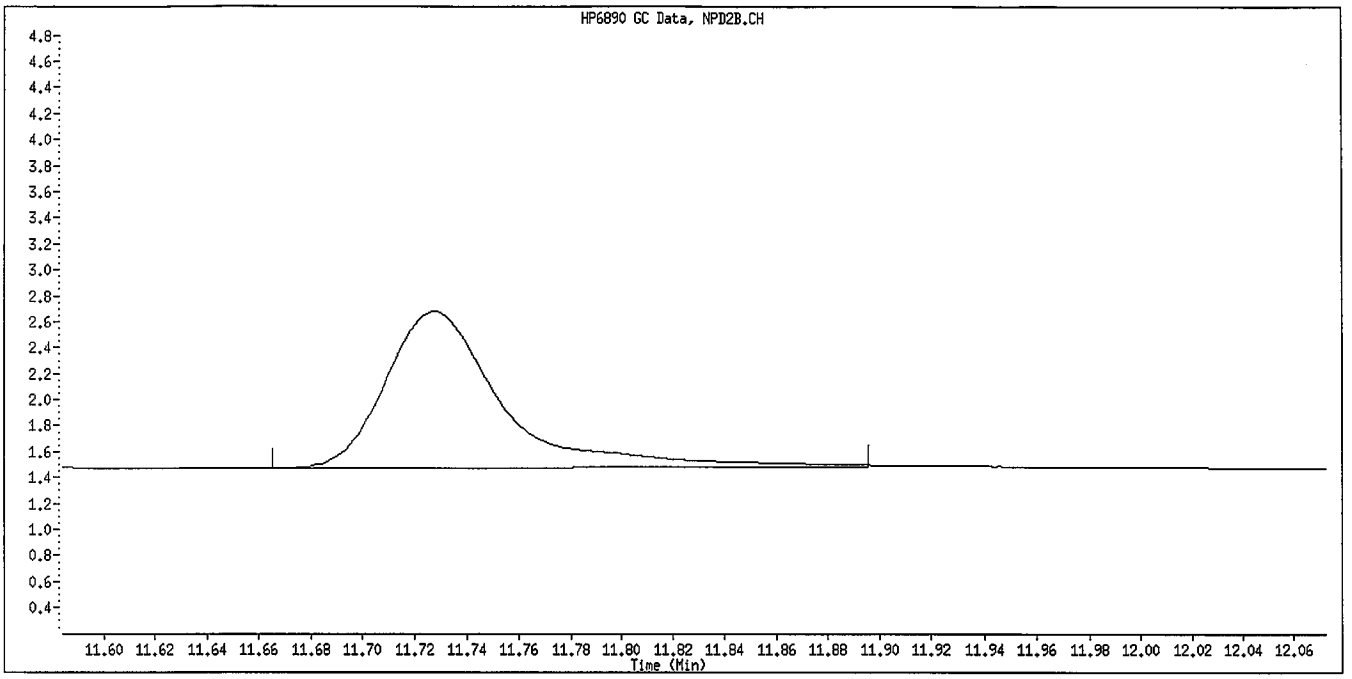
Original Integration



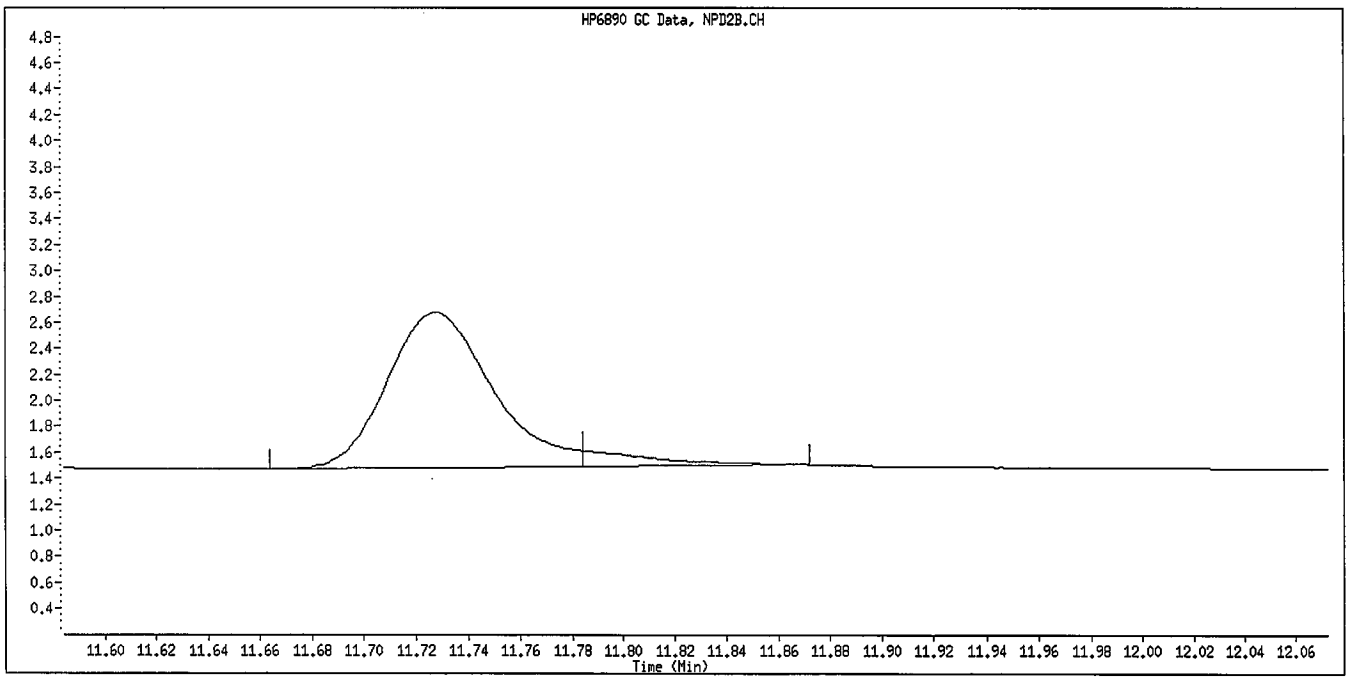
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Demeton-S
CAS #: 126-75-0
Report Date: 08/07/2009



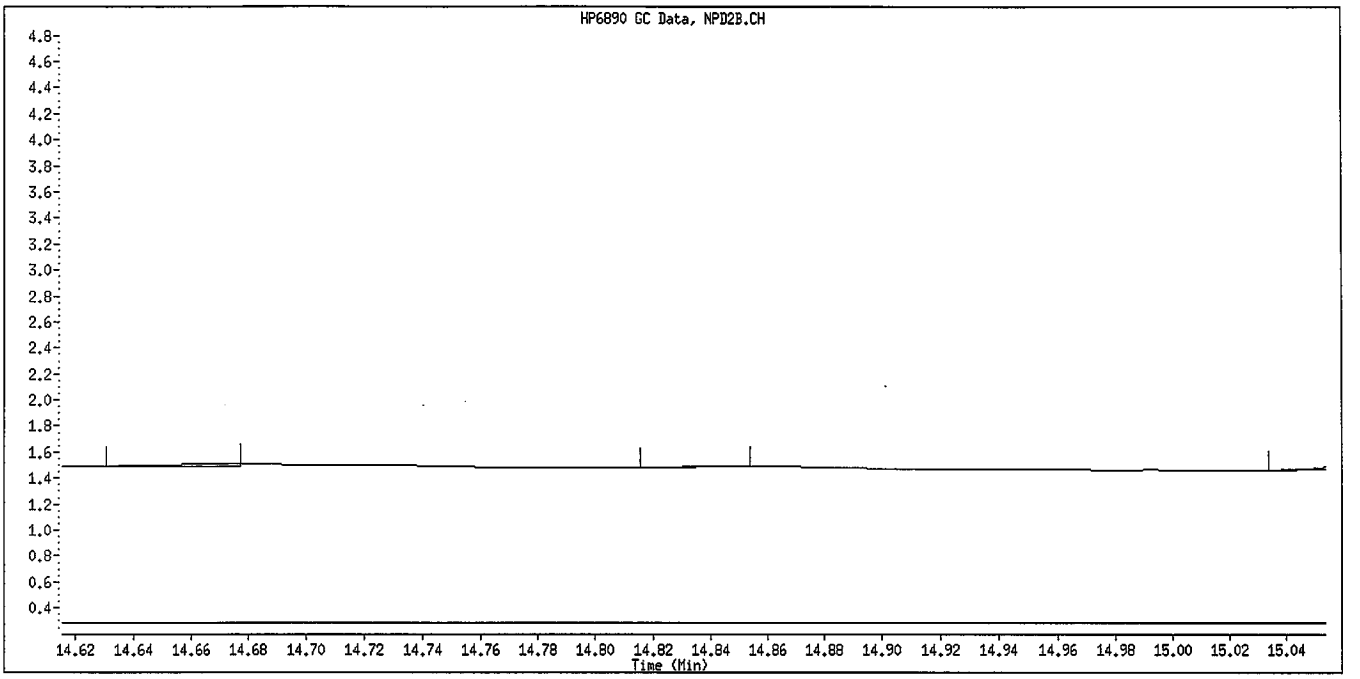
Original Integration



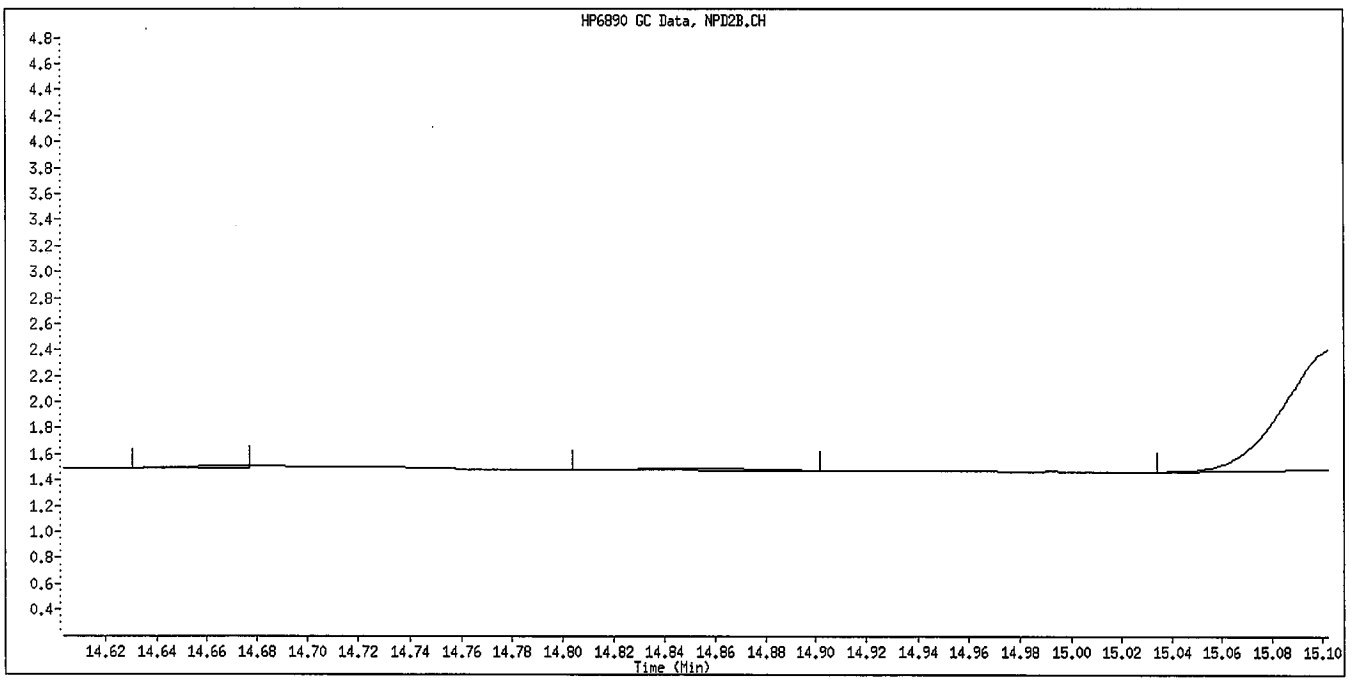
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event MF8176

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D
Lab Smp Id: OPP L7 GSV860-09 Client Smp ID: OPP L7 GSV860-09
Inj Date : 06-AUG-2009 12:58
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L7 GSV860-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:15 Cal File: 008F0801.D
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.183	3.182	(0.179)	667873	5.00000	5.002(A)
	2 Dichlorvos	4.001	4.001	(0.225)	494964	5.00000	4.936
	3 Mevinphos	5.643	5.644	(0.318)	248329	5.00000	5.285(A)
$	4 Chlormefos	5.736	5.736	(0.323)	537046	5.00000	4.975
	5 Thionazin	7.391	7.392	(0.416)	452629	5.00000	4.935
	6 Demeton-O	7.528	7.529	(0.424)	171892	1.62500	1.626
	7 Ethoprop	7.728	7.727	(0.435)	445757	5.00000	4.940
	8 Naled	7.929	7.931	(0.446)	104555	5.00000	5.231(A)
*	9 Tributylphosphate	7.984	7.984	(1.000)	223311	2.00000	
	10 Sulfotepp	8.314	8.311	(0.468)	591692	5.00000	4.896
	11 Phorate	8.404	8.404	(0.473)	443267	5.00000	4.990
	12 Dimethoate	8.536	8.536	(0.480)	550587	5.00000	5.014(A)
	13 Demeton-S	8.711	8.711	(0.490)	283901	3.40000	3.316
	14 Simazine	8.811	8.807	(0.496)	196470	5.00000	4.843
	15 Atrazine	8.979	8.974	(0.505)	201963	5.00000	4.986
	16 propazine	9.123	9.121	(0.513)	177792	5.00000	4.986
	17 Disulfoton	9.736	9.734	(0.548)	259283	5.00000	5.036(A)
	18 Diazinon	9.766	9.767	(0.550)	491284	5.00000	4.772
	19 Methyl Parathion	10.584	10.584	(0.596)	329756	5.00000	4.929
	20 Ronnel	11.103	11.102	(0.625)	319724	5.00000	5.052(A)
	21 Malathion	11.658	11.656	(0.656)	280372	5.00000	4.930
	22 Fenthion	11.791	11.789	(0.663)	301629	5.00000	5.014(A)
	23 Parathion	11.881	11.879	(0.669)	313652	5.00000	5.032(A)
	24 Chlorpyrifos	11.924	11.922	(0.671)	474400	5.00000	5.124(A)
	25 Trichloronate	12.346	12.346	(0.695)	371970	5.00000	5.107(A)
	26 Anilazine	12.688	12.684	(0.714)	16019	5.00000	5.114(AM)
	27 Merphos-A (Merphos)	13.041	13.042	(0.734)	287727	5.00000	4.857
	28 Tetrachlorvinphos (Stirophos)	13.661	13.662	(0.769)	219679	5.00000	5.045(A)
	29 Tokuthion	14.283	14.282	(0.804)	332126	5.00000	4.895
	30 Merphos-B (Merphos Oxone)	14.483	14.482	(0.815)	89437	5.00000	5.048(A)
	31 Carbophenothion-methyl	15.071	15.069	(0.848)	263905	5.00000	4.998
	32 Fensulfothion	15.206	15.209	(0.856)	345436	5.00000	4.942
	33 Bolstar / Famphur	15.936	15.936	(0.897)	612450	10.0000	9.694

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.086	16.085	(0.905)	361596	5.00000	5.273(A)
$	35 Triphenyl phosphate	16.618	16.619	(0.935)	241166	5.00000	5.002(A)
	36 Phosmet	16.879	16.882	(0.950)	277254	5.00000	4.753
	37 EPN	17.068	17.067	(0.960)	303505	5.00000	4.911
	38 Azinphos-methyl	17.408	17.407	(0.980)	284466	5.00000	4.929
*	39 TOCP	17.771	17.771	(1.000)	96867	2.00000	
	40 Azinphos-ethyl	17.858	17.857	(1.005)	302773	5.00000	4.849
	41 Coumaphos	18.306	18.306	(1.030)	249968	5.00000	5.051(A)
S	42 Merphos				377164	5.00000	4.877
M	43 Total Demeton				455793	5.00000	4.943

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

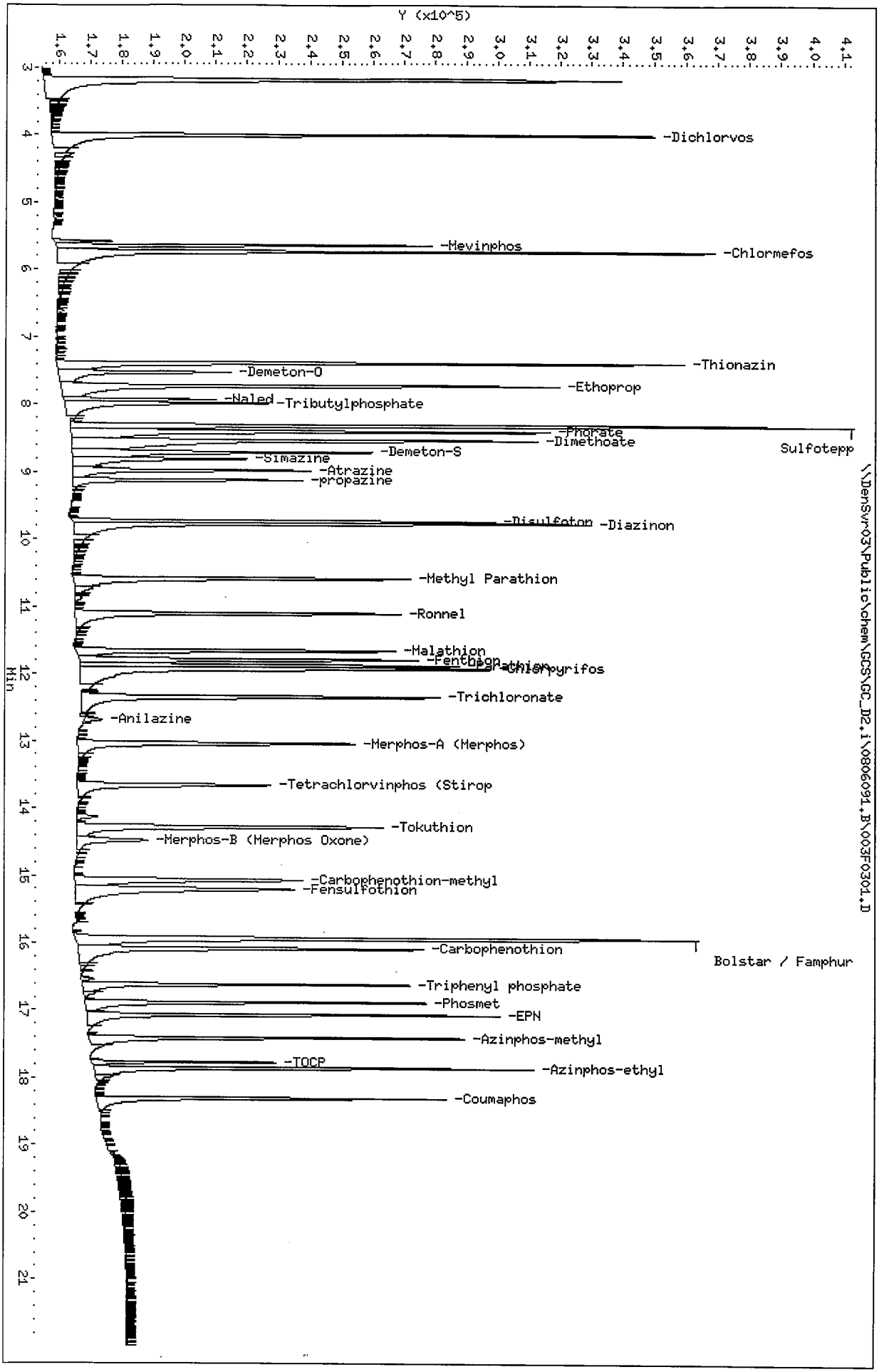
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 003F0301.D
Lab Smp Id: OPP L7 GSV860-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L7 GSV860-0
Level:
Sample Type:
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	223311	17.24
39 TOCP	106323	53162	212646	96867	-8.89

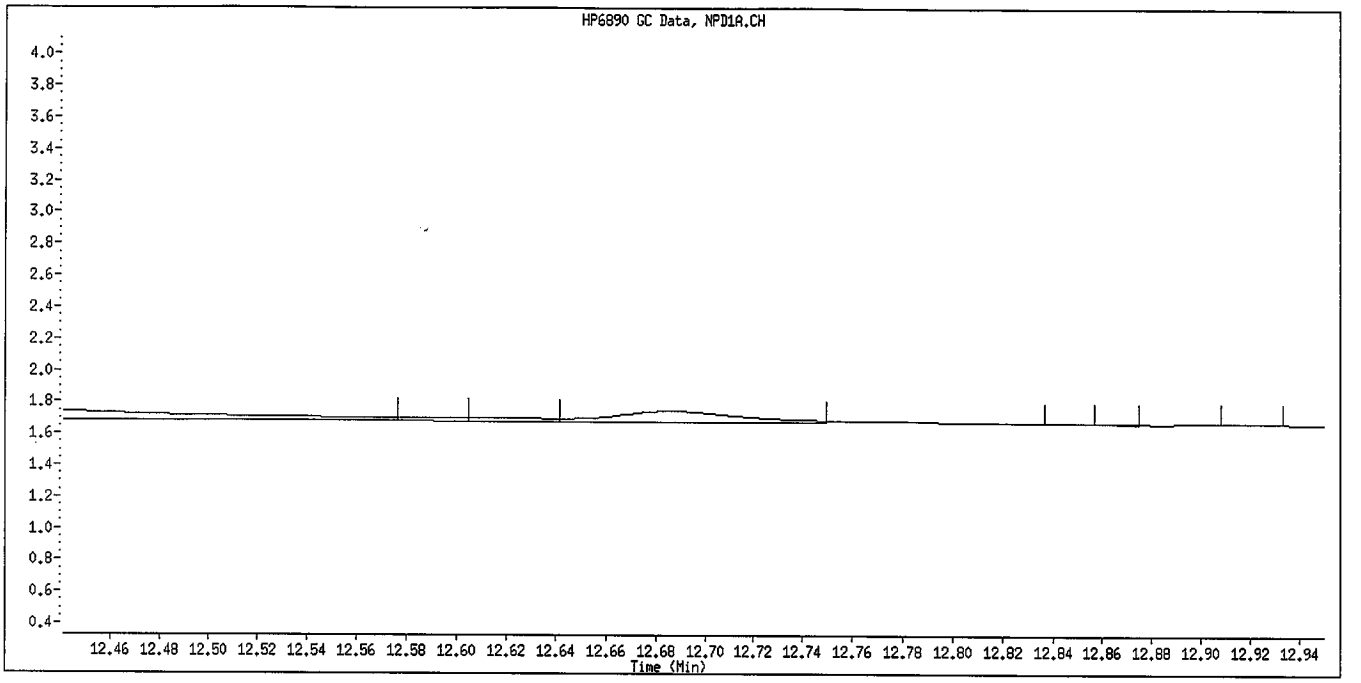
		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

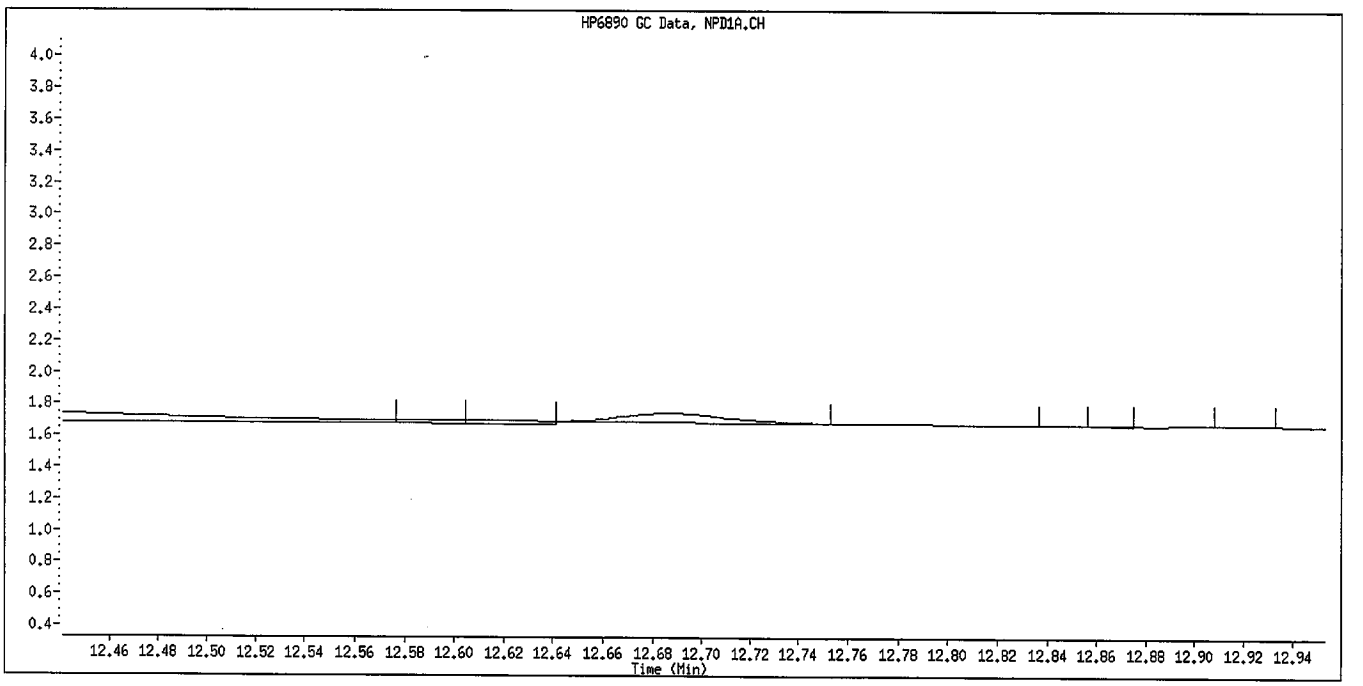


Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\003F0301.D
Date : 06-AUG-2009 12:58
Client ID: OPP L7 GSV860-09
Sample Info: OPP L7 GSV860-09
Column phase: RTx-1MS
Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 003F0301.D
Inj. Date and Time: 06-AUG-2009 12:58
Instrument ID: GC_D2.i
Client ID: OPP L7 GSV860-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Lab Smp Id: OPP L6 GSV870-09 Client Smp ID: OPP L6 GSV870-09
Inj Date : 06-AUG-2009 13:25
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L6 GSV870-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 12:58 Cal File: 003F0301.D
Als bottle: 4 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.181	3.182	(0.179)	530397	4.00000	3.929
	2 Dichlorvos	3.999	4.001	(0.225)	394344	4.00000	3.892
	3 Mevinphos	5.642	5.644	(0.318)	197521	4.00000	4.156
$	4 Chlormefos	5.736	5.736	(0.323)	444421	4.00000	4.070
	5 Thionazin	7.392	7.392	(0.416)	356552	4.00000	3.849
	6 Demeton-O	7.527	7.529	(0.424)	133217	1.30000	1.247
	7 Ethoprop	7.727	7.727	(0.435)	352360	4.00000	3.868
	8 Naled	7.931	7.931	(0.446)	79043	4.00000	3.960
*	9 Tributylphosphate	7.984	7.984	(1.000)	182769	2.00000	
	10 Sulfotepp	8.314	8.311	(0.468)	470909	4.00000	3.841
	11 Phorate	8.404	8.404	(0.473)	355358	4.00000	3.930
	12 Dimethoate	8.536	8.536	(0.480)	429609	4.00000	3.888
	13 Demeton-S	8.711	8.711	(0.490)	227643	2.72000	2.633
	14 Simazine	8.809	8.807	(0.496)	160354	4.00000	3.921
	15 Atrazine	8.976	8.974	(0.505)	160200	4.00000	3.921
	16 propazine	9.121	9.121	(0.513)	142131	4.00000	3.950
	17 Disulfoton	9.736	9.734	(0.548)	207119	4.00000	3.986
	18 Diazinon	9.767	9.767	(0.550)	416271	4.00000	3.993
	19 Methyl Parathion	10.584	10.584	(0.596)	260459	4.00000	3.858
	20 Ronnel	11.102	11.102	(0.625)	242078	4.00000	3.789
	21 Malathion	11.656	11.656	(0.656)	219045	4.00000	3.806
	22 Fenthion	11.791	11.789	(0.663)	231332	4.00000	3.812
	23 Parathion	11.877	11.879	(0.668)	240220	4.00000	3.822
	24 Chlorpyrifos	11.924	11.922	(0.671)	338913	4.00000	3.619
	25 Trichloronate	12.346	12.346	(0.695)	282505	4.00000	3.841
	26 Anilazine	12.686	12.684	(0.714)	13218	4.00000	4.225(M)
	27 Merphos-A (Merphos)	13.039	13.042	(0.734)	233543	4.00000	3.898
	28 Tetrachlorvinphos (Stirophos)	13.659	13.662	(0.769)	170697	4.00000	3.890
	29 Tokuthion	14.282	14.282	(0.804)	265806	4.00000	3.870
	30 Merphos-B (Merphos Oxone)	14.481	14.482	(0.815)	69404	4.00000	3.856
	31 Carbophenothion-methyl	15.071	15.069	(0.848)	210590	4.00000	3.877
	32 Fensulfothion	15.206	15.209	(0.856)	266554	4.00000	3.779
	33 Bolstar / Famphur	15.934	15.936	(0.897)	489394	8.00000	7.657

		Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34	Carbophenothion	16.086	16.085	(0.905)	250376	4.00000	3.610
$	35	Triphenyl phosphate	16.617	16.619	(0.935)	191433	4.00000	3.911(A)
	36	Phosmet	16.881	16.882	(0.950)	221328	4.00000	3.766
	37	EPN	17.067	17.067	(0.960)	245612	4.00000	3.937
	38	Azinphos-methyl	17.407	17.407	(0.980)	229655	4.00000	3.945
*	39	TOCP	17.771	17.771	(1.000)	97984	2.00000	
	40	Azinphos-ethyl	17.857	17.857	(1.005)	249137	4.00000	3.908
	41	Coumaphos	18.306	18.306	(1.030)	195717	4.00000	3.925
S	42	Merphos				302947	4.00000	3.873
M	43	Total Demeton				360860	4.00000	3.880

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

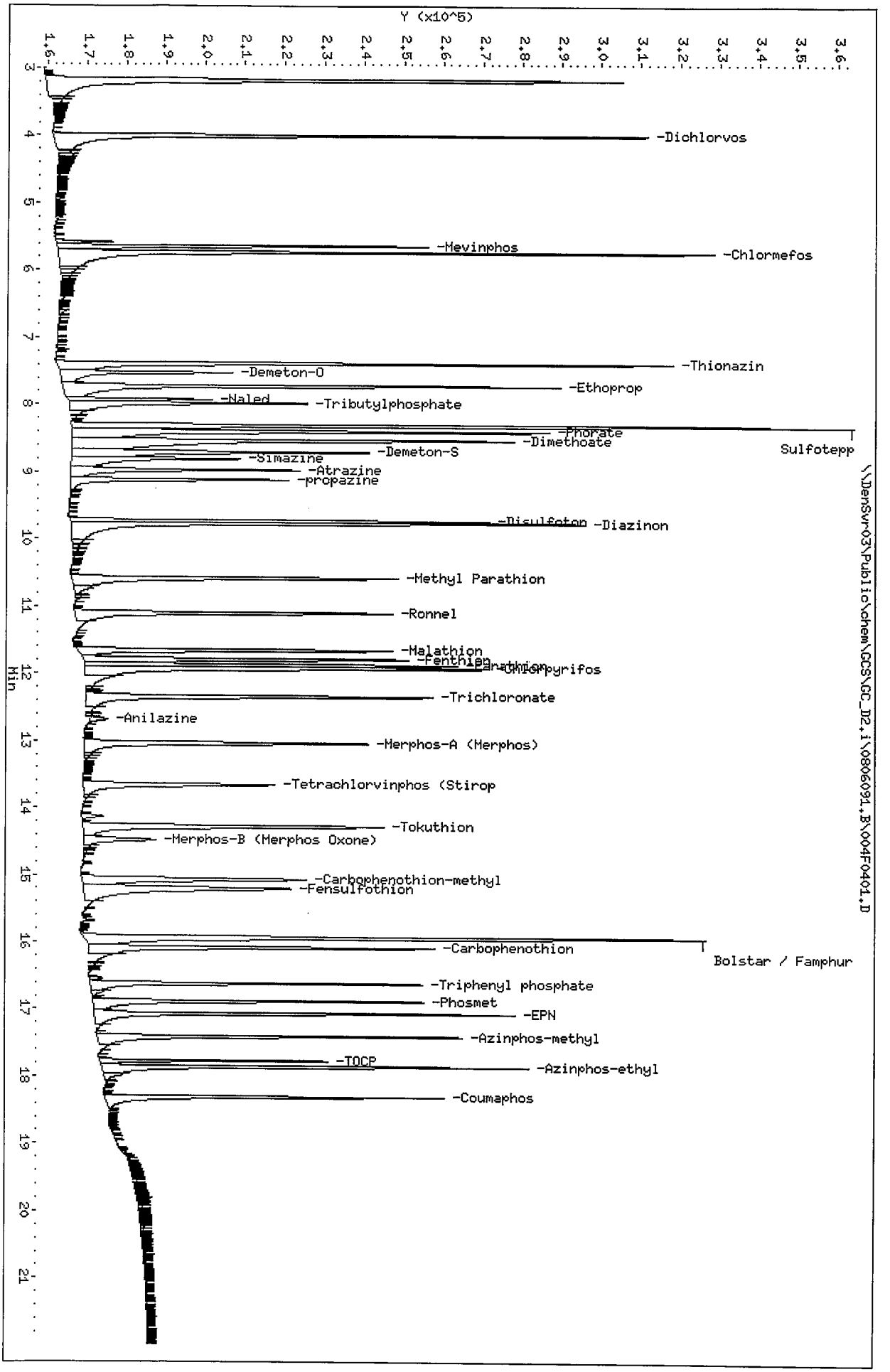
Instrument ID: GC_D2.i
Lab File ID: 004F0401.D
Lab Smp Id: OPP L6 GSV870-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L6 GSV870-0
Level:
Sample Type:

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	182769	-4.04
39 TOCP	106323	53162	212646	97984	-7.84

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.01

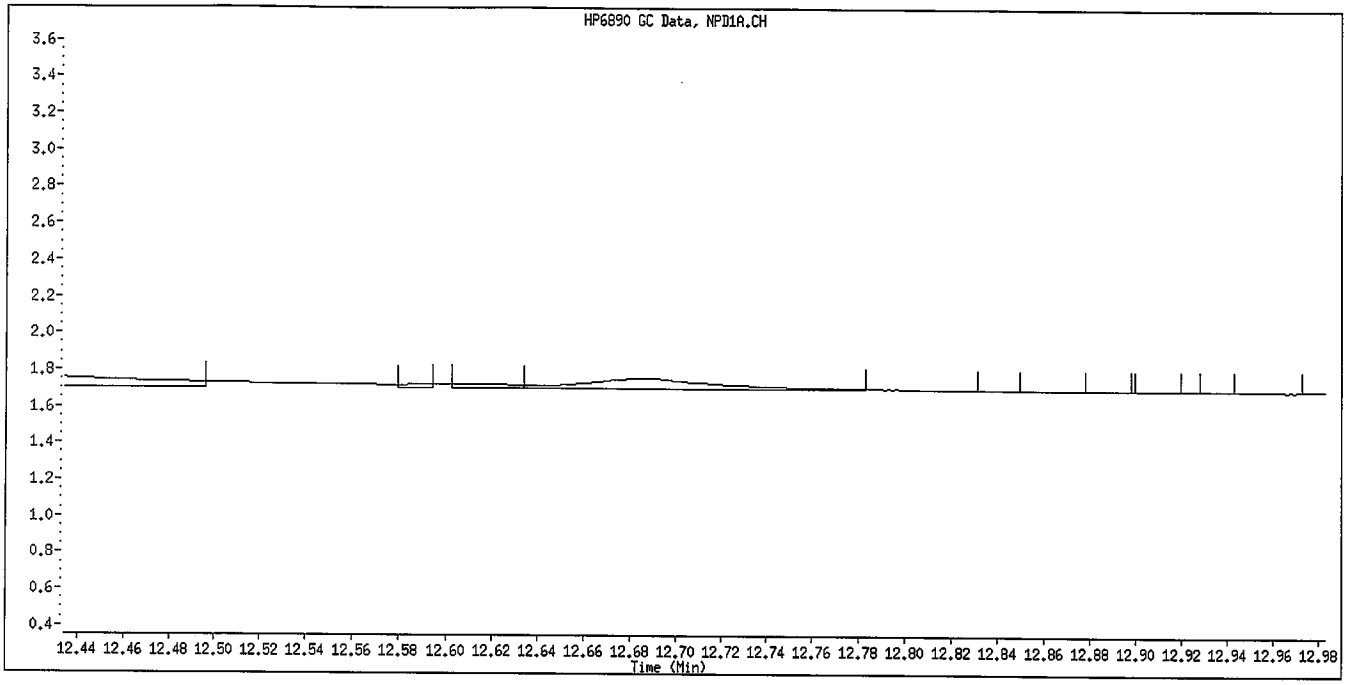
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



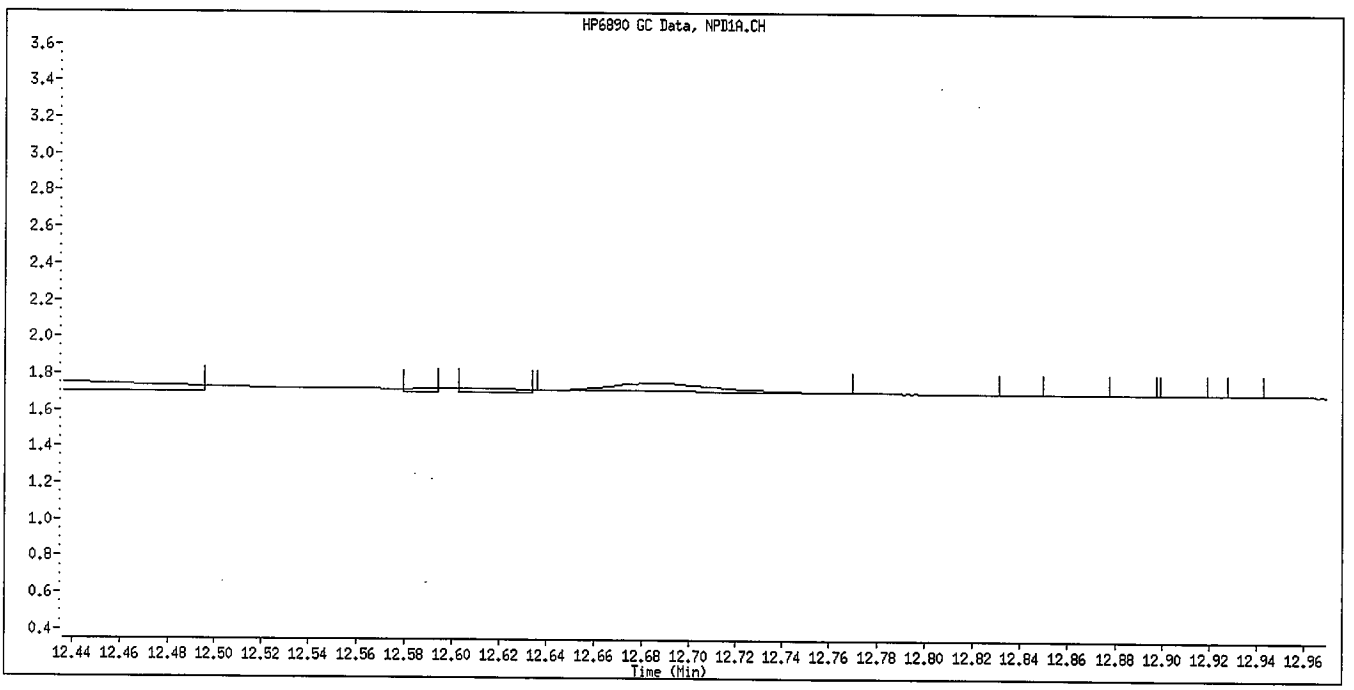
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
Date : 06-AUG-2009 13:25
Client ID: OPP L6 GSV870-09
Sample Info: OPP L6 GSV870-09
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: HPK/TLW
Column diameter: 0.32

Data File Name: 004F0401.D
Inj. Date and Time: 06-AUG-2009 13:25
Instrument ID: GC_D2.i
Client ID: OPP L6 GSV870-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Lab Smp Id: OPP L5 GSV871-09 Client Smp ID: OPP L5 GSV871-09
Inj Date : 06-AUG-2009 13:52
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L5 GSV871-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 13:25 Cal File: 004F0401.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.182	3.182	(0.179)	380611	3.00000	2.878
	2 Dichlorvos	4.000	4.001	(0.225)	299105	3.00000	3.017
	3 Mevinphos	5.644	5.644	(0.318)	147120	3.00000	3.158
$	4 Chlormefos	5.735	5.736	(0.323)	329677	3.00000	3.080
	5 Thionazin	7.392	7.392	(0.416)	270134	3.00000	2.981
	6 Demeton-O	7.529	7.529	(0.424)	105619	0.97500	1.009
	7 Ethoprop	7.727	7.727	(0.435)	270063	3.00000	3.032
	8 Naled	7.930	7.931	(0.446)	55026	3.00000	2.871
*	9 Tributylphosphate	7.984	7.984	(1.000)	176981	2.00000	
	10 Sulfotepp	8.312	8.311	(0.468)	358937	3.00000	2.975
	11 Phorate	8.404	8.404	(0.473)	269371	3.00000	3.012
	12 Dimethoate	8.535	8.536	(0.480)	318948	3.00000	2.967
	13 Demeton-S	8.710	8.711	(0.490)	169836	2.04000	2.008
	14 Simazine	8.807	8.807	(0.496)	120316	3.00000	3.018
	15 Atrazine	8.974	8.974	(0.505)	116845	3.00000	2.930
	16 propazine	9.120	9.121	(0.513)	101930	3.00000	2.902
	17 Disulfoton	9.734	9.734	(0.548)	145630	3.00000	2.870
	18 Diazinon	9.767	9.767	(0.550)	300229	3.00000	2.931
	19 Methyl Parathion	10.584	10.584	(0.596)	192341	3.00000	2.916
	20 Ronnel	11.102	11.102	(0.625)	186402	3.00000	2.983
	21 Malathion	11.655	11.656	(0.656)	167962	3.00000	2.976
	22 Fenthion	11.789	11.789	(0.663)	176698	3.00000	2.979
	23 Parathion	11.879	11.879	(0.668)	181496	3.00000	2.958
	24 Chlorpyrifos	11.922	11.922	(0.671)	259090	3.00000	2.822
	25 Trichloronate	12.345	12.346	(0.695)	208922	3.00000	2.904
	26 Anilazine	12.684	12.684	(0.714)	7461	3.00000	2.556 (M)
	27 Merphos-A (Merphos)	13.042	13.042	(0.734)	173016	3.00000	2.948
	28 Tetrachlorvinphos (Stirophos)	13.662	13.662	(0.769)	128125	3.00000	2.993
	29 Tokuthion	14.282	14.282	(0.804)	197028	3.00000	2.923
	30 Merphos-B (Merphos Oxone)	14.482	14.482	(0.815)	51369	3.00000	2.894
	31 Carbophenothion-methyl	15.069	15.069	(0.848)	158558	3.00000	2.982
	32 Fensulfothion	15.209	15.209	(0.856)	208297	3.00000	3.021
	33 Bolstar / Famphur	15.935	15.936	(0.897)	372086	6.00000	5.937

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.085	16.085	(0.905)	220744	3.00000	3.246
$	35 Triphenyl phosphate	16.619	16.619	(0.935)	142596	3.00000	2.955(A)
	36 Phosmet	16.882	16.882	(0.950)	163123	3.00000	2.850
	37 EPN	17.067	17.067	(0.960)	177040	3.00000	2.906
	38 Azinphos-methyl	17.407	17.407	(0.980)	168294	3.00000	2.964
*	39 TOCP	17.770	17.771	(1.000)	96052	2.00000	
	40 Azinphos-ethyl	17.857	17.857	(1.005)	188903	3.00000	2.979
	41 Coumaphos	18.305	18.306	(1.030)	142605	3.00000	2.934
S	42 Merphos				224385	3.00000	2.926
M	43 Total Demeton				275455	3.00000	3.017

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

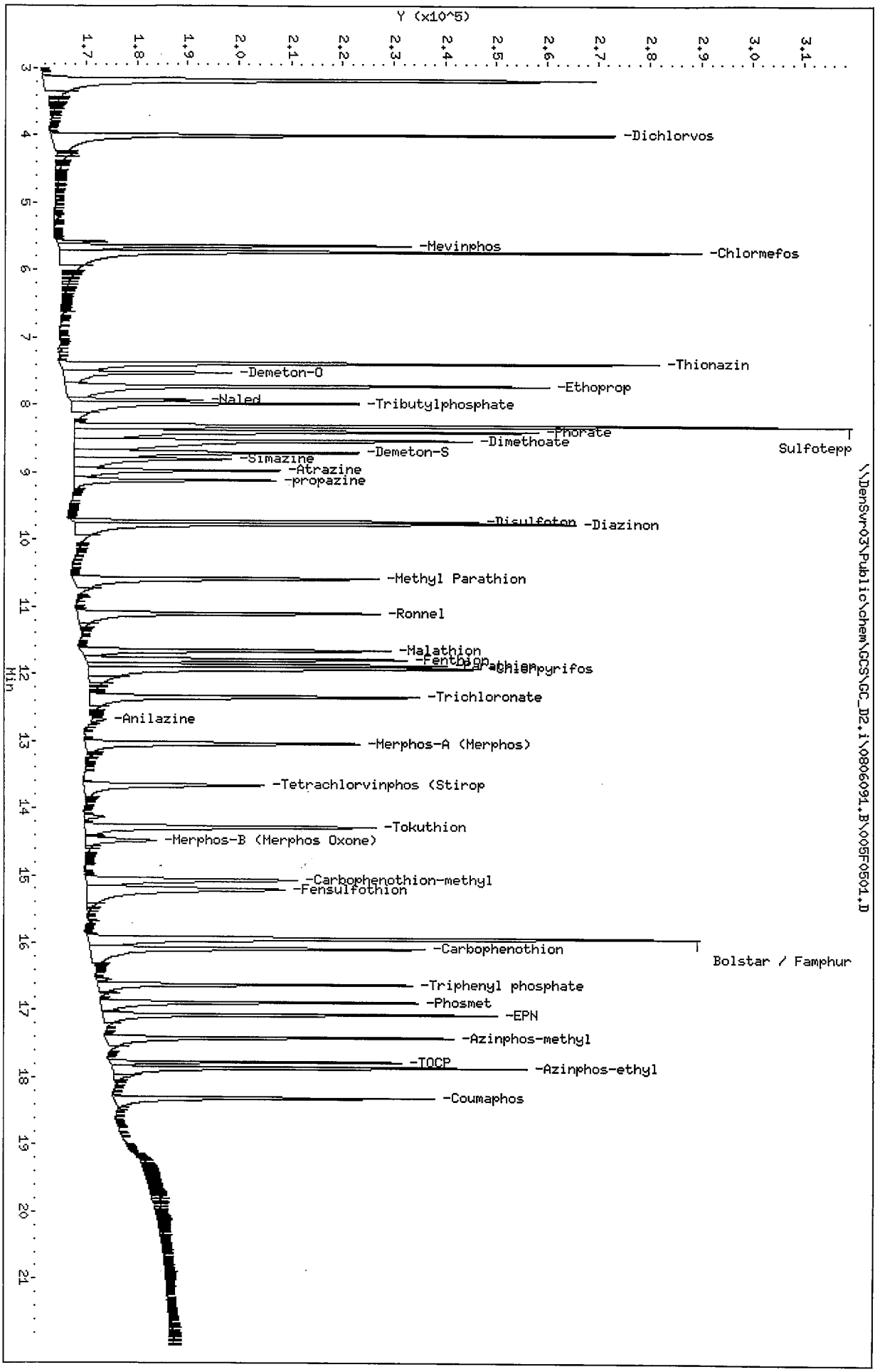
Instrument ID: GC_D2.i
Lab File ID: 005F0501.D
Lab Smp Id: OPP L5 GSV871-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L5 GSV871-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	176981	-7.08
39 TOCP	106323	53162	212646	96052	-9.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

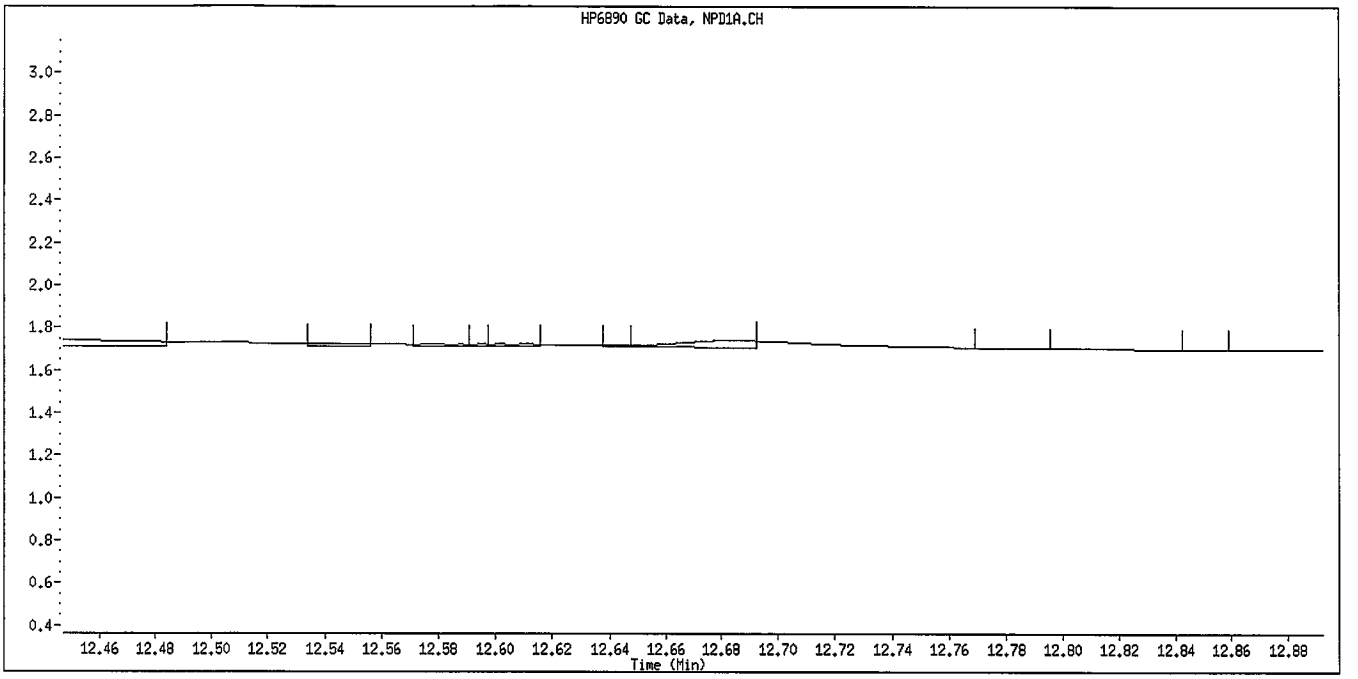
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



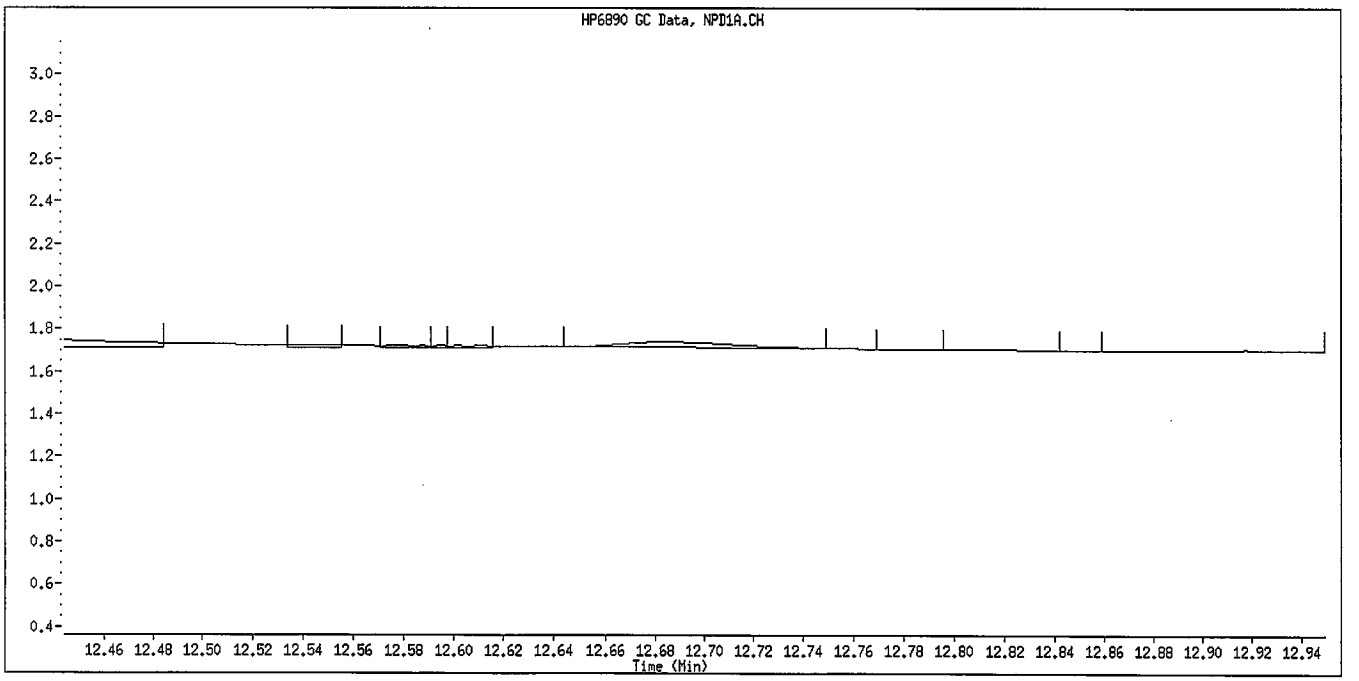
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
Date : 06-AUG-2009 13:52
Client ID: OPP L5 GSV871-09
Sample Info: OPP L5 GSV871-09
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 005F0501.D
Inj. Date and Time: 06-AUG-2009 13:52
Instrument ID: GC_D2.i
Client ID: OPP L5 GSV871-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Lab Smp Id: OPP L4 GSV872-09 Client Smp ID: OPP L4 GSV872-09
Inj Date : 06-AUG-2009 14:20
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L4 GSV872-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 13:52 Cal File: 005F0501.D
Als bottle: 6 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
1	o,o,o-TEPT	3.182	3.182	(0.179)	273888	2.00000	1.869
2	Dichlorvos	4.002	4.001	(0.225)	217219	2.00000	1.981
3	Mevinphos	5.643	5.644	(0.318)	105870	2.00000	2.047
$ 4	Chlormefos	5.737	5.736	(0.323)	241371	2.00000	2.032
5	Thionazin	7.392	7.392	(0.416)	198904	2.00000	1.986
6	Demeton-O	7.528	7.529	(0.424)	67743	0.65000	0.5845
7	Ethoprop	7.728	7.727	(0.435)	203616	2.00000	2.070
8	Naled	7.930	7.931	(0.446)	39234	2.00000	1.916
* 9	Tributylphosphate	7.983	7.984	(1.000)	190454	2.00000	
10	Sulfotepp	8.313	8.311	(0.468)	272812	2.00000	2.020
11	Phorate	8.403	8.404	(0.473)	206533	2.00000	2.043
12	Dimethoate	8.537	8.536	(0.480)	234736	2.00000	1.998
13	Demeton-S	8.713	8.711	(0.490)	131092	1.36000	1.402
14	Simazine	8.808	8.807	(0.496)	90943	2.00000	2.078
15	Atrazine	8.975	8.974	(0.505)	89027	2.00000	2.028
16	propazine	9.120	9.121	(0.513)	77939	2.00000	2.013
17	Disulfoton	9.735	9.734	(0.548)	107216	2.00000	1.917
18	Diazinon	9.768	9.767	(0.550)	234306	2.00000	2.053
19	Methyl Parathion	10.583	10.584	(0.596)	148922	2.00000	2.046
20	Ronnel	11.103	11.102	(0.625)	132002	2.00000	1.914
21	Malathion	11.655	11.656	(0.656)	127531	2.00000	2.033
22	Fenthion	11.788	11.789	(0.663)	132190	2.00000	2.021
23	Parathion	11.878	11.879	(0.668)	134353	2.00000	1.990
24	Chlorpyrifos	11.923	11.922	(0.671)	199061	2.00000	1.953
25	Trichloronate	12.345	12.346	(0.695)	154049	2.00000	1.937
26	Anilazine	12.687	12.684	(0.714)	5841	2.00000	1.888 (M)
27	Merphos-A (Merphos)	13.043	13.042	(0.734)	132917	2.00000	2.042
28	Tetrachlorvinphos (Stirophos)	13.662	13.662	(0.769)	93046	2.00000	1.980
29	Tokuthion	14.283	14.282	(0.804)	154338	2.00000	2.059
30	Merphos-B (Merphos Oxone)	14.483	14.482	(0.815)	42858	2.00000	2.157
31	Carbophenothion-methyl	15.068	15.069	(0.848)	118446	2.00000	2.012
32	Fensulfothion	15.212	15.209	(0.856)	153756	2.00000	2.022
33	Bolstar / Famphur	15.935	15.936	(0.897)	286233	4.00000	4.113

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.085	16.085	(0.905)	147016	2.00000	1.948
$	35 Triphenyl phosphate	16.618	16.619	(0.935)	113284	2.00000	2.096(A)
	36 Phosmet	16.880	16.882	(0.950)	125340	2.00000	1.995
	37 EPN	17.067	17.067	(0.960)	140325	2.00000	2.086
	38 Azinphos-methyl	17.407	17.407	(0.980)	125256	2.00000	2.007
*	39 TOCP	17.770	17.771	(1.000)	106617	2.00000	
	40 Azinphos-ethyl	17.857	17.857	(1.005)	151651	2.00000	2.101
	41 Coumaphos	18.305	18.306	(1.030)	104402	2.00000	1.958
S	42 Merphos				175775	2.00000	2.066
M	43 Total Demeton				198835	2.00000	1.986

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

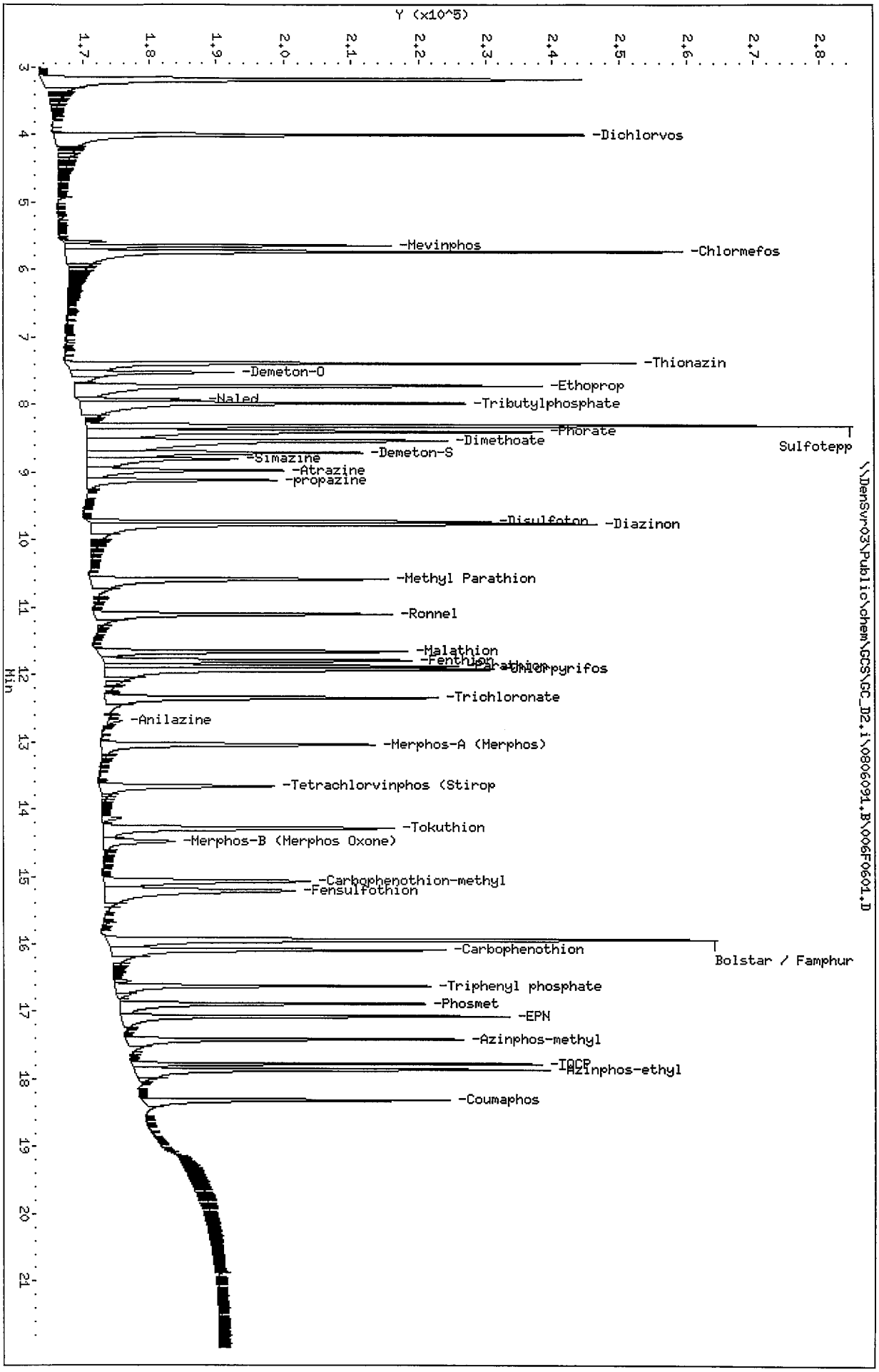
Instrument ID: GC_D2.i
Lab File ID: 006F0601.D
Lab Smp Id: OPP L4 GSV872-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L4 GSV872-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	190454	-0.01
39 TOCP	106323	53162	212646	106617	0.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

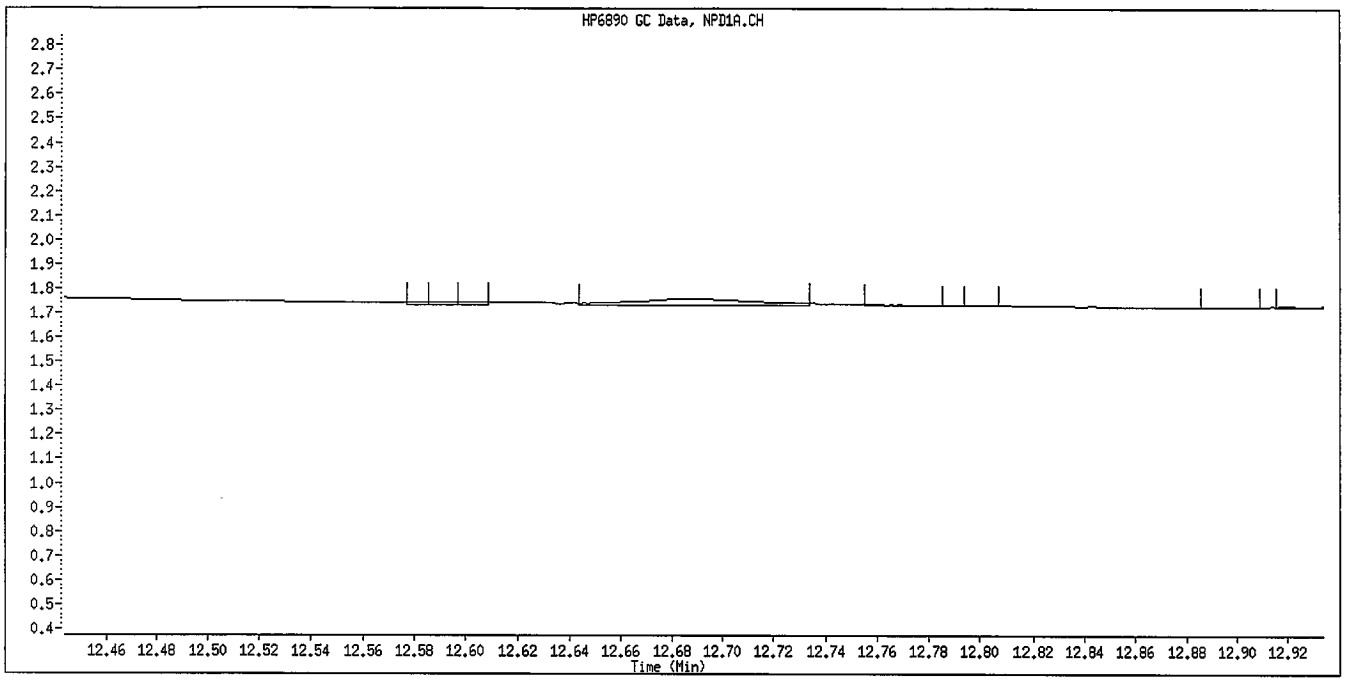
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



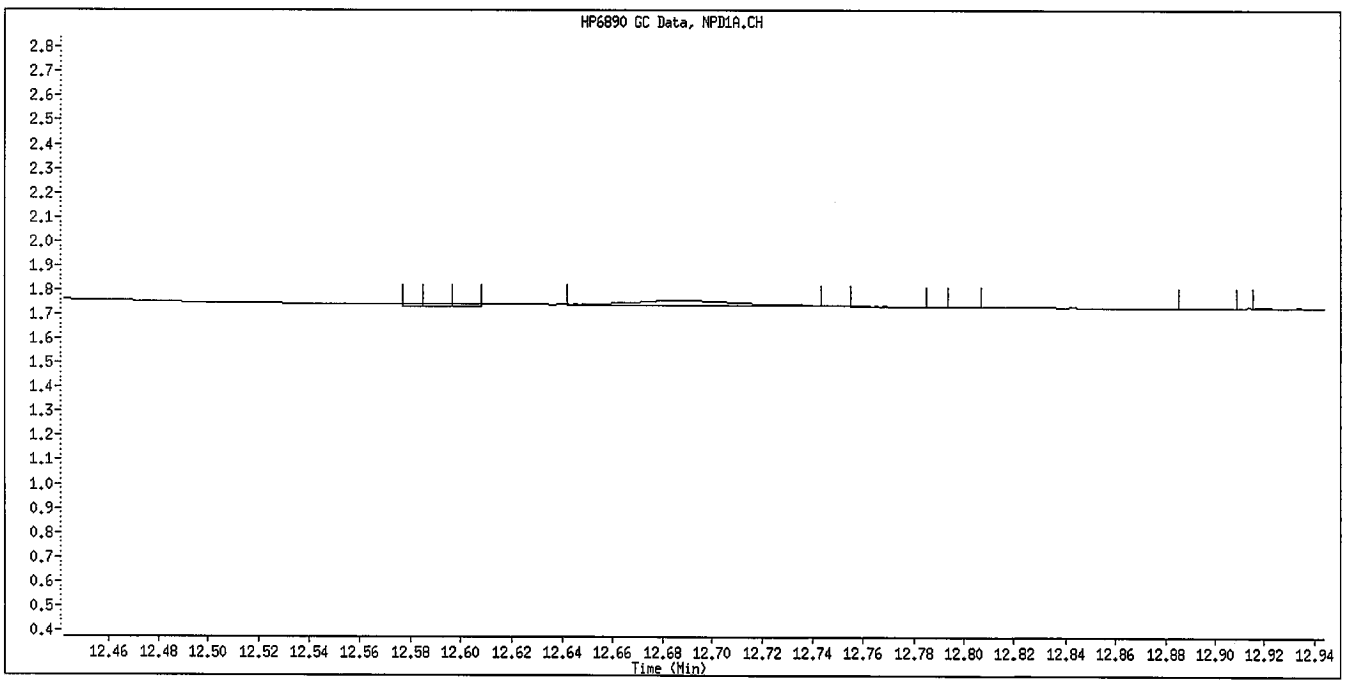
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
Date : 06-AUG-2009 14:20
Client ID: OPP L4 GSV872-09
Sample Info: OPP L4 GSV872-09
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 006F0601.D
Inj. Date and Time: 06-AUG-2009 14:20
Instrument ID: GC_D2.i
Client ID: OPP L4 GSV872-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
Lab Smp Id: OPP L3 GSV873-09 Client Smp ID: OPP L3 GSV873-09
Inj Date : 06-AUG-2009 14:47
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L3 GSV873-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 14:20 Cal File: 006F0601.D
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.183	3.182	(0.179)	176667	1.00000	1.279
	2 Dichlorvos	4.001	4.001	(0.225)	121959	1.00000	1.186
	3 Mevinphos	5.645	5.644	(0.318)	60307	1.00000	1.234
$	4 Chlormefos	5.735	5.736	(0.323)	136845	1.00000	1.219
	5 Thionazin	7.391	7.392	(0.416)	116071	1.00000	1.237
	6 Demeton-O	7.526	7.529	(0.424)	43609	0.32500	0.3994
	7 Ethoprop	7.726	7.727	(0.435)	102655	1.00000	1.120
	8 Naled	7.931	7.931	(0.446)	17781	1.00000	1.024
*	9 Tributylphosphate	7.983	7.984	(1.000)	173246	2.00000	
	10 Sulfotepp	8.311	8.311	(0.468)	161301	1.00000	1.244
	11 Phorate	8.403	8.404	(0.473)	119141	1.00000	1.201
	12 Dimethoate	8.541	8.536	(0.481)	123499	1.00000	1.153
	13 Demeton-S	8.713	8.711	(0.490)	72778	0.68000	0.8314
	14 Simazine	8.806	8.807	(0.496)	46770	1.00000	1.164
	15 Atrazine	8.973	8.974	(0.505)	47483	1.00000	1.167
	16 propazine	9.118	9.121	(0.513)	42201	1.00000	1.173
	17 Disulfoton	9.735	9.734	(0.548)	62379	1.00000	1.196
	18 Diazinon	9.766	9.767	(0.550)	135177	1.00000	1.244
	19 Methyl Parathion	10.583	10.584	(0.596)	83612	1.00000	1.233
	20 Ronnel	11.103	11.102	(0.625)	79747	1.00000	1.235
	21 Malathion	11.655	11.656	(0.656)	73542	1.00000	1.238
	22 Fenthion	11.790	11.789	(0.663)	72130	1.00000	1.184
	23 Parathion	11.880	11.879	(0.669)	75321	1.00000	1.202
	24 Chlorpyrifos	11.921	11.922	(0.671)	114513	1.00000	1.189
	25 Trichloronate	12.346	12.346	(0.695)	89537	1.00000	1.201
	26 Anilazine	12.690	12.684	(0.714)	2826	1.00000	1.109 (M)
	27 Merphos-A (Merphos)	13.040	13.042	(0.734)	75953	1.00000	1.237
	28 Tetrachlorvinphos (Stirophos)	13.661	13.662	(0.769)	48409	1.00000	1.118
	29 Tokuthion	14.281	14.282	(0.804)	88378	1.00000	1.243
	30 Merphos-B (Merphos Oxone)	14.481	14.482	(0.815)	24451	1.00000	1.274
	31 Carbophenothion-methyl	15.070	15.069	(0.848)	67846	1.00000	1.226
	32 Fensulfothion	15.216	15.209	(0.856)	87310	1.00000	1.231
	33 Bolstar / Famphur	15.933	15.936	(0.897)	166272	2.00000	2.527

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.085	16.085	(0.905)	89175	1.00000	1.251
$	35 Triphenyl phosphate	16.616	16.619	(0.935)	65323	1.00000	1.252
	36 Phosmet	16.881	16.882	(0.950)	69014	1.00000	1.193
	37 EPN	17.066	17.067	(0.960)	73819	1.00000	1.180
	38 Azinphos-methyl	17.408	17.407	(0.980)	68525	1.00000	1.187
*	39 TOCP	17.770	17.771	(1.000)	100725	2.00000	
	40 Azinphos-ethyl	17.856	17.857	(1.005)	85913	1.00000	1.182
	41 Coumaphos	18.306	18.306	(1.030)	56878	1.00000	1.157
S	42 Merphos				100404	1.00000	1.249
M	43 Total Demeton				116387	1.00000	1.231

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

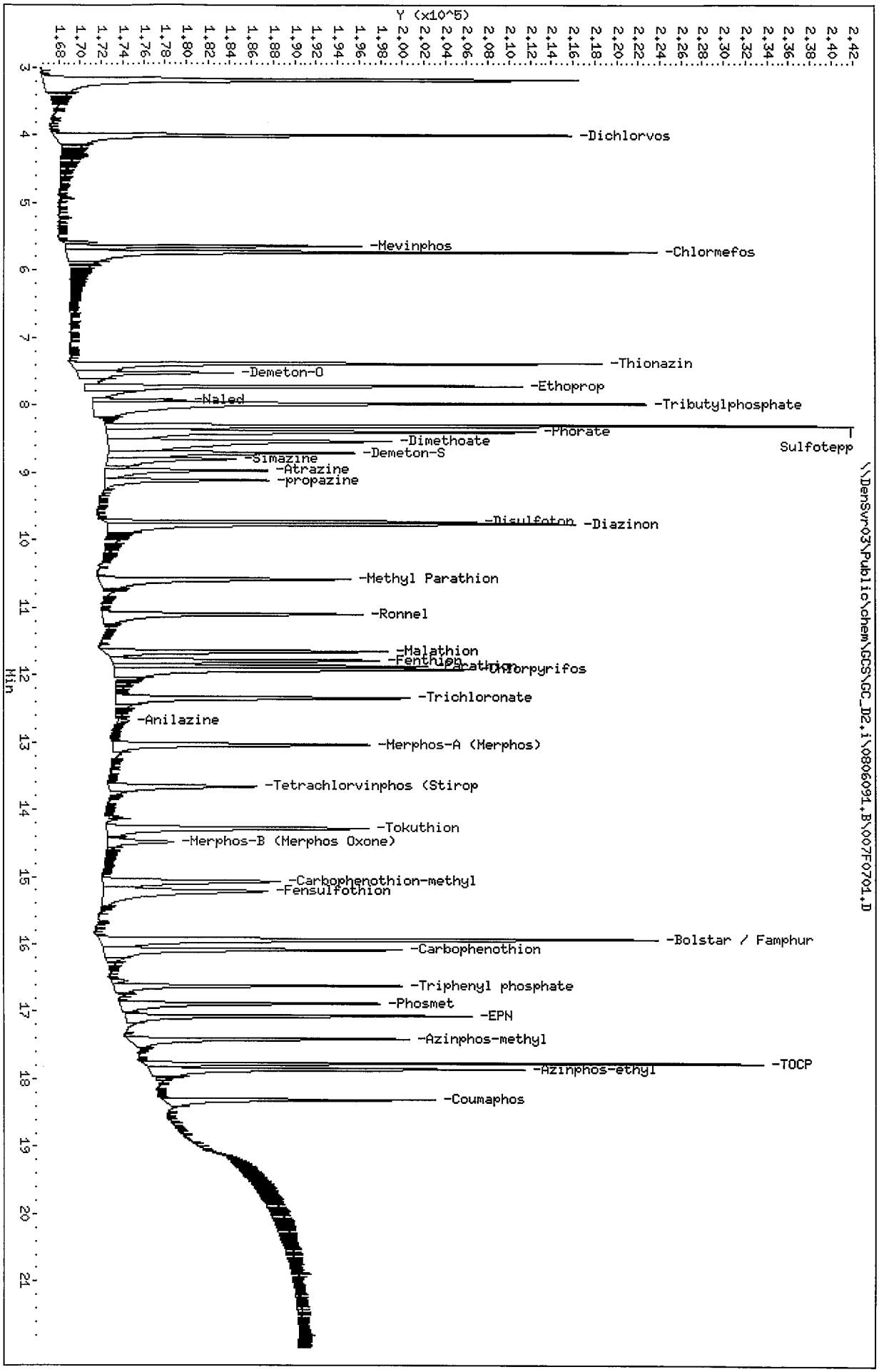
Instrument ID: GC_D2.i
Lab File ID: 007F0701.D
Lab Smp Id: OPP L3 GSV873-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L3 GSV873-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	173246	-9.04
39 TOCP	106323	53162	212646	100725	-5.27

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

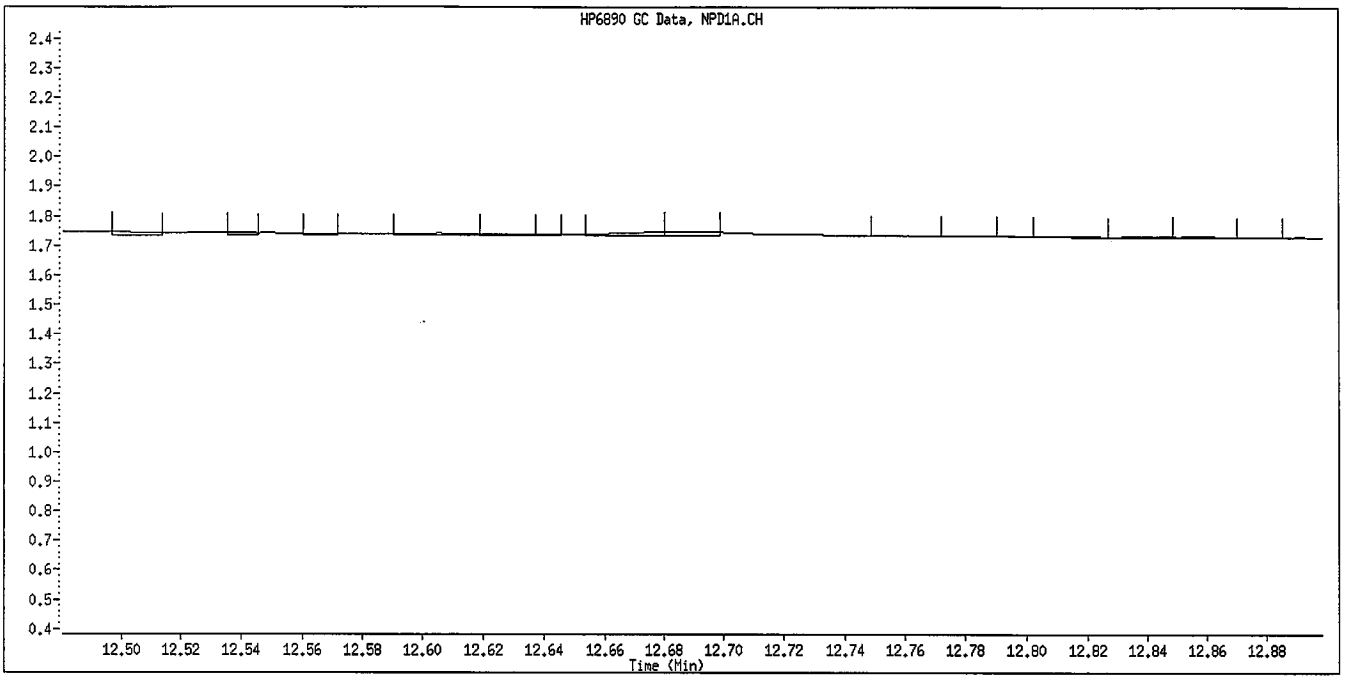
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



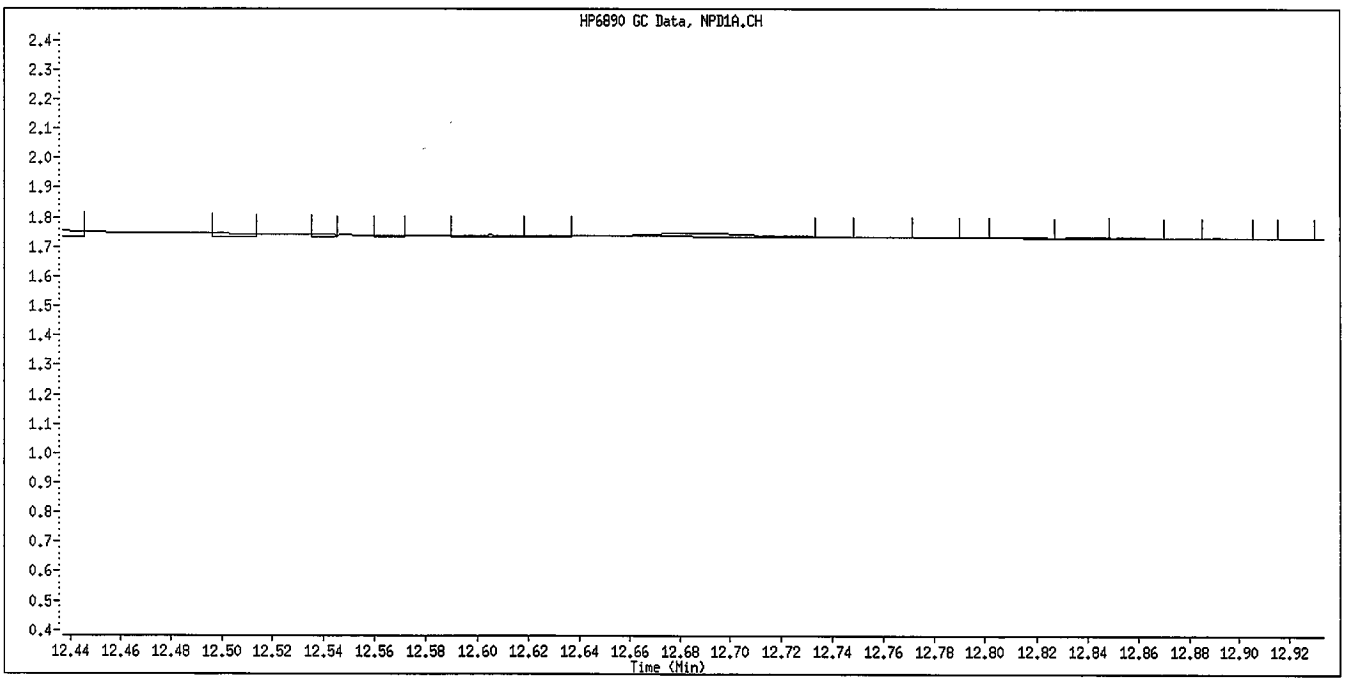
Data File: \\DenSvr03\Public\chem\GCS\GC_D2,i\0806091,B\007F0701,D
Date : 06-AUG-2009 14:47
Client ID: OPP L3 GSV873-09
Sample Info: OPP L3 GSV873-09
Column phase: RTx-1MS

Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 007F0701.D
Inj. Date and Time: 06-AUG-2009 14:47
Instrument ID: GC_D2.i
Client ID: OPP L3 GSV873-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event 1f87716

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Lab Smp Id: OPP L2 GSV874-09 Client Smp ID: OPP L2 GSV874-09
Inj Date : 06-AUG-2009 15:15
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L2 GSV874-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 14:47 Cal File: 007F0701.D
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	1 o,o,o-TEPT	3.183	3.182	(0.179)	69103	0.50000	0.4601
	2 Dichlorvos	4.003	4.001	(0.225)	49660	0.50000	0.4526
	3 Mevinphos	5.646	5.644	(0.318)	23177	0.50000	0.4309
$	4 Chlormefos	5.734	5.736	(0.323)	52407	0.50000	0.4242
	5 Thionazin	7.391	7.392	(0.416)	46078	0.50000	0.4633
	6 Demeton-O	7.526	7.529	(0.424)	16576	0.16250	0.1401
	7 Ethoprop	7.728	7.727	(0.435)	42559	0.50000	0.4423
	8 Naled	7.933	7.931	(0.446)	5395	0.50000	0.4278
*	9 Tributylphosphate	7.984	7.984	(1.000)	186023	2.00000	
	10 Sulfotepp	8.311	8.311	(0.468)	72734	0.50000	0.4782
	11 Phorate	8.403	8.404	(0.473)	55180	0.50000	0.4358
	12 Dimethoate	8.549	8.536	(0.481)	46073	0.50000	0.4510
	13 Demeton-S	8.714	8.711	(0.490)	30199	0.34000	0.3248
	14 Simazine	8.808	8.807	(0.496)	17101	0.50000	0.4351
	15 Atrazine	8.976	8.974	(0.505)	16880	0.50000	0.4116
	16 propazine	9.119	9.121	(0.513)	16038	0.50000	0.4345
	17 Disulfoton	9.733	9.734	(0.548)	23733	0.50000	0.4389
	18 Diazinon	9.768	9.767	(0.550)	54615	0.50000	0.4404
	19 Methyl Parathion	10.588	10.584	(0.596)	33545	0.50000	0.4755
	20 Ronnel	11.101	11.102	(0.625)	31990	0.50000	0.4690
	21 Malathion	11.656	11.656	(0.656)	30837	0.50000	0.4675
	22 Fenthion	11.791	11.789	(0.664)	28555	0.50000	0.4514
	23 Parathion	11.883	11.879	(0.669)	28660	0.50000	0.4496
	24 Chlorpyrifos	11.921	11.922	(0.671)	51899	0.50000	0.4897
	25 Trichloronate	12.344	12.346	(0.695)	36498	0.50000	0.4607
	26 Anilazine	12.703	12.684	(0.715)	826	0.50000	0.5078(M)
	27 Merphos-A (Merphos)	13.041	13.042	(0.734)	31853	0.50000	0.4751
	28 Tetrachlorvinphos (Stirophos)	13.663	13.662	(0.769)	19289	0.50000	0.4446
	29 Tokuthion	14.283	14.282	(0.804)	36242	0.50000	0.4544
	30 Merphos-B (Merphos Oxone)	14.484	14.482	(0.815)	7669	0.50000	0.3119(M)
	31 Carbophenothion-methyl	15.074	15.069	(0.848)	26053	0.50000	0.4379(M)
	32 Fensulfothion	15.218	15.209	(0.856)	32630	0.50000	0.4443
	33 Bolstar / Famphur	15.936	15.936	(0.897)	69693	1.00000	0.9590

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.086	16.085	(0.905)	36825	0.50000	0.4692
$	35 Triphenyl phosphate	16.618	16.619	(0.935)	25724	0.50000	0.4041
	36 Phosmet	16.883	16.882	(0.950)	25724	0.50000	0.4520
	37 EPN	17.068	17.067	(0.961)	28342	0.50000	0.4379
	38 Azinphos-methyl	17.409	17.407	(0.980)	23048	0.50000	0.4032
*	39 TOCP	17.769	17.771	(1.000)	110877	2.00000	
	40 Azinphos-ethyl	17.858	17.857	(1.005)	43178	0.50000	0.4346
	41 Coumaphos	18.308	18.306	(1.030)	20857	0.50000	0.4293
S	42 Merphos				39522	0.50000	0.4473
M	43 Total Demeton				46775	0.50000	0.4649

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

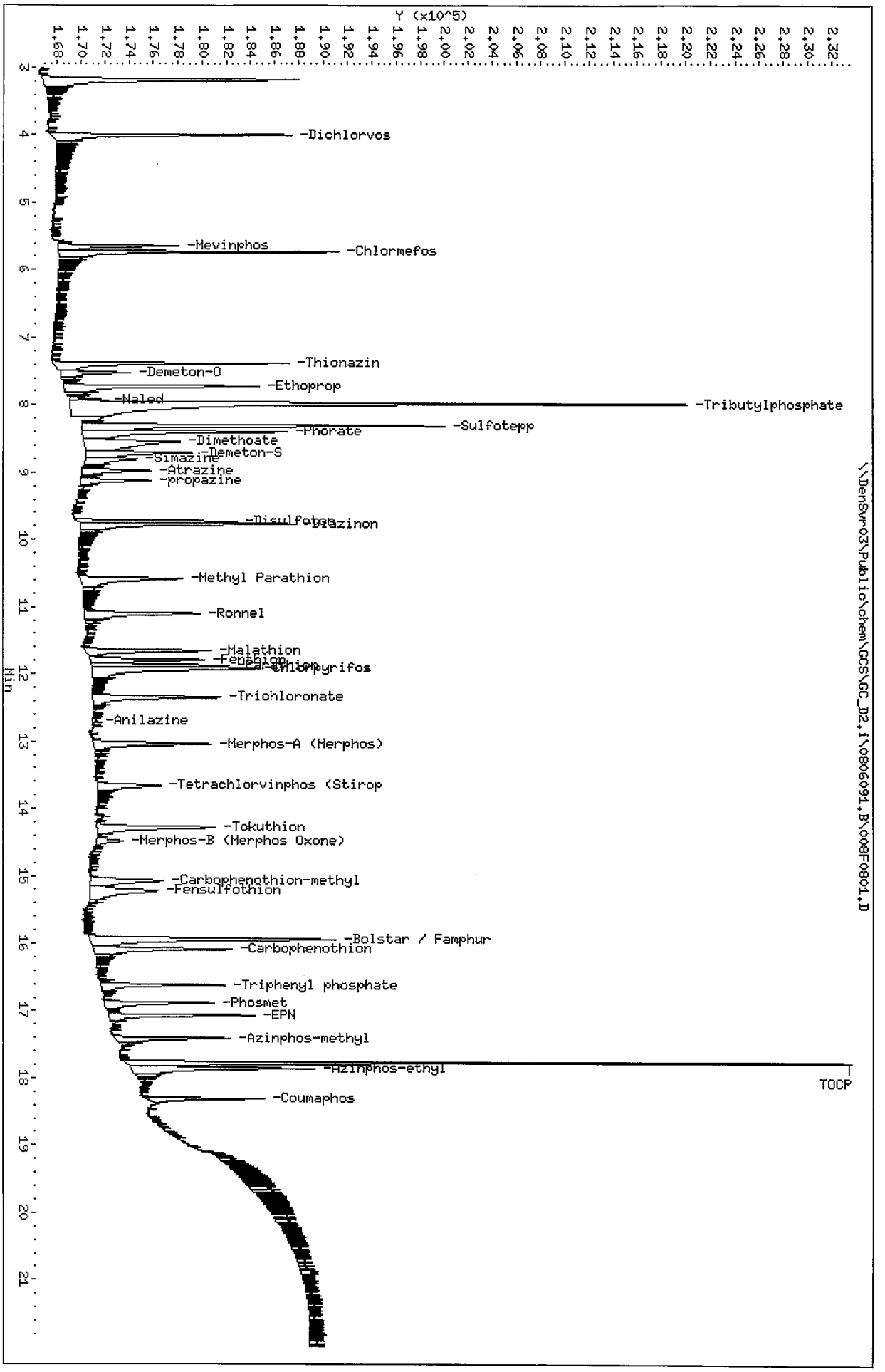
Instrument ID: GC_D2.i
Lab File ID: 008F0801.D
Lab Smp Id: OPP L2 GSV874-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L2 GSV874-0
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	186023	-2.33
39 TOCP	106323	53162	212646	110877	4.28

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.00

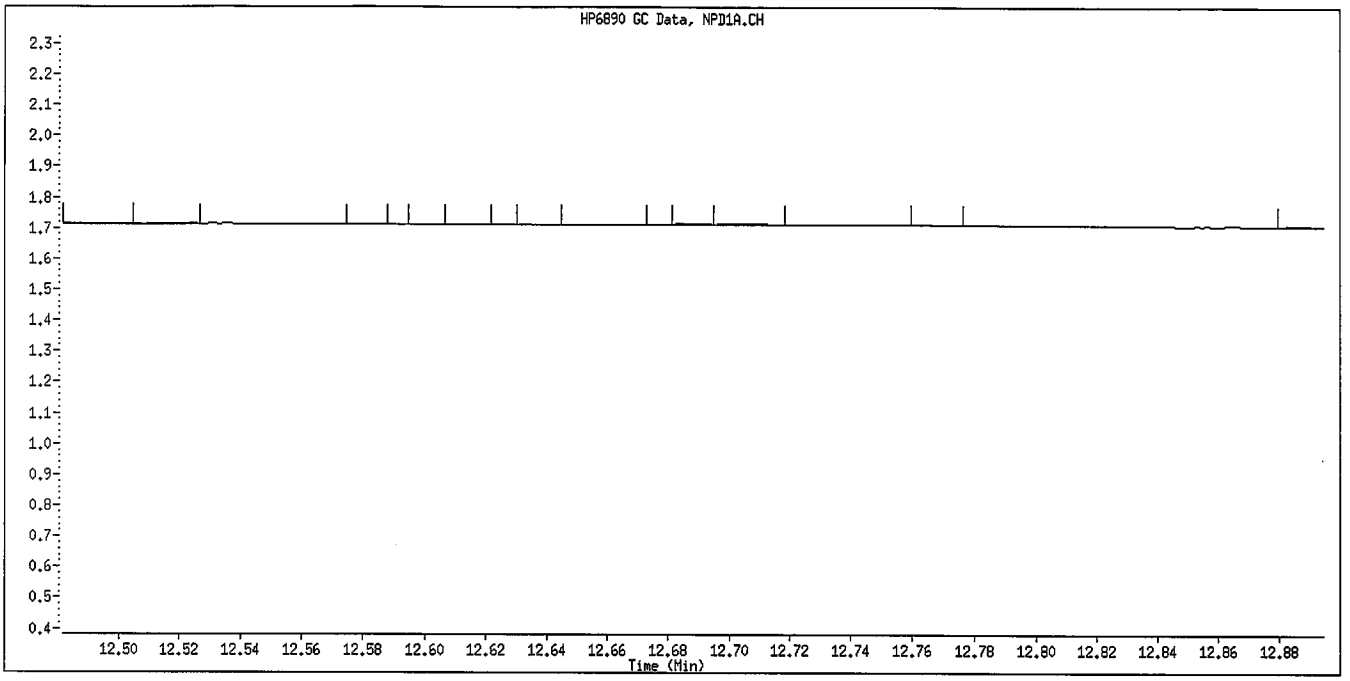
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



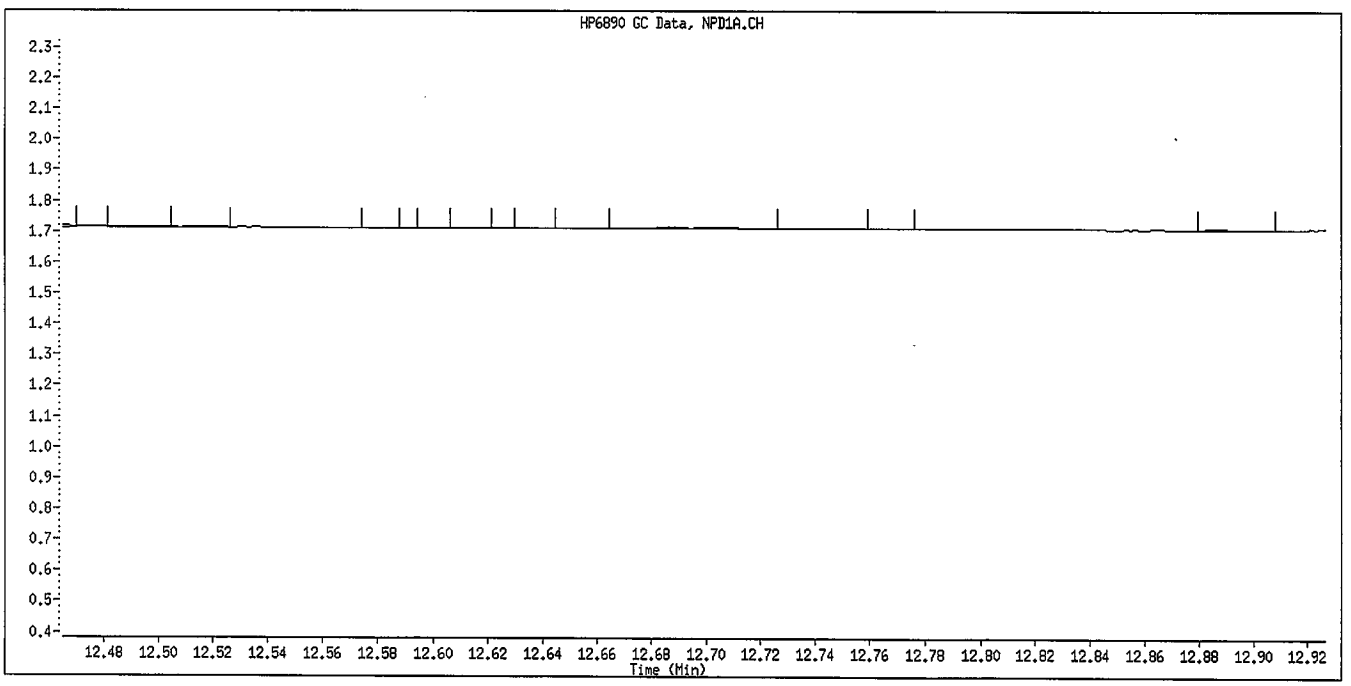
Data File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
Date : 06-AUG-2009 15:15
Client ID: OPP L2 GSV874-09
Sample Info: OPP L2 GSV874-09
Column phase: RTx-1MS

Instrument: GC_D2.i
Operator: MPK/TLW
Column diameter: 0.32

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



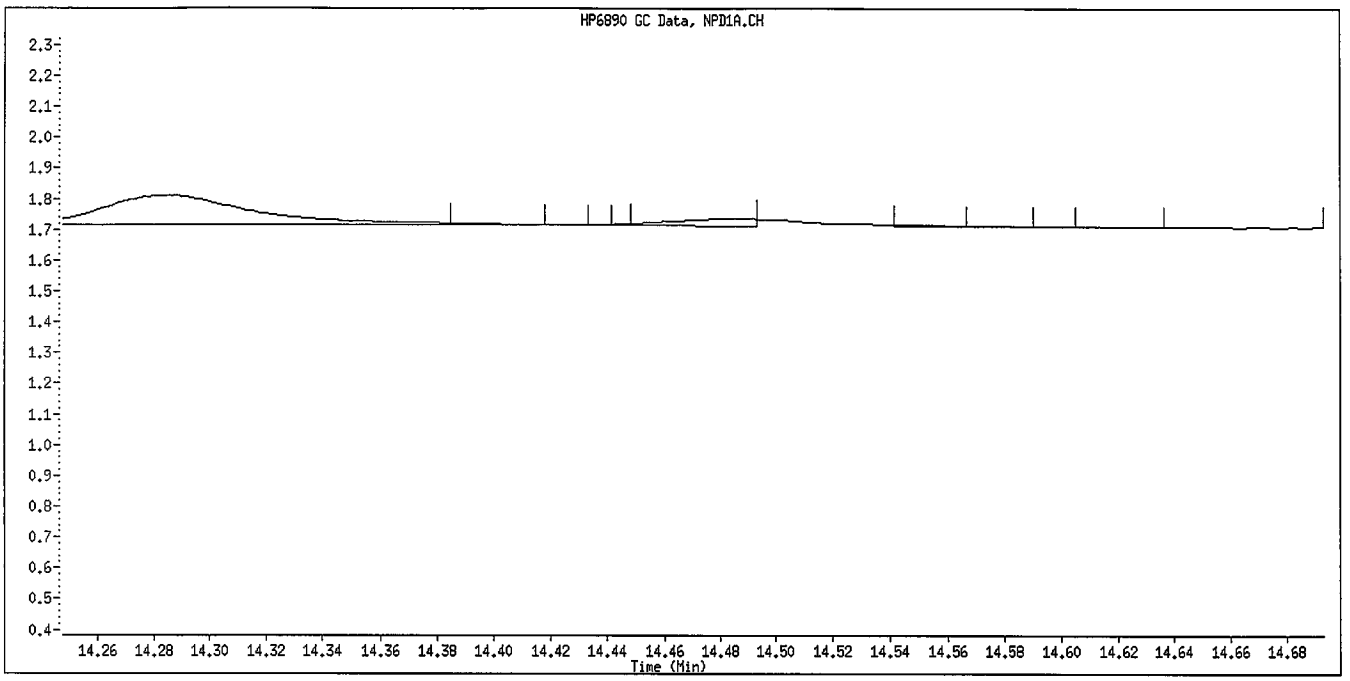
Original Integration



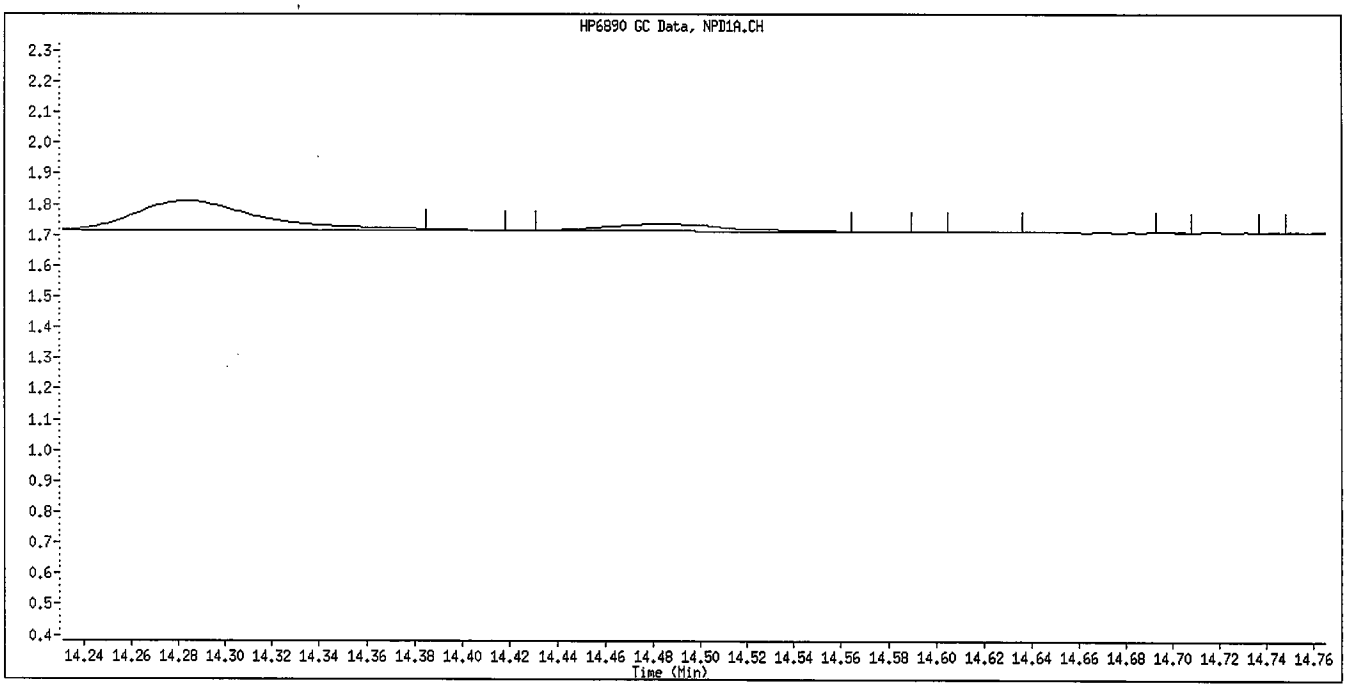
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Merphos-B (Merphos Oxone)
CAS #:
Report Date: 08/07/2009



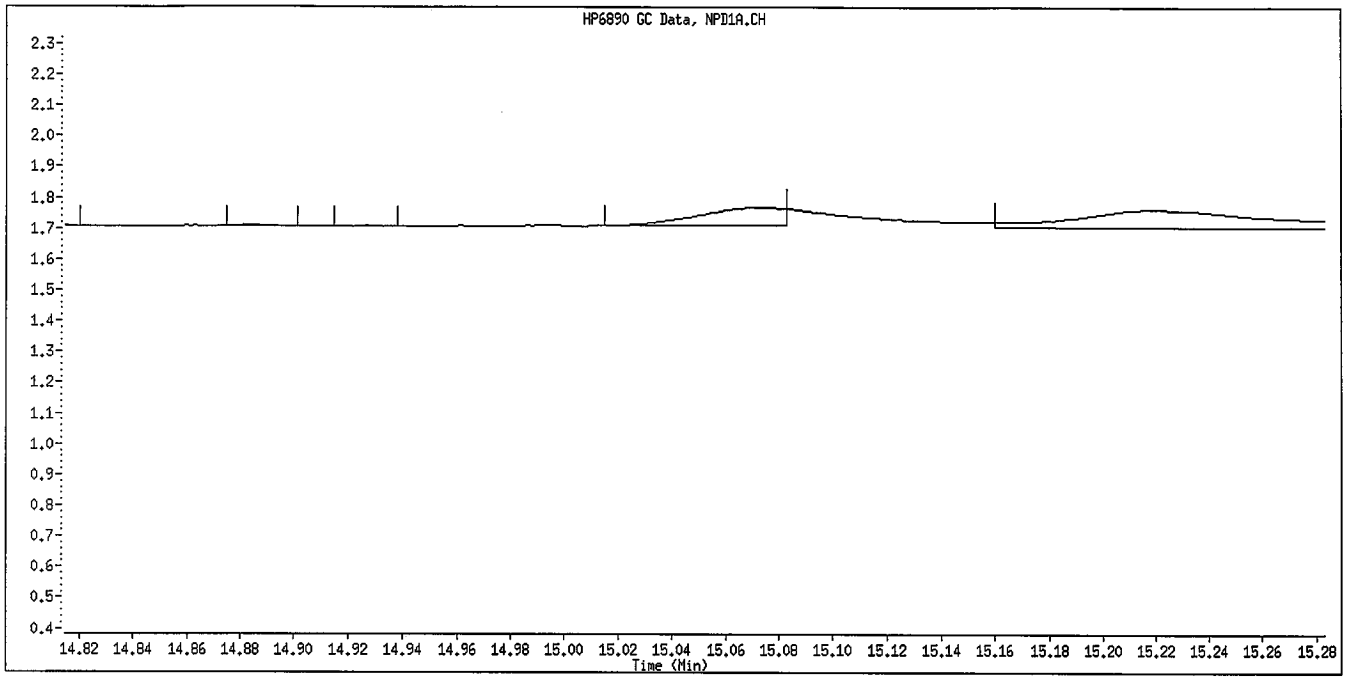
Original Integration



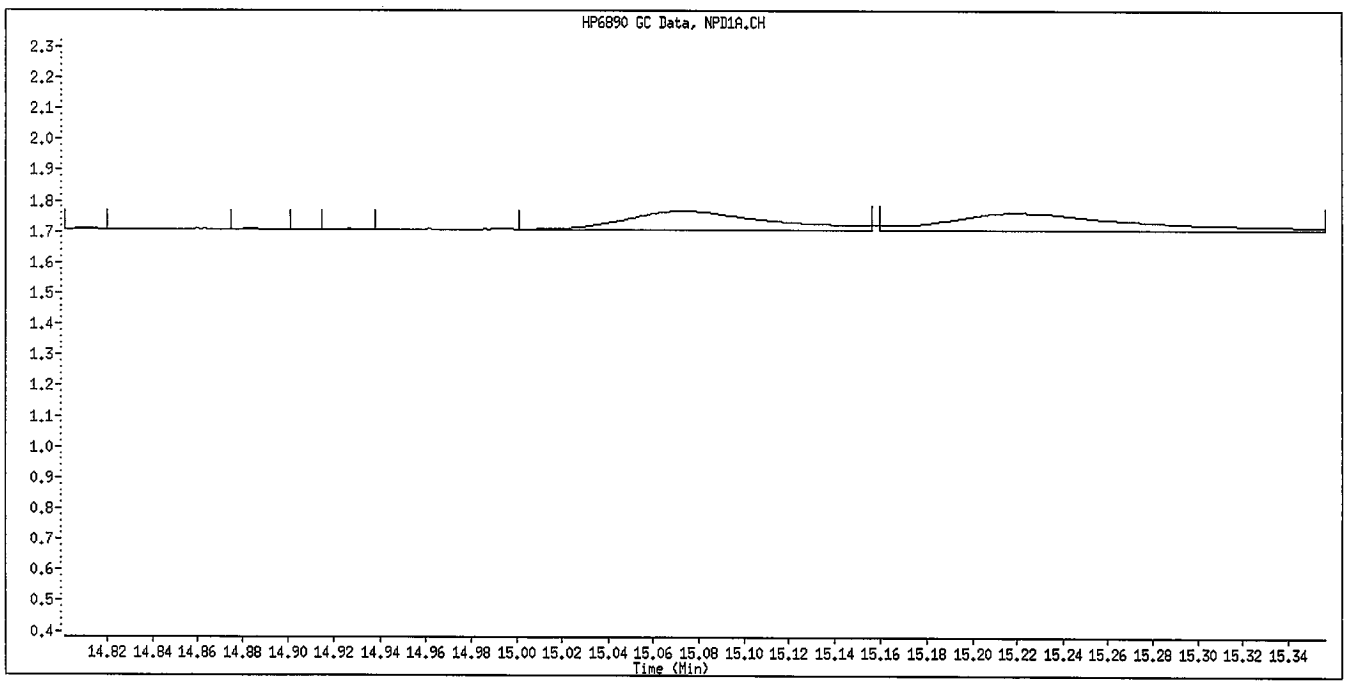
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event IF 8/7,

Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Carbophenothion-methyl
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event 14-87105

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
Lab Smp Id: OPP L1 GSV875-09 Client Smp ID: OPP L1 GSV875-09
Inj Date : 06-AUG-2009 15:42
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP L1 GSV875-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:18 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:15 Cal File: 008F0801.D
Als bottle: 9 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.181	3.182	(0.179)	27235	0.20000	0.1848
	2 Dichlorvos	4.004	4.001	(0.225)	19624	0.20000	0.1903
	3 Mevinphos	5.647	5.644	(0.318)	7954	0.20000	0.1463 (M)
$	4 Chlormefos	5.736	5.736	(0.323)	21902	0.20000	0.1754
	5 Thionazin	7.391	7.392	(0.416)	16347	0.20000	0.1800
	6 Demeton-O	7.527	7.529	(0.424)	7663	0.06500	0.06594
	7 Ethoprop	7.729	7.727	(0.435)	17439	0.20000	0.1990
	8 Naled	7.932	7.931	(0.446)	789	0.20000	0.2339
*	9 Tributylphosphate	7.986	7.984	(1.000)	181603	2.00000	
	10 Sulfotepp	8.311	8.311	(0.468)	31103	0.20000	0.1716
	11 Phorate	8.402	8.404	(0.473)	20942	0.20000	0.08883
	12 Dimethoate	8.576	8.536	(0.483)	13628	0.20000	0.1964 (M)
	13 Demeton-S	8.714	8.711	(0.490)	9874	0.13600	0.1175
	14 Simazine	8.811	8.807	(0.496)	5806	0.20000	0.1942 (M)
	15 Atrazine	8.976	8.974	(0.505)	7433	0.20000	0.2083
	16 propazine	9.122	9.121	(0.513)	6444	0.20000	0.2000
	17 Disulfoton	9.734	9.734	(0.548)	9740	0.20000	0.2016
	18 Diazinon	9.767	9.767	(0.550)	24787	0.20000	0.1837
	19 Methyl Parathion	10.592	10.584	(0.596)	10381	0.20000	0.1741
	20 Ronnel	11.104	11.102	(0.625)	11310	0.20000	0.1836
	21 Malathion	11.661	11.656	(0.656)	12017	0.20000	0.1761
	22 Fenthion	11.792	11.789	(0.664)	10574	0.20000	0.1908
	23 Parathion	11.881	11.879	(0.669)	10134	0.20000	0.1912
	24 Chlorpyrifos	11.924	11.922	(0.671)	21080	0.20000	0.1968
	25 Trichloronate	12.344	12.346	(0.695)	14112	0.20000	0.1918
	26 Anilazine	12.651	12.684	(0.712)	76	0.20000	0.3103
	27 Merphos-A (Merphos)	13.044	13.042	(0.734)	11430	0.20000	0.1726 (M)
	28 Tetrachlorvinphos (Stirophos)	13.666	13.662	(0.769)	7254	0.20000	0.2046 (M)
	29 Tokuthion	14.284	14.282	(0.804)	15121	0.20000	0.1796
	30 Merphos-B (Merphos Oxone)	14.481	14.482	(0.815)	4672	0.20000	0.1596 (M)
	31 Carbophenothion-methyl	15.076	15.069	(0.848)	10831	0.20000	0.1894
	32 Fensulfothion	15.234	15.209	(0.857)	11896	0.20000	0.1857 (M)
	33 Bolstar / Famphur	15.936	15.936	(0.897)	24720	0.40000	0.3332

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.086	16.085	(0.905)	12657	0.20000	0.1596
$	35 Triphenyl phosphate	16.619	16.619	(0.935)	8112	0.20000	0.07906
	36 Phosmet	16.882	16.882	(0.950)	8837	0.20000	0.2016 (M)
	37 EPN	17.067	17.067	(0.960)	11005	0.20000	0.1933
	38 Azinphos-methyl	17.411	17.407	(0.980)	10147	0.20000	0.2086
*	39 TOCP	17.771	17.771	(1.000)	112048	2.00000	
	40 Azinphos-ethyl	17.859	17.857	(1.005)	26756	0.20000	0.1916
	41 Coumaphos	18.307	18.306	(1.030)	8196	0.20000	0.2072
S	42 Merphos				16102	0.20000	0.1808
M	43 Total Demeton				17537	0.20000	0.1834

QC Flag Legend

M - Compound response manually integrated.

TestAmerica

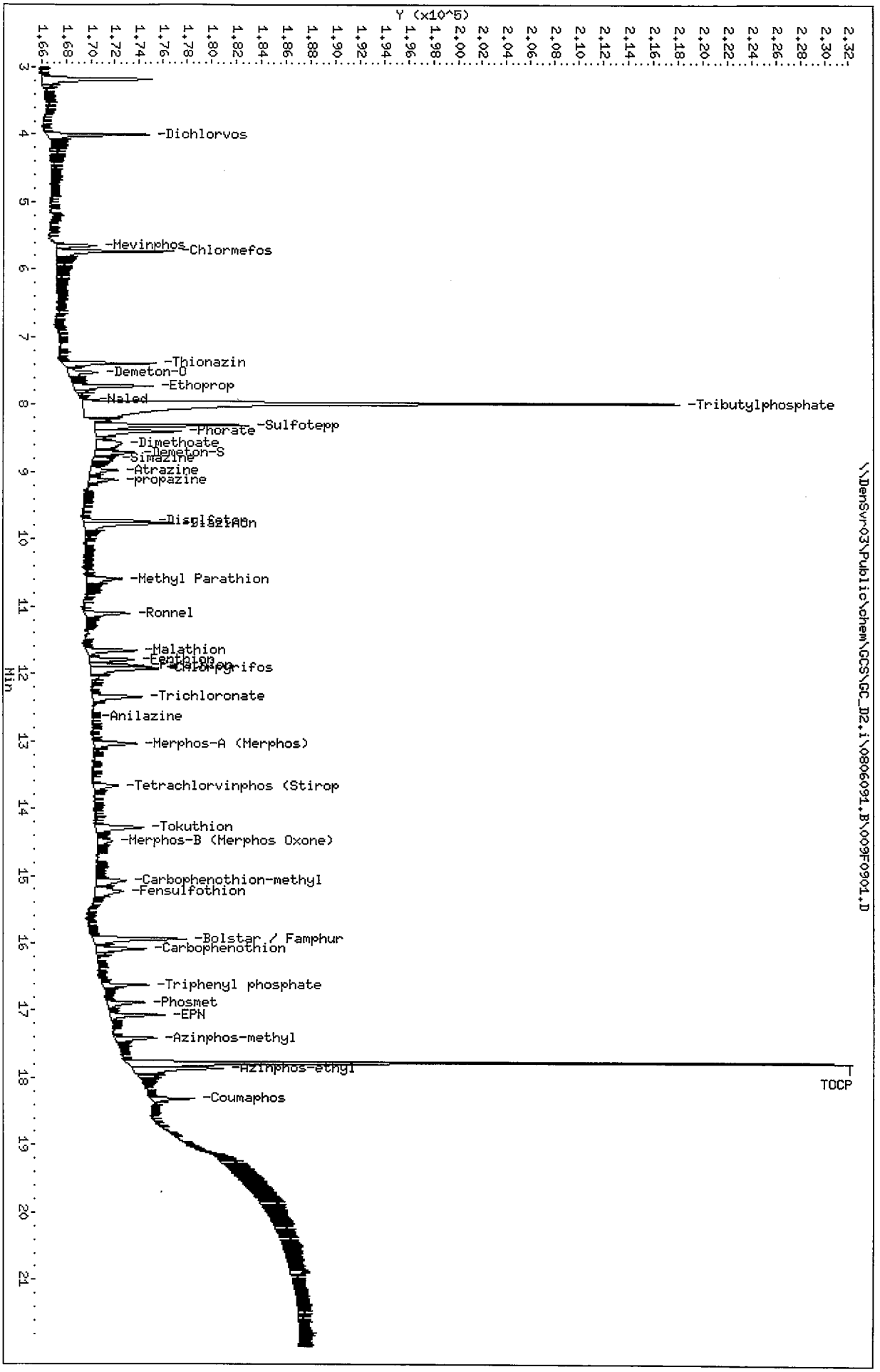
INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: GC_D2.i
Lab File ID: 009F0901.D
Lab Smp Id: OPP L1 GSV875-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Calibration Date: 06-AUG-2009
Calibration Time: 16:09
Client Smp ID: OPP L1 GSV875-0
Level:
Sample Type:
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	190469	95235	380938	181603	-4.65
39 TOCP	106323	53162	212646	112048	5.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.99	0.05
39 TOCP	17.77	17.27	18.27	17.77	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.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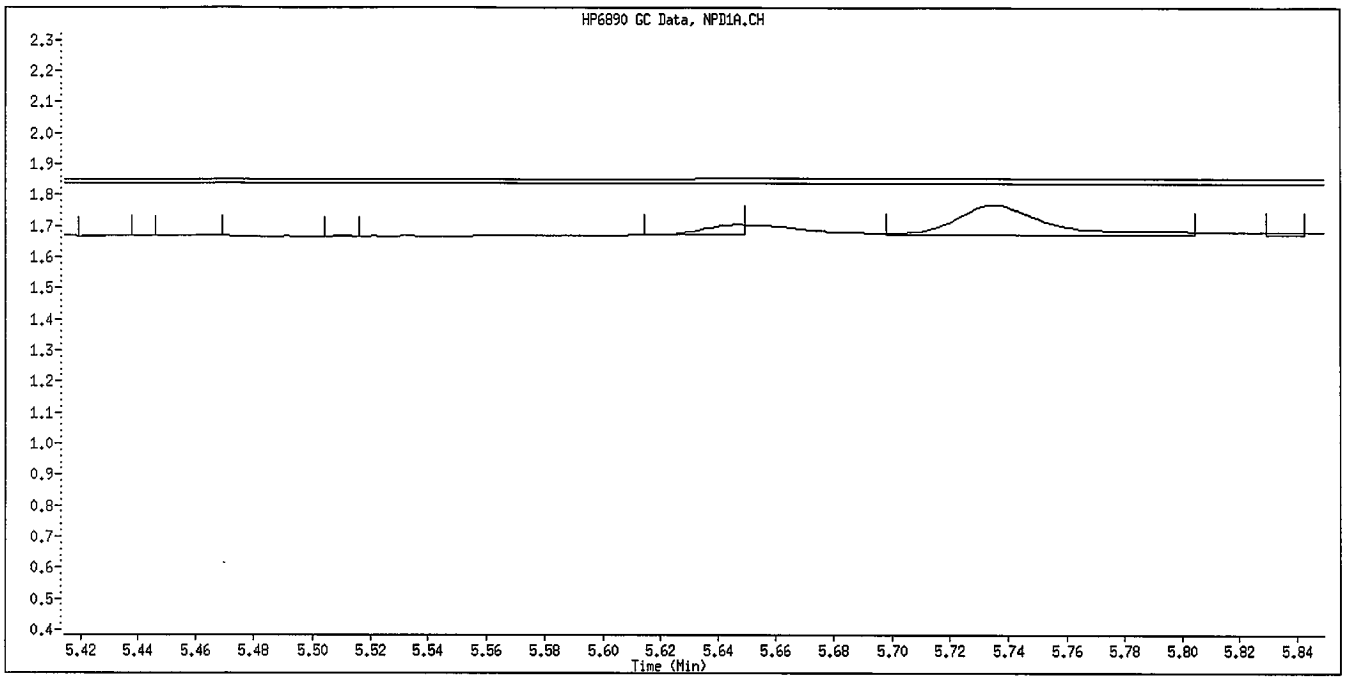
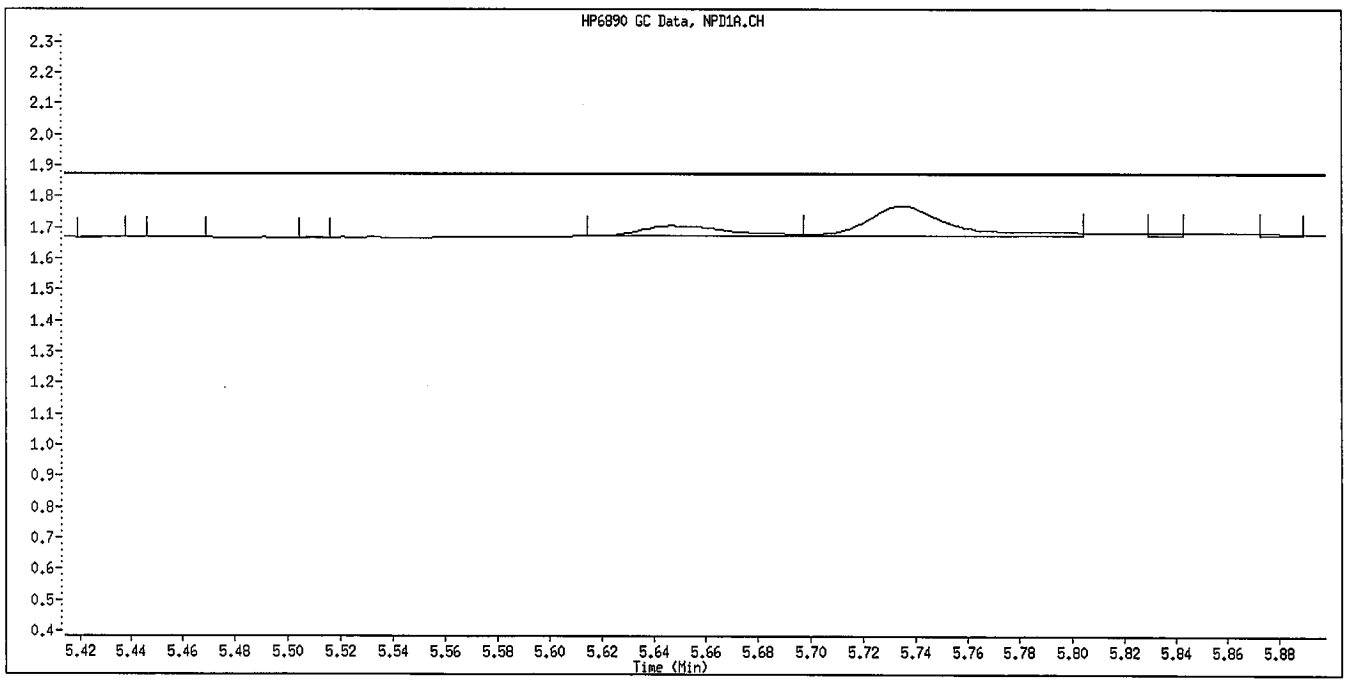
Date : 06-AUG-2009 15:42
Client ID: OPP L1 GSV875-09
Sample Info: OPP L1 GSV875-09
Column phase: RTx-1MS
Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0.32
\\DenSvr03\Public\chem\GCS\GC_D2,i\0806091,B\009F0901.D
Y (x10^5)
Min
-Dichlorvos
-Mevinphos
-Chlormefos
-Thionazin
-Demeton-O
-Ethoprop
-Naled
-Tributylphosphate
-Phorate
-Sulfotepp
-Dimethoate
-Demeton-S
-Simazine
-Atrazine
-propazine
-Methyl Parathion
-Ronnel
-Malathion
-Trichloronate
-Anilazine
-Merphos-A (Merphos)
-Tetrachlorvinphos (Stirop
-Tokuthion
-Merphos-B (Merphos Oxone)
-Carbophenothion-methyl
-Fensulfothion
-Bolstar / Famphur
-Carbophenothion
-Triphenyl phosphate
-Phosmet
-EPN
-Azinphos-methyl
-Azinphos-ethyl
-Coumaphos
TOCP

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Mevinphos
CAS #:
Report Date: 08/07/2009



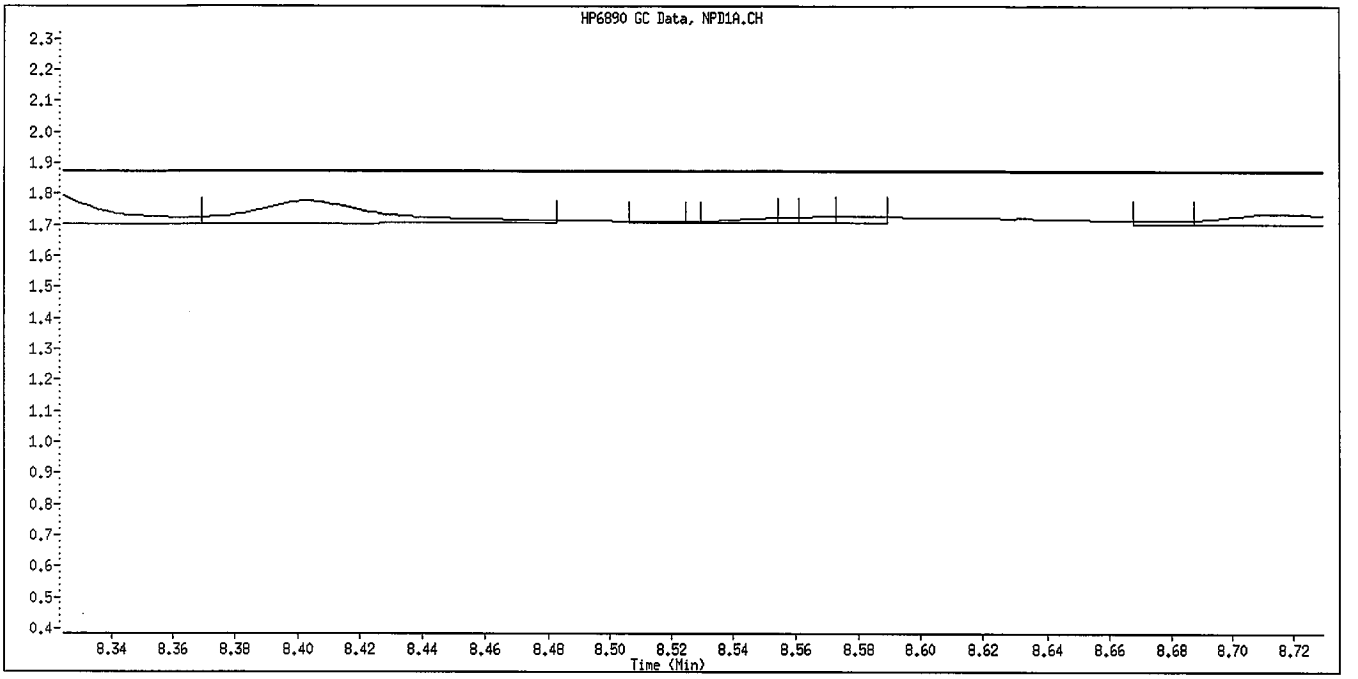
Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Dimethoate
CAS #:
Report Date: 08/07/2009



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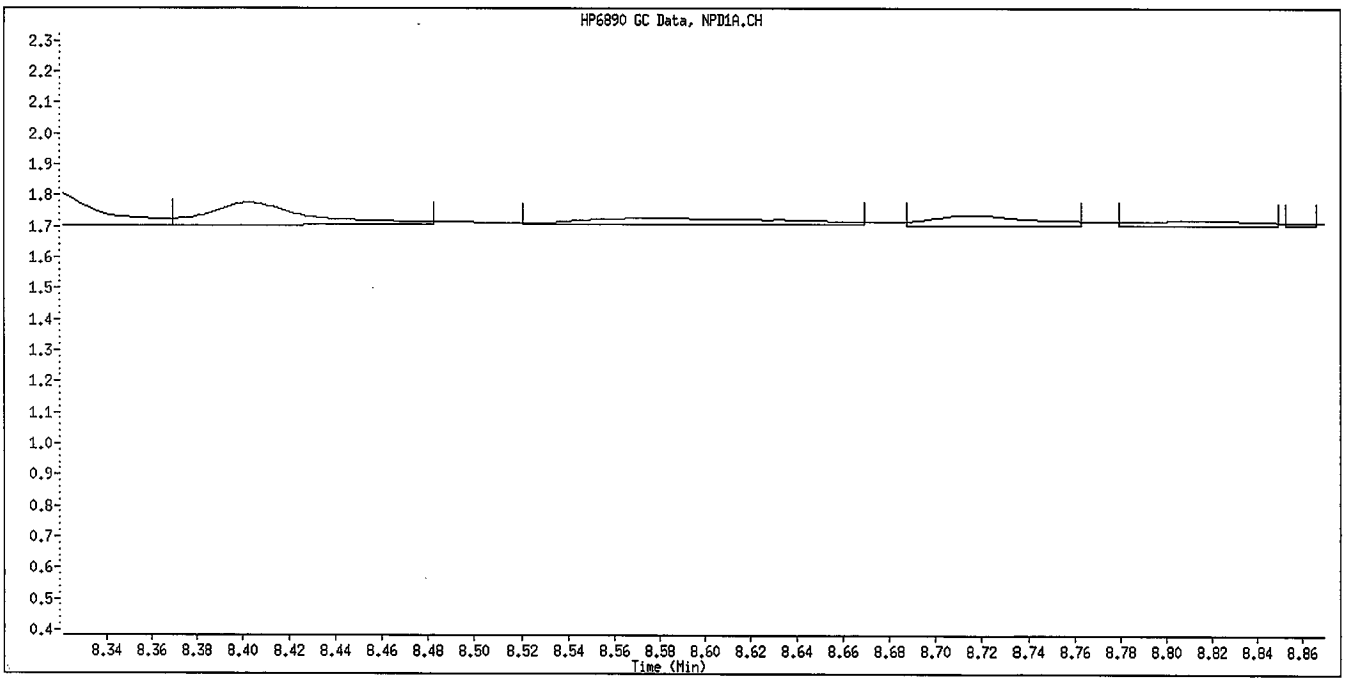
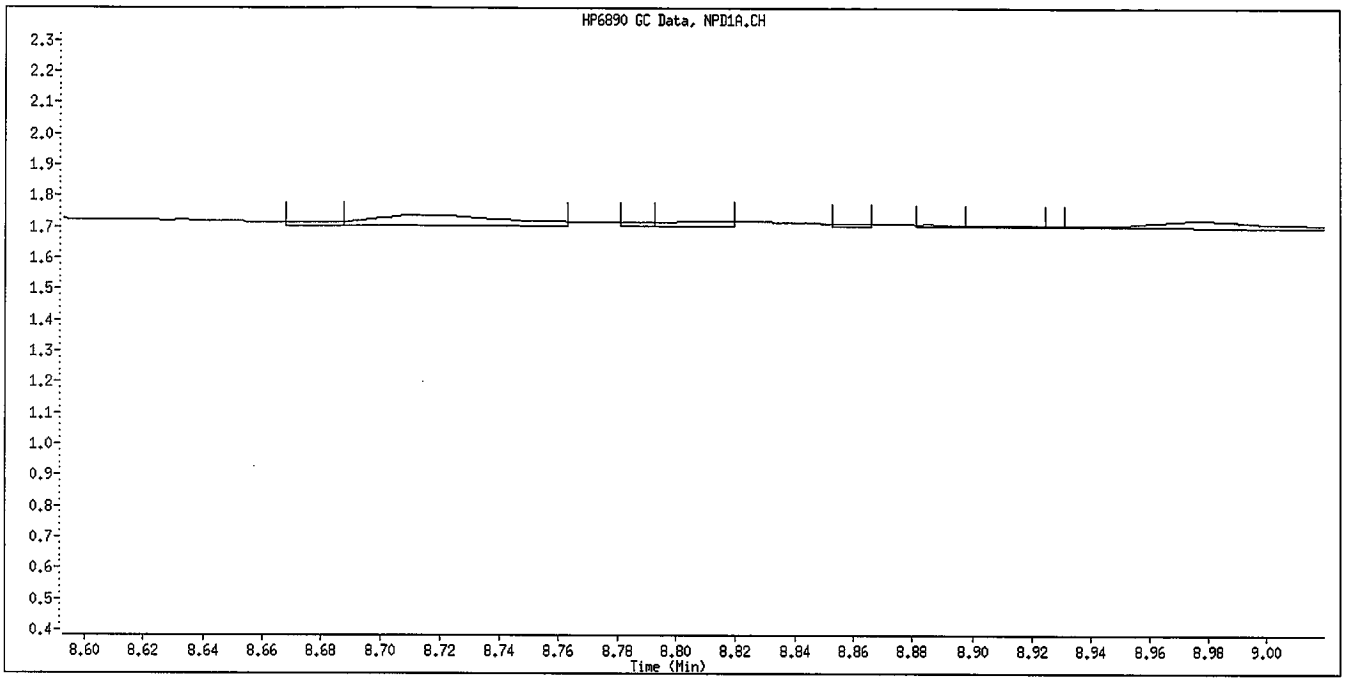


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Simazine
CAS #:
Report Date: 08/07/2009



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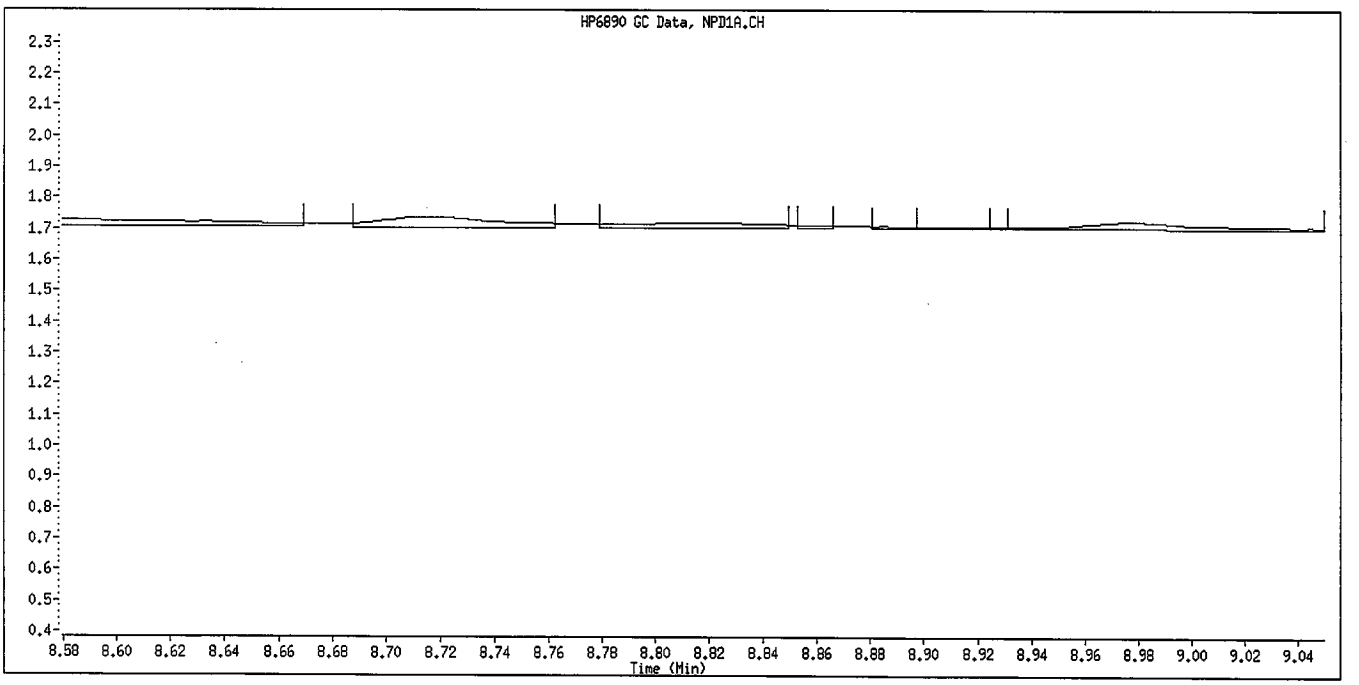
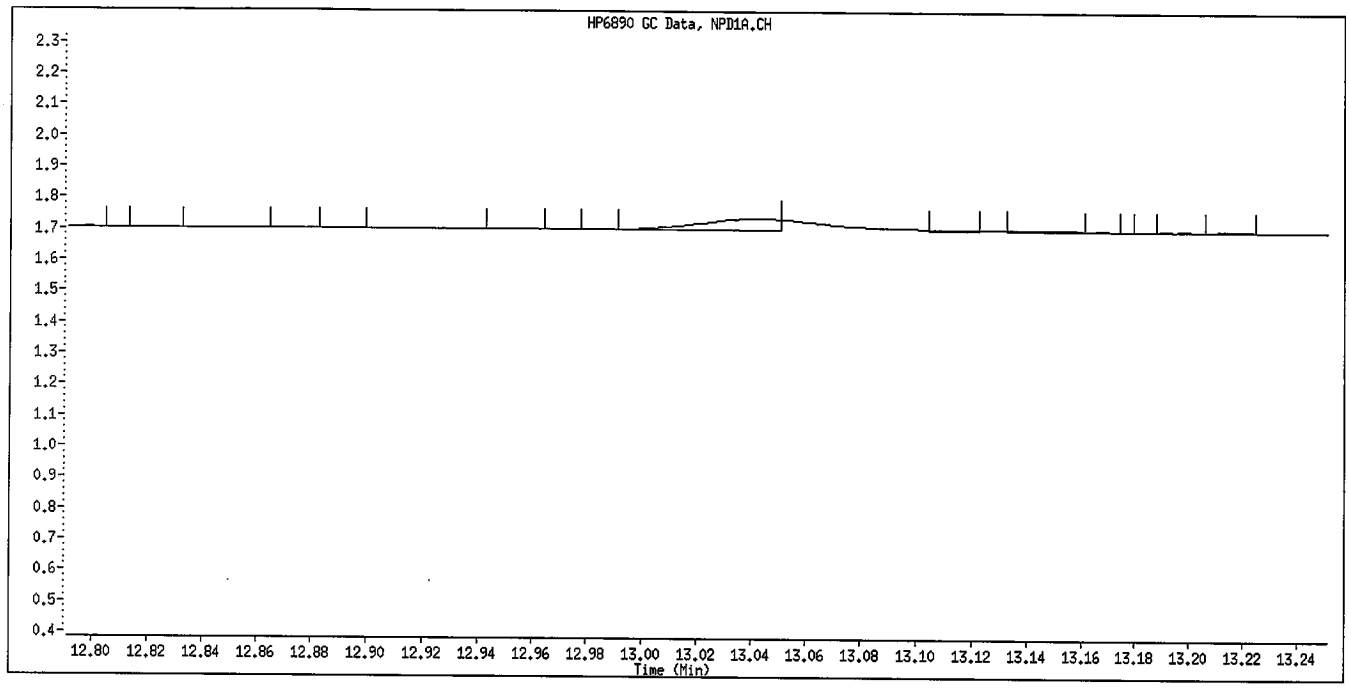


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Merphos-A (Merphos)
CAS #:
Report Date: 08/07/2009



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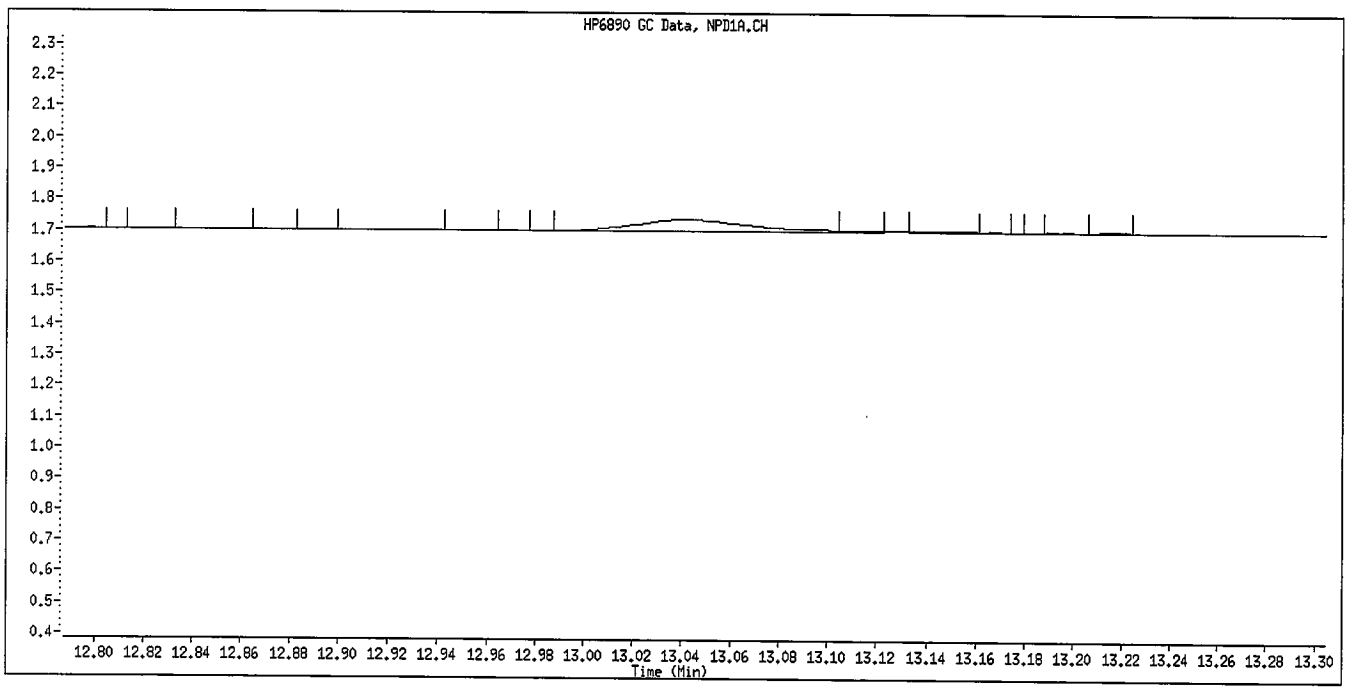
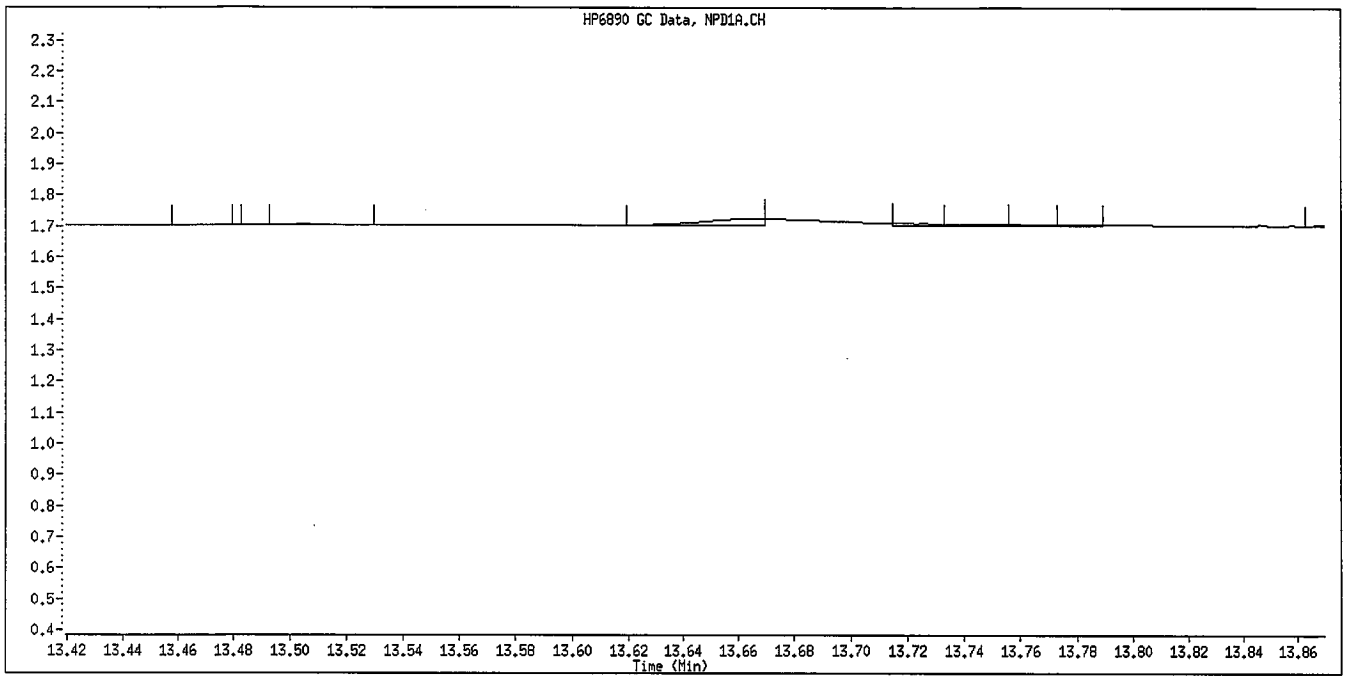


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

8/7/09

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Tetrachlorvinphos (Stirophos)
CAS #:
Report Date: 08/07/2009



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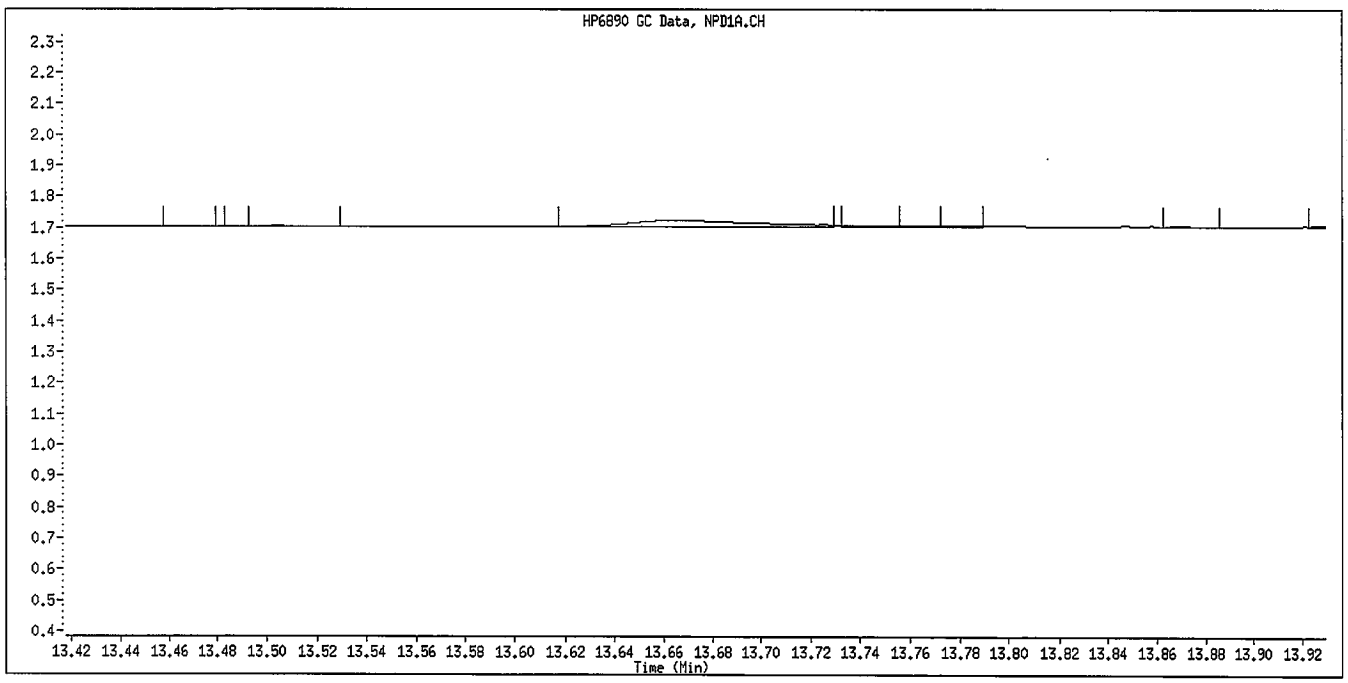
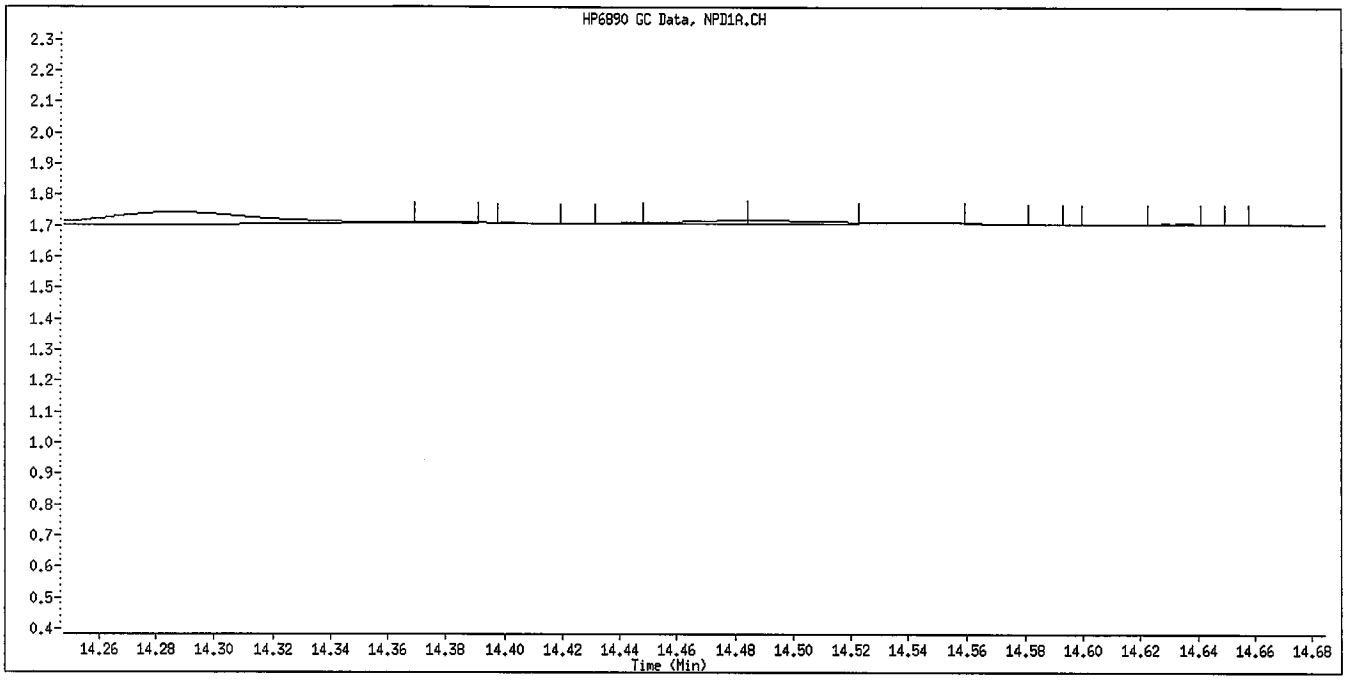


Manual Integration

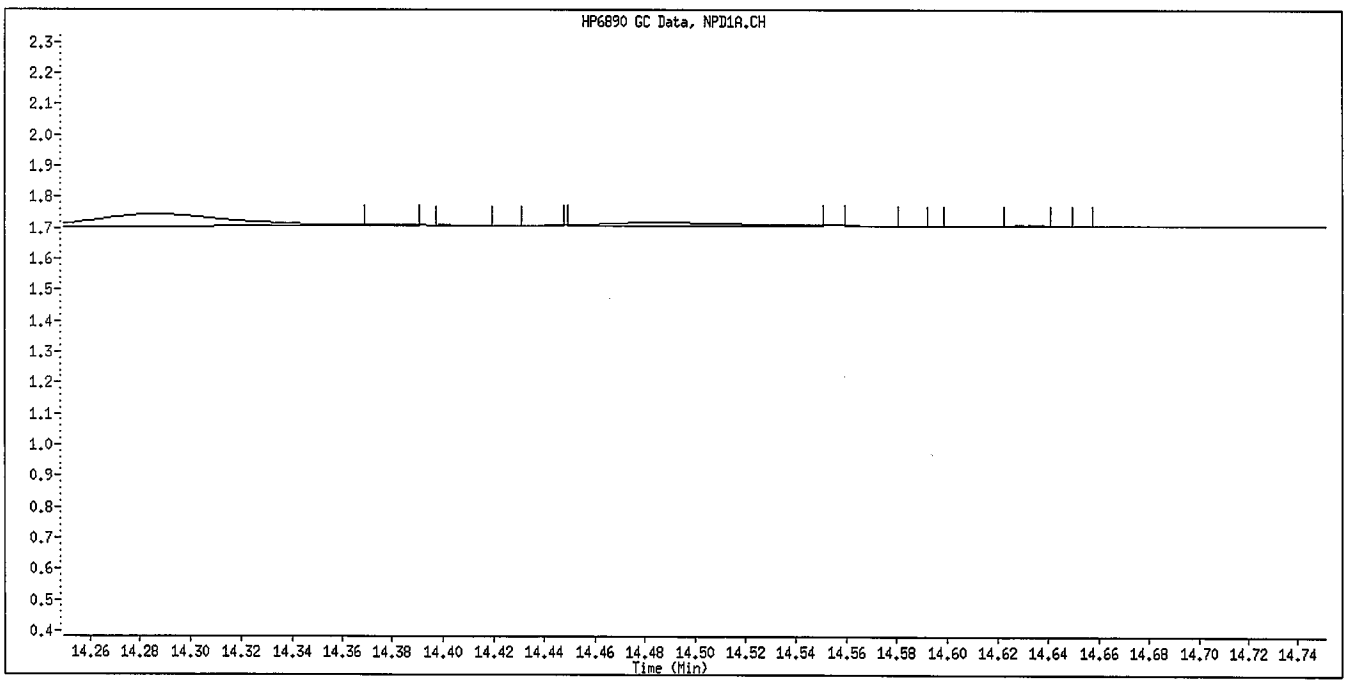
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

IR 8/7/09

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Merphos-B (Merphos Oxone)
CAS #:
Report Date: 08/07/2009



Original Integration

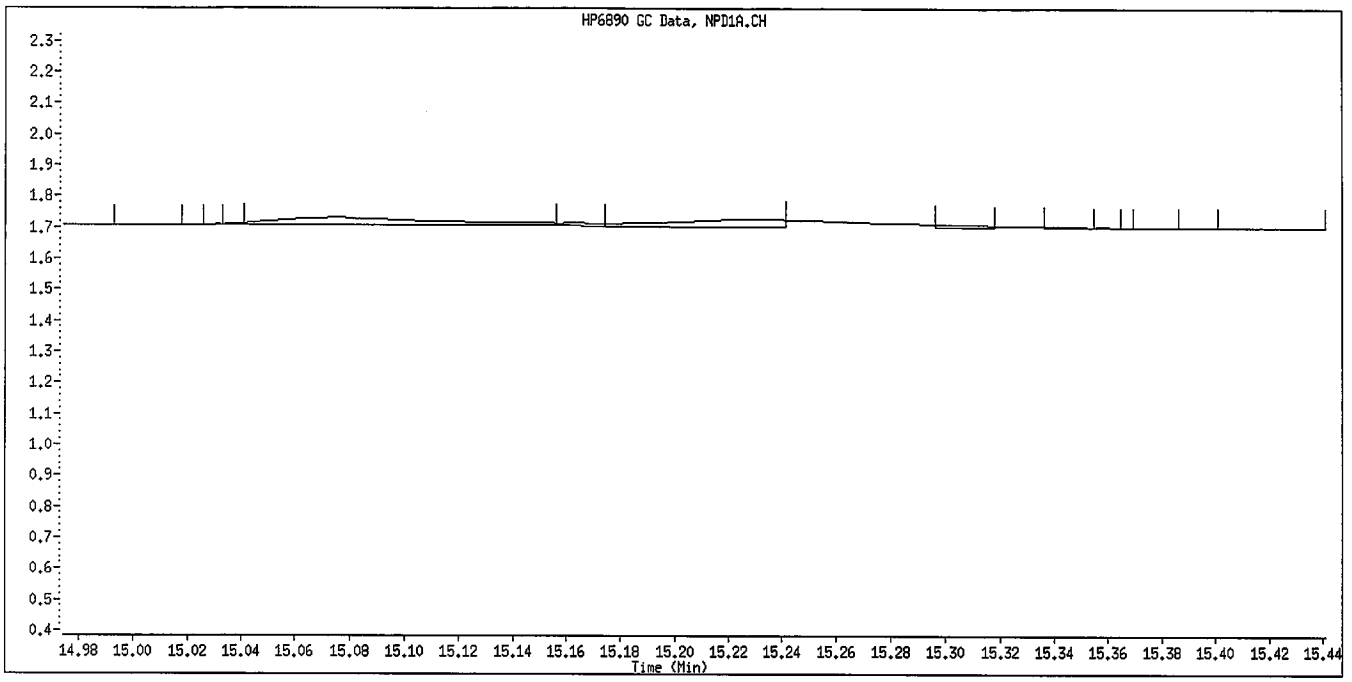


Manual Integration

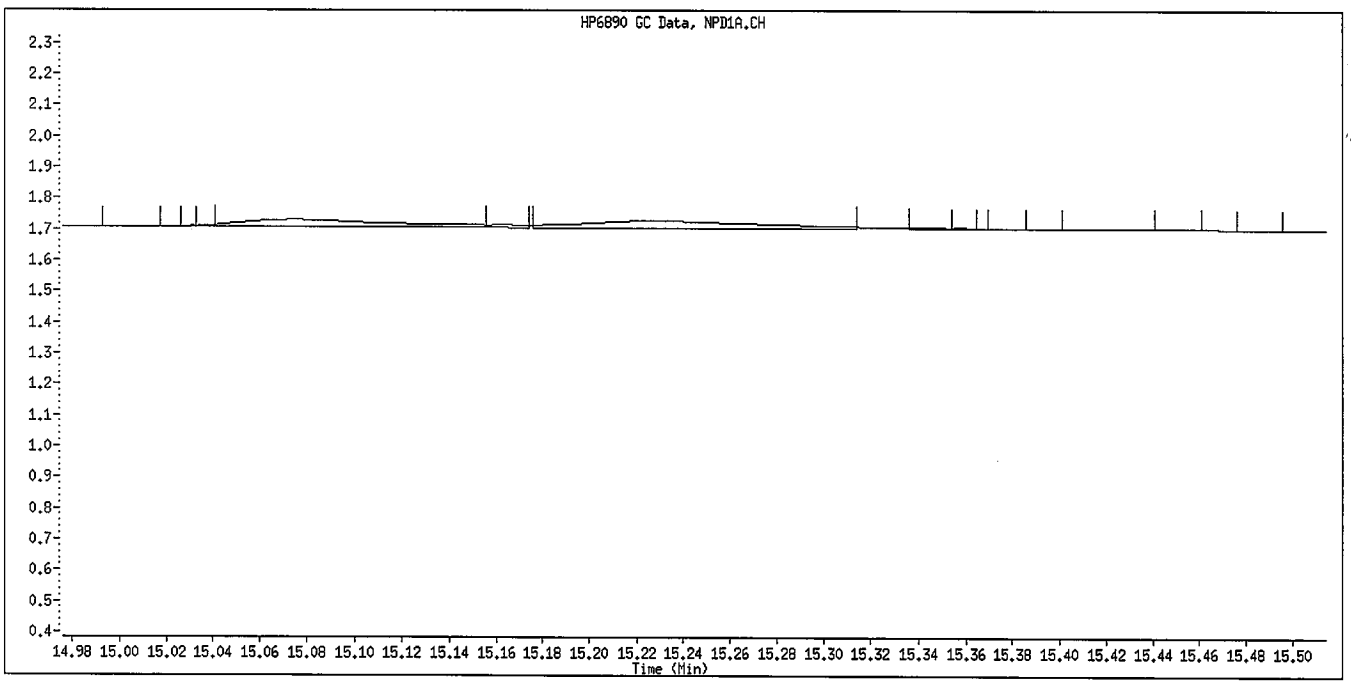
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CK 8/7/09

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Fensulfothion
CAS #:
Report Date: 08/07/2009



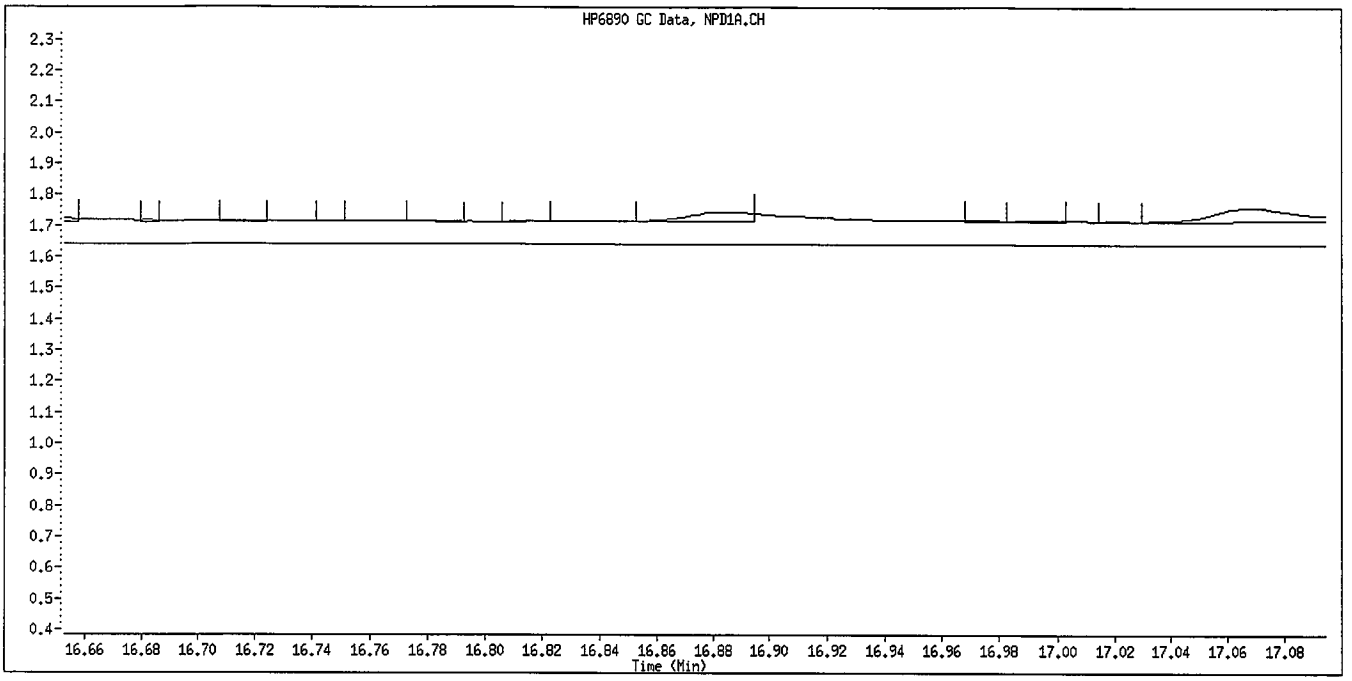
Original Integration



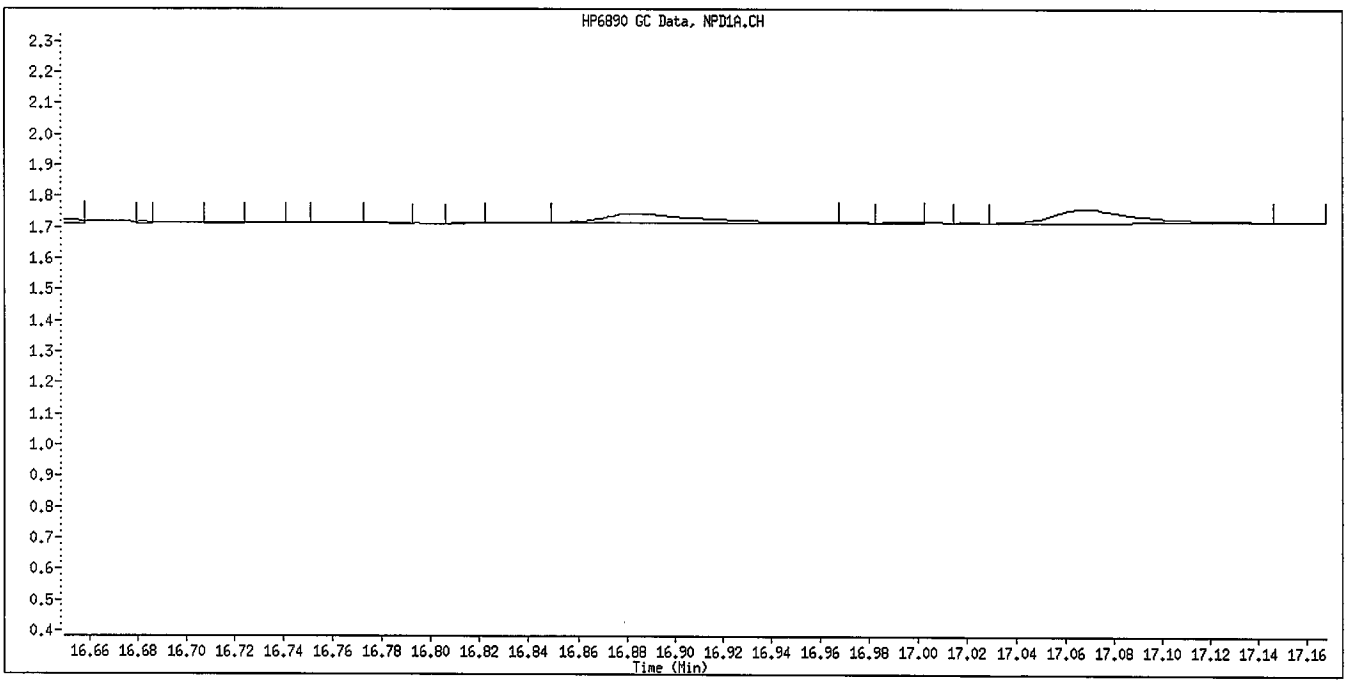
Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Phosmet
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

HF 477105

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\010F1001.D
Lab Smp Id: OPP SS GSV895-09 Client Smp ID: OPP SS GSV895-09
Inj Date : 06-AUG-2009 16:09
Operator : MPK/TLW Inst ID: GC_D2.i
Smp Info : OPP SS GSV895-09
Misc Info : IS - GSV0633-09
Comment :
Method : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Meth Date : 07-Aug-2009 08:29 GC_D2.i Quant Type: ISTD
Cal Date : 06-AUG-2009 15:42 Cal File: 009F0901.D
Als bottle: 10 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: 8141A.sub
Target Version: 4.14
Processing Host: DENPC075

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	1 o,o,o-TEPT	3.182	3.182	(0.179)	332209	2.00000	2.272
	2 Dichlorvos	4.000	4.001	(0.225)	213176	2.00000	1.950
	3 Mevinphos	5.643	5.644	(0.318)	90190	2.00000	1.749
$	4 Chlormefos	5.735	5.736	(0.323)	203764	2.00000	1.720
	5 Thionazin	7.390	7.392	(0.416)	227396	2.00000	2.273
	6 Demeton-O	7.527	7.529	(0.424)	210188	0.65000	1.812
	7 Ethoprop	7.727	7.727	(0.435)	221279	2.00000	2.252
	8 Naled	7.930	7.931	(0.446)	40598	2.00000	1.980
*	9 Tributylphosphate	7.982	7.984	(1.000)	190469	2.00000	
	10 Sulfotepp	8.312	8.311	(0.468)	264232	2.00000	1.960
	11 Phorate	8.403	8.404	(0.473)	171500	2.00000	1.681
	12 Dimethoate	8.537	8.536	(0.480)	257402	2.00000	2.188
	13 Demeton-S	8.705	8.711	(0.490)	29610	1.36000	0.3317(M)
	14 Simazine	8.805	8.807	(0.496)	94587	2.00000	2.165
	15 Atrazine	8.972	8.974	(0.505)	89709	2.00000	2.048
	16 propazine	9.117	9.121	(0.513)	78275	2.00000	2.027
	17 Disulfoton	9.733	9.734	(0.548)	115531	2.00000	2.068
	18 Diazinon	9.767	9.767	(0.550)	225384	2.00000	1.980
	19 Methyl Parathion	10.582	10.584	(0.596)	148077	2.00000	2.041
	20 Ronnel	11.100	11.102	(0.625)	145446	2.00000	2.112
	21 Malathion	11.653	11.656	(0.656)	122816	2.00000	1.963
	22 Fenthion	11.788	11.789	(0.663)	129080	2.00000	1.979
	23 Parathion	11.875	11.879	(0.668)	145444	2.00000	2.156
	24 Chlorpyrifos	11.922	11.922	(0.671)	208833	2.00000	2.055
	25 Trichloronate	12.342	12.346	(0.695)	152187	2.00000	1.919
	26 Anilazine	12.673	12.684	(0.713)	2843	2.00000	1.070(M)
	27 Merphos-A (Merphos)	13.040	13.042	(0.734)	17894	2.00000	0.2808(M)
	28 Tetrachlorvinphos (Stirophos)	13.658	13.662	(0.769)	88789	2.00000	1.897
	29 Tokuthion	14.278	14.282	(0.804)	152640	2.00000	2.042
	30 Merphos-B (Merphos Oxone)	14.480	14.482	(0.815)	146121	2.00000	7.548(A)
	31 Carbophenothion-methyl	15.070	15.069	(0.848)	79714	2.00000	1.363
	32 Fensulfothion	15.207	15.209	(0.856)	146977	2.00000	1.940
	33 Bolstar / Famphur	15.933	15.936	(0.897)	307517	4.00000	4.432

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
	34 Carbophenothion	16.083	16.085	(0.905)	165907	2.00000	2.204
$	35 Triphenyl phosphate	16.615	16.619	(0.935)	102318	2.00000	1.892
	36 Phosmet	16.878	16.882	(0.950)	147187	2.00000	2.336
	37 EPN	17.063	17.067	(0.960)	153856	2.00000	2.290
	38 Azinphos-methyl	17.405	17.407	(0.980)	119309	2.00000	1.919
*	39 TOCP	17.768	17.771	(1.000)	106323	2.00000	
	40 Azinphos-ethyl	17.855	17.857	(1.005)	151868	2.00000	2.111
	41 Coumaphos	18.303	18.306	(1.030)	111982	2.00000	2.100
S	42 Merphos				164015	2.00000	1.933
M	43 Total Demeton				239798	2.00000	2.143

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
M - Compound response manually integrated.

TestAmerica

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

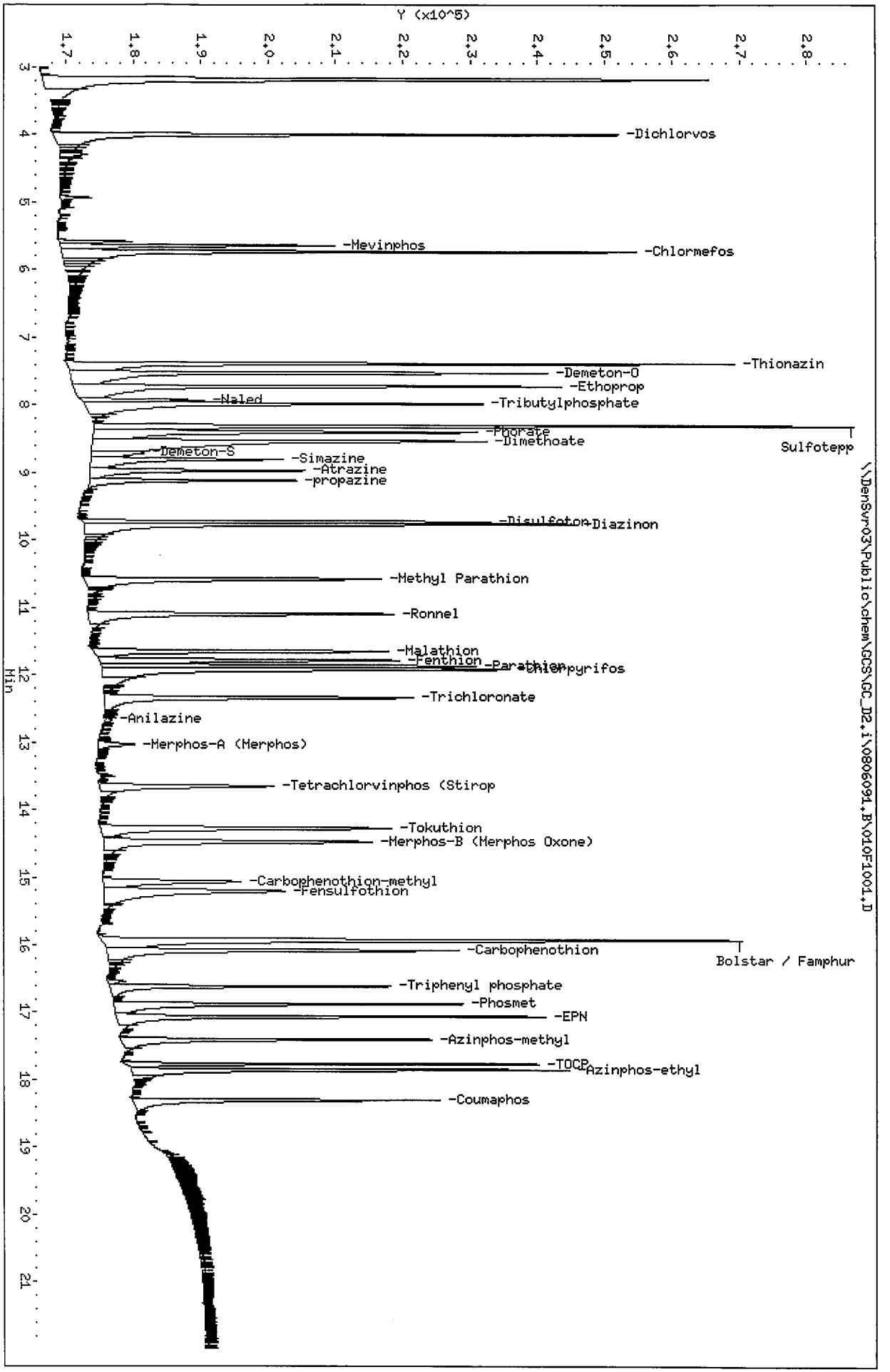
Instrument ID: GC_D2.i
Lab File ID: 010F1001.D
Lab Smp Id: OPP SS GSV895-09
Analysis Type: SV
Quant Type: ISTD
Operator: MPK/TLW
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
Misc Info: IS - GSV0633-09

Calibration Date: 07-AUG-2009
Calibration Time: 04:28
Client Smp ID: OPP SS GSV895-0
Level:
Sample Type:

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	321331	160666	642662	190469	-40.72
39 TOCP	171665	85833	343330	106323	-38.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.05
39 TOCP	17.77	17.27	18.27	17.77	0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



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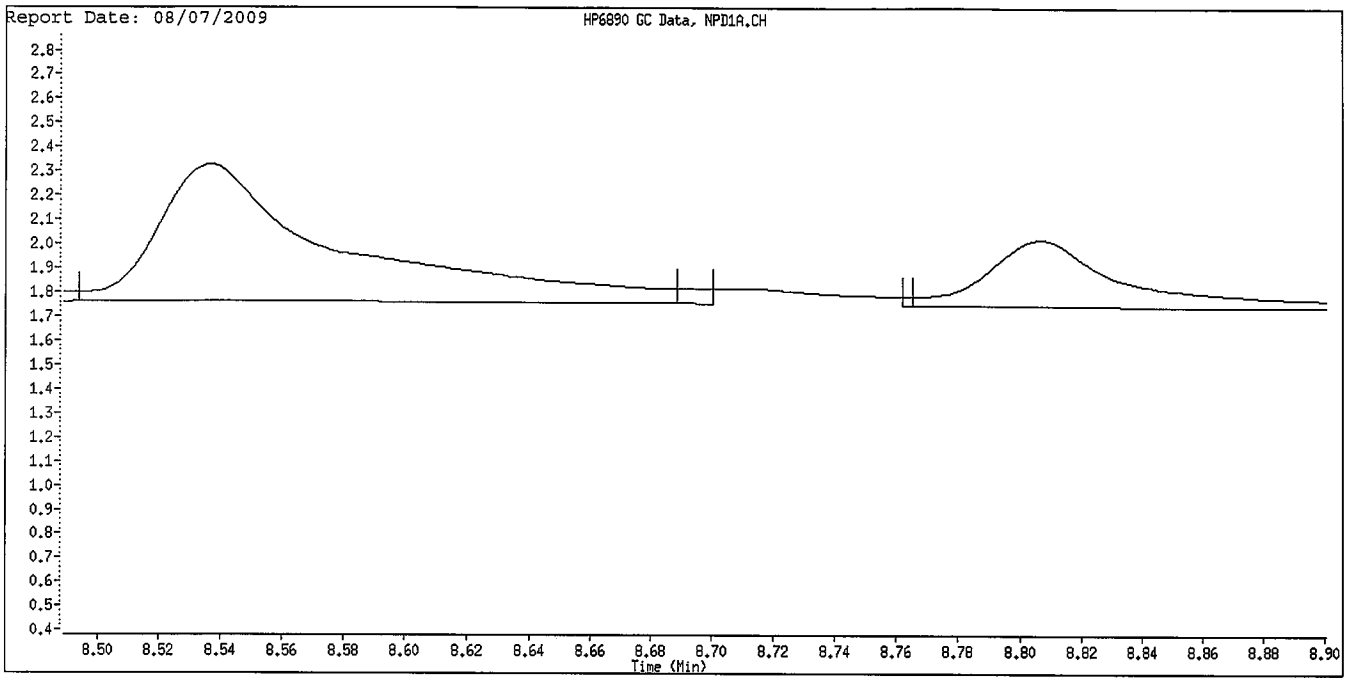
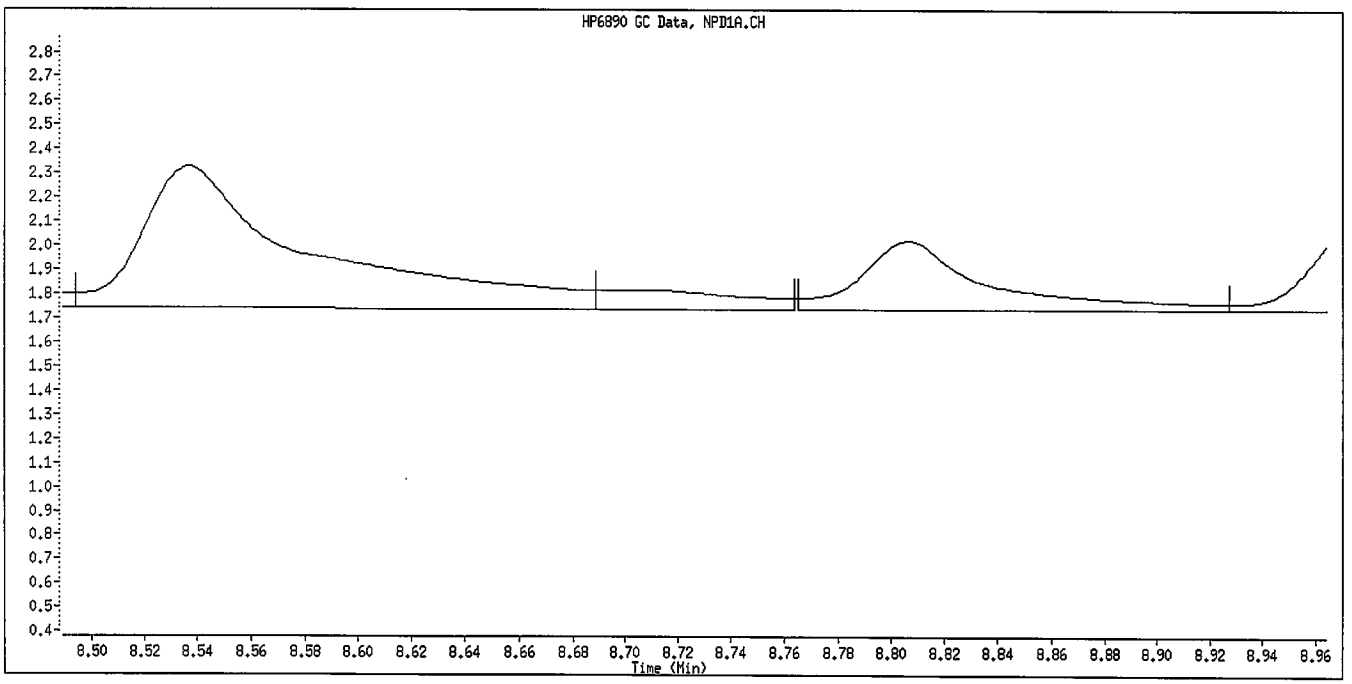
Date : 06-AUG-2009 16:09
Client ID: OPP SS GSV895-09
Sample Info: OPP SS GSV895-09
Column phase: RTx-1MS

Instrument: GC_D2,i
Operator: MPK/TLW
Column diameter: 0,32

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Demeton-S
CAS #:



Original Integration

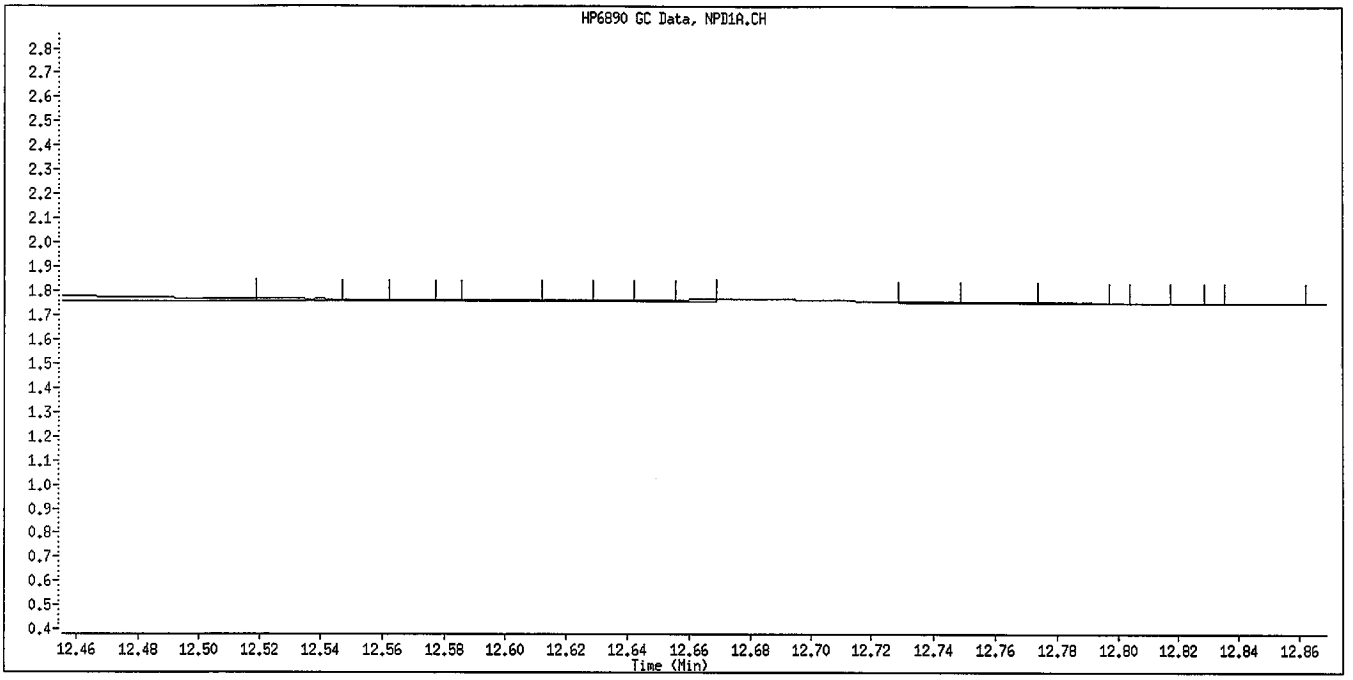


Manual Integration

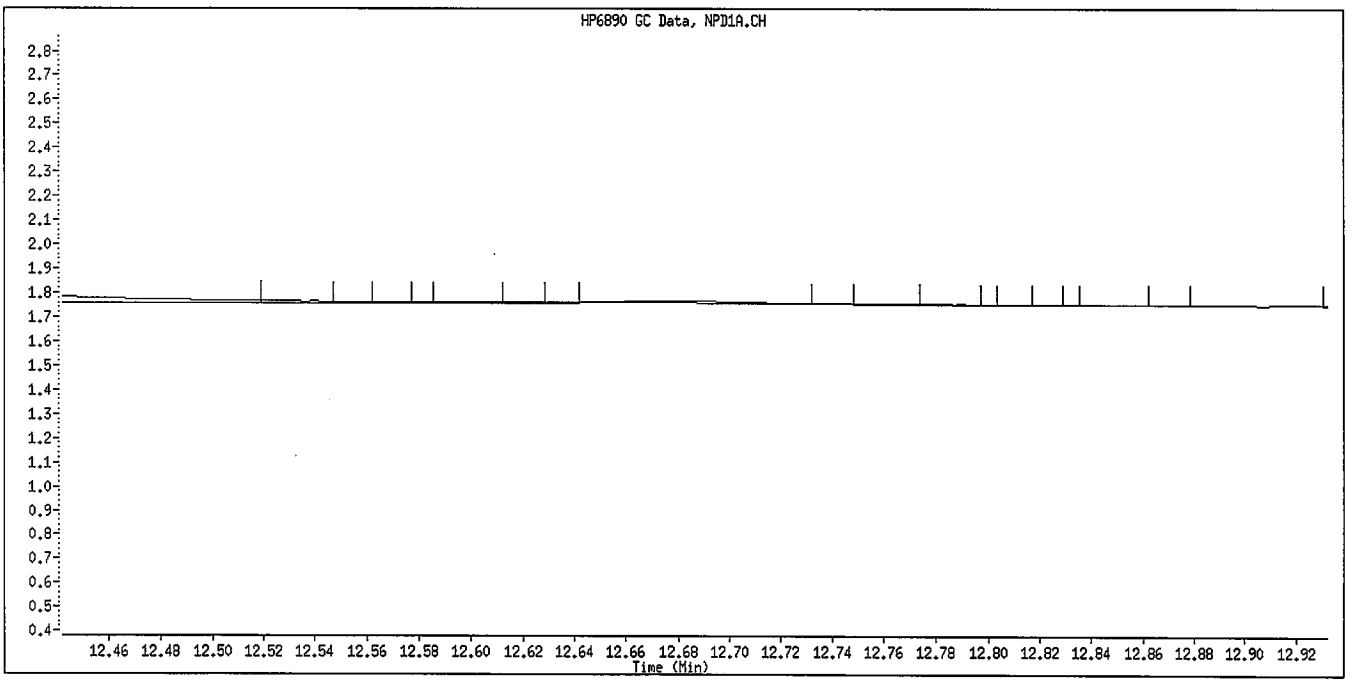
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LVL 8/17/05

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration

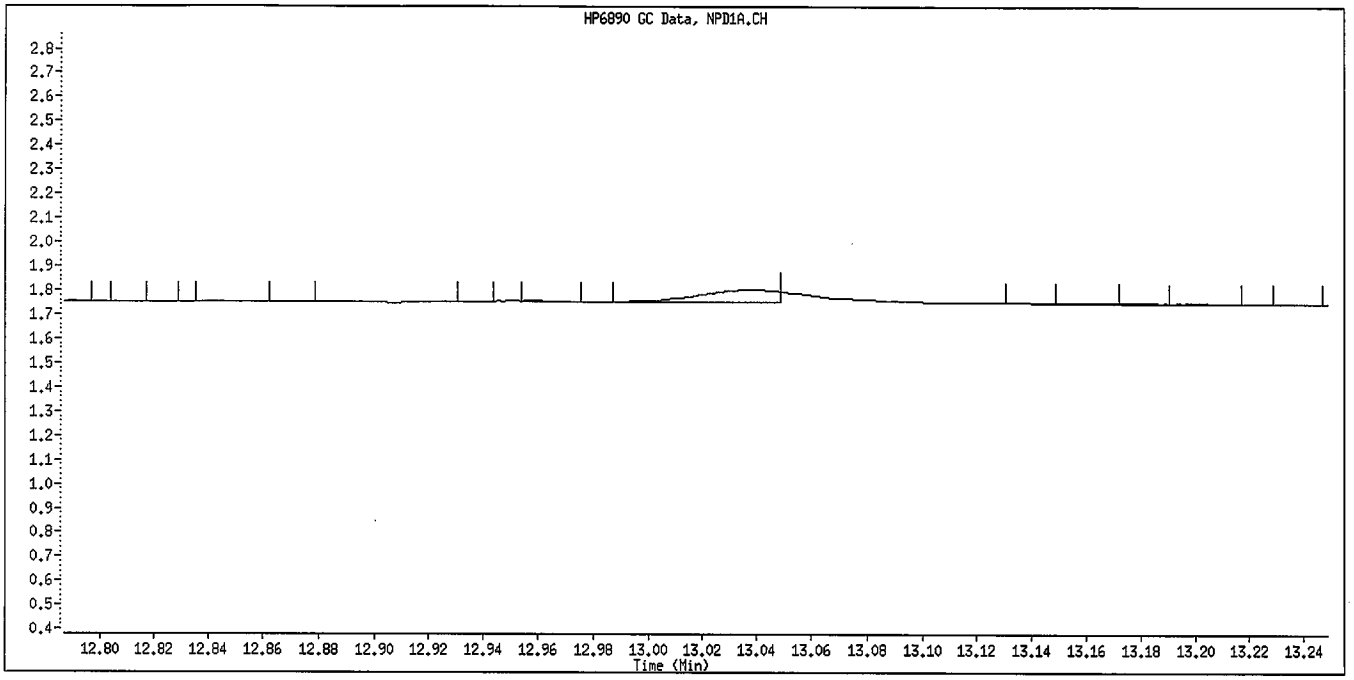


Manual Integration

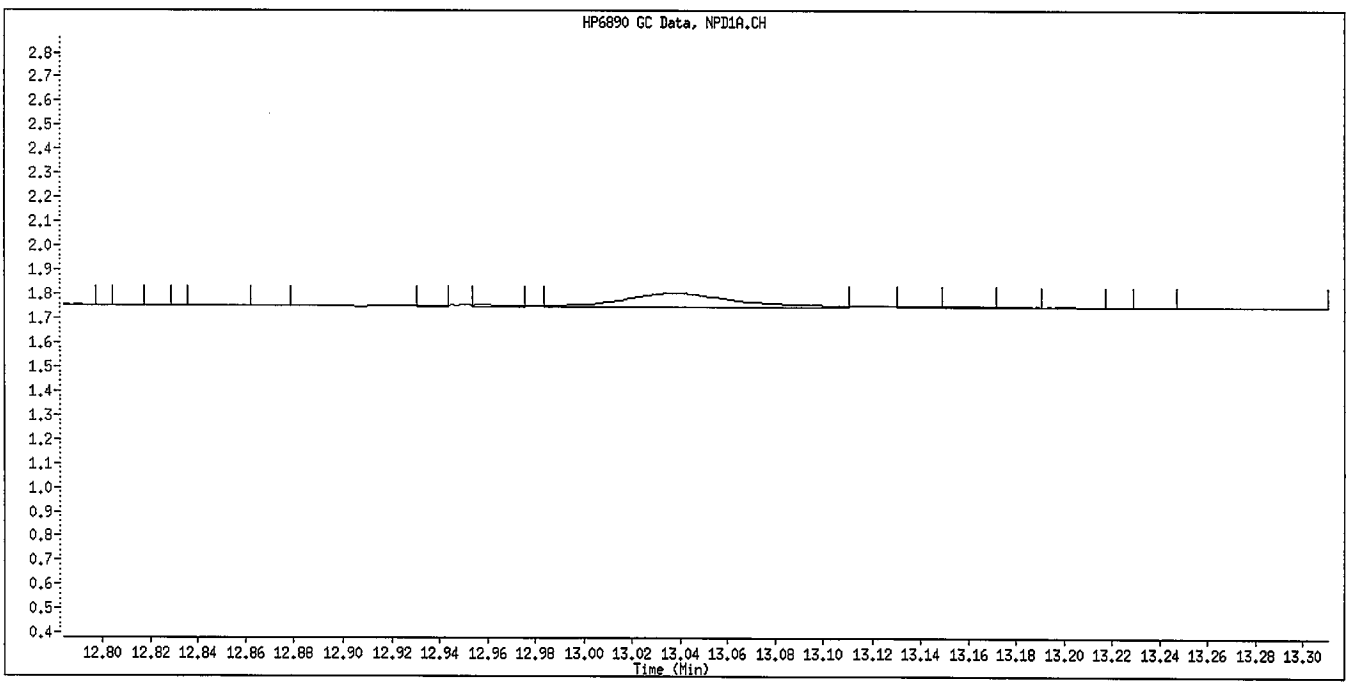
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LK
8/7/09

Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Merphos-A (Merphos)
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

NS
8/7/09

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G240312

Client: Northgate Environmental

Batch(es) #: 9208088

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: 8/5/09

Metals Raw Data RoadMap

LotID			Metal	WorkOrder	Anal Date	TestDesc	Batch	File Id	Instr
D9G240312	1	D	SE	LG2821AH	20090804	6020TOTA	9208088	AG080409	024
D9G240312	1	S	SE	LG2821AG	20090804	6020TOTA	9208088	AG080409	024
D9G240312	1	D	AS	LG2821AF	20090804	6020TOTA	9208088	AG080409	024
D9G240312	1	S	AS	LG2821AE	20090804	6020TOTA	9208088	AG080409	024
D9G240312	1		SE	LG2821AC	20090804	6020TOTA	9208088	AG080409	024
D9G240312	1		AS	LG2821AA	20090804	6020TOTA	9208088	AG080409	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9208088**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Katie Stoltz

Prep Date: 07/29/09
Due Date: 08/05/09

Lot	Work Order			Initial Weight/Volume
D9G270000 Water	**LG6WK**	B	Due Date: SDG:	50 mL
D9G270000 Water	**LG6WK**	C	Due Date: SDG:	50 mL
D9G240312 Water	**LG282** Total		Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	S	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	D	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G250146 Water	**LG3WE** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250155 Water	**LG3W9** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250157 Water	**LG3XG** Total		Due Date: 08/06/09 SDG: 8304615	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

Checked 8/4/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH #	9208088	**ALLIQUOTTED BY:**	KS
PREP DATE:	7.29.2009	**DIGESTED BY:**	KS

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☑ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: KS

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 14859 Block & Cup # : 5, 34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	7:00	92	11:20	96
HNO3	11:30	92	12:00	94
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials KS

COMMENTS:

I certify that all information above is correct and complete.

Signature: Katie D... ***Date:*** 7.29.09

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification

ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Aug-04-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se — Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4601-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 08-03-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Expires(2): 12-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock — Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4630-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water — Volume (ml): 1,000.0
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD4629-09, NITRIC ACID — Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4631-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD4632-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000

K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD4633-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000

Date Prep./Opened: 08-04-2009

Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4631-09, ICP-MS HIGH CAL STD Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010
Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD4634-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD4635-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Expires(2): 08-01-2010 (None)
pipettes: Met 8

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)

Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4636-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 08-01-2010 (None)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)

Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

STD4637-09, ICP-MS HIGH LR STD Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000

Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

STD4638-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 04-21-2010 (None)

Parent Std No.: STD3113-09, ICP-MS TA ICV A Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400

Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

Parent Std No.: STD3116-09, ICP-MS TA ICV BRC Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	0.0800
Pd	20.000	0.0400
Pt	20.000	0.0400
W	20.000	0.0400

STD4639-09, LLCCV/RLICV Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000

Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Parent Std No.: STD3108-09, ICP-MS BRC LLCCV 1 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Nb	4.0000	40.000
Pd	0.1000	1.0000
Pt	0.1000	1.0000
W	0.5000	5.0000

STD4640-09, ALTSe Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

Reviewed By: LRD 08/04/2009

File
AG080409

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
3	Cal Blank				1.0	08/04/09 17:30		☐
4	100 ppb				1.0	08/04/09 17:33		☐
5	ICV				1.0	08/04/09 17:35		☐
6	RLIV				1.0	08/04/09 17:38		☐
7	ICB				1.0	08/04/09 17:41		☐
8	RL STD				1.0	08/04/09 17:44		☐
9	AFCEE RL				1.0	08/04/09 17:47		☐
10	ALTSe				1.0	08/04/09 17:50		☐
11	ICSA				1.0	08/04/09 17:53		☐
12	ICSAB				1.0	08/04/09 17:56		☐
13	RINSE				1.0	08/04/09 17:59		☐
14	LR				1.0	08/04/09 18:02		☐
15	RINSE				1.0	08/04/09 18:05		☐
16	CCV				1.0	08/04/09 18:08		☐
17	CCB				1.0	08/04/09 18:10		☐
18	RLCV				1.0	08/04/09 18:13		☐
19	ALTLR				1.0	08/04/09 18:18		☐
20	RINSE				1.0	08/04/09 18:21		☐
21	CCV				1.0	08/04/09 18:24		☐
22	CCB				1.0	08/04/09 18:27		☐
23	RLCV				1.0	08/04/09 18:30		☐
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0	08/04/09 18:33		☐
25	CCV				1.0	08/04/09 18:35		☐
26	CCB				1.0	08/04/09 18:38		☐
27	RLCV				1.0	08/04/09 18:41		☐
28	~~LGV1JB~~	~~D9G220000~~	~~9203274~~	~~46~~	~~1.0~~	~~08/04/09 18:44~~		☐
29	LGV1JC	D9G220000	9203274	46	1.0	08/04/09 18:47		☐
30	LGT1N	~~D9G210319-13~~ D9G210319-14	9203274	U1	1.0	08/04/09 18:50		☐
31	~~LGT4V~~	~~D9G210319-14~~	~~9203274~~	~~U1~~	~~1.0~~	~~08/04/09 18:53~~	RT 8/5/09 Did not use.	☐
32	CCV				1.0	08/04/09 18:56		☐
33	CCB				1.0	08/04/09 18:59		☐
34	RLCV				1.0	08/04/09 19:02		☐
35	LGVDGB	D9G220000	9203121	MS	1.0	08/04/09 19:05		☐
36	LGVDGC	D9G220000	9203121	MS	1.0	08/04/09 19:08		☐
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:11		☐
38	LGR1DP25	D9G210208	9203121		25.0	08/04/09 19:14		☐
39	LGR1DZ	D9G210208-1	9203121		1.0	08/04/09 19:16		☐
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:19		☐
41	CCV				1.0	08/04/09 19:22		☐
42	CCB				1.0	08/04/09 19:25		☐
43	RLCV				1.0	08/04/09 19:28		☐
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:31		☐
45	LGR1M	D9G210208-2	9203121	MS	1.0	08/04/09 19:34		☐
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0	08/04/09 19:37		☐
47	LGR1Q	D9G210208-4	9203121	MS	1.0	08/04/09 19:40		☐
48	LGR1T	D9G210208-5	9203121	MS	1.0	08/04/09 19:43		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV				1.0	08/04/09 19:46		☐
50	CCB				1.0	08/04/09 19:49		☐
51	RLCV				1.0	08/04/09 19:52		☐
52	LG4K3BF	D9G270000	9208158	MD	1.0	08/04/09 19:55		☐
53	LG4K3CF	D9G270000	9208158	MD	1.0	08/04/09 19:58		☐
54	LG22HF	D9G240290-1	9208158	MD	1.0	08/04/09 20:01		☐
55	LG29AF	D9G240311-1	9208158	MD	1.0	08/04/09 20:04		☐
56	LG29PF	D9G240311-2	9208158	MD	1.0	08/04/09 20:07		☐
57	LG29QF	D9G240311-3	9208158	MD	1.0	08/04/09 20:09		☐
58	LG29RF	D9G240311-4	9208158	MD	1.0	08/04/09 20:12		☐
59	LG29VF	D9G240311-5	9208158	MD	1.0	08/04/09 20:15		☐
60	LG29XF	D9G240311-6	9208158	MD	1.0	08/04/09 20:18		☐
61	LG290F	D9G240311-7	9208158	MD	1.0	08/04/09 20:21		☐
62	CCV				1.0	08/04/09 20:24		☐
63	CCB				1.0	08/04/09 20:27		☐
64	RLCV				1.0	08/04/09 20:30		☐
65	LG290P5F	D9G240311	9208158		5.0	08/04/09 20:33		☐
66	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 20:36~~	W# 8/5/09 Did not use.	☐
67	LG290SF	D9G240311-7	9208158	MD	1.0	08/04/09 20:39		☐
68	LG290DF	D9G240311-7	9208158	MD	1.0	08/04/09 20:42		☐
69	LG292F	D9G240311-8	9208158	MD	1.0	08/04/09 20:45		☐
70	LG293F	D9G240311-9	9208158	MD	1.0	08/04/09 20:48		☐
71	LG294F	D9G240311-10	9208158	MD	1.0	08/04/09 20:51		☐
72	LG296F	D9G240311-11	9208158	MD	1.0	08/04/09 20:54		☐
73	CCV				1.0	08/04/09 20:57		☐
74	CCB				1.0	08/04/09 21:00		☐
75	RLCV				1.0	08/04/09 21:03		☐
76	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 21:06~~		☐
77	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 21:09		☐
78	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 21:12		☐
79	CCV				1.0	08/04/09 21:15		☐
80	CCB				1.0	08/04/09 21:18		☐
81	RLCV				1.0	08/04/09 21:21		☐
82	RINSE				1.0	08/04/09 21:24		☐
83	RINSE				1.0	08/04/09 21:27		☐
84	RINSE				1.0	08/04/09 21:30		☐
85	RINSE				1.0	08/04/09 21:32		☐
86	RINSE				1.0	08/04/09 21:35		☐
87	RINSE				1.0	08/04/09 21:38		☐
88	~~Cal Blank~~				~~1.0~~	~~08/04/09 21:41~~	W# 8/5/09 Did not use.	☐
89	Cal Blank				1.0	08/04/09 21:44		☐
90	100 ppb				1.0	08/04/09 21:47		☐
91	CCV				1.0	08/04/09 21:50		☐
92	CCB				1.0	08/04/09 21:53		☐
93	RLCV				1.0	08/04/09 21:56		☐
94	ICSA				1.0	08/04/09 21:59		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
95	ICSAB				1.0	08/04/09 22:02		
96	WASH				1.0	08/04/09 22:04		
97	CCV				1.0	08/04/09 22:07		
98	CCB				1.0	08/04/09 22:10		
99	RLCV				1.0	08/04/09 22:13		
100	LG290ZF	D9G240311-7	9208158		1.0	08/04/09 22:16		
101	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 22:19		
102	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 22:22		
103	CCV				1.0	08/04/09 22:25		
104	CCB				1.0	08/04/09 22:28		
105	RLCV				1.0	08/04/09 22:31		
106	LG6WKB	D9G270000	9208088	MS	1.0	08/04/09 22:34		
107	LG6WKC	D9G270000	9208088	MS	1.0	08/04/09 22:37		
108	LG282 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:40		
109	LG282P25	D9G240312	9208088		25.0	08/04/09 22:43		
110	LG282Z	D9G240312-1	9208088		1.0	08/04/09 22:46		
111	LG282S 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:49		
112	LG282D 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:51		
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0	08/04/09 22:54		
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0	08/04/09 22:57		
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0	08/04/09 23:00		
116	CCV				1.0	08/04/09 23:03		
117	CCB				1.0	08/04/09 23:06		
118	RLCV				1.0	08/04/09 23:09		
119	LG15XB	D9G240000	9205339	MS	1.0	08/04/09 23:12		
120	LG15XC	D9G240000	9205339	MS	1.0	08/04/09 23:15		
121	LGWWE	D9G220274-1	9205339	MS	1.0	08/04/09 23:18		
122	LGWWEP5	D9G220274	9205339		5.0	08/04/09 23:21		
123	LGWWEZ	D9G220274-1	9205339		1.0	08/04/09 23:24		
124	LGWWES	D9G220274-1	9205339	MS	1.0	08/04/09 23:27		
125	LGWWED	D9G220274-1	9205339	MS	1.0	08/04/09 23:30		
126	CCV				1.0	08/04/09 23:33		
127	CCB				1.0	08/04/09 23:37		
128	RLCV				1.0	08/04/09 23:40		
129	LG4LKBF	D9G270000	9208171	MD	1.0	08/04/09 23:43		
130	LG4LKCF	D9G270000	9208171	MD	1.0	08/04/09 23:46		
131	LG17CF	D9G240170-1	9208171	MD	1.0	08/04/09 23:49		
132	LG17CP5F	D9G240170	9208171		5.0	08/04/09 23:52		
133	LG17CZF	D9G240170-1	9208171		1.0	08/04/09 23:55		
134	LG17CSF	D9G240170-1	9208171	MD	1.0	08/04/09 23:57		
135	LG17CDF	D9G240170-1	9208171	MD	1.0	08/05/09 00:00		
136	CCV				1.0	08/05/09 00:03		
137	CCB				1.0	08/05/09 00:06		
138	RLCV				1.0	08/05/09 00:09		
139	LG1WEB	D9G240000	9205275	MS	1.0	08/05/09 00:12		
140	LG1WEC	D9G240000	9205275	MS	1.0	08/05/09 00:15		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
141	LG1WEL	D9G240000	9205275	MS	1.0	08/05/09 00:18		☐
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21		☐
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24		☐
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27		☐
145	CCV			MS Dilution	1.0	08/05/09 00:30		☐
146	CCB				1.0	08/05/09 00:33		☐
147	RLCV				1.0	08/05/09 00:36		☐
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39		☐
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42		☐
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45		☐
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48		☐
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51		☐
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54		☐
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57		☐
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00		☐
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03		☐
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06		☐
158	CCV			46	1.0	08/05/09 01:09		☐
159	CCB			Dilution	1.0	08/05/09 01:12		☐
160	RLCV			46	1.0	08/05/09 01:15		☐
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17		☐
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20		☐
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23		☐
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26		☐
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29		☐
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32		☐
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35		☐
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38		☐
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41		☐
170	CCV			46 Slope	1.0	08/05/09 01:44		☐
171	CCB				1.0	08/05/09 01:47		☐
172	RLCV				1.0	08/05/09 01:50		☐
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53		☐
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56		☐
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59		☐
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02		☐
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05		☐
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07		☐
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10		☐
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13		☐
181	CCV				1.0	08/05/09 02:16		☐
182	CCB				1.0	08/05/09 02:19		☐
183	RLCV				1.0	08/05/09 02:22		☐
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25		☐
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28		☐
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS_024 (024) Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
187	LGWPL	D9G220249-6	9205302	46	1.0	08/05/09 02:34		☐
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37		☐
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39		☐
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42		☐
191	CCV				1.0	08/05/09 02:45		☐
192	CCB				1.0	08/05/09 02:48		☐
193	RLCV				1.0	08/05/09 02:51		☐
194	~~LG6MMB~~	~~D9G280000~~	~~9209279~~	~~46~~	~~1.0~~	~~08/05/09 02:54~~		☐
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57		☐
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00		☐
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03		☐
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06		☐
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09		☐
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12		☐
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15		☐
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17		☐
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20		☐
204	CCV				1.0	08/05/09 03:23		☐
205	CCB				1.0	08/05/09 03:26		☐
206	RLCV				1.0	08/05/09 03:29		☐
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32		☐
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35		☐
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38		☐
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41		☐
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44		☐
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47		☐
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50		☐
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53		☐
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56		☐
216	CCV				1.0	08/05/09 03:59		☐
217	CCB				1.0	08/05/09 04:01		☐
218	RLCV				1.0	08/05/09 04:04		☐
219	RINSE				1.0	08/05/09 04:07		☐
220	RINSE				1.0	08/05/09 04:10		☐
221	RINSE				1.0	08/05/09 04:13		☐
222	RINSE				1.0	08/05/09 04:16		☐
223	RINSE				1.0	08/05/09 04:19		☐
224	RINSE				1.0	08/05/09 04:22		☐
225	~~Cal Blank~~				~~1.0~~	~~08/05/09 04:25~~	KF 8/5/09 Did not use.	☐
226	Cal Blank				1.0	08/05/09 04:28		☐
227	100 ppb				1.0	08/05/09 04:31		☐
228	CCV				1.0	08/05/09 04:34		☐
229	CCB				1.0	08/05/09 04:36		☐
230	RLCV				1.0	08/05/09 04:39		☐
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42		☐
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
233	LG7WEF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:48		☐
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51		☐
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54		☐
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57		☐
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00		☐
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03		☐
239	CCV				1.0	08/05/09 05:06		☐
240	CCB				1.0	08/05/09 05:09		☐
241	RLCV				1.0	08/05/09 05:12		☐
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15		☐
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18		☐
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21		☐
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24		☐
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27		☐
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30		☐
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33		☐
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36		☐
250	CCV				1.0	08/05/09 05:39		☐
251	CCB				1.0	08/05/09 05:42		☐
252	RLCV				1.0	08/05/09 05:45		☐
253	~~RINSE~~				~~1.0~~	~~08/05/09 05:48~~		☐
254	RINSE				1.0	~~08/05/09~~ 05:51		☐
255	RINSE				1.0	08/05/09 05:54		☐
256	RINSE				1.0	08/05/09 05:57		☐
257	RINSE				1.0	08/05/09 06:00		☐
258	RINSE				1.0	08/05/09 06:03		☐
259	~~Cal Blank~~				~~1.0~~	~~08/05/09 06:05~~	rr 8/5/09	☐
260	Cal Blank				1.0	08/05/09 06:08		☐
261	100 ppb				1.0	08/05/09 06:11		☐
262	CCV				1.0	08/05/09 06:14		☐
263	CCB				1.0	08/05/09 06:17		☐
264	RLCV				1.0	08/05/09 06:20		☐
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23		☐
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26		☐
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29		☐
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32		☐
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35		☐
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38		☐
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41		☐
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43		☐
273	CCV				1.0	08/05/09 06:46		☐
274	CCB				1.0	08/05/09 06:49		☐
275	RLCV				1.0	08/05/09 06:52		☐
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55		☐
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58		☐
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01		☐

Denver

RUN SUMMARY

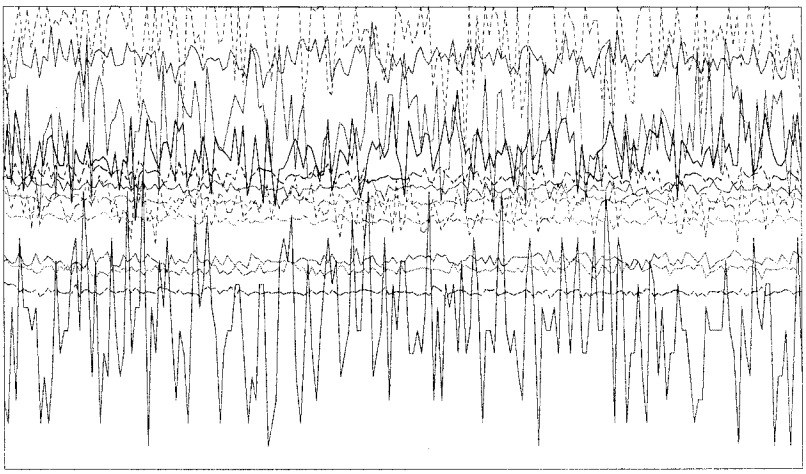
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04		☐
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07		☐
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10		☐
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13		☐
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16		☐
284	CCV				1.0	08/05/09 07:19		☐
285	CCB				1.0	08/05/09 07:22		☐
286	RLCV				1.0	08/05/09 07:25		☐
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28		☐
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31		☐
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34		☐
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37	Take all but Ni, VT 8/5/09	☐
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39		☐
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42		☐
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45		☐
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48		☐
295	CCV				1.0	08/05/09 07:51		☐
296	CCB				1.0	08/05/09 07:54		☐
297	RLCV				1.0	08/05/09 07:57		☐
298	~~RINSE~~				~~1.0~~	~~08/05/09 08:00~~		☐
299	RINSE				1.0	08/05/09 08:03		☐
300	RINSE				1.0	08/05/09 08:06		☐
301	RINSE				1.0	08/05/09 08:09		☐
302	RINSE				1.0	08/05/09 08:12		☐
303	RINSE				1.0	08/05/09 08:15		☐
304	RINSE				1.0	08/05/09 08:18		☐
305	RINSE				1.0	08/05/09 08:21		☐
306	RINSE				1.0	08/05/09 08:23		☐
307	RINSE				1.0	08/05/09 08:26		☐
308	~~Cal Blank~~				~~1.0~~	~~08/05/09 08:29~~	VT 8/5/09	☐
309	Cal Blank				1.0	08/05/09 08:32		☐
310	100 ppb				1.0	08/05/09 08:35		☐
311	CCV				1.0	08/05/09 08:38		☐
312	CCB				1.0	08/05/09 08:41		☐
313	ICSA				1.0	08/05/09 08:44		☐
314	ICSAB				1.0	08/05/09 08:47		☐
315	WASH				1.0	08/05/09 08:50		☐
316	CCV				1.0	08/05/09 08:53		☐
317	CCB				1.0	08/05/09 08:56		☐
318	RLCV				1.0	08/05/09 08:59		☐

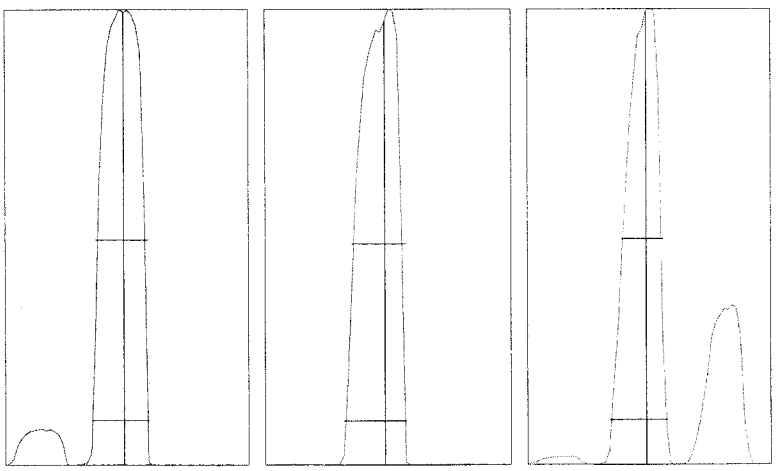
Tune Report

Tune File : NORM.U
Comment :



Integration Time:	0.1000 sec	
Sampling Period:	1.5300 sec	
n:	200	
Oxide:	156/140	1.169%
Doubly Charged:	70/140	1.090%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1762.0	1770.4	2.89	1.00
7	50,000	22681.0	22607.5	2.18	1.40
59	50,000	21258.0	21558.9	1.96	1.40
63	100	64.0	73.9	11.46	0.70
70	500	336.0	342.4	6.97	1.40
75	20	4.0	6.2	43.21	1.40
78	500	310.0	285.3	6.14	1.70
89	50,000	28955.0	29103.9	1.37	1.90
115	50,000	26852.0	26978.9	1.37	2.90
118	100	77.0	95.0	10.36	2.30
137	5,000	3035.0	3179.7	2.17	2.80
205	50,000	19156.0	19138.5	1.52	4.60
238	50,000	29560.0	30445.9	1.47	5.00
156/140	2	1.265%	1.209%	7.03	
70/140	2	1.215%	1.221%	7.10	



m/z:	7	89	205
Height:	22,611	29,043	19,439
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.50
W-10%:	0.700	0.7500	0.700

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Aug 04, 2009 17:00:36
Printed : Aug 04, 2009 17:00:39

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	: 1550	W	Extract 1	: 0	V	AMU Gain	: 132	
RF Matching	: 1.7	V	Extract 2	: -165	V	AMU Offset	: 123	
Smpl Depth	: 7.5	mm	Omega Bias-ce	: -34	V	Axis Gain	: 1.0006	
Torch-H	: -0.8	mm	Omega Lens-ce	: 1	V	Axis Offset	: -0.04	
Torch-V	: -0.3	mm	Cell Entrance	: -30	V	QP Bias	: -1	V
Carrier Gas	: 0.85	L/min	QP Focus	: 7	V			
Makeup Gas	: 0.21	L/min	Cell Exit	: -30	V	===Detector Parameters===		
Optional Gas	: ---	%				Discriminator	: 8	mV
Nebulizer Pump	: 0.1	rps	===Octopole Parameters===			Analog HV	: 1720	V
Sample Pump	: ---	rps	OctP RF	: 180	V	Pulse HV	: 1390	V
S/C Temp	: 2	degC	OctP Bias	: -18	V			

===Reaction Cell===								
Reaction Mode	: OFF							
H2 Gas	: 0	mL/min	He Gas	: 0	mL/min	Optional Gas	: ---	%

P/A Factor Tuning Report

Acquired:Aug 4 2009 05:13 pm

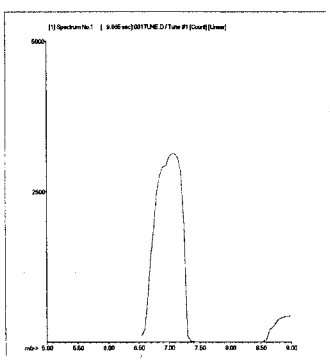
Mass[amu]	Element	P/A Factor
6	Li	0.060147
7	(Li)	Sensitivity too low
9	Be	0.067111
23	Na	Sensitivity too high
24	Mg	0.077089
27	Al	0.079051
39	K	0.078558
43	Ca	Sensitivity too low
45	Sc	0.079466
51	V	0.080963
52	Cr	0.082954
53	(Cr)	Sensitivity too low
55	Mn	0.084227
57	Fe	Sensitivity too low
59	Co	0.086953
60	Ni	0.088018
63	Cu	0.089512
66	Zn	0.089262
72	Ge	0.088835
75	As	0.088157
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.090186
98	(Mo)	0.089393
99	(Mo)	0.090406
105	Pd	0.092756
106	(Cd)	0.092519
107	Ag	Sensitivity too low
108	(Cd)	0.093276
111	Cd	0.093414
115	In	0.092399
118	Sn	0.092636
121	Sb	0.092353
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.099000
206	(Pb)	0.097831
207	(Pb)	0.097860
208	Pb	0.096584
232	Th	0.095898
238	U	0.095933

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

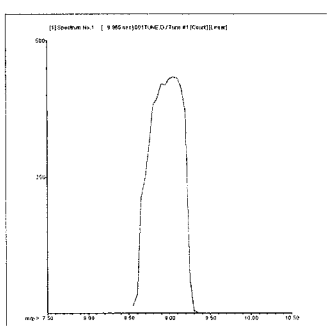
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D
Date Acquired: Aug 4 2009 05:24 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	2104305	2092847	2094507	0.34	5.00	
208 Pb	95432	97057	96600	94637	93872	94994	1.41	5.00	
238 U	187490	191136	188199	187726	186228	184161	1.37	5.00	

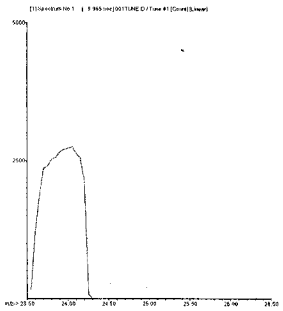


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D



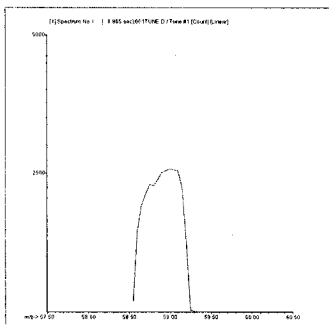
24 Mg

Mass Calib.

Actual:	24.00		
Required:	23.90	-	24.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



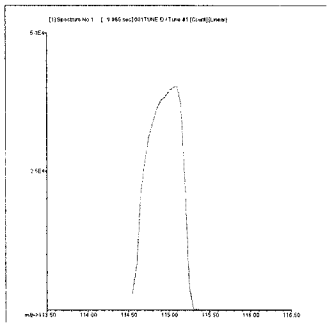
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



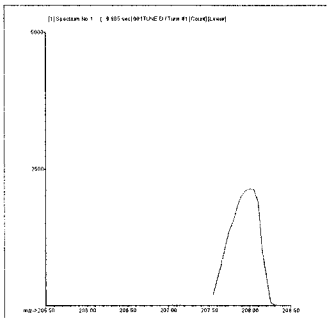
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



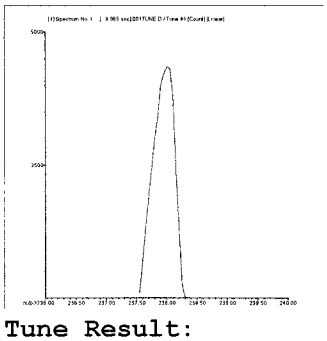
208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



238 U

Mass Calib.

Actual:	238.00		
Required:	237.90	-	238.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\002CALB.D\002CALB.D#
Date Acquired: Aug 4 2009 05:27 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	175862	1.16
24	Mg	6	1	3447	4.51
27	Al	45	1	2637	8.79
39	K	45	1	337918	1.38
43	Ca	45	1	107	5.41
51	V	72	1	-201	182.83
52	Cr	72	1	4144	5.82
55	Mn	72	1	760	4.74
57	Fe	72	1	737	10.01
59	Co	72	1	147	31.49
60	Ni	72	1	153	15.06
63	Cu	72	1	757	12.70
66	Zn	72	1	450	6.17
75	As	72	1	114	23.01
78	Se	72	1	947	10.58
93	Nb	72	1	3637	24.76
95	Mo	72	1	160	16.54
105	Pd	115	1	20	50.00
107	Ag	115	1	17	69.28
111	Cd	115	1	13	25.00
118	Sn	115	1	1173	15.35
121	Sb	115	1	43	35.25
137	Ba	115	1	30	29.40
182	W	165	1	1303	12.66
195	Pt	165	1	223	6.84
205	Tl	165	1	301	10.05
208	Pb	165	1	313	8.31
232	Th	165	1	1944	4.16
238	U	165	1	130	7.69

DG 8/5/09

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	618846	1.88
45	Sc	1	3302218	1.48
72	Ge	1	1483166	1.36
115	In	1	3715428	1.24
165	Ho	1	5532110	0.42

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#
Date Acquired: Aug 4 2009 05:30 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	166622	0.74
24	Mg	6	1	3697	3.20
27	Al	45	1	4071	3.47
39	K	45	1	344043	1.26
43	Ca	45	1	97	33.25
51	V	72	1	121	374.09
52	Cr	72	1	4394	1.17
55	Mn	72	1	797	3.16
57	Fe	72	1	670	11.66
59	Co	72	1	117	19.80
60	Ni	72	1	160	34.80
63	Cu	72	1	813	5.54
66	Zn	72	1	587	5.99
75	As	72	1	115	26.09
78	Se	72	1	937	3.26
93	Nb	72	1	3197	21.29
95	Mo	72	1	70	14.29
105	Pd	115	1	23	137.77
107	Ag	115	1	3	173.21
111	Cd	115	1	14	35.25
118	Sn	115	1	1730	6.67
121	Sb	115	1	52	13.29
137	Ba	115	1	23	14.29
182	W	165	1	1340	8.41
195	Pt	165	1	177	6.54
205	Tl	165	1	319	6.72
208	Pb	165	1	307	22.06
232	Th	165	1	1367	4.03
238	U	165	1	59	22.88

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	613401	0.88
45	Sc	1	3328415	0.44
72	Ge	1	1482070	1.07
115	In	1	3719636	0.55
165	Ho	1	5558876	0.76

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\004ICAL.D\004ICAL.D#
Date Acquired: Aug 4 2009 05:33 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:31 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	78880	1.03
23	Na	6	1	67854280	0.78
24	Mg	6	1	41046008	0.44
27	Al	45	1	36514528	1.31
39	K	45	1	62484832	0.32
43	Ca	45	1	154713	0.88
51	V	72	1	1748494	1.28
52	Cr	72	1	1712193	0.90
55	Mn	72	1	1838240	0.92
57	Fe	72	1	4331625	1.05
59	Co	72	1	2170643	0.67
60	Ni	72	1	494898	1.03
63	Cu	72	1	1147761	0.20
66	Zn	72	1	229614	0.57
75	As	72	1	199756	0.44
78	Se	72	1	35396	1.68
93	Nb	72	1	5397792	1.07
95	Mo	72	1	533263	0.26
105	Pd	115	1	657524	0.37
107	Ag	115	1	1430733	0.49
111	Cd	115	1	277412	0.99
118	Sn	115	1	778149	0.58
121	Sb	115	1	861506	0.48
137	Ba	115	1	372202	0.66
182	W	165	1	1191344	0.33
195	Pt	165	1	789081	0.96
205	Tl	165	1	2466925	0.69
208	Pb	165	1	3353142	0.67
232	Th	165	1	3430275	0.56
238	U	165	1	3566405	0.75

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	588239	1.72	613401	95.9	30 - 120	
45	Sc	1	3162866	0.88	3328415	95.0	30 - 120	
72	Ge	1	1416296	0.34	1482070	95.6	30 - 120	
115	In	1	3510265	0.79	3719636	94.4	30 - 120	
165	Ho	1	5280186	0.81	5558876	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\005_ICV.D\005_ICV.D#
Date Acquired: Aug 4 2009 05:35 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.40	ppb	3.97	40	98.5	90 - 110	
23 Na	6	1	3950.00	ppb	2.48	4000	98.8	90 - 110	
24 Mg	6	1	3979.00	ppb	1.98	4000	99.5	90 - 110	
27 Al	45	1	3968.00	ppb	1.67	4000	99.2	90 - 110	
39 K	45	1	4029.00	ppb	0.72	4000	100.7	90 - 110	
43 Ca	45	1	3997.00	ppb	1.16	4000	99.9	90 - 110	
51 V	72	1	40.20	ppb	0.92	40	100.5	90 - 110	
52 Cr	72	1	41.10	ppb	0.10	40	102.8	90 - 110	
55 Mn	72	1	40.85	ppb	0.51	40	102.1	90 - 110	
57 Fe	72	1	4190.00	ppb	1.61	4000	104.8	90 - 110	
59 Co	72	1	41.09	ppb	0.15	40	102.7	90 - 110	
60 Ni	72	1	40.89	ppb	0.89	40	102.2	90 - 110	
63 Cu	72	1	41.36	ppb	0.63	40	103.4	90 - 110	
66 Zn	72	1	41.01	ppb	0.78	40	102.5	90 - 110	
75 As	72	1	40.04	ppb	0.20	40	100.1	90 - 110	
78 Se	72	1	39.46	ppb	2.44	40	98.7	90 - 110	
93 Nb	72	1	72.30	ppb	1.68	80	90.4	90 - 110	
95 Mo	72	1	39.75	ppb	1.13	40	99.4	90 - 110	
105 Pd	115	1	40.44	ppb	1.10	40	101.1	90 - 110	
107 Ag	115	1	40.54	ppb	0.71	40	101.4	90 - 110	
111 Cd	115	1	40.13	ppb	0.47	40	100.3	90 - 110	
118 Sn	115	1	39.09	ppb	0.80	40	97.7	90 - 110	
121 Sb	115	1	39.36	ppb	0.94	40	98.4	90 - 110	
137 Ba	115	1	39.55	ppb	0.22	40	98.9	90 - 110	
182 W	165	1	38.57	ppb	1.18	40	96.4	90 - 110	
195 Pt	165	1	40.34	ppb	1.39	40	100.9	90 - 110	
205 Tl	165	1	41.02	ppb	1.39	40	102.6	90 - 110	
208 Pb	165	1	41.38	ppb	1.58	40	103.5	90 - 110	
232 Th	165	1	39.49	ppb	1.51	40	98.7	90 - 110	
238 U	165	1	41.04	ppb	1.42	40	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	608297	1.81	613401	99.2	30 - 120	
45 Sc	1	3229901	1.42	3328415	97.0	30 - 120	
72 Ge	1	1429725	0.13	1482070	96.5	30 - 120	
115 In	1	3601357	0.78	3719636	96.8	30 - 120	
165 Ho	1	5341696	0.77	5558876	96.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\006WASH.D\006WASH.D#
Date Acquired: Aug 4 2009 05:38 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.917 ppb	15.50	1.30	
23 Na	6	1	47.850 ppb	1.97	65.00	
24 Mg	6	1	54.700 ppb	1.46	65.00	
27 Al	45	1	34.050 ppb	1.40	39.00	
39 K	45	1	107.500 ppb	1.30	130.00	
43 Ca	45	1	51.170 ppb	15.57	65.00	
51 V	72	1	5.100 ppb	1.78	6.50	
52 Cr	72	1	2.130 ppb	3.03	2.60	
55 Mn	72	1	1.061 ppb	1.73	1.30	
57 Fe	72	1	54.690 ppb	4.65	65.00	
59 Co	72	1	1.082 ppb	0.70	1.30	
60 Ni	72	1	2.224 ppb	1.70	2.60	
63 Cu	72	1	2.182 ppb	1.43	2.60	
66 Zn	72	1	10.660 ppb	1.11	13.00	
75 As	72	1	5.118 ppb	2.29	6.50	
78 Se	72	1	5.284 ppb	15.76	6.50	
93 Nb	72	1	51.660 ppb	0.91	52.00	
95 Mo	72	1	2.145 ppb	4.72	2.60	
105 Pd	115	1	0.939 ppb	2.98	1.30	
107 Ag	115	1	5.364 ppb	0.81	6.50	
111 Cd	115	1	1.077 ppb	0.91	1.30	
118 Sn	115	1	10.180 ppb	1.18	13.00	
121 Sb	115	1	2.208 ppb	1.49	2.60	
137 Ba	115	1	1.064 ppb	3.32	1.30	
182 W	165	1	5.004 ppb	0.54	6.50	
195 Pt	165	1	1.019 ppb	5.85	1.30	
205 Tl	165	1	1.146 ppb	1.51	1.30	
208 Pb	165	1	1.093 ppb	1.96	1.30	
232 Th	165	1	3.309 ppb	17.07	2.60	
238 U	165	1	1.119 ppb	1.62	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	620977	1.28	613401	101.2	30 - 120	
45 Sc	1	3268310	1.29	3328415	98.2	30 - 120	
72 Ge	1	1474208	1.22	1482070	99.5	30 - 120	
115 In	1	3739867	0.54	3719636	100.5	30 - 120	
165 Ho	1	5457556	0.20	5558876	98.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\007_ICB.D\007_ICB.D#
Date Acquired: Aug 4 2009 05:41 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	-5.38	ppb	4.36	20.00	
24 Mg	6	1	-0.03	ppb	112.14	20.00	
27 Al	45	1	0.43	ppb	13.40	20.00	
39 K	45	1	0.18	ppb	342.50	20.00	
43 Ca	45	1	-2.65	ppb	47.92	20.00	
51 V	72	1	-0.01	ppb	78.44	1.00	
52 Cr	72	1	-0.01	ppb	209.01	1.00	
55 Mn	72	1	-0.01	ppb	28.18	1.00	
57 Fe	72	1	0.04	ppb	366.47	20.00	
59 Co	72	1	0.00	ppb	2657.60	1.00	
60 Ni	72	1	0.01	ppb	182.44	1.00	
63 Cu	72	1	0.00	ppb	45.87	1.00	
66 Zn	72	1	0.01	ppb	89.62	10.00	
75 As	72	1	-0.01	ppb	72.83	1.00	
78 Se	72	1	0.00	ppb	5593.80	1.00	
93 Nb	72	1	2.48	ppb	11.09	2.00	Fail
95 Mo	72	1	0.01	ppb	35.99	1.00	
105 Pd	115	1	0.01	ppb	42.76	1.00	
107 Ag	115	1	0.00	ppb	29.14	1.00	
111 Cd	115	1	0.00	ppb	101.64	1.00	
118 Sn	115	1	-0.03	ppb	16.01	10.00	
121 Sb	115	1	0.08	ppb	8.38	1.00	
137 Ba	115	1	0.00	ppb	124.76	1.00	
182 W	165	1	0.01	ppb	105.62	5.00	
195 Pt	165	1	0.00	ppb	156.52	1.00	
205 Tl	165	1	0.02	ppb	2.65	1.00	
208 Pb	165	1	0.00	ppb	108.41	1.00	
232 Th	165	1	0.02	ppb	13.43	2.00	
238 U	165	1	0.00	ppb	24.57	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	615232	0.16	613401	100.3	30 - 120	
45 Sc	1	3306443	1.15	3328415	99.3	30 - 120	
72 Ge	1	1488448	1.06	1482070	100.4	30 - 120	
115 In	1	3689439	0.89	3719636	99.2	30 - 120	
165 Ho	1	5495479	1.07	5558876	98.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\008RLST.D\008RLST.D#
Date Acquired: Aug 4 2009 05:44 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.97	ppb	16.13	1	97.1	50 - 150	
23 Na	6	1	99.40	ppb	1.27	100	99.4	50 - 150	
24 Mg	6	1	106.20	ppb	1.61	100	106.2	50 - 150	
27 Al	45	1	106.20	ppb	0.88	100	106.2	50 - 150	
39 K	45	1	103.70	ppb	4.34	100	103.7	50 - 150	
43 Ca	45	1	100.40	ppb	11.33	100	100.4	50 - 150	
51 V	72	1	1.02	ppb	1.07	1	102.0	50 - 150	
52 Cr	72	1	1.02	ppb	1.34	1	101.6	50 - 150	
55 Mn	72	1	1.02	ppb	2.96	1	101.9	50 - 150	
57 Fe	72	1	106.30	ppb	1.66	100	106.3	50 - 150	
59 Co	72	1	1.06	ppb	0.46	1	106.2	50 - 150	
60 Ni	72	1	1.08	ppb	3.37	1	107.9	50 - 150	
63 Cu	72	1	1.09	ppb	1.88	1	108.6	50 - 150	
66 Zn	72	1	11.55	ppb	1.74	10	115.5	50 - 150	
75 As	72	1	1.04	ppb	0.35	1	104.2	50 - 150	
78 Se	72	1	1.02	ppb	35.72	1	101.7	50 - 150	
93 Nb	72	1	3.50	ppb	6.24	2	175.0	50 - 150	Fail
95 Mo	72	1	0.99	ppb	1.94	1	99.2	50 - 150	
105 Pd	115	1	1.04	ppb	5.32	1	103.8	50 - 150	
107 Ag	115	1	1.02	ppb	3.47	1	101.7	50 - 150	
111 Cd	115	1	1.03	ppb	2.92	1	103.1	50 - 150	
118 Sn	115	1	10.39	ppb	1.84	10	103.9	50 - 150	
121 Sb	115	1	0.98	ppb	3.12	1	98.5	50 - 150	
137 Ba	115	1	1.00	ppb	0.86	1	99.7	50 - 150	
182 W	165	1	1.00	ppb	2.34	1	100.4	50 - 150	
195 Pt	165	1	0.97	ppb	2.75	1	96.6	50 - 150	
205 Tl	165	1	1.07	ppb	1.28	1	106.5	50 - 150	
208 Pb	165	1	1.07	ppb	1.16	1	107.4	50 - 150	
232 Th	165	1	0.92	ppb	2.08	1	92.0	50 - 150	
238 U	165	1	1.09	ppb	0.88	1	109.2	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	621899	1.48	613401	101.4	30 - 120	
45 Sc	1	3315351	1.07	3328415	99.6	30 - 120	
72 Ge	1	1473929	0.22	1482070	99.5	30 - 120	
115 In	1	3735562	1.27	3719636	100.4	30 - 120	
165 Ho	1	5443789	0.20	5558876	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\009AFCE.D\009AFCE.D#
Date Acquired: Aug 4 2009 05:47 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.19	ppb	14.20	0	98.2	80 - 120	
23 Na	6	1	15.27	ppb	1.74	20	76.8	80 - 120	
24 Mg	6	1	21.58	ppb	1.53	21	101.6	80 - 120	
27 Al	45	1	22.06	ppb	0.39	21	103.9	80 - 120	
39 K	45	1	21.49	ppb	4.35	21	103.6	80 - 120	
43 Ca	45	1	22.88	ppb	5.73	20	113.9	80 - 120	
51 V	72	1	0.23	ppb	6.59	0	111.3	80 - 120	
52 Cr	72	1	0.20	ppb	8.88	0	100.1	80 - 120	
55 Mn	72	1	0.21	ppb	5.24	0	103.5	80 - 120	
57 Fe	72	1	20.12	ppb	0.35	21	94.6	80 - 120	
59 Co	72	1	0.21	ppb	2.08	0	99.2	80 - 120	
60 Ni	72	1	0.54	ppb	3.25	0	252.4	80 - 120	
63 Cu	72	1	0.25	ppb	5.60	0	113.0	80 - 120	
66 Zn	72	1	2.36	ppb	1.76	2	102.1	80 - 120	
75 As	72	1	0.20	ppb	4.33	0	96.6	80 - 120	
78 Se	72	1	0.15	ppb	149.67	0	75.1	80 - 120	
93 Nb	72	1	1.48	ppb	12.00	1	211.6	80 - 120	
95 Mo	72	1	0.21	ppb	3.24	0	103.7	80 - 120	
105 Pd	115	1	0.19	ppb	7.31	0	92.9	80 - 120	
107 Ag	115	1	0.21	ppb	4.09	0	102.0	80 - 120	
111 Cd	115	1	0.20	ppb	8.51	0	95.4	80 - 120	
118 Sn	115	1	2.08	ppb	3.46	2	99.9	80 - 120	
121 Sb	115	1	0.23	ppb	6.06	0	117.1	80 - 120	
137 Ba	115	1	0.20	ppb	4.18	0	102.6	80 - 120	
182 W	165	1	0.21	ppb	5.18	0	102.6	80 - 120	
195 Pt	165	1	0.21	ppb	8.44	0	109.7	80 - 120	
205 Tl	165	1	0.22	ppb	3.69	0	104.3	80 - 120	
208 Pb	165	1	0.21	ppb	1.89	0	98.8	80 - 120	
232 Th	165	1	0.20	ppb	3.25	0	108.3	80 - 120	
238 U	165	1	0.21	ppb	1.88	0	97.0	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	612484	0.59	613401	99.9	30 - 120	
45 Sc	1	3336089	0.62	3328415	100.2	30 - 120	
72 Ge	1	1488913	1.35	1482070	100.5	30 - 120	
115 In	1	3708691	0.65	3719636	99.7	30 - 120	
165 Ho	1	5434381	0.68	5558876	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\010SMPL.D\010SMPL.D#
Date Acquired: Aug 4 2009 05:50 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-6.23	-6.23	ppb	12.05	100000	
24 Mg	6	1	0.13	0.13	ppb	57.73	100000	
27 Al	45	1	-0.41	-0.41	ppb	11.70	100000	
39 K	45	1	1.40	1.40	ppb	19.02	100000	
43 Ca	45	1	-3.26	-3.26	ppb	28.59	100000	
51 V	72	1	0.00	0.00	ppb	495.39	3600	
52 Cr	72	1	0.01	0.01	ppb	68.18	3600	
55 Mn	72	1	0.00	0.00	ppb	177.08	18000	
57 Fe	72	1	0.14	0.14	ppb	54.03	100000	
59 Co	72	1	0.00	0.00	ppb	61.01	3600	
60 Ni	72	1	0.00	0.00	ppb	229.74	3600	
63 Cu	72	1	0.01	0.01	ppb	107.08	3600	
66 Zn	72	1	-0.09	-0.09	ppb	8.20	3600	
75 As	72	1	-0.01	-0.01	ppb	22.78	3600	
78 Se	72	1	2.34	2.34	ppb	17.14	3600	
93 Nb	72	1	0.80	0.80	ppb	18.12	2000	
95 Mo	72	1	0.00	0.00	ppb	5.16	3600	
105 Pd	115	1	0.01	0.01	ppb	51.69	1000	
107 Ag	115	1	0.00	0.00	ppb	62.01	3600	
111 Cd	115	1	0.00	0.00	ppb	26.79	3600	
118 Sn	115	1	-0.04	-0.04	ppb	41.03	3600	
121 Sb	115	1	0.02	0.02	ppb	12.94	3600	
137 Ba	115	1	0.00	0.00	ppb	139.79	3600	
182 W	165	1	0.00	0.00	ppb	571.47	1000	
195 Pt	165	1	0.00	0.00	ppb	1643.80	1000	
205 Tl	165	1	0.01	0.01	ppb	18.45	3600	
208 Pb	165	1	0.00	0.00	ppb	91.61	3600	
232 Th	165	1	0.00	0.00	ppb	1210.80	1000	
238 U	165	1	0.00	0.00	ppb	65.63	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628758	4.36	613401	102.5	30 - 120	
45 Sc	1	3304988	0.43	3328415	99.3	30 - 120	
72 Ge	1	1481087	0.85	1482070	99.9	30 - 120	
115 In	1	3694596	0.88	3719636	99.3	30 - 120	
165 Ho	1	5415585	0.30	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\011ICSA.D\011ICSA.D#
Date Acquired: Aug 4 2009 05:53 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.00 ppb	173.21	1.00	
23 Na	6	1	100500.00 ppb	0.77	100.00	
24 Mg	6	1	98000.00 ppb	0.73	100.00	
27 Al	45	1	98990.00 ppb	0.78	100.00	
39 K	45	1	99310.00 ppb	0.22	100.00	
43 Ca	45	1	102300.00 ppb	0.74	100.00	
51 V	72	1	-0.11 ppb	51.36	1.00	
52 Cr	72	1	0.70 ppb	3.18	1.00	
55 Mn	72	1	3.53 ppb	1.53	1.00	
57 Fe	72	1	97710.00 ppb	0.58	100.00	
59 Co	72	1	1.58 ppb	2.91	1.00	
60 Ni	72	1	1.57 ppb	1.64	1.00	
63 Cu	72	1	1.49 ppb	1.13	1.00	
66 Zn	72	1	2.87 ppb	2.08	10.00	
75 As	72	1	0.41 ppb	5.47	1.00	
78 Se	72	1	-0.17 ppb	49.11	1.00	
93 Nb	72	1	1.51 ppb	11.67	2.00	
95 Mo	72	1	2047.00 ppb	0.11	2000.00	
105 Pd	115	1	0.07 ppb	27.22	1.00	
107 Ag	115	1	0.04 ppb	18.29	1.00	
111 Cd	115	1	2.58 ppb	2.38	1.00	
118 Sn	115	1	0.21 ppb	11.25	10.00	
121 Sb	115	1	0.26 ppb	1.73	1.00	
137 Ba	115	1	0.07 ppb	19.17	1.00	
182 W	165	1	0.10 ppb	8.43	5.00	
195 Pt	165	1	0.00 ppb	499.24	1.00	
205 Tl	165	1	0.03 ppb	60.16	1.00	
208 Pb	165	1	0.11 ppb	6.85	1.00	
232 Th	165	1	0.05 ppb	32.11	2.00	
238 U	165	1	0.00 ppb	386.37	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	534481	1.03	613401	87.1	30 - 120	
45 Sc	1	2836722	1.84	3328415	85.2	30 - 120	
72 Ge	1	1237307	1.64	1482070	83.5	30 - 120	
115 In	1	3118112	1.08	3719636	83.8	30 - 120	
165 Ho	1	4824482	1.14	5558876	86.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\012ICSB.D\012ICSB.D#
Date Acquired: Aug 4 2009 05:56 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	97.87	2.69	100	97.9	80 - 120	
23 Na	6	1	109100.00	1.92	110000	99.2	80 - 120	
24 Mg	6	1	105900.00	1.80	110000	96.3	80 - 120	
27 Al	45	1	106900.00	0.67	110000	97.2	80 - 120	
39 K	45	1	106300.00	1.52	110000	96.6	80 - 120	
43 Ca	45	1	110700.00	1.37	110000	100.6	80 - 120	
51 V	72	1	102.10	2.01	100	102.1	80 - 120	
52 Cr	72	1	100.50	0.60	100	100.5	80 - 120	
55 Mn	72	1	100.60	1.12	100	100.6	80 - 120	
57 Fe	72	1	104600.00	1.61	110000	95.1	80 - 120	
59 Co	72	1	99.01	0.80	100	99.0	80 - 120	
60 Ni	72	1	95.40	0.87	100	95.4	80 - 120	
63 Cu	72	1	95.99	1.03	100	96.0	80 - 120	
66 Zn	72	1	97.48	0.22	100	97.5	80 - 120	
75 As	72	1	99.71	0.74	100	99.7	80 - 120	
78 Se	72	1	102.30	3.31	100	102.3	80 - 120	
93 Nb	72	1	199.50	2.06	200	99.8	80 - 120	
95 Mo	72	1	2105.00	0.55	2100	100.2	80 - 120	
105 Pd	115	1	94.41	1.04	100	94.4	80 - 120	
107 Ag	115	1	87.95	3.58	100	88.0	80 - 120	
111 Cd	115	1	96.52	0.96	100	96.5	80 - 120	
118 Sn	115	1	99.29	0.54	100	99.3	80 - 120	
121 Sb	115	1	99.82	0.85	100	99.8	80 - 120	
137 Ba	115	1	101.90	0.79	100	101.9	80 - 120	
182 W	165	1	100.60	1.12	100	100.6	80 - 120	
195 Pt	165	1	94.72	1.77	100	94.7	80 - 120	
205 Tl	165	1	95.99	0.84	100	96.0	80 - 120	
208 Pb	165	1	94.61	0.78	100	94.6	80 - 120	
232 Th	165	1	97.98	1.51	100	98.0	80 - 120	
238 U	165	1	98.93	0.13	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	533235	1.40	613401	86.9	30 - 120	
45 Sc	1	2842582	0.80	3328415	85.4	30 - 120	
72 Ge	1	1255559	0.45	1482070	84.7	30 - 120	
115 In	1	3152795	0.39	3719636	84.8	30 - 120	
165 Ho	1	4890857	0.21	5558876	88.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\013SMPL.D\013SMPL.D#
Date Acquired: Aug 4 2009 05:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	173.22	3600	
23 Na	6	1	9.45	9.45	ppb	21.11	100000	
24 Mg	6	1	8.12	8.12	ppb	28.37	100000	
27 Al	45	1	9.27	9.27	ppb	28.41	100000	
39 K	45	1	-0.97	-0.97	ppb	171.54	100000	
43 Ca	45	1	8.14	8.14	ppb	32.30	100000	
51 V	72	1	-0.01	-0.01	ppb	139.27	3600	
52 Cr	72	1	-0.01	-0.01	ppb	184.25	3600	
55 Mn	72	1	0.00	0.00	ppb	941.65	18000	
57 Fe	72	1	10.19	10.19	ppb	25.06	100000	
59 Co	72	1	0.01	0.01	ppb	18.70	3600	
60 Ni	72	1	0.00	0.00	ppb	410.08	3600	
63 Cu	72	1	0.00	0.00	ppb	359.40	3600	
66 Zn	72	1	-0.05	-0.05	ppb	51.41	3600	
75 As	72	1	-0.01	-0.01	ppb	156.65	3600	
78 Se	72	1	-0.44	-0.44	ppb	76.37	3600	
93 Nb	72	1	4.37	4.37	ppb	10.29	2000	
95 Mo	72	1	1.41	1.41	ppb	9.48	3600	
105 Pd	115	1	0.01	0.01	ppb	24.81	1000	
107 Ag	115	1	0.01	0.01	ppb	47.08	3600	
111 Cd	115	1	0.01	0.01	ppb	8.17	3600	
118 Sn	115	1	-0.03	-0.03	ppb	29.93	3600	
121 Sb	115	1	0.20	0.20	ppb	4.20	3600	
137 Ba	115	1	0.01	0.01	ppb	20.60	3600	
182 W	165	1	0.04	0.04	ppb	27.00	1000	
195 Pt	165	1	0.01	0.01	ppb	55.28	1000	
205 Tl	165	1	0.00	0.00	ppb	31.86	3600	
208 Pb	165	1	0.01	0.01	ppb	14.47	3600	
232 Th	165	1	0.40	0.40	ppb	12.44	1000	
238 U	165	1	0.01	0.01	ppb	11.12	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	649011	1.30	613401	105.8	30 - 120	
45 Sc	1	3287885	2.08	3328415	98.8	30 - 120	
72 Ge	1	1508013	1.80	1482070	101.8	30 - 120	
115 In	1	3723681	1.03	3719636	100.1	30 - 120	
165 Ho	1	5486394	1.12	5558876	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\014_LR.D\014_LR.D#
Date Acquired: Aug 4 2009 06:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	983.10 ppb	1.47	1000	98.3	90 - 110	
23 Na	6	1	100400.00 ppb	1.20	100000	100.4	90 - 110	
24 Mg	6	1	98120.00 ppb	1.39	100000	98.1	90 - 110	
27 Al	45	1	99120.00 ppb	0.56	100000	99.1	90 - 110	
39 K	45	1	99030.00 ppb	0.39	100000	99.0	90 - 110	
43 Ca	45	1	102600.00 ppb	1.25	100000	102.6	90 - 110	
51 V	72	1	956.50 ppb	0.75	1000	95.7	90 - 110	
52 Cr	72	1	962.40 ppb	1.35	1000	96.2	90 - 110	
55 Mn	72	1	936.10 ppb	1.37	1000	93.6	90 - 110	
57 Fe	72	1	94940.00 ppb	1.06	100000	94.9	90 - 110	
59 Co	72	1	937.10 ppb	1.00	1000	93.7	90 - 110	
60 Ni	72	1	926.30 ppb	1.42	1000	92.6	90 - 110	
63 Cu	72	1	894.90 ppb	1.52	1000	89.5	90 - 110	Fail
66 Zn	72	1	910.10 ppb	2.20	1000	91.0	90 - 110	
75 As	72	1	957.10 ppb	1.28	1000	95.7	90 - 110	
78 Se	72	1	934.30 ppb	1.11	1000	93.4	90 - 110	
93 Nb	72	1	2252.00 ppb	1.30	2000	112.6	90 - 110	Fail
95 Mo	72	1	994.00 ppb	0.33	1000	99.4	90 - 110	
105 Pd	115	1	906.90 ppb	0.43	1000	90.7	90 - 110	
107 Ag	115	1	885.00 ppb	0.74	1000	88.5	90 - 110	Fail
111 Cd	115	1	933.70 ppb	1.14	1000	93.4	90 - 110	
118 Sn	115	1	945.30 ppb	0.55	1000	94.5	90 - 110	
121 Sb	115	1	937.70 ppb	0.72	1000	93.8	90 - 110	
137 Ba	115	1	980.70 ppb	0.91	1000	98.1	90 - 110	
182 W	165	1	966.40 ppb	0.42	1000	96.6	90 - 110	
195 Pt	165	1	925.70 ppb	0.22	1000	92.6	90 - 110	
205 Tl	165	1	943.40 ppb	0.69	1000	94.3	90 - 110	
208 Pb	165	1	916.60 ppb	0.69	1000	91.7	90 - 110	
232 Th	165	1	974.50 ppb	1.33	1000	97.5	90 - 110	
238 U	165	1	971.30 ppb	0.43	1000	97.1	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	510401	1.65	613401	83.2	30 - 120	
45 Sc	1	2772323	0.84	3328415	83.3	30 - 120	
72 Ge	1	1233806	0.89	1482070	83.2	30 - 120	
115 In	1	3002824	0.95	3719636	80.7	30 - 120	
165 Ho	1	4527867	0.86	5558876	81.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

3 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\015SMPL.D\015SMPL.D#
Date Acquired: Aug 4 2009 06:05 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.07	0.07	ppb	48.32	3600	
23 Na	6	1	29.14	29.14	ppb	82.84	100000	
24 Mg	6	1	30.32	30.32	ppb	83.38	100000	
27 Al	45	1	31.88	31.88	ppb	85.45	100000	
39 K	45	1	26.56	26.56	ppb	98.16	100000	
43 Ca	45	1	29.46	29.46	ppb	104.68	100000	
51 V	72	1	0.06	0.06	ppb	35.99	3600	
52 Cr	72	1	0.08	0.08	ppb	13.36	3600	
55 Mn	72	1	0.07	0.07	ppb	14.28	18000	
57 Fe	72	1	32.88	32.88	ppb	80.32	100000	
59 Co	72	1	0.08	0.08	ppb	19.80	3600	
60 Ni	72	1	0.08	0.08	ppb	18.95	3600	
63 Cu	72	1	0.09	0.09	ppb	14.48	3600	
66 Zn	72	1	0.06	0.06	ppb	100.05	3600	
75 As	72	1	0.08	0.08	ppb	21.57	3600	
78 Se	72	1	0.21	0.21	ppb	135.98	3600	
93 Nb	72	1	2.57	2.57	ppb	6.91	2000	
95 Mo	72	1	1.11	1.11	ppb	42.33	3600	
105 Pd	115	1	0.35	0.35	ppb	13.01	1000	
107 Ag	115	1	0.14	0.14	ppb	90.61	3600	
111 Cd	115	1	0.07	0.07	ppb	11.74	3600	
118 Sn	115	1	0.10	0.10	ppb	45.44	3600	
121 Sb	115	1	0.51	0.51	ppb	3.38	3600	
137 Ba	115	1	0.08	0.08	ppb	11.45	3600	
182 W	165	1	0.30	0.30	ppb	6.75	1000	
195 Pt	165	1	0.08	0.08	ppb	9.38	1000	
205 Tl	165	1	0.06	0.06	ppb	14.89	3600	
208 Pb	165	1	0.08	0.08	ppb	15.45	3600	
232 Th	165	1	0.63	0.63	ppb	11.37	1000	
238 U	165	1	0.15	0.15	ppb	8.95	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	636485	2.37	613401	103.8	30 - 120	
45 Sc	1	3258183	0.99	3328415	97.9	30 - 120	
72 Ge	1	1456251	1.25	1482070	98.3	30 - 120	
115 In	1	3639887	0.96	3719636	97.9	30 - 120	
165 Ho	1	5321897	0.82	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\016_CCV.D\016_CCV.D#
Date Acquired: Aug 4 2009 06:08 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.78	ppb	0.49	50	97.6	90 - 110	
23 Na	6	1	4760.00	ppb	1.12	5000	95.2	90 - 110	
24 Mg	6	1	4816.00	ppb	1.08	5000	96.3	90 - 110	
27 Al	45	1	5035.00	ppb	1.14	5000	100.7	90 - 110	
39 K	45	1	5082.00	ppb	0.66	5000	101.6	90 - 110	
43 Ca	45	1	5059.00	ppb	2.14	5000	101.2	90 - 110	
51 V	72	1	51.79	ppb	2.01	50	103.6	90 - 110	
52 Cr	72	1	51.99	ppb	1.10	50	104.0	90 - 110	
55 Mn	72	1	51.12	ppb	0.22	50	102.2	90 - 110	
57 Fe	72	1	5151.00	ppb	0.27	5000	103.0	90 - 110	
59 Co	72	1	51.21	ppb	0.57	50	102.4	90 - 110	
60 Ni	72	1	51.45	ppb	0.65	50	102.9	90 - 110	
63 Cu	72	1	52.11	ppb	1.84	50	104.2	90 - 110	
66 Zn	72	1	50.89	ppb	0.91	50	101.8	90 - 110	
75 As	72	1	50.97	ppb	0.96	50	101.9	90 - 110	
78 Se	72	1	49.64	ppb	1.37	50	99.3	90 - 110	
93 Nb	72	1	95.63	ppb	0.52	100	95.6	90 - 110	
95 Mo	72	1	50.17	ppb	0.72	50	100.3	90 - 110	
105 Pd	115	1	50.80	ppb	1.97	50	101.6	90 - 110	
107 Ag	115	1	50.98	ppb	1.22	50	102.0	90 - 110	
111 Cd	115	1	49.67	ppb	1.69	50	99.3	90 - 110	
118 Sn	115	1	49.48	ppb	1.14	50	99.0	90 - 110	
121 Sb	115	1	49.35	ppb	1.28	50	98.7	90 - 110	
137 Ba	115	1	49.77	ppb	1.62	50	99.5	90 - 110	
182 W	165	1	48.67	ppb	0.25	50	97.3	90 - 110	
195 Pt	165	1	50.37	ppb	0.44	50	100.7	90 - 110	
205 Tl	165	1	50.63	ppb	1.93	50	101.3	90 - 110	
208 Pb	165	1	51.33	ppb	0.02	50	102.7	90 - 110	
232 Th	165	1	51.28	ppb	0.04	50	102.6	90 - 110	
238 U	165	1	50.86	ppb	1.58	50	101.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628515	0.96	613401	102.5	30 - 120	
45 Sc	1	3221822	1.47	3328415	96.8	30 - 120	
72 Ge	1	1435947	0.25	1482070	96.9	30 - 120	
115 In	1	3596795	1.09	3719636	96.7	30 - 120	
165 Ho	1	5266006	0.51	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\017_CCB.D\017_CCB.D#
Date Acquired: Aug 4 2009 06:10 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-0.262	ppb	85.71	20.00	
24 Mg	6	1	0.283	ppb	48.06	20.00	
27 Al	45	1	0.421	ppb	35.34	20.00	
39 K	45	1	-0.622	ppb	196.49	20.00	
43 Ca	45	1	-1.825	ppb	36.62	20.00	
51 V	72	1	-0.003	ppb	1202.80	1.00	
52 Cr	72	1	-0.008	ppb	72.38	1.00	
55 Mn	72	1	0.000	ppb	42322.00	1.00	
57 Fe	72	1	0.855	ppb	24.84	20.00	
59 Co	72	1	0.004	ppb	37.15	1.00	
60 Ni	72	1	-0.004	ppb	166.56	1.00	
63 Cu	72	1	0.029	ppb	30.11	1.00	
66 Zn	72	1	-0.052	ppb	35.40	10.00	
75 As	72	1	-0.006	ppb	126.53	1.00	
78 Se	72	1	0.114	ppb	65.70	1.00	
93 Nb	72	1	3.313	ppb	10.30	2.00	Fail
95 Mo	72	1	0.106	ppb	4.23	1.00	
105 Pd	115	1	0.078	ppb	2.54	1.00	
107 Ag	115	1	0.011	ppb	24.39	1.00	
111 Cd	115	1	0.006	ppb	29.05	1.00	
118 Sn	115	1	-0.044	ppb	55.28	10.00	
121 Sb	115	1	0.224	ppb	5.55	1.00	
137 Ba	115	1	0.008	ppb	52.42	1.00	
182 W	165	1	0.076	ppb	7.55	5.00	
195 Pt	165	1	0.004	ppb	72.15	1.00	
205 Tl	165	1	0.017	ppb	16.74	1.00	
208 Pb	165	1	0.004	ppb	53.83	1.00	
232 Th	165	1	0.302	ppb	10.04	2.00	
238 U	165	1	0.014	ppb	13.03	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639510	1.15	613401	104.3	30 - 120	
45 Sc	1	3307384	1.05	3328415	99.4	30 - 120	
72 Ge	1	1500542	0.71	1482070	101.2	30 - 120	
115 In	1	3717920	0.26	3719636	100.0	30 - 120	
165 Ho	1	5368130	0.70	5558876	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\018WASH.D\018WASH.D#
Date Acquired: Aug 4 2009 06:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.966 ppb	19.98	1.30	
23 Na	6	1	50.660 ppb	1.28	65.00	
24 Mg	6	1	52.770 ppb	0.74	65.00	
27 Al	45	1	34.250 ppb	0.60	39.00	
39 K	45	1	107.000 ppb	1.34	130.00	
43 Ca	45	1	61.380 ppb	12.89	65.00	
51 V	72	1	5.247 ppb	2.06	6.50	
52 Cr	72	1	2.159 ppb	3.17	2.60	
55 Mn	72	1	1.047 ppb	2.30	1.30	
57 Fe	72	1	55.000 ppb	0.91	65.00	
59 Co	72	1	1.081 ppb	3.35	1.30	
60 Ni	72	1	2.225 ppb	0.84	2.60	
63 Cu	72	1	2.218 ppb	0.66	2.60	
66 Zn	72	1	10.630 ppb	1.13	13.00	
75 As	72	1	5.190 ppb	1.34	6.50	
78 Se	72	1	4.780 ppb	9.72	6.50	
93 Nb	72	1	44.630 ppb	1.58	52.00	
95 Mo	72	1	2.164 ppb	2.78	2.60	
105 Pd	115	1	0.971 ppb	1.68	1.30	
107 Ag	115	1	5.468 ppb	2.23	6.50	
111 Cd	115	1	1.067 ppb	6.04	1.30	
118 Sn	115	1	10.240 ppb	1.46	13.00	
121 Sb	115	1	2.046 ppb	0.96	2.60	
137 Ba	115	1	1.024 ppb	1.96	1.30	
182 W	165	1	4.992 ppb	0.40	6.50	
195 Pt	165	1	1.016 ppb	6.07	1.30	
205 Tl	165	1	1.134 ppb	0.58	1.30	
208 Pb	165	1	1.104 ppb	2.61	1.30	
232 Th	165	1	2.579 ppb	4.95	2.60	
238 U	165	1	1.115 ppb	1.37	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	653683	0.81	613401	106.6	30 - 120	
45 Sc	1	3353924	0.65	3328415	100.8	30 - 120	
72 Ge	1	1497601	0.60	1482070	101.0	30 - 120	
115 In	1	3740478	0.96	3719636	100.6	30 - 120	
165 Ho	1	5408001	0.74	5558876	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\019SMPL.D\019SMPL.D#
Date Acquired: Aug 4 2009 06:18 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTLR
Misc Info:
Vial Number: 2112
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	0.12	0.12	ppb	176.13	100000	
24 Mg	6	1	0.42	0.42	ppb	17.15	100000	
27 Al	45	1	0.09	0.09	ppb	82.68	100000	
39 K	45	1	0.19	0.19	ppb	520.06	100000	
43 Ca	45	1	4.98	4.98	ppb	41.27	100000	
51 V	72	1	-0.01	-0.01	ppb	142.22	3600	
52 Cr	72	1	0.01	0.01	ppb	147.66	3600	
55 Mn	72	1	0.01	0.01	ppb	43.31	18000	
57 Fe	72	1	0.77	0.77	ppb	37.26	100000	
59 Co	72	1	0.00	0.00	ppb	207.28	3600	
60 Ni	72	1	0.01	0.01	ppb	32.71	3600	
63 Cu	72	1	1,021.00	1021.00	ppb	1.47	3600	
66 Zn	72	1	0.18	0.18	ppb	12.36	3600	
75 As	72	1	-0.01	-0.01	ppb	54.80	3600	
78 Se	72	1	0.22	0.22	ppb	145.05	3600	
93 Nb	72	1	1.49	1.49	ppb	13.66	2000	
95 Mo	72	1	0.04	0.04	ppb	41.08	3600	
105 Pd	115	1	0.03	0.03	ppb	33.11	1000	
107 Ag	115	1	997.10	997.10	ppb	1.04	3600	
111 Cd	115	1	0.00	0.00	ppb	237.61	3600	
118 Sn	115	1	0.01	0.01	ppb	76.14	3600	
121 Sb	115	1	0.06	0.06	ppb	19.76	3600	
137 Ba	115	1	0.01	0.01	ppb	10.26	3600	
182 W	165	1	0.00	0.00	ppb	132.52	1000	
195 Pt	165	1	0.00	0.00	ppb	5.89	1000	
205 Tl	165	1	0.00	0.00	ppb	143.26	3600	
208 Pb	165	1	0.00	0.00	ppb	97.75	3600	
232 Th	165	1	0.00	0.00	ppb	42.61	1000	
238 U	165	1	0.00	0.00	ppb	21.15	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	645817	2.26	613401	105.3	30 - 120	
45 Sc	1	3364358	1.91	3328415	101.1	30 - 120	
72 Ge	1	1505138	0.77	1482070	101.6	30 - 120	
115 In	1	3723444	0.73	3719636	100.1	30 - 120	
165 Ho	1	5413880	0.82	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\020SMPL.D\020SMPL.D#
Date Acquired: Aug 4 2009 06:21 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.21	3600	
23 Na	6	1	-1.08	-1.08	ppb	30.22	100000	
24 Mg	6	1	0.90	0.90	ppb	8.10	100000	
27 Al	45	1	0.66	0.66	ppb	6.43	100000	
39 K	45	1	0.89	0.89	ppb	42.26	100000	
43 Ca	45	1	0.94	0.94	ppb	32.30	100000	
51 V	72	1	0.01	0.01	ppb	182.83	3600	
52 Cr	72	1	0.01	0.01	ppb	138.67	3600	
55 Mn	72	1	0.00	0.00	ppb	594.11	18000	
57 Fe	72	1	1.09	1.09	ppb	24.34	100000	
59 Co	72	1	0.00	0.00	ppb	124.28	3600	
60 Ni	72	1	-0.01	-0.01	ppb	33.43	3600	
63 Cu	72	1	0.07	0.07	ppb	30.65	3600	
66 Zn	72	1	-0.05	-0.05	ppb	13.23	3600	
75 As	72	1	-0.01	-0.01	ppb	56.38	3600	
78 Se	72	1	0.13	0.13	ppb	263.90	3600	
93 Nb	72	1	0.99	0.99	ppb	14.14	2000	
95 Mo	72	1	0.03	0.03	ppb	62.65	3600	
105 Pd	115	1	0.04	0.04	ppb	28.83	1000	
107 Ag	115	1	0.06	0.06	ppb	34.60	3600	
111 Cd	115	1	0.01	0.01	ppb	36.71	3600	
118 Sn	115	1	-0.09	-0.09	ppb	11.11	3600	
121 Sb	115	1	0.03	0.03	ppb	12.48	3600	
137 Ba	115	1	0.01	0.01	ppb	32.40	3600	
182 W	165	1	0.00	0.00	ppb	113.47	1000	
195 Pt	165	1	0.01	0.01	ppb	47.21	1000	
205 Tl	165	1	0.00	0.00	ppb	22.13	3600	
208 Pb	165	1	0.00	0.00	ppb	71.75	3600	
232 Th	165	1	-0.01	-0.01	ppb	15.66	1000	
238 U	165	1	0.01	0.01	ppb	11.09	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	641513	1.37	613401	104.6	30 - 120	
45 Sc	1	3366434	1.69	3328415	101.1	30 - 120	
72 Ge	1	1514557	0.93	1482070	102.2	30 - 120	
115 In	1	3724160	0.53	3719636	100.1	30 - 120	
165 Ho	1	5321318	0.19	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\021_CCV.D\021_CCV.D#
Date Acquired: Aug 4 2009 06:24 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.03	ppb	0.94	50	96.1	90 - 110	
23 Na	6	1	4744.00	ppb	2.21	5000	94.9	90 - 110	
24 Mg	6	1	4798.00	ppb	0.73	5000	96.0	90 - 110	
27 Al	45	1	5084.00	ppb	2.25	5000	101.7	90 - 110	
39 K	45	1	5110.00	ppb	0.62	5000	102.2	90 - 110	
43 Ca	45	1	5069.00	ppb	0.73	5000	101.4	90 - 110	
51 V	72	1	51.56	ppb	1.43	50	103.1	90 - 110	
52 Cr	72	1	50.99	ppb	1.52	50	102.0	90 - 110	
55 Mn	72	1	51.46	ppb	1.14	50	102.9	90 - 110	
57 Fe	72	1	5155.00	ppb	0.58	5000	103.1	90 - 110	
59 Co	72	1	51.58	ppb	1.14	50	103.2	90 - 110	
60 Ni	72	1	51.36	ppb	1.50	50	102.7	90 - 110	
63 Cu	72	1	51.89	ppb	1.29	50	103.8	90 - 110	
66 Zn	72	1	50.99	ppb	0.93	50	102.0	90 - 110	
75 As	72	1	50.84	ppb	1.52	50	101.7	90 - 110	
78 Se	72	1	51.24	ppb	1.36	50	102.5	90 - 110	
93 Nb	72	1	94.55	ppb	0.52	100	94.6	90 - 110	
95 Mo	72	1	49.93	ppb	1.53	50	99.9	90 - 110	
105 Pd	115	1	50.85	ppb	0.34	50	101.7	90 - 110	
107 Ag	115	1	51.69	ppb	0.86	50	103.4	90 - 110	
111 Cd	115	1	50.15	ppb	0.49	50	100.3	90 - 110	
118 Sn	115	1	50.23	ppb	0.51	50	100.5	90 - 110	
121 Sb	115	1	49.70	ppb	0.83	50	99.4	90 - 110	
137 Ba	115	1	50.28	ppb	0.28	50	100.6	90 - 110	
182 W	165	1	48.40	ppb	0.99	50	96.8	90 - 110	
195 Pt	165	1	50.19	ppb	1.03	50	100.4	90 - 110	
205 Tl	165	1	51.30	ppb	0.24	50	102.6	90 - 110	
208 Pb	165	1	51.13	ppb	0.92	50	102.3	90 - 110	
232 Th	165	1	50.02	ppb	1.31	50	100.0	90 - 110	
238 U	165	1	50.40	ppb	0.39	50	100.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	637798	1.11	613401	104.0	30 - 120	
45 Sc	1	3256719	1.41	3328415	97.8	30 - 120	
72 Ge	1	1445937	0.36	1482070	97.6	30 - 120	
115 In	1	3556246	0.63	3719636	95.6	30 - 120	
165 Ho	1	5266849	0.14	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\022_CCB.D\022_CCB.D#
Date Acquired: Aug 4 2009 06:27 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.008	ppb	173.18	1.00	
23 Na	6	1	-5.657	ppb	6.88	20.00	
24 Mg	6	1	0.282	ppb	35.67	20.00	
27 Al	45	1	0.364	ppb	31.23	20.00	
39 K	45	1	0.504	ppb	74.31	20.00	
43 Ca	45	1	-0.577	ppb	232.24	20.00	
51 V	72	1	-0.031	ppb	73.13	1.00	
52 Cr	72	1	-0.012	ppb	100.88	1.00	
55 Mn	72	1	0.000	ppb	6998.30	1.00	
57 Fe	72	1	0.867	ppb	28.00	20.00	
59 Co	72	1	0.001	ppb	226.14	1.00	
60 Ni	72	1	0.014	ppb	104.94	1.00	
63 Cu	72	1	0.023	ppb	40.09	1.00	
66 Zn	72	1	-0.069	ppb	6.01	10.00	
75 As	72	1	-0.003	ppb	205.31	1.00	
78 Se	72	1	0.070	ppb	329.91	1.00	
93 Nb	72	1	3.296	ppb	11.66	2.00	Fail
95 Mo	72	1	0.043	ppb	22.77	1.00	
105 Pd	115	1	0.033	ppb	13.82	1.00	
107 Ag	115	1	0.014	ppb	53.32	1.00	
111 Cd	115	1	0.005	ppb	37.33	1.00	
118 Sn	115	1	-0.066	ppb	13.39	10.00	
121 Sb	115	1	0.174	ppb	1.91	1.00	
137 Ba	115	1	0.007	ppb	32.98	1.00	
182 W	165	1	0.034	ppb	15.67	5.00	
195 Pt	165	1	0.009	ppb	63.42	1.00	
205 Tl	165	1	0.011	ppb	35.61	1.00	
208 Pb	165	1	0.003	ppb	37.08	1.00	
232 Th	165	1	0.271	ppb	11.18	2.00	
238 U	165	1	0.010	ppb	9.62	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639094	1.93	613401	104.2	30 - 120	
45 Sc	1	3307521	1.41	3328415	99.4	30 - 120	
72 Ge	1	1478496	0.34	1482070	99.8	30 - 120	
115 In	1	3684210	0.86	3719636	99.0	30 - 120	
165 Ho	1	5345603	0.83	5558876	96.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\023WASH.D\023WASH.D#
Date Acquired: Aug 4 2009 06:30 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.029 ppb	12.28	1.30	
23 Na	6	1	47.570 ppb	0.74	65.00	
24 Mg	6	1	54.960 ppb	0.32	65.00	
27 Al	45	1	34.190 ppb	0.42	39.00	
39 K	45	1	109.700 ppb	0.43	130.00	
43 Ca	45	1	50.300 ppb	12.46	65.00	
51 V	72	1	5.194 ppb	1.40	6.50	
52 Cr	72	1	2.165 ppb	0.83	2.60	
55 Mn	72	1	1.041 ppb	7.83	1.30	
57 Fe	72	1	55.780 ppb	1.03	65.00	
59 Co	72	1	1.076 ppb	4.16	1.30	
60 Ni	72	1	2.241 ppb	1.15	2.60	
63 Cu	72	1	2.192 ppb	2.30	2.60	
66 Zn	72	1	10.470 ppb	1.51	13.00	
75 As	72	1	5.234 ppb	0.88	6.50	
78 Se	72	1	4.928 ppb	3.74	6.50	
93 Nb	72	1	44.410 ppb	1.15	52.00	
95 Mo	72	1	2.015 ppb	1.75	2.60	
105 Pd	115	1	0.924 ppb	4.65	1.30	
107 Ag	115	1	5.423 ppb	1.73	6.50	
111 Cd	115	1	1.049 ppb	1.47	1.30	
118 Sn	115	1	10.170 ppb	1.85	13.00	
121 Sb	115	1	2.016 ppb	0.80	2.60	
137 Ba	115	1	1.044 ppb	1.15	1.30	
182 W	165	1	4.928 ppb	0.25	6.50	
195 Pt	165	1	1.060 ppb	6.37	1.30	
205 Tl	165	1	1.096 ppb	0.95	1.30	
208 Pb	165	1	1.109 ppb	1.02	1.30	
232 Th	165	1	2.531 ppb	4.87	2.60	
238 U	165	1	1.102 ppb	0.12	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	630390	0.15	613401	102.8	30 - 120	
45 Sc	1	3346385	0.19	3328415	100.5	30 - 120	
72 Ge	1	1491495	1.26	1482070	100.6	30 - 120	
115 In	1	3717652	0.76	3719636	99.9	30 - 120	
165 Ho	1	5359965	0.44	5558876	96.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 08/04/2009

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#
Date Acquired: Aug 4 2009 09:44 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:42 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	178484	1.47
24	Mg	6	1	14468	3.45
27	Al	45	1	12259	2.42
39	K	45	1	291167	0.16
43	Ca	45	1	117	30.31
51	V	72	1	62	998.48
52	Cr	72	1	3150	3.30
55	Mn	72	1	817	14.72
57	Fe	72	1	1950	3.11
59	Co	72	1	130	27.41
60	Ni	72	1	133	4.91
63	Cu	72	1	733	18.66
66	Zn	72	1	501	5.89
75	As	72	1	82	4.27
78	Se	72	1	760	16.24
93	Nb	72	1	9040	12.14
95	Mo	72	1	630	15.13
105	Pd	115	1	30	32.80
107	Ag	115	1	47	43.69
111	Cd	115	1	21	37.48
118	Sn	115	1	1340	13.26
121	Sb	115	1	107	20.01
137	Ba	115	1	127	14.14
182	W	165	1	970	10.27
195	Pt	165	1	193	16.47
205	Tl	165	1	123	18.04
208	Pb	165	1	272	24.67
232	Th	165	1	633	14.00
238	U	165	1	150	16.83

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	474143	0.42
45	Sc	1	2484770	0.24
72	Ge	1	1162179	0.64
115	In	1	3064413	0.99
165	Ho	1	4475388	0.32

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\090ICAL.D\090ICAL.D#
Date Acquired: Aug 4 2009 09:47 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:45 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	57654	0.96
23	Na	6	1	47290952	0.20
24	Mg	6	1	28755110	0.81
27	Al	45	1	26040040	0.31
39	K	45	1	46198380	0.52
43	Ca	45	1	115441	0.38
51	V	72	1	1322279	2.55
52	Cr	72	1	1278938	2.13
55	Mn	72	1	1389024	2.06
57	Fe	72	1	3272399	1.40
59	Co	72	1	1648690	2.74
60	Ni	72	1	372393	1.98
63	Cu	72	1	875339	1.93
66	Zn	72	1	175015	1.90
75	As	72	1	156097	1.98
78	Se	72	1	28029	1.73
93	Nb	72	1	4307845	2.13
95	Mo	72	1	418828	1.87
105	Pd	115	1	523266	0.92
107	Ag	115	1	1134900	0.27
111	Cd	115	1	220605	1.15
118	Sn	115	1	625068	1.30
121	Sb	115	1	692878	1.09
137	Ba	115	1	307510	1.18
182	W	165	1	947071	1.18
195	Pt	165	1	658257	1.17
205	Tl	165	1	2087953	0.61
208	Pb	165	1	2813110	0.86
232	Th	165	1	2965553	0.76
238	U	165	1	3109441	0.25

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	443695	0.31	474143	93.6	30 - 120	
45	Sc	1	2341196	0.60	2484770	94.2	30 - 120	
72	Ge	1	1096796	1.48	1162179	94.4	30 - 120	
115	In	1	2858030	0.81	3064413	93.3	30 - 120	
165	Ho	1	4293346	0.21	4475388	95.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\091_CCV.D\091_CCV.D#
Date Acquired: Aug 4 2009 09:50 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.75	ppb	2.38	50	101.5	90 - 110	
23 Na	6	1	5030.00	ppb	0.76	5000	100.6	90 - 110	
24 Mg	6	1	5070.00	ppb	2.00	5000	101.4	90 - 110	
27 Al	45	1	5077.00	ppb	0.58	5000	101.5	90 - 110	
39 K	45	1	5046.00	ppb	1.31	5000	100.9	90 - 110	
43 Ca	45	1	5110.00	ppb	1.76	5000	102.2	90 - 110	
51 V	72	1	49.26	ppb	0.37	50	98.5	90 - 110	
52 Cr	72	1	50.67	ppb	0.26	50	101.3	90 - 110	
55 Mn	72	1	50.26	ppb	0.80	50	100.5	90 - 110	
57 Fe	72	1	5175.00	ppb	1.75	5000	103.5	90 - 110	
59 Co	72	1	50.69	ppb	0.60	50	101.4	90 - 110	
60 Ni	72	1	51.38	ppb	0.38	50	102.8	90 - 110	
63 Cu	72	1	51.26	ppb	0.64	50	102.5	90 - 110	
66 Zn	72	1	51.04	ppb	0.43	50	102.1	90 - 110	
75 As	72	1	50.48	ppb	0.68	50	101.0	90 - 110	
78 Se	72	1	49.38	ppb	1.31	50	98.8	90 - 110	
93 Nb	72	1	104.00	ppb	0.79	100	104.0	90 - 110	
95 Mo	72	1	50.31	ppb	0.31	50	100.6	90 - 110	
105 Pd	115	1	50.43	ppb	2.44	50	100.9	90 - 110	
107 Ag	115	1	51.37	ppb	0.85	50	102.7	90 - 110	
111 Cd	115	1	50.44	ppb	0.84	50	100.9	90 - 110	
118 Sn	115	1	50.18	ppb	0.58	50	100.4	90 - 110	
121 Sb	115	1	50.27	ppb	0.24	50	100.5	90 - 110	
137 Ba	115	1	50.21	ppb	0.87	50	100.4	90 - 110	
182 W	165	1	49.77	ppb	1.37	50	99.5	90 - 110	
195 Pt	165	1	50.42	ppb	1.61	50	100.8	90 - 110	
205 Tl	165	1	51.69	ppb	0.62	50	103.4	90 - 110	
208 Pb	165	1	51.58	ppb	0.71	50	103.2	90 - 110	
232 Th	165	1	51.36	ppb	1.04	50	102.7	90 - 110	
238 U	165	1	50.74	ppb	0.66	50	101.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	445523	0.71	474143	94.0	30 - 120	
45 Sc	1	2345322	1.04	2484770	94.4	30 - 120	
72 Ge	1	1098830	0.62	1162179	94.5	30 - 120	
115 In	1	2880071	0.20	3064413	94.0	30 - 120	
165 Ho	1	4310631	0.28	4475388	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\092_CCB.D\092_CCB.D#
Date Acquired: Aug 4 2009 09:53 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.60	1.00	
23 Na	6	1	-2.469	ppb	14.44	20.00	
24 Mg	6	1	0.728	ppb	3.99	20.00	
27 Al	45	1	0.569	ppb	31.92	20.00	
39 K	45	1	1.055	ppb	52.13	20.00	
43 Ca	45	1	9.441	ppb	18.68	20.00	
51 V	72	1	-0.003	ppb	936.55	1.00	
52 Cr	72	1	0.019	ppb	67.57	1.00	
55 Mn	72	1	0.006	ppb	92.29	1.00	
57 Fe	72	1	0.940	ppb	70.09	20.00	
59 Co	72	1	0.007	ppb	26.51	1.00	
60 Ni	72	1	0.007	ppb	235.68	1.00	
63 Cu	72	1	0.012	ppb	109.20	1.00	
66 Zn	72	1	0.597	ppb	3.65	10.00	
75 As	72	1	0.006	ppb	196.78	1.00	
78 Se	72	1	0.133	ppb	38.77	1.00	
93 Nb	72	1	3.759	ppb	11.75	2.00	Fail
95 Mo	72	1	0.005	ppb	571.85	1.00	
105 Pd	115	1	0.037	ppb	17.09	1.00	
107 Ag	115	1	0.004	ppb	77.56	1.00	
111 Cd	115	1	0.004	ppb	100.36	1.00	
118 Sn	115	1	0.001	ppb	4722.60	10.00	
121 Sb	115	1	0.195	ppb	5.19	1.00	
137 Ba	115	1	0.000	ppb	1432.70	1.00	
182 W	165	1	0.065	ppb	15.72	5.00	
195 Pt	165	1	0.000	ppb	570.74	1.00	
205 Tl	165	1	0.034	ppb	3.20	1.00	
208 Pb	165	1	0.012	ppb	12.70	1.00	
232 Th	165	1	0.315	ppb	10.07	2.00	
238 U	165	1	0.014	ppb	4.38	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458285	0.52	474143	96.7	30 - 120	
45 Sc	1	2423480	1.64	2484770	97.5	30 - 120	
72 Ge	1	1125409	0.33	1162179	96.8	30 - 120	
115 In	1	2976971	0.11	3064413	97.1	30 - 120	
165 Ho	1	4386990	0.35	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\093WASH.D\093WASH.D#
Date Acquired: Aug 4 2009 09:56 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.970 ppb	1.25	1.30	
23 Na	6	1	49.500 ppb	0.87	65.00	
24 Mg	6	1	55.400 ppb	1.06	65.00	
27 Al	45	1	32.730 ppb	0.97	39.00	
39 K	45	1	104.900 ppb	0.89	130.00	
43 Ca	45	1	54.920 ppb	13.10	65.00	
51 V	72	1	5.096 ppb	3.25	6.50	
52 Cr	72	1	2.148 ppb	2.32	2.60	
55 Mn	72	1	1.052 ppb	2.55	1.30	
57 Fe	72	1	54.430 ppb	1.16	65.00	
59 Co	72	1	1.065 ppb	2.09	1.30	
60 Ni	72	1	2.263 ppb	5.73	2.60	
63 Cu	72	1	2.200 ppb	4.92	2.60	
66 Zn	72	1	10.700 ppb	1.85	13.00	
75 As	72	1	5.312 ppb	3.05	6.50	
78 Se	72	1	5.832 ppb	7.17	6.50	
93 Nb	72	1	45.720 ppb	2.05	52.00	
95 Mo	72	1	1.995 ppb	3.37	2.60	
105 Pd	115	1	0.969 ppb	8.73	1.30	
107 Ag	115	1	5.402 ppb	1.43	6.50	
111 Cd	115	1	1.111 ppb	2.62	1.30	
118 Sn	115	1	10.270 ppb	3.18	13.00	
121 Sb	115	1	2.053 ppb	1.10	2.60	
137 Ba	115	1	1.034 ppb	3.28	1.30	
182 W	165	1	5.145 ppb	1.66	6.50	
195 Pt	165	1	1.024 ppb	3.68	1.30	
205 Tl	165	1	1.113 ppb	1.88	1.30	
208 Pb	165	1	1.114 ppb	3.16	1.30	
232 Th	165	1	2.515 ppb	7.50	2.60	
238 U	165	1	1.095 ppb	1.48	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455069	0.82	474143	96.0	30 - 120	
45 Sc	1	2446968	0.47	2484770	98.5	30 - 120	
72 Ge	1	1128565	1.30	1162179	97.1	30 - 120	
115 In	1	2992883	0.67	3064413	97.7	30 - 120	
165 Ho	1	4387134	0.62	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\094ICSA.D\094ICSA.D#
Date Acquired: Aug 4 2009 09:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.01 ppb	86.63	1.00	
23 Na	6	1	98320.00 ppb	0.42	100.00	
24 Mg	6	1	95360.00 ppb	0.89	100.00	
27 Al	45	1	100700.00 ppb	1.38	100.00	
39 K	45	1	99400.00 ppb	1.67	100.00	
43 Ca	45	1	104800.00 ppb	1.65	100.00	
51 V	72	1	-0.28 ppb	37.57	1.00	
52 Cr	72	1	0.72 ppb	2.04	1.00	
55 Mn	72	1	3.64 ppb	0.48	1.00	
57 Fe	72	1	98190.00 ppb	0.33	100.00	
59 Co	72	1	1.57 ppb	3.16	1.00	
60 Ni	72	1	1.73 ppb	3.25	1.00	
63 Cu	72	1	1.54 ppb	0.54	1.00	
66 Zn	72	1	3.11 ppb	1.46	10.00	
75 As	72	1	0.47 ppb	5.96	1.00	
78 Se	72	1	-0.41 ppb	3.60	1.00	
93 Nb	72	1	4.26 ppb	8.33	2.00	
95 Mo	72	1	2031.00 ppb	1.28	2000.00	
105 Pd	115	1	0.11 ppb	11.68	1.00	
107 Ag	115	1	0.04 ppb	3.09	1.00	
111 Cd	115	1	3.27 ppb	2.45	1.00	
118 Sn	115	1	0.20 ppb	12.29	10.00	
121 Sb	115	1	0.30 ppb	4.78	1.00	
137 Ba	115	1	0.04 ppb	16.65	1.00	
182 W	165	1	0.14 ppb	23.34	5.00	
195 Pt	165	1	0.00 ppb	35.04	1.00	
205 Tl	165	1	0.03 ppb	46.05	1.00	
208 Pb	165	1	0.11 ppb	7.16	1.00	
232 Th	165	1	0.09 ppb	28.99	2.00	
238 U	165	1	0.00 ppb	200.21	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	459671	0.67	474143	96.9	30 - 120	
45 Sc	1	2308339	1.69	2484770	92.9	30 - 120	
72 Ge	1	1044007	0.53	1162179	89.8	30 - 120	
115 In	1	2661248	0.76	3064413	86.8	30 - 120	
165 Ho	1	4140212	0.09	4475388	92.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\095ICSB.D\095ICSB.D#
Date Acquired: Aug 4 2009 10:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	96.32	1.28	100	96.3	80 - 120	
23 Na	6	1	105200.00	0.58	110000	95.6	80 - 120	
24 Mg	6	1	102400.00	0.40	110000	93.1	80 - 120	
27 Al	45	1	107900.00	0.79	110000	98.1	80 - 120	
39 K	45	1	106300.00	0.33	110000	96.6	80 - 120	
43 Ca	45	1	111000.00	0.16	110000	100.9	80 - 120	
51 V	72	1	100.60	0.93	100	100.6	80 - 120	
52 Cr	72	1	100.70	0.13	100	100.7	80 - 120	
55 Mn	72	1	101.80	0.94	100	101.8	80 - 120	
57 Fe	72	1	104800.00	0.86	110000	95.3	80 - 120	
59 Co	72	1	99.01	0.04	100	99.0	80 - 120	
60 Ni	72	1	96.66	1.28	100	96.7	80 - 120	
63 Cu	72	1	94.38	1.35	100	94.4	80 - 120	
66 Zn	72	1	96.36	1.54	100	96.4	80 - 120	
75 As	72	1	99.30	1.06	100	99.3	80 - 120	
78 Se	72	1	99.29	3.35	100	99.3	80 - 120	
93 Nb	72	1	198.80	1.14	200	99.4	80 - 120	
95 Mo	72	1	2085.00	0.09	2100	99.3	80 - 120	
105 Pd	115	1	96.05	0.65	100	96.1	80 - 120	
107 Ag	115	1	88.64	5.52	100	88.6	80 - 120	
111 Cd	115	1	99.13	1.34	100	99.1	80 - 120	
118 Sn	115	1	100.50	1.16	100	100.5	80 - 120	
121 Sb	115	1	102.10	0.79	100	102.1	80 - 120	
137 Ba	115	1	102.40	1.38	100	102.4	80 - 120	
182 W	165	1	101.50	1.12	100	101.5	80 - 120	
195 Pt	165	1	95.01	0.62	100	95.0	80 - 120	
205 Tl	165	1	95.85	0.52	100	95.9	80 - 120	
208 Pb	165	1	95.62	0.56	100	95.6	80 - 120	
232 Th	165	1	99.13	1.09	100	99.1	80 - 120	
238 U	165	1	98.87	0.92	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458521	0.47	474143	96.7	30 - 120	
45 Sc	1	2282460	0.85	2484770	91.9	30 - 120	
72 Ge	1	1049641	1.14	1162179	90.3	30 - 120	
115 In	1	2646524	0.84	3064413	86.4	30 - 120	
165 Ho	1	4131415	0.80	4475388	92.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\096WASH.D\096WASH.D#
Date Acquired: Aug 4 2009 10:04 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.005 ppb	173.21	1.30	
23 Na	6	1	12.240 ppb	16.49	65.00	
24 Mg	6	1	8.620 ppb	21.44	65.00	
27 Al	45	1	10.170 ppb	15.99	39.00	
39 K	45	1	6.753 ppb	15.22	130.00	
43 Ca	45	1	9.370 ppb	32.31	65.00	
51 V	72	1	0.008 ppb	405.72	6.50	
52 Cr	72	1	0.026 ppb	46.31	2.60	
55 Mn	72	1	0.005 ppb	106.07	1.30	
57 Fe	72	1	11.250 ppb	18.36	65.00	
59 Co	72	1	0.010 ppb	10.14	1.30	
60 Ni	72	1	0.015 ppb	47.08	2.60	
63 Cu	72	1	-0.003 ppb	437.61	2.60	
66 Zn	72	1	0.066 ppb	29.89	13.00	
75 As	72	1	0.013 ppb	82.10	6.50	
78 Se	72	1	0.195 ppb	201.23	6.50	
93 Nb	72	1	4.577 ppb	12.60	52.00	
95 Mo	72	1	1.211 ppb	10.88	2.60	
105 Pd	115	1	0.013 ppb	64.65	1.30	
107 Ag	115	1	0.014 ppb	22.07	6.50	
111 Cd	115	1	0.008 ppb	27.07	1.30	
118 Sn	115	1	-0.023 ppb	88.90	13.00	
121 Sb	115	1	0.127 ppb	5.44	2.60	
137 Ba	115	1	-0.006 ppb	163.76	1.30	
182 W	165	1	0.067 ppb	4.32	6.50	
195 Pt	165	1	0.010 ppb	98.77	1.30	
205 Tl	165	1	0.012 ppb	10.40	1.30	
208 Pb	165	1	0.013 ppb	18.73	1.30	
232 Th	165	1	0.448 ppb	10.88	2.60	
238 U	165	1	0.020 ppb	8.71	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465019	1.73	474143	98.1	30 - 120	
45 Sc	1	2361340	0.44	2484770	95.0	30 - 120	
72 Ge	1	1114627	1.15	1162179	95.9	30 - 120	
115 In	1	2938079	0.52	3064413	95.9	30 - 120	
165 Ho	1	4404170	0.74	4475388	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\097_CCV.D\097_CCV.D#
Date Acquired: Aug 4 2009 10:07 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.87	ppb	2.72	50	101.7	90 - 110	
23 Na	6	1	5030.00	ppb	0.84	5000	100.6	90 - 110	
24 Mg	6	1	4975.00	ppb	0.37	5000	99.5	90 - 110	
27 Al	45	1	4999.00	ppb	0.47	5000	100.0	90 - 110	
39 K	45	1	5015.00	ppb	0.50	5000	100.3	90 - 110	
43 Ca	45	1	4978.00	ppb	1.01	5000	99.6	90 - 110	
51 V	72	1	49.01	ppb	1.42	50	98.0	90 - 110	
52 Cr	72	1	50.21	ppb	0.85	50	100.4	90 - 110	
55 Mn	72	1	49.79	ppb	0.40	50	99.6	90 - 110	
57 Fe	72	1	5145.00	ppb	0.75	5000	102.9	90 - 110	
59 Co	72	1	50.00	ppb	0.78	50	100.0	90 - 110	
60 Ni	72	1	50.92	ppb	1.18	50	101.8	90 - 110	
63 Cu	72	1	50.89	ppb	0.59	50	101.8	90 - 110	
66 Zn	72	1	50.52	ppb	0.98	50	101.0	90 - 110	
75 As	72	1	50.18	ppb	0.62	50	100.4	90 - 110	
78 Se	72	1	50.48	ppb	2.52	50	101.0	90 - 110	
93 Nb	72	1	102.30	ppb	0.52	100	102.3	90 - 110	
95 Mo	72	1	49.96	ppb	0.89	50	99.9	90 - 110	
105 Pd	115	1	51.24	ppb	1.91	50	102.5	90 - 110	
107 Ag	115	1	52.00	ppb	1.21	50	104.0	90 - 110	
111 Cd	115	1	50.74	ppb	1.30	50	101.5	90 - 110	
118 Sn	115	1	50.67	ppb	2.00	50	101.3	90 - 110	
121 Sb	115	1	50.48	ppb	0.65	50	101.0	90 - 110	
137 Ba	115	1	50.64	ppb	1.63	50	101.3	90 - 110	
182 W	165	1	50.21	ppb	0.95	50	100.4	90 - 110	
195 Pt	165	1	50.66	ppb	0.75	50	101.3	90 - 110	
205 Tl	165	1	51.44	ppb	0.95	50	102.9	90 - 110	
208 Pb	165	1	51.96	ppb	0.78	50	103.9	90 - 110	
232 Th	165	1	51.39	ppb	0.50	50	102.8	90 - 110	
238 U	165	1	51.14	ppb	0.75	50	102.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451853	0.49	474143	95.3	30 - 120	
45 Sc	1	2375883	0.80	2484770	95.6	30 - 120	
72 Ge	1	1117949	0.39	1162179	96.2	30 - 120	
115 In	1	2884699	0.90	3064413	94.1	30 - 120	
165 Ho	1	4343104	0.09	4475388	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG080409.B\098_CCB.D\098_CCB.D#
Date Acquired:	Aug 4 2009 10:10 pm
Operator:	TEL
Sample Name:	CCB
Misc Info:	
Vial Number:	1307
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update:	Aug 04 2009 09:48 pm
Sample Type:	CCB
Total Dil Factor:	1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.62	1.00	
23 Na	6	1	-0.490	ppb	61.81	20.00	
24 Mg	6	1	1.180	ppb	7.96	20.00	
27 Al	45	1	1.100	ppb	10.01	20.00	
39 K	45	1	2.088	ppb	54.65	20.00	
43 Ca	45	1	6.293	ppb	52.60	20.00	
51 V	72	1	0.014	ppb	77.05	1.00	
52 Cr	72	1	0.021	ppb	28.37	1.00	
55 Mn	72	1	-0.001	ppb	855.24	1.00	
57 Fe	72	1	1.036	ppb	33.15	20.00	
59 Co	72	1	0.006	ppb	23.17	1.00	
60 Ni	72	1	0.004	ppb	179.98	1.00	
63 Cu	72	1	0.011	ppb	54.22	1.00	
66 Zn	72	1	0.597	ppb	3.14	10.00	
75 As	72	1	0.015	ppb	1.13	1.00	
78 Se	72	1	0.358	ppb	47.89	1.00	
93 Nb	72	1	3.709	ppb	10.86	2.00	Fail
95 Mo	72	1	0.077	ppb	63.62	1.00	
105 Pd	115	1	0.027	ppb	62.89	1.00	
107 Ag	115	1	0.010	ppb	19.56	1.00	
111 Cd	115	1	0.006	ppb	124.41	1.00	
118 Sn	115	1	-0.013	ppb	18.38	10.00	
121 Sb	115	1	0.174	ppb	3.42	1.00	
137 Ba	115	1	-0.004	ppb	188.93	1.00	
182 W	165	1	0.059	ppb	19.97	5.00	
195 Pt	165	1	0.007	ppb	116.96	1.00	
205 Tl	165	1	0.023	ppb	14.74	1.00	
208 Pb	165	1	0.010	ppb	17.15	1.00	
232 Th	165	1	0.319	ppb	13.63	2.00	
238 U	165	1	0.012	ppb	11.50	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465208	0.92	474143	98.1	30 - 120	
45 Sc	1	2436587	0.89	2484770	98.1	30 - 120	
72 Ge	1	1130740	1.00	1162179	97.3	30 - 120	
115 In	1	3009733	1.46	3064413	98.2	30 - 120	
165 Ho	1	4399005	0.53	4475388	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\099WASH.D\099WASH.D#
Date Acquired: Aug 4 2009 10:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.886 ppb	5.66	1.30	
23 Na	6	1	50.810 ppb	1.06	65.00	
24 Mg	6	1	56.000 ppb	0.89	65.00	
27 Al	45	1	33.700 ppb	1.84	39.00	
39 K	45	1	110.100 ppb	2.95	130.00	
43 Ca	45	1	60.140 ppb	8.21	65.00	
51 V	72	1	5.031 ppb	2.05	6.50	
52 Cr	72	1	2.150 ppb	2.93	2.60	
55 Mn	72	1	1.027 ppb	2.91	1.30	
57 Fe	72	1	53.480 ppb	4.59	65.00	
59 Co	72	1	1.040 ppb	2.92	1.30	
60 Ni	72	1	2.121 ppb	5.54	2.60	
63 Cu	72	1	2.137 ppb	0.81	2.60	
66 Zn	72	1	10.480 ppb	0.89	13.00	
75 As	72	1	5.104 ppb	1.55	6.50	
78 Se	72	1	5.343 ppb	9.92	6.50	
93 Nb	72	1	44.650 ppb	1.78	52.00	
95 Mo	72	1	2.036 ppb	3.83	2.60	
105 Pd	115	1	0.925 ppb	0.87	1.30	
107 Ag	115	1	5.458 ppb	0.05	6.50	
111 Cd	115	1	1.039 ppb	1.83	1.30	
118 Sn	115	1	10.330 ppb	0.19	13.00	
121 Sb	115	1	2.032 ppb	1.67	2.60	
137 Ba	115	1	1.015 ppb	2.72	1.30	
182 W	165	1	4.992 ppb	2.53	6.50	
195 Pt	165	1	1.006 ppb	6.57	1.30	
205 Tl	165	1	1.109 ppb	1.70	1.30	
208 Pb	165	1	1.085 ppb	3.59	1.30	
232 Th	165	1	2.535 ppb	7.55	2.60	
238 U	165	1	1.089 ppb	0.63	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	466268	0.29	474143	98.3	30 - 120	
45 Sc	1	2447934	0.46	2484770	98.5	30 - 120	
72 Ge	1	1160377	0.46	1162179	99.8	30 - 120	
115 In	1	3020765	0.22	3064413	98.6	30 - 120	
165 Ho	1	4470835	1.08	4475388	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\103_CCV.D\103_CCV.D#
Date Acquired: Aug 4 2009 10:25 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.28	ppb	2.14	50	100.6	90 - 110	
23 Na	6	1	4992.00	ppb	1.18	5000	99.8	90 - 110	
24 Mg	6	1	5023.00	ppb	0.93	5000	100.5	90 - 110	
27 Al	45	1	5130.00	ppb	0.32	5000	102.6	90 - 110	
39 K	45	1	5118.00	ppb	1.21	5000	102.4	90 - 110	
43 Ca	45	1	5057.00	ppb	2.22	5000	101.1	90 - 110	
51 V	72	1	50.09	ppb	1.27	50	100.2	90 - 110	
52 Cr	72	1	51.30	ppb	2.05	50	102.6	90 - 110	
55 Mn	72	1	51.28	ppb	2.11	50	102.6	90 - 110	
57 Fe	72	1	5291.00	ppb	1.94	5000	105.8	90 - 110	
59 Co	72	1	51.04	ppb	1.54	50	102.1	90 - 110	
60 Ni	72	1	51.89	ppb	1.14	50	103.8	90 - 110	
63 Cu	72	1	52.55	ppb	1.70	50	105.1	90 - 110	
66 Zn	72	1	51.61	ppb	1.59	50	103.2	90 - 110	
75 As	72	1	51.49	ppb	2.14	50	103.0	90 - 110	
78 Se	72	1	52.27	ppb	0.90	50	104.5	90 - 110	
93 Nb	72	1	97.20	ppb	3.17	100	97.2	90 - 110	
95 Mo	72	1	51.47	ppb	1.86	50	102.9	90 - 110	
105 Pd	115	1	50.33	ppb	0.52	50	100.7	90 - 110	
107 Ag	115	1	51.20	ppb	1.13	50	102.4	90 - 110	
111 Cd	115	1	50.51	ppb	0.65	50	101.0	90 - 110	
118 Sn	115	1	50.09	ppb	1.28	50	100.2	90 - 110	
121 Sb	115	1	49.91	ppb	0.36	50	99.8	90 - 110	
137 Ba	115	1	50.13	ppb	1.27	50	100.3	90 - 110	
182 W	165	1	50.24	ppb	0.96	50	100.5	90 - 110	
195 Pt	165	1	50.77	ppb	0.49	50	101.5	90 - 110	
205 Tl	165	1	50.94	ppb	0.98	50	101.9	90 - 110	
208 Pb	165	1	52.16	ppb	0.35	50	104.3	90 - 110	
232 Th	165	1	51.35	ppb	0.64	50	102.7	90 - 110	
238 U	165	1	51.25	ppb	1.68	50	102.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	447184	0.90	474143	94.3	30 - 120	
45 Sc	1	2312946	0.44	2484770	93.1	30 - 120	
72 Ge	1	1065416	2.50	1162179	91.7	30 - 120	
115 In	1	2842346	0.30	3064413	92.8	30 - 120	
165 Ho	1	4216146	0.60	4475388	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\104_CCB.D\104_CCB.D#
Date Acquired: Aug 4 2009 10:28 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-1.388	ppb	16.22	20.00	
24 Mg	6	1	1.680	ppb	16.01	20.00	
27 Al	45	1	1.656	ppb	20.34	20.00	
39 K	45	1	2.240	ppb	29.77	20.00	
43 Ca	45	1	9.909	ppb	41.45	20.00	
51 V	72	1	0.027	ppb	76.41	1.00	
52 Cr	72	1	0.025	ppb	7.23	1.00	
55 Mn	72	1	0.008	ppb	122.53	1.00	
57 Fe	72	1	1.735	ppb	20.77	20.00	
59 Co	72	1	0.008	ppb	79.14	1.00	
60 Ni	72	1	0.005	ppb	260.75	1.00	
63 Cu	72	1	0.016	ppb	76.22	1.00	
66 Zn	72	1	0.581	ppb	0.81	10.00	
75 As	72	1	0.017	ppb	47.47	1.00	
78 Se	72	1	0.165	ppb	169.10	1.00	
93 Nb	72	1	3.203	ppb	10.95	2.00	Fail
95 Mo	72	1	0.006	ppb	107.43	1.00	
105 Pd	115	1	0.028	ppb	29.11	1.00	
107 Ag	115	1	0.009	ppb	28.48	1.00	
111 Cd	115	1	0.011	ppb	67.75	1.00	
118 Sn	115	1	0.006	ppb	554.16	10.00	
121 Sb	115	1	0.175	ppb	5.25	1.00	
137 Ba	115	1	0.012	ppb	49.97	1.00	
182 W	165	1	0.050	ppb	47.77	5.00	
195 Pt	165	1	-0.002	ppb	188.60	1.00	
205 Tl	165	1	0.024	ppb	8.44	1.00	
208 Pb	165	1	0.014	ppb	9.02	1.00	
232 Th	165	1	0.315	ppb	9.83	2.00	
238 U	165	1	0.016	ppb	3.39	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455735	0.38	474143	96.1	30 - 120	
45 Sc	1	2326399	1.68	2484770	93.6	30 - 120	
72 Ge	1	1077897	1.90	1162179	92.7	30 - 120	
115 In	1	2908241	0.58	3064413	94.9	30 - 120	
165 Ho	1	4259418	0.08	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\105WASH.D\105WASH.D#
Date Acquired: Aug 4 2009 10:31 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.956 ppb	22.42	1.30	
23 Na	6	1	43.810 ppb	0.76	65.00	
24 Mg	6	1	52.970 ppb	0.19	65.00	
27 Al	45	1	32.240 ppb	1.91	39.00	
39 K	45	1	108.000 ppb	3.32	130.00	
43 Ca	45	1	56.920 ppb	15.97	65.00	
51 V	72	1	5.027 ppb	2.57	6.50	
52 Cr	72	1	2.120 ppb	4.35	2.60	
55 Mn	72	1	1.043 ppb	4.77	1.30	
57 Fe	72	1	51.710 ppb	3.05	65.00	
59 Co	72	1	1.057 ppb	1.97	1.30	
60 Ni	72	1	2.225 ppb	5.10	2.60	
63 Cu	72	1	2.217 ppb	3.42	2.60	
66 Zn	72	1	10.490 ppb	1.83	13.00	
75 As	72	1	5.088 ppb	2.33	6.50	
78 Se	72	1	5.285 ppb	5.92	6.50	
93 Nb	72	1	44.440 ppb	2.43	52.00	
95 Mo	72	1	1.935 ppb	5.21	2.60	
105 Pd	115	1	0.935 ppb	5.81	1.30	
107 Ag	115	1	5.431 ppb	1.20	6.50	
111 Cd	115	1	1.034 ppb	4.40	1.30	
118 Sn	115	1	10.330 ppb	1.78	13.00	
121 Sb	115	1	2.021 ppb	1.57	2.60	
137 Ba	115	1	0.991 ppb	5.25	1.30	
182 W	165	1	5.080 ppb	3.66	6.50	
195 Pt	165	1	1.015 ppb	2.13	1.30	
205 Tl	165	1	1.113 ppb	2.57	1.30	
208 Pb	165	1	1.127 ppb	2.10	1.30	
232 Th	165	1	2.553 ppb	4.82	2.60	
238 U	165	1	1.106 ppb	0.30	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451108	0.38	474143	95.1	30 - 120	
45 Sc	1	2321208	0.32	2484770	93.4	30 - 120	
72 Ge	1	1091161	1.22	1162179	93.9	30 - 120	
115 In	1	2903775	0.62	3064413	94.8	30 - 120	
165 Ho	1	4258910	0.36	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\106_BLK.D\106_BLK.D#
Date Acquired: Aug 4 2009 10:34 pm
Operator: TEL
Sample Name: LG6WKB
Misc Info: BLANK 9208088 6020
Vial Number: 3411
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.006 ppb	173.21	2.00	
23 Na	6	1	-11.110 ppb	2.67	40.00	
24 Mg	6	1	-2.443 ppb	2.33	40.00	
27 Al	45	1	9.282 ppb	3.27	40.00	
39 K	45	1	-5.111 ppb	12.18	40.00	
43 Ca	45	1	-2.781 ppb	79.43	40.00	
51 V	72	1	0.016 ppb	48.75	2.00	
52 Cr	72	1	0.078 ppb	22.78	2.00	
55 Mn	72	1	0.011 ppb	20.66	2.00	
57 Fe	72	1	-2.358 ppb	13.87	40.00	
59 Co	72	1	-0.004 ppb	24.33	2.00	
60 Ni	72	1	0.028 ppb	89.01	2.00	
63 Cu	72	1	0.044 ppb	7.46	2.00	
66 Zn	72	1	0.207 ppb	8.07	20.00	
75 As	72	1	0.000 ppb	1063.60	2.00	
78 Se	72	1	0.081 ppb	405.60	2.00	
93 Nb	72	1	2.236 ppb	15.51	4.00	
95 Mo	72	1	-0.108 ppb	6.90	2.00	
105 Pd	115	1	0.007 ppb	65.31	2.00	
107 Ag	115	1	0.001 ppb	156.35	2.00	
111 Cd	115	1	0.000 ppb	1007.50	2.00	
118 Sn	115	1	2.580 ppb	3.76	20.00	
121 Sb	115	1	0.045 ppb	8.63	2.00	
137 Ba	115	1	-0.020 ppb	0.31	2.00	
182 W	165	1	0.020 ppb	43.41	10.00	
195 Pt	165	1	-0.013 ppb	20.43	2.00	
205 Tl	165	1	0.024 ppb	32.54	2.00	
208 Pb	165	1	0.008 ppb	12.06	2.00	
232 Th	165	1	0.050 ppb	13.70	4.00	
238 U	165	1	-0.001 ppb	58.20	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	443353	0.44	474143	93.5	30 - 120	
45 Sc	1	2303547	0.16	2484770	92.7	30 - 120	
72 Ge	1	1042111	1.32	1162179	89.7	30 - 120	
115 In	1	2848598	0.33	3064413	93.0	30 - 120	
165 Ho	1	4212309	0.60	4475388	94.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\107_LCS.D\107_LCS.D#
Date Acquired: Aug 4 2009 10:37 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG6WKC
Misc Info: LCS
Vial Number: 3412
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	41.10	1.77	40	102.8	80 - 120	
23 Na	6	1	-5.98	6.48	4000	-0.1	80 - 120	
24 Mg	6	1	-3.07	3.10	4000	-0.1	80 - 120	
27 Al	45	1	61.03	0.40	4000	1.5	80 - 120	
39 K	45	1	-5.36	5.54	4000	-0.1	80 - 120	
43 Ca	45	1	1.00	360.44	4000	0.0	80 - 120	
51 V	72	1	41.75	1.10	40	104.4	80 - 120	
52 Cr	72	1	43.53	1.31	40	108.8	80 - 120	
55 Mn	72	1	43.51	0.89	40	108.8	80 - 120	
57 Fe	72	1	-0.59	124.99	4000	0.0	80 - 120	
59 Co	72	1	43.57	0.96	40	108.9	80 - 120	
60 Ni	72	1	44.61	1.17	40	111.5	80 - 120	
63 Cu	72	1	45.11	0.62	40	112.8	80 - 120	
66 Zn	72	1	42.91	0.73	40	107.3	80 - 120	
75 As	72	1	40.85	0.29	40	102.1	80 - 120	
78 Se	72	1	40.47	2.43	40	101.2	80 - 120	
93 Nb	72	1	1.30	15.92	80	1.6	80 - 120	
95 Mo	72	1	42.75	0.78	40	106.9	80 - 120	
105 Pd	115	1	0.01	51.80	40	0.0	80 - 120	
107 Ag	115	1	44.07	0.36	40	110.2	80 - 120	
111 Cd	115	1	41.44	0.77	40	103.6	80 - 120	
118 Sn	115	1	2.47	1.50	40	6.2	80 - 120	
121 Sb	115	1	41.30	0.71	40	103.3	80 - 120	
137 Ba	115	1	42.58	1.26	40	106.5	80 - 120	
182 W	165	1	0.03	19.85	40	0.1	80 - 120	
195 Pt	165	1	0.03	56.43	40	0.1	80 - 120	
205 Tl	165	1	44.13	0.97	40	110.3	80 - 120	
208 Pb	165	1	44.82	1.03	40	112.1	80 - 120	
232 Th	165	1	40.79	3.92	40	102.0	80 - 120	
238 U	165	1	43.30	0.67	40	108.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	434159	0.13	474143	91.6	30 - 120	
45 Sc	1	2245964	0.46	2484770	90.4	30 - 120	
72 Ge	1	1040207	0.28	1162179	89.5	30 - 120	
115 In	1	2808160	0.40	3064413	91.6	30 - 120	
165 Ho	1	4176288	0.64	4475388	93.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#
Date Acquired: Aug 4 2009 10:40 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282 5X
Misc Info: D9G240312
Vial Number: 3501
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.01	ppb	173.25	3600	
23 Na	6	1	1,954,500.00	390900.00	ppb	0.47	100000	>LDR
24 Mg	6	1	43,585.00	8717.00	ppb	0.88	100000	
27 Al	45	1	67.35	13.47	ppb	1.31	100000	
39 K	45	1	5,845.00	1169.00	ppb	0.83	100000	
43 Ca	45	1	165,500.00	33100.00	ppb	0.25	100000	
51 V	72	1	13,115.00	2623.00	ppb	2.23	3600	
52 Cr	72	1	384.80	76.96	ppb	0.84	3600	
55 Mn	72	1	16.63	3.33	ppb	0.84	18000	
57 Fe	72	1	522.50	104.50	ppb	2.32	100000	
59 Co	72	1	0.22	0.04	ppb	6.05	3600	
60 Ni	72	1	3.84	0.77	ppb	5.45	3600	
63 Cu	72	1	0.78	0.16	ppb	2.22	3600	
66 Zn	72	1	2.76	0.55	ppb	12.62	3600	
75 As	72	1	382.50	76.50	ppb	1.87	3600	
78 Se	72	1	11.11	2.22	ppb	14.28	3600	
93 Nb	72	1	4.68	0.94	ppb	22.12	2000	
95 Mo	72	1	369.10	73.82	ppb	0.21	3600	
105 Pd	115	1	2.61	0.52	ppb	2.99	1000	
107 Ag	115	1	0.12	0.02	ppb	17.30	3600	
111 Cd	115	1	0.55	0.11	ppb	10.50	3600	
118 Sn	115	1	1.36	0.27	ppb	11.83	3600	
121 Sb	115	1	0.45	0.09	ppb	7.93	3600	
137 Ba	115	1	15.45	3.09	ppb	0.98	3600	
182 W	165	1	1,589.00	317.80	ppb	1.89	1000	
195 Pt	165	1	0.18	0.04	ppb	17.00	1000	
205 Tl	165	1	0.20	0.04	ppb	30.21	3600	
208 Pb	165	1	0.05	0.01	ppb	11.58	3600	
232 Th	165	1	5.76	1.15	ppb	24.14	1000	
238 U	165	1	8.22	1.64	ppb	0.77	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	436178	1.63	474143	92.0	30 - 120	
45 Sc	1	2274781	1.61	2484770	91.5	30 - 120	
72 Ge	1	993940	1.82	1162179	85.5	30 - 120	
115 In	1	2592855	0.52	3064413	84.6	30 - 120	
165 Ho	1	4047087	1.11	4475388	90.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\109SDIL.D\109SDIL.D#
Date Acquired: Aug 4 2009 10:43 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282P25
Misc Info: SERIAL DILUTION
Vial Number: 3502
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.00	ppb	0.00	0.00	0.0	90 - 110	
23 Na	6	1	75940.00	ppb	1.58	78180.00	97.1	90 - 110	
24 Mg	6	1	1755.00	ppb	0.84	1743.40	100.7	90 - 110	
27 Al	45	1	12.53	ppb	0.95	2.69	465.1	90 - 110	
39 K	45	1	246.20	ppb	2.26	233.80	105.3	90 - 110	
43 Ca	45	1	6618.00	ppb	1.13	6620.00	100.0	90 - 110	
51 V	72	1	494.20	ppb	0.71	524.60	94.2	90 - 110	
52 Cr	72	1	15.05	ppb	0.94	15.39	97.8	90 - 110	
55 Mn	72	1	0.71	ppb	2.74	0.67	107.3	90 - 110	
57 Fe	72	1	20.27	ppb	3.95	20.90	97.0	90 - 110	
59 Co	72	1	0.01	ppb	17.87	0.01	124.2	90 - 110	
60 Ni	72	1	0.34	ppb	5.58	0.15	224.1	90 - 110	
63 Cu	72	1	0.03	ppb	3.68	0.03	104.4	90 - 110	
66 Zn	72	1	0.05	ppb	23.95	0.11	48.0	90 - 110	
75 As	72	1	15.20	ppb	0.97	15.30	99.3	90 - 110	
78 Se	72	1	0.18	ppb	124.41	0.44	39.9	90 - 110	
93 Nb	72	1	0.39	ppb	25.09	0.19	208.8	90 - 110	
95 Mo	72	1	14.15	ppb	1.14	14.76	95.8	90 - 110	
105 Pd	115	1	0.11	ppb	19.09	0.10	104.5	90 - 110	
107 Ag	115	1	0.00	ppb	18.61	0.00	58.4	90 - 110	
111 Cd	115	1	0.02	ppb	35.53	0.02	74.9	90 - 110	
118 Sn	115	1	0.07	ppb	35.66	0.05	135.3	90 - 110	
121 Sb	115	1	0.02	ppb	19.22	0.02	124.1	90 - 110	
137 Ba	115	1	0.61	ppb	4.92	0.62	98.4	90 - 110	
182 W	165	1	65.26	ppb	1.61	63.56	102.7	90 - 110	
195 Pt	165	1	0.01	ppb	39.36	0.01	74.4	90 - 110	
205 Tl	165	1	0.01	ppb	27.81	0.01	71.8	90 - 110	
208 Pb	165	1	0.00	ppb	15.10	0.00	129.2	90 - 110	
232 Th	165	1	0.18	ppb	10.83	0.23	76.0	90 - 110	
238 U	165	1	0.32	ppb	3.00	0.33	98.6	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	454347	0.40	474143	95.8	30 - 120	
45 Sc	1	2296546	1.95	2484770	92.4	30 - 120	
72 Ge	1	1064111	1.02	1162179	91.6	30 - 120	
115 In	1	2784362	0.32	3064413	90.9	30 - 120	
165 Ho	1	4230492	1.00	4475388	94.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:10

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282P25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 109
Acquired: 08/04/2009 22:43:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0.05777	100		*	
7440-62-2	Vanadium	51	6341210	12355	13120	5.83		*	
7440-47-3	Chromium	52	189196	376.20	384.80	2.23		*	
7439-96-5	Manganese	55	10361	17.840	16.620	7.34		*	
7440-48-4	Cobalt	59	293	0.27260	0.21940	24.2		*	
7440-02-0	Nickel	60	1363	8.5950	3.8350	124		*	
7440-50-8	Copper	63	947	0.80950	0.77550	4.38		*	
7440-66-6	Zinc	66	549	1.3240	2.7550	51.9		*	
7440-38-2	Arsenic	75	23092	380.10	382.50	0.627	0.21	0.6	☑
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	☑
7439-98-7	Molybdenum	95	58016	353.80	369.10	4.15		*	
7440-22-4	Silver	107	73	0.07020	0.12020	41.6		*	
7440-43-9	Cadmium	111	54	0.40945	0.54640	25.1		*	
7440-31-5	Tin	118	1667	1.8425	1.3620	35.3		*	
7440-36-0	Antimony	121	249	0.56250	0.45300	24.2		*	
7440-39-3	Barium	137	1937	15.205	15.450	1.59		*	
7440-28-0	Thallium	205	236	0.14455	0.20120	28.2		*	
7439-92-1	Lead	208	334	0.06970	0.05397	29.1		*	
7440-61-1	Uranium	238	10075	8.1050	8.2190	1.39		*	
7440-23-5	Sodium	23	66615000	1898500	1954000	2.84		*	
7439-95-4	Magnesium	24	5179020	43875	43590	0.654		*	
7429-90-5	Aluminum	27	43329	313.35	67.330	365		*	
7440-09-7	Potassium	39	1378260	6155.0	5847.0	5.27		*	
7440-70-2	Calcium	43	74980	165450	165500	0.0302		*	
7439-89-6	Iron	57	8219	506.50	522.30	3.03		*	
7440-03-1	Niobium	93	16447	9.7700	4.6800	109		*	
7440-05-3	Palladium	105	583	2.7280	2.6100	4.52		*	
7440-33-7	Tungsten	182	609292	1631.5	1589.0	2.67		*	
7440-06-4	Platinum	195	217	0.13115	0.17630	25.6		*	
7440-29-1	Thorium	232	5708	4.3755	5.7600	24.0		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\110PDS.D\110PDS.D#
Date Acquired: Aug 4 2009 10:46 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282Z
Misc Info: POST DIGESTION SPIKE
Vial Number: 3503
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	199.70	0.01	ppb	0.42	200	99.8	75 - 125	
23 Na	6	1	380300.00	390900.00	ppb	0.45	200000	64.4	75 - 125	
24 Mg	6	1	8577.00	8717.00	ppb	0.39	200000	4.1	75 - 125	
27 Al	45	1	25.90	13.47	ppb	0.84	200000	0.0	75 - 125	
39 K	45	1	1168.00	1169.00	ppb	2.06	200000	0.6	75 - 125	
43 Ca	45	1	32420.00	33100.00	ppb	1.04	200000	13.9	75 - 125	
51 V	72	1	2790.00	2623.00	ppb	0.09	200	98.8	75 - 125	
52 Cr	72	1	283.10	76.96	ppb	1.15	200	102.2	75 - 125	
55 Mn	72	1	206.70	3.33	ppb	0.93	200	101.7	75 - 125	
57 Fe	72	1	99.88	104.50	ppb	0.92	200000	0.0	75 - 125	
59 Co	72	1	201.20	0.04	ppb	1.04	200	100.6	75 - 125	
60 Ni	72	1	202.30	0.77	ppb	0.98	200	100.8	75 - 125	
63 Cu	72	1	198.30	0.16	ppb	1.46	200	99.1	75 - 125	
66 Zn	72	1	199.70	0.55	ppb	1.18	200	99.6	75 - 125	
75 As	72	1	280.90	76.50	ppb	1.22	200	101.6	75 - 125	
78 Se	72	1	208.30	2.22	ppb	0.98	200	103.0	75 - 125	
93 Nb	72	1	0.54	0.94	ppb	19.66	400	0.1	75 - 125	
95 Mo	72	1	290.90	73.82	ppb	0.43	200	106.2	75 - 125	
105 Pd	115	1	0.50	0.52	ppb	9.48	200	0.2	75 - 125	
107 Ag	115	1	48.40	0.02	ppb	21.88	50	96.8	75 - 125	
111 Cd	115	1	196.20	0.11	ppb	1.16	200	98.0	75 - 125	
118 Sn	115	1	186.00	0.27	ppb	0.78	200	92.9	75 - 125	
121 Sb	115	1	201.00	0.09	ppb	0.92	200	100.5	75 - 125	
137 Ba	115	1	208.30	3.09	ppb	1.26	200	102.6	75 - 125	
182 W	165	1	312.40	317.80	ppb	0.69	200	60.3	75 - 125	
195 Pt	165	1	0.01	0.04	ppb	102.55	200	0.0	75 - 125	
205 Tl	165	1	188.80	0.04	ppb	1.71	200	94.4	75 - 125	
208 Pb	165	1	188.50	0.01	ppb	1.13	200	94.2	75 - 125	
232 Th	165	1	0.17	1.15	ppb	20.30	200	0.1	75 - 125	
238 U	165	1	196.50	1.64	ppb	0.98	200	97.4	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	447198	0.63	474143	94.3	30 - 120	
45 Sc	1	2276632	1.23	2484770	91.6	30 - 120	
72 Ge	1	1000813	1.44	1162179	86.1	30 - 120	
115 In	1	2621111	1.15	3064413	85.5	30 - 120	
165 Ho	1	4094710	0.62	4475388	91.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:13

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282Z** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 110
Acquired: 08/04/2009 22:46:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	116045	199.70	0.01155	99.8	200		☑
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	☐
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		☑
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		☐
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		☑
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		☑
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		☑
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		☑
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		☑
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		☑
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		☐
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		☑
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		☑
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		☑
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		☑
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		☑
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		☑
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		☑
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		☑
7440-23-5	Sodium	23	06460000	380300	390800				
7439-95-4	Magnesium	24	24859400	8577.0	8718.0				
7429-90-5	Aluminum	27	76784	25.900	13.466				
7440-09-7	Potassium	39	5482330	1168.0	1169.4				
7440-70-2	Calcium	43	363702	32420	33100				
7439-89-6	Iron	57	31489	99.880	104.46				
7440-03-1	Niobium	93	18313	0.53550	0.93600				
7440-05-3	Palladium	105	2417	0.49870	0.52200				
7440-33-7	Tungsten	182	2819960	312.40	317.80				
7440-06-4	Platinum	195	223	0.00742	0.03526				
7440-29-1	Thorium	232	5468	0.17270	1.1520				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#
Date Acquired: Aug 4 2009 10:49 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282S 5X
Misc Info: MATRIX SPIKE
Vial Number: 3504
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	8.23	0.01	ppb	8.01	40	20.6	50 - 150	
23 Na	6	1	390000.00	390900.00	ppb	2.86	4000	98.8	50 - 150	
24 Mg	6	1	8775.00	8717.00	ppb	1.88	4000	69.0	50 - 150	
27 Al	45	1	12.30	13.47	ppb	1.88	4000	0.3	50 - 150	
39 K	45	1	1182.00	1169.00	ppb	0.79	4000	22.9	50 - 150	
43 Ca	45	1	32920.00	33100.00	ppb	0.39	4000	88.7	50 - 150	
51 V	72	1	2708.00	2623.00	ppb	1.55	40	101.7	50 - 150	
52 Cr	72	1	87.61	76.96	ppb	0.28	40	74.9	50 - 150	
55 Mn	72	1	12.06	3.33	ppb	1.72	40	27.8	50 - 150	
57 Fe	72	1	106.60	104.50	ppb	5.04	4000	2.6	50 - 150	
59 Co	72	1	8.79	0.04	ppb	0.93	40	21.9	50 - 150	
60 Ni	72	1	9.19	0.77	ppb	3.26	40	22.5	50 - 150	
63 Cu	72	1	8.74	0.16	ppb	1.34	40	21.8	50 - 150	
66 Zn	72	1	8.85	0.55	ppb	1.84	40	21.8	50 - 150	
75 As	72	1	87.97	76.50	ppb	0.97	40	75.5	50 - 150	
78 Se	72	1	11.04	2.22	ppb	2.73	40	26.1	50 - 150	
93 Nb	72	1	0.31	0.94	ppb	31.47	80	0.4	50 - 150	
95 Mo	72	1	84.02	73.82	ppb	0.52	40	73.8	50 - 150	
105 Pd	115	1	0.48	0.52	ppb	5.03	40	1.2	50 - 150	
107 Ag	115	1	8.01	0.02	ppb	0.64	40	20.0	50 - 150	
111 Cd	115	1	8.34	0.11	ppb	1.25	40	20.8	50 - 150	
118 Sn	115	1	0.52	0.27	ppb	4.93	40	1.3	50 - 150	
121 Sb	115	1	8.85	0.09	ppb	1.25	40	22.1	50 - 150	
137 Ba	115	1	11.90	3.09	ppb	2.04	40	27.6	50 - 150	
182 W	165	1	320.40	317.80	ppb	0.74	40	89.5	50 - 150	
195 Pt	165	1	0.00	0.04	ppb	550.43	40	0.0	50 - 150	
205 Tl	165	1	8.18	0.04	ppb	0.67	40	20.4	50 - 150	
208 Pb	165	1	9.53	0.01	ppb	0.40	40	23.8	50 - 150	
232 Th	165	1	8.09	1.15	ppb	3.41	40	19.7	50 - 150	
238 U	165	1	10.34	1.64	ppb	0.19	40	24.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	456052	0.71	474143	96.2	30 - 120	
45 Sc	1	2346727	1.70	2484770	94.4	30 - 120	
72 Ge	1	1003004	0.29	1162179	86.3	30 - 120	
115 In	1	2646059	0.29	3064413	86.3	30 - 120	
165 Ho	1	4172310	0.47	4475388	93.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\112_MSD.D\112_MSD.D#
Date Acquired: Aug 4 2009 10:51 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282D 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 3505
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.47	ppb	4.31	8.23	2.93	20	
23 Na	6	1	384100.00	ppb	2.05	390000.00	1.52	20	
24 Mg	6	1	8659.00	ppb	1.83	8775.00	1.33	20	
27 Al	45	1	36.63	ppb	2.29	12.30	99.45	20	
39 K	45	1	1173.00	ppb	1.07	1182.00	0.76	20	
43 Ca	45	1	32700.00	ppb	1.37	32920.00	0.67	20	
51 V	72	1	2605.00	ppb	1.83	2708.00	3.88	20	
52 Cr	72	1	85.60	ppb	0.30	87.61	2.32	20	
55 Mn	72	1	11.58	ppb	0.73	12.06	4.06	20	
57 Fe	72	1	100.10	ppb	1.57	106.60	6.29	20	
59 Co	72	1	8.59	ppb	1.00	8.78	2.29	20	
60 Ni	72	1	8.86	ppb	1.48	9.19	3.62	20	
63 Cu	72	1	8.41	ppb	1.28	8.74	3.90	20	
66 Zn	72	1	8.96	ppb	2.22	8.85	1.29	20	
75 As	72	1	84.83	ppb	0.04	87.97	3.63	20	
78 Se	72	1	11.10	ppb	4.27	11.04	0.54	20	
93 Nb	72	1	0.20	ppb	41.77	0.31	44.27	20	
95 Mo	72	1	82.09	ppb	0.48	84.02	2.32	20	
105 Pd	115	1	0.46	ppb	7.30	0.48	3.69	20	
107 Ag	115	1	8.00	ppb	1.88	8.01	0.21	20	
111 Cd	115	1	8.35	ppb	1.35	8.34	0.19	20	
118 Sn	115	1	0.40	ppb	18.83	0.52	27.74	20	
121 Sb	115	1	8.67	ppb	2.14	8.85	2.15	20	
137 Ba	115	1	11.66	ppb	1.15	11.90	2.04	20	
182 W	165	1	317.80	ppb	1.18	320.40	0.81	20	
195 Pt	165	1	0.00	ppb	83.52	0.00	799.57	20	
205 Tl	165	1	8.05	ppb	1.80	8.18	1.63	20	
208 Pb	165	1	8.11	ppb	1.87	9.53	16.14	20	
232 Th	165	1	8.21	ppb	0.18	8.09	1.40	20	
238 U	165	1	10.25	ppb	1.88	10.34	0.87	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	457621	0.75	474143	96.5	30 - 120	
45 Sc	1	2354252	2.04	2484770	94.7	30 - 120	
72 Ge	1	1033720	0.41	1162179	88.9	30 - 120	
115 In	1	2666740	1.63	3064413	87.0	30 - 120	
165 Ho	1	4188523	1.14	4475388	93.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\113SMPL.D\113SMPL.D#
Date Acquired: Aug 4 2009 10:54 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3WE 5X
Misc Info: D9G250146
Vial Number: 3506
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	540,500.00	108100.00	ppb	0.78	100000	>LDR
24 Mg	6	1	135,600.00	27120.00	ppb	1.34	100000	
27 Al	45	1	66.60	13.32	ppb	1.76	100000	
39 K	45	1	12,845.00	2569.00	ppb	0.26	100000	
43 Ca	45	1	224,150.00	44830.00	ppb	0.59	100000	
51 V	72	1	46.25	9.25	ppb	4.95	3600	
52 Cr	72	1	94.35	18.87	ppb	1.10	3600	
55 Mn	72	1	0.93	0.19	ppb	10.17	18000	
57 Fe	72	1	691.00	138.20	ppb	1.49	100000	
59 Co	72	1	0.99	0.20	ppb	7.03	3600	
60 Ni	72	1	12.70	2.54	ppb	5.67	3600	
63 Cu	72	1	0.68	0.14	ppb	9.54	3600	
66 Zn	72	1	3.86	0.77	ppb	6.49	3600	
75 As	72	1	156.60	31.32	ppb	0.99	3600	
78 Se	72	1	7.35	1.47	ppb	37.07	3600	
93 Nb	72	1	0.17	0.03	ppb	202.73	2000	
95 Mo	72	1	40.28	8.06	ppb	3.96	3600	
105 Pd	115	1	4.72	0.94	ppb	1.64	1000	
107 Ag	115	1	0.03	0.01	ppb	18.39	3600	
111 Cd	115	1	0.06	0.01	ppb	48.30	3600	
118 Sn	115	1	1.46	0.29	ppb	4.91	3600	
121 Sb	115	1	0.18	0.04	ppb	21.78	3600	
137 Ba	115	1	14.11	2.82	ppb	1.98	3600	
182 W	165	1	3.36	0.67	ppb	1.71	1000	
195 Pt	165	1	0.05	0.01	ppb	38.59	1000	
205 Tl	165	1	0.05	0.01	ppb	16.17	3600	
208 Pb	165	1	0.08	0.02	ppb	16.26	3600	
232 Th	165	1	1.55	0.31	ppb	17.87	1000	
238 U	165	1	55.00	11.00	ppb	1.26	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477981	0.32	474143	100.8	30 - 120	
45 Sc	1	2396366	1.00	2484770	96.4	30 - 120	
72 Ge	1	1069958	1.82	1162179	92.1	30 - 120	
115 In	1	2824370	0.48	3064413	92.2	30 - 120	
165 Ho	1	4347158	1.06	4475388	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\114SMPL.D\114SMPL.D#
Date Acquired: Aug 4 2009 10:57 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3W9 5X
Misc Info: D9G250155
Vial Number: 3507
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	100.00	3600	
23 Na	6	1	803,500.00	160700.00	ppb	0.95	100000	>LDR
24 Mg	6	1	104,600.00	20920.00	ppb	1.62	100000	
27 Al	45	1	7.07	1.41	ppb	18.99	100000	
39 K	45	1	49,190.00	9838.00	ppb	1.07	100000	
43 Ca	45	1	213,750.00	42750.00	ppb	1.04	100000	
51 V	72	1	-52.35	-10.47	ppb	16.90	3600	
52 Cr	72	1	4,215.00	843.00	ppb	0.53	3600	
55 Mn	72	1	11.23	2.25	ppb	1.02	18000	
57 Fe	72	1	654.50	130.90	ppb	0.23	100000	
59 Co	72	1	1.56	0.31	ppb	2.98	3600	
60 Ni	72	1	10.86	2.17	ppb	2.43	3600	
63 Cu	72	1	0.41	0.08	ppb	11.30	3600	
66 Zn	72	1	1.10	0.22	ppb	3.81	3600	
75 As	72	1	103.75	20.75	ppb	1.10	3600	
78 Se	72	1	5.08	1.02	ppb	21.06	3600	
93 Nb	72	1	0.24	0.05	ppb	153.47	2000	
95 Mo	72	1	25.98	5.20	ppb	3.18	3600	
105 Pd	115	1	4.09	0.82	ppb	6.25	1000	
107 Ag	115	1	0.02	0.00	ppb	146.33	3600	
111 Cd	115	1	0.09	0.02	ppb	4.38	3600	
118 Sn	115	1	1.14	0.23	ppb	11.01	3600	
121 Sb	115	1	0.18	0.04	ppb	32.08	3600	
137 Ba	115	1	35.68	7.14	ppb	2.20	3600	
182 W	165	1	1.90	0.38	ppb	3.59	1000	
195 Pt	165	1	0.06	0.01	ppb	56.86	1000	
205 Tl	165	1	0.09	0.02	ppb	3.65	3600	
208 Pb	165	1	0.07	0.01	ppb	29.05	3600	
232 Th	165	1	0.71	0.14	ppb	15.80	1000	
238 U	165	1	26.74	5.35	ppb	1.02	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	481575	0.05	474143	101.6	30 - 120	
45 Sc	1	2403823	1.78	2484770	96.7	30 - 120	
72 Ge	1	1066209	1.23	1162179	91.7	30 - 120	
115 In	1	2812335	1.47	3064413	91.8	30 - 120	
165 Ho	1	4362379	1.24	4475388	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\115SMPL.D\115SMPL.D#
Date Acquired: Aug 4 2009 11:00 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3XG 5X
Misc Info: D9G250157
Vial Number: 3508
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.14	0.03	ppb	69.53	3600	
23 Na	6	1	1,612,000.00	322400.00	ppb	0.70	100000	>LDR
24 Mg	6	1	164,300.00	32860.00	ppb	0.31	100000	
27 Al	45	1	158.35	31.67	ppb	0.89	100000	
39 K	45	1	27,445.00	5489.00	ppb	0.37	100000	
43 Ca	45	1	502,000.00	100400.00	ppb	1.91	100000	>LDR
51 V	72	1	-76.55	-15.31	ppb	28.13	3600	
52 Cr	72	1	6,030.00	1206.00	ppb	2.17	3600	
55 Mn	72	1	36.22	7.24	ppb	3.63	18000	
57 Fe	72	1	1,674.50	334.90	ppb	1.26	100000	
59 Co	72	1	0.88	0.18	ppb	10.91	3600	
60 Ni	72	1	6.49	1.30	ppb	1.24	3600	
63 Cu	72	1	1.64	0.33	ppb	13.57	3600	
66 Zn	72	1	9.54	1.91	ppb	2.31	3600	
75 As	72	1	183.25	36.65	ppb	1.59	3600	
78 Se	72	1	9.87	1.97	ppb	2.16	3600	
93 Nb	72	1	0.05	0.01	ppb	590.02	2000	
95 Mo	72	1	25.86	5.17	ppb	2.65	3600	
105 Pd	115	1	9.63	1.93	ppb	5.84	1000	
107 Ag	115	1	0.03	0.01	ppb	32.12	3600	
111 Cd	115	1	0.06	0.01	ppb	21.45	3600	
118 Sn	115	1	2.09	0.42	ppb	7.46	3600	
121 Sb	115	1	0.19	0.04	ppb	16.41	3600	
137 Ba	115	1	21.18	4.24	ppb	2.29	3600	
182 W	165	1	2.36	0.47	ppb	4.43	1000	
195 Pt	165	1	0.75	0.15	ppb	5.04	1000	
205 Tl	165	1	0.18	0.04	ppb	8.09	3600	
208 Pb	165	1	0.34	0.07	ppb	5.55	3600	
232 Th	165	1	0.31	0.06	ppb	17.38	1000	
238 U	165	1	20.78	4.16	ppb	0.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	474840	0.28	474143	100.1	30 - 120	
45 Sc	1	2418556	0.76	2484770	97.3	30 - 120	
72 Ge	1	1026866	2.28	1162179	88.4	30 - 120	
115 In	1	2732762	1.46	3064413	89.2	30 - 120	
165 Ho	1	4267340	0.43	4475388	95.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\116_CCV.D\116_CCV.D#
Date Acquired: Aug 4 2009 11:03 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.03	ppb	1.20	50	100.1	90 - 110	
23 Na	6	1	4958.00	ppb	0.71	5000	99.2	90 - 110	
24 Mg	6	1	4855.00	ppb	0.68	5000	97.1	90 - 110	
27 Al	45	1	5029.00	ppb	0.18	5000	100.6	90 - 110	
39 K	45	1	5031.00	ppb	0.89	5000	100.6	90 - 110	
43 Ca	45	1	5069.00	ppb	0.53	5000	101.4	90 - 110	
51 V	72	1	49.69	ppb	0.91	50	99.4	90 - 110	
52 Cr	72	1	51.07	ppb	0.29	50	102.1	90 - 110	
55 Mn	72	1	50.66	ppb	0.58	50	101.3	90 - 110	
57 Fe	72	1	5230.00	ppb	0.60	5000	104.6	90 - 110	
59 Co	72	1	50.66	ppb	1.03	50	101.3	90 - 110	
60 Ni	72	1	51.72	ppb	0.66	50	103.4	90 - 110	
63 Cu	72	1	51.50	ppb	0.97	50	103.0	90 - 110	
66 Zn	72	1	51.32	ppb	0.83	50	102.6	90 - 110	
75 As	72	1	50.86	ppb	1.41	50	101.7	90 - 110	
78 Se	72	1	51.46	ppb	2.98	50	102.9	90 - 110	
93 Nb	72	1	93.95	ppb	0.33	100	94.0	90 - 110	
95 Mo	72	1	51.05	ppb	1.81	50	102.1	90 - 110	
105 Pd	115	1	50.34	ppb	0.79	50	100.7	90 - 110	
107 Ag	115	1	51.43	ppb	0.27	50	102.9	90 - 110	
111 Cd	115	1	50.48	ppb	0.55	50	101.0	90 - 110	
118 Sn	115	1	50.00	ppb	0.64	50	100.0	90 - 110	
121 Sb	115	1	50.12	ppb	0.37	50	100.2	90 - 110	
137 Ba	115	1	50.31	ppb	0.70	50	100.6	90 - 110	
182 W	165	1	50.18	ppb	1.38	50	100.4	90 - 110	
195 Pt	165	1	50.81	ppb	1.87	50	101.6	90 - 110	
205 Tl	165	1	51.62	ppb	1.51	50	103.2	90 - 110	
208 Pb	165	1	52.02	ppb	1.59	50	104.0	90 - 110	
232 Th	165	1	51.15	ppb	0.19	50	102.3	90 - 110	
238 U	165	1	51.20	ppb	1.60	50	102.4	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477218	1.17	474143	100.6	30 - 120	
45 Sc	1	2413621	0.42	2484770	97.1	30 - 120	
72 Ge	1	1120205	0.47	1162179	96.4	30 - 120	
115 In	1	2979247	0.40	3064413	97.2	30 - 120	
165 Ho	1	4435335	0.48	4475388	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\117_CCB.D\117_CCB.D#
Date Acquired: Aug 4 2009 11:06 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	47.410	ppb	7.00	20.00	Fail
24 Mg	6	1	1.735	ppb	35.06	20.00	
27 Al	45	1	1.030	ppb	60.93	20.00	
39 K	45	1	4.946	ppb	24.89	20.00	
43 Ca	45	1	10.440	ppb	14.99	20.00	
51 V	72	1	0.087	ppb	2.99	1.00	
52 Cr	72	1	0.054	ppb	26.90	1.00	
55 Mn	72	1	0.003	ppb	257.57	1.00	
57 Fe	72	1	0.684	ppb	55.47	20.00	
59 Co	72	1	0.011	ppb	33.89	1.00	
60 Ni	72	1	0.002	ppb	184.29	1.00	
63 Cu	72	1	0.032	ppb	10.84	1.00	
66 Zn	72	1	0.631	ppb	5.90	10.00	
75 As	72	1	0.015	ppb	57.71	1.00	
78 Se	72	1	0.149	ppb	453.29	1.00	
93 Nb	72	1	2.798	ppb	11.28	2.00	Fail
95 Mo	72	1	-0.015	ppb	88.80	1.00	
105 Pd	115	1	0.025	ppb	10.21	1.00	
107 Ag	115	1	0.010	ppb	44.97	1.00	
111 Cd	115	1	0.012	ppb	47.25	1.00	
118 Sn	115	1	-0.019	ppb	40.67	10.00	
121 Sb	115	1	0.157	ppb	6.34	1.00	
137 Ba	115	1	0.018	ppb	52.55	1.00	
182 W	165	1	0.149	ppb	7.65	5.00	
195 Pt	165	1	0.012	ppb	58.91	1.00	
205 Tl	165	1	0.026	ppb	18.33	1.00	
208 Pb	165	1	0.014	ppb	21.75	1.00	
232 Th	165	1	0.316	ppb	8.31	2.00	
238 U	165	1	0.016	ppb	6.18	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477705	0.35	474143	100.8	30 - 120	
45 Sc	1	2438330	0.66	2484770	98.1	30 - 120	
72 Ge	1	1136995	0.64	1162179	97.8	30 - 120	
115 In	1	3039039	0.82	3064413	99.2	30 - 120	
165 Ho	1	4487402	0.88	4475388	100.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\118WASH.D\118WASH.D#
Date Acquired: Aug 4 2009 11:09 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.990 ppb	10.14	1.30	
23 Na	6	1	82.900 ppb	1.32	65.00	
24 Mg	6	1	53.540 ppb	2.05	65.00	
27 Al	45	1	32.510 ppb	1.61	39.00	
39 K	45	1	107.800 ppb	3.48	130.00	
43 Ca	45	1	51.340 ppb	18.06	65.00	
51 V	72	1	5.078 ppb	2.70	6.50	
52 Cr	72	1	2.152 ppb	2.87	2.60	
55 Mn	72	1	1.076 ppb	1.82	1.30	
57 Fe	72	1	53.250 ppb	4.55	65.00	
59 Co	72	1	1.064 ppb	1.86	1.30	
60 Ni	72	1	2.188 ppb	7.06	2.60	
63 Cu	72	1	2.215 ppb	1.55	2.60	
66 Zn	72	1	10.760 ppb	2.15	13.00	
75 As	72	1	5.152 ppb	0.85	6.50	
78 Se	72	1	5.134 ppb	5.71	6.50	
93 Nb	72	1	43.860 ppb	0.66	52.00	
95 Mo	72	1	1.972 ppb	3.43	2.60	
105 Pd	115	1	0.934 ppb	2.26	1.30	
107 Ag	115	1	5.456 ppb	1.46	6.50	
111 Cd	115	1	1.059 ppb	2.85	1.30	
118 Sn	115	1	10.340 ppb	1.71	13.00	
121 Sb	115	1	2.028 ppb	1.83	2.60	
137 Ba	115	1	1.042 ppb	4.45	1.30	
182 W	165	1	5.136 ppb	1.94	6.50	
195 Pt	165	1	0.977 ppb	4.60	1.30	
205 Tl	165	1	1.116 ppb	0.67	1.30	
208 Pb	165	1	1.107 ppb	3.23	1.30	
232 Th	165	1	2.504 ppb	5.02	2.60	
238 U	165	1	1.092 ppb	0.67	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	476982	0.69	474143	100.6	30 - 120	
45 Sc	1	2433824	0.31	2484770	97.9	30 - 120	
72 Ge	1	1126114	0.86	1162179	96.9	30 - 120	
115 In	1	3000501	0.62	3064413	97.9	30 - 120	
165 Ho	1	4482447	0.35	4475388	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G250146

Client: Northgate Environmental

Batch(es) #: 9208088

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: 8/5/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9G250146	1	SE	LG3WE1A	20090804	6020TOTA	9208088	AG080409	024
D9G250146	1	AS	LG3WE1A	20090804	6020TOTA	9208088	AG080409	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9208088**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Katie Stoltz

Prep Date: 07/29/09
Due Date: 08/05/09

Lot	Work Order			Initial Weight/Volume
D9G270000 Water	**LG6WK**	B	Due Date: SDG:	50 mL
D9G270000 Water	**LG6WK**	C	Due Date: SDG:	50 mL
D9G240312 Water	**LG282** Total		Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	S	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	D	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G250146 Water	**LG3WE** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250155 Water	**LG3W9** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250157 Water	**LG3XG** Total		Due Date: 08/06/09 SDG: 8304615	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

Checked 8/4/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9208088 **ALLIQUOTTED BY:** KS
PREP DATE: 7.29.2009 **DIGESTED BY:** KS

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☑ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: KS

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 14859 Block & Cup # : 5, 34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	7:00	92	11:20	96
HNO3	11:30	92	12:00	94
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials KS

COMMENTS:

I certify that all information above is correct and complete.

Signature: Katie D... ***Date:*** 7.29.09

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification

ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Aug-04-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4601-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 08-03-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Expires(2): 12-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4630-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water — Volume (ml): 1,000.0
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD4629-09, NITRIC ACID — Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4631-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD4632-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000

K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD4633-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000

Date Prep./Opened: 08-04-2009

Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4631-09, ICP-MS HIGH CAL STD Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010
Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD4634-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD4635-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Expires(2): 08-01-2010 (None)
pipettes: Met 8

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)

Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4636-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 08-01-2010 (None)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)

Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

STD4637-09, ICP-MS HIGH LR STD Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000

Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

STD4638-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 04-21-2010 (None)

Parent Std No.: STD3113-09, ICP-MS TA ICV A Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400

Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

Parent Std No.: STD3116-09, ICP-MS TA ICV BRC Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	0.0800
Pd	20.000	0.0400
Pt	20.000	0.0400
W	20.000	0.0400

STD4639-09, LLCCV/RLICV Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000

Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Parent Std No.: STD3108-09, ICP-MS BRC LLCCV 1 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Nb	4.0000	40.000
Pd	0.1000	1.0000
Pt	0.1000	1.0000
W	0.5000	5.0000

STD4640-09, ALTSe Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

Reviewed By: LRD 08/04/2009

File
AG080409

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
3	Cal Blank				1.0	08/04/09 17:30		☐
4	100 ppb				1.0	08/04/09 17:33		☐
5	ICV				1.0	08/04/09 17:35		☐
6	RLIV				1.0	08/04/09 17:38		☐
7	ICB				1.0	08/04/09 17:41		☐
8	RL STD				1.0	08/04/09 17:44		☐
9	AFCEE RL				1.0	08/04/09 17:47		☐
10	ALTSe				1.0	08/04/09 17:50		☐
11	ICSA				1.0	08/04/09 17:53		☐
12	ICSAB				1.0	08/04/09 17:56		☐
13	RINSE				1.0	08/04/09 17:59		☐
14	LR				1.0	08/04/09 18:02		☐
15	RINSE				1.0	08/04/09 18:05		☐
16	CCV				1.0	08/04/09 18:08		☐
17	CCB				1.0	08/04/09 18:10		☐
18	RLCV				1.0	08/04/09 18:13		☐
19	ALTLR				1.0	08/04/09 18:18		☐
20	RINSE				1.0	08/04/09 18:21		☐
21	CCV				1.0	08/04/09 18:24		☐
22	CCB				1.0	08/04/09 18:27		☐
23	RLCV				1.0	08/04/09 18:30		☐
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0	08/04/09 18:33		☐
25	CCV				1.0	08/04/09 18:35		☐
26	CCB				1.0	08/04/09 18:38		☐
27	RLCV				1.0	08/04/09 18:41		☐
28	~~LGV1JB~~	~~D9G220000~~	~~9203274~~	~~46~~	~~1.0~~	~~08/04/09 18:44~~		☐
29	LGV1JC	D9G220000	9203274	46	1.0	08/04/09 18:47		☐
30	LGT1N	~~D9G210319-13~~ D9G210319-14	9203274	U1	1.0	08/04/09 18:50		☐
31	~~LGT4V~~	~~D9G210319-14~~	~~9203274~~	~~U1~~	~~1.0~~	~~08/04/09 18:53~~	RT 8/5/09 Did not use.	☐
32	CCV				1.0	08/04/09 18:56		☐
33	CCB				1.0	08/04/09 18:59		☐
34	RLCV				1.0	08/04/09 19:02		☐
35	LGVDGB	D9G220000	9203121	MS	1.0	08/04/09 19:05		☐
36	LGVDGC	D9G220000	9203121	MS	1.0	08/04/09 19:08		☐
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:11		☐
38	LGR1DP25	D9G210208	9203121		25.0	08/04/09 19:14		☐
39	LGR1DZ	D9G210208-1	9203121		1.0	08/04/09 19:16		☐
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:19		☐
41	CCV				1.0	08/04/09 19:22		☐
42	CCB				1.0	08/04/09 19:25		☐
43	RLCV				1.0	08/04/09 19:28		☐
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:31		☐
45	LGR1M	D9G210208-2	9203121	MS	1.0	08/04/09 19:34		☐
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0	08/04/09 19:37		☐
47	LGR1Q	D9G210208-4	9203121	MS	1.0	08/04/09 19:40		☐
48	LGR1T	D9G210208-5	9203121	MS	1.0	08/04/09 19:43		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV				1.0	08/04/09 19:46		☐
50	CCB				1.0	08/04/09 19:49		☐
51	RLCV				1.0	08/04/09 19:52		☐
52	LG4K3BF	D9G270000	9208158	MD	1.0	08/04/09 19:55		☐
53	LG4K3CF	D9G270000	9208158	MD	1.0	08/04/09 19:58		☐
54	LG22HF	D9G240290-1	9208158	MD	1.0	08/04/09 20:01		☐
55	LG29AF	D9G240311-1	9208158	MD	1.0	08/04/09 20:04		☐
56	LG29PF	D9G240311-2	9208158	MD	1.0	08/04/09 20:07		☐
57	LG29QF	D9G240311-3	9208158	MD	1.0	08/04/09 20:09		☐
58	LG29RF	D9G240311-4	9208158	MD	1.0	08/04/09 20:12		☐
59	LG29VF	D9G240311-5	9208158	MD	1.0	08/04/09 20:15		☐
60	LG29XF	D9G240311-6	9208158	MD	1.0	08/04/09 20:18		☐
61	LG290F	D9G240311-7	9208158	MD	1.0	08/04/09 20:21		☐
62	CCV				1.0	08/04/09 20:24		☐
63	CCB				1.0	08/04/09 20:27		☐
64	RLCV				1.0	08/04/09 20:30		☐
65	LG290P5F	D9G240311	9208158		5.0	08/04/09 20:33		☐
66	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 20:36~~	W# 8/5/09 Did not use.	☐
67	LG290SF	D9G240311-7	9208158	MD	1.0	08/04/09 20:39		☐
68	LG290DF	D9G240311-7	9208158	MD	1.0	08/04/09 20:42		☐
69	LG292F	D9G240311-8	9208158	MD	1.0	08/04/09 20:45		☐
70	LG293F	D9G240311-9	9208158	MD	1.0	08/04/09 20:48		☐
71	LG294F	D9G240311-10	9208158	MD	1.0	08/04/09 20:51		☐
72	LG296F	D9G240311-11	9208158	MD	1.0	08/04/09 20:54		☐
73	CCV				1.0	08/04/09 20:57		☐
74	CCB				1.0	08/04/09 21:00		☐
75	RLCV				1.0	08/04/09 21:03		☐
76	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 21:06~~		☐
77	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 21:09		☐
78	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 21:12		☐
79	CCV				1.0	08/04/09 21:15		☐
80	CCB				1.0	08/04/09 21:18		☐
81	RLCV				1.0	08/04/09 21:21		☐
82	RINSE				1.0	08/04/09 21:24		☐
83	RINSE				1.0	08/04/09 21:27		☐
84	RINSE				1.0	08/04/09 21:30		☐
85	RINSE				1.0	08/04/09 21:32		☐
86	RINSE				1.0	08/04/09 21:35		☐
87	RINSE				1.0	08/04/09 21:38		☐
88	~~Cal Blank~~				~~1.0~~	~~08/04/09 21:41~~	W# 8/5/09 Did not use.	☐
89	Cal Blank				1.0	08/04/09 21:44		☐
90	100 ppb				1.0	08/04/09 21:47		☐
91	CCV				1.0	08/04/09 21:50		☐
92	CCB				1.0	08/04/09 21:53		☐
93	RLCV				1.0	08/04/09 21:56		☐
94	ICSA				1.0	08/04/09 21:59		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
95	ICSAB				1.0	08/04/09 22:02		☐
96	WASH				1.0	08/04/09 22:04		☐
97	CCV				1.0	08/04/09 22:07		☐
98	CCB				1.0	08/04/09 22:10		☐
99	RLCV				1.0	08/04/09 22:13		☐
100	LG290ZF	D9G240311-7	9208158		1.0	08/04/09 22:16		☐
101	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 22:19		☐
102	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 22:22		☐
103	CCV				1.0	08/04/09 22:25		☐
104	CCB				1.0	08/04/09 22:28		☐
105	RLCV				1.0	08/04/09 22:31		☐
106	LG6WKB	D9G270000	9208088	MS	1.0	08/04/09 22:34		☐
107	LG6WKC	D9G270000	9208088	MS	1.0	08/04/09 22:37		☐
108	LG282 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:40		☐
109	LG282P25	D9G240312	9208088		25.0	08/04/09 22:43		☐
110	LG282Z	D9G240312-1	9208088		1.0	08/04/09 22:46		☐
111	LG282S 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:49		☐
112	LG282D 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:51		☐
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0	08/04/09 22:54		☐
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0	08/04/09 22:57		☐
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0	08/04/09 23:00		☐
116	CCV				1.0	08/04/09 23:03		☐
117	CCB				1.0	08/04/09 23:06		☐
118	RLCV				1.0	08/04/09 23:09		☐
119	LG15XB	D9G240000	9205339	MS	1.0	08/04/09 23:12		☐
120	LG15XC	D9G240000	9205339	MS	1.0	08/04/09 23:15		☐
121	LGWWE	D9G220274-1	9205339	MS	1.0	08/04/09 23:18		☐
122	LGWWEP5	D9G220274	9205339		5.0	08/04/09 23:21		☐
123	LGWWEZ	D9G220274-1	9205339		1.0	08/04/09 23:24		☐
124	LGWWES	D9G220274-1	9205339	MS	1.0	08/04/09 23:27		☐
125	LGWWED	D9G220274-1	9205339	MS	1.0	08/04/09 23:30		☐
126	CCV				1.0	08/04/09 23:33		☐
127	CCB				1.0	08/04/09 23:37		☐
128	RLCV				1.0	08/04/09 23:40		☐
129	LG4LKBF	D9G270000	9208171	MD	1.0	08/04/09 23:43		☐
130	LG4LKCF	D9G270000	9208171	MD	1.0	08/04/09 23:46		☐
131	LG17CF	D9G240170-1	9208171	MD	1.0	08/04/09 23:49		☐
132	LG17CP5F	D9G240170	9208171		5.0	08/04/09 23:52		☐
133	LG17CZF	D9G240170-1	9208171		1.0	08/04/09 23:55		☐
134	LG17CSF	D9G240170-1	9208171	MD	1.0	08/04/09 23:57		☐
135	LG17CDF	D9G240170-1	9208171	MD	1.0	08/05/09 00:00		☐
136	CCV				1.0	08/05/09 00:03		☐
137	CCB				1.0	08/05/09 00:06		☐
138	RLCV				1.0	08/05/09 00:09		☐
139	LG1WEB	D9G240000	9205275	MS	1.0	08/05/09 00:12		☐
140	LG1WEC	D9G240000	9205275	MS	1.0	08/05/09 00:15		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
141	LG1WEL	D9G240000	9205275	MS	1.0	08/05/09 00:18		☐
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21		☐
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24		☐
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27		☐
145	CCV			MS Dilution	1.0	08/05/09 00:30		☐
146	CCB				1.0	08/05/09 00:33		☐
147	RLCV				1.0	08/05/09 00:36		☐
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39		☐
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42		☐
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45		☐
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48		☐
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51		☐
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54		☐
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57		☐
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00		☐
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03		☐
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06		☐
158	CCV			46	1.0	08/05/09 01:09		☐
159	CCB			Dilution	1.0	08/05/09 01:12		☐
160	RLCV			46	1.0	08/05/09 01:15		☐
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17		☐
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20		☐
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23		☐
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26		☐
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29		☐
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32		☐
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35		☐
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38		☐
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41		☐
170	CCV			46 Slope	1.0	08/05/09 01:44		☐
171	CCB				1.0	08/05/09 01:47		☐
172	RLCV				1.0	08/05/09 01:50		☐
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53		☐
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56		☐
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59		☐
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02		☐
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05		☐
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07		☐
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10		☐
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13		☐
181	CCV				1.0	08/05/09 02:16		☐
182	CCB				1.0	08/05/09 02:19		☐
183	RLCV				1.0	08/05/09 02:22		☐
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25		☐
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28		☐
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) ICPMS_024 (024) Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
187	LGWPL	D9G220249-6	9205302	46	1.0	08/05/09 02:34		☐
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37		☐
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39		☐
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42		☐
191	CCV				1.0	08/05/09 02:45		☐
192	CCB				1.0	08/05/09 02:48		☐
193	RLCV				1.0	08/05/09 02:51		☐
194	~~LG6MMB~~	~~D9G280000~~	~~9209279~~	~~46~~	~~1.0~~	~~08/05/09 02:54~~		☐
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57		☐
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00		☐
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03		☐
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06		☐
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09		☐
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12		☐
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15		☐
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17		☐
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20		☐
204	CCV				1.0	08/05/09 03:23		☐
205	CCB				1.0	08/05/09 03:26		☐
206	RLCV				1.0	08/05/09 03:29		☐
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32		☐
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35		☐
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38		☐
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41		☐
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44		☐
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47		☐
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50		☐
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53		☐
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56		☐
216	CCV				1.0	08/05/09 03:59		☐
217	CCB				1.0	08/05/09 04:01		☐
218	RLCV				1.0	08/05/09 04:04		☐
219	RINSE				1.0	08/05/09 04:07		☐
220	RINSE				1.0	08/05/09 04:10		☐
221	RINSE				1.0	08/05/09 04:13		☐
222	RINSE				1.0	08/05/09 04:16		☐
223	RINSE				1.0	08/05/09 04:19		☐
224	RINSE				1.0	08/05/09 04:22		☐
225	~~Cal Blank~~				~~1.0~~	~~08/05/09 04:25~~	KF 8/5/09 Did not use.	☐
226	Cal Blank				1.0	08/05/09 04:28		☐
227	100 ppb				1.0	08/05/09 04:31		☐
228	CCV				1.0	08/05/09 04:34		☐
229	CCB				1.0	08/05/09 04:36		☐
230	RLCV				1.0	08/05/09 04:39		☐
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42		☐
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
233	LG7WEF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:48		☐
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51		☐
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54		☐
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57		☐
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00		☐
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03		☐
239	CCV				1.0	08/05/09 05:06		☐
240	CCB				1.0	08/05/09 05:09		☐
241	RLCV				1.0	08/05/09 05:12		☐
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15		☐
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18		☐
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21		☐
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24		☐
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27		☐
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30		☐
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33		☐
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36		☐
250	CCV				1.0	08/05/09 05:39		☐
251	CCB				1.0	08/05/09 05:42		☐
252	RLCV				1.0	08/05/09 05:45		☐
253	~~RINSE~~				~~1.0~~	~~08/05/09 05:48~~		☐
254	RINSE				1.0	~~08/05/09~~ 05:51		☐
255	RINSE				1.0	08/05/09 05:54		☐
256	RINSE				1.0	08/05/09 05:57		☐
257	RINSE				1.0	08/05/09 06:00		☐
258	RINSE				1.0	08/05/09 06:03		☐
259	~~Cal Blank~~				~~1.0~~	~~08/05/09 06:05~~	rvt 8/5/09	☐
260	Cal Blank				1.0	08/05/09 06:08		☐
261	100 ppb				1.0	08/05/09 06:11		☐
262	CCV				1.0	08/05/09 06:14		☐
263	CCB				1.0	08/05/09 06:17		☐
264	RLCV				1.0	08/05/09 06:20		☐
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23		☐
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26		☐
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29		☐
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32		☐
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35		☐
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38		☐
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41		☐
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43		☐
273	CCV				1.0	08/05/09 06:46		☐
274	CCB				1.0	08/05/09 06:49		☐
275	RLCV				1.0	08/05/09 06:52		☐
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55		☐
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58		☐
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01		☐

Denver

RUN SUMMARY

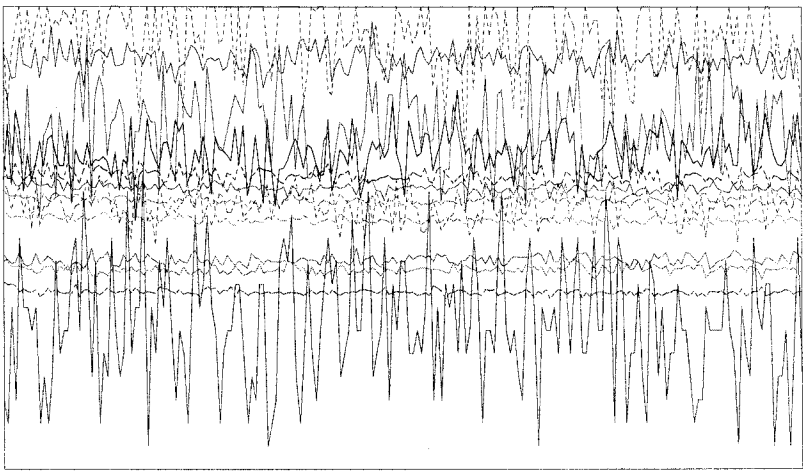
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04		☐
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07		☐
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10		☐
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13		☐
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16		☐
284	CCV				1.0	08/05/09 07:19		☐
285	CCB				1.0	08/05/09 07:22		☐
286	RLCV				1.0	08/05/09 07:25		☐
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	Take all but Ni, VT 8/5/09	☐
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31		☐
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34		☐
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37		☐
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39		☐
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42		☐
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45		☐
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48		☐
295	CCV				1.0	08/05/09 07:51		☐
296	CCB				1.0	08/05/09 07:54		☐
297	RLCV				1.0	08/05/09 07:57		☐
298	RINSE				1.0	08/05/09 08:00		☐
299	RINSE				1.0	08/05/09 08:03		☐
300	RINSE				1.0	08/05/09 08:06		☐
301	RINSE				1.0	08/05/09 08:09		☐
302	RINSE				1.0	08/05/09 08:12		☐
303	RINSE				1.0	08/05/09 08:15		☐
304	RINSE				1.0	08/05/09 08:18		☐
305	RINSE				1.0	08/05/09 08:21		☐
306	RINSE				1.0	08/05/09 08:23		☐
307	RINSE				1.0	08/05/09 08:26		☐
308	Cal Blank				1.0	08/05/09 08:29	VT 8/5/09	☐
309	Cal Blank				1.0	08/05/09 08:32		☐
310	100 ppb				1.0	08/05/09 08:35		☐
311	CCV				1.0	08/05/09 08:38		☐
312	CCB				1.0	08/05/09 08:41		☐
313	ICSA				1.0	08/05/09 08:44		☐
314	ICSAB				1.0	08/05/09 08:47		☐
315	WASH				1.0	08/05/09 08:50		☐
316	CCV				1.0	08/05/09 08:53		☐
317	CCB				1.0	08/05/09 08:56		☐
318	RLCV				1.0	08/05/09 08:59		☐

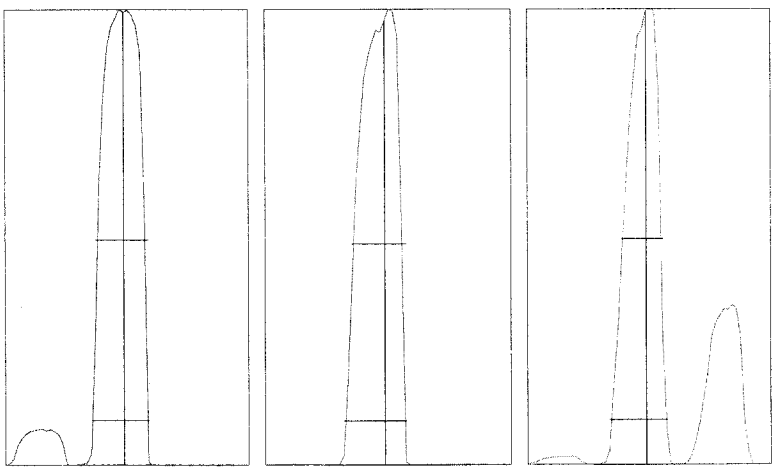
Tune Report

Tune File : NORM.U
Comment :



Integration Time:	0.1000 sec	
Sampling Period:	1.5300 sec	
n:	200	
Oxide:	156/140	1.169%
Doubly Charged:	70/140	1.090%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1762.0	1770.4	2.89	1.00
7	50,000	22681.0	22607.5	2.18	1.40
59	50,000	21258.0	21558.9	1.96	1.40
63	100	64.0	73.9	11.46	0.70
70	500	336.0	342.4	6.97	1.40
75	20	4.0	6.2	43.21	1.40
78	500	310.0	285.3	6.14	1.70
89	50,000	28955.0	29103.9	1.37	1.90
115	50,000	26852.0	26978.9	1.37	2.90
118	100	77.0	95.0	10.36	2.30
137	5,000	3035.0	3179.7	2.17	2.80
205	50,000	19156.0	19138.5	1.52	4.60
238	50,000	29560.0	30445.9	1.47	5.00
156/140	2	1.265%	1.209%	7.03	
70/140	2	1.215%	1.221%	7.10	



m/z:	7	89	205
Height:	22,611	29,043	19,439
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.50
W-10%:	0.700	0.7500	0.700

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Aug 04, 2009 17:00:36
Printed : Aug 04, 2009 17:00:39

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	1550	W	Extract 1	0	V	AMU Gain	132	
RF Matching	1.7	V	Extract 2	-165	V	AMU Offset	123	
Smpl Depth	7.5	mm	Omega Bias-ce	-34	V	Axis Gain	1.0006	
Torch-H	-0.8	mm	Omega Lens-ce	1	V	Axis Offset	-0.04	
Torch-V	-0.3	mm	Cell Entrance	-30	V	QP Bias	-1	V
Carrier Gas	0.85	L/min	QP Focus	7	V			
Makeup Gas	0.21	L/min	Cell Exit	-30	V	===Detector Parameters===		
Optional Gas	---	%				Discriminator	8	mV
Nebulizer Pump	0.1	rps	===Octopole Parameters===			Analog HV	1720	V
Sample Pump	---	rps	OctP RF	180	V	Pulse HV	1390	V
S/C Temp	2	degC	OctP Bias	-18	V			

===Reaction Cell===

Reaction Mode	OFF							
H2 Gas	0	mL/min	He Gas	0	mL/min	Optional Gas	---	%

P/A Factor Tuning Report

Acquired:Aug 4 2009 05:13 pm

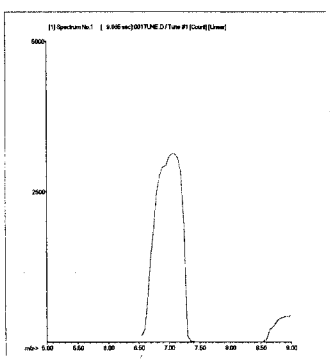
Mass[amu]	Element	P/A Factor
6	Li	0.060147
7	(Li)	Sensitivity too low
9	Be	0.067111
23	Na	Sensitivity too high
24	Mg	0.077089
27	Al	0.079051
39	K	0.078558
43	Ca	Sensitivity too low
45	Sc	0.079466
51	V	0.080963
52	Cr	0.082954
53	(Cr)	Sensitivity too low
55	Mn	0.084227
57	Fe	Sensitivity too low
59	Co	0.086953
60	Ni	0.088018
63	Cu	0.089512
66	Zn	0.089262
72	Ge	0.088835
75	As	0.088157
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.090186
98	(Mo)	0.089393
99	(Mo)	0.090406
105	Pd	0.092756
106	(Cd)	0.092519
107	Ag	Sensitivity too low
108	(Cd)	0.093276
111	Cd	0.093414
115	In	0.092399
118	Sn	0.092636
121	Sb	0.092353
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.099000
206	(Pb)	0.097831
207	(Pb)	0.097860
208	Pb	0.096584
232	Th	0.095898
238	U	0.095933

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

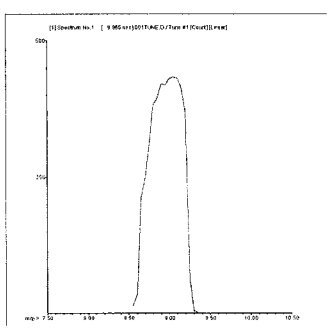
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D
Date Acquired: Aug 4 2009 05:24 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	2104305	2092847	2094507	0.34	5.00	
208 Pb	95432	97057	96600	94637	93872	94994	1.41	5.00	
238 U	187490	191136	188199	187726	186228	184161	1.37	5.00	

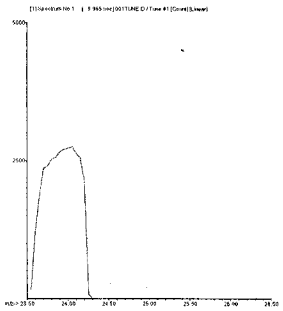


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D



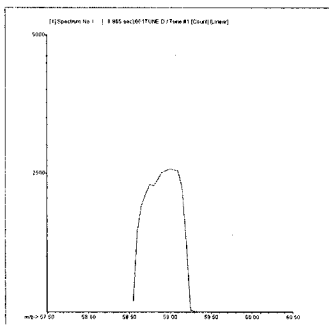
24 Mg

Mass Calib.

Actual:	24.00		
Required:	23.90	-	24.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



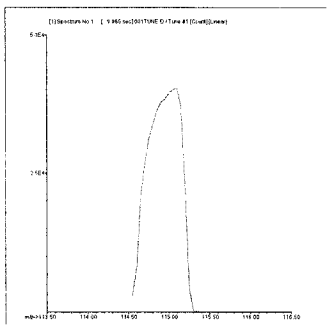
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



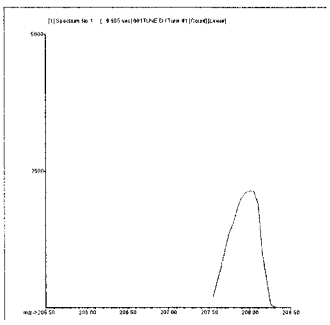
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



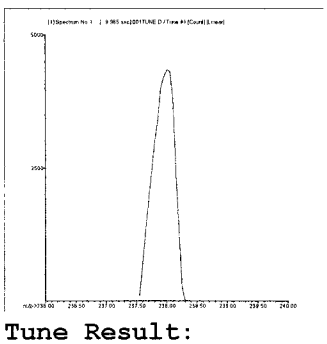
208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



238 U

Mass Calib.

Actual:	238.00		
Required:	237.90	-	238.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\002CALB.D\002CALB.D#
Date Acquired: Aug 4 2009 05:27 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	175862	1.16
24	Mg	6	1	3447	4.51
27	Al	45	1	2637	8.79
39	K	45	1	337918	1.38
43	Ca	45	1	107	5.41
51	V	72	1	-201	182.83
52	Cr	72	1	4144	5.82
55	Mn	72	1	760	4.74
57	Fe	72	1	737	10.01
59	Co	72	1	147	31.49
60	Ni	72	1	153	15.06
63	Cu	72	1	757	12.70
66	Zn	72	1	450	6.17
75	As	72	1	114	23.01
78	Se	72	1	947	10.58
93	Nb	72	1	3637	24.76
95	Mo	72	1	160	16.54
105	Pd	115	1	20	50.00
107	Ag	115	1	17	69.28
111	Cd	115	1	13	25.00
118	Sn	115	1	1173	15.35
121	Sb	115	1	43	35.25
137	Ba	115	1	30	29.40
182	W	165	1	1303	12.66
195	Pt	165	1	223	6.84
205	Tl	165	1	301	10.05
208	Pb	165	1	313	8.31
232	Th	165	1	1944	4.16
238	U	165	1	130	7.69

DG 8/5/09

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	618846	1.88
45	Sc	1	3302218	1.48
72	Ge	1	1483166	1.36
115	In	1	3715428	1.24
165	Ho	1	5532110	0.42

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#
Date Acquired: Aug 4 2009 05:30 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	166622	0.74
24	Mg	6	1	3697	3.20
27	Al	45	1	4071	3.47
39	K	45	1	344043	1.26
43	Ca	45	1	97	33.25
51	V	72	1	121	374.09
52	Cr	72	1	4394	1.17
55	Mn	72	1	797	3.16
57	Fe	72	1	670	11.66
59	Co	72	1	117	19.80
60	Ni	72	1	160	34.80
63	Cu	72	1	813	5.54
66	Zn	72	1	587	5.99
75	As	72	1	115	26.09
78	Se	72	1	937	3.26
93	Nb	72	1	3197	21.29
95	Mo	72	1	70	14.29
105	Pd	115	1	23	137.77
107	Ag	115	1	3	173.21
111	Cd	115	1	14	35.25
118	Sn	115	1	1730	6.67
121	Sb	115	1	52	13.29
137	Ba	115	1	23	14.29
182	W	165	1	1340	8.41
195	Pt	165	1	177	6.54
205	Tl	165	1	319	6.72
208	Pb	165	1	307	22.06
232	Th	165	1	1367	4.03
238	U	165	1	59	22.88

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	613401	0.88
45	Sc	1	3328415	0.44
72	Ge	1	1482070	1.07
115	In	1	3719636	0.55
165	Ho	1	5558876	0.76

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\004ICAL.D\004ICAL.D#
Date Acquired: Aug 4 2009 05:33 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:31 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	78880	1.03
23	Na	6	1	67854280	0.78
24	Mg	6	1	41046008	0.44
27	Al	45	1	36514528	1.31
39	K	45	1	62484832	0.32
43	Ca	45	1	154713	0.88
51	V	72	1	1748494	1.28
52	Cr	72	1	1712193	0.90
55	Mn	72	1	1838240	0.92
57	Fe	72	1	4331625	1.05
59	Co	72	1	2170643	0.67
60	Ni	72	1	494898	1.03
63	Cu	72	1	1147761	0.20
66	Zn	72	1	229614	0.57
75	As	72	1	199756	0.44
78	Se	72	1	35396	1.68
93	Nb	72	1	5397792	1.07
95	Mo	72	1	533263	0.26
105	Pd	115	1	657524	0.37
107	Ag	115	1	1430733	0.49
111	Cd	115	1	277412	0.99
118	Sn	115	1	778149	0.58
121	Sb	115	1	861506	0.48
137	Ba	115	1	372202	0.66
182	W	165	1	1191344	0.33
195	Pt	165	1	789081	0.96
205	Tl	165	1	2466925	0.69
208	Pb	165	1	3353142	0.67
232	Th	165	1	3430275	0.56
238	U	165	1	3566405	0.75

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	588239	1.72	613401	95.9	30 - 120	
45	Sc	1	3162866	0.88	3328415	95.0	30 - 120	
72	Ge	1	1416296	0.34	1482070	95.6	30 - 120	
115	In	1	3510265	0.79	3719636	94.4	30 - 120	
165	Ho	1	5280186	0.81	5558876	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\005_ICV.D\005_ICV.D#
Date Acquired: Aug 4 2009 05:35 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.40	ppb	3.97	40	98.5	90 - 110	
23 Na	6	1	3950.00	ppb	2.48	4000	98.8	90 - 110	
24 Mg	6	1	3979.00	ppb	1.98	4000	99.5	90 - 110	
27 Al	45	1	3968.00	ppb	1.67	4000	99.2	90 - 110	
39 K	45	1	4029.00	ppb	0.72	4000	100.7	90 - 110	
43 Ca	45	1	3997.00	ppb	1.16	4000	99.9	90 - 110	
51 V	72	1	40.20	ppb	0.92	40	100.5	90 - 110	
52 Cr	72	1	41.10	ppb	0.10	40	102.8	90 - 110	
55 Mn	72	1	40.85	ppb	0.51	40	102.1	90 - 110	
57 Fe	72	1	4190.00	ppb	1.61	4000	104.8	90 - 110	
59 Co	72	1	41.09	ppb	0.15	40	102.7	90 - 110	
60 Ni	72	1	40.89	ppb	0.89	40	102.2	90 - 110	
63 Cu	72	1	41.36	ppb	0.63	40	103.4	90 - 110	
66 Zn	72	1	41.01	ppb	0.78	40	102.5	90 - 110	
75 As	72	1	40.04	ppb	0.20	40	100.1	90 - 110	
78 Se	72	1	39.46	ppb	2.44	40	98.7	90 - 110	
93 Nb	72	1	72.30	ppb	1.68	80	90.4	90 - 110	
95 Mo	72	1	39.75	ppb	1.13	40	99.4	90 - 110	
105 Pd	115	1	40.44	ppb	1.10	40	101.1	90 - 110	
107 Ag	115	1	40.54	ppb	0.71	40	101.4	90 - 110	
111 Cd	115	1	40.13	ppb	0.47	40	100.3	90 - 110	
118 Sn	115	1	39.09	ppb	0.80	40	97.7	90 - 110	
121 Sb	115	1	39.36	ppb	0.94	40	98.4	90 - 110	
137 Ba	115	1	39.55	ppb	0.22	40	98.9	90 - 110	
182 W	165	1	38.57	ppb	1.18	40	96.4	90 - 110	
195 Pt	165	1	40.34	ppb	1.39	40	100.9	90 - 110	
205 Tl	165	1	41.02	ppb	1.39	40	102.6	90 - 110	
208 Pb	165	1	41.38	ppb	1.58	40	103.5	90 - 110	
232 Th	165	1	39.49	ppb	1.51	40	98.7	90 - 110	
238 U	165	1	41.04	ppb	1.42	40	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	608297	1.81	613401	99.2	30 - 120	
45 Sc	1	3229901	1.42	3328415	97.0	30 - 120	
72 Ge	1	1429725	0.13	1482070	96.5	30 - 120	
115 In	1	3601357	0.78	3719636	96.8	30 - 120	
165 Ho	1	5341696	0.77	5558876	96.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\006WASH.D\006WASH.D#
Date Acquired: Aug 4 2009 05:38 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.917 ppb	15.50	1.30	
23 Na	6	1	47.850 ppb	1.97	65.00	
24 Mg	6	1	54.700 ppb	1.46	65.00	
27 Al	45	1	34.050 ppb	1.40	39.00	
39 K	45	1	107.500 ppb	1.30	130.00	
43 Ca	45	1	51.170 ppb	15.57	65.00	
51 V	72	1	5.100 ppb	1.78	6.50	
52 Cr	72	1	2.130 ppb	3.03	2.60	
55 Mn	72	1	1.061 ppb	1.73	1.30	
57 Fe	72	1	54.690 ppb	4.65	65.00	
59 Co	72	1	1.082 ppb	0.70	1.30	
60 Ni	72	1	2.224 ppb	1.70	2.60	
63 Cu	72	1	2.182 ppb	1.43	2.60	
66 Zn	72	1	10.660 ppb	1.11	13.00	
75 As	72	1	5.118 ppb	2.29	6.50	
78 Se	72	1	5.284 ppb	15.76	6.50	
93 Nb	72	1	51.660 ppb	0.91	52.00	
95 Mo	72	1	2.145 ppb	4.72	2.60	
105 Pd	115	1	0.939 ppb	2.98	1.30	
107 Ag	115	1	5.364 ppb	0.81	6.50	
111 Cd	115	1	1.077 ppb	0.91	1.30	
118 Sn	115	1	10.180 ppb	1.18	13.00	
121 Sb	115	1	2.208 ppb	1.49	2.60	
137 Ba	115	1	1.064 ppb	3.32	1.30	
182 W	165	1	5.004 ppb	0.54	6.50	
195 Pt	165	1	1.019 ppb	5.85	1.30	
205 Tl	165	1	1.146 ppb	1.51	1.30	
208 Pb	165	1	1.093 ppb	1.96	1.30	
232 Th	165	1	3.309 ppb	17.07	2.60	
238 U	165	1	1.119 ppb	1.62	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	620977	1.28	613401	101.2	30 - 120	
45 Sc	1	3268310	1.29	3328415	98.2	30 - 120	
72 Ge	1	1474208	1.22	1482070	99.5	30 - 120	
115 In	1	3739867	0.54	3719636	100.5	30 - 120	
165 Ho	1	5457556	0.20	5558876	98.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\007_ICB.D\007_ICB.D#
Date Acquired: Aug 4 2009 05:41 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	-5.38	ppb	4.36	20.00	
24 Mg	6	1	-0.03	ppb	112.14	20.00	
27 Al	45	1	0.43	ppb	13.40	20.00	
39 K	45	1	0.18	ppb	342.50	20.00	
43 Ca	45	1	-2.65	ppb	47.92	20.00	
51 V	72	1	-0.01	ppb	78.44	1.00	
52 Cr	72	1	-0.01	ppb	209.01	1.00	
55 Mn	72	1	-0.01	ppb	28.18	1.00	
57 Fe	72	1	0.04	ppb	366.47	20.00	
59 Co	72	1	0.00	ppb	2657.60	1.00	
60 Ni	72	1	0.01	ppb	182.44	1.00	
63 Cu	72	1	0.00	ppb	45.87	1.00	
66 Zn	72	1	0.01	ppb	89.62	10.00	
75 As	72	1	-0.01	ppb	72.83	1.00	
78 Se	72	1	0.00	ppb	5593.80	1.00	
93 Nb	72	1	2.48	ppb	11.09	2.00	Fail
95 Mo	72	1	0.01	ppb	35.99	1.00	
105 Pd	115	1	0.01	ppb	42.76	1.00	
107 Ag	115	1	0.00	ppb	29.14	1.00	
111 Cd	115	1	0.00	ppb	101.64	1.00	
118 Sn	115	1	-0.03	ppb	16.01	10.00	
121 Sb	115	1	0.08	ppb	8.38	1.00	
137 Ba	115	1	0.00	ppb	124.76	1.00	
182 W	165	1	0.01	ppb	105.62	5.00	
195 Pt	165	1	0.00	ppb	156.52	1.00	
205 Tl	165	1	0.02	ppb	2.65	1.00	
208 Pb	165	1	0.00	ppb	108.41	1.00	
232 Th	165	1	0.02	ppb	13.43	2.00	
238 U	165	1	0.00	ppb	24.57	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	615232	0.16	613401	100.3	30 - 120	
45 Sc	1	3306443	1.15	3328415	99.3	30 - 120	
72 Ge	1	1488448	1.06	1482070	100.4	30 - 120	
115 In	1	3689439	0.89	3719636	99.2	30 - 120	
165 Ho	1	5495479	1.07	5558876	98.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\008RLST.D\008RLST.D#
Date Acquired: Aug 4 2009 05:44 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.97	ppb	16.13	1	97.1	50 - 150	
23 Na	6	1	99.40	ppb	1.27	100	99.4	50 - 150	
24 Mg	6	1	106.20	ppb	1.61	100	106.2	50 - 150	
27 Al	45	1	106.20	ppb	0.88	100	106.2	50 - 150	
39 K	45	1	103.70	ppb	4.34	100	103.7	50 - 150	
43 Ca	45	1	100.40	ppb	11.33	100	100.4	50 - 150	
51 V	72	1	1.02	ppb	1.07	1	102.0	50 - 150	
52 Cr	72	1	1.02	ppb	1.34	1	101.6	50 - 150	
55 Mn	72	1	1.02	ppb	2.96	1	101.9	50 - 150	
57 Fe	72	1	106.30	ppb	1.66	100	106.3	50 - 150	
59 Co	72	1	1.06	ppb	0.46	1	106.2	50 - 150	
60 Ni	72	1	1.08	ppb	3.37	1	107.9	50 - 150	
63 Cu	72	1	1.09	ppb	1.88	1	108.6	50 - 150	
66 Zn	72	1	11.55	ppb	1.74	10	115.5	50 - 150	
75 As	72	1	1.04	ppb	0.35	1	104.2	50 - 150	
78 Se	72	1	1.02	ppb	35.72	1	101.7	50 - 150	
93 Nb	72	1	3.50	ppb	6.24	2	175.0	50 - 150	Fail
95 Mo	72	1	0.99	ppb	1.94	1	99.2	50 - 150	
105 Pd	115	1	1.04	ppb	5.32	1	103.8	50 - 150	
107 Ag	115	1	1.02	ppb	3.47	1	101.7	50 - 150	
111 Cd	115	1	1.03	ppb	2.92	1	103.1	50 - 150	
118 Sn	115	1	10.39	ppb	1.84	10	103.9	50 - 150	
121 Sb	115	1	0.98	ppb	3.12	1	98.5	50 - 150	
137 Ba	115	1	1.00	ppb	0.86	1	99.7	50 - 150	
182 W	165	1	1.00	ppb	2.34	1	100.4	50 - 150	
195 Pt	165	1	0.97	ppb	2.75	1	96.6	50 - 150	
205 Tl	165	1	1.07	ppb	1.28	1	106.5	50 - 150	
208 Pb	165	1	1.07	ppb	1.16	1	107.4	50 - 150	
232 Th	165	1	0.92	ppb	2.08	1	92.0	50 - 150	
238 U	165	1	1.09	ppb	0.88	1	109.2	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	621899	1.48	613401	101.4	30 - 120	
45 Sc	1	3315351	1.07	3328415	99.6	30 - 120	
72 Ge	1	1473929	0.22	1482070	99.5	30 - 120	
115 In	1	3735562	1.27	3719636	100.4	30 - 120	
165 Ho	1	5443789	0.20	5558876	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\009AFCE.D\009AFCE.D#
Date Acquired: Aug 4 2009 05:47 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.19	ppb	14.20	0	98.2	80 - 120	
23 Na	6	1	15.27	ppb	1.74	20	76.8	80 - 120	
24 Mg	6	1	21.58	ppb	1.53	21	101.6	80 - 120	
27 Al	45	1	22.06	ppb	0.39	21	103.9	80 - 120	
39 K	45	1	21.49	ppb	4.35	21	103.6	80 - 120	
43 Ca	45	1	22.88	ppb	5.73	20	113.9	80 - 120	
51 V	72	1	0.23	ppb	6.59	0	111.3	80 - 120	
52 Cr	72	1	0.20	ppb	8.88	0	100.1	80 - 120	
55 Mn	72	1	0.21	ppb	5.24	0	103.5	80 - 120	
57 Fe	72	1	20.12	ppb	0.35	21	94.6	80 - 120	
59 Co	72	1	0.21	ppb	2.08	0	99.2	80 - 120	
60 Ni	72	1	0.54	ppb	3.25	0	252.4	80 - 120	
63 Cu	72	1	0.25	ppb	5.60	0	113.0	80 - 120	
66 Zn	72	1	2.36	ppb	1.76	2	102.1	80 - 120	
75 As	72	1	0.20	ppb	4.33	0	96.6	80 - 120	
78 Se	72	1	0.15	ppb	149.67	0	75.1	80 - 120	
93 Nb	72	1	1.48	ppb	12.00	1	211.6	80 - 120	
95 Mo	72	1	0.21	ppb	3.24	0	103.7	80 - 120	
105 Pd	115	1	0.19	ppb	7.31	0	92.9	80 - 120	
107 Ag	115	1	0.21	ppb	4.09	0	102.0	80 - 120	
111 Cd	115	1	0.20	ppb	8.51	0	95.4	80 - 120	
118 Sn	115	1	2.08	ppb	3.46	2	99.9	80 - 120	
121 Sb	115	1	0.23	ppb	6.06	0	117.1	80 - 120	
137 Ba	115	1	0.20	ppb	4.18	0	102.6	80 - 120	
182 W	165	1	0.21	ppb	5.18	0	102.6	80 - 120	
195 Pt	165	1	0.21	ppb	8.44	0	109.7	80 - 120	
205 Tl	165	1	0.22	ppb	3.69	0	104.3	80 - 120	
208 Pb	165	1	0.21	ppb	1.89	0	98.8	80 - 120	
232 Th	165	1	0.20	ppb	3.25	0	108.3	80 - 120	
238 U	165	1	0.21	ppb	1.88	0	97.0	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	612484	0.59	613401	99.9	30 - 120	
45 Sc	1	3336089	0.62	3328415	100.2	30 - 120	
72 Ge	1	1488913	1.35	1482070	100.5	30 - 120	
115 In	1	3708691	0.65	3719636	99.7	30 - 120	
165 Ho	1	5434381	0.68	5558876	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\010SMPL.D\010SMPL.D#
Date Acquired: Aug 4 2009 05:50 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-6.23	-6.23	ppb	12.05	100000	
24 Mg	6	1	0.13	0.13	ppb	57.73	100000	
27 Al	45	1	-0.41	-0.41	ppb	11.70	100000	
39 K	45	1	1.40	1.40	ppb	19.02	100000	
43 Ca	45	1	-3.26	-3.26	ppb	28.59	100000	
51 V	72	1	0.00	0.00	ppb	495.39	3600	
52 Cr	72	1	0.01	0.01	ppb	68.18	3600	
55 Mn	72	1	0.00	0.00	ppb	177.08	18000	
57 Fe	72	1	0.14	0.14	ppb	54.03	100000	
59 Co	72	1	0.00	0.00	ppb	61.01	3600	
60 Ni	72	1	0.00	0.00	ppb	229.74	3600	
63 Cu	72	1	0.01	0.01	ppb	107.08	3600	
66 Zn	72	1	-0.09	-0.09	ppb	8.20	3600	
75 As	72	1	-0.01	-0.01	ppb	22.78	3600	
78 Se	72	1	2.34	2.34	ppb	17.14	3600	
93 Nb	72	1	0.80	0.80	ppb	18.12	2000	
95 Mo	72	1	0.00	0.00	ppb	5.16	3600	
105 Pd	115	1	0.01	0.01	ppb	51.69	1000	
107 Ag	115	1	0.00	0.00	ppb	62.01	3600	
111 Cd	115	1	0.00	0.00	ppb	26.79	3600	
118 Sn	115	1	-0.04	-0.04	ppb	41.03	3600	
121 Sb	115	1	0.02	0.02	ppb	12.94	3600	
137 Ba	115	1	0.00	0.00	ppb	139.79	3600	
182 W	165	1	0.00	0.00	ppb	571.47	1000	
195 Pt	165	1	0.00	0.00	ppb	1643.80	1000	
205 Tl	165	1	0.01	0.01	ppb	18.45	3600	
208 Pb	165	1	0.00	0.00	ppb	91.61	3600	
232 Th	165	1	0.00	0.00	ppb	1210.80	1000	
238 U	165	1	0.00	0.00	ppb	65.63	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628758	4.36	613401	102.5	30 - 120	
45 Sc	1	3304988	0.43	3328415	99.3	30 - 120	
72 Ge	1	1481087	0.85	1482070	99.9	30 - 120	
115 In	1	3694596	0.88	3719636	99.3	30 - 120	
165 Ho	1	5415585	0.30	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\011ICSA.D\011ICSA.D#
Date Acquired: Aug 4 2009 05:53 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.00 ppb	173.21	1.00	
23	Na	6	1	100500.00 ppb	0.77	100.00	
24	Mg	6	1	98000.00 ppb	0.73	100.00	
27	Al	45	1	98990.00 ppb	0.78	100.00	
39	K	45	1	99310.00 ppb	0.22	100.00	
43	Ca	45	1	102300.00 ppb	0.74	100.00	
51	V	72	1	-0.11 ppb	51.36	1.00	
52	Cr	72	1	0.70 ppb	3.18	1.00	
55	Mn	72	1	3.53 ppb	1.53	1.00	
57	Fe	72	1	97710.00 ppb	0.58	100.00	
59	Co	72	1	1.58 ppb	2.91	1.00	
60	Ni	72	1	1.57 ppb	1.64	1.00	
63	Cu	72	1	1.49 ppb	1.13	1.00	
66	Zn	72	1	2.87 ppb	2.08	10.00	
75	As	72	1	0.41 ppb	5.47	1.00	
78	Se	72	1	-0.17 ppb	49.11	1.00	
93	Nb	72	1	1.51 ppb	11.67	2.00	
95	Mo	72	1	2047.00 ppb	0.11	2000.00	
105	Pd	115	1	0.07 ppb	27.22	1.00	
107	Ag	115	1	0.04 ppb	18.29	1.00	
111	Cd	115	1	2.58 ppb	2.38	1.00	
118	Sn	115	1	0.21 ppb	11.25	10.00	
121	Sb	115	1	0.26 ppb	1.73	1.00	
137	Ba	115	1	0.07 ppb	19.17	1.00	
182	W	165	1	0.10 ppb	8.43	5.00	
195	Pt	165	1	0.00 ppb	499.24	1.00	
205	Tl	165	1	0.03 ppb	60.16	1.00	
208	Pb	165	1	0.11 ppb	6.85	1.00	
232	Th	165	1	0.05 ppb	32.11	2.00	
238	U	165	1	0.00 ppb	386.37	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	534481	1.03	613401	87.1	30 - 120	
45	Sc	1	2836722	1.84	3328415	85.2	30 - 120	
72	Ge	1	1237307	1.64	1482070	83.5	30 - 120	
115	In	1	3118112	1.08	3719636	83.8	30 - 120	
165	Ho	1	4824482	1.14	5558876	86.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\012ICSB.D\012ICSB.D#
Date Acquired: Aug 4 2009 05:56 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	97.87	2.69	100	97.9	80 - 120	
23 Na	6	1	109100.00	1.92	110000	99.2	80 - 120	
24 Mg	6	1	105900.00	1.80	110000	96.3	80 - 120	
27 Al	45	1	106900.00	0.67	110000	97.2	80 - 120	
39 K	45	1	106300.00	1.52	110000	96.6	80 - 120	
43 Ca	45	1	110700.00	1.37	110000	100.6	80 - 120	
51 V	72	1	102.10	2.01	100	102.1	80 - 120	
52 Cr	72	1	100.50	0.60	100	100.5	80 - 120	
55 Mn	72	1	100.60	1.12	100	100.6	80 - 120	
57 Fe	72	1	104600.00	1.61	110000	95.1	80 - 120	
59 Co	72	1	99.01	0.80	100	99.0	80 - 120	
60 Ni	72	1	95.40	0.87	100	95.4	80 - 120	
63 Cu	72	1	95.99	1.03	100	96.0	80 - 120	
66 Zn	72	1	97.48	0.22	100	97.5	80 - 120	
75 As	72	1	99.71	0.74	100	99.7	80 - 120	
78 Se	72	1	102.30	3.31	100	102.3	80 - 120	
93 Nb	72	1	199.50	2.06	200	99.8	80 - 120	
95 Mo	72	1	2105.00	0.55	2100	100.2	80 - 120	
105 Pd	115	1	94.41	1.04	100	94.4	80 - 120	
107 Ag	115	1	87.95	3.58	100	88.0	80 - 120	
111 Cd	115	1	96.52	0.96	100	96.5	80 - 120	
118 Sn	115	1	99.29	0.54	100	99.3	80 - 120	
121 Sb	115	1	99.82	0.85	100	99.8	80 - 120	
137 Ba	115	1	101.90	0.79	100	101.9	80 - 120	
182 W	165	1	100.60	1.12	100	100.6	80 - 120	
195 Pt	165	1	94.72	1.77	100	94.7	80 - 120	
205 Tl	165	1	95.99	0.84	100	96.0	80 - 120	
208 Pb	165	1	94.61	0.78	100	94.6	80 - 120	
232 Th	165	1	97.98	1.51	100	98.0	80 - 120	
238 U	165	1	98.93	0.13	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	533235	1.40	613401	86.9	30 - 120	
45 Sc	1	2842582	0.80	3328415	85.4	30 - 120	
72 Ge	1	1255559	0.45	1482070	84.7	30 - 120	
115 In	1	3152795	0.39	3719636	84.8	30 - 120	
165 Ho	1	4890857	0.21	5558876	88.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\013SMPL.D\013SMPL.D#
Date Acquired: Aug 4 2009 05:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	173.22	3600	
23 Na	6	1	9.45	9.45	ppb	21.11	100000	
24 Mg	6	1	8.12	8.12	ppb	28.37	100000	
27 Al	45	1	9.27	9.27	ppb	28.41	100000	
39 K	45	1	-0.97	-0.97	ppb	171.54	100000	
43 Ca	45	1	8.14	8.14	ppb	32.30	100000	
51 V	72	1	-0.01	-0.01	ppb	139.27	3600	
52 Cr	72	1	-0.01	-0.01	ppb	184.25	3600	
55 Mn	72	1	0.00	0.00	ppb	941.65	18000	
57 Fe	72	1	10.19	10.19	ppb	25.06	100000	
59 Co	72	1	0.01	0.01	ppb	18.70	3600	
60 Ni	72	1	0.00	0.00	ppb	410.08	3600	
63 Cu	72	1	0.00	0.00	ppb	359.40	3600	
66 Zn	72	1	-0.05	-0.05	ppb	51.41	3600	
75 As	72	1	-0.01	-0.01	ppb	156.65	3600	
78 Se	72	1	-0.44	-0.44	ppb	76.37	3600	
93 Nb	72	1	4.37	4.37	ppb	10.29	2000	
95 Mo	72	1	1.41	1.41	ppb	9.48	3600	
105 Pd	115	1	0.01	0.01	ppb	24.81	1000	
107 Ag	115	1	0.01	0.01	ppb	47.08	3600	
111 Cd	115	1	0.01	0.01	ppb	8.17	3600	
118 Sn	115	1	-0.03	-0.03	ppb	29.93	3600	
121 Sb	115	1	0.20	0.20	ppb	4.20	3600	
137 Ba	115	1	0.01	0.01	ppb	20.60	3600	
182 W	165	1	0.04	0.04	ppb	27.00	1000	
195 Pt	165	1	0.01	0.01	ppb	55.28	1000	
205 Tl	165	1	0.00	0.00	ppb	31.86	3600	
208 Pb	165	1	0.01	0.01	ppb	14.47	3600	
232 Th	165	1	0.40	0.40	ppb	12.44	1000	
238 U	165	1	0.01	0.01	ppb	11.12	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	649011	1.30	613401	105.8	30 - 120	
45 Sc	1	3287885	2.08	3328415	98.8	30 - 120	
72 Ge	1	1508013	1.80	1482070	101.8	30 - 120	
115 In	1	3723681	1.03	3719636	100.1	30 - 120	
165 Ho	1	5486394	1.12	5558876	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\014_LR.D\014_LR.D#
Date Acquired: Aug 4 2009 06:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	983.10 ppb	1.47	1000	98.3	90 - 110	
23 Na	6	1	100400.00 ppb	1.20	100000	100.4	90 - 110	
24 Mg	6	1	98120.00 ppb	1.39	100000	98.1	90 - 110	
27 Al	45	1	99120.00 ppb	0.56	100000	99.1	90 - 110	
39 K	45	1	99030.00 ppb	0.39	100000	99.0	90 - 110	
43 Ca	45	1	102600.00 ppb	1.25	100000	102.6	90 - 110	
51 V	72	1	956.50 ppb	0.75	1000	95.7	90 - 110	
52 Cr	72	1	962.40 ppb	1.35	1000	96.2	90 - 110	
55 Mn	72	1	936.10 ppb	1.37	1000	93.6	90 - 110	
57 Fe	72	1	94940.00 ppb	1.06	100000	94.9	90 - 110	
59 Co	72	1	937.10 ppb	1.00	1000	93.7	90 - 110	
60 Ni	72	1	926.30 ppb	1.42	1000	92.6	90 - 110	
63 Cu	72	1	894.90 ppb	1.52	1000	89.5	90 - 110	Fail
66 Zn	72	1	910.10 ppb	2.20	1000	91.0	90 - 110	
75 As	72	1	957.10 ppb	1.28	1000	95.7	90 - 110	
78 Se	72	1	934.30 ppb	1.11	1000	93.4	90 - 110	
93 Nb	72	1	2252.00 ppb	1.30	2000	112.6	90 - 110	Fail
95 Mo	72	1	994.00 ppb	0.33	1000	99.4	90 - 110	
105 Pd	115	1	906.90 ppb	0.43	1000	90.7	90 - 110	
107 Ag	115	1	885.00 ppb	0.74	1000	88.5	90 - 110	Fail
111 Cd	115	1	933.70 ppb	1.14	1000	93.4	90 - 110	
118 Sn	115	1	945.30 ppb	0.55	1000	94.5	90 - 110	
121 Sb	115	1	937.70 ppb	0.72	1000	93.8	90 - 110	
137 Ba	115	1	980.70 ppb	0.91	1000	98.1	90 - 110	
182 W	165	1	966.40 ppb	0.42	1000	96.6	90 - 110	
195 Pt	165	1	925.70 ppb	0.22	1000	92.6	90 - 110	
205 Tl	165	1	943.40 ppb	0.69	1000	94.3	90 - 110	
208 Pb	165	1	916.60 ppb	0.69	1000	91.7	90 - 110	
232 Th	165	1	974.50 ppb	1.33	1000	97.5	90 - 110	
238 U	165	1	971.30 ppb	0.43	1000	97.1	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	510401	1.65	613401	83.2	30 - 120	
45 Sc	1	2772323	0.84	3328415	83.3	30 - 120	
72 Ge	1	1233806	0.89	1482070	83.2	30 - 120	
115 In	1	3002824	0.95	3719636	80.7	30 - 120	
165 Ho	1	4527867	0.86	5558876	81.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

3 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\015SMPL.D\015SMPL.D#
Date Acquired: Aug 4 2009 06:05 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.07	0.07	ppb	48.32	3600	
23 Na	6	1	29.14	29.14	ppb	82.84	100000	
24 Mg	6	1	30.32	30.32	ppb	83.38	100000	
27 Al	45	1	31.88	31.88	ppb	85.45	100000	
39 K	45	1	26.56	26.56	ppb	98.16	100000	
43 Ca	45	1	29.46	29.46	ppb	104.68	100000	
51 V	72	1	0.06	0.06	ppb	35.99	3600	
52 Cr	72	1	0.08	0.08	ppb	13.36	3600	
55 Mn	72	1	0.07	0.07	ppb	14.28	18000	
57 Fe	72	1	32.88	32.88	ppb	80.32	100000	
59 Co	72	1	0.08	0.08	ppb	19.80	3600	
60 Ni	72	1	0.08	0.08	ppb	18.95	3600	
63 Cu	72	1	0.09	0.09	ppb	14.48	3600	
66 Zn	72	1	0.06	0.06	ppb	100.05	3600	
75 As	72	1	0.08	0.08	ppb	21.57	3600	
78 Se	72	1	0.21	0.21	ppb	135.98	3600	
93 Nb	72	1	2.57	2.57	ppb	6.91	2000	
95 Mo	72	1	1.11	1.11	ppb	42.33	3600	
105 Pd	115	1	0.35	0.35	ppb	13.01	1000	
107 Ag	115	1	0.14	0.14	ppb	90.61	3600	
111 Cd	115	1	0.07	0.07	ppb	11.74	3600	
118 Sn	115	1	0.10	0.10	ppb	45.44	3600	
121 Sb	115	1	0.51	0.51	ppb	3.38	3600	
137 Ba	115	1	0.08	0.08	ppb	11.45	3600	
182 W	165	1	0.30	0.30	ppb	6.75	1000	
195 Pt	165	1	0.08	0.08	ppb	9.38	1000	
205 Tl	165	1	0.06	0.06	ppb	14.89	3600	
208 Pb	165	1	0.08	0.08	ppb	15.45	3600	
232 Th	165	1	0.63	0.63	ppb	11.37	1000	
238 U	165	1	0.15	0.15	ppb	8.95	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	636485	2.37	613401	103.8	30 - 120	
45 Sc	1	3258183	0.99	3328415	97.9	30 - 120	
72 Ge	1	1456251	1.25	1482070	98.3	30 - 120	
115 In	1	3639887	0.96	3719636	97.9	30 - 120	
165 Ho	1	5321897	0.82	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\016_CCV.D\016_CCV.D#
Date Acquired: Aug 4 2009 06:08 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.78	ppb	0.49	50	97.6	90 - 110	
23 Na	6	1	4760.00	ppb	1.12	5000	95.2	90 - 110	
24 Mg	6	1	4816.00	ppb	1.08	5000	96.3	90 - 110	
27 Al	45	1	5035.00	ppb	1.14	5000	100.7	90 - 110	
39 K	45	1	5082.00	ppb	0.66	5000	101.6	90 - 110	
43 Ca	45	1	5059.00	ppb	2.14	5000	101.2	90 - 110	
51 V	72	1	51.79	ppb	2.01	50	103.6	90 - 110	
52 Cr	72	1	51.99	ppb	1.10	50	104.0	90 - 110	
55 Mn	72	1	51.12	ppb	0.22	50	102.2	90 - 110	
57 Fe	72	1	5151.00	ppb	0.27	5000	103.0	90 - 110	
59 Co	72	1	51.21	ppb	0.57	50	102.4	90 - 110	
60 Ni	72	1	51.45	ppb	0.65	50	102.9	90 - 110	
63 Cu	72	1	52.11	ppb	1.84	50	104.2	90 - 110	
66 Zn	72	1	50.89	ppb	0.91	50	101.8	90 - 110	
75 As	72	1	50.97	ppb	0.96	50	101.9	90 - 110	
78 Se	72	1	49.64	ppb	1.37	50	99.3	90 - 110	
93 Nb	72	1	95.63	ppb	0.52	100	95.6	90 - 110	
95 Mo	72	1	50.17	ppb	0.72	50	100.3	90 - 110	
105 Pd	115	1	50.80	ppb	1.97	50	101.6	90 - 110	
107 Ag	115	1	50.98	ppb	1.22	50	102.0	90 - 110	
111 Cd	115	1	49.67	ppb	1.69	50	99.3	90 - 110	
118 Sn	115	1	49.48	ppb	1.14	50	99.0	90 - 110	
121 Sb	115	1	49.35	ppb	1.28	50	98.7	90 - 110	
137 Ba	115	1	49.77	ppb	1.62	50	99.5	90 - 110	
182 W	165	1	48.67	ppb	0.25	50	97.3	90 - 110	
195 Pt	165	1	50.37	ppb	0.44	50	100.7	90 - 110	
205 Tl	165	1	50.63	ppb	1.93	50	101.3	90 - 110	
208 Pb	165	1	51.33	ppb	0.02	50	102.7	90 - 110	
232 Th	165	1	51.28	ppb	0.04	50	102.6	90 - 110	
238 U	165	1	50.86	ppb	1.58	50	101.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628515	0.96	613401	102.5	30 - 120	
45 Sc	1	3221822	1.47	3328415	96.8	30 - 120	
72 Ge	1	1435947	0.25	1482070	96.9	30 - 120	
115 In	1	3596795	1.09	3719636	96.7	30 - 120	
165 Ho	1	5266006	0.51	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\017_CCB.D\017_CCB.D#
Date Acquired: Aug 4 2009 06:10 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-0.262	ppb	85.71	20.00	
24 Mg	6	1	0.283	ppb	48.06	20.00	
27 Al	45	1	0.421	ppb	35.34	20.00	
39 K	45	1	-0.622	ppb	196.49	20.00	
43 Ca	45	1	-1.825	ppb	36.62	20.00	
51 V	72	1	-0.003	ppb	1202.80	1.00	
52 Cr	72	1	-0.008	ppb	72.38	1.00	
55 Mn	72	1	0.000	ppb	42322.00	1.00	
57 Fe	72	1	0.855	ppb	24.84	20.00	
59 Co	72	1	0.004	ppb	37.15	1.00	
60 Ni	72	1	-0.004	ppb	166.56	1.00	
63 Cu	72	1	0.029	ppb	30.11	1.00	
66 Zn	72	1	-0.052	ppb	35.40	10.00	
75 As	72	1	-0.006	ppb	126.53	1.00	
78 Se	72	1	0.114	ppb	65.70	1.00	
93 Nb	72	1	3.313	ppb	10.30	2.00	Fail
95 Mo	72	1	0.106	ppb	4.23	1.00	
105 Pd	115	1	0.078	ppb	2.54	1.00	
107 Ag	115	1	0.011	ppb	24.39	1.00	
111 Cd	115	1	0.006	ppb	29.05	1.00	
118 Sn	115	1	-0.044	ppb	55.28	10.00	
121 Sb	115	1	0.224	ppb	5.55	1.00	
137 Ba	115	1	0.008	ppb	52.42	1.00	
182 W	165	1	0.076	ppb	7.55	5.00	
195 Pt	165	1	0.004	ppb	72.15	1.00	
205 Tl	165	1	0.017	ppb	16.74	1.00	
208 Pb	165	1	0.004	ppb	53.83	1.00	
232 Th	165	1	0.302	ppb	10.04	2.00	
238 U	165	1	0.014	ppb	13.03	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639510	1.15	613401	104.3	30 - 120	
45 Sc	1	3307384	1.05	3328415	99.4	30 - 120	
72 Ge	1	1500542	0.71	1482070	101.2	30 - 120	
115 In	1	3717920	0.26	3719636	100.0	30 - 120	
165 Ho	1	5368130	0.70	5558876	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\018WASH.D\018WASH.D#
Date Acquired: Aug 4 2009 06:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.966 ppb	19.98	1.30	
23 Na	6	1	50.660 ppb	1.28	65.00	
24 Mg	6	1	52.770 ppb	0.74	65.00	
27 Al	45	1	34.250 ppb	0.60	39.00	
39 K	45	1	107.000 ppb	1.34	130.00	
43 Ca	45	1	61.380 ppb	12.89	65.00	
51 V	72	1	5.247 ppb	2.06	6.50	
52 Cr	72	1	2.159 ppb	3.17	2.60	
55 Mn	72	1	1.047 ppb	2.30	1.30	
57 Fe	72	1	55.000 ppb	0.91	65.00	
59 Co	72	1	1.081 ppb	3.35	1.30	
60 Ni	72	1	2.225 ppb	0.84	2.60	
63 Cu	72	1	2.218 ppb	0.66	2.60	
66 Zn	72	1	10.630 ppb	1.13	13.00	
75 As	72	1	5.190 ppb	1.34	6.50	
78 Se	72	1	4.780 ppb	9.72	6.50	
93 Nb	72	1	44.630 ppb	1.58	52.00	
95 Mo	72	1	2.164 ppb	2.78	2.60	
105 Pd	115	1	0.971 ppb	1.68	1.30	
107 Ag	115	1	5.468 ppb	2.23	6.50	
111 Cd	115	1	1.067 ppb	6.04	1.30	
118 Sn	115	1	10.240 ppb	1.46	13.00	
121 Sb	115	1	2.046 ppb	0.96	2.60	
137 Ba	115	1	1.024 ppb	1.96	1.30	
182 W	165	1	4.992 ppb	0.40	6.50	
195 Pt	165	1	1.016 ppb	6.07	1.30	
205 Tl	165	1	1.134 ppb	0.58	1.30	
208 Pb	165	1	1.104 ppb	2.61	1.30	
232 Th	165	1	2.579 ppb	4.95	2.60	
238 U	165	1	1.115 ppb	1.37	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	653683	0.81	613401	106.6	30 - 120	
45 Sc	1	3353924	0.65	3328415	100.8	30 - 120	
72 Ge	1	1497601	0.60	1482070	101.0	30 - 120	
115 In	1	3740478	0.96	3719636	100.6	30 - 120	
165 Ho	1	5408001	0.74	5558876	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\019SMPL.D\019SMPL.D#
Date Acquired: Aug 4 2009 06:18 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTLR
Misc Info:
Vial Number: 2112
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	0.12	0.12	ppb	176.13	100000	
24 Mg	6	1	0.42	0.42	ppb	17.15	100000	
27 Al	45	1	0.09	0.09	ppb	82.68	100000	
39 K	45	1	0.19	0.19	ppb	520.06	100000	
43 Ca	45	1	4.98	4.98	ppb	41.27	100000	
51 V	72	1	-0.01	-0.01	ppb	142.22	3600	
52 Cr	72	1	0.01	0.01	ppb	147.66	3600	
55 Mn	72	1	0.01	0.01	ppb	43.31	18000	
57 Fe	72	1	0.77	0.77	ppb	37.26	100000	
59 Co	72	1	0.00	0.00	ppb	207.28	3600	
60 Ni	72	1	0.01	0.01	ppb	32.71	3600	
63 Cu	72	1	1,021.00	1021.00	ppb	1.47	3600	
66 Zn	72	1	0.18	0.18	ppb	12.36	3600	
75 As	72	1	-0.01	-0.01	ppb	54.80	3600	
78 Se	72	1	0.22	0.22	ppb	145.05	3600	
93 Nb	72	1	1.49	1.49	ppb	13.66	2000	
95 Mo	72	1	0.04	0.04	ppb	41.08	3600	
105 Pd	115	1	0.03	0.03	ppb	33.11	1000	
107 Ag	115	1	997.10	997.10	ppb	1.04	3600	
111 Cd	115	1	0.00	0.00	ppb	237.61	3600	
118 Sn	115	1	0.01	0.01	ppb	76.14	3600	
121 Sb	115	1	0.06	0.06	ppb	19.76	3600	
137 Ba	115	1	0.01	0.01	ppb	10.26	3600	
182 W	165	1	0.00	0.00	ppb	132.52	1000	
195 Pt	165	1	0.00	0.00	ppb	5.89	1000	
205 Tl	165	1	0.00	0.00	ppb	143.26	3600	
208 Pb	165	1	0.00	0.00	ppb	97.75	3600	
232 Th	165	1	0.00	0.00	ppb	42.61	1000	
238 U	165	1	0.00	0.00	ppb	21.15	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	645817	2.26	613401	105.3	30 - 120	
45 Sc	1	3364358	1.91	3328415	101.1	30 - 120	
72 Ge	1	1505138	0.77	1482070	101.6	30 - 120	
115 In	1	3723444	0.73	3719636	100.1	30 - 120	
165 Ho	1	5413880	0.82	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\020SMPL.D\020SMPL.D#
Date Acquired: Aug 4 2009 06:21 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.21	3600	
23 Na	6	1	-1.08	-1.08	ppb	30.22	100000	
24 Mg	6	1	0.90	0.90	ppb	8.10	100000	
27 Al	45	1	0.66	0.66	ppb	6.43	100000	
39 K	45	1	0.89	0.89	ppb	42.26	100000	
43 Ca	45	1	0.94	0.94	ppb	32.30	100000	
51 V	72	1	0.01	0.01	ppb	182.83	3600	
52 Cr	72	1	0.01	0.01	ppb	138.67	3600	
55 Mn	72	1	0.00	0.00	ppb	594.11	18000	
57 Fe	72	1	1.09	1.09	ppb	24.34	100000	
59 Co	72	1	0.00	0.00	ppb	124.28	3600	
60 Ni	72	1	-0.01	-0.01	ppb	33.43	3600	
63 Cu	72	1	0.07	0.07	ppb	30.65	3600	
66 Zn	72	1	-0.05	-0.05	ppb	13.23	3600	
75 As	72	1	-0.01	-0.01	ppb	56.38	3600	
78 Se	72	1	0.13	0.13	ppb	263.90	3600	
93 Nb	72	1	0.99	0.99	ppb	14.14	2000	
95 Mo	72	1	0.03	0.03	ppb	62.65	3600	
105 Pd	115	1	0.04	0.04	ppb	28.83	1000	
107 Ag	115	1	0.06	0.06	ppb	34.60	3600	
111 Cd	115	1	0.01	0.01	ppb	36.71	3600	
118 Sn	115	1	-0.09	-0.09	ppb	11.11	3600	
121 Sb	115	1	0.03	0.03	ppb	12.48	3600	
137 Ba	115	1	0.01	0.01	ppb	32.40	3600	
182 W	165	1	0.00	0.00	ppb	113.47	1000	
195 Pt	165	1	0.01	0.01	ppb	47.21	1000	
205 Tl	165	1	0.00	0.00	ppb	22.13	3600	
208 Pb	165	1	0.00	0.00	ppb	71.75	3600	
232 Th	165	1	-0.01	-0.01	ppb	15.66	1000	
238 U	165	1	0.01	0.01	ppb	11.09	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	641513	1.37	613401	104.6	30 - 120	
45 Sc	1	3366434	1.69	3328415	101.1	30 - 120	
72 Ge	1	1514557	0.93	1482070	102.2	30 - 120	
115 In	1	3724160	0.53	3719636	100.1	30 - 120	
165 Ho	1	5321318	0.19	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\021_CCV.D\021_CCV.D#
Date Acquired: Aug 4 2009 06:24 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.03	ppb	0.94	50	96.1	90 - 110	
23 Na	6	1	4744.00	ppb	2.21	5000	94.9	90 - 110	
24 Mg	6	1	4798.00	ppb	0.73	5000	96.0	90 - 110	
27 Al	45	1	5084.00	ppb	2.25	5000	101.7	90 - 110	
39 K	45	1	5110.00	ppb	0.62	5000	102.2	90 - 110	
43 Ca	45	1	5069.00	ppb	0.73	5000	101.4	90 - 110	
51 V	72	1	51.56	ppb	1.43	50	103.1	90 - 110	
52 Cr	72	1	50.99	ppb	1.52	50	102.0	90 - 110	
55 Mn	72	1	51.46	ppb	1.14	50	102.9	90 - 110	
57 Fe	72	1	5155.00	ppb	0.58	5000	103.1	90 - 110	
59 Co	72	1	51.58	ppb	1.14	50	103.2	90 - 110	
60 Ni	72	1	51.36	ppb	1.50	50	102.7	90 - 110	
63 Cu	72	1	51.89	ppb	1.29	50	103.8	90 - 110	
66 Zn	72	1	50.99	ppb	0.93	50	102.0	90 - 110	
75 As	72	1	50.84	ppb	1.52	50	101.7	90 - 110	
78 Se	72	1	51.24	ppb	1.36	50	102.5	90 - 110	
93 Nb	72	1	94.55	ppb	0.52	100	94.6	90 - 110	
95 Mo	72	1	49.93	ppb	1.53	50	99.9	90 - 110	
105 Pd	115	1	50.85	ppb	0.34	50	101.7	90 - 110	
107 Ag	115	1	51.69	ppb	0.86	50	103.4	90 - 110	
111 Cd	115	1	50.15	ppb	0.49	50	100.3	90 - 110	
118 Sn	115	1	50.23	ppb	0.51	50	100.5	90 - 110	
121 Sb	115	1	49.70	ppb	0.83	50	99.4	90 - 110	
137 Ba	115	1	50.28	ppb	0.28	50	100.6	90 - 110	
182 W	165	1	48.40	ppb	0.99	50	96.8	90 - 110	
195 Pt	165	1	50.19	ppb	1.03	50	100.4	90 - 110	
205 Tl	165	1	51.30	ppb	0.24	50	102.6	90 - 110	
208 Pb	165	1	51.13	ppb	0.92	50	102.3	90 - 110	
232 Th	165	1	50.02	ppb	1.31	50	100.0	90 - 110	
238 U	165	1	50.40	ppb	0.39	50	100.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	637798	1.11	613401	104.0	30 - 120	
45 Sc	1	3256719	1.41	3328415	97.8	30 - 120	
72 Ge	1	1445937	0.36	1482070	97.6	30 - 120	
115 In	1	3556246	0.63	3719636	95.6	30 - 120	
165 Ho	1	5266849	0.14	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\022_CCB.D\022_CCB.D#
Date Acquired: Aug 4 2009 06:27 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.008	ppb	173.18	1.00	
23 Na	6	1	-5.657	ppb	6.88	20.00	
24 Mg	6	1	0.282	ppb	35.67	20.00	
27 Al	45	1	0.364	ppb	31.23	20.00	
39 K	45	1	0.504	ppb	74.31	20.00	
43 Ca	45	1	-0.577	ppb	232.24	20.00	
51 V	72	1	-0.031	ppb	73.13	1.00	
52 Cr	72	1	-0.012	ppb	100.88	1.00	
55 Mn	72	1	0.000	ppb	6998.30	1.00	
57 Fe	72	1	0.867	ppb	28.00	20.00	
59 Co	72	1	0.001	ppb	226.14	1.00	
60 Ni	72	1	0.014	ppb	104.94	1.00	
63 Cu	72	1	0.023	ppb	40.09	1.00	
66 Zn	72	1	-0.069	ppb	6.01	10.00	
75 As	72	1	-0.003	ppb	205.31	1.00	
78 Se	72	1	0.070	ppb	329.91	1.00	
93 Nb	72	1	3.296	ppb	11.66	2.00	Fail
95 Mo	72	1	0.043	ppb	22.77	1.00	
105 Pd	115	1	0.033	ppb	13.82	1.00	
107 Ag	115	1	0.014	ppb	53.32	1.00	
111 Cd	115	1	0.005	ppb	37.33	1.00	
118 Sn	115	1	-0.066	ppb	13.39	10.00	
121 Sb	115	1	0.174	ppb	1.91	1.00	
137 Ba	115	1	0.007	ppb	32.98	1.00	
182 W	165	1	0.034	ppb	15.67	5.00	
195 Pt	165	1	0.009	ppb	63.42	1.00	
205 Tl	165	1	0.011	ppb	35.61	1.00	
208 Pb	165	1	0.003	ppb	37.08	1.00	
232 Th	165	1	0.271	ppb	11.18	2.00	
238 U	165	1	0.010	ppb	9.62	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639094	1.93	613401	104.2	30 - 120	
45 Sc	1	3307521	1.41	3328415	99.4	30 - 120	
72 Ge	1	1478496	0.34	1482070	99.8	30 - 120	
115 In	1	3684210	0.86	3719636	99.0	30 - 120	
165 Ho	1	5345603	0.83	5558876	96.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\023WASH.D\023WASH.D#
Date Acquired: Aug 4 2009 06:30 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.029 ppb	12.28	1.30	
23 Na	6	1	47.570 ppb	0.74	65.00	
24 Mg	6	1	54.960 ppb	0.32	65.00	
27 Al	45	1	34.190 ppb	0.42	39.00	
39 K	45	1	109.700 ppb	0.43	130.00	
43 Ca	45	1	50.300 ppb	12.46	65.00	
51 V	72	1	5.194 ppb	1.40	6.50	
52 Cr	72	1	2.165 ppb	0.83	2.60	
55 Mn	72	1	1.041 ppb	7.83	1.30	
57 Fe	72	1	55.780 ppb	1.03	65.00	
59 Co	72	1	1.076 ppb	4.16	1.30	
60 Ni	72	1	2.241 ppb	1.15	2.60	
63 Cu	72	1	2.192 ppb	2.30	2.60	
66 Zn	72	1	10.470 ppb	1.51	13.00	
75 As	72	1	5.234 ppb	0.88	6.50	
78 Se	72	1	4.928 ppb	3.74	6.50	
93 Nb	72	1	44.410 ppb	1.15	52.00	
95 Mo	72	1	2.015 ppb	1.75	2.60	
105 Pd	115	1	0.924 ppb	4.65	1.30	
107 Ag	115	1	5.423 ppb	1.73	6.50	
111 Cd	115	1	1.049 ppb	1.47	1.30	
118 Sn	115	1	10.170 ppb	1.85	13.00	
121 Sb	115	1	2.016 ppb	0.80	2.60	
137 Ba	115	1	1.044 ppb	1.15	1.30	
182 W	165	1	4.928 ppb	0.25	6.50	
195 Pt	165	1	1.060 ppb	6.37	1.30	
205 Tl	165	1	1.096 ppb	0.95	1.30	
208 Pb	165	1	1.109 ppb	1.02	1.30	
232 Th	165	1	2.531 ppb	4.87	2.60	
238 U	165	1	1.102 ppb	0.12	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	630390	0.15	613401	102.8	30 - 120	
45 Sc	1	3346385	0.19	3328415	100.5	30 - 120	
72 Ge	1	1491495	1.26	1482070	100.6	30 - 120	
115 In	1	3717652	0.76	3719636	99.9	30 - 120	
165 Ho	1	5359965	0.44	5558876	96.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 08/04/2009

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#
Date Acquired: Aug 4 2009 09:44 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:42 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	178484	1.47
24	Mg	6	1	14468	3.45
27	Al	45	1	12259	2.42
39	K	45	1	291167	0.16
43	Ca	45	1	117	30.31
51	V	72	1	62	998.48
52	Cr	72	1	3150	3.30
55	Mn	72	1	817	14.72
57	Fe	72	1	1950	3.11
59	Co	72	1	130	27.41
60	Ni	72	1	133	4.91
63	Cu	72	1	733	18.66
66	Zn	72	1	501	5.89
75	As	72	1	82	4.27
78	Se	72	1	760	16.24
93	Nb	72	1	9040	12.14
95	Mo	72	1	630	15.13
105	Pd	115	1	30	32.80
107	Ag	115	1	47	43.69
111	Cd	115	1	21	37.48
118	Sn	115	1	1340	13.26
121	Sb	115	1	107	20.01
137	Ba	115	1	127	14.14
182	W	165	1	970	10.27
195	Pt	165	1	193	16.47
205	Tl	165	1	123	18.04
208	Pb	165	1	272	24.67
232	Th	165	1	633	14.00
238	U	165	1	150	16.83

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	474143	0.42
45	Sc	1	2484770	0.24
72	Ge	1	1162179	0.64
115	In	1	3064413	0.99
165	Ho	1	4475388	0.32

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\090ICAL.D\090ICAL.D#
Date Acquired: Aug 4 2009 09:47 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:45 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	57654	0.96
23	Na	6	1	47290952	0.20
24	Mg	6	1	28755110	0.81
27	Al	45	1	26040040	0.31
39	K	45	1	46198380	0.52
43	Ca	45	1	115441	0.38
51	V	72	1	1322279	2.55
52	Cr	72	1	1278938	2.13
55	Mn	72	1	1389024	2.06
57	Fe	72	1	3272399	1.40
59	Co	72	1	1648690	2.74
60	Ni	72	1	372393	1.98
63	Cu	72	1	875339	1.93
66	Zn	72	1	175015	1.90
75	As	72	1	156097	1.98
78	Se	72	1	28029	1.73
93	Nb	72	1	4307845	2.13
95	Mo	72	1	418828	1.87
105	Pd	115	1	523266	0.92
107	Ag	115	1	1134900	0.27
111	Cd	115	1	220605	1.15
118	Sn	115	1	625068	1.30
121	Sb	115	1	692878	1.09
137	Ba	115	1	307510	1.18
182	W	165	1	947071	1.18
195	Pt	165	1	658257	1.17
205	Tl	165	1	2087953	0.61
208	Pb	165	1	2813110	0.86
232	Th	165	1	2965553	0.76
238	U	165	1	3109441	0.25

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	443695	0.31	474143	93.6	30 - 120	
45	Sc	1	2341196	0.60	2484770	94.2	30 - 120	
72	Ge	1	1096796	1.48	1162179	94.4	30 - 120	
115	In	1	2858030	0.81	3064413	93.3	30 - 120	
165	Ho	1	4293346	0.21	4475388	95.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\091_CCV.D\091_CCV.D#
Date Acquired: Aug 4 2009 09:50 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.75	ppb	2.38	50	101.5	90 - 110	
23 Na	6	1	5030.00	ppb	0.76	5000	100.6	90 - 110	
24 Mg	6	1	5070.00	ppb	2.00	5000	101.4	90 - 110	
27 Al	45	1	5077.00	ppb	0.58	5000	101.5	90 - 110	
39 K	45	1	5046.00	ppb	1.31	5000	100.9	90 - 110	
43 Ca	45	1	5110.00	ppb	1.76	5000	102.2	90 - 110	
51 V	72	1	49.26	ppb	0.37	50	98.5	90 - 110	
52 Cr	72	1	50.67	ppb	0.26	50	101.3	90 - 110	
55 Mn	72	1	50.26	ppb	0.80	50	100.5	90 - 110	
57 Fe	72	1	5175.00	ppb	1.75	5000	103.5	90 - 110	
59 Co	72	1	50.69	ppb	0.60	50	101.4	90 - 110	
60 Ni	72	1	51.38	ppb	0.38	50	102.8	90 - 110	
63 Cu	72	1	51.26	ppb	0.64	50	102.5	90 - 110	
66 Zn	72	1	51.04	ppb	0.43	50	102.1	90 - 110	
75 As	72	1	50.48	ppb	0.68	50	101.0	90 - 110	
78 Se	72	1	49.38	ppb	1.31	50	98.8	90 - 110	
93 Nb	72	1	104.00	ppb	0.79	100	104.0	90 - 110	
95 Mo	72	1	50.31	ppb	0.31	50	100.6	90 - 110	
105 Pd	115	1	50.43	ppb	2.44	50	100.9	90 - 110	
107 Ag	115	1	51.37	ppb	0.85	50	102.7	90 - 110	
111 Cd	115	1	50.44	ppb	0.84	50	100.9	90 - 110	
118 Sn	115	1	50.18	ppb	0.58	50	100.4	90 - 110	
121 Sb	115	1	50.27	ppb	0.24	50	100.5	90 - 110	
137 Ba	115	1	50.21	ppb	0.87	50	100.4	90 - 110	
182 W	165	1	49.77	ppb	1.37	50	99.5	90 - 110	
195 Pt	165	1	50.42	ppb	1.61	50	100.8	90 - 110	
205 Tl	165	1	51.69	ppb	0.62	50	103.4	90 - 110	
208 Pb	165	1	51.58	ppb	0.71	50	103.2	90 - 110	
232 Th	165	1	51.36	ppb	1.04	50	102.7	90 - 110	
238 U	165	1	50.74	ppb	0.66	50	101.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	445523	0.71	474143	94.0	30 - 120	
45 Sc	1	2345322	1.04	2484770	94.4	30 - 120	
72 Ge	1	1098830	0.62	1162179	94.5	30 - 120	
115 In	1	2880071	0.20	3064413	94.0	30 - 120	
165 Ho	1	4310631	0.28	4475388	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\092_CCB.D\092_CCB.D#
Date Acquired: Aug 4 2009 09:53 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.60	1.00	
23 Na	6	1	-2.469	ppb	14.44	20.00	
24 Mg	6	1	0.728	ppb	3.99	20.00	
27 Al	45	1	0.569	ppb	31.92	20.00	
39 K	45	1	1.055	ppb	52.13	20.00	
43 Ca	45	1	9.441	ppb	18.68	20.00	
51 V	72	1	-0.003	ppb	936.55	1.00	
52 Cr	72	1	0.019	ppb	67.57	1.00	
55 Mn	72	1	0.006	ppb	92.29	1.00	
57 Fe	72	1	0.940	ppb	70.09	20.00	
59 Co	72	1	0.007	ppb	26.51	1.00	
60 Ni	72	1	0.007	ppb	235.68	1.00	
63 Cu	72	1	0.012	ppb	109.20	1.00	
66 Zn	72	1	0.597	ppb	3.65	10.00	
75 As	72	1	0.006	ppb	196.78	1.00	
78 Se	72	1	0.133	ppb	38.77	1.00	
93 Nb	72	1	3.759	ppb	11.75	2.00	Fail
95 Mo	72	1	0.005	ppb	571.85	1.00	
105 Pd	115	1	0.037	ppb	17.09	1.00	
107 Ag	115	1	0.004	ppb	77.56	1.00	
111 Cd	115	1	0.004	ppb	100.36	1.00	
118 Sn	115	1	0.001	ppb	4722.60	10.00	
121 Sb	115	1	0.195	ppb	5.19	1.00	
137 Ba	115	1	0.000	ppb	1432.70	1.00	
182 W	165	1	0.065	ppb	15.72	5.00	
195 Pt	165	1	0.000	ppb	570.74	1.00	
205 Tl	165	1	0.034	ppb	3.20	1.00	
208 Pb	165	1	0.012	ppb	12.70	1.00	
232 Th	165	1	0.315	ppb	10.07	2.00	
238 U	165	1	0.014	ppb	4.38	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458285	0.52	474143	96.7	30 - 120	
45 Sc	1	2423480	1.64	2484770	97.5	30 - 120	
72 Ge	1	1125409	0.33	1162179	96.8	30 - 120	
115 In	1	2976971	0.11	3064413	97.1	30 - 120	
165 Ho	1	4386990	0.35	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\093WASH.D\093WASH.D#
Date Acquired: Aug 4 2009 09:56 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.970 ppb	1.25	1.30	
23 Na	6	1	49.500 ppb	0.87	65.00	
24 Mg	6	1	55.400 ppb	1.06	65.00	
27 Al	45	1	32.730 ppb	0.97	39.00	
39 K	45	1	104.900 ppb	0.89	130.00	
43 Ca	45	1	54.920 ppb	13.10	65.00	
51 V	72	1	5.096 ppb	3.25	6.50	
52 Cr	72	1	2.148 ppb	2.32	2.60	
55 Mn	72	1	1.052 ppb	2.55	1.30	
57 Fe	72	1	54.430 ppb	1.16	65.00	
59 Co	72	1	1.065 ppb	2.09	1.30	
60 Ni	72	1	2.263 ppb	5.73	2.60	
63 Cu	72	1	2.200 ppb	4.92	2.60	
66 Zn	72	1	10.700 ppb	1.85	13.00	
75 As	72	1	5.312 ppb	3.05	6.50	
78 Se	72	1	5.832 ppb	7.17	6.50	
93 Nb	72	1	45.720 ppb	2.05	52.00	
95 Mo	72	1	1.995 ppb	3.37	2.60	
105 Pd	115	1	0.969 ppb	8.73	1.30	
107 Ag	115	1	5.402 ppb	1.43	6.50	
111 Cd	115	1	1.111 ppb	2.62	1.30	
118 Sn	115	1	10.270 ppb	3.18	13.00	
121 Sb	115	1	2.053 ppb	1.10	2.60	
137 Ba	115	1	1.034 ppb	3.28	1.30	
182 W	165	1	5.145 ppb	1.66	6.50	
195 Pt	165	1	1.024 ppb	3.68	1.30	
205 Tl	165	1	1.113 ppb	1.88	1.30	
208 Pb	165	1	1.114 ppb	3.16	1.30	
232 Th	165	1	2.515 ppb	7.50	2.60	
238 U	165	1	1.095 ppb	1.48	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455069	0.82	474143	96.0	30 - 120	
45 Sc	1	2446968	0.47	2484770	98.5	30 - 120	
72 Ge	1	1128565	1.30	1162179	97.1	30 - 120	
115 In	1	2992883	0.67	3064413	97.7	30 - 120	
165 Ho	1	4387134	0.62	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\094ICSA.D\094ICSA.D#
Date Acquired: Aug 4 2009 09:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.01 ppb	86.63	1.00	
23 Na	6	1	98320.00 ppb	0.42	100.00	
24 Mg	6	1	95360.00 ppb	0.89	100.00	
27 Al	45	1	100700.00 ppb	1.38	100.00	
39 K	45	1	99400.00 ppb	1.67	100.00	
43 Ca	45	1	104800.00 ppb	1.65	100.00	
51 V	72	1	-0.28 ppb	37.57	1.00	
52 Cr	72	1	0.72 ppb	2.04	1.00	
55 Mn	72	1	3.64 ppb	0.48	1.00	
57 Fe	72	1	98190.00 ppb	0.33	100.00	
59 Co	72	1	1.57 ppb	3.16	1.00	
60 Ni	72	1	1.73 ppb	3.25	1.00	
63 Cu	72	1	1.54 ppb	0.54	1.00	
66 Zn	72	1	3.11 ppb	1.46	10.00	
75 As	72	1	0.47 ppb	5.96	1.00	
78 Se	72	1	-0.41 ppb	3.60	1.00	
93 Nb	72	1	4.26 ppb	8.33	2.00	
95 Mo	72	1	2031.00 ppb	1.28	2000.00	
105 Pd	115	1	0.11 ppb	11.68	1.00	
107 Ag	115	1	0.04 ppb	3.09	1.00	
111 Cd	115	1	3.27 ppb	2.45	1.00	
118 Sn	115	1	0.20 ppb	12.29	10.00	
121 Sb	115	1	0.30 ppb	4.78	1.00	
137 Ba	115	1	0.04 ppb	16.65	1.00	
182 W	165	1	0.14 ppb	23.34	5.00	
195 Pt	165	1	0.00 ppb	35.04	1.00	
205 Tl	165	1	0.03 ppb	46.05	1.00	
208 Pb	165	1	0.11 ppb	7.16	1.00	
232 Th	165	1	0.09 ppb	28.99	2.00	
238 U	165	1	0.00 ppb	200.21	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	459671	0.67	474143	96.9	30 - 120	
45 Sc	1	2308339	1.69	2484770	92.9	30 - 120	
72 Ge	1	1044007	0.53	1162179	89.8	30 - 120	
115 In	1	2661248	0.76	3064413	86.8	30 - 120	
165 Ho	1	4140212	0.09	4475388	92.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\095ICSB.D\095ICSB.D#
Date Acquired: Aug 4 2009 10:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	96.32	1.28	100	96.3	80 - 120	
23 Na	6	1	105200.00	0.58	110000	95.6	80 - 120	
24 Mg	6	1	102400.00	0.40	110000	93.1	80 - 120	
27 Al	45	1	107900.00	0.79	110000	98.1	80 - 120	
39 K	45	1	106300.00	0.33	110000	96.6	80 - 120	
43 Ca	45	1	111000.00	0.16	110000	100.9	80 - 120	
51 V	72	1	100.60	0.93	100	100.6	80 - 120	
52 Cr	72	1	100.70	0.13	100	100.7	80 - 120	
55 Mn	72	1	101.80	0.94	100	101.8	80 - 120	
57 Fe	72	1	104800.00	0.86	110000	95.3	80 - 120	
59 Co	72	1	99.01	0.04	100	99.0	80 - 120	
60 Ni	72	1	96.66	1.28	100	96.7	80 - 120	
63 Cu	72	1	94.38	1.35	100	94.4	80 - 120	
66 Zn	72	1	96.36	1.54	100	96.4	80 - 120	
75 As	72	1	99.30	1.06	100	99.3	80 - 120	
78 Se	72	1	99.29	3.35	100	99.3	80 - 120	
93 Nb	72	1	198.80	1.14	200	99.4	80 - 120	
95 Mo	72	1	2085.00	0.09	2100	99.3	80 - 120	
105 Pd	115	1	96.05	0.65	100	96.1	80 - 120	
107 Ag	115	1	88.64	5.52	100	88.6	80 - 120	
111 Cd	115	1	99.13	1.34	100	99.1	80 - 120	
118 Sn	115	1	100.50	1.16	100	100.5	80 - 120	
121 Sb	115	1	102.10	0.79	100	102.1	80 - 120	
137 Ba	115	1	102.40	1.38	100	102.4	80 - 120	
182 W	165	1	101.50	1.12	100	101.5	80 - 120	
195 Pt	165	1	95.01	0.62	100	95.0	80 - 120	
205 Tl	165	1	95.85	0.52	100	95.9	80 - 120	
208 Pb	165	1	95.62	0.56	100	95.6	80 - 120	
232 Th	165	1	99.13	1.09	100	99.1	80 - 120	
238 U	165	1	98.87	0.92	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458521	0.47	474143	96.7	30 - 120	
45 Sc	1	2282460	0.85	2484770	91.9	30 - 120	
72 Ge	1	1049641	1.14	1162179	90.3	30 - 120	
115 In	1	2646524	0.84	3064413	86.4	30 - 120	
165 Ho	1	4131415	0.80	4475388	92.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\096WASH.D\096WASH.D#
Date Acquired: Aug 4 2009 10:04 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.005 ppb	173.21	1.30	
23 Na	6	1	12.240 ppb	16.49	65.00	
24 Mg	6	1	8.620 ppb	21.44	65.00	
27 Al	45	1	10.170 ppb	15.99	39.00	
39 K	45	1	6.753 ppb	15.22	130.00	
43 Ca	45	1	9.370 ppb	32.31	65.00	
51 V	72	1	0.008 ppb	405.72	6.50	
52 Cr	72	1	0.026 ppb	46.31	2.60	
55 Mn	72	1	0.005 ppb	106.07	1.30	
57 Fe	72	1	11.250 ppb	18.36	65.00	
59 Co	72	1	0.010 ppb	10.14	1.30	
60 Ni	72	1	0.015 ppb	47.08	2.60	
63 Cu	72	1	-0.003 ppb	437.61	2.60	
66 Zn	72	1	0.066 ppb	29.89	13.00	
75 As	72	1	0.013 ppb	82.10	6.50	
78 Se	72	1	0.195 ppb	201.23	6.50	
93 Nb	72	1	4.577 ppb	12.60	52.00	
95 Mo	72	1	1.211 ppb	10.88	2.60	
105 Pd	115	1	0.013 ppb	64.65	1.30	
107 Ag	115	1	0.014 ppb	22.07	6.50	
111 Cd	115	1	0.008 ppb	27.07	1.30	
118 Sn	115	1	-0.023 ppb	88.90	13.00	
121 Sb	115	1	0.127 ppb	5.44	2.60	
137 Ba	115	1	-0.006 ppb	163.76	1.30	
182 W	165	1	0.067 ppb	4.32	6.50	
195 Pt	165	1	0.010 ppb	98.77	1.30	
205 Tl	165	1	0.012 ppb	10.40	1.30	
208 Pb	165	1	0.013 ppb	18.73	1.30	
232 Th	165	1	0.448 ppb	10.88	2.60	
238 U	165	1	0.020 ppb	8.71	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465019	1.73	474143	98.1	30 - 120	
45 Sc	1	2361340	0.44	2484770	95.0	30 - 120	
72 Ge	1	1114627	1.15	1162179	95.9	30 - 120	
115 In	1	2938079	0.52	3064413	95.9	30 - 120	
165 Ho	1	4404170	0.74	4475388	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\097_CCV.D\097_CCV.D#
Date Acquired: Aug 4 2009 10:07 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.87	ppb	2.72	50	101.7	90 - 110	
23 Na	6	1	5030.00	ppb	0.84	5000	100.6	90 - 110	
24 Mg	6	1	4975.00	ppb	0.37	5000	99.5	90 - 110	
27 Al	45	1	4999.00	ppb	0.47	5000	100.0	90 - 110	
39 K	45	1	5015.00	ppb	0.50	5000	100.3	90 - 110	
43 Ca	45	1	4978.00	ppb	1.01	5000	99.6	90 - 110	
51 V	72	1	49.01	ppb	1.42	50	98.0	90 - 110	
52 Cr	72	1	50.21	ppb	0.85	50	100.4	90 - 110	
55 Mn	72	1	49.79	ppb	0.40	50	99.6	90 - 110	
57 Fe	72	1	5145.00	ppb	0.75	5000	102.9	90 - 110	
59 Co	72	1	50.00	ppb	0.78	50	100.0	90 - 110	
60 Ni	72	1	50.92	ppb	1.18	50	101.8	90 - 110	
63 Cu	72	1	50.89	ppb	0.59	50	101.8	90 - 110	
66 Zn	72	1	50.52	ppb	0.98	50	101.0	90 - 110	
75 As	72	1	50.18	ppb	0.62	50	100.4	90 - 110	
78 Se	72	1	50.48	ppb	2.52	50	101.0	90 - 110	
93 Nb	72	1	102.30	ppb	0.52	100	102.3	90 - 110	
95 Mo	72	1	49.96	ppb	0.89	50	99.9	90 - 110	
105 Pd	115	1	51.24	ppb	1.91	50	102.5	90 - 110	
107 Ag	115	1	52.00	ppb	1.21	50	104.0	90 - 110	
111 Cd	115	1	50.74	ppb	1.30	50	101.5	90 - 110	
118 Sn	115	1	50.67	ppb	2.00	50	101.3	90 - 110	
121 Sb	115	1	50.48	ppb	0.65	50	101.0	90 - 110	
137 Ba	115	1	50.64	ppb	1.63	50	101.3	90 - 110	
182 W	165	1	50.21	ppb	0.95	50	100.4	90 - 110	
195 Pt	165	1	50.66	ppb	0.75	50	101.3	90 - 110	
205 Tl	165	1	51.44	ppb	0.95	50	102.9	90 - 110	
208 Pb	165	1	51.96	ppb	0.78	50	103.9	90 - 110	
232 Th	165	1	51.39	ppb	0.50	50	102.8	90 - 110	
238 U	165	1	51.14	ppb	0.75	50	102.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451853	0.49	474143	95.3	30 - 120	
45 Sc	1	2375883	0.80	2484770	95.6	30 - 120	
72 Ge	1	1117949	0.39	1162179	96.2	30 - 120	
115 In	1	2884699	0.90	3064413	94.1	30 - 120	
165 Ho	1	4343104	0.09	4475388	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG080409.B\098_CCB.D\098_CCB.D#
Date Acquired:	Aug 4 2009 10:10 pm
Operator:	TEL
Sample Name:	CCB
Misc Info:	
Vial Number:	1307
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update:	Aug 04 2009 09:48 pm
Sample Type:	CCB
Total Dil Factor:	1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.62	1.00	
23 Na	6	1	-0.490	ppb	61.81	20.00	
24 Mg	6	1	1.180	ppb	7.96	20.00	
27 Al	45	1	1.100	ppb	10.01	20.00	
39 K	45	1	2.088	ppb	54.65	20.00	
43 Ca	45	1	6.293	ppb	52.60	20.00	
51 V	72	1	0.014	ppb	77.05	1.00	
52 Cr	72	1	0.021	ppb	28.37	1.00	
55 Mn	72	1	-0.001	ppb	855.24	1.00	
57 Fe	72	1	1.036	ppb	33.15	20.00	
59 Co	72	1	0.006	ppb	23.17	1.00	
60 Ni	72	1	0.004	ppb	179.98	1.00	
63 Cu	72	1	0.011	ppb	54.22	1.00	
66 Zn	72	1	0.597	ppb	3.14	10.00	
75 As	72	1	0.015	ppb	1.13	1.00	
78 Se	72	1	0.358	ppb	47.89	1.00	
93 Nb	72	1	3.709	ppb	10.86	2.00	Fail
95 Mo	72	1	0.077	ppb	63.62	1.00	
105 Pd	115	1	0.027	ppb	62.89	1.00	
107 Ag	115	1	0.010	ppb	19.56	1.00	
111 Cd	115	1	0.006	ppb	124.41	1.00	
118 Sn	115	1	-0.013	ppb	18.38	10.00	
121 Sb	115	1	0.174	ppb	3.42	1.00	
137 Ba	115	1	-0.004	ppb	188.93	1.00	
182 W	165	1	0.059	ppb	19.97	5.00	
195 Pt	165	1	0.007	ppb	116.96	1.00	
205 Tl	165	1	0.023	ppb	14.74	1.00	
208 Pb	165	1	0.010	ppb	17.15	1.00	
232 Th	165	1	0.319	ppb	13.63	2.00	
238 U	165	1	0.012	ppb	11.50	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465208	0.92	474143	98.1	30 - 120	
45 Sc	1	2436587	0.89	2484770	98.1	30 - 120	
72 Ge	1	1130740	1.00	1162179	97.3	30 - 120	
115 In	1	3009733	1.46	3064413	98.2	30 - 120	
165 Ho	1	4399005	0.53	4475388	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\099WASH.D\099WASH.D#
Date Acquired: Aug 4 2009 10:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.886 ppb	5.66	1.30	
23 Na	6	1	50.810 ppb	1.06	65.00	
24 Mg	6	1	56.000 ppb	0.89	65.00	
27 Al	45	1	33.700 ppb	1.84	39.00	
39 K	45	1	110.100 ppb	2.95	130.00	
43 Ca	45	1	60.140 ppb	8.21	65.00	
51 V	72	1	5.031 ppb	2.05	6.50	
52 Cr	72	1	2.150 ppb	2.93	2.60	
55 Mn	72	1	1.027 ppb	2.91	1.30	
57 Fe	72	1	53.480 ppb	4.59	65.00	
59 Co	72	1	1.040 ppb	2.92	1.30	
60 Ni	72	1	2.121 ppb	5.54	2.60	
63 Cu	72	1	2.137 ppb	0.81	2.60	
66 Zn	72	1	10.480 ppb	0.89	13.00	
75 As	72	1	5.104 ppb	1.55	6.50	
78 Se	72	1	5.343 ppb	9.92	6.50	
93 Nb	72	1	44.650 ppb	1.78	52.00	
95 Mo	72	1	2.036 ppb	3.83	2.60	
105 Pd	115	1	0.925 ppb	0.87	1.30	
107 Ag	115	1	5.458 ppb	0.05	6.50	
111 Cd	115	1	1.039 ppb	1.83	1.30	
118 Sn	115	1	10.330 ppb	0.19	13.00	
121 Sb	115	1	2.032 ppb	1.67	2.60	
137 Ba	115	1	1.015 ppb	2.72	1.30	
182 W	165	1	4.992 ppb	2.53	6.50	
195 Pt	165	1	1.006 ppb	6.57	1.30	
205 Tl	165	1	1.109 ppb	1.70	1.30	
208 Pb	165	1	1.085 ppb	3.59	1.30	
232 Th	165	1	2.535 ppb	7.55	2.60	
238 U	165	1	1.089 ppb	0.63	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	466268	0.29	474143	98.3	30 - 120	
45 Sc	1	2447934	0.46	2484770	98.5	30 - 120	
72 Ge	1	1160377	0.46	1162179	99.8	30 - 120	
115 In	1	3020765	0.22	3064413	98.6	30 - 120	
165 Ho	1	4470835	1.08	4475388	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\103_CCV.D\103_CCV.D#
Date Acquired: Aug 4 2009 10:25 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.28	ppb	2.14	50	100.6	90 - 110	
23 Na	6	1	4992.00	ppb	1.18	5000	99.8	90 - 110	
24 Mg	6	1	5023.00	ppb	0.93	5000	100.5	90 - 110	
27 Al	45	1	5130.00	ppb	0.32	5000	102.6	90 - 110	
39 K	45	1	5118.00	ppb	1.21	5000	102.4	90 - 110	
43 Ca	45	1	5057.00	ppb	2.22	5000	101.1	90 - 110	
51 V	72	1	50.09	ppb	1.27	50	100.2	90 - 110	
52 Cr	72	1	51.30	ppb	2.05	50	102.6	90 - 110	
55 Mn	72	1	51.28	ppb	2.11	50	102.6	90 - 110	
57 Fe	72	1	5291.00	ppb	1.94	5000	105.8	90 - 110	
59 Co	72	1	51.04	ppb	1.54	50	102.1	90 - 110	
60 Ni	72	1	51.89	ppb	1.14	50	103.8	90 - 110	
63 Cu	72	1	52.55	ppb	1.70	50	105.1	90 - 110	
66 Zn	72	1	51.61	ppb	1.59	50	103.2	90 - 110	
75 As	72	1	51.49	ppb	2.14	50	103.0	90 - 110	
78 Se	72	1	52.27	ppb	0.90	50	104.5	90 - 110	
93 Nb	72	1	97.20	ppb	3.17	100	97.2	90 - 110	
95 Mo	72	1	51.47	ppb	1.86	50	102.9	90 - 110	
105 Pd	115	1	50.33	ppb	0.52	50	100.7	90 - 110	
107 Ag	115	1	51.20	ppb	1.13	50	102.4	90 - 110	
111 Cd	115	1	50.51	ppb	0.65	50	101.0	90 - 110	
118 Sn	115	1	50.09	ppb	1.28	50	100.2	90 - 110	
121 Sb	115	1	49.91	ppb	0.36	50	99.8	90 - 110	
137 Ba	115	1	50.13	ppb	1.27	50	100.3	90 - 110	
182 W	165	1	50.24	ppb	0.96	50	100.5	90 - 110	
195 Pt	165	1	50.77	ppb	0.49	50	101.5	90 - 110	
205 Tl	165	1	50.94	ppb	0.98	50	101.9	90 - 110	
208 Pb	165	1	52.16	ppb	0.35	50	104.3	90 - 110	
232 Th	165	1	51.35	ppb	0.64	50	102.7	90 - 110	
238 U	165	1	51.25	ppb	1.68	50	102.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	447184	0.90	474143	94.3	30 - 120	
45 Sc	1	2312946	0.44	2484770	93.1	30 - 120	
72 Ge	1	1065416	2.50	1162179	91.7	30 - 120	
115 In	1	2842346	0.30	3064413	92.8	30 - 120	
165 Ho	1	4216146	0.60	4475388	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\104_CCB.D\104_CCB.D#
Date Acquired: Aug 4 2009 10:28 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-1.388	ppb	16.22	20.00	
24 Mg	6	1	1.680	ppb	16.01	20.00	
27 Al	45	1	1.656	ppb	20.34	20.00	
39 K	45	1	2.240	ppb	29.77	20.00	
43 Ca	45	1	9.909	ppb	41.45	20.00	
51 V	72	1	0.027	ppb	76.41	1.00	
52 Cr	72	1	0.025	ppb	7.23	1.00	
55 Mn	72	1	0.008	ppb	122.53	1.00	
57 Fe	72	1	1.735	ppb	20.77	20.00	
59 Co	72	1	0.008	ppb	79.14	1.00	
60 Ni	72	1	0.005	ppb	260.75	1.00	
63 Cu	72	1	0.016	ppb	76.22	1.00	
66 Zn	72	1	0.581	ppb	0.81	10.00	
75 As	72	1	0.017	ppb	47.47	1.00	
78 Se	72	1	0.165	ppb	169.10	1.00	
93 Nb	72	1	3.203	ppb	10.95	2.00	Fail
95 Mo	72	1	0.006	ppb	107.43	1.00	
105 Pd	115	1	0.028	ppb	29.11	1.00	
107 Ag	115	1	0.009	ppb	28.48	1.00	
111 Cd	115	1	0.011	ppb	67.75	1.00	
118 Sn	115	1	0.006	ppb	554.16	10.00	
121 Sb	115	1	0.175	ppb	5.25	1.00	
137 Ba	115	1	0.012	ppb	49.97	1.00	
182 W	165	1	0.050	ppb	47.77	5.00	
195 Pt	165	1	-0.002	ppb	188.60	1.00	
205 Tl	165	1	0.024	ppb	8.44	1.00	
208 Pb	165	1	0.014	ppb	9.02	1.00	
232 Th	165	1	0.315	ppb	9.83	2.00	
238 U	165	1	0.016	ppb	3.39	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455735	0.38	474143	96.1	30 - 120	
45 Sc	1	2326399	1.68	2484770	93.6	30 - 120	
72 Ge	1	1077897	1.90	1162179	92.7	30 - 120	
115 In	1	2908241	0.58	3064413	94.9	30 - 120	
165 Ho	1	4259418	0.08	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\105WASH.D\105WASH.D#
Date Acquired: Aug 4 2009 10:31 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.956 ppb	22.42	1.30	
23 Na	6	1	43.810 ppb	0.76	65.00	
24 Mg	6	1	52.970 ppb	0.19	65.00	
27 Al	45	1	32.240 ppb	1.91	39.00	
39 K	45	1	108.000 ppb	3.32	130.00	
43 Ca	45	1	56.920 ppb	15.97	65.00	
51 V	72	1	5.027 ppb	2.57	6.50	
52 Cr	72	1	2.120 ppb	4.35	2.60	
55 Mn	72	1	1.043 ppb	4.77	1.30	
57 Fe	72	1	51.710 ppb	3.05	65.00	
59 Co	72	1	1.057 ppb	1.97	1.30	
60 Ni	72	1	2.225 ppb	5.10	2.60	
63 Cu	72	1	2.217 ppb	3.42	2.60	
66 Zn	72	1	10.490 ppb	1.83	13.00	
75 As	72	1	5.088 ppb	2.33	6.50	
78 Se	72	1	5.285 ppb	5.92	6.50	
93 Nb	72	1	44.440 ppb	2.43	52.00	
95 Mo	72	1	1.935 ppb	5.21	2.60	
105 Pd	115	1	0.935 ppb	5.81	1.30	
107 Ag	115	1	5.431 ppb	1.20	6.50	
111 Cd	115	1	1.034 ppb	4.40	1.30	
118 Sn	115	1	10.330 ppb	1.78	13.00	
121 Sb	115	1	2.021 ppb	1.57	2.60	
137 Ba	115	1	0.991 ppb	5.25	1.30	
182 W	165	1	5.080 ppb	3.66	6.50	
195 Pt	165	1	1.015 ppb	2.13	1.30	
205 Tl	165	1	1.113 ppb	2.57	1.30	
208 Pb	165	1	1.127 ppb	2.10	1.30	
232 Th	165	1	2.553 ppb	4.82	2.60	
238 U	165	1	1.106 ppb	0.30	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451108	0.38	474143	95.1	30 - 120	
45 Sc	1	2321208	0.32	2484770	93.4	30 - 120	
72 Ge	1	1091161	1.22	1162179	93.9	30 - 120	
115 In	1	2903775	0.62	3064413	94.8	30 - 120	
165 Ho	1	4258910	0.36	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\106_BLK.D\106_BLK.D#
Date Acquired: Aug 4 2009 10:34 pm
Operator: TEL
Sample Name: LG6WKB
Misc Info: BLANK 9208088 6020
Vial Number: 3411
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.006 ppb	173.21	2.00	
23 Na	6	1	-11.110 ppb	2.67	40.00	
24 Mg	6	1	-2.443 ppb	2.33	40.00	
27 Al	45	1	9.282 ppb	3.27	40.00	
39 K	45	1	-5.111 ppb	12.18	40.00	
43 Ca	45	1	-2.781 ppb	79.43	40.00	
51 V	72	1	0.016 ppb	48.75	2.00	
52 Cr	72	1	0.078 ppb	22.78	2.00	
55 Mn	72	1	0.011 ppb	20.66	2.00	
57 Fe	72	1	-2.358 ppb	13.87	40.00	
59 Co	72	1	-0.004 ppb	24.33	2.00	
60 Ni	72	1	0.028 ppb	89.01	2.00	
63 Cu	72	1	0.044 ppb	7.46	2.00	
66 Zn	72	1	0.207 ppb	8.07	20.00	
75 As	72	1	0.000 ppb	1063.60	2.00	
78 Se	72	1	0.081 ppb	405.60	2.00	
93 Nb	72	1	2.236 ppb	15.51	4.00	
95 Mo	72	1	-0.108 ppb	6.90	2.00	
105 Pd	115	1	0.007 ppb	65.31	2.00	
107 Ag	115	1	0.001 ppb	156.35	2.00	
111 Cd	115	1	0.000 ppb	1007.50	2.00	
118 Sn	115	1	2.580 ppb	3.76	20.00	
121 Sb	115	1	0.045 ppb	8.63	2.00	
137 Ba	115	1	-0.020 ppb	0.31	2.00	
182 W	165	1	0.020 ppb	43.41	10.00	
195 Pt	165	1	-0.013 ppb	20.43	2.00	
205 Tl	165	1	0.024 ppb	32.54	2.00	
208 Pb	165	1	0.008 ppb	12.06	2.00	
232 Th	165	1	0.050 ppb	13.70	4.00	
238 U	165	1	-0.001 ppb	58.20	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	443353	0.44	474143	93.5	30 - 120	
45 Sc	1	2303547	0.16	2484770	92.7	30 - 120	
72 Ge	1	1042111	1.32	1162179	89.7	30 - 120	
115 In	1	2848598	0.33	3064413	93.0	30 - 120	
165 Ho	1	4212309	0.60	4475388	94.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\107_LCS.D\107_LCS.D#
Date Acquired: Aug 4 2009 10:37 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG6WKC
Misc Info: LCS
Vial Number: 3412
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	41.10	1.77	40	102.8	80 - 120	
23 Na	6	1	-5.98	6.48	4000	-0.1	80 - 120	
24 Mg	6	1	-3.07	3.10	4000	-0.1	80 - 120	
27 Al	45	1	61.03	0.40	4000	1.5	80 - 120	
39 K	45	1	-5.36	5.54	4000	-0.1	80 - 120	
43 Ca	45	1	1.00	360.44	4000	0.0	80 - 120	
51 V	72	1	41.75	1.10	40	104.4	80 - 120	
52 Cr	72	1	43.53	1.31	40	108.8	80 - 120	
55 Mn	72	1	43.51	0.89	40	108.8	80 - 120	
57 Fe	72	1	-0.59	124.99	4000	0.0	80 - 120	
59 Co	72	1	43.57	0.96	40	108.9	80 - 120	
60 Ni	72	1	44.61	1.17	40	111.5	80 - 120	
63 Cu	72	1	45.11	0.62	40	112.8	80 - 120	
66 Zn	72	1	42.91	0.73	40	107.3	80 - 120	
75 As	72	1	40.85	0.29	40	102.1	80 - 120	
78 Se	72	1	40.47	2.43	40	101.2	80 - 120	
93 Nb	72	1	1.30	15.92	80	1.6	80 - 120	
95 Mo	72	1	42.75	0.78	40	106.9	80 - 120	
105 Pd	115	1	0.01	51.80	40	0.0	80 - 120	
107 Ag	115	1	44.07	0.36	40	110.2	80 - 120	
111 Cd	115	1	41.44	0.77	40	103.6	80 - 120	
118 Sn	115	1	2.47	1.50	40	6.2	80 - 120	
121 Sb	115	1	41.30	0.71	40	103.3	80 - 120	
137 Ba	115	1	42.58	1.26	40	106.5	80 - 120	
182 W	165	1	0.03	19.85	40	0.1	80 - 120	
195 Pt	165	1	0.03	56.43	40	0.1	80 - 120	
205 Tl	165	1	44.13	0.97	40	110.3	80 - 120	
208 Pb	165	1	44.82	1.03	40	112.1	80 - 120	
232 Th	165	1	40.79	3.92	40	102.0	80 - 120	
238 U	165	1	43.30	0.67	40	108.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	434159	0.13	474143	91.6	30 - 120	
45 Sc	1	2245964	0.46	2484770	90.4	30 - 120	
72 Ge	1	1040207	0.28	1162179	89.5	30 - 120	
115 In	1	2808160	0.40	3064413	91.6	30 - 120	
165 Ho	1	4176288	0.64	4475388	93.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#
Date Acquired: Aug 4 2009 10:40 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282 5X
Misc Info: D9G240312
Vial Number: 3501
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.01	ppb	173.25	3600	
23 Na	6	1	1,954,500.00	390900.00	ppb	0.47	100000	>LDR
24 Mg	6	1	43,585.00	8717.00	ppb	0.88	100000	
27 Al	45	1	67.35	13.47	ppb	1.31	100000	
39 K	45	1	5,845.00	1169.00	ppb	0.83	100000	
43 Ca	45	1	165,500.00	33100.00	ppb	0.25	100000	
51 V	72	1	13,115.00	2623.00	ppb	2.23	3600	
52 Cr	72	1	384.80	76.96	ppb	0.84	3600	
55 Mn	72	1	16.63	3.33	ppb	0.84	18000	
57 Fe	72	1	522.50	104.50	ppb	2.32	100000	
59 Co	72	1	0.22	0.04	ppb	6.05	3600	
60 Ni	72	1	3.84	0.77	ppb	5.45	3600	
63 Cu	72	1	0.78	0.16	ppb	2.22	3600	
66 Zn	72	1	2.76	0.55	ppb	12.62	3600	
75 As	72	1	382.50	76.50	ppb	1.87	3600	
78 Se	72	1	11.11	2.22	ppb	14.28	3600	
93 Nb	72	1	4.68	0.94	ppb	22.12	2000	
95 Mo	72	1	369.10	73.82	ppb	0.21	3600	
105 Pd	115	1	2.61	0.52	ppb	2.99	1000	
107 Ag	115	1	0.12	0.02	ppb	17.30	3600	
111 Cd	115	1	0.55	0.11	ppb	10.50	3600	
118 Sn	115	1	1.36	0.27	ppb	11.83	3600	
121 Sb	115	1	0.45	0.09	ppb	7.93	3600	
137 Ba	115	1	15.45	3.09	ppb	0.98	3600	
182 W	165	1	1,589.00	317.80	ppb	1.89	1000	
195 Pt	165	1	0.18	0.04	ppb	17.00	1000	
205 Tl	165	1	0.20	0.04	ppb	30.21	3600	
208 Pb	165	1	0.05	0.01	ppb	11.58	3600	
232 Th	165	1	5.76	1.15	ppb	24.14	1000	
238 U	165	1	8.22	1.64	ppb	0.77	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	436178	1.63	474143	92.0	30 - 120	
45 Sc	1	2274781	1.61	2484770	91.5	30 - 120	
72 Ge	1	993940	1.82	1162179	85.5	30 - 120	
115 In	1	2592855	0.52	3064413	84.6	30 - 120	
165 Ho	1	4047087	1.11	4475388	90.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\109SDIL.D\109SDIL.D#
Date Acquired: Aug 4 2009 10:43 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282P25
Misc Info: SERIAL DILUTION
Vial Number: 3502
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.00	ppb	0.00	0.00	0.0	90 - 110	
23 Na	6	1	75940.00	ppb	1.58	78180.00	97.1	90 - 110	
24 Mg	6	1	1755.00	ppb	0.84	1743.40	100.7	90 - 110	
27 Al	45	1	12.53	ppb	0.95	2.69	465.1	90 - 110	
39 K	45	1	246.20	ppb	2.26	233.80	105.3	90 - 110	
43 Ca	45	1	6618.00	ppb	1.13	6620.00	100.0	90 - 110	
51 V	72	1	494.20	ppb	0.71	524.60	94.2	90 - 110	
52 Cr	72	1	15.05	ppb	0.94	15.39	97.8	90 - 110	
55 Mn	72	1	0.71	ppb	2.74	0.67	107.3	90 - 110	
57 Fe	72	1	20.27	ppb	3.95	20.90	97.0	90 - 110	
59 Co	72	1	0.01	ppb	17.87	0.01	124.2	90 - 110	
60 Ni	72	1	0.34	ppb	5.58	0.15	224.1	90 - 110	
63 Cu	72	1	0.03	ppb	3.68	0.03	104.4	90 - 110	
66 Zn	72	1	0.05	ppb	23.95	0.11	48.0	90 - 110	
75 As	72	1	15.20	ppb	0.97	15.30	99.3	90 - 110	
78 Se	72	1	0.18	ppb	124.41	0.44	39.9	90 - 110	
93 Nb	72	1	0.39	ppb	25.09	0.19	208.8	90 - 110	
95 Mo	72	1	14.15	ppb	1.14	14.76	95.8	90 - 110	
105 Pd	115	1	0.11	ppb	19.09	0.10	104.5	90 - 110	
107 Ag	115	1	0.00	ppb	18.61	0.00	58.4	90 - 110	
111 Cd	115	1	0.02	ppb	35.53	0.02	74.9	90 - 110	
118 Sn	115	1	0.07	ppb	35.66	0.05	135.3	90 - 110	
121 Sb	115	1	0.02	ppb	19.22	0.02	124.1	90 - 110	
137 Ba	115	1	0.61	ppb	4.92	0.62	98.4	90 - 110	
182 W	165	1	65.26	ppb	1.61	63.56	102.7	90 - 110	
195 Pt	165	1	0.01	ppb	39.36	0.01	74.4	90 - 110	
205 Tl	165	1	0.01	ppb	27.81	0.01	71.8	90 - 110	
208 Pb	165	1	0.00	ppb	15.10	0.00	129.2	90 - 110	
232 Th	165	1	0.18	ppb	10.83	0.23	76.0	90 - 110	
238 U	165	1	0.32	ppb	3.00	0.33	98.6	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	454347	0.40	474143	95.8	30 - 120	
45 Sc	1	2296546	1.95	2484770	92.4	30 - 120	
72 Ge	1	1064111	1.02	1162179	91.6	30 - 120	
115 In	1	2784362	0.32	3064413	90.9	30 - 120	
165 Ho	1	4230492	1.00	4475388	94.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:10

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282P25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 109
Acquired: 08/04/2009 22:43:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0.05777	100		*	
7440-62-2	Vanadium	51	6341210	12355	13120	5.83		*	
7440-47-3	Chromium	52	189196	376.20	384.80	2.23		*	
7439-96-5	Manganese	55	10361	17.840	16.620	7.34		*	
7440-48-4	Cobalt	59	293	0.27260	0.21940	24.2		*	
7440-02-0	Nickel	60	1363	8.5950	3.8350	124		*	
7440-50-8	Copper	63	947	0.80950	0.77550	4.38		*	
7440-66-6	Zinc	66	549	1.3240	2.7550	51.9		*	
7440-38-2	Arsenic	75	23092	380.10	382.50	0.627	0.21	0.6	☑
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	☑
7439-98-7	Molybdenum	95	58016	353.80	369.10	4.15		*	
7440-22-4	Silver	107	73	0.07020	0.12020	41.6		*	
7440-43-9	Cadmium	111	54	0.40945	0.54640	25.1		*	
7440-31-5	Tin	118	1667	1.8425	1.3620	35.3		*	
7440-36-0	Antimony	121	249	0.56250	0.45300	24.2		*	
7440-39-3	Barium	137	1937	15.205	15.450	1.59		*	
7440-28-0	Thallium	205	236	0.14455	0.20120	28.2		*	
7439-92-1	Lead	208	334	0.06970	0.05397	29.1		*	
7440-61-1	Uranium	238	10075	8.1050	8.2190	1.39		*	
7440-23-5	Sodium	23	66615000	1898500	1954000	2.84		*	
7439-95-4	Magnesium	24	5179020	43875	43590	0.654		*	
7429-90-5	Aluminum	27	43329	313.35	67.330	365		*	
7440-09-7	Potassium	39	1378260	6155.0	5847.0	5.27		*	
7440-70-2	Calcium	43	74980	165450	165500	0.0302		*	
7439-89-6	Iron	57	8219	506.50	522.30	3.03		*	
7440-03-1	Niobium	93	16447	9.7700	4.6800	109		*	
7440-05-3	Palladium	105	583	2.7280	2.6100	4.52		*	
7440-33-7	Tungsten	182	609292	1631.5	1589.0	2.67		*	
7440-06-4	Platinum	195	217	0.13115	0.17630	25.6		*	
7440-29-1	Thorium	232	5708	4.3755	5.7600	24.0		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\110PDS.D\110PDS.D#
Date Acquired: Aug 4 2009 10:46 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282Z
Misc Info: POST DIGESTION SPIKE
Vial Number: 3503
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	199.70	0.01	ppb	0.42	200	99.8	75 - 125	
23 Na	6	1	380300.00	390900.00	ppb	0.45	200000	64.4	75 - 125	
24 Mg	6	1	8577.00	8717.00	ppb	0.39	200000	4.1	75 - 125	
27 Al	45	1	25.90	13.47	ppb	0.84	200000	0.0	75 - 125	
39 K	45	1	1168.00	1169.00	ppb	2.06	200000	0.6	75 - 125	
43 Ca	45	1	32420.00	33100.00	ppb	1.04	200000	13.9	75 - 125	
51 V	72	1	2790.00	2623.00	ppb	0.09	200	98.8	75 - 125	
52 Cr	72	1	283.10	76.96	ppb	1.15	200	102.2	75 - 125	
55 Mn	72	1	206.70	3.33	ppb	0.93	200	101.7	75 - 125	
57 Fe	72	1	99.88	104.50	ppb	0.92	200000	0.0	75 - 125	
59 Co	72	1	201.20	0.04	ppb	1.04	200	100.6	75 - 125	
60 Ni	72	1	202.30	0.77	ppb	0.98	200	100.8	75 - 125	
63 Cu	72	1	198.30	0.16	ppb	1.46	200	99.1	75 - 125	
66 Zn	72	1	199.70	0.55	ppb	1.18	200	99.6	75 - 125	
75 As	72	1	280.90	76.50	ppb	1.22	200	101.6	75 - 125	
78 Se	72	1	208.30	2.22	ppb	0.98	200	103.0	75 - 125	
93 Nb	72	1	0.54	0.94	ppb	19.66	400	0.1	75 - 125	
95 Mo	72	1	290.90	73.82	ppb	0.43	200	106.2	75 - 125	
105 Pd	115	1	0.50	0.52	ppb	9.48	200	0.2	75 - 125	
107 Ag	115	1	48.40	0.02	ppb	21.88	50	96.8	75 - 125	
111 Cd	115	1	196.20	0.11	ppb	1.16	200	98.0	75 - 125	
118 Sn	115	1	186.00	0.27	ppb	0.78	200	92.9	75 - 125	
121 Sb	115	1	201.00	0.09	ppb	0.92	200	100.5	75 - 125	
137 Ba	115	1	208.30	3.09	ppb	1.26	200	102.6	75 - 125	
182 W	165	1	312.40	317.80	ppb	0.69	200	60.3	75 - 125	
195 Pt	165	1	0.01	0.04	ppb	102.55	200	0.0	75 - 125	
205 Tl	165	1	188.80	0.04	ppb	1.71	200	94.4	75 - 125	
208 Pb	165	1	188.50	0.01	ppb	1.13	200	94.2	75 - 125	
232 Th	165	1	0.17	1.15	ppb	20.30	200	0.1	75 - 125	
238 U	165	1	196.50	1.64	ppb	0.98	200	97.4	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	447198	0.63	474143	94.3	30 - 120	
45 Sc	1	2276632	1.23	2484770	91.6	30 - 120	
72 Ge	1	1000813	1.44	1162179	86.1	30 - 120	
115 In	1	2621111	1.15	3064413	85.5	30 - 120	
165 Ho	1	4094710	0.62	4475388	91.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:13

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282Z** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 110
Acquired: 08/04/2009 22:46:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	116045	199.70	0.01155	99.8	200		☑
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	☐
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		☑
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		☐
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		☑
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		☑
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		☑
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		☑
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		☑
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		☑
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		☐
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		☑
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		☑
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		☑
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		☑
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		☑
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		☑
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		☑
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		☑
7440-23-5	Sodium	23	06460000	380300	390800				
7439-95-4	Magnesium	24	24859400	8577.0	8718.0				
7429-90-5	Aluminum	27	76784	25.900	13.466				
7440-09-7	Potassium	39	5482330	1168.0	1169.4				
7440-70-2	Calcium	43	363702	32420	33100				
7439-89-6	Iron	57	31489	99.880	104.46				
7440-03-1	Niobium	93	18313	0.53550	0.93600				
7440-05-3	Palladium	105	2417	0.49870	0.52200				
7440-33-7	Tungsten	182	2819960	312.40	317.80				
7440-06-4	Platinum	195	223	0.00742	0.03526				
7440-29-1	Thorium	232	5468	0.17270	1.1520				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#
Date Acquired: Aug 4 2009 10:49 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282S 5X
Misc Info: MATRIX SPIKE
Vial Number: 3504
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	8.23	0.01	ppb	8.01	40	20.6	50 - 150	
23 Na	6	1	390000.00	390900.00	ppb	2.86	4000	98.8	50 - 150	
24 Mg	6	1	8775.00	8717.00	ppb	1.88	4000	69.0	50 - 150	
27 Al	45	1	12.30	13.47	ppb	1.88	4000	0.3	50 - 150	
39 K	45	1	1182.00	1169.00	ppb	0.79	4000	22.9	50 - 150	
43 Ca	45	1	32920.00	33100.00	ppb	0.39	4000	88.7	50 - 150	
51 V	72	1	2708.00	2623.00	ppb	1.55	40	101.7	50 - 150	
52 Cr	72	1	87.61	76.96	ppb	0.28	40	74.9	50 - 150	
55 Mn	72	1	12.06	3.33	ppb	1.72	40	27.8	50 - 150	
57 Fe	72	1	106.60	104.50	ppb	5.04	4000	2.6	50 - 150	
59 Co	72	1	8.79	0.04	ppb	0.93	40	21.9	50 - 150	
60 Ni	72	1	9.19	0.77	ppb	3.26	40	22.5	50 - 150	
63 Cu	72	1	8.74	0.16	ppb	1.34	40	21.8	50 - 150	
66 Zn	72	1	8.85	0.55	ppb	1.84	40	21.8	50 - 150	
75 As	72	1	87.97	76.50	ppb	0.97	40	75.5	50 - 150	
78 Se	72	1	11.04	2.22	ppb	2.73	40	26.1	50 - 150	
93 Nb	72	1	0.31	0.94	ppb	31.47	80	0.4	50 - 150	
95 Mo	72	1	84.02	73.82	ppb	0.52	40	73.8	50 - 150	
105 Pd	115	1	0.48	0.52	ppb	5.03	40	1.2	50 - 150	
107 Ag	115	1	8.01	0.02	ppb	0.64	40	20.0	50 - 150	
111 Cd	115	1	8.34	0.11	ppb	1.25	40	20.8	50 - 150	
118 Sn	115	1	0.52	0.27	ppb	4.93	40	1.3	50 - 150	
121 Sb	115	1	8.85	0.09	ppb	1.25	40	22.1	50 - 150	
137 Ba	115	1	11.90	3.09	ppb	2.04	40	27.6	50 - 150	
182 W	165	1	320.40	317.80	ppb	0.74	40	89.5	50 - 150	
195 Pt	165	1	0.00	0.04	ppb	550.43	40	0.0	50 - 150	
205 Tl	165	1	8.18	0.04	ppb	0.67	40	20.4	50 - 150	
208 Pb	165	1	9.53	0.01	ppb	0.40	40	23.8	50 - 150	
232 Th	165	1	8.09	1.15	ppb	3.41	40	19.7	50 - 150	
238 U	165	1	10.34	1.64	ppb	0.19	40	24.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	456052	0.71	474143	96.2	30 - 120	
45 Sc	1	2346727	1.70	2484770	94.4	30 - 120	
72 Ge	1	1003004	0.29	1162179	86.3	30 - 120	
115 In	1	2646059	0.29	3064413	86.3	30 - 120	
165 Ho	1	4172310	0.47	4475388	93.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\112_MSD.D\112_MSD.D#
Date Acquired: Aug 4 2009 10:51 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282D 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 3505
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.47	ppb	4.31	8.23	2.93	20	
23 Na	6	1	384100.00	ppb	2.05	390000.00	1.52	20	
24 Mg	6	1	8659.00	ppb	1.83	8775.00	1.33	20	
27 Al	45	1	36.63	ppb	2.29	12.30	99.45	20	
39 K	45	1	1173.00	ppb	1.07	1182.00	0.76	20	
43 Ca	45	1	32700.00	ppb	1.37	32920.00	0.67	20	
51 V	72	1	2605.00	ppb	1.83	2708.00	3.88	20	
52 Cr	72	1	85.60	ppb	0.30	87.61	2.32	20	
55 Mn	72	1	11.58	ppb	0.73	12.06	4.06	20	
57 Fe	72	1	100.10	ppb	1.57	106.60	6.29	20	
59 Co	72	1	8.59	ppb	1.00	8.78	2.29	20	
60 Ni	72	1	8.86	ppb	1.48	9.19	3.62	20	
63 Cu	72	1	8.41	ppb	1.28	8.74	3.90	20	
66 Zn	72	1	8.96	ppb	2.22	8.85	1.29	20	
75 As	72	1	84.83	ppb	0.04	87.97	3.63	20	
78 Se	72	1	11.10	ppb	4.27	11.04	0.54	20	
93 Nb	72	1	0.20	ppb	41.77	0.31	44.27	20	
95 Mo	72	1	82.09	ppb	0.48	84.02	2.32	20	
105 Pd	115	1	0.46	ppb	7.30	0.48	3.69	20	
107 Ag	115	1	8.00	ppb	1.88	8.01	0.21	20	
111 Cd	115	1	8.35	ppb	1.35	8.34	0.19	20	
118 Sn	115	1	0.40	ppb	18.83	0.52	27.74	20	
121 Sb	115	1	8.67	ppb	2.14	8.85	2.15	20	
137 Ba	115	1	11.66	ppb	1.15	11.90	2.04	20	
182 W	165	1	317.80	ppb	1.18	320.40	0.81	20	
195 Pt	165	1	0.00	ppb	83.52	0.00	799.57	20	
205 Tl	165	1	8.05	ppb	1.80	8.18	1.63	20	
208 Pb	165	1	8.11	ppb	1.87	9.53	16.14	20	
232 Th	165	1	8.21	ppb	0.18	8.09	1.40	20	
238 U	165	1	10.25	ppb	1.88	10.34	0.87	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	457621	0.75	474143	96.5	30 - 120	
45 Sc	1	2354252	2.04	2484770	94.7	30 - 120	
72 Ge	1	1033720	0.41	1162179	88.9	30 - 120	
115 In	1	2666740	1.63	3064413	87.0	30 - 120	
165 Ho	1	4188523	1.14	4475388	93.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\113SMPL.D\113SMPL.D#
Date Acquired: Aug 4 2009 10:54 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3WE 5X
Misc Info: D9G250146
Vial Number: 3506
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	540,500.00	108100.00	ppb	0.78	100000	>LDR
24 Mg	6	1	135,600.00	27120.00	ppb	1.34	100000	
27 Al	45	1	66.60	13.32	ppb	1.76	100000	
39 K	45	1	12,845.00	2569.00	ppb	0.26	100000	
43 Ca	45	1	224,150.00	44830.00	ppb	0.59	100000	
51 V	72	1	46.25	9.25	ppb	4.95	3600	
52 Cr	72	1	94.35	18.87	ppb	1.10	3600	
55 Mn	72	1	0.93	0.19	ppb	10.17	18000	
57 Fe	72	1	691.00	138.20	ppb	1.49	100000	
59 Co	72	1	0.99	0.20	ppb	7.03	3600	
60 Ni	72	1	12.70	2.54	ppb	5.67	3600	
63 Cu	72	1	0.68	0.14	ppb	9.54	3600	
66 Zn	72	1	3.86	0.77	ppb	6.49	3600	
75 As	72	1	156.60	31.32	ppb	0.99	3600	
78 Se	72	1	7.35	1.47	ppb	37.07	3600	
93 Nb	72	1	0.17	0.03	ppb	202.73	2000	
95 Mo	72	1	40.28	8.06	ppb	3.96	3600	
105 Pd	115	1	4.72	0.94	ppb	1.64	1000	
107 Ag	115	1	0.03	0.01	ppb	18.39	3600	
111 Cd	115	1	0.06	0.01	ppb	48.30	3600	
118 Sn	115	1	1.46	0.29	ppb	4.91	3600	
121 Sb	115	1	0.18	0.04	ppb	21.78	3600	
137 Ba	115	1	14.11	2.82	ppb	1.98	3600	
182 W	165	1	3.36	0.67	ppb	1.71	1000	
195 Pt	165	1	0.05	0.01	ppb	38.59	1000	
205 Tl	165	1	0.05	0.01	ppb	16.17	3600	
208 Pb	165	1	0.08	0.02	ppb	16.26	3600	
232 Th	165	1	1.55	0.31	ppb	17.87	1000	
238 U	165	1	55.00	11.00	ppb	1.26	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477981	0.32	474143	100.8	30 - 120	
45 Sc	1	2396366	1.00	2484770	96.4	30 - 120	
72 Ge	1	1069958	1.82	1162179	92.1	30 - 120	
115 In	1	2824370	0.48	3064413	92.2	30 - 120	
165 Ho	1	4347158	1.06	4475388	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\114SMPL.D\114SMPL.D#
Date Acquired: Aug 4 2009 10:57 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3W9 5X
Misc Info: D9G250155
Vial Number: 3507
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	100.00	3600	
23 Na	6	1	803,500.00	160700.00	ppb	0.95	100000	>LDR
24 Mg	6	1	104,600.00	20920.00	ppb	1.62	100000	
27 Al	45	1	7.07	1.41	ppb	18.99	100000	
39 K	45	1	49,190.00	9838.00	ppb	1.07	100000	
43 Ca	45	1	213,750.00	42750.00	ppb	1.04	100000	
51 V	72	1	-52.35	-10.47	ppb	16.90	3600	
52 Cr	72	1	4,215.00	843.00	ppb	0.53	3600	
55 Mn	72	1	11.23	2.25	ppb	1.02	18000	
57 Fe	72	1	654.50	130.90	ppb	0.23	100000	
59 Co	72	1	1.56	0.31	ppb	2.98	3600	
60 Ni	72	1	10.86	2.17	ppb	2.43	3600	
63 Cu	72	1	0.41	0.08	ppb	11.30	3600	
66 Zn	72	1	1.10	0.22	ppb	3.81	3600	
75 As	72	1	103.75	20.75	ppb	1.10	3600	
78 Se	72	1	5.08	1.02	ppb	21.06	3600	
93 Nb	72	1	0.24	0.05	ppb	153.47	2000	
95 Mo	72	1	25.98	5.20	ppb	3.18	3600	
105 Pd	115	1	4.09	0.82	ppb	6.25	1000	
107 Ag	115	1	0.02	0.00	ppb	146.33	3600	
111 Cd	115	1	0.09	0.02	ppb	4.38	3600	
118 Sn	115	1	1.14	0.23	ppb	11.01	3600	
121 Sb	115	1	0.18	0.04	ppb	32.08	3600	
137 Ba	115	1	35.68	7.14	ppb	2.20	3600	
182 W	165	1	1.90	0.38	ppb	3.59	1000	
195 Pt	165	1	0.06	0.01	ppb	56.86	1000	
205 Tl	165	1	0.09	0.02	ppb	3.65	3600	
208 Pb	165	1	0.07	0.01	ppb	29.05	3600	
232 Th	165	1	0.71	0.14	ppb	15.80	1000	
238 U	165	1	26.74	5.35	ppb	1.02	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	481575	0.05	474143	101.6	30 - 120	
45 Sc	1	2403823	1.78	2484770	96.7	30 - 120	
72 Ge	1	1066209	1.23	1162179	91.7	30 - 120	
115 In	1	2812335	1.47	3064413	91.8	30 - 120	
165 Ho	1	4362379	1.24	4475388	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\115SMPL.D\115SMPL.D#
Date Acquired: Aug 4 2009 11:00 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3XG 5X
Misc Info: D9G250157
Vial Number: 3508
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.14	0.03	ppb	69.53	3600	
23 Na	6	1	1,612,000.00	322400.00	ppb	0.70	100000	>LDR
24 Mg	6	1	164,300.00	32860.00	ppb	0.31	100000	
27 Al	45	1	158.35	31.67	ppb	0.89	100000	
39 K	45	1	27,445.00	5489.00	ppb	0.37	100000	
43 Ca	45	1	502,000.00	100400.00	ppb	1.91	100000	>LDR
51 V	72	1	-76.55	-15.31	ppb	28.13	3600	
52 Cr	72	1	6,030.00	1206.00	ppb	2.17	3600	
55 Mn	72	1	36.22	7.24	ppb	3.63	18000	
57 Fe	72	1	1,674.50	334.90	ppb	1.26	100000	
59 Co	72	1	0.88	0.18	ppb	10.91	3600	
60 Ni	72	1	6.49	1.30	ppb	1.24	3600	
63 Cu	72	1	1.64	0.33	ppb	13.57	3600	
66 Zn	72	1	9.54	1.91	ppb	2.31	3600	
75 As	72	1	183.25	36.65	ppb	1.59	3600	
78 Se	72	1	9.87	1.97	ppb	2.16	3600	
93 Nb	72	1	0.05	0.01	ppb	590.02	2000	
95 Mo	72	1	25.86	5.17	ppb	2.65	3600	
105 Pd	115	1	9.63	1.93	ppb	5.84	1000	
107 Ag	115	1	0.03	0.01	ppb	32.12	3600	
111 Cd	115	1	0.06	0.01	ppb	21.45	3600	
118 Sn	115	1	2.09	0.42	ppb	7.46	3600	
121 Sb	115	1	0.19	0.04	ppb	16.41	3600	
137 Ba	115	1	21.18	4.24	ppb	2.29	3600	
182 W	165	1	2.36	0.47	ppb	4.43	1000	
195 Pt	165	1	0.75	0.15	ppb	5.04	1000	
205 Tl	165	1	0.18	0.04	ppb	8.09	3600	
208 Pb	165	1	0.34	0.07	ppb	5.55	3600	
232 Th	165	1	0.31	0.06	ppb	17.38	1000	
238 U	165	1	20.78	4.16	ppb	0.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	474840	0.28	474143	100.1	30 - 120	
45 Sc	1	2418556	0.76	2484770	97.3	30 - 120	
72 Ge	1	1026866	2.28	1162179	88.4	30 - 120	
115 In	1	2732762	1.46	3064413	89.2	30 - 120	
165 Ho	1	4267340	0.43	4475388	95.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\116_CCV.D\116_CCV.D#
Date Acquired: Aug 4 2009 11:03 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.03	ppb	1.20	50	100.1	90 - 110	
23 Na	6	1	4958.00	ppb	0.71	5000	99.2	90 - 110	
24 Mg	6	1	4855.00	ppb	0.68	5000	97.1	90 - 110	
27 Al	45	1	5029.00	ppb	0.18	5000	100.6	90 - 110	
39 K	45	1	5031.00	ppb	0.89	5000	100.6	90 - 110	
43 Ca	45	1	5069.00	ppb	0.53	5000	101.4	90 - 110	
51 V	72	1	49.69	ppb	0.91	50	99.4	90 - 110	
52 Cr	72	1	51.07	ppb	0.29	50	102.1	90 - 110	
55 Mn	72	1	50.66	ppb	0.58	50	101.3	90 - 110	
57 Fe	72	1	5230.00	ppb	0.60	5000	104.6	90 - 110	
59 Co	72	1	50.66	ppb	1.03	50	101.3	90 - 110	
60 Ni	72	1	51.72	ppb	0.66	50	103.4	90 - 110	
63 Cu	72	1	51.50	ppb	0.97	50	103.0	90 - 110	
66 Zn	72	1	51.32	ppb	0.83	50	102.6	90 - 110	
75 As	72	1	50.86	ppb	1.41	50	101.7	90 - 110	
78 Se	72	1	51.46	ppb	2.98	50	102.9	90 - 110	
93 Nb	72	1	93.95	ppb	0.33	100	94.0	90 - 110	
95 Mo	72	1	51.05	ppb	1.81	50	102.1	90 - 110	
105 Pd	115	1	50.34	ppb	0.79	50	100.7	90 - 110	
107 Ag	115	1	51.43	ppb	0.27	50	102.9	90 - 110	
111 Cd	115	1	50.48	ppb	0.55	50	101.0	90 - 110	
118 Sn	115	1	50.00	ppb	0.64	50	100.0	90 - 110	
121 Sb	115	1	50.12	ppb	0.37	50	100.2	90 - 110	
137 Ba	115	1	50.31	ppb	0.70	50	100.6	90 - 110	
182 W	165	1	50.18	ppb	1.38	50	100.4	90 - 110	
195 Pt	165	1	50.81	ppb	1.87	50	101.6	90 - 110	
205 Tl	165	1	51.62	ppb	1.51	50	103.2	90 - 110	
208 Pb	165	1	52.02	ppb	1.59	50	104.0	90 - 110	
232 Th	165	1	51.15	ppb	0.19	50	102.3	90 - 110	
238 U	165	1	51.20	ppb	1.60	50	102.4	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477218	1.17	474143	100.6	30 - 120	
45 Sc	1	2413621	0.42	2484770	97.1	30 - 120	
72 Ge	1	1120205	0.47	1162179	96.4	30 - 120	
115 In	1	2979247	0.40	3064413	97.2	30 - 120	
165 Ho	1	4435335	0.48	4475388	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\117_CCB.D\117_CCB.D#
Date Acquired: Aug 4 2009 11:06 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	47.410	ppb	7.00	20.00	Fail
24 Mg	6	1	1.735	ppb	35.06	20.00	
27 Al	45	1	1.030	ppb	60.93	20.00	
39 K	45	1	4.946	ppb	24.89	20.00	
43 Ca	45	1	10.440	ppb	14.99	20.00	
51 V	72	1	0.087	ppb	2.99	1.00	
52 Cr	72	1	0.054	ppb	26.90	1.00	
55 Mn	72	1	0.003	ppb	257.57	1.00	
57 Fe	72	1	0.684	ppb	55.47	20.00	
59 Co	72	1	0.011	ppb	33.89	1.00	
60 Ni	72	1	0.002	ppb	184.29	1.00	
63 Cu	72	1	0.032	ppb	10.84	1.00	
66 Zn	72	1	0.631	ppb	5.90	10.00	
75 As	72	1	0.015	ppb	57.71	1.00	
78 Se	72	1	0.149	ppb	453.29	1.00	
93 Nb	72	1	2.798	ppb	11.28	2.00	Fail
95 Mo	72	1	-0.015	ppb	88.80	1.00	
105 Pd	115	1	0.025	ppb	10.21	1.00	
107 Ag	115	1	0.010	ppb	44.97	1.00	
111 Cd	115	1	0.012	ppb	47.25	1.00	
118 Sn	115	1	-0.019	ppb	40.67	10.00	
121 Sb	115	1	0.157	ppb	6.34	1.00	
137 Ba	115	1	0.018	ppb	52.55	1.00	
182 W	165	1	0.149	ppb	7.65	5.00	
195 Pt	165	1	0.012	ppb	58.91	1.00	
205 Tl	165	1	0.026	ppb	18.33	1.00	
208 Pb	165	1	0.014	ppb	21.75	1.00	
232 Th	165	1	0.316	ppb	8.31	2.00	
238 U	165	1	0.016	ppb	6.18	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477705	0.35	474143	100.8	30 - 120	
45 Sc	1	2438330	0.66	2484770	98.1	30 - 120	
72 Ge	1	1136995	0.64	1162179	97.8	30 - 120	
115 In	1	3039039	0.82	3064413	99.2	30 - 120	
165 Ho	1	4487402	0.88	4475388	100.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\118WASH.D\118WASH.D#
Date Acquired: Aug 4 2009 11:09 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.990 ppb	10.14	1.30	
23 Na	6	1	82.900 ppb	1.32	65.00	
24 Mg	6	1	53.540 ppb	2.05	65.00	
27 Al	45	1	32.510 ppb	1.61	39.00	
39 K	45	1	107.800 ppb	3.48	130.00	
43 Ca	45	1	51.340 ppb	18.06	65.00	
51 V	72	1	5.078 ppb	2.70	6.50	
52 Cr	72	1	2.152 ppb	2.87	2.60	
55 Mn	72	1	1.076 ppb	1.82	1.30	
57 Fe	72	1	53.250 ppb	4.55	65.00	
59 Co	72	1	1.064 ppb	1.86	1.30	
60 Ni	72	1	2.188 ppb	7.06	2.60	
63 Cu	72	1	2.215 ppb	1.55	2.60	
66 Zn	72	1	10.760 ppb	2.15	13.00	
75 As	72	1	5.152 ppb	0.85	6.50	
78 Se	72	1	5.134 ppb	5.71	6.50	
93 Nb	72	1	43.860 ppb	0.66	52.00	
95 Mo	72	1	1.972 ppb	3.43	2.60	
105 Pd	115	1	0.934 ppb	2.26	1.30	
107 Ag	115	1	5.456 ppb	1.46	6.50	
111 Cd	115	1	1.059 ppb	2.85	1.30	
118 Sn	115	1	10.340 ppb	1.71	13.00	
121 Sb	115	1	2.028 ppb	1.83	2.60	
137 Ba	115	1	1.042 ppb	4.45	1.30	
182 W	165	1	5.136 ppb	1.94	6.50	
195 Pt	165	1	0.977 ppb	4.60	1.30	
205 Tl	165	1	1.116 ppb	0.67	1.30	
208 Pb	165	1	1.107 ppb	3.23	1.30	
232 Th	165	1	2.504 ppb	5.02	2.60	
238 U	165	1	1.092 ppb	0.67	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	476982	0.69	474143	100.6	30 - 120	
45 Sc	1	2433824	0.31	2484770	97.9	30 - 120	
72 Ge	1	1126114	0.86	1162179	96.9	30 - 120	
115 In	1	3000501	0.62	3064413	97.9	30 - 120	
165 Ho	1	4482447	0.35	4475388	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G250155

Client: Northgate Environmental

Batch(es) #: 9208088

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: 8/5/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9G250155	1	SE	LG3W91AC	20090804	6020TOTA	9208088	AG080409	024
D9G250155	1	AS	LG3W91AA	20090804	6020TOTA	9208088	AG080409	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9208088**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Katie Stoltz

Prep Date: 07/29/09
Due Date: 08/05/09

Lot	Work Order			Initial Weight/Volume
D9G270000 Water	**LG6WK**	B	Due Date: SDG:	50 mL
D9G270000 Water	**LG6WK**	C	Due Date: SDG:	50 mL
D9G240312 Water	**LG282** Total		Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	S	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	D	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G250146 Water	**LG3WE** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250155 Water	**LG3W9** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250157 Water	**LG3XG** Total		Due Date: 08/06/09 SDG: 8304615	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

Checked 8/4/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9208088 **ALLIQUOTTED BY:** KS
PREP DATE: 7.29.2009 **DIGESTED BY:** KS

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☑ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: KS

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 14859 Block & Cup # : 5, 34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	7:00	92	11:20	96
HNO3	11:30	92	12:00	94
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials KS

COMMENTS:

I certify that all information above is correct and complete.

Signature: Katie D... ***Date:*** 7.29.09

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification

ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Aug-04-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4601-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 08-03-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Expires(2): 12-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4630-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water — Volume (ml): 1,000.0
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD4629-09, NITRIC ACID — Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4631-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD4632-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000

K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD4633-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000

Date Prep./Opened: 08-04-2009

Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4631-09, ICP-MS HIGH CAL STD Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010
Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD4634-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD4635-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Expires(2): 08-01-2010 (None)
pipettes: Met 8

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)

Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4636-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 08-01-2010 (None)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)

Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

STD4637-09, ICP-MS HIGH LR STD Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000

Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

STD4638-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 04-21-2010 (None)

Parent Std No.: STD3113-09, ICP-MS TA ICV A Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400

Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

Parent Std No.: STD3116-09, ICP-MS TA ICV BRC Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	0.0800
Pd	20.000	0.0400
Pt	20.000	0.0400
W	20.000	0.0400

STD4639-09, LLCCV/RLICV Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000

Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Parent Std No.: STD3108-09, ICP-MS BRC LLCCV 1 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Nb	4.0000	40.000
Pd	0.1000	1.0000
Pt	0.1000	1.0000
W	0.5000	5.0000

STD4640-09, ALTSe Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

Reviewed By: LRD 08/04/2009

File AG080409

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
3	Cal Blank				1.0	08/04/09 17:30		☐
4	100 ppb				1.0	08/04/09 17:33		☐
5	ICV				1.0	08/04/09 17:35		☐
6	RLIV				1.0	08/04/09 17:38		☐
7	ICB				1.0	08/04/09 17:41		☐
8	RL STD				1.0	08/04/09 17:44		☐
9	AFCEE RL				1.0	08/04/09 17:47		☐
10	ALTSe				1.0	08/04/09 17:50		☐
11	ICSA				1.0	08/04/09 17:53		☐
12	ICSAB				1.0	08/04/09 17:56		☐
13	RINSE				1.0	08/04/09 17:59		☐
14	LR				1.0	08/04/09 18:02		☐
15	RINSE				1.0	08/04/09 18:05		☐
16	CCV				1.0	08/04/09 18:08		☐
17	CCB				1.0	08/04/09 18:10		☐
18	RLCV				1.0	08/04/09 18:13		☐
19	ALTLR				1.0	08/04/09 18:18		☐
20	RINSE				1.0	08/04/09 18:21		☐
21	CCV				1.0	08/04/09 18:24		☐
22	CCB				1.0	08/04/09 18:27		☐
23	RLCV				1.0	08/04/09 18:30		☐
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0	08/04/09 18:33		☐
25	CCV				1.0	08/04/09 18:35		☐
26	CCB				1.0	08/04/09 18:38		☐
27	RLCV				1.0	08/04/09 18:41		☐
28	~~LGV1JB~~	~~D9G220000~~	~~9203274~~	~~46~~	~~1.0~~	~~08/04/09 18:44~~		☐
29	LGV1JC	D9G220000	9203274	46	1.0	08/04/09 18:47		☐
30	LGT1N	~~D9G210319-13~~ D9G210319-13	9203274	U1	1.0	08/04/09 18:50		☐
31	~~LGT4V~~	~~D9G210319-14~~	~~9203274~~	~~U1~~	~~1.0~~	~~08/04/09 18:53~~	RT 8/5/09 Did not use.	☐
32	CCV				1.0	08/04/09 18:56		☐
33	CCB				1.0	08/04/09 18:59		☐
34	RLCV				1.0	08/04/09 19:02		☐
35	LGVDGB	D9G220000	9203121	MS	1.0	08/04/09 19:05		☐
36	LGVDGC	D9G220000	9203121	MS	1.0	08/04/09 19:08		☐
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:11		☐
38	LGR1DP25	D9G210208	9203121		25.0	08/04/09 19:14		☐
39	LGR1DZ	D9G210208-1	9203121		1.0	08/04/09 19:16		☐
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:19		☐
41	CCV				1.0	08/04/09 19:22		☐
42	CCB				1.0	08/04/09 19:25		☐
43	RLCV				1.0	08/04/09 19:28		☐
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:31		☐
45	LGR1M	D9G210208-2	9203121	MS	1.0	08/04/09 19:34		☐
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0	08/04/09 19:37		☐
47	LGR1Q	D9G210208-4	9203121	MS	1.0	08/04/09 19:40		☐
48	LGR1T	D9G210208-5	9203121	MS	1.0	08/04/09 19:43		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV				1.0	08/04/09 19:46		☐
50	CCB				1.0	08/04/09 19:49		☐
51	RLCV				1.0	08/04/09 19:52		☐
52	LG4K3BF	D9G270000	9208158	MD	1.0	08/04/09 19:55		☐
53	LG4K3CF	D9G270000	9208158	MD	1.0	08/04/09 19:58		☐
54	LG22HF	D9G240290-1	9208158	MD	1.0	08/04/09 20:01		☐
55	LG29AF	D9G240311-1	9208158	MD	1.0	08/04/09 20:04		☐
56	LG29PF	D9G240311-2	9208158	MD	1.0	08/04/09 20:07		☐
57	LG29QF	D9G240311-3	9208158	MD	1.0	08/04/09 20:09		☐
58	LG29RF	D9G240311-4	9208158	MD	1.0	08/04/09 20:12		☐
59	LG29VF	D9G240311-5	9208158	MD	1.0	08/04/09 20:15		☐
60	LG29XF	D9G240311-6	9208158	MD	1.0	08/04/09 20:18		☐
61	LG290F	D9G240311-7	9208158	MD	1.0	08/04/09 20:21		☐
62	CCV				1.0	08/04/09 20:24		☐
63	CCB				1.0	08/04/09 20:27		☐
64	RLCV				1.0	08/04/09 20:30		☐
65	LG290P5F	D9G240311	9208158		5.0	08/04/09 20:33		☐
66	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 20:36~~	W# 8/5/09 Did not use.	☐
67	LG290SF	D9G240311-7	9208158	MD	1.0	08/04/09 20:39		☐
68	LG290DF	D9G240311-7	9208158	MD	1.0	08/04/09 20:42		☐
69	LG292F	D9G240311-8	9208158	MD	1.0	08/04/09 20:45		☐
70	LG293F	D9G240311-9	9208158	MD	1.0	08/04/09 20:48		☐
71	LG294F	D9G240311-10	9208158	MD	1.0	08/04/09 20:51		☐
72	LG296F	D9G240311-11	9208158	MD	1.0	08/04/09 20:54		☐
73	CCV				1.0	08/04/09 20:57		☐
74	CCB				1.0	08/04/09 21:00		☐
75	RLCV				1.0	08/04/09 21:03		☐
76	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 21:06~~		☐
77	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 21:09		☐
78	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 21:12		☐
79	CCV				1.0	08/04/09 21:15		☐
80	CCB				1.0	08/04/09 21:18		☐
81	RLCV				1.0	08/04/09 21:21		☐
82	RINSE				1.0	08/04/09 21:24		☐
83	RINSE				1.0	08/04/09 21:27		☐
84	RINSE				1.0	08/04/09 21:30		☐
85	RINSE				1.0	08/04/09 21:32		☐
86	RINSE				1.0	08/04/09 21:35		☐
87	RINSE				1.0	08/04/09 21:38		☐
88	~~Cal Blank~~				~~1.0~~	~~08/04/09 21:41~~	W# 8/5/09 Did not use.	☐
89	Cal Blank				1.0	08/04/09 21:44		☐
90	100 ppb				1.0	08/04/09 21:47		☐
91	CCV				1.0	08/04/09 21:50		☐
92	CCB				1.0	08/04/09 21:53		☐
93	RLCV				1.0	08/04/09 21:56		☐
94	ICSA				1.0	08/04/09 21:59		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
95	ICSAB				1.0	08/04/09 22:02		
96	WASH				1.0	08/04/09 22:04		
97	CCV				1.0	08/04/09 22:07		
98	CCB				1.0	08/04/09 22:10		
99	RLCV				1.0	08/04/09 22:13		
100	LG290ZF	D9G240311-7	9208158		1.0	08/04/09 22:16		
101	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 22:19		
102	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 22:22		
103	CCV				1.0	08/04/09 22:25		
104	CCB				1.0	08/04/09 22:28		
105	RLCV				1.0	08/04/09 22:31		
106	LG6WKB	D9G270000	9208088	MS	1.0	08/04/09 22:34		
107	LG6WKC	D9G270000	9208088	MS	1.0	08/04/09 22:37		
108	LG282 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:40		
109	LG282P25	D9G240312	9208088		25.0	08/04/09 22:43		
110	LG282Z	D9G240312-1	9208088		1.0	08/04/09 22:46		
111	LG282S 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:49		
112	LG282D 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:51		
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0	08/04/09 22:54		
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0	08/04/09 22:57		
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0	08/04/09 23:00		
116	CCV				1.0	08/04/09 23:03		
117	CCB				1.0	08/04/09 23:06		
118	RLCV				1.0	08/04/09 23:09		
119	LG15XB	D9G240000	9205339	MS	1.0	08/04/09 23:12		
120	LG15XC	D9G240000	9205339	MS	1.0	08/04/09 23:15		
121	LGWWE	D9G220274-1	9205339	MS	1.0	08/04/09 23:18		
122	LGWWEP5	D9G220274	9205339		5.0	08/04/09 23:21		
123	LGWWEZ	D9G220274-1	9205339		1.0	08/04/09 23:24		
124	LGWWES	D9G220274-1	9205339	MS	1.0	08/04/09 23:27		
125	LGWWED	D9G220274-1	9205339	MS	1.0	08/04/09 23:30		
126	CCV				1.0	08/04/09 23:33		
127	CCB				1.0	08/04/09 23:37		
128	RLCV				1.0	08/04/09 23:40		
129	LG4LKBF	D9G270000	9208171	MD	1.0	08/04/09 23:43		
130	LG4LKCF	D9G270000	9208171	MD	1.0	08/04/09 23:46		
131	LG17CF	D9G240170-1	9208171	MD	1.0	08/04/09 23:49		
132	LG17CP5F	D9G240170	9208171		5.0	08/04/09 23:52		
133	LG17CZF	D9G240170-1	9208171		1.0	08/04/09 23:55		
134	LG17CSF	D9G240170-1	9208171	MD	1.0	08/04/09 23:57		
135	LG17CDF	D9G240170-1	9208171	MD	1.0	08/05/09 00:00		
136	CCV				1.0	08/05/09 00:03		
137	CCB				1.0	08/05/09 00:06		
138	RLCV				1.0	08/05/09 00:09		
139	LG1WEB	D9G240000	9205275	MS	1.0	08/05/09 00:12		
140	LG1WEC	D9G240000	9205275	MS	1.0	08/05/09 00:15		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
141	LG1WEL	D9G240000	9205275	MS	1.0	08/05/09 00:18		☐
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21		☐
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24		☐
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27		☐
145	CCV			MS Dilution	1.0	08/05/09 00:30		☐
146	CCB				1.0	08/05/09 00:33		☐
147	RLCV				1.0	08/05/09 00:36		☐
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39		☐
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42		☐
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45		☐
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48		☐
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51		☐
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54		☐
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57		☐
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00		☐
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03		☐
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06		☐
158	CCV			46	1.0	08/05/09 01:09		☐
159	CCB			Dilution	1.0	08/05/09 01:12		☐
160	RLCV			46	1.0	08/05/09 01:15		☐
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17		☐
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20		☐
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23		☐
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26		☐
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29		☐
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32		☐
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35		☐
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38		☐
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41		☐
170	CCV			46 Dilution	1.0	08/05/09 01:44		☐
171	CCB				1.0	08/05/09 01:47		☐
172	RLCV				1.0	08/05/09 01:50		☐
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53		☐
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56		☐
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59		☐
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02		☐
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05		☐
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07		☐
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10		☐
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13		☐
181	CCV				1.0	08/05/09 02:16		☐
182	CCB				1.0	08/05/09 02:19		☐
183	RLCV				1.0	08/05/09 02:22		☐
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25		☐
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28		☐
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
187	LGWPL	D9G220249-6	9205302	46	1.0	08/05/09 02:34		
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37		
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39		
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42		
191	CCV				1.0	08/05/09 02:45		
192	CCB				1.0	08/05/09 02:48		
193	RLCV				1.0	08/05/09 02:51		
194	~~LG6MMB~~	~~D9G280000~~	~~9209279~~	~~46~~	~~1.0~~	~~08/05/09 02:54~~		
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57		
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00		
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03		
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06		
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09		
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12		
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15		
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17		
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20		
204	CCV				1.0	08/05/09 03:23		
205	CCB				1.0	08/05/09 03:26		
206	RLCV				1.0	08/05/09 03:29		
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32		
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35		
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38		
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41		
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44		
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47		
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50		
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53		
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56		
216	CCV				1.0	08/05/09 03:59		
217	CCB				1.0	08/05/09 04:01		
218	RLCV				1.0	08/05/09 04:04		
219	RINSE				1.0	08/05/09 04:07		
220	RINSE				1.0	08/05/09 04:10		
221	RINSE				1.0	08/05/09 04:13		
222	RINSE				1.0	08/05/09 04:16		
223	RINSE				1.0	08/05/09 04:19		
224	RINSE				1.0	08/05/09 04:22		
225	~~Cal Blank~~				~~1.0~~	~~08/05/09 04:25~~	KT 8/5/09 Did not use.	
226	Cal Blank				1.0	08/05/09 04:28		
227	100 ppb				1.0	08/05/09 04:31		
228	CCV				1.0	08/05/09 04:34		
229	CCB				1.0	08/05/09 04:36		
230	RLCV				1.0	08/05/09 04:39		
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42		
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst: TEL**

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
233	LG7WEF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:48		☐
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51		☐
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54		☐
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57		☐
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00		☐
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03		☐
239	CCV				1.0	08/05/09 05:06		☐
240	CCB				1.0	08/05/09 05:09		☐
241	RLCV				1.0	08/05/09 05:12		☐
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15		☐
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18		☐
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21		☐
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24		☐
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27		☐
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30		☐
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33		☐
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36		☐
250	CCV				1.0	08/05/09 05:39		☐
251	CCB				1.0	08/05/09 05:42		☐
252	RLCV				1.0	08/05/09 05:45		☐
253	~~RINSE~~				~~1.0~~	~~08/05/09 05:48~~		☐
254	RINSE				1.0	08/05/09 05:51		☐
255	RINSE				1.0	08/05/09 05:54		☐
256	RINSE				1.0	08/05/09 05:57		☐
257	RINSE				1.0	08/05/09 06:00		☐
258	RINSE				1.0	08/05/09 06:03		☐
259	~~Cal Blank~~				~~1.0~~	~~08/05/09 06:05~~	rr 8/5/09	☐
260	Cal Blank				1.0	08/05/09 06:08		☐
261	100 ppb				1.0	08/05/09 06:11		☐
262	CCV				1.0	08/05/09 06:14		☐
263	CCB				1.0	08/05/09 06:17		☐
264	RLCV				1.0	08/05/09 06:20		☐
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23		☐
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26		☐
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29		☐
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32		☐
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35		☐
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38		☐
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41		☐
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43		☐
273	CCV				1.0	08/05/09 06:46		☐
274	CCB				1.0	08/05/09 06:49		☐
275	RLCV				1.0	08/05/09 06:52		☐
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55		☐
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58		☐
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01		☐

Denver

RUN SUMMARY

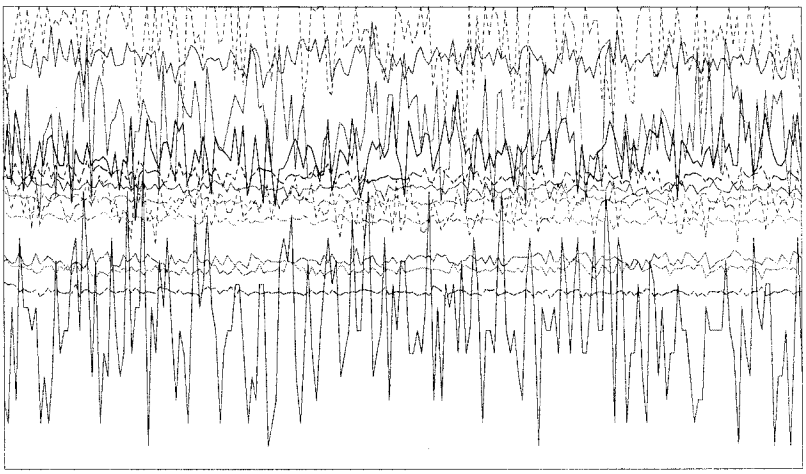
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04		☐
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07		☐
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10		☐
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13		☐
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16		☐
284	CCV				1.0	08/05/09 07:19		☐
285	CCB				1.0	08/05/09 07:22		☐
286	RLCV				1.0	08/05/09 07:25		☐
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	Take all but Ni, VT 8/5/09	☐
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31		☐
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34		☐
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37		☐
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39		☐
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42		☐
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45		☐
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48		☐
295	CCV				1.0	08/05/09 07:51		☐
296	CCB				1.0	08/05/09 07:54		☐
297	RLCV				1.0	08/05/09 07:57		☐
298	RINSE				1.0	08/05/09 08:00		☐
299	RINSE				1.0	08/05/09 08:03		☐
300	RINSE				1.0	08/05/09 08:06		☐
301	RINSE				1.0	08/05/09 08:09		☐
302	RINSE				1.0	08/05/09 08:12		☐
303	RINSE				1.0	08/05/09 08:15		☐
304	RINSE				1.0	08/05/09 08:18		☐
305	RINSE				1.0	08/05/09 08:21		☐
306	RINSE				1.0	08/05/09 08:23		☐
307	RINSE				1.0	08/05/09 08:26		☐
308	Cal Blank				1.0	08/05/09 08:29	VT 8/5/09	☐
309	Cal Blank				1.0	08/05/09 08:32		☐
310	100 ppb				1.0	08/05/09 08:35		☐
311	CCV				1.0	08/05/09 08:38		☐
312	CCB				1.0	08/05/09 08:41		☐
313	ICSA				1.0	08/05/09 08:44		☐
314	ICSAB				1.0	08/05/09 08:47		☐
315	WASH				1.0	08/05/09 08:50		☐
316	CCV				1.0	08/05/09 08:53		☐
317	CCB				1.0	08/05/09 08:56		☐
318	RLCV				1.0	08/05/09 08:59		☐

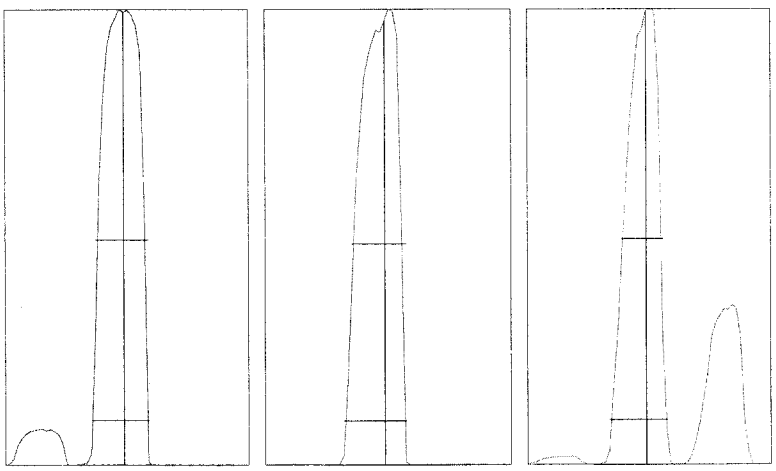
Tune Report

Tune File : NORM.U
Comment :



Integration Time:	0.1000 sec	
Sampling Period:	1.5300 sec	
n:	200	
Oxide:	156/140	1.169%
Doubly Charged:	70/140	1.090%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1762.0	1770.4	2.89	1.00
7	50,000	22681.0	22607.5	2.18	1.40
59	50,000	21258.0	21558.9	1.96	1.40
63	100	64.0	73.9	11.46	0.70
70	500	336.0	342.4	6.97	1.40
75	20	4.0	6.2	43.21	1.40
78	500	310.0	285.3	6.14	1.70
89	50,000	28955.0	29103.9	1.37	1.90
115	50,000	26852.0	26978.9	1.37	2.90
118	100	77.0	95.0	10.36	2.30
137	5,000	3035.0	3179.7	2.17	2.80
205	50,000	19156.0	19138.5	1.52	4.60
238	50,000	29560.0	30445.9	1.47	5.00
156/140	2	1.265%	1.209%	7.03	
70/140	2	1.215%	1.221%	7.10	



m/z:	7	89	205
Height:	22,611	29,043	19,439
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.50
W-10%:	0.700	0.7500	0.700

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Aug 04, 2009 17:00:36
Printed : Aug 04, 2009 17:00:39

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	:	1550 W	Extract 1	:	0 V	AMU Gain	:	132
RF Matching	:	1.7 V	Extract 2	:	-165 V	AMU Offset	:	123
Smpl Depth	:	7.5 mm	Omega Bias-ce	:	-34 V	Axis Gain	:	1.0006
Torch-H	:	-0.8 mm	Omega Lens-ce	:	1 V	Axis Offset	:	-0.04
Torch-V	:	-0.3 mm	Cell Entrance	:	-30 V	QP Bias	:	-1 V
Carrier Gas	:	0.85 L/min	QP Focus	:	7 V			
Makeup Gas	:	0.21 L/min	Cell Exit	:	-30 V	===Detector Parameters===		
Optional Gas	:	--- %				Discriminator	:	8 mV
Nebulizer Pump	:	0.1 rps	===Octopole Parameters===			Analog HV	:	1720 V
Sample Pump	:	--- rps	OctP RF	:	180 V	Pulse HV	:	1390 V
S/C Temp	:	2 degC	OctP Bias	:	-18 V			

===Reaction Cell===								
Reaction Mode	:	OFF						
H2 Gas	:	0 mL/min	He Gas	:	0 mL/min	Optional Gas	:	--- %

P/A Factor Tuning Report

Acquired:Aug 4 2009 05:13 pm

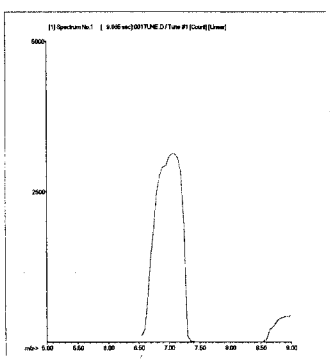
Mass[amu]	Element	P/A Factor
6	Li	0.060147
7	(Li)	Sensitivity too low
9	Be	0.067111
23	Na	Sensitivity too high
24	Mg	0.077089
27	Al	0.079051
39	K	0.078558
43	Ca	Sensitivity too low
45	Sc	0.079466
51	V	0.080963
52	Cr	0.082954
53	(Cr)	Sensitivity too low
55	Mn	0.084227
57	Fe	Sensitivity too low
59	Co	0.086953
60	Ni	0.088018
63	Cu	0.089512
66	Zn	0.089262
72	Ge	0.088835
75	As	0.088157
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.090186
98	(Mo)	0.089393
99	(Mo)	0.090406
105	Pd	0.092756
106	(Cd)	0.092519
107	Ag	Sensitivity too low
108	(Cd)	0.093276
111	Cd	0.093414
115	In	0.092399
118	Sn	0.092636
121	Sb	0.092353
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.099000
206	(Pb)	0.097831
207	(Pb)	0.097860
208	Pb	0.096584
232	Th	0.095898
238	U	0.095933

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

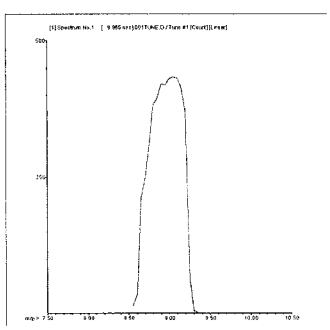
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D
Date Acquired: Aug 4 2009 05:24 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	2104305	2092847	2094507	0.34	5.00	
208 Pb	95432	97057	96600	94637	93872	94994	1.41	5.00	
238 U	187490	191136	188199	187726	186228	184161	1.37	5.00	

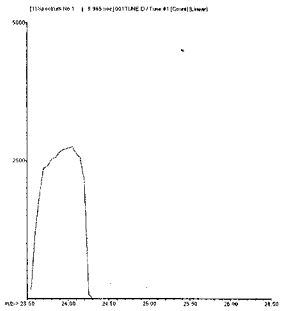


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D



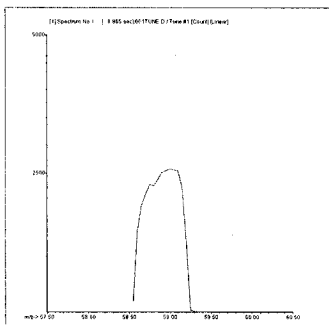
24 Mg

Mass Calib.

Actual:	24.00		
Required:	23.90	-	24.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



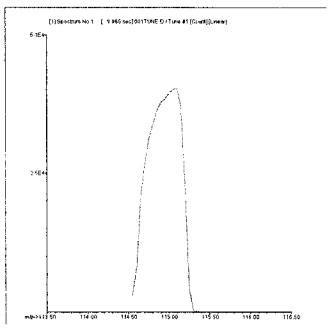
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



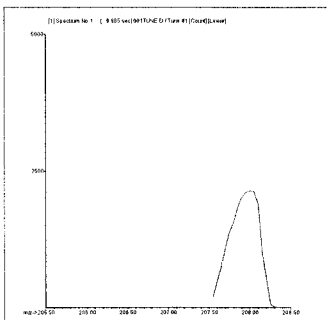
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



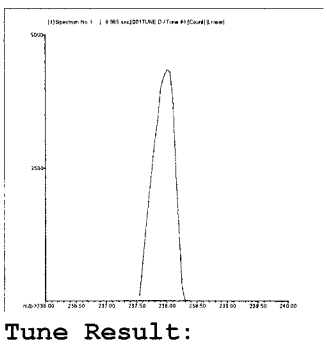
208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



238 U

Mass Calib.

Actual:	238.00		
Required:	237.90	-	238.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\002CALB.D\002CALB.D#
Date Acquired: Aug 4 2009 05:27 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	175862	1.16
24	Mg	6	1	3447	4.51
27	Al	45	1	2637	8.79
39	K	45	1	337918	1.38
43	Ca	45	1	107	5.41
51	V	72	1	-201	182.83
52	Cr	72	1	4144	5.82
55	Mn	72	1	760	4.74
57	Fe	72	1	737	10.01
59	Co	72	1	147	31.49
60	Ni	72	1	153	15.06
63	Cu	72	1	757	12.70
66	Zn	72	1	450	6.17
75	As	72	1	114	23.01
78	Se	72	1	947	10.58
93	Nb	72	1	3637	24.76
95	Mo	72	1	160	16.54
105	Pd	115	1	20	50.00
107	Ag	115	1	17	69.28
111	Cd	115	1	13	25.00
118	Sn	115	1	1173	15.35
121	Sb	115	1	43	35.25
137	Ba	115	1	30	29.40
182	W	165	1	1303	12.66
195	Pt	165	1	223	6.84
205	Tl	165	1	301	10.05
208	Pb	165	1	313	8.31
232	Th	165	1	1944	4.16
238	U	165	1	130	7.69

DG 8/5/09

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	618846	1.88
45	Sc	1	3302218	1.48
72	Ge	1	1483166	1.36
115	In	1	3715428	1.24
165	Ho	1	5532110	0.42

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#
Date Acquired: Aug 4 2009 05:30 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	166622	0.74
24	Mg	6	1	3697	3.20
27	Al	45	1	4071	3.47
39	K	45	1	344043	1.26
43	Ca	45	1	97	33.25
51	V	72	1	121	374.09
52	Cr	72	1	4394	1.17
55	Mn	72	1	797	3.16
57	Fe	72	1	670	11.66
59	Co	72	1	117	19.80
60	Ni	72	1	160	34.80
63	Cu	72	1	813	5.54
66	Zn	72	1	587	5.99
75	As	72	1	115	26.09
78	Se	72	1	937	3.26
93	Nb	72	1	3197	21.29
95	Mo	72	1	70	14.29
105	Pd	115	1	23	137.77
107	Ag	115	1	3	173.21
111	Cd	115	1	14	35.25
118	Sn	115	1	1730	6.67
121	Sb	115	1	52	13.29
137	Ba	115	1	23	14.29
182	W	165	1	1340	8.41
195	Pt	165	1	177	6.54
205	Tl	165	1	319	6.72
208	Pb	165	1	307	22.06
232	Th	165	1	1367	4.03
238	U	165	1	59	22.88

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	613401	0.88
45	Sc	1	3328415	0.44
72	Ge	1	1482070	1.07
115	In	1	3719636	0.55
165	Ho	1	5558876	0.76

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\004ICAL.D\004ICAL.D#
Date Acquired: Aug 4 2009 05:33 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:31 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	78880	1.03
23	Na	6	1	67854280	0.78
24	Mg	6	1	41046008	0.44
27	Al	45	1	36514528	1.31
39	K	45	1	62484832	0.32
43	Ca	45	1	154713	0.88
51	V	72	1	1748494	1.28
52	Cr	72	1	1712193	0.90
55	Mn	72	1	1838240	0.92
57	Fe	72	1	4331625	1.05
59	Co	72	1	2170643	0.67
60	Ni	72	1	494898	1.03
63	Cu	72	1	1147761	0.20
66	Zn	72	1	229614	0.57
75	As	72	1	199756	0.44
78	Se	72	1	35396	1.68
93	Nb	72	1	5397792	1.07
95	Mo	72	1	533263	0.26
105	Pd	115	1	657524	0.37
107	Ag	115	1	1430733	0.49
111	Cd	115	1	277412	0.99
118	Sn	115	1	778149	0.58
121	Sb	115	1	861506	0.48
137	Ba	115	1	372202	0.66
182	W	165	1	1191344	0.33
195	Pt	165	1	789081	0.96
205	Tl	165	1	2466925	0.69
208	Pb	165	1	3353142	0.67
232	Th	165	1	3430275	0.56
238	U	165	1	3566405	0.75

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	588239	1.72	613401	95.9	30 - 120	
45	Sc	1	3162866	0.88	3328415	95.0	30 - 120	
72	Ge	1	1416296	0.34	1482070	95.6	30 - 120	
115	In	1	3510265	0.79	3719636	94.4	30 - 120	
165	Ho	1	5280186	0.81	5558876	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\005_ICV.D\005_ICV.D#
Date Acquired: Aug 4 2009 05:35 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.40	ppb	3.97	40	98.5	90 - 110	
23 Na	6	1	3950.00	ppb	2.48	4000	98.8	90 - 110	
24 Mg	6	1	3979.00	ppb	1.98	4000	99.5	90 - 110	
27 Al	45	1	3968.00	ppb	1.67	4000	99.2	90 - 110	
39 K	45	1	4029.00	ppb	0.72	4000	100.7	90 - 110	
43 Ca	45	1	3997.00	ppb	1.16	4000	99.9	90 - 110	
51 V	72	1	40.20	ppb	0.92	40	100.5	90 - 110	
52 Cr	72	1	41.10	ppb	0.10	40	102.8	90 - 110	
55 Mn	72	1	40.85	ppb	0.51	40	102.1	90 - 110	
57 Fe	72	1	4190.00	ppb	1.61	4000	104.8	90 - 110	
59 Co	72	1	41.09	ppb	0.15	40	102.7	90 - 110	
60 Ni	72	1	40.89	ppb	0.89	40	102.2	90 - 110	
63 Cu	72	1	41.36	ppb	0.63	40	103.4	90 - 110	
66 Zn	72	1	41.01	ppb	0.78	40	102.5	90 - 110	
75 As	72	1	40.04	ppb	0.20	40	100.1	90 - 110	
78 Se	72	1	39.46	ppb	2.44	40	98.7	90 - 110	
93 Nb	72	1	72.30	ppb	1.68	80	90.4	90 - 110	
95 Mo	72	1	39.75	ppb	1.13	40	99.4	90 - 110	
105 Pd	115	1	40.44	ppb	1.10	40	101.1	90 - 110	
107 Ag	115	1	40.54	ppb	0.71	40	101.4	90 - 110	
111 Cd	115	1	40.13	ppb	0.47	40	100.3	90 - 110	
118 Sn	115	1	39.09	ppb	0.80	40	97.7	90 - 110	
121 Sb	115	1	39.36	ppb	0.94	40	98.4	90 - 110	
137 Ba	115	1	39.55	ppb	0.22	40	98.9	90 - 110	
182 W	165	1	38.57	ppb	1.18	40	96.4	90 - 110	
195 Pt	165	1	40.34	ppb	1.39	40	100.9	90 - 110	
205 Tl	165	1	41.02	ppb	1.39	40	102.6	90 - 110	
208 Pb	165	1	41.38	ppb	1.58	40	103.5	90 - 110	
232 Th	165	1	39.49	ppb	1.51	40	98.7	90 - 110	
238 U	165	1	41.04	ppb	1.42	40	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	608297	1.81	613401	99.2	30 - 120	
45 Sc	1	3229901	1.42	3328415	97.0	30 - 120	
72 Ge	1	1429725	0.13	1482070	96.5	30 - 120	
115 In	1	3601357	0.78	3719636	96.8	30 - 120	
165 Ho	1	5341696	0.77	5558876	96.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\006WASH.D\006WASH.D#
Date Acquired: Aug 4 2009 05:38 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.917 ppb	15.50	1.30	
23 Na	6	1	47.850 ppb	1.97	65.00	
24 Mg	6	1	54.700 ppb	1.46	65.00	
27 Al	45	1	34.050 ppb	1.40	39.00	
39 K	45	1	107.500 ppb	1.30	130.00	
43 Ca	45	1	51.170 ppb	15.57	65.00	
51 V	72	1	5.100 ppb	1.78	6.50	
52 Cr	72	1	2.130 ppb	3.03	2.60	
55 Mn	72	1	1.061 ppb	1.73	1.30	
57 Fe	72	1	54.690 ppb	4.65	65.00	
59 Co	72	1	1.082 ppb	0.70	1.30	
60 Ni	72	1	2.224 ppb	1.70	2.60	
63 Cu	72	1	2.182 ppb	1.43	2.60	
66 Zn	72	1	10.660 ppb	1.11	13.00	
75 As	72	1	5.118 ppb	2.29	6.50	
78 Se	72	1	5.284 ppb	15.76	6.50	
93 Nb	72	1	51.660 ppb	0.91	52.00	
95 Mo	72	1	2.145 ppb	4.72	2.60	
105 Pd	115	1	0.939 ppb	2.98	1.30	
107 Ag	115	1	5.364 ppb	0.81	6.50	
111 Cd	115	1	1.077 ppb	0.91	1.30	
118 Sn	115	1	10.180 ppb	1.18	13.00	
121 Sb	115	1	2.208 ppb	1.49	2.60	
137 Ba	115	1	1.064 ppb	3.32	1.30	
182 W	165	1	5.004 ppb	0.54	6.50	
195 Pt	165	1	1.019 ppb	5.85	1.30	
205 Tl	165	1	1.146 ppb	1.51	1.30	
208 Pb	165	1	1.093 ppb	1.96	1.30	
232 Th	165	1	3.309 ppb	17.07	2.60	
238 U	165	1	1.119 ppb	1.62	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	620977	1.28	613401	101.2	30 - 120	
45 Sc	1	3268310	1.29	3328415	98.2	30 - 120	
72 Ge	1	1474208	1.22	1482070	99.5	30 - 120	
115 In	1	3739867	0.54	3719636	100.5	30 - 120	
165 Ho	1	5457556	0.20	5558876	98.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\007_ICB.D\007_ICB.D#
Date Acquired: Aug 4 2009 05:41 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	-5.38	ppb	4.36	20.00	
24 Mg	6	1	-0.03	ppb	112.14	20.00	
27 Al	45	1	0.43	ppb	13.40	20.00	
39 K	45	1	0.18	ppb	342.50	20.00	
43 Ca	45	1	-2.65	ppb	47.92	20.00	
51 V	72	1	-0.01	ppb	78.44	1.00	
52 Cr	72	1	-0.01	ppb	209.01	1.00	
55 Mn	72	1	-0.01	ppb	28.18	1.00	
57 Fe	72	1	0.04	ppb	366.47	20.00	
59 Co	72	1	0.00	ppb	2657.60	1.00	
60 Ni	72	1	0.01	ppb	182.44	1.00	
63 Cu	72	1	0.00	ppb	45.87	1.00	
66 Zn	72	1	0.01	ppb	89.62	10.00	
75 As	72	1	-0.01	ppb	72.83	1.00	
78 Se	72	1	0.00	ppb	5593.80	1.00	
93 Nb	72	1	2.48	ppb	11.09	2.00	Fail
95 Mo	72	1	0.01	ppb	35.99	1.00	
105 Pd	115	1	0.01	ppb	42.76	1.00	
107 Ag	115	1	0.00	ppb	29.14	1.00	
111 Cd	115	1	0.00	ppb	101.64	1.00	
118 Sn	115	1	-0.03	ppb	16.01	10.00	
121 Sb	115	1	0.08	ppb	8.38	1.00	
137 Ba	115	1	0.00	ppb	124.76	1.00	
182 W	165	1	0.01	ppb	105.62	5.00	
195 Pt	165	1	0.00	ppb	156.52	1.00	
205 Tl	165	1	0.02	ppb	2.65	1.00	
208 Pb	165	1	0.00	ppb	108.41	1.00	
232 Th	165	1	0.02	ppb	13.43	2.00	
238 U	165	1	0.00	ppb	24.57	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	615232	0.16	613401	100.3	30 - 120	
45 Sc	1	3306443	1.15	3328415	99.3	30 - 120	
72 Ge	1	1488448	1.06	1482070	100.4	30 - 120	
115 In	1	3689439	0.89	3719636	99.2	30 - 120	
165 Ho	1	5495479	1.07	5558876	98.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\008RLST.D\008RLST.D#
Date Acquired: Aug 4 2009 05:44 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.97	ppb	16.13	1	97.1	50 - 150	
23 Na	6	1	99.40	ppb	1.27	100	99.4	50 - 150	
24 Mg	6	1	106.20	ppb	1.61	100	106.2	50 - 150	
27 Al	45	1	106.20	ppb	0.88	100	106.2	50 - 150	
39 K	45	1	103.70	ppb	4.34	100	103.7	50 - 150	
43 Ca	45	1	100.40	ppb	11.33	100	100.4	50 - 150	
51 V	72	1	1.02	ppb	1.07	1	102.0	50 - 150	
52 Cr	72	1	1.02	ppb	1.34	1	101.6	50 - 150	
55 Mn	72	1	1.02	ppb	2.96	1	101.9	50 - 150	
57 Fe	72	1	106.30	ppb	1.66	100	106.3	50 - 150	
59 Co	72	1	1.06	ppb	0.46	1	106.2	50 - 150	
60 Ni	72	1	1.08	ppb	3.37	1	107.9	50 - 150	
63 Cu	72	1	1.09	ppb	1.88	1	108.6	50 - 150	
66 Zn	72	1	11.55	ppb	1.74	10	115.5	50 - 150	
75 As	72	1	1.04	ppb	0.35	1	104.2	50 - 150	
78 Se	72	1	1.02	ppb	35.72	1	101.7	50 - 150	
93 Nb	72	1	3.50	ppb	6.24	2	175.0	50 - 150	Fail
95 Mo	72	1	0.99	ppb	1.94	1	99.2	50 - 150	
105 Pd	115	1	1.04	ppb	5.32	1	103.8	50 - 150	
107 Ag	115	1	1.02	ppb	3.47	1	101.7	50 - 150	
111 Cd	115	1	1.03	ppb	2.92	1	103.1	50 - 150	
118 Sn	115	1	10.39	ppb	1.84	10	103.9	50 - 150	
121 Sb	115	1	0.98	ppb	3.12	1	98.5	50 - 150	
137 Ba	115	1	1.00	ppb	0.86	1	99.7	50 - 150	
182 W	165	1	1.00	ppb	2.34	1	100.4	50 - 150	
195 Pt	165	1	0.97	ppb	2.75	1	96.6	50 - 150	
205 Tl	165	1	1.07	ppb	1.28	1	106.5	50 - 150	
208 Pb	165	1	1.07	ppb	1.16	1	107.4	50 - 150	
232 Th	165	1	0.92	ppb	2.08	1	92.0	50 - 150	
238 U	165	1	1.09	ppb	0.88	1	109.2	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	621899	1.48	613401	101.4	30 - 120	
45 Sc	1	3315351	1.07	3328415	99.6	30 - 120	
72 Ge	1	1473929	0.22	1482070	99.5	30 - 120	
115 In	1	3735562	1.27	3719636	100.4	30 - 120	
165 Ho	1	5443789	0.20	5558876	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\009AFCE.D\009AFCE.D#
Date Acquired: Aug 4 2009 05:47 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.19	ppb	14.20	0	98.2	80 - 120	
23 Na	6	1	15.27	ppb	1.74	20	76.8	80 - 120	
24 Mg	6	1	21.58	ppb	1.53	21	101.6	80 - 120	
27 Al	45	1	22.06	ppb	0.39	21	103.9	80 - 120	
39 K	45	1	21.49	ppb	4.35	21	103.6	80 - 120	
43 Ca	45	1	22.88	ppb	5.73	20	113.9	80 - 120	
51 V	72	1	0.23	ppb	6.59	0	111.3	80 - 120	
52 Cr	72	1	0.20	ppb	8.88	0	100.1	80 - 120	
55 Mn	72	1	0.21	ppb	5.24	0	103.5	80 - 120	
57 Fe	72	1	20.12	ppb	0.35	21	94.6	80 - 120	
59 Co	72	1	0.21	ppb	2.08	0	99.2	80 - 120	
60 Ni	72	1	0.54	ppb	3.25	0	252.4	80 - 120	
63 Cu	72	1	0.25	ppb	5.60	0	113.0	80 - 120	
66 Zn	72	1	2.36	ppb	1.76	2	102.1	80 - 120	
75 As	72	1	0.20	ppb	4.33	0	96.6	80 - 120	
78 Se	72	1	0.15	ppb	149.67	0	75.1	80 - 120	
93 Nb	72	1	1.48	ppb	12.00	1	211.6	80 - 120	
95 Mo	72	1	0.21	ppb	3.24	0	103.7	80 - 120	
105 Pd	115	1	0.19	ppb	7.31	0	92.9	80 - 120	
107 Ag	115	1	0.21	ppb	4.09	0	102.0	80 - 120	
111 Cd	115	1	0.20	ppb	8.51	0	95.4	80 - 120	
118 Sn	115	1	2.08	ppb	3.46	2	99.9	80 - 120	
121 Sb	115	1	0.23	ppb	6.06	0	117.1	80 - 120	
137 Ba	115	1	0.20	ppb	4.18	0	102.6	80 - 120	
182 W	165	1	0.21	ppb	5.18	0	102.6	80 - 120	
195 Pt	165	1	0.21	ppb	8.44	0	109.7	80 - 120	
205 Tl	165	1	0.22	ppb	3.69	0	104.3	80 - 120	
208 Pb	165	1	0.21	ppb	1.89	0	98.8	80 - 120	
232 Th	165	1	0.20	ppb	3.25	0	108.3	80 - 120	
238 U	165	1	0.21	ppb	1.88	0	97.0	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	612484	0.59	613401	99.9	30 - 120	
45 Sc	1	3336089	0.62	3328415	100.2	30 - 120	
72 Ge	1	1488913	1.35	1482070	100.5	30 - 120	
115 In	1	3708691	0.65	3719636	99.7	30 - 120	
165 Ho	1	5434381	0.68	5558876	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\010SMPL.D\010SMPL.D#
Date Acquired: Aug 4 2009 05:50 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-6.23	-6.23	ppb	12.05	100000	
24 Mg	6	1	0.13	0.13	ppb	57.73	100000	
27 Al	45	1	-0.41	-0.41	ppb	11.70	100000	
39 K	45	1	1.40	1.40	ppb	19.02	100000	
43 Ca	45	1	-3.26	-3.26	ppb	28.59	100000	
51 V	72	1	0.00	0.00	ppb	495.39	3600	
52 Cr	72	1	0.01	0.01	ppb	68.18	3600	
55 Mn	72	1	0.00	0.00	ppb	177.08	18000	
57 Fe	72	1	0.14	0.14	ppb	54.03	100000	
59 Co	72	1	0.00	0.00	ppb	61.01	3600	
60 Ni	72	1	0.00	0.00	ppb	229.74	3600	
63 Cu	72	1	0.01	0.01	ppb	107.08	3600	
66 Zn	72	1	-0.09	-0.09	ppb	8.20	3600	
75 As	72	1	-0.01	-0.01	ppb	22.78	3600	
78 Se	72	1	2.34	2.34	ppb	17.14	3600	
93 Nb	72	1	0.80	0.80	ppb	18.12	2000	
95 Mo	72	1	0.00	0.00	ppb	5.16	3600	
105 Pd	115	1	0.01	0.01	ppb	51.69	1000	
107 Ag	115	1	0.00	0.00	ppb	62.01	3600	
111 Cd	115	1	0.00	0.00	ppb	26.79	3600	
118 Sn	115	1	-0.04	-0.04	ppb	41.03	3600	
121 Sb	115	1	0.02	0.02	ppb	12.94	3600	
137 Ba	115	1	0.00	0.00	ppb	139.79	3600	
182 W	165	1	0.00	0.00	ppb	571.47	1000	
195 Pt	165	1	0.00	0.00	ppb	1643.80	1000	
205 Tl	165	1	0.01	0.01	ppb	18.45	3600	
208 Pb	165	1	0.00	0.00	ppb	91.61	3600	
232 Th	165	1	0.00	0.00	ppb	1210.80	1000	
238 U	165	1	0.00	0.00	ppb	65.63	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628758	4.36	613401	102.5	30 - 120	
45 Sc	1	3304988	0.43	3328415	99.3	30 - 120	
72 Ge	1	1481087	0.85	1482070	99.9	30 - 120	
115 In	1	3694596	0.88	3719636	99.3	30 - 120	
165 Ho	1	5415585	0.30	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\011ICSA.D\011ICSA.D#
Date Acquired: Aug 4 2009 05:53 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element		IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9	Be	6	1	0.00 ppb	173.21	1.00	
23	Na	6	1	100500.00 ppb	0.77	100.00	
24	Mg	6	1	98000.00 ppb	0.73	100.00	
27	Al	45	1	98990.00 ppb	0.78	100.00	
39	K	45	1	99310.00 ppb	0.22	100.00	
43	Ca	45	1	102300.00 ppb	0.74	100.00	
51	V	72	1	-0.11 ppb	51.36	1.00	
52	Cr	72	1	0.70 ppb	3.18	1.00	
55	Mn	72	1	3.53 ppb	1.53	1.00	
57	Fe	72	1	97710.00 ppb	0.58	100.00	
59	Co	72	1	1.58 ppb	2.91	1.00	
60	Ni	72	1	1.57 ppb	1.64	1.00	
63	Cu	72	1	1.49 ppb	1.13	1.00	
66	Zn	72	1	2.87 ppb	2.08	10.00	
75	As	72	1	0.41 ppb	5.47	1.00	
78	Se	72	1	-0.17 ppb	49.11	1.00	
93	Nb	72	1	1.51 ppb	11.67	2.00	
95	Mo	72	1	2047.00 ppb	0.11	2000.00	
105	Pd	115	1	0.07 ppb	27.22	1.00	
107	Ag	115	1	0.04 ppb	18.29	1.00	
111	Cd	115	1	2.58 ppb	2.38	1.00	
118	Sn	115	1	0.21 ppb	11.25	10.00	
121	Sb	115	1	0.26 ppb	1.73	1.00	
137	Ba	115	1	0.07 ppb	19.17	1.00	
182	W	165	1	0.10 ppb	8.43	5.00	
195	Pt	165	1	0.00 ppb	499.24	1.00	
205	Tl	165	1	0.03 ppb	60.16	1.00	
208	Pb	165	1	0.11 ppb	6.85	1.00	
232	Th	165	1	0.05 ppb	32.11	2.00	
238	U	165	1	0.00 ppb	386.37	1.00	

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	534481	1.03	613401	87.1	30 - 120	
45	Sc	1	2836722	1.84	3328415	85.2	30 - 120	
72	Ge	1	1237307	1.64	1482070	83.5	30 - 120	
115	In	1	3118112	1.08	3719636	83.8	30 - 120	
165	Ho	1	4824482	1.14	5558876	86.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\012ICSB.D\012ICSB.D#
Date Acquired: Aug 4 2009 05:56 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	97.87	2.69	100	97.9	80 - 120	
23 Na	6	1	109100.00	1.92	110000	99.2	80 - 120	
24 Mg	6	1	105900.00	1.80	110000	96.3	80 - 120	
27 Al	45	1	106900.00	0.67	110000	97.2	80 - 120	
39 K	45	1	106300.00	1.52	110000	96.6	80 - 120	
43 Ca	45	1	110700.00	1.37	110000	100.6	80 - 120	
51 V	72	1	102.10	2.01	100	102.1	80 - 120	
52 Cr	72	1	100.50	0.60	100	100.5	80 - 120	
55 Mn	72	1	100.60	1.12	100	100.6	80 - 120	
57 Fe	72	1	104600.00	1.61	110000	95.1	80 - 120	
59 Co	72	1	99.01	0.80	100	99.0	80 - 120	
60 Ni	72	1	95.40	0.87	100	95.4	80 - 120	
63 Cu	72	1	95.99	1.03	100	96.0	80 - 120	
66 Zn	72	1	97.48	0.22	100	97.5	80 - 120	
75 As	72	1	99.71	0.74	100	99.7	80 - 120	
78 Se	72	1	102.30	3.31	100	102.3	80 - 120	
93 Nb	72	1	199.50	2.06	200	99.8	80 - 120	
95 Mo	72	1	2105.00	0.55	2100	100.2	80 - 120	
105 Pd	115	1	94.41	1.04	100	94.4	80 - 120	
107 Ag	115	1	87.95	3.58	100	88.0	80 - 120	
111 Cd	115	1	96.52	0.96	100	96.5	80 - 120	
118 Sn	115	1	99.29	0.54	100	99.3	80 - 120	
121 Sb	115	1	99.82	0.85	100	99.8	80 - 120	
137 Ba	115	1	101.90	0.79	100	101.9	80 - 120	
182 W	165	1	100.60	1.12	100	100.6	80 - 120	
195 Pt	165	1	94.72	1.77	100	94.7	80 - 120	
205 Tl	165	1	95.99	0.84	100	96.0	80 - 120	
208 Pb	165	1	94.61	0.78	100	94.6	80 - 120	
232 Th	165	1	97.98	1.51	100	98.0	80 - 120	
238 U	165	1	98.93	0.13	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	533235	1.40	613401	86.9	30 - 120	
45 Sc	1	2842582	0.80	3328415	85.4	30 - 120	
72 Ge	1	1255559	0.45	1482070	84.7	30 - 120	
115 In	1	3152795	0.39	3719636	84.8	30 - 120	
165 Ho	1	4890857	0.21	5558876	88.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\013SMPL.D\013SMPL.D#
Date Acquired: Aug 4 2009 05:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	173.22	3600	
23 Na	6	1	9.45	9.45	ppb	21.11	100000	
24 Mg	6	1	8.12	8.12	ppb	28.37	100000	
27 Al	45	1	9.27	9.27	ppb	28.41	100000	
39 K	45	1	-0.97	-0.97	ppb	171.54	100000	
43 Ca	45	1	8.14	8.14	ppb	32.30	100000	
51 V	72	1	-0.01	-0.01	ppb	139.27	3600	
52 Cr	72	1	-0.01	-0.01	ppb	184.25	3600	
55 Mn	72	1	0.00	0.00	ppb	941.65	18000	
57 Fe	72	1	10.19	10.19	ppb	25.06	100000	
59 Co	72	1	0.01	0.01	ppb	18.70	3600	
60 Ni	72	1	0.00	0.00	ppb	410.08	3600	
63 Cu	72	1	0.00	0.00	ppb	359.40	3600	
66 Zn	72	1	-0.05	-0.05	ppb	51.41	3600	
75 As	72	1	-0.01	-0.01	ppb	156.65	3600	
78 Se	72	1	-0.44	-0.44	ppb	76.37	3600	
93 Nb	72	1	4.37	4.37	ppb	10.29	2000	
95 Mo	72	1	1.41	1.41	ppb	9.48	3600	
105 Pd	115	1	0.01	0.01	ppb	24.81	1000	
107 Ag	115	1	0.01	0.01	ppb	47.08	3600	
111 Cd	115	1	0.01	0.01	ppb	8.17	3600	
118 Sn	115	1	-0.03	-0.03	ppb	29.93	3600	
121 Sb	115	1	0.20	0.20	ppb	4.20	3600	
137 Ba	115	1	0.01	0.01	ppb	20.60	3600	
182 W	165	1	0.04	0.04	ppb	27.00	1000	
195 Pt	165	1	0.01	0.01	ppb	55.28	1000	
205 Tl	165	1	0.00	0.00	ppb	31.86	3600	
208 Pb	165	1	0.01	0.01	ppb	14.47	3600	
232 Th	165	1	0.40	0.40	ppb	12.44	1000	
238 U	165	1	0.01	0.01	ppb	11.12	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	649011	1.30	613401	105.8	30 - 120	
45 Sc	1	3287885	2.08	3328415	98.8	30 - 120	
72 Ge	1	1508013	1.80	1482070	101.8	30 - 120	
115 In	1	3723681	1.03	3719636	100.1	30 - 120	
165 Ho	1	5486394	1.12	5558876	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\014_LR.D\014_LR.D#
Date Acquired: Aug 4 2009 06:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	983.10 ppb	1.47	1000	98.3	90 - 110	
23 Na	6	1	100400.00 ppb	1.20	100000	100.4	90 - 110	
24 Mg	6	1	98120.00 ppb	1.39	100000	98.1	90 - 110	
27 Al	45	1	99120.00 ppb	0.56	100000	99.1	90 - 110	
39 K	45	1	99030.00 ppb	0.39	100000	99.0	90 - 110	
43 Ca	45	1	102600.00 ppb	1.25	100000	102.6	90 - 110	
51 V	72	1	956.50 ppb	0.75	1000	95.7	90 - 110	
52 Cr	72	1	962.40 ppb	1.35	1000	96.2	90 - 110	
55 Mn	72	1	936.10 ppb	1.37	1000	93.6	90 - 110	
57 Fe	72	1	94940.00 ppb	1.06	100000	94.9	90 - 110	
59 Co	72	1	937.10 ppb	1.00	1000	93.7	90 - 110	
60 Ni	72	1	926.30 ppb	1.42	1000	92.6	90 - 110	
63 Cu	72	1	894.90 ppb	1.52	1000	89.5	90 - 110	Fail
66 Zn	72	1	910.10 ppb	2.20	1000	91.0	90 - 110	
75 As	72	1	957.10 ppb	1.28	1000	95.7	90 - 110	
78 Se	72	1	934.30 ppb	1.11	1000	93.4	90 - 110	
93 Nb	72	1	2252.00 ppb	1.30	2000	112.6	90 - 110	Fail
95 Mo	72	1	994.00 ppb	0.33	1000	99.4	90 - 110	
105 Pd	115	1	906.90 ppb	0.43	1000	90.7	90 - 110	
107 Ag	115	1	885.00 ppb	0.74	1000	88.5	90 - 110	Fail
111 Cd	115	1	933.70 ppb	1.14	1000	93.4	90 - 110	
118 Sn	115	1	945.30 ppb	0.55	1000	94.5	90 - 110	
121 Sb	115	1	937.70 ppb	0.72	1000	93.8	90 - 110	
137 Ba	115	1	980.70 ppb	0.91	1000	98.1	90 - 110	
182 W	165	1	966.40 ppb	0.42	1000	96.6	90 - 110	
195 Pt	165	1	925.70 ppb	0.22	1000	92.6	90 - 110	
205 Tl	165	1	943.40 ppb	0.69	1000	94.3	90 - 110	
208 Pb	165	1	916.60 ppb	0.69	1000	91.7	90 - 110	
232 Th	165	1	974.50 ppb	1.33	1000	97.5	90 - 110	
238 U	165	1	971.30 ppb	0.43	1000	97.1	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	510401	1.65	613401	83.2	30 - 120	
45 Sc	1	2772323	0.84	3328415	83.3	30 - 120	
72 Ge	1	1233806	0.89	1482070	83.2	30 - 120	
115 In	1	3002824	0.95	3719636	80.7	30 - 120	
165 Ho	1	4527867	0.86	5558876	81.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

3 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\015SMPL.D\015SMPL.D#
Date Acquired: Aug 4 2009 06:05 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.07	0.07	ppb	48.32	3600	
23 Na	6	1	29.14	29.14	ppb	82.84	100000	
24 Mg	6	1	30.32	30.32	ppb	83.38	100000	
27 Al	45	1	31.88	31.88	ppb	85.45	100000	
39 K	45	1	26.56	26.56	ppb	98.16	100000	
43 Ca	45	1	29.46	29.46	ppb	104.68	100000	
51 V	72	1	0.06	0.06	ppb	35.99	3600	
52 Cr	72	1	0.08	0.08	ppb	13.36	3600	
55 Mn	72	1	0.07	0.07	ppb	14.28	18000	
57 Fe	72	1	32.88	32.88	ppb	80.32	100000	
59 Co	72	1	0.08	0.08	ppb	19.80	3600	
60 Ni	72	1	0.08	0.08	ppb	18.95	3600	
63 Cu	72	1	0.09	0.09	ppb	14.48	3600	
66 Zn	72	1	0.06	0.06	ppb	100.05	3600	
75 As	72	1	0.08	0.08	ppb	21.57	3600	
78 Se	72	1	0.21	0.21	ppb	135.98	3600	
93 Nb	72	1	2.57	2.57	ppb	6.91	2000	
95 Mo	72	1	1.11	1.11	ppb	42.33	3600	
105 Pd	115	1	0.35	0.35	ppb	13.01	1000	
107 Ag	115	1	0.14	0.14	ppb	90.61	3600	
111 Cd	115	1	0.07	0.07	ppb	11.74	3600	
118 Sn	115	1	0.10	0.10	ppb	45.44	3600	
121 Sb	115	1	0.51	0.51	ppb	3.38	3600	
137 Ba	115	1	0.08	0.08	ppb	11.45	3600	
182 W	165	1	0.30	0.30	ppb	6.75	1000	
195 Pt	165	1	0.08	0.08	ppb	9.38	1000	
205 Tl	165	1	0.06	0.06	ppb	14.89	3600	
208 Pb	165	1	0.08	0.08	ppb	15.45	3600	
232 Th	165	1	0.63	0.63	ppb	11.37	1000	
238 U	165	1	0.15	0.15	ppb	8.95	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	636485	2.37	613401	103.8	30 - 120	
45 Sc	1	3258183	0.99	3328415	97.9	30 - 120	
72 Ge	1	1456251	1.25	1482070	98.3	30 - 120	
115 In	1	3639887	0.96	3719636	97.9	30 - 120	
165 Ho	1	5321897	0.82	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\016_CCV.D\016_CCV.D#
Date Acquired: Aug 4 2009 06:08 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.78	ppb	0.49	50	97.6	90 - 110	
23 Na	6	1	4760.00	ppb	1.12	5000	95.2	90 - 110	
24 Mg	6	1	4816.00	ppb	1.08	5000	96.3	90 - 110	
27 Al	45	1	5035.00	ppb	1.14	5000	100.7	90 - 110	
39 K	45	1	5082.00	ppb	0.66	5000	101.6	90 - 110	
43 Ca	45	1	5059.00	ppb	2.14	5000	101.2	90 - 110	
51 V	72	1	51.79	ppb	2.01	50	103.6	90 - 110	
52 Cr	72	1	51.99	ppb	1.10	50	104.0	90 - 110	
55 Mn	72	1	51.12	ppb	0.22	50	102.2	90 - 110	
57 Fe	72	1	5151.00	ppb	0.27	5000	103.0	90 - 110	
59 Co	72	1	51.21	ppb	0.57	50	102.4	90 - 110	
60 Ni	72	1	51.45	ppb	0.65	50	102.9	90 - 110	
63 Cu	72	1	52.11	ppb	1.84	50	104.2	90 - 110	
66 Zn	72	1	50.89	ppb	0.91	50	101.8	90 - 110	
75 As	72	1	50.97	ppb	0.96	50	101.9	90 - 110	
78 Se	72	1	49.64	ppb	1.37	50	99.3	90 - 110	
93 Nb	72	1	95.63	ppb	0.52	100	95.6	90 - 110	
95 Mo	72	1	50.17	ppb	0.72	50	100.3	90 - 110	
105 Pd	115	1	50.80	ppb	1.97	50	101.6	90 - 110	
107 Ag	115	1	50.98	ppb	1.22	50	102.0	90 - 110	
111 Cd	115	1	49.67	ppb	1.69	50	99.3	90 - 110	
118 Sn	115	1	49.48	ppb	1.14	50	99.0	90 - 110	
121 Sb	115	1	49.35	ppb	1.28	50	98.7	90 - 110	
137 Ba	115	1	49.77	ppb	1.62	50	99.5	90 - 110	
182 W	165	1	48.67	ppb	0.25	50	97.3	90 - 110	
195 Pt	165	1	50.37	ppb	0.44	50	100.7	90 - 110	
205 Tl	165	1	50.63	ppb	1.93	50	101.3	90 - 110	
208 Pb	165	1	51.33	ppb	0.02	50	102.7	90 - 110	
232 Th	165	1	51.28	ppb	0.04	50	102.6	90 - 110	
238 U	165	1	50.86	ppb	1.58	50	101.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628515	0.96	613401	102.5	30 - 120	
45 Sc	1	3221822	1.47	3328415	96.8	30 - 120	
72 Ge	1	1435947	0.25	1482070	96.9	30 - 120	
115 In	1	3596795	1.09	3719636	96.7	30 - 120	
165 Ho	1	5266006	0.51	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\017_CCB.D\017_CCB.D#
Date Acquired: Aug 4 2009 06:10 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-0.262	ppb	85.71	20.00	
24 Mg	6	1	0.283	ppb	48.06	20.00	
27 Al	45	1	0.421	ppb	35.34	20.00	
39 K	45	1	-0.622	ppb	196.49	20.00	
43 Ca	45	1	-1.825	ppb	36.62	20.00	
51 V	72	1	-0.003	ppb	1202.80	1.00	
52 Cr	72	1	-0.008	ppb	72.38	1.00	
55 Mn	72	1	0.000	ppb	42322.00	1.00	
57 Fe	72	1	0.855	ppb	24.84	20.00	
59 Co	72	1	0.004	ppb	37.15	1.00	
60 Ni	72	1	-0.004	ppb	166.56	1.00	
63 Cu	72	1	0.029	ppb	30.11	1.00	
66 Zn	72	1	-0.052	ppb	35.40	10.00	
75 As	72	1	-0.006	ppb	126.53	1.00	
78 Se	72	1	0.114	ppb	65.70	1.00	
93 Nb	72	1	3.313	ppb	10.30	2.00	Fail
95 Mo	72	1	0.106	ppb	4.23	1.00	
105 Pd	115	1	0.078	ppb	2.54	1.00	
107 Ag	115	1	0.011	ppb	24.39	1.00	
111 Cd	115	1	0.006	ppb	29.05	1.00	
118 Sn	115	1	-0.044	ppb	55.28	10.00	
121 Sb	115	1	0.224	ppb	5.55	1.00	
137 Ba	115	1	0.008	ppb	52.42	1.00	
182 W	165	1	0.076	ppb	7.55	5.00	
195 Pt	165	1	0.004	ppb	72.15	1.00	
205 Tl	165	1	0.017	ppb	16.74	1.00	
208 Pb	165	1	0.004	ppb	53.83	1.00	
232 Th	165	1	0.302	ppb	10.04	2.00	
238 U	165	1	0.014	ppb	13.03	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639510	1.15	613401	104.3	30 - 120	
45 Sc	1	3307384	1.05	3328415	99.4	30 - 120	
72 Ge	1	1500542	0.71	1482070	101.2	30 - 120	
115 In	1	3717920	0.26	3719636	100.0	30 - 120	
165 Ho	1	5368130	0.70	5558876	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\018WASH.D\018WASH.D#
Date Acquired: Aug 4 2009 06:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.966 ppb	19.98	1.30	
23 Na	6	1	50.660 ppb	1.28	65.00	
24 Mg	6	1	52.770 ppb	0.74	65.00	
27 Al	45	1	34.250 ppb	0.60	39.00	
39 K	45	1	107.000 ppb	1.34	130.00	
43 Ca	45	1	61.380 ppb	12.89	65.00	
51 V	72	1	5.247 ppb	2.06	6.50	
52 Cr	72	1	2.159 ppb	3.17	2.60	
55 Mn	72	1	1.047 ppb	2.30	1.30	
57 Fe	72	1	55.000 ppb	0.91	65.00	
59 Co	72	1	1.081 ppb	3.35	1.30	
60 Ni	72	1	2.225 ppb	0.84	2.60	
63 Cu	72	1	2.218 ppb	0.66	2.60	
66 Zn	72	1	10.630 ppb	1.13	13.00	
75 As	72	1	5.190 ppb	1.34	6.50	
78 Se	72	1	4.780 ppb	9.72	6.50	
93 Nb	72	1	44.630 ppb	1.58	52.00	
95 Mo	72	1	2.164 ppb	2.78	2.60	
105 Pd	115	1	0.971 ppb	1.68	1.30	
107 Ag	115	1	5.468 ppb	2.23	6.50	
111 Cd	115	1	1.067 ppb	6.04	1.30	
118 Sn	115	1	10.240 ppb	1.46	13.00	
121 Sb	115	1	2.046 ppb	0.96	2.60	
137 Ba	115	1	1.024 ppb	1.96	1.30	
182 W	165	1	4.992 ppb	0.40	6.50	
195 Pt	165	1	1.016 ppb	6.07	1.30	
205 Tl	165	1	1.134 ppb	0.58	1.30	
208 Pb	165	1	1.104 ppb	2.61	1.30	
232 Th	165	1	2.579 ppb	4.95	2.60	
238 U	165	1	1.115 ppb	1.37	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	653683	0.81	613401	106.6	30 - 120	
45 Sc	1	3353924	0.65	3328415	100.8	30 - 120	
72 Ge	1	1497601	0.60	1482070	101.0	30 - 120	
115 In	1	3740478	0.96	3719636	100.6	30 - 120	
165 Ho	1	5408001	0.74	5558876	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\019SMPL.D\019SMPL.D#
Date Acquired: Aug 4 2009 06:18 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTLR
Misc Info:
Vial Number: 2112
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	0.12	0.12	ppb	176.13	100000	
24 Mg	6	1	0.42	0.42	ppb	17.15	100000	
27 Al	45	1	0.09	0.09	ppb	82.68	100000	
39 K	45	1	0.19	0.19	ppb	520.06	100000	
43 Ca	45	1	4.98	4.98	ppb	41.27	100000	
51 V	72	1	-0.01	-0.01	ppb	142.22	3600	
52 Cr	72	1	0.01	0.01	ppb	147.66	3600	
55 Mn	72	1	0.01	0.01	ppb	43.31	18000	
57 Fe	72	1	0.77	0.77	ppb	37.26	100000	
59 Co	72	1	0.00	0.00	ppb	207.28	3600	
60 Ni	72	1	0.01	0.01	ppb	32.71	3600	
63 Cu	72	1	1,021.00	1021.00	ppb	1.47	3600	
66 Zn	72	1	0.18	0.18	ppb	12.36	3600	
75 As	72	1	-0.01	-0.01	ppb	54.80	3600	
78 Se	72	1	0.22	0.22	ppb	145.05	3600	
93 Nb	72	1	1.49	1.49	ppb	13.66	2000	
95 Mo	72	1	0.04	0.04	ppb	41.08	3600	
105 Pd	115	1	0.03	0.03	ppb	33.11	1000	
107 Ag	115	1	997.10	997.10	ppb	1.04	3600	
111 Cd	115	1	0.00	0.00	ppb	237.61	3600	
118 Sn	115	1	0.01	0.01	ppb	76.14	3600	
121 Sb	115	1	0.06	0.06	ppb	19.76	3600	
137 Ba	115	1	0.01	0.01	ppb	10.26	3600	
182 W	165	1	0.00	0.00	ppb	132.52	1000	
195 Pt	165	1	0.00	0.00	ppb	5.89	1000	
205 Tl	165	1	0.00	0.00	ppb	143.26	3600	
208 Pb	165	1	0.00	0.00	ppb	97.75	3600	
232 Th	165	1	0.00	0.00	ppb	42.61	1000	
238 U	165	1	0.00	0.00	ppb	21.15	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	645817	2.26	613401	105.3	30 - 120	
45 Sc	1	3364358	1.91	3328415	101.1	30 - 120	
72 Ge	1	1505138	0.77	1482070	101.6	30 - 120	
115 In	1	3723444	0.73	3719636	100.1	30 - 120	
165 Ho	1	5413880	0.82	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\020SMPL.D\020SMPL.D#
Date Acquired: Aug 4 2009 06:21 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.21	3600	
23 Na	6	1	-1.08	-1.08	ppb	30.22	100000	
24 Mg	6	1	0.90	0.90	ppb	8.10	100000	
27 Al	45	1	0.66	0.66	ppb	6.43	100000	
39 K	45	1	0.89	0.89	ppb	42.26	100000	
43 Ca	45	1	0.94	0.94	ppb	32.30	100000	
51 V	72	1	0.01	0.01	ppb	182.83	3600	
52 Cr	72	1	0.01	0.01	ppb	138.67	3600	
55 Mn	72	1	0.00	0.00	ppb	594.11	18000	
57 Fe	72	1	1.09	1.09	ppb	24.34	100000	
59 Co	72	1	0.00	0.00	ppb	124.28	3600	
60 Ni	72	1	-0.01	-0.01	ppb	33.43	3600	
63 Cu	72	1	0.07	0.07	ppb	30.65	3600	
66 Zn	72	1	-0.05	-0.05	ppb	13.23	3600	
75 As	72	1	-0.01	-0.01	ppb	56.38	3600	
78 Se	72	1	0.13	0.13	ppb	263.90	3600	
93 Nb	72	1	0.99	0.99	ppb	14.14	2000	
95 Mo	72	1	0.03	0.03	ppb	62.65	3600	
105 Pd	115	1	0.04	0.04	ppb	28.83	1000	
107 Ag	115	1	0.06	0.06	ppb	34.60	3600	
111 Cd	115	1	0.01	0.01	ppb	36.71	3600	
118 Sn	115	1	-0.09	-0.09	ppb	11.11	3600	
121 Sb	115	1	0.03	0.03	ppb	12.48	3600	
137 Ba	115	1	0.01	0.01	ppb	32.40	3600	
182 W	165	1	0.00	0.00	ppb	113.47	1000	
195 Pt	165	1	0.01	0.01	ppb	47.21	1000	
205 Tl	165	1	0.00	0.00	ppb	22.13	3600	
208 Pb	165	1	0.00	0.00	ppb	71.75	3600	
232 Th	165	1	-0.01	-0.01	ppb	15.66	1000	
238 U	165	1	0.01	0.01	ppb	11.09	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	641513	1.37	613401	104.6	30 - 120	
45 Sc	1	3366434	1.69	3328415	101.1	30 - 120	
72 Ge	1	1514557	0.93	1482070	102.2	30 - 120	
115 In	1	3724160	0.53	3719636	100.1	30 - 120	
165 Ho	1	5321318	0.19	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\021_CCV.D\021_CCV.D#
Date Acquired: Aug 4 2009 06:24 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.03	ppb	0.94	50	96.1	90 - 110	
23 Na	6	1	4744.00	ppb	2.21	5000	94.9	90 - 110	
24 Mg	6	1	4798.00	ppb	0.73	5000	96.0	90 - 110	
27 Al	45	1	5084.00	ppb	2.25	5000	101.7	90 - 110	
39 K	45	1	5110.00	ppb	0.62	5000	102.2	90 - 110	
43 Ca	45	1	5069.00	ppb	0.73	5000	101.4	90 - 110	
51 V	72	1	51.56	ppb	1.43	50	103.1	90 - 110	
52 Cr	72	1	50.99	ppb	1.52	50	102.0	90 - 110	
55 Mn	72	1	51.46	ppb	1.14	50	102.9	90 - 110	
57 Fe	72	1	5155.00	ppb	0.58	5000	103.1	90 - 110	
59 Co	72	1	51.58	ppb	1.14	50	103.2	90 - 110	
60 Ni	72	1	51.36	ppb	1.50	50	102.7	90 - 110	
63 Cu	72	1	51.89	ppb	1.29	50	103.8	90 - 110	
66 Zn	72	1	50.99	ppb	0.93	50	102.0	90 - 110	
75 As	72	1	50.84	ppb	1.52	50	101.7	90 - 110	
78 Se	72	1	51.24	ppb	1.36	50	102.5	90 - 110	
93 Nb	72	1	94.55	ppb	0.52	100	94.6	90 - 110	
95 Mo	72	1	49.93	ppb	1.53	50	99.9	90 - 110	
105 Pd	115	1	50.85	ppb	0.34	50	101.7	90 - 110	
107 Ag	115	1	51.69	ppb	0.86	50	103.4	90 - 110	
111 Cd	115	1	50.15	ppb	0.49	50	100.3	90 - 110	
118 Sn	115	1	50.23	ppb	0.51	50	100.5	90 - 110	
121 Sb	115	1	49.70	ppb	0.83	50	99.4	90 - 110	
137 Ba	115	1	50.28	ppb	0.28	50	100.6	90 - 110	
182 W	165	1	48.40	ppb	0.99	50	96.8	90 - 110	
195 Pt	165	1	50.19	ppb	1.03	50	100.4	90 - 110	
205 Tl	165	1	51.30	ppb	0.24	50	102.6	90 - 110	
208 Pb	165	1	51.13	ppb	0.92	50	102.3	90 - 110	
232 Th	165	1	50.02	ppb	1.31	50	100.0	90 - 110	
238 U	165	1	50.40	ppb	0.39	50	100.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	637798	1.11	613401	104.0	30 - 120	
45 Sc	1	3256719	1.41	3328415	97.8	30 - 120	
72 Ge	1	1445937	0.36	1482070	97.6	30 - 120	
115 In	1	3556246	0.63	3719636	95.6	30 - 120	
165 Ho	1	5266849	0.14	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\022_CCB.D\022_CCB.D#
Date Acquired: Aug 4 2009 06:27 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.008	ppb	173.18	1.00	
23 Na	6	1	-5.657	ppb	6.88	20.00	
24 Mg	6	1	0.282	ppb	35.67	20.00	
27 Al	45	1	0.364	ppb	31.23	20.00	
39 K	45	1	0.504	ppb	74.31	20.00	
43 Ca	45	1	-0.577	ppb	232.24	20.00	
51 V	72	1	-0.031	ppb	73.13	1.00	
52 Cr	72	1	-0.012	ppb	100.88	1.00	
55 Mn	72	1	0.000	ppb	6998.30	1.00	
57 Fe	72	1	0.867	ppb	28.00	20.00	
59 Co	72	1	0.001	ppb	226.14	1.00	
60 Ni	72	1	0.014	ppb	104.94	1.00	
63 Cu	72	1	0.023	ppb	40.09	1.00	
66 Zn	72	1	-0.069	ppb	6.01	10.00	
75 As	72	1	-0.003	ppb	205.31	1.00	
78 Se	72	1	0.070	ppb	329.91	1.00	
93 Nb	72	1	3.296	ppb	11.66	2.00	Fail
95 Mo	72	1	0.043	ppb	22.77	1.00	
105 Pd	115	1	0.033	ppb	13.82	1.00	
107 Ag	115	1	0.014	ppb	53.32	1.00	
111 Cd	115	1	0.005	ppb	37.33	1.00	
118 Sn	115	1	-0.066	ppb	13.39	10.00	
121 Sb	115	1	0.174	ppb	1.91	1.00	
137 Ba	115	1	0.007	ppb	32.98	1.00	
182 W	165	1	0.034	ppb	15.67	5.00	
195 Pt	165	1	0.009	ppb	63.42	1.00	
205 Tl	165	1	0.011	ppb	35.61	1.00	
208 Pb	165	1	0.003	ppb	37.08	1.00	
232 Th	165	1	0.271	ppb	11.18	2.00	
238 U	165	1	0.010	ppb	9.62	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639094	1.93	613401	104.2	30 - 120	
45 Sc	1	3307521	1.41	3328415	99.4	30 - 120	
72 Ge	1	1478496	0.34	1482070	99.8	30 - 120	
115 In	1	3684210	0.86	3719636	99.0	30 - 120	
165 Ho	1	5345603	0.83	5558876	96.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\023WASH.D\023WASH.D#
Date Acquired: Aug 4 2009 06:30 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.029 ppb	12.28	1.30	
23 Na	6	1	47.570 ppb	0.74	65.00	
24 Mg	6	1	54.960 ppb	0.32	65.00	
27 Al	45	1	34.190 ppb	0.42	39.00	
39 K	45	1	109.700 ppb	0.43	130.00	
43 Ca	45	1	50.300 ppb	12.46	65.00	
51 V	72	1	5.194 ppb	1.40	6.50	
52 Cr	72	1	2.165 ppb	0.83	2.60	
55 Mn	72	1	1.041 ppb	7.83	1.30	
57 Fe	72	1	55.780 ppb	1.03	65.00	
59 Co	72	1	1.076 ppb	4.16	1.30	
60 Ni	72	1	2.241 ppb	1.15	2.60	
63 Cu	72	1	2.192 ppb	2.30	2.60	
66 Zn	72	1	10.470 ppb	1.51	13.00	
75 As	72	1	5.234 ppb	0.88	6.50	
78 Se	72	1	4.928 ppb	3.74	6.50	
93 Nb	72	1	44.410 ppb	1.15	52.00	
95 Mo	72	1	2.015 ppb	1.75	2.60	
105 Pd	115	1	0.924 ppb	4.65	1.30	
107 Ag	115	1	5.423 ppb	1.73	6.50	
111 Cd	115	1	1.049 ppb	1.47	1.30	
118 Sn	115	1	10.170 ppb	1.85	13.00	
121 Sb	115	1	2.016 ppb	0.80	2.60	
137 Ba	115	1	1.044 ppb	1.15	1.30	
182 W	165	1	4.928 ppb	0.25	6.50	
195 Pt	165	1	1.060 ppb	6.37	1.30	
205 Tl	165	1	1.096 ppb	0.95	1.30	
208 Pb	165	1	1.109 ppb	1.02	1.30	
232 Th	165	1	2.531 ppb	4.87	2.60	
238 U	165	1	1.102 ppb	0.12	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	630390	0.15	613401	102.8	30 - 120	
45 Sc	1	3346385	0.19	3328415	100.5	30 - 120	
72 Ge	1	1491495	1.26	1482070	100.6	30 - 120	
115 In	1	3717652	0.76	3719636	99.9	30 - 120	
165 Ho	1	5359965	0.44	5558876	96.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 08/04/2009

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#
Date Acquired: Aug 4 2009 09:44 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:42 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	178484	1.47
24	Mg	6	1	14468	3.45
27	Al	45	1	12259	2.42
39	K	45	1	291167	0.16
43	Ca	45	1	117	30.31
51	V	72	1	62	998.48
52	Cr	72	1	3150	3.30
55	Mn	72	1	817	14.72
57	Fe	72	1	1950	3.11
59	Co	72	1	130	27.41
60	Ni	72	1	133	4.91
63	Cu	72	1	733	18.66
66	Zn	72	1	501	5.89
75	As	72	1	82	4.27
78	Se	72	1	760	16.24
93	Nb	72	1	9040	12.14
95	Mo	72	1	630	15.13
105	Pd	115	1	30	32.80
107	Ag	115	1	47	43.69
111	Cd	115	1	21	37.48
118	Sn	115	1	1340	13.26
121	Sb	115	1	107	20.01
137	Ba	115	1	127	14.14
182	W	165	1	970	10.27
195	Pt	165	1	193	16.47
205	Tl	165	1	123	18.04
208	Pb	165	1	272	24.67
232	Th	165	1	633	14.00
238	U	165	1	150	16.83

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	474143	0.42
45	Sc	1	2484770	0.24
72	Ge	1	1162179	0.64
115	In	1	3064413	0.99
165	Ho	1	4475388	0.32

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\090ICAL.D\090ICAL.D#
Date Acquired: Aug 4 2009 09:47 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:45 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	57654	0.96
23	Na	6	1	47290952	0.20
24	Mg	6	1	28755110	0.81
27	Al	45	1	26040040	0.31
39	K	45	1	46198380	0.52
43	Ca	45	1	115441	0.38
51	V	72	1	1322279	2.55
52	Cr	72	1	1278938	2.13
55	Mn	72	1	1389024	2.06
57	Fe	72	1	3272399	1.40
59	Co	72	1	1648690	2.74
60	Ni	72	1	372393	1.98
63	Cu	72	1	875339	1.93
66	Zn	72	1	175015	1.90
75	As	72	1	156097	1.98
78	Se	72	1	28029	1.73
93	Nb	72	1	4307845	2.13
95	Mo	72	1	418828	1.87
105	Pd	115	1	523266	0.92
107	Ag	115	1	1134900	0.27
111	Cd	115	1	220605	1.15
118	Sn	115	1	625068	1.30
121	Sb	115	1	692878	1.09
137	Ba	115	1	307510	1.18
182	W	165	1	947071	1.18
195	Pt	165	1	658257	1.17
205	Tl	165	1	2087953	0.61
208	Pb	165	1	2813110	0.86
232	Th	165	1	2965553	0.76
238	U	165	1	3109441	0.25

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	443695	0.31	474143	93.6	30 - 120	
45	Sc	1	2341196	0.60	2484770	94.2	30 - 120	
72	Ge	1	1096796	1.48	1162179	94.4	30 - 120	
115	In	1	2858030	0.81	3064413	93.3	30 - 120	
165	Ho	1	4293346	0.21	4475388	95.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\091_CCV.D\091_CCV.D#
Date Acquired: Aug 4 2009 09:50 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.75	ppb	2.38	50	101.5	90 - 110	
23 Na	6	1	5030.00	ppb	0.76	5000	100.6	90 - 110	
24 Mg	6	1	5070.00	ppb	2.00	5000	101.4	90 - 110	
27 Al	45	1	5077.00	ppb	0.58	5000	101.5	90 - 110	
39 K	45	1	5046.00	ppb	1.31	5000	100.9	90 - 110	
43 Ca	45	1	5110.00	ppb	1.76	5000	102.2	90 - 110	
51 V	72	1	49.26	ppb	0.37	50	98.5	90 - 110	
52 Cr	72	1	50.67	ppb	0.26	50	101.3	90 - 110	
55 Mn	72	1	50.26	ppb	0.80	50	100.5	90 - 110	
57 Fe	72	1	5175.00	ppb	1.75	5000	103.5	90 - 110	
59 Co	72	1	50.69	ppb	0.60	50	101.4	90 - 110	
60 Ni	72	1	51.38	ppb	0.38	50	102.8	90 - 110	
63 Cu	72	1	51.26	ppb	0.64	50	102.5	90 - 110	
66 Zn	72	1	51.04	ppb	0.43	50	102.1	90 - 110	
75 As	72	1	50.48	ppb	0.68	50	101.0	90 - 110	
78 Se	72	1	49.38	ppb	1.31	50	98.8	90 - 110	
93 Nb	72	1	104.00	ppb	0.79	100	104.0	90 - 110	
95 Mo	72	1	50.31	ppb	0.31	50	100.6	90 - 110	
105 Pd	115	1	50.43	ppb	2.44	50	100.9	90 - 110	
107 Ag	115	1	51.37	ppb	0.85	50	102.7	90 - 110	
111 Cd	115	1	50.44	ppb	0.84	50	100.9	90 - 110	
118 Sn	115	1	50.18	ppb	0.58	50	100.4	90 - 110	
121 Sb	115	1	50.27	ppb	0.24	50	100.5	90 - 110	
137 Ba	115	1	50.21	ppb	0.87	50	100.4	90 - 110	
182 W	165	1	49.77	ppb	1.37	50	99.5	90 - 110	
195 Pt	165	1	50.42	ppb	1.61	50	100.8	90 - 110	
205 Tl	165	1	51.69	ppb	0.62	50	103.4	90 - 110	
208 Pb	165	1	51.58	ppb	0.71	50	103.2	90 - 110	
232 Th	165	1	51.36	ppb	1.04	50	102.7	90 - 110	
238 U	165	1	50.74	ppb	0.66	50	101.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	445523	0.71	474143	94.0	30 - 120	
45 Sc	1	2345322	1.04	2484770	94.4	30 - 120	
72 Ge	1	1098830	0.62	1162179	94.5	30 - 120	
115 In	1	2880071	0.20	3064413	94.0	30 - 120	
165 Ho	1	4310631	0.28	4475388	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\092_CCB.D\092_CCB.D#
Date Acquired: Aug 4 2009 09:53 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.60	1.00	
23 Na	6	1	-2.469	ppb	14.44	20.00	
24 Mg	6	1	0.728	ppb	3.99	20.00	
27 Al	45	1	0.569	ppb	31.92	20.00	
39 K	45	1	1.055	ppb	52.13	20.00	
43 Ca	45	1	9.441	ppb	18.68	20.00	
51 V	72	1	-0.003	ppb	936.55	1.00	
52 Cr	72	1	0.019	ppb	67.57	1.00	
55 Mn	72	1	0.006	ppb	92.29	1.00	
57 Fe	72	1	0.940	ppb	70.09	20.00	
59 Co	72	1	0.007	ppb	26.51	1.00	
60 Ni	72	1	0.007	ppb	235.68	1.00	
63 Cu	72	1	0.012	ppb	109.20	1.00	
66 Zn	72	1	0.597	ppb	3.65	10.00	
75 As	72	1	0.006	ppb	196.78	1.00	
78 Se	72	1	0.133	ppb	38.77	1.00	
93 Nb	72	1	3.759	ppb	11.75	2.00	Fail
95 Mo	72	1	0.005	ppb	571.85	1.00	
105 Pd	115	1	0.037	ppb	17.09	1.00	
107 Ag	115	1	0.004	ppb	77.56	1.00	
111 Cd	115	1	0.004	ppb	100.36	1.00	
118 Sn	115	1	0.001	ppb	4722.60	10.00	
121 Sb	115	1	0.195	ppb	5.19	1.00	
137 Ba	115	1	0.000	ppb	1432.70	1.00	
182 W	165	1	0.065	ppb	15.72	5.00	
195 Pt	165	1	0.000	ppb	570.74	1.00	
205 Tl	165	1	0.034	ppb	3.20	1.00	
208 Pb	165	1	0.012	ppb	12.70	1.00	
232 Th	165	1	0.315	ppb	10.07	2.00	
238 U	165	1	0.014	ppb	4.38	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458285	0.52	474143	96.7	30 - 120	
45 Sc	1	2423480	1.64	2484770	97.5	30 - 120	
72 Ge	1	1125409	0.33	1162179	96.8	30 - 120	
115 In	1	2976971	0.11	3064413	97.1	30 - 120	
165 Ho	1	4386990	0.35	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\093WASH.D\093WASH.D#
Date Acquired: Aug 4 2009 09:56 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.970 ppb	1.25	1.30	
23 Na	6	1	49.500 ppb	0.87	65.00	
24 Mg	6	1	55.400 ppb	1.06	65.00	
27 Al	45	1	32.730 ppb	0.97	39.00	
39 K	45	1	104.900 ppb	0.89	130.00	
43 Ca	45	1	54.920 ppb	13.10	65.00	
51 V	72	1	5.096 ppb	3.25	6.50	
52 Cr	72	1	2.148 ppb	2.32	2.60	
55 Mn	72	1	1.052 ppb	2.55	1.30	
57 Fe	72	1	54.430 ppb	1.16	65.00	
59 Co	72	1	1.065 ppb	2.09	1.30	
60 Ni	72	1	2.263 ppb	5.73	2.60	
63 Cu	72	1	2.200 ppb	4.92	2.60	
66 Zn	72	1	10.700 ppb	1.85	13.00	
75 As	72	1	5.312 ppb	3.05	6.50	
78 Se	72	1	5.832 ppb	7.17	6.50	
93 Nb	72	1	45.720 ppb	2.05	52.00	
95 Mo	72	1	1.995 ppb	3.37	2.60	
105 Pd	115	1	0.969 ppb	8.73	1.30	
107 Ag	115	1	5.402 ppb	1.43	6.50	
111 Cd	115	1	1.111 ppb	2.62	1.30	
118 Sn	115	1	10.270 ppb	3.18	13.00	
121 Sb	115	1	2.053 ppb	1.10	2.60	
137 Ba	115	1	1.034 ppb	3.28	1.30	
182 W	165	1	5.145 ppb	1.66	6.50	
195 Pt	165	1	1.024 ppb	3.68	1.30	
205 Tl	165	1	1.113 ppb	1.88	1.30	
208 Pb	165	1	1.114 ppb	3.16	1.30	
232 Th	165	1	2.515 ppb	7.50	2.60	
238 U	165	1	1.095 ppb	1.48	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455069	0.82	474143	96.0	30 - 120	
45 Sc	1	2446968	0.47	2484770	98.5	30 - 120	
72 Ge	1	1128565	1.30	1162179	97.1	30 - 120	
115 In	1	2992883	0.67	3064413	97.7	30 - 120	
165 Ho	1	4387134	0.62	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\094ICSA.D\094ICSA.D#
Date Acquired: Aug 4 2009 09:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.01 ppb	86.63	1.00	
23 Na	6	1	98320.00 ppb	0.42	100.00	
24 Mg	6	1	95360.00 ppb	0.89	100.00	
27 Al	45	1	100700.00 ppb	1.38	100.00	
39 K	45	1	99400.00 ppb	1.67	100.00	
43 Ca	45	1	104800.00 ppb	1.65	100.00	
51 V	72	1	-0.28 ppb	37.57	1.00	
52 Cr	72	1	0.72 ppb	2.04	1.00	
55 Mn	72	1	3.64 ppb	0.48	1.00	
57 Fe	72	1	98190.00 ppb	0.33	100.00	
59 Co	72	1	1.57 ppb	3.16	1.00	
60 Ni	72	1	1.73 ppb	3.25	1.00	
63 Cu	72	1	1.54 ppb	0.54	1.00	
66 Zn	72	1	3.11 ppb	1.46	10.00	
75 As	72	1	0.47 ppb	5.96	1.00	
78 Se	72	1	-0.41 ppb	3.60	1.00	
93 Nb	72	1	4.26 ppb	8.33	2.00	
95 Mo	72	1	2031.00 ppb	1.28	2000.00	
105 Pd	115	1	0.11 ppb	11.68	1.00	
107 Ag	115	1	0.04 ppb	3.09	1.00	
111 Cd	115	1	3.27 ppb	2.45	1.00	
118 Sn	115	1	0.20 ppb	12.29	10.00	
121 Sb	115	1	0.30 ppb	4.78	1.00	
137 Ba	115	1	0.04 ppb	16.65	1.00	
182 W	165	1	0.14 ppb	23.34	5.00	
195 Pt	165	1	0.00 ppb	35.04	1.00	
205 Tl	165	1	0.03 ppb	46.05	1.00	
208 Pb	165	1	0.11 ppb	7.16	1.00	
232 Th	165	1	0.09 ppb	28.99	2.00	
238 U	165	1	0.00 ppb	200.21	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	459671	0.67	474143	96.9	30 - 120	
45 Sc	1	2308339	1.69	2484770	92.9	30 - 120	
72 Ge	1	1044007	0.53	1162179	89.8	30 - 120	
115 In	1	2661248	0.76	3064413	86.8	30 - 120	
165 Ho	1	4140212	0.09	4475388	92.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\095ICSB.D\095ICSB.D#
Date Acquired: Aug 4 2009 10:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	96.32	1.28	100	96.3	80 - 120	
23 Na	6	1	105200.00	0.58	110000	95.6	80 - 120	
24 Mg	6	1	102400.00	0.40	110000	93.1	80 - 120	
27 Al	45	1	107900.00	0.79	110000	98.1	80 - 120	
39 K	45	1	106300.00	0.33	110000	96.6	80 - 120	
43 Ca	45	1	111000.00	0.16	110000	100.9	80 - 120	
51 V	72	1	100.60	0.93	100	100.6	80 - 120	
52 Cr	72	1	100.70	0.13	100	100.7	80 - 120	
55 Mn	72	1	101.80	0.94	100	101.8	80 - 120	
57 Fe	72	1	104800.00	0.86	110000	95.3	80 - 120	
59 Co	72	1	99.01	0.04	100	99.0	80 - 120	
60 Ni	72	1	96.66	1.28	100	96.7	80 - 120	
63 Cu	72	1	94.38	1.35	100	94.4	80 - 120	
66 Zn	72	1	96.36	1.54	100	96.4	80 - 120	
75 As	72	1	99.30	1.06	100	99.3	80 - 120	
78 Se	72	1	99.29	3.35	100	99.3	80 - 120	
93 Nb	72	1	198.80	1.14	200	99.4	80 - 120	
95 Mo	72	1	2085.00	0.09	2100	99.3	80 - 120	
105 Pd	115	1	96.05	0.65	100	96.1	80 - 120	
107 Ag	115	1	88.64	5.52	100	88.6	80 - 120	
111 Cd	115	1	99.13	1.34	100	99.1	80 - 120	
118 Sn	115	1	100.50	1.16	100	100.5	80 - 120	
121 Sb	115	1	102.10	0.79	100	102.1	80 - 120	
137 Ba	115	1	102.40	1.38	100	102.4	80 - 120	
182 W	165	1	101.50	1.12	100	101.5	80 - 120	
195 Pt	165	1	95.01	0.62	100	95.0	80 - 120	
205 Tl	165	1	95.85	0.52	100	95.9	80 - 120	
208 Pb	165	1	95.62	0.56	100	95.6	80 - 120	
232 Th	165	1	99.13	1.09	100	99.1	80 - 120	
238 U	165	1	98.87	0.92	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458521	0.47	474143	96.7	30 - 120	
45 Sc	1	2282460	0.85	2484770	91.9	30 - 120	
72 Ge	1	1049641	1.14	1162179	90.3	30 - 120	
115 In	1	2646524	0.84	3064413	86.4	30 - 120	
165 Ho	1	4131415	0.80	4475388	92.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\096WASH.D\096WASH.D#
Date Acquired: Aug 4 2009 10:04 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.005 ppb	173.21	1.30	
23 Na	6	1	12.240 ppb	16.49	65.00	
24 Mg	6	1	8.620 ppb	21.44	65.00	
27 Al	45	1	10.170 ppb	15.99	39.00	
39 K	45	1	6.753 ppb	15.22	130.00	
43 Ca	45	1	9.370 ppb	32.31	65.00	
51 V	72	1	0.008 ppb	405.72	6.50	
52 Cr	72	1	0.026 ppb	46.31	2.60	
55 Mn	72	1	0.005 ppb	106.07	1.30	
57 Fe	72	1	11.250 ppb	18.36	65.00	
59 Co	72	1	0.010 ppb	10.14	1.30	
60 Ni	72	1	0.015 ppb	47.08	2.60	
63 Cu	72	1	-0.003 ppb	437.61	2.60	
66 Zn	72	1	0.066 ppb	29.89	13.00	
75 As	72	1	0.013 ppb	82.10	6.50	
78 Se	72	1	0.195 ppb	201.23	6.50	
93 Nb	72	1	4.577 ppb	12.60	52.00	
95 Mo	72	1	1.211 ppb	10.88	2.60	
105 Pd	115	1	0.013 ppb	64.65	1.30	
107 Ag	115	1	0.014 ppb	22.07	6.50	
111 Cd	115	1	0.008 ppb	27.07	1.30	
118 Sn	115	1	-0.023 ppb	88.90	13.00	
121 Sb	115	1	0.127 ppb	5.44	2.60	
137 Ba	115	1	-0.006 ppb	163.76	1.30	
182 W	165	1	0.067 ppb	4.32	6.50	
195 Pt	165	1	0.010 ppb	98.77	1.30	
205 Tl	165	1	0.012 ppb	10.40	1.30	
208 Pb	165	1	0.013 ppb	18.73	1.30	
232 Th	165	1	0.448 ppb	10.88	2.60	
238 U	165	1	0.020 ppb	8.71	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465019	1.73	474143	98.1	30 - 120	
45 Sc	1	2361340	0.44	2484770	95.0	30 - 120	
72 Ge	1	1114627	1.15	1162179	95.9	30 - 120	
115 In	1	2938079	0.52	3064413	95.9	30 - 120	
165 Ho	1	4404170	0.74	4475388	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\097_CCV.D\097_CCV.D#
Date Acquired: Aug 4 2009 10:07 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.87	ppb	2.72	50	101.7	90 - 110	
23 Na	6	1	5030.00	ppb	0.84	5000	100.6	90 - 110	
24 Mg	6	1	4975.00	ppb	0.37	5000	99.5	90 - 110	
27 Al	45	1	4999.00	ppb	0.47	5000	100.0	90 - 110	
39 K	45	1	5015.00	ppb	0.50	5000	100.3	90 - 110	
43 Ca	45	1	4978.00	ppb	1.01	5000	99.6	90 - 110	
51 V	72	1	49.01	ppb	1.42	50	98.0	90 - 110	
52 Cr	72	1	50.21	ppb	0.85	50	100.4	90 - 110	
55 Mn	72	1	49.79	ppb	0.40	50	99.6	90 - 110	
57 Fe	72	1	5145.00	ppb	0.75	5000	102.9	90 - 110	
59 Co	72	1	50.00	ppb	0.78	50	100.0	90 - 110	
60 Ni	72	1	50.92	ppb	1.18	50	101.8	90 - 110	
63 Cu	72	1	50.89	ppb	0.59	50	101.8	90 - 110	
66 Zn	72	1	50.52	ppb	0.98	50	101.0	90 - 110	
75 As	72	1	50.18	ppb	0.62	50	100.4	90 - 110	
78 Se	72	1	50.48	ppb	2.52	50	101.0	90 - 110	
93 Nb	72	1	102.30	ppb	0.52	100	102.3	90 - 110	
95 Mo	72	1	49.96	ppb	0.89	50	99.9	90 - 110	
105 Pd	115	1	51.24	ppb	1.91	50	102.5	90 - 110	
107 Ag	115	1	52.00	ppb	1.21	50	104.0	90 - 110	
111 Cd	115	1	50.74	ppb	1.30	50	101.5	90 - 110	
118 Sn	115	1	50.67	ppb	2.00	50	101.3	90 - 110	
121 Sb	115	1	50.48	ppb	0.65	50	101.0	90 - 110	
137 Ba	115	1	50.64	ppb	1.63	50	101.3	90 - 110	
182 W	165	1	50.21	ppb	0.95	50	100.4	90 - 110	
195 Pt	165	1	50.66	ppb	0.75	50	101.3	90 - 110	
205 Tl	165	1	51.44	ppb	0.95	50	102.9	90 - 110	
208 Pb	165	1	51.96	ppb	0.78	50	103.9	90 - 110	
232 Th	165	1	51.39	ppb	0.50	50	102.8	90 - 110	
238 U	165	1	51.14	ppb	0.75	50	102.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451853	0.49	474143	95.3	30 - 120	
45 Sc	1	2375883	0.80	2484770	95.6	30 - 120	
72 Ge	1	1117949	0.39	1162179	96.2	30 - 120	
115 In	1	2884699	0.90	3064413	94.1	30 - 120	
165 Ho	1	4343104	0.09	4475388	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG080409.B\098_CCB.D\098_CCB.D#
Date Acquired:	Aug 4 2009 10:10 pm
Operator:	TEL
Sample Name:	CCB
Misc Info:	
Vial Number:	1307
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update:	Aug 04 2009 09:48 pm
Sample Type:	CCB
Total Dil Factor:	1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.62	1.00	
23 Na	6	1	-0.490	ppb	61.81	20.00	
24 Mg	6	1	1.180	ppb	7.96	20.00	
27 Al	45	1	1.100	ppb	10.01	20.00	
39 K	45	1	2.088	ppb	54.65	20.00	
43 Ca	45	1	6.293	ppb	52.60	20.00	
51 V	72	1	0.014	ppb	77.05	1.00	
52 Cr	72	1	0.021	ppb	28.37	1.00	
55 Mn	72	1	-0.001	ppb	855.24	1.00	
57 Fe	72	1	1.036	ppb	33.15	20.00	
59 Co	72	1	0.006	ppb	23.17	1.00	
60 Ni	72	1	0.004	ppb	179.98	1.00	
63 Cu	72	1	0.011	ppb	54.22	1.00	
66 Zn	72	1	0.597	ppb	3.14	10.00	
75 As	72	1	0.015	ppb	1.13	1.00	
78 Se	72	1	0.358	ppb	47.89	1.00	
93 Nb	72	1	3.709	ppb	10.86	2.00	Fail
95 Mo	72	1	0.077	ppb	63.62	1.00	
105 Pd	115	1	0.027	ppb	62.89	1.00	
107 Ag	115	1	0.010	ppb	19.56	1.00	
111 Cd	115	1	0.006	ppb	124.41	1.00	
118 Sn	115	1	-0.013	ppb	18.38	10.00	
121 Sb	115	1	0.174	ppb	3.42	1.00	
137 Ba	115	1	-0.004	ppb	188.93	1.00	
182 W	165	1	0.059	ppb	19.97	5.00	
195 Pt	165	1	0.007	ppb	116.96	1.00	
205 Tl	165	1	0.023	ppb	14.74	1.00	
208 Pb	165	1	0.010	ppb	17.15	1.00	
232 Th	165	1	0.319	ppb	13.63	2.00	
238 U	165	1	0.012	ppb	11.50	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465208	0.92	474143	98.1	30 - 120	
45 Sc	1	2436587	0.89	2484770	98.1	30 - 120	
72 Ge	1	1130740	1.00	1162179	97.3	30 - 120	
115 In	1	3009733	1.46	3064413	98.2	30 - 120	
165 Ho	1	4399005	0.53	4475388	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\099WASH.D\099WASH.D#
Date Acquired: Aug 4 2009 10:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.886 ppb	5.66	1.30	
23 Na	6	1	50.810 ppb	1.06	65.00	
24 Mg	6	1	56.000 ppb	0.89	65.00	
27 Al	45	1	33.700 ppb	1.84	39.00	
39 K	45	1	110.100 ppb	2.95	130.00	
43 Ca	45	1	60.140 ppb	8.21	65.00	
51 V	72	1	5.031 ppb	2.05	6.50	
52 Cr	72	1	2.150 ppb	2.93	2.60	
55 Mn	72	1	1.027 ppb	2.91	1.30	
57 Fe	72	1	53.480 ppb	4.59	65.00	
59 Co	72	1	1.040 ppb	2.92	1.30	
60 Ni	72	1	2.121 ppb	5.54	2.60	
63 Cu	72	1	2.137 ppb	0.81	2.60	
66 Zn	72	1	10.480 ppb	0.89	13.00	
75 As	72	1	5.104 ppb	1.55	6.50	
78 Se	72	1	5.343 ppb	9.92	6.50	
93 Nb	72	1	44.650 ppb	1.78	52.00	
95 Mo	72	1	2.036 ppb	3.83	2.60	
105 Pd	115	1	0.925 ppb	0.87	1.30	
107 Ag	115	1	5.458 ppb	0.05	6.50	
111 Cd	115	1	1.039 ppb	1.83	1.30	
118 Sn	115	1	10.330 ppb	0.19	13.00	
121 Sb	115	1	2.032 ppb	1.67	2.60	
137 Ba	115	1	1.015 ppb	2.72	1.30	
182 W	165	1	4.992 ppb	2.53	6.50	
195 Pt	165	1	1.006 ppb	6.57	1.30	
205 Tl	165	1	1.109 ppb	1.70	1.30	
208 Pb	165	1	1.085 ppb	3.59	1.30	
232 Th	165	1	2.535 ppb	7.55	2.60	
238 U	165	1	1.089 ppb	0.63	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	466268	0.29	474143	98.3	30 - 120	
45 Sc	1	2447934	0.46	2484770	98.5	30 - 120	
72 Ge	1	1160377	0.46	1162179	99.8	30 - 120	
115 In	1	3020765	0.22	3064413	98.6	30 - 120	
165 Ho	1	4470835	1.08	4475388	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\103_CCV.D\103_CCV.D#
Date Acquired: Aug 4 2009 10:25 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.28	ppb	2.14	50	100.6	90 - 110	
23 Na	6	1	4992.00	ppb	1.18	5000	99.8	90 - 110	
24 Mg	6	1	5023.00	ppb	0.93	5000	100.5	90 - 110	
27 Al	45	1	5130.00	ppb	0.32	5000	102.6	90 - 110	
39 K	45	1	5118.00	ppb	1.21	5000	102.4	90 - 110	
43 Ca	45	1	5057.00	ppb	2.22	5000	101.1	90 - 110	
51 V	72	1	50.09	ppb	1.27	50	100.2	90 - 110	
52 Cr	72	1	51.30	ppb	2.05	50	102.6	90 - 110	
55 Mn	72	1	51.28	ppb	2.11	50	102.6	90 - 110	
57 Fe	72	1	5291.00	ppb	1.94	5000	105.8	90 - 110	
59 Co	72	1	51.04	ppb	1.54	50	102.1	90 - 110	
60 Ni	72	1	51.89	ppb	1.14	50	103.8	90 - 110	
63 Cu	72	1	52.55	ppb	1.70	50	105.1	90 - 110	
66 Zn	72	1	51.61	ppb	1.59	50	103.2	90 - 110	
75 As	72	1	51.49	ppb	2.14	50	103.0	90 - 110	
78 Se	72	1	52.27	ppb	0.90	50	104.5	90 - 110	
93 Nb	72	1	97.20	ppb	3.17	100	97.2	90 - 110	
95 Mo	72	1	51.47	ppb	1.86	50	102.9	90 - 110	
105 Pd	115	1	50.33	ppb	0.52	50	100.7	90 - 110	
107 Ag	115	1	51.20	ppb	1.13	50	102.4	90 - 110	
111 Cd	115	1	50.51	ppb	0.65	50	101.0	90 - 110	
118 Sn	115	1	50.09	ppb	1.28	50	100.2	90 - 110	
121 Sb	115	1	49.91	ppb	0.36	50	99.8	90 - 110	
137 Ba	115	1	50.13	ppb	1.27	50	100.3	90 - 110	
182 W	165	1	50.24	ppb	0.96	50	100.5	90 - 110	
195 Pt	165	1	50.77	ppb	0.49	50	101.5	90 - 110	
205 Tl	165	1	50.94	ppb	0.98	50	101.9	90 - 110	
208 Pb	165	1	52.16	ppb	0.35	50	104.3	90 - 110	
232 Th	165	1	51.35	ppb	0.64	50	102.7	90 - 110	
238 U	165	1	51.25	ppb	1.68	50	102.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	447184	0.90	474143	94.3	30 - 120	
45 Sc	1	2312946	0.44	2484770	93.1	30 - 120	
72 Ge	1	1065416	2.50	1162179	91.7	30 - 120	
115 In	1	2842346	0.30	3064413	92.8	30 - 120	
165 Ho	1	4216146	0.60	4475388	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\104_CCB.D\104_CCB.D#
Date Acquired: Aug 4 2009 10:28 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-1.388	ppb	16.22	20.00	
24 Mg	6	1	1.680	ppb	16.01	20.00	
27 Al	45	1	1.656	ppb	20.34	20.00	
39 K	45	1	2.240	ppb	29.77	20.00	
43 Ca	45	1	9.909	ppb	41.45	20.00	
51 V	72	1	0.027	ppb	76.41	1.00	
52 Cr	72	1	0.025	ppb	7.23	1.00	
55 Mn	72	1	0.008	ppb	122.53	1.00	
57 Fe	72	1	1.735	ppb	20.77	20.00	
59 Co	72	1	0.008	ppb	79.14	1.00	
60 Ni	72	1	0.005	ppb	260.75	1.00	
63 Cu	72	1	0.016	ppb	76.22	1.00	
66 Zn	72	1	0.581	ppb	0.81	10.00	
75 As	72	1	0.017	ppb	47.47	1.00	
78 Se	72	1	0.165	ppb	169.10	1.00	
93 Nb	72	1	3.203	ppb	10.95	2.00	Fail
95 Mo	72	1	0.006	ppb	107.43	1.00	
105 Pd	115	1	0.028	ppb	29.11	1.00	
107 Ag	115	1	0.009	ppb	28.48	1.00	
111 Cd	115	1	0.011	ppb	67.75	1.00	
118 Sn	115	1	0.006	ppb	554.16	10.00	
121 Sb	115	1	0.175	ppb	5.25	1.00	
137 Ba	115	1	0.012	ppb	49.97	1.00	
182 W	165	1	0.050	ppb	47.77	5.00	
195 Pt	165	1	-0.002	ppb	188.60	1.00	
205 Tl	165	1	0.024	ppb	8.44	1.00	
208 Pb	165	1	0.014	ppb	9.02	1.00	
232 Th	165	1	0.315	ppb	9.83	2.00	
238 U	165	1	0.016	ppb	3.39	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455735	0.38	474143	96.1	30 - 120	
45 Sc	1	2326399	1.68	2484770	93.6	30 - 120	
72 Ge	1	1077897	1.90	1162179	92.7	30 - 120	
115 In	1	2908241	0.58	3064413	94.9	30 - 120	
165 Ho	1	4259418	0.08	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\105WASH.D\105WASH.D#
Date Acquired: Aug 4 2009 10:31 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.956 ppb	22.42	1.30	
23 Na	6	1	43.810 ppb	0.76	65.00	
24 Mg	6	1	52.970 ppb	0.19	65.00	
27 Al	45	1	32.240 ppb	1.91	39.00	
39 K	45	1	108.000 ppb	3.32	130.00	
43 Ca	45	1	56.920 ppb	15.97	65.00	
51 V	72	1	5.027 ppb	2.57	6.50	
52 Cr	72	1	2.120 ppb	4.35	2.60	
55 Mn	72	1	1.043 ppb	4.77	1.30	
57 Fe	72	1	51.710 ppb	3.05	65.00	
59 Co	72	1	1.057 ppb	1.97	1.30	
60 Ni	72	1	2.225 ppb	5.10	2.60	
63 Cu	72	1	2.217 ppb	3.42	2.60	
66 Zn	72	1	10.490 ppb	1.83	13.00	
75 As	72	1	5.088 ppb	2.33	6.50	
78 Se	72	1	5.285 ppb	5.92	6.50	
93 Nb	72	1	44.440 ppb	2.43	52.00	
95 Mo	72	1	1.935 ppb	5.21	2.60	
105 Pd	115	1	0.935 ppb	5.81	1.30	
107 Ag	115	1	5.431 ppb	1.20	6.50	
111 Cd	115	1	1.034 ppb	4.40	1.30	
118 Sn	115	1	10.330 ppb	1.78	13.00	
121 Sb	115	1	2.021 ppb	1.57	2.60	
137 Ba	115	1	0.991 ppb	5.25	1.30	
182 W	165	1	5.080 ppb	3.66	6.50	
195 Pt	165	1	1.015 ppb	2.13	1.30	
205 Tl	165	1	1.113 ppb	2.57	1.30	
208 Pb	165	1	1.127 ppb	2.10	1.30	
232 Th	165	1	2.553 ppb	4.82	2.60	
238 U	165	1	1.106 ppb	0.30	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451108	0.38	474143	95.1	30 - 120	
45 Sc	1	2321208	0.32	2484770	93.4	30 - 120	
72 Ge	1	1091161	1.22	1162179	93.9	30 - 120	
115 In	1	2903775	0.62	3064413	94.8	30 - 120	
165 Ho	1	4258910	0.36	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\106_BLK.D\106_BLK.D#
Date Acquired: Aug 4 2009 10:34 pm
Operator: TEL
Sample Name: LG6WKB
Misc Info: BLANK 9208088 6020
Vial Number: 3411
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.006 ppb	173.21	2.00	
23 Na	6	1	-11.110 ppb	2.67	40.00	
24 Mg	6	1	-2.443 ppb	2.33	40.00	
27 Al	45	1	9.282 ppb	3.27	40.00	
39 K	45	1	-5.111 ppb	12.18	40.00	
43 Ca	45	1	-2.781 ppb	79.43	40.00	
51 V	72	1	0.016 ppb	48.75	2.00	
52 Cr	72	1	0.078 ppb	22.78	2.00	
55 Mn	72	1	0.011 ppb	20.66	2.00	
57 Fe	72	1	-2.358 ppb	13.87	40.00	
59 Co	72	1	-0.004 ppb	24.33	2.00	
60 Ni	72	1	0.028 ppb	89.01	2.00	
63 Cu	72	1	0.044 ppb	7.46	2.00	
66 Zn	72	1	0.207 ppb	8.07	20.00	
75 As	72	1	0.000 ppb	1063.60	2.00	
78 Se	72	1	0.081 ppb	405.60	2.00	
93 Nb	72	1	2.236 ppb	15.51	4.00	
95 Mo	72	1	-0.108 ppb	6.90	2.00	
105 Pd	115	1	0.007 ppb	65.31	2.00	
107 Ag	115	1	0.001 ppb	156.35	2.00	
111 Cd	115	1	0.000 ppb	1007.50	2.00	
118 Sn	115	1	2.580 ppb	3.76	20.00	
121 Sb	115	1	0.045 ppb	8.63	2.00	
137 Ba	115	1	-0.020 ppb	0.31	2.00	
182 W	165	1	0.020 ppb	43.41	10.00	
195 Pt	165	1	-0.013 ppb	20.43	2.00	
205 Tl	165	1	0.024 ppb	32.54	2.00	
208 Pb	165	1	0.008 ppb	12.06	2.00	
232 Th	165	1	0.050 ppb	13.70	4.00	
238 U	165	1	-0.001 ppb	58.20	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	443353	0.44	474143	93.5	30 - 120	
45 Sc	1	2303547	0.16	2484770	92.7	30 - 120	
72 Ge	1	1042111	1.32	1162179	89.7	30 - 120	
115 In	1	2848598	0.33	3064413	93.0	30 - 120	
165 Ho	1	4212309	0.60	4475388	94.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\107_LCS.D\107_LCS.D#
Date Acquired: Aug 4 2009 10:37 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG6WKC
Misc Info: LCS
Vial Number: 3412
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	41.10	1.77	40	102.8	80 - 120	
23 Na	6	1	-5.98	6.48	4000	-0.1	80 - 120	
24 Mg	6	1	-3.07	3.10	4000	-0.1	80 - 120	
27 Al	45	1	61.03	0.40	4000	1.5	80 - 120	
39 K	45	1	-5.36	5.54	4000	-0.1	80 - 120	
43 Ca	45	1	1.00	360.44	4000	0.0	80 - 120	
51 V	72	1	41.75	1.10	40	104.4	80 - 120	
52 Cr	72	1	43.53	1.31	40	108.8	80 - 120	
55 Mn	72	1	43.51	0.89	40	108.8	80 - 120	
57 Fe	72	1	-0.59	124.99	4000	0.0	80 - 120	
59 Co	72	1	43.57	0.96	40	108.9	80 - 120	
60 Ni	72	1	44.61	1.17	40	111.5	80 - 120	
63 Cu	72	1	45.11	0.62	40	112.8	80 - 120	
66 Zn	72	1	42.91	0.73	40	107.3	80 - 120	
75 As	72	1	40.85	0.29	40	102.1	80 - 120	
78 Se	72	1	40.47	2.43	40	101.2	80 - 120	
93 Nb	72	1	1.30	15.92	80	1.6	80 - 120	
95 Mo	72	1	42.75	0.78	40	106.9	80 - 120	
105 Pd	115	1	0.01	51.80	40	0.0	80 - 120	
107 Ag	115	1	44.07	0.36	40	110.2	80 - 120	
111 Cd	115	1	41.44	0.77	40	103.6	80 - 120	
118 Sn	115	1	2.47	1.50	40	6.2	80 - 120	
121 Sb	115	1	41.30	0.71	40	103.3	80 - 120	
137 Ba	115	1	42.58	1.26	40	106.5	80 - 120	
182 W	165	1	0.03	19.85	40	0.1	80 - 120	
195 Pt	165	1	0.03	56.43	40	0.1	80 - 120	
205 Tl	165	1	44.13	0.97	40	110.3	80 - 120	
208 Pb	165	1	44.82	1.03	40	112.1	80 - 120	
232 Th	165	1	40.79	3.92	40	102.0	80 - 120	
238 U	165	1	43.30	0.67	40	108.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	434159	0.13	474143	91.6	30 - 120	
45 Sc	1	2245964	0.46	2484770	90.4	30 - 120	
72 Ge	1	1040207	0.28	1162179	89.5	30 - 120	
115 In	1	2808160	0.40	3064413	91.6	30 - 120	
165 Ho	1	4176288	0.64	4475388	93.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#
Date Acquired: Aug 4 2009 10:40 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282 5X
Misc Info: D9G240312
Vial Number: 3501
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.01	ppb	173.25	3600	
23 Na	6	1	1,954,500.00	390900.00	ppb	0.47	100000	>LDR
24 Mg	6	1	43,585.00	8717.00	ppb	0.88	100000	
27 Al	45	1	67.35	13.47	ppb	1.31	100000	
39 K	45	1	5,845.00	1169.00	ppb	0.83	100000	
43 Ca	45	1	165,500.00	33100.00	ppb	0.25	100000	
51 V	72	1	13,115.00	2623.00	ppb	2.23	3600	
52 Cr	72	1	384.80	76.96	ppb	0.84	3600	
55 Mn	72	1	16.63	3.33	ppb	0.84	18000	
57 Fe	72	1	522.50	104.50	ppb	2.32	100000	
59 Co	72	1	0.22	0.04	ppb	6.05	3600	
60 Ni	72	1	3.84	0.77	ppb	5.45	3600	
63 Cu	72	1	0.78	0.16	ppb	2.22	3600	
66 Zn	72	1	2.76	0.55	ppb	12.62	3600	
75 As	72	1	382.50	76.50	ppb	1.87	3600	
78 Se	72	1	11.11	2.22	ppb	14.28	3600	
93 Nb	72	1	4.68	0.94	ppb	22.12	2000	
95 Mo	72	1	369.10	73.82	ppb	0.21	3600	
105 Pd	115	1	2.61	0.52	ppb	2.99	1000	
107 Ag	115	1	0.12	0.02	ppb	17.30	3600	
111 Cd	115	1	0.55	0.11	ppb	10.50	3600	
118 Sn	115	1	1.36	0.27	ppb	11.83	3600	
121 Sb	115	1	0.45	0.09	ppb	7.93	3600	
137 Ba	115	1	15.45	3.09	ppb	0.98	3600	
182 W	165	1	1,589.00	317.80	ppb	1.89	1000	
195 Pt	165	1	0.18	0.04	ppb	17.00	1000	
205 Tl	165	1	0.20	0.04	ppb	30.21	3600	
208 Pb	165	1	0.05	0.01	ppb	11.58	3600	
232 Th	165	1	5.76	1.15	ppb	24.14	1000	
238 U	165	1	8.22	1.64	ppb	0.77	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	436178	1.63	474143	92.0	30 - 120	
45 Sc	1	2274781	1.61	2484770	91.5	30 - 120	
72 Ge	1	993940	1.82	1162179	85.5	30 - 120	
115 In	1	2592855	0.52	3064413	84.6	30 - 120	
165 Ho	1	4047087	1.11	4475388	90.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\109SDIL.D\109SDIL.D#
Date Acquired: Aug 4 2009 10:43 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282P25
Misc Info: SERIAL DILUTION
Vial Number: 3502
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.00	ppb	0.00	0.00	0.0	90 - 110	
23 Na	6	1	75940.00	ppb	1.58	78180.00	97.1	90 - 110	
24 Mg	6	1	1755.00	ppb	0.84	1743.40	100.7	90 - 110	
27 Al	45	1	12.53	ppb	0.95	2.69	465.1	90 - 110	
39 K	45	1	246.20	ppb	2.26	233.80	105.3	90 - 110	
43 Ca	45	1	6618.00	ppb	1.13	6620.00	100.0	90 - 110	
51 V	72	1	494.20	ppb	0.71	524.60	94.2	90 - 110	
52 Cr	72	1	15.05	ppb	0.94	15.39	97.8	90 - 110	
55 Mn	72	1	0.71	ppb	2.74	0.67	107.3	90 - 110	
57 Fe	72	1	20.27	ppb	3.95	20.90	97.0	90 - 110	
59 Co	72	1	0.01	ppb	17.87	0.01	124.2	90 - 110	
60 Ni	72	1	0.34	ppb	5.58	0.15	224.1	90 - 110	
63 Cu	72	1	0.03	ppb	3.68	0.03	104.4	90 - 110	
66 Zn	72	1	0.05	ppb	23.95	0.11	48.0	90 - 110	
75 As	72	1	15.20	ppb	0.97	15.30	99.3	90 - 110	
78 Se	72	1	0.18	ppb	124.41	0.44	39.9	90 - 110	
93 Nb	72	1	0.39	ppb	25.09	0.19	208.8	90 - 110	
95 Mo	72	1	14.15	ppb	1.14	14.76	95.8	90 - 110	
105 Pd	115	1	0.11	ppb	19.09	0.10	104.5	90 - 110	
107 Ag	115	1	0.00	ppb	18.61	0.00	58.4	90 - 110	
111 Cd	115	1	0.02	ppb	35.53	0.02	74.9	90 - 110	
118 Sn	115	1	0.07	ppb	35.66	0.05	135.3	90 - 110	
121 Sb	115	1	0.02	ppb	19.22	0.02	124.1	90 - 110	
137 Ba	115	1	0.61	ppb	4.92	0.62	98.4	90 - 110	
182 W	165	1	65.26	ppb	1.61	63.56	102.7	90 - 110	
195 Pt	165	1	0.01	ppb	39.36	0.01	74.4	90 - 110	
205 Tl	165	1	0.01	ppb	27.81	0.01	71.8	90 - 110	
208 Pb	165	1	0.00	ppb	15.10	0.00	129.2	90 - 110	
232 Th	165	1	0.18	ppb	10.83	0.23	76.0	90 - 110	
238 U	165	1	0.32	ppb	3.00	0.33	98.6	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	454347	0.40	474143	95.8	30 - 120	
45 Sc	1	2296546	1.95	2484770	92.4	30 - 120	
72 Ge	1	1064111	1.02	1162179	91.6	30 - 120	
115 In	1	2784362	0.32	3064413	90.9	30 - 120	
165 Ho	1	4230492	1.00	4475388	94.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:10

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282P25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 109
Acquired: 08/04/2009 22:43:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0.05777	100		*	
7440-62-2	Vanadium	51	6341210	12355	13120	5.83		*	
7440-47-3	Chromium	52	189196	376.20	384.80	2.23		*	
7439-96-5	Manganese	55	10361	17.840	16.620	7.34		*	
7440-48-4	Cobalt	59	293	0.27260	0.21940	24.2		*	
7440-02-0	Nickel	60	1363	8.5950	3.8350	124		*	
7440-50-8	Copper	63	947	0.80950	0.77550	4.38		*	
7440-66-6	Zinc	66	549	1.3240	2.7550	51.9		*	
7440-38-2	Arsenic	75	23092	380.10	382.50	0.627	0.21	0.6	☑
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	☑
7439-98-7	Molybdenum	95	58016	353.80	369.10	4.15		*	
7440-22-4	Silver	107	73	0.07020	0.12020	41.6		*	
7440-43-9	Cadmium	111	54	0.40945	0.54640	25.1		*	
7440-31-5	Tin	118	1667	1.8425	1.3620	35.3		*	
7440-36-0	Antimony	121	249	0.56250	0.45300	24.2		*	
7440-39-3	Barium	137	1937	15.205	15.450	1.59		*	
7440-28-0	Thallium	205	236	0.14455	0.20120	28.2		*	
7439-92-1	Lead	208	334	0.06970	0.05397	29.1		*	
7440-61-1	Uranium	238	10075	8.1050	8.2190	1.39		*	
7440-23-5	Sodium	23	66615000	1898500	1954000	2.84		*	
7439-95-4	Magnesium	24	5179020	43875	43590	0.654		*	
7429-90-5	Aluminum	27	43329	313.35	67.330	365		*	
7440-09-7	Potassium	39	1378260	6155.0	5847.0	5.27		*	
7440-70-2	Calcium	43	74980	165450	165500	0.0302		*	
7439-89-6	Iron	57	8219	506.50	522.30	3.03		*	
7440-03-1	Niobium	93	16447	9.7700	4.6800	109		*	
7440-05-3	Palladium	105	583	2.7280	2.6100	4.52		*	
7440-33-7	Tungsten	182	609292	1631.5	1589.0	2.67		*	
7440-06-4	Platinum	195	217	0.13115	0.17630	25.6		*	
7440-29-1	Thorium	232	5708	4.3755	5.7600	24.0		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**
NC : Serial dilution concentration < 100 X MDL
E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\110PDS.D\110PDS.D#
Date Acquired: Aug 4 2009 10:46 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282Z
Misc Info: POST DIGESTION SPIKE
Vial Number: 3503
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Spike Ref. File: ---

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	199.70	0.01	ppb	0.42	200	99.8	75 - 125	
23 Na	6	1	380300.00	390900.00	ppb	0.45	200000	64.4	75 - 125	
24 Mg	6	1	8577.00	8717.00	ppb	0.39	200000	4.1	75 - 125	
27 Al	45	1	25.90	13.47	ppb	0.84	200000	0.0	75 - 125	
39 K	45	1	1168.00	1169.00	ppb	2.06	200000	0.6	75 - 125	
43 Ca	45	1	32420.00	33100.00	ppb	1.04	200000	13.9	75 - 125	
51 V	72	1	2790.00	2623.00	ppb	0.09	200	98.8	75 - 125	
52 Cr	72	1	283.10	76.96	ppb	1.15	200	102.2	75 - 125	
55 Mn	72	1	206.70	3.33	ppb	0.93	200	101.7	75 - 125	
57 Fe	72	1	99.88	104.50	ppb	0.92	200000	0.0	75 - 125	
59 Co	72	1	201.20	0.04	ppb	1.04	200	100.6	75 - 125	
60 Ni	72	1	202.30	0.77	ppb	0.98	200	100.8	75 - 125	
63 Cu	72	1	198.30	0.16	ppb	1.46	200	99.1	75 - 125	
66 Zn	72	1	199.70	0.55	ppb	1.18	200	99.6	75 - 125	
75 As	72	1	280.90	76.50	ppb	1.22	200	101.6	75 - 125	
78 Se	72	1	208.30	2.22	ppb	0.98	200	103.0	75 - 125	
93 Nb	72	1	0.54	0.94	ppb	19.66	400	0.1	75 - 125	
95 Mo	72	1	290.90	73.82	ppb	0.43	200	106.2	75 - 125	
105 Pd	115	1	0.50	0.52	ppb	9.48	200	0.2	75 - 125	
107 Ag	115	1	48.40	0.02	ppb	21.88	50	96.8	75 - 125	
111 Cd	115	1	196.20	0.11	ppb	1.16	200	98.0	75 - 125	
118 Sn	115	1	186.00	0.27	ppb	0.78	200	92.9	75 - 125	
121 Sb	115	1	201.00	0.09	ppb	0.92	200	100.5	75 - 125	
137 Ba	115	1	208.30	3.09	ppb	1.26	200	102.6	75 - 125	
182 W	165	1	312.40	317.80	ppb	0.69	200	60.3	75 - 125	
195 Pt	165	1	0.01	0.04	ppb	102.55	200	0.0	75 - 125	
205 Tl	165	1	188.80	0.04	ppb	1.71	200	94.4	75 - 125	
208 Pb	165	1	188.50	0.01	ppb	1.13	200	94.2	75 - 125	
232 Th	165	1	0.17	1.15	ppb	20.30	200	0.1	75 - 125	
238 U	165	1	196.50	1.64	ppb	0.98	200	97.4	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	447198	0.63	474143	94.3	30 - 120	
45 Sc	1	2276632	1.23	2484770	91.6	30 - 120	
72 Ge	1	1000813	1.44	1162179	86.1	30 - 120	
115 In	1	2621111	1.15	3064413	85.5	30 - 120	
165 Ho	1	4094710	0.62	4475388	91.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:13

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282Z** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 110
Acquired: 08/04/2009 22:46:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	116045	199.70	0.01155	99.8	200		☑
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	☐
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		☑
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		☐
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		☑
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		☑
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		☑
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		☑
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		☑
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		☑
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		☐
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		☑
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		☑
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		☑
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		☑
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		☑
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		☑
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		☑
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		☑
7440-23-5	Sodium	23	06460000	380300	390800				
7439-95-4	Magnesium	24	24859400	8577.0	8718.0				
7429-90-5	Aluminum	27	76784	25.900	13.466				
7440-09-7	Potassium	39	5482330	1168.0	1169.4				
7440-70-2	Calcium	43	363702	32420	33100				
7439-89-6	Iron	57	31489	99.880	104.46				
7440-03-1	Niobium	93	18313	0.53550	0.93600				
7440-05-3	Palladium	105	2417	0.49870	0.52200				
7440-33-7	Tungsten	182	2819960	312.40	317.80				
7440-06-4	Platinum	195	223	0.00742	0.03526				
7440-29-1	Thorium	232	5468	0.17270	1.1520				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#
Date Acquired: Aug 4 2009 10:49 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282S 5X
Misc Info: MATRIX SPIKE
Vial Number: 3504
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	8.23	0.01	ppb	8.01	40	20.6	50 - 150	
23 Na	6	1	390000.00	390900.00	ppb	2.86	4000	98.8	50 - 150	
24 Mg	6	1	8775.00	8717.00	ppb	1.88	4000	69.0	50 - 150	
27 Al	45	1	12.30	13.47	ppb	1.88	4000	0.3	50 - 150	
39 K	45	1	1182.00	1169.00	ppb	0.79	4000	22.9	50 - 150	
43 Ca	45	1	32920.00	33100.00	ppb	0.39	4000	88.7	50 - 150	
51 V	72	1	2708.00	2623.00	ppb	1.55	40	101.7	50 - 150	
52 Cr	72	1	87.61	76.96	ppb	0.28	40	74.9	50 - 150	
55 Mn	72	1	12.06	3.33	ppb	1.72	40	27.8	50 - 150	
57 Fe	72	1	106.60	104.50	ppb	5.04	4000	2.6	50 - 150	
59 Co	72	1	8.79	0.04	ppb	0.93	40	21.9	50 - 150	
60 Ni	72	1	9.19	0.77	ppb	3.26	40	22.5	50 - 150	
63 Cu	72	1	8.74	0.16	ppb	1.34	40	21.8	50 - 150	
66 Zn	72	1	8.85	0.55	ppb	1.84	40	21.8	50 - 150	
75 As	72	1	87.97	76.50	ppb	0.97	40	75.5	50 - 150	
78 Se	72	1	11.04	2.22	ppb	2.73	40	26.1	50 - 150	
93 Nb	72	1	0.31	0.94	ppb	31.47	80	0.4	50 - 150	
95 Mo	72	1	84.02	73.82	ppb	0.52	40	73.8	50 - 150	
105 Pd	115	1	0.48	0.52	ppb	5.03	40	1.2	50 - 150	
107 Ag	115	1	8.01	0.02	ppb	0.64	40	20.0	50 - 150	
111 Cd	115	1	8.34	0.11	ppb	1.25	40	20.8	50 - 150	
118 Sn	115	1	0.52	0.27	ppb	4.93	40	1.3	50 - 150	
121 Sb	115	1	8.85	0.09	ppb	1.25	40	22.1	50 - 150	
137 Ba	115	1	11.90	3.09	ppb	2.04	40	27.6	50 - 150	
182 W	165	1	320.40	317.80	ppb	0.74	40	89.5	50 - 150	
195 Pt	165	1	0.00	0.04	ppb	550.43	40	0.0	50 - 150	
205 Tl	165	1	8.18	0.04	ppb	0.67	40	20.4	50 - 150	
208 Pb	165	1	9.53	0.01	ppb	0.40	40	23.8	50 - 150	
232 Th	165	1	8.09	1.15	ppb	3.41	40	19.7	50 - 150	
238 U	165	1	10.34	1.64	ppb	0.19	40	24.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	456052	0.71	474143	96.2	30 - 120	
45 Sc	1	2346727	1.70	2484770	94.4	30 - 120	
72 Ge	1	1003004	0.29	1162179	86.3	30 - 120	
115 In	1	2646059	0.29	3064413	86.3	30 - 120	
165 Ho	1	4172310	0.47	4475388	93.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\112_MSD.D\112_MSD.D#
Date Acquired: Aug 4 2009 10:51 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282D 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 3505
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.47	ppb	4.31	8.23	2.93	20	
23 Na	6	1	384100.00	ppb	2.05	390000.00	1.52	20	
24 Mg	6	1	8659.00	ppb	1.83	8775.00	1.33	20	
27 Al	45	1	36.63	ppb	2.29	12.30	99.45	20	
39 K	45	1	1173.00	ppb	1.07	1182.00	0.76	20	
43 Ca	45	1	32700.00	ppb	1.37	32920.00	0.67	20	
51 V	72	1	2605.00	ppb	1.83	2708.00	3.88	20	
52 Cr	72	1	85.60	ppb	0.30	87.61	2.32	20	
55 Mn	72	1	11.58	ppb	0.73	12.06	4.06	20	
57 Fe	72	1	100.10	ppb	1.57	106.60	6.29	20	
59 Co	72	1	8.59	ppb	1.00	8.78	2.29	20	
60 Ni	72	1	8.86	ppb	1.48	9.19	3.62	20	
63 Cu	72	1	8.41	ppb	1.28	8.74	3.90	20	
66 Zn	72	1	8.96	ppb	2.22	8.85	1.29	20	
75 As	72	1	84.83	ppb	0.04	87.97	3.63	20	
78 Se	72	1	11.10	ppb	4.27	11.04	0.54	20	
93 Nb	72	1	0.20	ppb	41.77	0.31	44.27	20	
95 Mo	72	1	82.09	ppb	0.48	84.02	2.32	20	
105 Pd	115	1	0.46	ppb	7.30	0.48	3.69	20	
107 Ag	115	1	8.00	ppb	1.88	8.01	0.21	20	
111 Cd	115	1	8.35	ppb	1.35	8.34	0.19	20	
118 Sn	115	1	0.40	ppb	18.83	0.52	27.74	20	
121 Sb	115	1	8.67	ppb	2.14	8.85	2.15	20	
137 Ba	115	1	11.66	ppb	1.15	11.90	2.04	20	
182 W	165	1	317.80	ppb	1.18	320.40	0.81	20	
195 Pt	165	1	0.00	ppb	83.52	0.00	799.57	20	
205 Tl	165	1	8.05	ppb	1.80	8.18	1.63	20	
208 Pb	165	1	8.11	ppb	1.87	9.53	16.14	20	
232 Th	165	1	8.21	ppb	0.18	8.09	1.40	20	
238 U	165	1	10.25	ppb	1.88	10.34	0.87	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	457621	0.75	474143	96.5	30 - 120	
45 Sc	1	2354252	2.04	2484770	94.7	30 - 120	
72 Ge	1	1033720	0.41	1162179	88.9	30 - 120	
115 In	1	2666740	1.63	3064413	87.0	30 - 120	
165 Ho	1	4188523	1.14	4475388	93.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\113SMPL.D\113SMPL.D#
Date Acquired: Aug 4 2009 10:54 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3WE 5X
Misc Info: D9G250146
Vial Number: 3506
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	540,500.00	108100.00	ppb	0.78	100000	>LDR
24 Mg	6	1	135,600.00	27120.00	ppb	1.34	100000	
27 Al	45	1	66.60	13.32	ppb	1.76	100000	
39 K	45	1	12,845.00	2569.00	ppb	0.26	100000	
43 Ca	45	1	224,150.00	44830.00	ppb	0.59	100000	
51 V	72	1	46.25	9.25	ppb	4.95	3600	
52 Cr	72	1	94.35	18.87	ppb	1.10	3600	
55 Mn	72	1	0.93	0.19	ppb	10.17	18000	
57 Fe	72	1	691.00	138.20	ppb	1.49	100000	
59 Co	72	1	0.99	0.20	ppb	7.03	3600	
60 Ni	72	1	12.70	2.54	ppb	5.67	3600	
63 Cu	72	1	0.68	0.14	ppb	9.54	3600	
66 Zn	72	1	3.86	0.77	ppb	6.49	3600	
75 As	72	1	156.60	31.32	ppb	0.99	3600	
78 Se	72	1	7.35	1.47	ppb	37.07	3600	
93 Nb	72	1	0.17	0.03	ppb	202.73	2000	
95 Mo	72	1	40.28	8.06	ppb	3.96	3600	
105 Pd	115	1	4.72	0.94	ppb	1.64	1000	
107 Ag	115	1	0.03	0.01	ppb	18.39	3600	
111 Cd	115	1	0.06	0.01	ppb	48.30	3600	
118 Sn	115	1	1.46	0.29	ppb	4.91	3600	
121 Sb	115	1	0.18	0.04	ppb	21.78	3600	
137 Ba	115	1	14.11	2.82	ppb	1.98	3600	
182 W	165	1	3.36	0.67	ppb	1.71	1000	
195 Pt	165	1	0.05	0.01	ppb	38.59	1000	
205 Tl	165	1	0.05	0.01	ppb	16.17	3600	
208 Pb	165	1	0.08	0.02	ppb	16.26	3600	
232 Th	165	1	1.55	0.31	ppb	17.87	1000	
238 U	165	1	55.00	11.00	ppb	1.26	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477981	0.32	474143	100.8	30 - 120	
45 Sc	1	2396366	1.00	2484770	96.4	30 - 120	
72 Ge	1	1069958	1.82	1162179	92.1	30 - 120	
115 In	1	2824370	0.48	3064413	92.2	30 - 120	
165 Ho	1	4347158	1.06	4475388	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\114SMPL.D\114SMPL.D#
Date Acquired: Aug 4 2009 10:57 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3W9 5X
Misc Info: D9G250155
Vial Number: 3507
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	100.00	3600	
23 Na	6	1	803,500.00	160700.00	ppb	0.95	100000	>LDR
24 Mg	6	1	104,600.00	20920.00	ppb	1.62	100000	
27 Al	45	1	7.07	1.41	ppb	18.99	100000	
39 K	45	1	49,190.00	9838.00	ppb	1.07	100000	
43 Ca	45	1	213,750.00	42750.00	ppb	1.04	100000	
51 V	72	1	-52.35	-10.47	ppb	16.90	3600	
52 Cr	72	1	4,215.00	843.00	ppb	0.53	3600	
55 Mn	72	1	11.23	2.25	ppb	1.02	18000	
57 Fe	72	1	654.50	130.90	ppb	0.23	100000	
59 Co	72	1	1.56	0.31	ppb	2.98	3600	
60 Ni	72	1	10.86	2.17	ppb	2.43	3600	
63 Cu	72	1	0.41	0.08	ppb	11.30	3600	
66 Zn	72	1	1.10	0.22	ppb	3.81	3600	
75 As	72	1	103.75	20.75	ppb	1.10	3600	
78 Se	72	1	5.08	1.02	ppb	21.06	3600	
93 Nb	72	1	0.24	0.05	ppb	153.47	2000	
95 Mo	72	1	25.98	5.20	ppb	3.18	3600	
105 Pd	115	1	4.09	0.82	ppb	6.25	1000	
107 Ag	115	1	0.02	0.00	ppb	146.33	3600	
111 Cd	115	1	0.09	0.02	ppb	4.38	3600	
118 Sn	115	1	1.14	0.23	ppb	11.01	3600	
121 Sb	115	1	0.18	0.04	ppb	32.08	3600	
137 Ba	115	1	35.68	7.14	ppb	2.20	3600	
182 W	165	1	1.90	0.38	ppb	3.59	1000	
195 Pt	165	1	0.06	0.01	ppb	56.86	1000	
205 Tl	165	1	0.09	0.02	ppb	3.65	3600	
208 Pb	165	1	0.07	0.01	ppb	29.05	3600	
232 Th	165	1	0.71	0.14	ppb	15.80	1000	
238 U	165	1	26.74	5.35	ppb	1.02	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	481575	0.05	474143	101.6	30 - 120	
45 Sc	1	2403823	1.78	2484770	96.7	30 - 120	
72 Ge	1	1066209	1.23	1162179	91.7	30 - 120	
115 In	1	2812335	1.47	3064413	91.8	30 - 120	
165 Ho	1	4362379	1.24	4475388	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\115SMPL.D\115SMPL.D#
Date Acquired: Aug 4 2009 11:00 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3XG 5X
Misc Info: D9G250157
Vial Number: 3508
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.14	0.03	ppb	69.53	3600	
23 Na	6	1	1,612,000.00	322400.00	ppb	0.70	100000	>LDR
24 Mg	6	1	164,300.00	32860.00	ppb	0.31	100000	
27 Al	45	1	158.35	31.67	ppb	0.89	100000	
39 K	45	1	27,445.00	5489.00	ppb	0.37	100000	
43 Ca	45	1	502,000.00	100400.00	ppb	1.91	100000	>LDR
51 V	72	1	-76.55	-15.31	ppb	28.13	3600	
52 Cr	72	1	6,030.00	1206.00	ppb	2.17	3600	
55 Mn	72	1	36.22	7.24	ppb	3.63	18000	
57 Fe	72	1	1,674.50	334.90	ppb	1.26	100000	
59 Co	72	1	0.88	0.18	ppb	10.91	3600	
60 Ni	72	1	6.49	1.30	ppb	1.24	3600	
63 Cu	72	1	1.64	0.33	ppb	13.57	3600	
66 Zn	72	1	9.54	1.91	ppb	2.31	3600	
75 As	72	1	183.25	36.65	ppb	1.59	3600	
78 Se	72	1	9.87	1.97	ppb	2.16	3600	
93 Nb	72	1	0.05	0.01	ppb	590.02	2000	
95 Mo	72	1	25.86	5.17	ppb	2.65	3600	
105 Pd	115	1	9.63	1.93	ppb	5.84	1000	
107 Ag	115	1	0.03	0.01	ppb	32.12	3600	
111 Cd	115	1	0.06	0.01	ppb	21.45	3600	
118 Sn	115	1	2.09	0.42	ppb	7.46	3600	
121 Sb	115	1	0.19	0.04	ppb	16.41	3600	
137 Ba	115	1	21.18	4.24	ppb	2.29	3600	
182 W	165	1	2.36	0.47	ppb	4.43	1000	
195 Pt	165	1	0.75	0.15	ppb	5.04	1000	
205 Tl	165	1	0.18	0.04	ppb	8.09	3600	
208 Pb	165	1	0.34	0.07	ppb	5.55	3600	
232 Th	165	1	0.31	0.06	ppb	17.38	1000	
238 U	165	1	20.78	4.16	ppb	0.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	474840	0.28	474143	100.1	30 - 120	
45 Sc	1	2418556	0.76	2484770	97.3	30 - 120	
72 Ge	1	1026866	2.28	1162179	88.4	30 - 120	
115 In	1	2732762	1.46	3064413	89.2	30 - 120	
165 Ho	1	4267340	0.43	4475388	95.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\116_CCV.D\116_CCV.D#
Date Acquired: Aug 4 2009 11:03 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.03	ppb	1.20	50	100.1	90 - 110	
23 Na	6	1	4958.00	ppb	0.71	5000	99.2	90 - 110	
24 Mg	6	1	4855.00	ppb	0.68	5000	97.1	90 - 110	
27 Al	45	1	5029.00	ppb	0.18	5000	100.6	90 - 110	
39 K	45	1	5031.00	ppb	0.89	5000	100.6	90 - 110	
43 Ca	45	1	5069.00	ppb	0.53	5000	101.4	90 - 110	
51 V	72	1	49.69	ppb	0.91	50	99.4	90 - 110	
52 Cr	72	1	51.07	ppb	0.29	50	102.1	90 - 110	
55 Mn	72	1	50.66	ppb	0.58	50	101.3	90 - 110	
57 Fe	72	1	5230.00	ppb	0.60	5000	104.6	90 - 110	
59 Co	72	1	50.66	ppb	1.03	50	101.3	90 - 110	
60 Ni	72	1	51.72	ppb	0.66	50	103.4	90 - 110	
63 Cu	72	1	51.50	ppb	0.97	50	103.0	90 - 110	
66 Zn	72	1	51.32	ppb	0.83	50	102.6	90 - 110	
75 As	72	1	50.86	ppb	1.41	50	101.7	90 - 110	
78 Se	72	1	51.46	ppb	2.98	50	102.9	90 - 110	
93 Nb	72	1	93.95	ppb	0.33	100	94.0	90 - 110	
95 Mo	72	1	51.05	ppb	1.81	50	102.1	90 - 110	
105 Pd	115	1	50.34	ppb	0.79	50	100.7	90 - 110	
107 Ag	115	1	51.43	ppb	0.27	50	102.9	90 - 110	
111 Cd	115	1	50.48	ppb	0.55	50	101.0	90 - 110	
118 Sn	115	1	50.00	ppb	0.64	50	100.0	90 - 110	
121 Sb	115	1	50.12	ppb	0.37	50	100.2	90 - 110	
137 Ba	115	1	50.31	ppb	0.70	50	100.6	90 - 110	
182 W	165	1	50.18	ppb	1.38	50	100.4	90 - 110	
195 Pt	165	1	50.81	ppb	1.87	50	101.6	90 - 110	
205 Tl	165	1	51.62	ppb	1.51	50	103.2	90 - 110	
208 Pb	165	1	52.02	ppb	1.59	50	104.0	90 - 110	
232 Th	165	1	51.15	ppb	0.19	50	102.3	90 - 110	
238 U	165	1	51.20	ppb	1.60	50	102.4	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477218	1.17	474143	100.6	30 - 120	
45 Sc	1	2413621	0.42	2484770	97.1	30 - 120	
72 Ge	1	1120205	0.47	1162179	96.4	30 - 120	
115 In	1	2979247	0.40	3064413	97.2	30 - 120	
165 Ho	1	4435335	0.48	4475388	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\117_CCB.D\117_CCB.D#
Date Acquired: Aug 4 2009 11:06 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	47.410	ppb	7.00	20.00	Fail
24 Mg	6	1	1.735	ppb	35.06	20.00	
27 Al	45	1	1.030	ppb	60.93	20.00	
39 K	45	1	4.946	ppb	24.89	20.00	
43 Ca	45	1	10.440	ppb	14.99	20.00	
51 V	72	1	0.087	ppb	2.99	1.00	
52 Cr	72	1	0.054	ppb	26.90	1.00	
55 Mn	72	1	0.003	ppb	257.57	1.00	
57 Fe	72	1	0.684	ppb	55.47	20.00	
59 Co	72	1	0.011	ppb	33.89	1.00	
60 Ni	72	1	0.002	ppb	184.29	1.00	
63 Cu	72	1	0.032	ppb	10.84	1.00	
66 Zn	72	1	0.631	ppb	5.90	10.00	
75 As	72	1	0.015	ppb	57.71	1.00	
78 Se	72	1	0.149	ppb	453.29	1.00	
93 Nb	72	1	2.798	ppb	11.28	2.00	Fail
95 Mo	72	1	-0.015	ppb	88.80	1.00	
105 Pd	115	1	0.025	ppb	10.21	1.00	
107 Ag	115	1	0.010	ppb	44.97	1.00	
111 Cd	115	1	0.012	ppb	47.25	1.00	
118 Sn	115	1	-0.019	ppb	40.67	10.00	
121 Sb	115	1	0.157	ppb	6.34	1.00	
137 Ba	115	1	0.018	ppb	52.55	1.00	
182 W	165	1	0.149	ppb	7.65	5.00	
195 Pt	165	1	0.012	ppb	58.91	1.00	
205 Tl	165	1	0.026	ppb	18.33	1.00	
208 Pb	165	1	0.014	ppb	21.75	1.00	
232 Th	165	1	0.316	ppb	8.31	2.00	
238 U	165	1	0.016	ppb	6.18	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477705	0.35	474143	100.8	30 - 120	
45 Sc	1	2438330	0.66	2484770	98.1	30 - 120	
72 Ge	1	1136995	0.64	1162179	97.8	30 - 120	
115 In	1	3039039	0.82	3064413	99.2	30 - 120	
165 Ho	1	4487402	0.88	4475388	100.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\118WASH.D\118WASH.D#
Date Acquired: Aug 4 2009 11:09 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.990 ppb	10.14	1.30	
23 Na	6	1	82.900 ppb	1.32	65.00	
24 Mg	6	1	53.540 ppb	2.05	65.00	
27 Al	45	1	32.510 ppb	1.61	39.00	
39 K	45	1	107.800 ppb	3.48	130.00	
43 Ca	45	1	51.340 ppb	18.06	65.00	
51 V	72	1	5.078 ppb	2.70	6.50	
52 Cr	72	1	2.152 ppb	2.87	2.60	
55 Mn	72	1	1.076 ppb	1.82	1.30	
57 Fe	72	1	53.250 ppb	4.55	65.00	
59 Co	72	1	1.064 ppb	1.86	1.30	
60 Ni	72	1	2.188 ppb	7.06	2.60	
63 Cu	72	1	2.215 ppb	1.55	2.60	
66 Zn	72	1	10.760 ppb	2.15	13.00	
75 As	72	1	5.152 ppb	0.85	6.50	
78 Se	72	1	5.134 ppb	5.71	6.50	
93 Nb	72	1	43.860 ppb	0.66	52.00	
95 Mo	72	1	1.972 ppb	3.43	2.60	
105 Pd	115	1	0.934 ppb	2.26	1.30	
107 Ag	115	1	5.456 ppb	1.46	6.50	
111 Cd	115	1	1.059 ppb	2.85	1.30	
118 Sn	115	1	10.340 ppb	1.71	13.00	
121 Sb	115	1	2.028 ppb	1.83	2.60	
137 Ba	115	1	1.042 ppb	4.45	1.30	
182 W	165	1	5.136 ppb	1.94	6.50	
195 Pt	165	1	0.977 ppb	4.60	1.30	
205 Tl	165	1	1.116 ppb	0.67	1.30	
208 Pb	165	1	1.107 ppb	3.23	1.30	
232 Th	165	1	2.504 ppb	5.02	2.60	
238 U	165	1	1.092 ppb	0.67	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	476982	0.69	474143	100.6	30 - 120	
45 Sc	1	2433824	0.31	2484770	97.9	30 - 120	
72 Ge	1	1126114	0.86	1162179	96.9	30 - 120	
115 In	1	3000501	0.62	3064413	97.9	30 - 120	
165 Ho	1	4482447	0.35	4475388	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9G250157

Client: Northgate Environmental

Batch(es) #: 9208088

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: K. Hill 8/5/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9G250157	1	SE	LG3XG1AC	20090804	6020TOTA	9208088	AG080409	024
D9G250157	1	AS	LG3XG1AA	20090804	6020TOTA	9208088	AG080409	024

METALS
PREPARATION LOGS
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Batch Number: **9208088**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: Katie Stoltz

Prep Date: 07/29/09
Due Date: 08/05/09

Lot	Work Order			Initial Weight/Volume
D9G270000 Water	**LG6WK**	B	Due Date: SDG:	50 mL
D9G270000 Water	**LG6WK**	C	Due Date: SDG:	50 mL
D9G240312 Water	**LG282** Total		Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	S	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G240312 Water	**LG282** Total	D	Due Date: 08/05/09 SDG: 8304615	50 mL
D9G250146 Water	**LG3WE** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250155 Water	**LG3W9** Total		Due Date: 08/06/09 SDG: 8304615	50 mL
D9G250157 Water	**LG3XG** Total		Due Date: 08/06/09 SDG: 8304615	50 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

ICPMS ELEMENTS WITHIN THE BATCH:

AS SE

Checked 8/4/09

METALS PREP SHEET
SOP: DEN-IP-0014

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH #	9208088	**ALLIQUOTTED BY:**	KS
PREP DATE:	7.29.2009	**DIGESTED BY:**	KS

CONSUMABLES USED

Digestion Cups: **Manufacturer:** Environmental Express **Lot #:** A901LS267

One or more samples were filtered prior to analysis at the instrument. ☐ Yes ☑ No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials: KS

STANDARDS USED

Standard ID	Verification #	Exp. Date	Spike Amount	Pipette ID
2008Cal-1	STD-3775-09	6/23/10	100uL	15
2008Cal-2	STD-2637-09	5/1/10	100uL	15

REAGENTS USED

Reagent	Manufacturer	Lot #	Volume Used (mL)
HNO_3	JT Baker	H12022	3

TEMPERATURE CYCLES

Thermometer ID: 14859 Block & Cup # : 5, 34

Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3	7:00	92	11:20	96
HNO3	11:30	92	12:00	94
HNO3				

Samples and QC revolumed to: 50 mL Analyst's Initials KS

COMMENTS:

I certify that all information above is correct and complete.

Signature: Katie D... ***Date:*** 7.29.09

METALS
SAMPLE DATA
ICP-MS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ICP-MS Standard and Spike True Values

Element	Cal. Std. 100 ppb	Initial Calibration Standard	Continuing Calibration Standard	Interference Check Sample A	Interference Check Sample AB	Laboratory Control Sample and Duplicate	Matrix Spike Sample and Duplicate	Post Digestion Spike
Aluminum	100	40	50	100,000 Aluminum	--	40	40	200
Antimony	100	40	50	100,000 Calcium	100	40	40	200
Arsenic	100	40	50	100,000 Iron	100	40	40	200
Barium	100	40	50	100,000 Magnesium	100	40	40	200
Beryllium	100	40	50	100,000 Sodium	100	40	40	200
Cadmium	100	40	50	100,000 Phosphorus	100	40	40	200
Chromium	100	40	50	100,000 Potassium	100	40	40	200
Cobalt	100	40	50	100,000 Sulfur	100	40	40	200
Copper	100	40	50	200,000 Carbon	100	40	40	200
Lead	100	40	50	1,000,000 Chloride	100	40	40	200
Manganese	100	40	50	2000 Molybdenum	--	40	40	200
Molybdenum	100	40	50	2000 Titanium	100	40	40	200
Nickel	100	40	50		100	40	40	200
Selenium	100	40	50		100	40	40	200
Silver	100	40	50		100	40	40	50
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	200
Uranium	100	40	50		100	40	40	200
Vanadium	100	40	50		100	40	40	200
Zinc	100	40	50		100	40	40	200

All units are ug/L.

Due to the presence of trace contaminants in the ICSA solution, the % recovery for the ICSAB solution is calculated by subtracting the levels in the ICSA from the ICSAB.

Quality Control Standards

ICV = Initial Calibration Verification (Second Source)
CCV = Continuing Calibration Verification

ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank

TestAmerica Denver

Standards Preparation Logbook Record

Aug-04-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD4841-08, 1000 Zn (Inorganic Ventures)

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-ZN02045 Vendor's Expiration Date: 10-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 09-04-2008 Date Received: 09-04-2008
Date Expires(1): 10-01-2009 (None)
Date Expires(2): 10-01-2009 (None)
(METALS)-Inventory ID: 779

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	1,000.0	1,000.0

STD6653-08, 1000 Se

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SE02003 Vendor's Expiration Date: 12-01-2009
Solvent: 2% HNO3
Date Prep./Opened: 11-25-2008 Date Received: 11-25-2008
Date Expires(1): 12-01-2009 (None)
Date Expires(2): 12-01-2009 (None)
(METALS)-Inventory ID: 803

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1,000.0

STD1198-09, 1000 mg/L Sn

Analyst: trudelll

Vendor: Inorganic Ventures Lot No.: B2-SN02016 Vendor's Expiration Date: 03-01-2010
Solvent: 1% HNO3
Date Prep./Opened: 03-02-2009 Date Received: 03-02-2009
Date Expires(1): 03-01-2010 (None)
Date Expires(2): 03-01-2010 (None)
(METALS)-Inventory ID: 833

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HN03 Lot No.: H02026 Volume (ml): 100.00
Date Prep./Opened: 04-01-2009
Date Expires(1): 12-01-2009 (1 Year)
pipette: Met 21

Parent Std No.: STD6653-08, 1000 Se — Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 12-01-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1,000.0	1.0000

STD3611-09, ICP-MS 1ppm Sn/Zn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 06-16-2009
Date Expires(1): 10-01-2009 (1 Year)

Parent Std No.: STD3609-09, ICP-MS 10 ppm Zn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-01-2009 Parent Date Expires(2): 10-01-2009

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Zn	10.000	1.0000

Parent Std No.: STD3610-09, ICP-MS 10 ppm Sn — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	10.000	1.0000

STD4601-09, ICP-MS (024) INT STD BRC

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 250.00
Date Prep./Opened: 08-03-2009
Date Expires(1): 11-10-2009 (1 Year)
Date Expires(2): 12-01-2009 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)
pipettes: Met 20

Parent Std No.: STD1469-09, Germanium Stock — Aliquot Amount (ml): 0.7500
Parent Date Expires(1): 03-16-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ge	1,000.0	3,000.0

Parent Std No.: STD1972-09, Lithium 6 Stock — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Lithium6	1,000.0	4,000.0

Parent Std No.: STD1973-09, Indium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 04-07-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
In	1,000.0	1,000.0

Parent Std No.: STD6317-08, Scandium Stock — Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Sc	1,000.0	2,000.0

Parent Std No.: STD6318-08, Holmium Stock — Aliquot Amount (ml): 0.2500
Parent Date Expires(1): 11-10-2009 Parent Date Expires(2): 12-01-2009

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ho	1,000.0	1,000.0

STD4630-09, ICP-MS BLANK

Analyst: DIAZL

Solvent: Water — Volume (ml): 1,000.0
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD4629-09, NITRIC ACID — Aliquot Amount (ml): 50.000

Component	Initial Conc (%)	Final Conc (%)
HNO3	100.00	5.0000

STD4631-09, ICP-MS HIGH CAL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 — Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	10.000
Ca	2,000.0	10.000
Fe	2,000.0	10.000
K	2,000.0	10.000
Mg	2,000.0	10.000
Na	2,000.0	10.000

STD4632-09, ICP-MS HIGH CCV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0500
As	20.000	0.0500
Ba	20.000	0.0500
Be	20.000	0.0500
Cd	20.000	0.0500
Co	20.000	0.0500
Cr	20.000	0.0500
Cu	20.000	0.0500
Mn	20.000	0.0500
Ni	20.000	0.0500
Pb	20.000	0.0500
Se	20.000	0.0500
Th	20.000	0.0500
Tl	20.000	0.0500
U	20.000	0.0500
V	20.000	0.0500
Zn	20.000	0.0500

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.0500
Sb	20.000	0.0500
Sn	20.000	0.0500

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.2500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	5.0000
Ca	2,000.0	5.0000
Fe	2,000.0	5.0000

K	2,000.0	5.0000
Mg	2,000.0	5.0000
Na	2,000.0	5.0000

STD4633-09, ICP-MS HIGH RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000

Date Prep./Opened: 08-04-2009

Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn Aliquot Amount (ml): 0.0900

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	1.0000	0.0090
1000 Zn	1.0000	0.0090

Parent Std No.: STD4631-09, ICP-MS HIGH CAL STD Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	0.1000	0.0010
As	0.1000	0.0010
Ba	0.1000	0.0010
Be	0.1000	0.0010
Cd	0.1000	0.0010
Co	0.1000	0.0010
Cr	0.1000	0.0010
Cu	0.1000	0.0010
Mn	0.1000	0.0010
Ni	0.1000	0.0010
Pb	0.1000	0.0010
Se	0.1000	0.0010
Th	0.1000	0.0010
Tl	0.1000	0.0010
U	0.1000	0.0010
V	0.1000	0.0010
Zn	0.1000	0.0010
Mo	0.1000	0.0010
Sb	0.1000	0.0010
Sn	0.1000	0.0010
Al	10.000	0.1000
Ca	10.000	0.1000
Fe	10.000	0.1000
K	10.000	0.1000
Mg	10.000	0.1000
Na	10.000	0.1000

STD4634-09, ICP-MS HIGH AFCEE RL STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD Aliquot Amount (ml): 2.0000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Sn	0.0090	0.0018
1000 Zn	0.0090	0.0018
Ag	0.0010	0.0002
As	0.0010	0.0002
Ba	0.0010	0.0002
Be	0.0010	0.0002
Cd	0.0010	0.0002
Co	0.0010	0.0002
Cr	0.0010	0.0002
Cu	0.0010	0.0002
Mn	0.0010	0.0002
Ni	0.0010	0.0002
Pb	0.0010	0.0002
Se	0.0010	0.0002
Th	0.0010	0.0002
Tl	0.0010	0.0002
U	0.0010	0.0002
V	0.0010	0.0002
Zn	0.0010	0.0002
Mo	0.0010	0.0002
Sb	0.0010	0.0002
Sn	0.0010	0.0002
Al	0.1000	0.0200
Ca	0.1000	0.0200
Fe	0.1000	0.0200
K	0.1000	0.0200
Mg	0.1000	0.0200
Na	0.1000	0.0200

STD4635-09, ICP-MS ICSA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 09-04-2009 (1 Month)
Date Expires(2): 08-01-2010 (None)
pipettes: Met 8

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/L)

Al	1,000.0	100,000
C	2,000.0	200,000
Ca	1,000.0	100,000
Cl	10,000	1,000,000
Fe	1,000.0	100,000
K	1,000.0	100,000
Mg	1,000.0	100,000
Mo	20.000	2,000.0
Na	1,000.0	100,000
P	1,000.0	100,000
S	1,000.0	100,000
Ti	20.000	2,000.0

STD4636-09, ICP-MS HIGH ICSAB

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 08-01-2010 (None)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.1000
As	20.000	0.1000
Ba	20.000	0.1000
Be	20.000	0.1000
Cd	20.000	0.1000
Co	20.000	0.1000
Cr	20.000	0.1000
Cu	20.000	0.1000
Mn	20.000	0.1000
Ni	20.000	0.1000
Pb	20.000	0.1000
Se	20.000	0.1000
Th	20.000	0.1000
Tl	20.000	0.1000
U	20.000	0.1000
V	20.000	0.1000
Zn	20.000	0.1000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.0500

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	0.1000
Sb	20.000	0.1000
Sn	20.000	0.1000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)

Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

Parent Std No.: STD4542-09, ICPMS Interferent Check Standard Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 07-31-2010 Parent Date Expires(2): 08-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
Al	1,000.0	100.00
C	2,000.0	200.00
Ca	1,000.0	100.00
Cl	10,000	1,000.0
Fe	1,000.0	100.00
K	1,000.0	100.00
Mg	1,000.0	100.00
Mo	20.000	2.0000
Na	1,000.0	100.00
P	1,000.0	100.00
S	1,000.0	100.00
Ti	20.000	2.0000

STD4637-09, ICP-MS HIGH LR STD Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 10.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)

Parent Std No.: STD3109-09, ICP-MS CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	1.0000
As	20.000	1.0000
Ba	20.000	1.0000
Be	20.000	1.0000
Cd	20.000	1.0000
Co	20.000	1.0000
Cr	20.000	1.0000
Cu	20.000	1.0000
Mn	20.000	1.0000
Ni	20.000	1.0000
Pb	20.000	1.0000

Se	20.000	1.0000
Th	20.000	1.0000
Tl	20.000	1.0000
U	20.000	1.0000
V	20.000	1.0000
Zn	20.000	1.0000

Parent Std No.: STD3110-09, ICP-MS CALSTD 2 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Mo	20.000	1.0000
Sb	20.000	1.0000
Sn	20.000	1.0000

Parent Std No.: STD3111-09, ICP-MS CALSTD 3 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	100.00
Ca	2,000.0	100.00
Fe	2,000.0	100.00
K	2,000.0	100.00
Mg	2,000.0	100.00
Na	2,000.0	100.00

Parent Std No.: STD3112-09, ICP-MS BRC CALSTD 1 Aliquot Amount (ml): 0.5000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	2.0000
Pd	20.000	1.0000
Pt	20.000	1.0000
W	20.000	1.0000

STD4638-09, ICP-MS HIGH ICV STD

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 04-21-2010 (None)

Parent Std No.: STD3113-09, ICP-MS TA ICV A Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
As	20.000	0.0400
Ba	20.000	0.0400
Be	20.000	0.0400
Cd	20.000	0.0400
Co	20.000	0.0400
Cr	20.000	0.0400
Cu	20.000	0.0400
Mn	20.000	0.0400
Ni	20.000	0.0400

Pb	20.000	0.0400
Se	20.000	0.0400
Th	20.000	0.0400
Tl	20.000	0.0400
U	20.000	0.0400
V	20.000	0.0400
Zn	20.000	0.0400

Parent Std No.: STD3114-09, ICP-MS TA ICV B Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Ag	20.000	0.0400
Mo	20.000	0.0400
Sb	20.000	0.0400
Sn	20.000	0.0400

Parent Std No.: STD3115-09, ICP-MS TA ICV Alt Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Al	2,000.0	4.0000
Ca	2,000.0	4.0000
Fe	2,000.0	4.0000
K	2,000.0	4.0000
Mg	2,000.0	4.0000
Na	2,000.0	4.0000

Parent Std No.: STD3116-09, ICP-MS TA ICV BRC Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-21-2010 Parent Date Expires(2): 04-21-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Nb	40.000	0.0800
Pd	20.000	0.0400
Pt	20.000	0.0400
W	20.000	0.0400

STD4639-09, LLCCV/RLICV Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
Date Expires(2): 05-01-2010 (None)
pipettes: Met 20

Parent Std No.: STD3106-09, ICP-MS LLCCV 1 Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 05-01-2010 Parent Date Expires(2): 05-01-2010

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Ag	0.5000	5.0000
Al	3.0000	30.000
As	0.5000	5.0000
Ba	0.1000	1.0000
Be	0.1000	1.0000
Ca	5.0000	50.000

Cd	0.1000	1.0000
Co	0.1000	1.0000
Cr	0.2000	2.0000
Cu	0.2000	2.0000
Fe	5.0000	50.000
K	10.000	100.00
Mg	5.0000	50.000
Mn	0.1000	1.0000
Na	5.0000	50.000
Ni	0.2000	2.0000
Pb	0.1000	1.0000
Se	0.5000	5.0000
Th	0.2000	2.0000
Tl	0.1000	1.0000
U	0.1000	1.0000
V	0.5000	5.0000
Zn	1.0000	10.000

Parent Std No.: STD3107-09, ICP-MS LLCCV 2 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Parent Std No.: STD3108-09, ICP-MS BRC LLCCV 1 Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Nb	4.0000	40.000
Pd	0.1000	1.0000
Pt	0.1000	1.0000
W	0.5000	5.0000

STD4640-09, ALTSe

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 50.000
Date Prep./Opened: 08-04-2009
Date Expires(1): 08-05-2009 (1 Day)
pipettes: Met 21 and Met 8

Parent Std No.: STD1853-09, 1 mg/l Se Aliquot Amount (ml): 0.1000

Component	Initial Conc (mg/L)	Final Conc (mg/L)
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Parent Std No.: STD0749-09, 1000 ppm Ag Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 03-01-2010 Parent Date Expires(2): 03-01-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
1000 ppm Ag	1,000.0	1.0000

Parent Std No.: STD2485-09, 1000 Cu Aliquot Amount (ml): 0.1000
Parent Date Expires(1): 04-01-2010 Parent Date Expires(2): 04-01-2010

Component	Initial Conc (mg/L)	Final Conc (mg/L)
1000 Cu	1,000.0	1.0000

Reviewed By: LRD 08/04/2009

File
AG080409

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
3	Cal Blank				1.0	08/04/09 17:30		☐
4	100 ppb				1.0	08/04/09 17:33		☐
5	ICV				1.0	08/04/09 17:35		☐
6	RLIV				1.0	08/04/09 17:38		☐
7	ICB				1.0	08/04/09 17:41		☐
8	RL STD				1.0	08/04/09 17:44		☐
9	AFCEE RL				1.0	08/04/09 17:47		☐
10	ALTSe				1.0	08/04/09 17:50		☐
11	ICSA				1.0	08/04/09 17:53		☐
12	ICSAB				1.0	08/04/09 17:56		☐
13	RINSE				1.0	08/04/09 17:59		☐
14	LR				1.0	08/04/09 18:02		☐
15	RINSE				1.0	08/04/09 18:05		☐
16	CCV				1.0	08/04/09 18:08		☐
17	CCB				1.0	08/04/09 18:10		☐
18	RLCV				1.0	08/04/09 18:13		☐
19	ALTLR				1.0	08/04/09 18:18		☐
20	RINSE				1.0	08/04/09 18:21		☐
21	CCV				1.0	08/04/09 18:24		☐
22	CCB				1.0	08/04/09 18:27		☐
23	RLCV				1.0	08/04/09 18:30		☐
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0	08/04/09 18:33		☐
25	CCV				1.0	08/04/09 18:35		☐
26	CCB				1.0	08/04/09 18:38		☐
27	RLCV				1.0	08/04/09 18:41		☐
28	~~LGV1JB~~	~~D9G220000~~	~~9203274~~	~~46~~	~~1.0~~	~~08/04/09 18:44~~		☐
29	LGV1JC	D9G220000	9203274	46	1.0	08/04/09 18:47		☐
30	LGT1N	~~D9G210319-13~~ D9G210319-14	9203274	U1	1.0	08/04/09 18:50		☐
31	~~LGT4V~~	~~D9G210319-14~~	~~9203274~~	~~U1~~	~~1.0~~	~~08/04/09 18:53~~	RT 8/5/09 Did not use.	☐
32	CCV				1.0	08/04/09 18:56		☐
33	CCB				1.0	08/04/09 18:59		☐
34	RLCV				1.0	08/04/09 19:02		☐
35	LGVDGB	D9G220000	9203121	MS	1.0	08/04/09 19:05		☐
36	LGVDGC	D9G220000	9203121	MS	1.0	08/04/09 19:08		☐
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:11		☐
38	LGR1DP25	D9G210208	9203121		25.0	08/04/09 19:14		☐
39	LGR1DZ	D9G210208-1	9203121		1.0	08/04/09 19:16		☐
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:19		☐
41	CCV				1.0	08/04/09 19:22		☐
42	CCB				1.0	08/04/09 19:25		☐
43	RLCV				1.0	08/04/09 19:28		☐
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0	08/04/09 19:31		☐
45	LGR1M	D9G210208-2	9203121	MS	1.0	08/04/09 19:34		☐
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0	08/04/09 19:37		☐
47	LGR1Q	D9G210208-4	9203121	MS	1.0	08/04/09 19:40		☐
48	LGR1T	D9G210208-5	9203121	MS	1.0	08/04/09 19:43		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
49	CCV				1.0	08/04/09 19:46		☐
50	CCB				1.0	08/04/09 19:49		☐
51	RLCV				1.0	08/04/09 19:52		☐
52	LG4K3BF	D9G270000	9208158	MD	1.0	08/04/09 19:55		☐
53	LG4K3CF	D9G270000	9208158	MD	1.0	08/04/09 19:58		☐
54	LG22HF	D9G240290-1	9208158	MD	1.0	08/04/09 20:01		☐
55	LG29AF	D9G240311-1	9208158	MD	1.0	08/04/09 20:04		☐
56	LG29PF	D9G240311-2	9208158	MD	1.0	08/04/09 20:07		☐
57	LG29QF	D9G240311-3	9208158	MD	1.0	08/04/09 20:09		☐
58	LG29RF	D9G240311-4	9208158	MD	1.0	08/04/09 20:12		☐
59	LG29VF	D9G240311-5	9208158	MD	1.0	08/04/09 20:15		☐
60	LG29XF	D9G240311-6	9208158	MD	1.0	08/04/09 20:18		☐
61	LG290F	D9G240311-7	9208158	MD	1.0	08/04/09 20:21		☐
62	CCV				1.0	08/04/09 20:24		☐
63	CCB				1.0	08/04/09 20:27		☐
64	RLCV				1.0	08/04/09 20:30		☐
65	LG290P5F	D9G240311	9208158		5.0	08/04/09 20:33		☐
66	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 20:36~~	W# 8/5/09 Did not use.	☐
67	LG290SF	D9G240311-7	9208158	MD	1.0	08/04/09 20:39		☐
68	LG290DF	D9G240311-7	9208158	MD	1.0	08/04/09 20:42		☐
69	LG292F	D9G240311-8	9208158	MD	1.0	08/04/09 20:45		☐
70	LG293F	D9G240311-9	9208158	MD	1.0	08/04/09 20:48		☐
71	LG294F	D9G240311-10	9208158	MD	1.0	08/04/09 20:51		☐
72	LG296F	D9G240311-11	9208158	MD	1.0	08/04/09 20:54		☐
73	CCV				1.0	08/04/09 20:57		☐
74	CCB				1.0	08/04/09 21:00		☐
75	RLCV				1.0	08/04/09 21:03		☐
76	~~LG290ZF~~	~~D9G240311-7~~	~~9208158~~		~~1.0~~	~~08/04/09 21:06~~		☐
77	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 21:09		☐
78	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 21:12		☐
79	CCV				1.0	08/04/09 21:15		☐
80	CCB				1.0	08/04/09 21:18		☐
81	RLCV				1.0	08/04/09 21:21		☐
82	RINSE				1.0	08/04/09 21:24		☐
83	RINSE				1.0	08/04/09 21:27		☐
84	RINSE				1.0	08/04/09 21:30		☐
85	RINSE				1.0	08/04/09 21:32		☐
86	RINSE				1.0	08/04/09 21:35		☐
87	RINSE				1.0	08/04/09 21:38		☐
88	~~Cal Blank~~				~~1.0~~	~~08/04/09 21:41~~	W# 8/5/09 Did not use.	☐
89	Cal Blank				1.0	08/04/09 21:44		☐
90	100 ppb				1.0	08/04/09 21:47		☐
91	CCV				1.0	08/04/09 21:50		☐
92	CCB				1.0	08/04/09 21:53		☐
93	RLCV				1.0	08/04/09 21:56		☐
94	ICSA				1.0	08/04/09 21:59		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
95	ICSAB				1.0	08/04/09 22:02		
96	WASH				1.0	08/04/09 22:04		
97	CCV				1.0	08/04/09 22:07		
98	CCB				1.0	08/04/09 22:10		
99	RLCV				1.0	08/04/09 22:13		
100	LG290ZF	D9G240311-7	9208158		1.0	08/04/09 22:16		
101	LG298F	D9G240311-12	9208158	MD	1.0	08/04/09 22:19		
102	LG3ACF	D9G240311-13	9208158	MD	1.0	08/04/09 22:22		
103	CCV				1.0	08/04/09 22:25		
104	CCB				1.0	08/04/09 22:28		
105	RLCV				1.0	08/04/09 22:31		
106	LG6WKB	D9G270000	9208088	MS	1.0	08/04/09 22:34		
107	LG6WKC	D9G270000	9208088	MS	1.0	08/04/09 22:37		
108	LG282 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:40		
109	LG282P25	D9G240312	9208088		25.0	08/04/09 22:43		
110	LG282Z	D9G240312-1	9208088		1.0	08/04/09 22:46		
111	LG282S 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:49		
112	LG282D 5X	D9G240312-1	9208088	MS	5.0	08/04/09 22:51		
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0	08/04/09 22:54		
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0	08/04/09 22:57		
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0	08/04/09 23:00		
116	CCV				1.0	08/04/09 23:03		
117	CCB				1.0	08/04/09 23:06		
118	RLCV				1.0	08/04/09 23:09		
119	LG15XB	D9G240000	9205339	MS	1.0	08/04/09 23:12		
120	LG15XC	D9G240000	9205339	MS	1.0	08/04/09 23:15		
121	LGWWE	D9G220274-1	9205339	MS	1.0	08/04/09 23:18		
122	LGWWEP5	D9G220274	9205339		5.0	08/04/09 23:21		
123	LGWWEZ	D9G220274-1	9205339		1.0	08/04/09 23:24		
124	LGWWES	D9G220274-1	9205339	MS	1.0	08/04/09 23:27		
125	LGWWED	D9G220274-1	9205339	MS	1.0	08/04/09 23:30		
126	CCV				1.0	08/04/09 23:33		
127	CCB				1.0	08/04/09 23:37		
128	RLCV				1.0	08/04/09 23:40		
129	LG4LKBF	D9G270000	9208171	MD	1.0	08/04/09 23:43		
130	LG4LKCF	D9G270000	9208171	MD	1.0	08/04/09 23:46		
131	LG17CF	D9G240170-1	9208171	MD	1.0	08/04/09 23:49		
132	LG17CP5F	D9G240170	9208171		5.0	08/04/09 23:52		
133	LG17CZF	D9G240170-1	9208171		1.0	08/04/09 23:55		
134	LG17CSF	D9G240170-1	9208171	MD	1.0	08/04/09 23:57		
135	LG17CDF	D9G240170-1	9208171	MD	1.0	08/05/09 00:00		
136	CCV				1.0	08/05/09 00:03		
137	CCB				1.0	08/05/09 00:06		
138	RLCV				1.0	08/05/09 00:09		
139	LG1WEB	D9G240000	9205275	MS	1.0	08/05/09 00:12		
140	LG1WEC	D9G240000	9205275	MS	1.0	08/05/09 00:15		

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
141	LG1WEL	D9G240000	9205275	MS	1.0	08/05/09 00:18		☐
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21		☐
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24		☐
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27		☐
145	CCV			MS Dilution	1.0	08/05/09 00:30		☐
146	CCB				1.0	08/05/09 00:33		☐
147	RLCV				1.0	08/05/09 00:36		☐
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39		☐
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42		☐
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45		☐
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48		☐
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51		☐
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54		☐
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57		☐
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00		☐
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03		☐
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06		☐
158	CCV			46	1.0	08/05/09 01:09		☐
159	CCB			Dilution	1.0	08/05/09 01:12		☐
160	RLCV			46	1.0	08/05/09 01:15		☐
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17		☐
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20		☐
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23		☐
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26		☐
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29		☐
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32		☐
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35		☐
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38		☐
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41		☐
170	CCV			46 Dilution	1.0	08/05/09 01:44		☐
171	CCB				1.0	08/05/09 01:47		☐
172	RLCV				1.0	08/05/09 01:50		☐
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53		☐
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56		☐
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59		☐
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02		☐
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05		☐
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07		☐
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10		☐
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13		☐
181	CCV				1.0	08/05/09 02:16		☐
182	CCB				1.0	08/05/09 02:19		☐
183	RLCV				1.0	08/05/09 02:22		☐
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25		☐
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28		☐
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
187	LGWPL	D9G220249-6	9205302	46	1.0	08/05/09 02:34		☐
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37		☐
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39		☐
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42		☐
191	CCV				1.0	08/05/09 02:45		☐
192	CCB				1.0	08/05/09 02:48		☐
193	RLCV				1.0	08/05/09 02:51		☐
194	~~LG6MMB~~	~~D9G280000~~	~~9209279~~	~~46~~	~~1.0~~	~~08/05/09 02:54~~		☐
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57		☐
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00		☐
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03		☐
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06		☐
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09		☐
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12		☐
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15		☐
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17		☐
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20		☐
204	CCV				1.0	08/05/09 03:23		☐
205	CCB				1.0	08/05/09 03:26		☐
206	RLCV				1.0	08/05/09 03:29		☐
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32		☐
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35		☐
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38		☐
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41		☐
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44		☐
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47		☐
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50		☐
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53		☐
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56		☐
216	CCV				1.0	08/05/09 03:59		☐
217	CCB				1.0	08/05/09 04:01		☐
218	RLCV				1.0	08/05/09 04:04		☐
219	RINSE				1.0	08/05/09 04:07		☐
220	RINSE				1.0	08/05/09 04:10		☐
221	RINSE				1.0	08/05/09 04:13		☐
222	RINSE				1.0	08/05/09 04:16		☐
223	RINSE				1.0	08/05/09 04:19		☐
224	RINSE				1.0	08/05/09 04:22		☐
225	~~Cal Blank~~				~~1.0~~	~~08/05/09 04:25~~	KF 8/5/09 Did not use.	☐
226	Cal Blank				1.0	08/05/09 04:28		☐
227	100 ppb				1.0	08/05/09 04:31		☐
228	CCV				1.0	08/05/09 04:34		☐
229	CCB				1.0	08/05/09 04:36		☐
230	RLCV				1.0	08/05/09 04:39		☐
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42		☐
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45		☐

Denver

RUN SUMMARY

Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
233	LG7WEF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:48		☐
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51		☐
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54		☐
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57		☐
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00		☐
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03		☐
239	CCV				1.0	08/05/09 05:06		☐
240	CCB				1.0	08/05/09 05:09		☐
241	RLCV				1.0	08/05/09 05:12		☐
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15		☐
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18		☐
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21		☐
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24		☐
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27		☐
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30		☐
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33		☐
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36		☐
250	CCV				1.0	08/05/09 05:39		☐
251	CCB				1.0	08/05/09 05:42		☐
252	RLCV				1.0	08/05/09 05:45		☐
253	~~RINSE~~				~~1.0~~	~~08/05/09 05:48~~		☐
254	RINSE				1.0	~~08/05/09~~ 05:51		☐
255	RINSE				1.0	08/05/09 05:54		☐
256	RINSE				1.0	08/05/09 05:57		☐
257	RINSE				1.0	08/05/09 06:00		☐
258	RINSE				1.0	08/05/09 06:03		☐
259	~~Cal Blank~~				~~1.0~~	~~08/05/09 06:05~~	rr 8/5/09	☐
260	Cal Blank				1.0	08/05/09 06:08		☐
261	100 ppb				1.0	08/05/09 06:11		☐
262	CCV				1.0	08/05/09 06:14		☐
263	CCB				1.0	08/05/09 06:17		☐
264	RLCV				1.0	08/05/09 06:20		☐
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23		☐
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26		☐
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29		☐
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32		☐
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35		☐
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38		☐
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41		☐
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43		☐
273	CCV				1.0	08/05/09 06:46		☐
274	CCB				1.0	08/05/09 06:49		☐
275	RLCV				1.0	08/05/09 06:52		☐
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55		☐
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58		☐
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01		☐

Denver

RUN SUMMARY

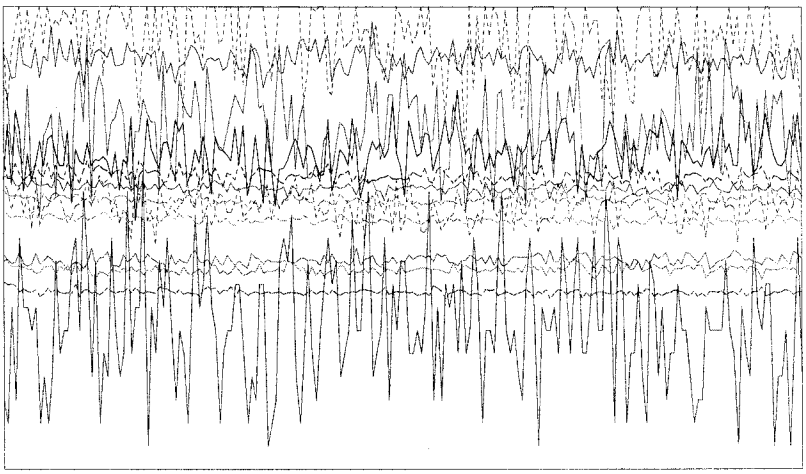
Method: 6020 (ICP/MS) | ICPMS_024 (024) | Reported: 08/05/09 11:09:30

File ID: AG080409 **Analyst:** TEL

#	Sample ID	Lot No.	Batch		DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04		☐
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07		☐
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10		☐
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13		☐
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16		☐
284	CCV				1.0	08/05/09 07:19		☐
285	CCB				1.0	08/05/09 07:22		☐
286	RLCV				1.0	08/05/09 07:25		☐
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	Take all but Ni, VT 8/5/09	☐
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31		☐
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34		☐
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37		☐
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39		☐
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42		☐
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45		☐
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48		☐
295	CCV				1.0	08/05/09 07:51		☐
296	CCB				1.0	08/05/09 07:54		☐
297	RLCV				1.0	08/05/09 07:57		☐
298	RINSE				1.0	08/05/09 08:00		☐
299	RINSE				1.0	08/05/09 08:03		☐
300	RINSE				1.0	08/05/09 08:06		☐
301	RINSE				1.0	08/05/09 08:09		☐
302	RINSE				1.0	08/05/09 08:12		☐
303	RINSE				1.0	08/05/09 08:15		☐
304	RINSE				1.0	08/05/09 08:18		☐
305	RINSE				1.0	08/05/09 08:21		☐
306	RINSE				1.0	08/05/09 08:23		☐
307	RINSE				1.0	08/05/09 08:26		☐
308	Cal Blank				1.0	08/05/09 08:29	VT 8/5/09	☐
309	Cal Blank				1.0	08/05/09 08:32		☐
310	100 ppb				1.0	08/05/09 08:35		☐
311	CCV				1.0	08/05/09 08:38		☐
312	CCB				1.0	08/05/09 08:41		☐
313	ICSA				1.0	08/05/09 08:44		☐
314	ICSAB				1.0	08/05/09 08:47		☐
315	WASH				1.0	08/05/09 08:50		☐
316	CCV				1.0	08/05/09 08:53		☐
317	CCB				1.0	08/05/09 08:56		☐
318	RLCV				1.0	08/05/09 08:59		☐

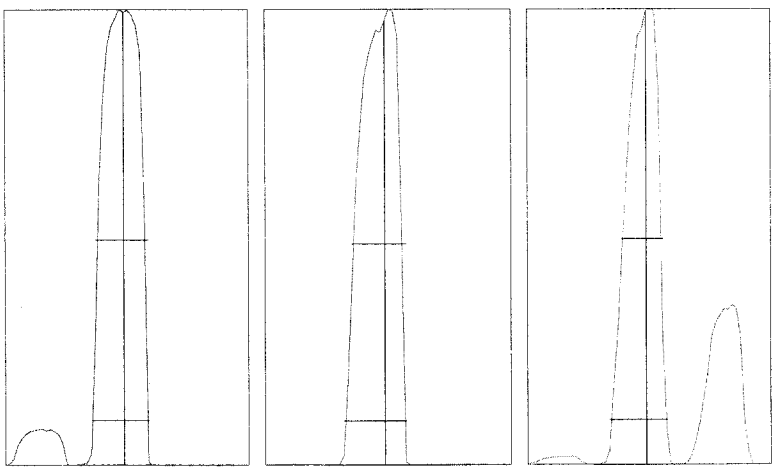
Tune Report

Tune File : NORM.U
Comment :



Integration Time:	0.1000 sec	
Sampling Period:	1.5300 sec	
n:	200	
Oxide:	156/140	1.169%
Doubly Charged:	70/140	1.090%

m/z	Range	Count	Mean	RSD%	Background
6	2,000	1762.0	1770.4	2.89	1.00
7	50,000	22681.0	22607.5	2.18	1.40
59	50,000	21258.0	21558.9	1.96	1.40
63	100	64.0	73.9	11.46	0.70
70	500	336.0	342.4	6.97	1.40
75	20	4.0	6.2	43.21	1.40
78	500	310.0	285.3	6.14	1.70
89	50,000	28955.0	29103.9	1.37	1.90
115	50,000	26852.0	26978.9	1.37	2.90
118	100	77.0	95.0	10.36	2.30
137	5,000	3035.0	3179.7	2.17	2.80
205	50,000	19156.0	19138.5	1.52	4.60
238	50,000	29560.0	30445.9	1.47	5.00
156/140	2	1.265%	1.209%	7.03	
70/140	2	1.215%	1.221%	7.10	



m/z:	7	89	205
Height:	22,611	29,043	19,439
Axis:	7.00	89.00	205.00
W-50%:	0.65	0.65	0.50
W-10%:	0.700	0.7500	0.700

Integration Time:	0.1000 sec
Acquisition Time:	22.7600 sec

Y axis : Linear

Generated : Aug 04, 2009 17:00:36
Printed : Aug 04, 2009 17:00:39

Tune Report

Tune File : NORM.U
Comment :

Tuning Parameters

===Plasma Condition===			===Ion Lenses===			===Q-Pole Parameters===		
RF Power	: 1550	W	Extract 1	: 0	V	AMU Gain	: 132	
RF Matching	: 1.7	V	Extract 2	: -165	V	AMU Offset	: 123	
Smpl Depth	: 7.5	mm	Omega Bias-ce	: -34	V	Axis Gain	: 1.0006	
Torch-H	: -0.8	mm	Omega Lens-ce	: 1	V	Axis Offset	: -0.04	
Torch-V	: -0.3	mm	Cell Entrance	: -30	V	QP Bias	: -1	V
Carrier Gas	: 0.85	L/min	QP Focus	: 7	V			
Makeup Gas	: 0.21	L/min	Cell Exit	: -30	V	===Detector Parameters===		
Optional Gas	: ---	%				Discriminator	: 8	mV
Nebulizer Pump	: 0.1	rps	===Octopole Parameters===			Analog HV	: 1720	V
Sample Pump	: ---	rps	OctP RF	: 180	V	Pulse HV	: 1390	V
S/C Temp	: 2	degC	OctP Bias	: -18	V			

===Reaction Cell===

Reaction Mode	: OFF							
H2 Gas	: 0	mL/min	He Gas	: 0	mL/min	Optional Gas	: ---	%

Generated : Aug 04, 2009 17:00:36
Printed : Aug 04, 2009 17:00:42

P/A Factor Tuning Report

Acquired:Aug 4 2009 05:13 pm

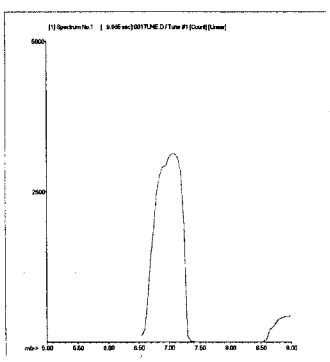
Mass[amu]	Element	P/A Factor
6	Li	0.060147
7	(Li)	Sensitivity too low
9	Be	0.067111
23	Na	Sensitivity too high
24	Mg	0.077089
27	Al	0.079051
39	K	0.078558
43	Ca	Sensitivity too low
45	Sc	0.079466
51	V	0.080963
52	Cr	0.082954
53	(Cr)	Sensitivity too low
55	Mn	0.084227
57	Fe	Sensitivity too low
59	Co	0.086953
60	Ni	0.088018
63	Cu	0.089512
66	Zn	0.089262
72	Ge	0.088835
75	As	0.088157
77	(Se)	Sensitivity too low
78	Se	Sensitivity too low
82	(Se)	Sensitivity too low
83	(Se)	Sensitivity too low
93	Nb	Sensitivity too low
95	Mo	0.090186
98	(Mo)	0.089393
99	(Mo)	0.090406
105	Pd	0.092756
106	(Cd)	0.092519
107	Ag	Sensitivity too low
108	(Cd)	0.093276
111	Cd	0.093414
115	In	0.092399
118	Sn	0.092636
121	Sb	0.092353
137	Ba	Sensitivity too low
165	Ho	Sensitivity too low
182	W	Sensitivity too low
195	Pt	Sensitivity too low
205	Tl	0.099000
206	(Pb)	0.097831
207	(Pb)	0.097860
208	Pb	0.096584
232	Th	0.095898
238	U	0.095933

===Detector Parameters===
Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

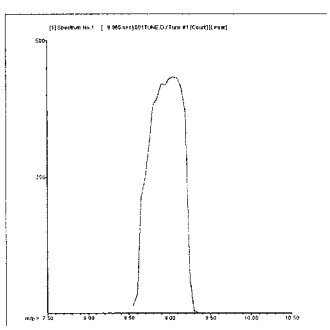
200.8 QC Tune Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D
Date Acquired: Aug 4 2009 05:24 pm
Acq. Method: tun_isis.M
Operator: TEL
Sample Name: 200.8 TUNE
Misc Info:
Vial Number: 4
Current Method: C:\ICPCHEM\1\METHODS\tun_isis.M

Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	2104305	2092847	2094507	0.34	5.00	
208 Pb	95432	97057	96600	94637	93872	94994	1.41	5.00	
238 U	187490	191136	188199	187726	186228	184161	1.37	5.00	

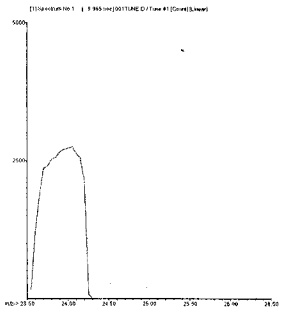


7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



9 Be
Mass Calib.
Actual: 9.00
Required: 8.90 - 9.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

C:\ICPCHEM\1\DATA\AG080409.B\001TUNE.D



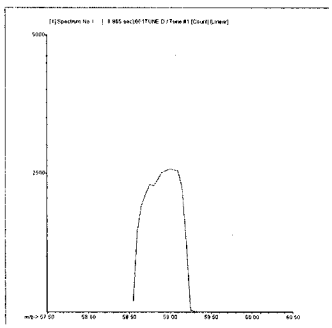
24 Mg

Mass Calib.

Actual:	24.00		
Required:	23.90	-	24.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



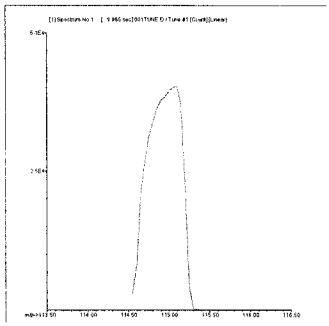
59 Co

Mass Calib.

Actual:	59.00		
Required:	58.90	-	59.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



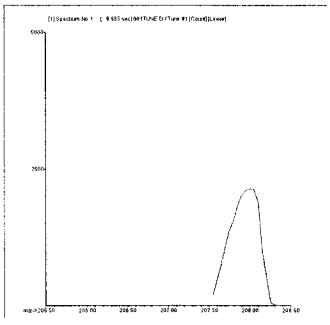
115 In

Mass Calib.

Actual:	115.00		
Required:	114.90	-	115.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



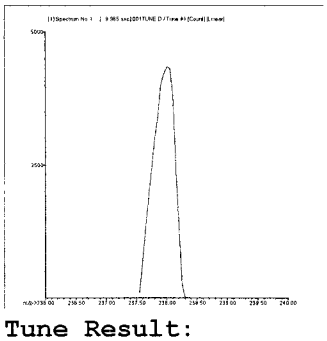
208 Pb

Mass Calib.

Actual:	208.00		
Required:	207.90	-	208.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			



238 U

Mass Calib.

Actual:	238.00		
Required:	237.90	-	238.10
Flag:			

Peak Width

Actual:	0.60		
Required:	0.90		
Flag:			

Tune Result: Pass

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\002CALB.D\002CALB.D#
Date Acquired: Aug 4 2009 05:27 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:28 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	175862	1.16
24	Mg	6	1	3447	4.51
27	Al	45	1	2637	8.79
39	K	45	1	337918	1.38
43	Ca	45	1	107	5.41
51	V	72	1	-201	182.83
52	Cr	72	1	4144	5.82
55	Mn	72	1	760	4.74
57	Fe	72	1	737	10.01
59	Co	72	1	147	31.49
60	Ni	72	1	153	15.06
63	Cu	72	1	757	12.70
66	Zn	72	1	450	6.17
75	As	72	1	114	23.01
78	Se	72	1	947	10.58
93	Nb	72	1	3637	24.76
95	Mo	72	1	160	16.54
105	Pd	115	1	20	50.00
107	Ag	115	1	17	69.28
111	Cd	115	1	13	25.00
118	Sn	115	1	1173	15.35
121	Sb	115	1	43	35.25
137	Ba	115	1	30	29.40
182	W	165	1	1303	12.66
195	Pt	165	1	223	6.84
205	Tl	165	1	301	10.05
208	Pb	165	1	313	8.31
232	Th	165	1	1944	4.16
238	U	165	1	130	7.69

DG 8/5/09

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	618846	1.88
45	Sc	1	3302218	1.48
72	Ge	1	1483166	1.36
115	In	1	3715428	1.24
165	Ho	1	5532110	0.42

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Blank QC Report

Data File:	C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#
Date Acquired:	Aug 4 2009 05:30 pm
Acq. Method:	6020isis.M
Operator:	TEL
Sample Name:	Cal Blank
Misc Info:	
Vial Number:	2101
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update:	Aug 04 2009 05:28 pm
Sample Type:	CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	166622	0.74
24	Mg	6	1	3697	3.20
27	Al	45	1	4071	3.47
39	K	45	1	344043	1.26
43	Ca	45	1	97	33.25
51	V	72	1	121	374.09
52	Cr	72	1	4394	1.17
55	Mn	72	1	797	3.16
57	Fe	72	1	670	11.66
59	Co	72	1	117	19.80
60	Ni	72	1	160	34.80
63	Cu	72	1	813	5.54
66	Zn	72	1	587	5.99
75	As	72	1	115	26.09
78	Se	72	1	937	3.26
93	Nb	72	1	3197	21.29
95	Mo	72	1	70	14.29
105	Pd	115	1	23	137.77
107	Ag	115	1	3	173.21
111	Cd	115	1	14	35.25
118	Sn	115	1	1730	6.67
121	Sb	115	1	52	13.29
137	Ba	115	1	23	14.29
182	W	165	1	1340	8.41
195	Pt	165	1	177	6.54
205	Tl	165	1	319	6.72
208	Pb	165	1	307	22.06
232	Th	165	1	1367	4.03
238	U	165	1	59	22.88

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	613401	0.88
45	Sc	1	3328415	0.44
72	Ge	1	1482070	1.07
115	In	1	3719636	0.55
165	Ho	1	5558876	0.76

Tune File#	1	c:\icpchem\1\7500\he.u
Tune File#	2	C:\ICPCHEM\1\7500\
Tune File#	3	C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\004ICAL.D\004ICAL.D#
Date Acquired: Aug 4 2009 05:33 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:31 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	78880	1.03
23	Na	6	1	67854280	0.78
24	Mg	6	1	41046008	0.44
27	Al	45	1	36514528	1.31
39	K	45	1	62484832	0.32
43	Ca	45	1	154713	0.88
51	V	72	1	1748494	1.28
52	Cr	72	1	1712193	0.90
55	Mn	72	1	1838240	0.92
57	Fe	72	1	4331625	1.05
59	Co	72	1	2170643	0.67
60	Ni	72	1	494898	1.03
63	Cu	72	1	1147761	0.20
66	Zn	72	1	229614	0.57
75	As	72	1	199756	0.44
78	Se	72	1	35396	1.68
93	Nb	72	1	5397792	1.07
95	Mo	72	1	533263	0.26
105	Pd	115	1	657524	0.37
107	Ag	115	1	1430733	0.49
111	Cd	115	1	277412	0.99
118	Sn	115	1	778149	0.58
121	Sb	115	1	861506	0.48
137	Ba	115	1	372202	0.66
182	W	165	1	1191344	0.33
195	Pt	165	1	789081	0.96
205	Tl	165	1	2466925	0.69
208	Pb	165	1	3353142	0.67
232	Th	165	1	3430275	0.56
238	U	165	1	3566405	0.75

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	588239	1.72	613401	95.9	30 - 120	
45	Sc	1	3162866	0.88	3328415	95.0	30 - 120	
72	Ge	1	1416296	0.34	1482070	95.6	30 - 120	
115	In	1	3510265	0.79	3719636	94.4	30 - 120	
165	Ho	1	5280186	0.81	5558876	95.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Initial Calibration Verification (ICV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\005_ICV.D\005_ICV.D#
Date Acquired: Aug 4 2009 05:35 pm
Operator: TEL
Sample Name: ICV
Misc Info:
Vial Number: 2103
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	39.40	ppb	3.97	40	98.5	90 - 110	
23 Na	6	1	3950.00	ppb	2.48	4000	98.8	90 - 110	
24 Mg	6	1	3979.00	ppb	1.98	4000	99.5	90 - 110	
27 Al	45	1	3968.00	ppb	1.67	4000	99.2	90 - 110	
39 K	45	1	4029.00	ppb	0.72	4000	100.7	90 - 110	
43 Ca	45	1	3997.00	ppb	1.16	4000	99.9	90 - 110	
51 V	72	1	40.20	ppb	0.92	40	100.5	90 - 110	
52 Cr	72	1	41.10	ppb	0.10	40	102.8	90 - 110	
55 Mn	72	1	40.85	ppb	0.51	40	102.1	90 - 110	
57 Fe	72	1	4190.00	ppb	1.61	4000	104.8	90 - 110	
59 Co	72	1	41.09	ppb	0.15	40	102.7	90 - 110	
60 Ni	72	1	40.89	ppb	0.89	40	102.2	90 - 110	
63 Cu	72	1	41.36	ppb	0.63	40	103.4	90 - 110	
66 Zn	72	1	41.01	ppb	0.78	40	102.5	90 - 110	
75 As	72	1	40.04	ppb	0.20	40	100.1	90 - 110	
78 Se	72	1	39.46	ppb	2.44	40	98.7	90 - 110	
93 Nb	72	1	72.30	ppb	1.68	80	90.4	90 - 110	
95 Mo	72	1	39.75	ppb	1.13	40	99.4	90 - 110	
105 Pd	115	1	40.44	ppb	1.10	40	101.1	90 - 110	
107 Ag	115	1	40.54	ppb	0.71	40	101.4	90 - 110	
111 Cd	115	1	40.13	ppb	0.47	40	100.3	90 - 110	
118 Sn	115	1	39.09	ppb	0.80	40	97.7	90 - 110	
121 Sb	115	1	39.36	ppb	0.94	40	98.4	90 - 110	
137 Ba	115	1	39.55	ppb	0.22	40	98.9	90 - 110	
182 W	165	1	38.57	ppb	1.18	40	96.4	90 - 110	
195 Pt	165	1	40.34	ppb	1.39	40	100.9	90 - 110	
205 Tl	165	1	41.02	ppb	1.39	40	102.6	90 - 110	
208 Pb	165	1	41.38	ppb	1.58	40	103.5	90 - 110	
232 Th	165	1	39.49	ppb	1.51	40	98.7	90 - 110	
238 U	165	1	41.04	ppb	1.42	40	102.6	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	608297	1.81	613401	99.2	30 - 120	
45 Sc	1	3229901	1.42	3328415	97.0	30 - 120	
72 Ge	1	1429725	0.13	1482070	96.5	30 - 120	
115 In	1	3601357	0.78	3719636	96.8	30 - 120	
165 Ho	1	5341696	0.77	5558876	96.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\006WASH.D\006WASH.D#
Date Acquired: Aug 4 2009 05:38 pm
Operator: TEL
Sample Name: RLIV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.917 ppb	15.50	1.30	
23 Na	6	1	47.850 ppb	1.97	65.00	
24 Mg	6	1	54.700 ppb	1.46	65.00	
27 Al	45	1	34.050 ppb	1.40	39.00	
39 K	45	1	107.500 ppb	1.30	130.00	
43 Ca	45	1	51.170 ppb	15.57	65.00	
51 V	72	1	5.100 ppb	1.78	6.50	
52 Cr	72	1	2.130 ppb	3.03	2.60	
55 Mn	72	1	1.061 ppb	1.73	1.30	
57 Fe	72	1	54.690 ppb	4.65	65.00	
59 Co	72	1	1.082 ppb	0.70	1.30	
60 Ni	72	1	2.224 ppb	1.70	2.60	
63 Cu	72	1	2.182 ppb	1.43	2.60	
66 Zn	72	1	10.660 ppb	1.11	13.00	
75 As	72	1	5.118 ppb	2.29	6.50	
78 Se	72	1	5.284 ppb	15.76	6.50	
93 Nb	72	1	51.660 ppb	0.91	52.00	
95 Mo	72	1	2.145 ppb	4.72	2.60	
105 Pd	115	1	0.939 ppb	2.98	1.30	
107 Ag	115	1	5.364 ppb	0.81	6.50	
111 Cd	115	1	1.077 ppb	0.91	1.30	
118 Sn	115	1	10.180 ppb	1.18	13.00	
121 Sb	115	1	2.208 ppb	1.49	2.60	
137 Ba	115	1	1.064 ppb	3.32	1.30	
182 W	165	1	5.004 ppb	0.54	6.50	
195 Pt	165	1	1.019 ppb	5.85	1.30	
205 Tl	165	1	1.146 ppb	1.51	1.30	
208 Pb	165	1	1.093 ppb	1.96	1.30	
232 Th	165	1	3.309 ppb	17.07	2.60	
238 U	165	1	1.119 ppb	1.62	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	620977	1.28	613401	101.2	30 - 120	
45 Sc	1	3268310	1.29	3328415	98.2	30 - 120	
72 Ge	1	1474208	1.22	1482070	99.5	30 - 120	
115 In	1	3739867	0.54	3719636	100.5	30 - 120	
165 Ho	1	5457556	0.20	5558876	98.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\007_ICB.D\007_ICB.D#
Date Acquired: Aug 4 2009 05:41 pm
Operator: TEL
Sample Name: ICB
Misc Info:
Vial Number: 2104
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: ICB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.00	ppb	0.00	1.00	
23 Na	6	1	-5.38	ppb	4.36	20.00	
24 Mg	6	1	-0.03	ppb	112.14	20.00	
27 Al	45	1	0.43	ppb	13.40	20.00	
39 K	45	1	0.18	ppb	342.50	20.00	
43 Ca	45	1	-2.65	ppb	47.92	20.00	
51 V	72	1	-0.01	ppb	78.44	1.00	
52 Cr	72	1	-0.01	ppb	209.01	1.00	
55 Mn	72	1	-0.01	ppb	28.18	1.00	
57 Fe	72	1	0.04	ppb	366.47	20.00	
59 Co	72	1	0.00	ppb	2657.60	1.00	
60 Ni	72	1	0.01	ppb	182.44	1.00	
63 Cu	72	1	0.00	ppb	45.87	1.00	
66 Zn	72	1	0.01	ppb	89.62	10.00	
75 As	72	1	-0.01	ppb	72.83	1.00	
78 Se	72	1	0.00	ppb	5593.80	1.00	
93 Nb	72	1	2.48	ppb	11.09	2.00	Fail
95 Mo	72	1	0.01	ppb	35.99	1.00	
105 Pd	115	1	0.01	ppb	42.76	1.00	
107 Ag	115	1	0.00	ppb	29.14	1.00	
111 Cd	115	1	0.00	ppb	101.64	1.00	
118 Sn	115	1	-0.03	ppb	16.01	10.00	
121 Sb	115	1	0.08	ppb	8.38	1.00	
137 Ba	115	1	0.00	ppb	124.76	1.00	
182 W	165	1	0.01	ppb	105.62	5.00	
195 Pt	165	1	0.00	ppb	156.52	1.00	
205 Tl	165	1	0.02	ppb	2.65	1.00	
208 Pb	165	1	0.00	ppb	108.41	1.00	
232 Th	165	1	0.02	ppb	13.43	2.00	
238 U	165	1	0.00	ppb	24.57	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	615232	0.16	613401	100.3	30 - 120	
45 Sc	1	3306443	1.15	3328415	99.3	30 - 120	
72 Ge	1	1488448	1.06	1482070	100.4	30 - 120	
115 In	1	3689439	0.89	3719636	99.2	30 - 120	
165 Ho	1	5495479	1.07	5558876	98.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

RL STD QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\008RLST.D\008RLST.D#
Date Acquired: Aug 4 2009 05:44 pm
Operator: TEL
Sample Name: RL STD
Misc Info:
Vial Number: 2105
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: RLSTD
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.97	ppb	16.13	1	97.1	50 - 150	
23 Na	6	1	99.40	ppb	1.27	100	99.4	50 - 150	
24 Mg	6	1	106.20	ppb	1.61	100	106.2	50 - 150	
27 Al	45	1	106.20	ppb	0.88	100	106.2	50 - 150	
39 K	45	1	103.70	ppb	4.34	100	103.7	50 - 150	
43 Ca	45	1	100.40	ppb	11.33	100	100.4	50 - 150	
51 V	72	1	1.02	ppb	1.07	1	102.0	50 - 150	
52 Cr	72	1	1.02	ppb	1.34	1	101.6	50 - 150	
55 Mn	72	1	1.02	ppb	2.96	1	101.9	50 - 150	
57 Fe	72	1	106.30	ppb	1.66	100	106.3	50 - 150	
59 Co	72	1	1.06	ppb	0.46	1	106.2	50 - 150	
60 Ni	72	1	1.08	ppb	3.37	1	107.9	50 - 150	
63 Cu	72	1	1.09	ppb	1.88	1	108.6	50 - 150	
66 Zn	72	1	11.55	ppb	1.74	10	115.5	50 - 150	
75 As	72	1	1.04	ppb	0.35	1	104.2	50 - 150	
78 Se	72	1	1.02	ppb	35.72	1	101.7	50 - 150	
93 Nb	72	1	3.50	ppb	6.24	2	175.0	50 - 150	Fail
95 Mo	72	1	0.99	ppb	1.94	1	99.2	50 - 150	
105 Pd	115	1	1.04	ppb	5.32	1	103.8	50 - 150	
107 Ag	115	1	1.02	ppb	3.47	1	101.7	50 - 150	
111 Cd	115	1	1.03	ppb	2.92	1	103.1	50 - 150	
118 Sn	115	1	10.39	ppb	1.84	10	103.9	50 - 150	
121 Sb	115	1	0.98	ppb	3.12	1	98.5	50 - 150	
137 Ba	115	1	1.00	ppb	0.86	1	99.7	50 - 150	
182 W	165	1	1.00	ppb	2.34	1	100.4	50 - 150	
195 Pt	165	1	0.97	ppb	2.75	1	96.6	50 - 150	
205 Tl	165	1	1.07	ppb	1.28	1	106.5	50 - 150	
208 Pb	165	1	1.07	ppb	1.16	1	107.4	50 - 150	
232 Th	165	1	0.92	ppb	2.08	1	92.0	50 - 150	
238 U	165	1	1.09	ppb	0.88	1	109.2	50 - 150	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	621899	1.48	613401	101.4	30 - 120	
45 Sc	1	3315351	1.07	3328415	99.6	30 - 120	
72 Ge	1	1473929	0.22	1482070	99.5	30 - 120	
115 In	1	3735562	1.27	3719636	100.4	30 - 120	
165 Ho	1	5443789	0.20	5558876	97.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

AFCEE RL QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\009AFCE.D\009AFCE.D#
Date Acquired: Aug 4 2009 05:47 pm
Operator: TEL
Sample Name: AFCEE RL
Misc Info:
Vial Number: 2106
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: AFCEERL
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	0.19	ppb	14.20	0	98.2	80 - 120	
23 Na	6	1	15.27	ppb	1.74	20	76.8	80 - 120	
24 Mg	6	1	21.58	ppb	1.53	21	101.6	80 - 120	
27 Al	45	1	22.06	ppb	0.39	21	103.9	80 - 120	
39 K	45	1	21.49	ppb	4.35	21	103.6	80 - 120	
43 Ca	45	1	22.88	ppb	5.73	20	113.9	80 - 120	
51 V	72	1	0.23	ppb	6.59	0	111.3	80 - 120	
52 Cr	72	1	0.20	ppb	8.88	0	100.1	80 - 120	
55 Mn	72	1	0.21	ppb	5.24	0	103.5	80 - 120	
57 Fe	72	1	20.12	ppb	0.35	21	94.6	80 - 120	
59 Co	72	1	0.21	ppb	2.08	0	99.2	80 - 120	
60 Ni	72	1	0.54	ppb	3.25	0	252.4	80 - 120	
63 Cu	72	1	0.25	ppb	5.60	0	113.0	80 - 120	
66 Zn	72	1	2.36	ppb	1.76	2	102.1	80 - 120	
75 As	72	1	0.20	ppb	4.33	0	96.6	80 - 120	
78 Se	72	1	0.15	ppb	149.67	0	75.1	80 - 120	
93 Nb	72	1	1.48	ppb	12.00	1	211.6	80 - 120	
95 Mo	72	1	0.21	ppb	3.24	0	103.7	80 - 120	
105 Pd	115	1	0.19	ppb	7.31	0	92.9	80 - 120	
107 Ag	115	1	0.21	ppb	4.09	0	102.0	80 - 120	
111 Cd	115	1	0.20	ppb	8.51	0	95.4	80 - 120	
118 Sn	115	1	2.08	ppb	3.46	2	99.9	80 - 120	
121 Sb	115	1	0.23	ppb	6.06	0	117.1	80 - 120	
137 Ba	115	1	0.20	ppb	4.18	0	102.6	80 - 120	
182 W	165	1	0.21	ppb	5.18	0	102.6	80 - 120	
195 Pt	165	1	0.21	ppb	8.44	0	109.7	80 - 120	
205 Tl	165	1	0.22	ppb	3.69	0	104.3	80 - 120	
208 Pb	165	1	0.21	ppb	1.89	0	98.8	80 - 120	
232 Th	165	1	0.20	ppb	3.25	0	108.3	80 - 120	
238 U	165	1	0.21	ppb	1.88	0	97.0	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	612484	0.59	613401	99.9	30 - 120	
45 Sc	1	3336089	0.62	3328415	100.2	30 - 120	
72 Ge	1	1488913	1.35	1482070	100.5	30 - 120	
115 In	1	3708691	0.65	3719636	99.7	30 - 120	
165 Ho	1	5434381	0.68	5558876	97.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\010SMPL.D\010SMPL.D#
Date Acquired: Aug 4 2009 05:50 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTSe
Misc Info: 2 ppb
Vial Number: 2107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	-6.23	-6.23	ppb	12.05	100000	
24 Mg	6	1	0.13	0.13	ppb	57.73	100000	
27 Al	45	1	-0.41	-0.41	ppb	11.70	100000	
39 K	45	1	1.40	1.40	ppb	19.02	100000	
43 Ca	45	1	-3.26	-3.26	ppb	28.59	100000	
51 V	72	1	0.00	0.00	ppb	495.39	3600	
52 Cr	72	1	0.01	0.01	ppb	68.18	3600	
55 Mn	72	1	0.00	0.00	ppb	177.08	18000	
57 Fe	72	1	0.14	0.14	ppb	54.03	100000	
59 Co	72	1	0.00	0.00	ppb	61.01	3600	
60 Ni	72	1	0.00	0.00	ppb	229.74	3600	
63 Cu	72	1	0.01	0.01	ppb	107.08	3600	
66 Zn	72	1	-0.09	-0.09	ppb	8.20	3600	
75 As	72	1	-0.01	-0.01	ppb	22.78	3600	
78 Se	72	1	2.34	2.34	ppb	17.14	3600	
93 Nb	72	1	0.80	0.80	ppb	18.12	2000	
95 Mo	72	1	0.00	0.00	ppb	5.16	3600	
105 Pd	115	1	0.01	0.01	ppb	51.69	1000	
107 Ag	115	1	0.00	0.00	ppb	62.01	3600	
111 Cd	115	1	0.00	0.00	ppb	26.79	3600	
118 Sn	115	1	-0.04	-0.04	ppb	41.03	3600	
121 Sb	115	1	0.02	0.02	ppb	12.94	3600	
137 Ba	115	1	0.00	0.00	ppb	139.79	3600	
182 W	165	1	0.00	0.00	ppb	571.47	1000	
195 Pt	165	1	0.00	0.00	ppb	1643.80	1000	
205 Tl	165	1	0.01	0.01	ppb	18.45	3600	
208 Pb	165	1	0.00	0.00	ppb	91.61	3600	
232 Th	165	1	0.00	0.00	ppb	1210.80	1000	
238 U	165	1	0.00	0.00	ppb	65.63	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628758	4.36	613401	102.5	30 - 120	
45 Sc	1	3304988	0.43	3328415	99.3	30 - 120	
72 Ge	1	1481087	0.85	1482070	99.9	30 - 120	
115 In	1	3694596	0.88	3719636	99.3	30 - 120	
165 Ho	1	5415585	0.30	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\011ICSA.D\011ICSA.D#
Date Acquired: Aug 4 2009 05:53 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.00 ppb	173.21	1.00	
23 Na	6	1	100500.00 ppb	0.77	100.00	
24 Mg	6	1	98000.00 ppb	0.73	100.00	
27 Al	45	1	98990.00 ppb	0.78	100.00	
39 K	45	1	99310.00 ppb	0.22	100.00	
43 Ca	45	1	102300.00 ppb	0.74	100.00	
51 V	72	1	-0.11 ppb	51.36	1.00	
52 Cr	72	1	0.70 ppb	3.18	1.00	
55 Mn	72	1	3.53 ppb	1.53	1.00	
57 Fe	72	1	97710.00 ppb	0.58	100.00	
59 Co	72	1	1.58 ppb	2.91	1.00	
60 Ni	72	1	1.57 ppb	1.64	1.00	
63 Cu	72	1	1.49 ppb	1.13	1.00	
66 Zn	72	1	2.87 ppb	2.08	10.00	
75 As	72	1	0.41 ppb	5.47	1.00	
78 Se	72	1	-0.17 ppb	49.11	1.00	
93 Nb	72	1	1.51 ppb	11.67	2.00	
95 Mo	72	1	2047.00 ppb	0.11	2000.00	
105 Pd	115	1	0.07 ppb	27.22	1.00	
107 Ag	115	1	0.04 ppb	18.29	1.00	
111 Cd	115	1	2.58 ppb	2.38	1.00	
118 Sn	115	1	0.21 ppb	11.25	10.00	
121 Sb	115	1	0.26 ppb	1.73	1.00	
137 Ba	115	1	0.07 ppb	19.17	1.00	
182 W	165	1	0.10 ppb	8.43	5.00	
195 Pt	165	1	0.00 ppb	499.24	1.00	
205 Tl	165	1	0.03 ppb	60.16	1.00	
208 Pb	165	1	0.11 ppb	6.85	1.00	
232 Th	165	1	0.05 ppb	32.11	2.00	
238 U	165	1	0.00 ppb	386.37	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	534481	1.03	613401	87.1	30 - 120	
45 Sc	1	2836722	1.84	3328415	85.2	30 - 120	
72 Ge	1	1237307	1.64	1482070	83.5	30 - 120	
115 In	1	3118112	1.08	3719636	83.8	30 - 120	
165 Ho	1	4824482	1.14	5558876	86.8	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\012ICSB.D\012ICSB.D#
Date Acquired: Aug 4 2009 05:56 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	97.87	2.69	100	97.9	80 - 120	
23 Na	6	1	109100.00	1.92	110000	99.2	80 - 120	
24 Mg	6	1	105900.00	1.80	110000	96.3	80 - 120	
27 Al	45	1	106900.00	0.67	110000	97.2	80 - 120	
39 K	45	1	106300.00	1.52	110000	96.6	80 - 120	
43 Ca	45	1	110700.00	1.37	110000	100.6	80 - 120	
51 V	72	1	102.10	2.01	100	102.1	80 - 120	
52 Cr	72	1	100.50	0.60	100	100.5	80 - 120	
55 Mn	72	1	100.60	1.12	100	100.6	80 - 120	
57 Fe	72	1	104600.00	1.61	110000	95.1	80 - 120	
59 Co	72	1	99.01	0.80	100	99.0	80 - 120	
60 Ni	72	1	95.40	0.87	100	95.4	80 - 120	
63 Cu	72	1	95.99	1.03	100	96.0	80 - 120	
66 Zn	72	1	97.48	0.22	100	97.5	80 - 120	
75 As	72	1	99.71	0.74	100	99.7	80 - 120	
78 Se	72	1	102.30	3.31	100	102.3	80 - 120	
93 Nb	72	1	199.50	2.06	200	99.8	80 - 120	
95 Mo	72	1	2105.00	0.55	2100	100.2	80 - 120	
105 Pd	115	1	94.41	1.04	100	94.4	80 - 120	
107 Ag	115	1	87.95	3.58	100	88.0	80 - 120	
111 Cd	115	1	96.52	0.96	100	96.5	80 - 120	
118 Sn	115	1	99.29	0.54	100	99.3	80 - 120	
121 Sb	115	1	99.82	0.85	100	99.8	80 - 120	
137 Ba	115	1	101.90	0.79	100	101.9	80 - 120	
182 W	165	1	100.60	1.12	100	100.6	80 - 120	
195 Pt	165	1	94.72	1.77	100	94.7	80 - 120	
205 Tl	165	1	95.99	0.84	100	96.0	80 - 120	
208 Pb	165	1	94.61	0.78	100	94.6	80 - 120	
232 Th	165	1	97.98	1.51	100	98.0	80 - 120	
238 U	165	1	98.93	0.13	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	533235	1.40	613401	86.9	30 - 120	
45 Sc	1	2842582	0.80	3328415	85.4	30 - 120	
72 Ge	1	1255559	0.45	1482070	84.7	30 - 120	
115 In	1	3152795	0.39	3719636	84.8	30 - 120	
165 Ho	1	4890857	0.21	5558876	88.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\013SMPL.D\013SMPL.D#
Date Acquired: Aug 4 2009 05:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	173.22	3600	
23 Na	6	1	9.45	9.45	ppb	21.11	100000	
24 Mg	6	1	8.12	8.12	ppb	28.37	100000	
27 Al	45	1	9.27	9.27	ppb	28.41	100000	
39 K	45	1	-0.97	-0.97	ppb	171.54	100000	
43 Ca	45	1	8.14	8.14	ppb	32.30	100000	
51 V	72	1	-0.01	-0.01	ppb	139.27	3600	
52 Cr	72	1	-0.01	-0.01	ppb	184.25	3600	
55 Mn	72	1	0.00	0.00	ppb	941.65	18000	
57 Fe	72	1	10.19	10.19	ppb	25.06	100000	
59 Co	72	1	0.01	0.01	ppb	18.70	3600	
60 Ni	72	1	0.00	0.00	ppb	410.08	3600	
63 Cu	72	1	0.00	0.00	ppb	359.40	3600	
66 Zn	72	1	-0.05	-0.05	ppb	51.41	3600	
75 As	72	1	-0.01	-0.01	ppb	156.65	3600	
78 Se	72	1	-0.44	-0.44	ppb	76.37	3600	
93 Nb	72	1	4.37	4.37	ppb	10.29	2000	
95 Mo	72	1	1.41	1.41	ppb	9.48	3600	
105 Pd	115	1	0.01	0.01	ppb	24.81	1000	
107 Ag	115	1	0.01	0.01	ppb	47.08	3600	
111 Cd	115	1	0.01	0.01	ppb	8.17	3600	
118 Sn	115	1	-0.03	-0.03	ppb	29.93	3600	
121 Sb	115	1	0.20	0.20	ppb	4.20	3600	
137 Ba	115	1	0.01	0.01	ppb	20.60	3600	
182 W	165	1	0.04	0.04	ppb	27.00	1000	
195 Pt	165	1	0.01	0.01	ppb	55.28	1000	
205 Tl	165	1	0.00	0.00	ppb	31.86	3600	
208 Pb	165	1	0.01	0.01	ppb	14.47	3600	
232 Th	165	1	0.40	0.40	ppb	12.44	1000	
238 U	165	1	0.01	0.01	ppb	11.12	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	649011	1.30	613401	105.8	30 - 120	
45 Sc	1	3287885	2.08	3328415	98.8	30 - 120	
72 Ge	1	1508013	1.80	1482070	101.8	30 - 120	
115 In	1	3723681	1.03	3719636	100.1	30 - 120	
165 Ho	1	5486394	1.12	5558876	98.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Linear Dynamic Range Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\014_LR.D\014_LR.D#
Date Acquired: Aug 4 2009 06:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LR
Misc Info:
Vial Number: 2110
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: LR
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc.	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	983.10 ppb	1.47	1000	98.3	90 - 110	
23 Na	6	1	100400.00 ppb	1.20	100000	100.4	90 - 110	
24 Mg	6	1	98120.00 ppb	1.39	100000	98.1	90 - 110	
27 Al	45	1	99120.00 ppb	0.56	100000	99.1	90 - 110	
39 K	45	1	99030.00 ppb	0.39	100000	99.0	90 - 110	
43 Ca	45	1	102600.00 ppb	1.25	100000	102.6	90 - 110	
51 V	72	1	956.50 ppb	0.75	1000	95.7	90 - 110	
52 Cr	72	1	962.40 ppb	1.35	1000	96.2	90 - 110	
55 Mn	72	1	936.10 ppb	1.37	1000	93.6	90 - 110	
57 Fe	72	1	94940.00 ppb	1.06	100000	94.9	90 - 110	
59 Co	72	1	937.10 ppb	1.00	1000	93.7	90 - 110	
60 Ni	72	1	926.30 ppb	1.42	1000	92.6	90 - 110	
63 Cu	72	1	894.90 ppb	1.52	1000	89.5	90 - 110	Fail
66 Zn	72	1	910.10 ppb	2.20	1000	91.0	90 - 110	
75 As	72	1	957.10 ppb	1.28	1000	95.7	90 - 110	
78 Se	72	1	934.30 ppb	1.11	1000	93.4	90 - 110	
93 Nb	72	1	2252.00 ppb	1.30	2000	112.6	90 - 110	Fail
95 Mo	72	1	994.00 ppb	0.33	1000	99.4	90 - 110	
105 Pd	115	1	906.90 ppb	0.43	1000	90.7	90 - 110	
107 Ag	115	1	885.00 ppb	0.74	1000	88.5	90 - 110	Fail
111 Cd	115	1	933.70 ppb	1.14	1000	93.4	90 - 110	
118 Sn	115	1	945.30 ppb	0.55	1000	94.5	90 - 110	
121 Sb	115	1	937.70 ppb	0.72	1000	93.8	90 - 110	
137 Ba	115	1	980.70 ppb	0.91	1000	98.1	90 - 110	
182 W	165	1	966.40 ppb	0.42	1000	96.6	90 - 110	
195 Pt	165	1	925.70 ppb	0.22	1000	92.6	90 - 110	
205 Tl	165	1	943.40 ppb	0.69	1000	94.3	90 - 110	
208 Pb	165	1	916.60 ppb	0.69	1000	91.7	90 - 110	
232 Th	165	1	974.50 ppb	1.33	1000	97.5	90 - 110	
238 U	165	1	971.30 ppb	0.43	1000	97.1	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	510401	1.65	613401	83.2	30 - 120	
45 Sc	1	2772323	0.84	3328415	83.3	30 - 120	
72 Ge	1	1233806	0.89	1482070	83.2	30 - 120	
115 In	1	3002824	0.95	3719636	80.7	30 - 120	
165 Ho	1	4527867	0.86	5558876	81.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

3 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\015SMPL.D\015SMPL.D#
Date Acquired: Aug 4 2009 06:05 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.07	0.07	ppb	48.32	3600	
23 Na	6	1	29.14	29.14	ppb	82.84	100000	
24 Mg	6	1	30.32	30.32	ppb	83.38	100000	
27 Al	45	1	31.88	31.88	ppb	85.45	100000	
39 K	45	1	26.56	26.56	ppb	98.16	100000	
43 Ca	45	1	29.46	29.46	ppb	104.68	100000	
51 V	72	1	0.06	0.06	ppb	35.99	3600	
52 Cr	72	1	0.08	0.08	ppb	13.36	3600	
55 Mn	72	1	0.07	0.07	ppb	14.28	18000	
57 Fe	72	1	32.88	32.88	ppb	80.32	100000	
59 Co	72	1	0.08	0.08	ppb	19.80	3600	
60 Ni	72	1	0.08	0.08	ppb	18.95	3600	
63 Cu	72	1	0.09	0.09	ppb	14.48	3600	
66 Zn	72	1	0.06	0.06	ppb	100.05	3600	
75 As	72	1	0.08	0.08	ppb	21.57	3600	
78 Se	72	1	0.21	0.21	ppb	135.98	3600	
93 Nb	72	1	2.57	2.57	ppb	6.91	2000	
95 Mo	72	1	1.11	1.11	ppb	42.33	3600	
105 Pd	115	1	0.35	0.35	ppb	13.01	1000	
107 Ag	115	1	0.14	0.14	ppb	90.61	3600	
111 Cd	115	1	0.07	0.07	ppb	11.74	3600	
118 Sn	115	1	0.10	0.10	ppb	45.44	3600	
121 Sb	115	1	0.51	0.51	ppb	3.38	3600	
137 Ba	115	1	0.08	0.08	ppb	11.45	3600	
182 W	165	1	0.30	0.30	ppb	6.75	1000	
195 Pt	165	1	0.08	0.08	ppb	9.38	1000	
205 Tl	165	1	0.06	0.06	ppb	14.89	3600	
208 Pb	165	1	0.08	0.08	ppb	15.45	3600	
232 Th	165	1	0.63	0.63	ppb	11.37	1000	
238 U	165	1	0.15	0.15	ppb	8.95	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	636485	2.37	613401	103.8	30 - 120	
45 Sc	1	3258183	0.99	3328415	97.9	30 - 120	
72 Ge	1	1456251	1.25	1482070	98.3	30 - 120	
115 In	1	3639887	0.96	3719636	97.9	30 - 120	
165 Ho	1	5321897	0.82	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\016_CCV.D\016_CCV.D#
Date Acquired: Aug 4 2009 06:08 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.78	ppb	0.49	50	97.6	90 - 110	
23 Na	6	1	4760.00	ppb	1.12	5000	95.2	90 - 110	
24 Mg	6	1	4816.00	ppb	1.08	5000	96.3	90 - 110	
27 Al	45	1	5035.00	ppb	1.14	5000	100.7	90 - 110	
39 K	45	1	5082.00	ppb	0.66	5000	101.6	90 - 110	
43 Ca	45	1	5059.00	ppb	2.14	5000	101.2	90 - 110	
51 V	72	1	51.79	ppb	2.01	50	103.6	90 - 110	
52 Cr	72	1	51.99	ppb	1.10	50	104.0	90 - 110	
55 Mn	72	1	51.12	ppb	0.22	50	102.2	90 - 110	
57 Fe	72	1	5151.00	ppb	0.27	5000	103.0	90 - 110	
59 Co	72	1	51.21	ppb	0.57	50	102.4	90 - 110	
60 Ni	72	1	51.45	ppb	0.65	50	102.9	90 - 110	
63 Cu	72	1	52.11	ppb	1.84	50	104.2	90 - 110	
66 Zn	72	1	50.89	ppb	0.91	50	101.8	90 - 110	
75 As	72	1	50.97	ppb	0.96	50	101.9	90 - 110	
78 Se	72	1	49.64	ppb	1.37	50	99.3	90 - 110	
93 Nb	72	1	95.63	ppb	0.52	100	95.6	90 - 110	
95 Mo	72	1	50.17	ppb	0.72	50	100.3	90 - 110	
105 Pd	115	1	50.80	ppb	1.97	50	101.6	90 - 110	
107 Ag	115	1	50.98	ppb	1.22	50	102.0	90 - 110	
111 Cd	115	1	49.67	ppb	1.69	50	99.3	90 - 110	
118 Sn	115	1	49.48	ppb	1.14	50	99.0	90 - 110	
121 Sb	115	1	49.35	ppb	1.28	50	98.7	90 - 110	
137 Ba	115	1	49.77	ppb	1.62	50	99.5	90 - 110	
182 W	165	1	48.67	ppb	0.25	50	97.3	90 - 110	
195 Pt	165	1	50.37	ppb	0.44	50	100.7	90 - 110	
205 Tl	165	1	50.63	ppb	1.93	50	101.3	90 - 110	
208 Pb	165	1	51.33	ppb	0.02	50	102.7	90 - 110	
232 Th	165	1	51.28	ppb	0.04	50	102.6	90 - 110	
238 U	165	1	50.86	ppb	1.58	50	101.7	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	628515	0.96	613401	102.5	30 - 120	
45 Sc	1	3221822	1.47	3328415	96.8	30 - 120	
72 Ge	1	1435947	0.25	1482070	96.9	30 - 120	
115 In	1	3596795	1.09	3719636	96.7	30 - 120	
165 Ho	1	5266006	0.51	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\017_CCB.D\017_CCB.D#
Date Acquired: Aug 4 2009 06:10 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-0.262	ppb	85.71	20.00	
24 Mg	6	1	0.283	ppb	48.06	20.00	
27 Al	45	1	0.421	ppb	35.34	20.00	
39 K	45	1	-0.622	ppb	196.49	20.00	
43 Ca	45	1	-1.825	ppb	36.62	20.00	
51 V	72	1	-0.003	ppb	1202.80	1.00	
52 Cr	72	1	-0.008	ppb	72.38	1.00	
55 Mn	72	1	0.000	ppb	42322.00	1.00	
57 Fe	72	1	0.855	ppb	24.84	20.00	
59 Co	72	1	0.004	ppb	37.15	1.00	
60 Ni	72	1	-0.004	ppb	166.56	1.00	
63 Cu	72	1	0.029	ppb	30.11	1.00	
66 Zn	72	1	-0.052	ppb	35.40	10.00	
75 As	72	1	-0.006	ppb	126.53	1.00	
78 Se	72	1	0.114	ppb	65.70	1.00	
93 Nb	72	1	3.313	ppb	10.30	2.00	Fail
95 Mo	72	1	0.106	ppb	4.23	1.00	
105 Pd	115	1	0.078	ppb	2.54	1.00	
107 Ag	115	1	0.011	ppb	24.39	1.00	
111 Cd	115	1	0.006	ppb	29.05	1.00	
118 Sn	115	1	-0.044	ppb	55.28	10.00	
121 Sb	115	1	0.224	ppb	5.55	1.00	
137 Ba	115	1	0.008	ppb	52.42	1.00	
182 W	165	1	0.076	ppb	7.55	5.00	
195 Pt	165	1	0.004	ppb	72.15	1.00	
205 Tl	165	1	0.017	ppb	16.74	1.00	
208 Pb	165	1	0.004	ppb	53.83	1.00	
232 Th	165	1	0.302	ppb	10.04	2.00	
238 U	165	1	0.014	ppb	13.03	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639510	1.15	613401	104.3	30 - 120	
45 Sc	1	3307384	1.05	3328415	99.4	30 - 120	
72 Ge	1	1500542	0.71	1482070	101.2	30 - 120	
115 In	1	3717920	0.26	3719636	100.0	30 - 120	
165 Ho	1	5368130	0.70	5558876	96.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\018WASH.D\018WASH.D#
Date Acquired: Aug 4 2009 06:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.966 ppb	19.98	1.30	
23 Na	6	1	50.660 ppb	1.28	65.00	
24 Mg	6	1	52.770 ppb	0.74	65.00	
27 Al	45	1	34.250 ppb	0.60	39.00	
39 K	45	1	107.000 ppb	1.34	130.00	
43 Ca	45	1	61.380 ppb	12.89	65.00	
51 V	72	1	5.247 ppb	2.06	6.50	
52 Cr	72	1	2.159 ppb	3.17	2.60	
55 Mn	72	1	1.047 ppb	2.30	1.30	
57 Fe	72	1	55.000 ppb	0.91	65.00	
59 Co	72	1	1.081 ppb	3.35	1.30	
60 Ni	72	1	2.225 ppb	0.84	2.60	
63 Cu	72	1	2.218 ppb	0.66	2.60	
66 Zn	72	1	10.630 ppb	1.13	13.00	
75 As	72	1	5.190 ppb	1.34	6.50	
78 Se	72	1	4.780 ppb	9.72	6.50	
93 Nb	72	1	44.630 ppb	1.58	52.00	
95 Mo	72	1	2.164 ppb	2.78	2.60	
105 Pd	115	1	0.971 ppb	1.68	1.30	
107 Ag	115	1	5.468 ppb	2.23	6.50	
111 Cd	115	1	1.067 ppb	6.04	1.30	
118 Sn	115	1	10.240 ppb	1.46	13.00	
121 Sb	115	1	2.046 ppb	0.96	2.60	
137 Ba	115	1	1.024 ppb	1.96	1.30	
182 W	165	1	4.992 ppb	0.40	6.50	
195 Pt	165	1	1.016 ppb	6.07	1.30	
205 Tl	165	1	1.134 ppb	0.58	1.30	
208 Pb	165	1	1.104 ppb	2.61	1.30	
232 Th	165	1	2.579 ppb	4.95	2.60	
238 U	165	1	1.115 ppb	1.37	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	653683	0.81	613401	106.6	30 - 120	
45 Sc	1	3353924	0.65	3328415	100.8	30 - 120	
72 Ge	1	1497601	0.60	1482070	101.0	30 - 120	
115 In	1	3740478	0.96	3719636	100.6	30 - 120	
165 Ho	1	5408001	0.74	5558876	97.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\019SMPL.D\019SMPL.D#
Date Acquired: Aug 4 2009 06:18 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ALTLR
Misc Info:
Vial Number: 2112
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	0.12	0.12	ppb	176.13	100000	
24 Mg	6	1	0.42	0.42	ppb	17.15	100000	
27 Al	45	1	0.09	0.09	ppb	82.68	100000	
39 K	45	1	0.19	0.19	ppb	520.06	100000	
43 Ca	45	1	4.98	4.98	ppb	41.27	100000	
51 V	72	1	-0.01	-0.01	ppb	142.22	3600	
52 Cr	72	1	0.01	0.01	ppb	147.66	3600	
55 Mn	72	1	0.01	0.01	ppb	43.31	18000	
57 Fe	72	1	0.77	0.77	ppb	37.26	100000	
59 Co	72	1	0.00	0.00	ppb	207.28	3600	
60 Ni	72	1	0.01	0.01	ppb	32.71	3600	
63 Cu	72	1	1,021.00	1021.00	ppb	1.47	3600	
66 Zn	72	1	0.18	0.18	ppb	12.36	3600	
75 As	72	1	-0.01	-0.01	ppb	54.80	3600	
78 Se	72	1	0.22	0.22	ppb	145.05	3600	
93 Nb	72	1	1.49	1.49	ppb	13.66	2000	
95 Mo	72	1	0.04	0.04	ppb	41.08	3600	
105 Pd	115	1	0.03	0.03	ppb	33.11	1000	
107 Ag	115	1	997.10	997.10	ppb	1.04	3600	
111 Cd	115	1	0.00	0.00	ppb	237.61	3600	
118 Sn	115	1	0.01	0.01	ppb	76.14	3600	
121 Sb	115	1	0.06	0.06	ppb	19.76	3600	
137 Ba	115	1	0.01	0.01	ppb	10.26	3600	
182 W	165	1	0.00	0.00	ppb	132.52	1000	
195 Pt	165	1	0.00	0.00	ppb	5.89	1000	
205 Tl	165	1	0.00	0.00	ppb	143.26	3600	
208 Pb	165	1	0.00	0.00	ppb	97.75	3600	
232 Th	165	1	0.00	0.00	ppb	42.61	1000	
238 U	165	1	0.00	0.00	ppb	21.15	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	645817	2.26	613401	105.3	30 - 120	
45 Sc	1	3364358	1.91	3328415	101.1	30 - 120	
72 Ge	1	1505138	0.77	1482070	101.6	30 - 120	
115 In	1	3723444	0.73	3719636	100.1	30 - 120	
165 Ho	1	5413880	0.82	5558876	97.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\020SMPL.D\020SMPL.D#
Date Acquired: Aug 4 2009 06:21 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: RINSE
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 05:33 pm
Sample Type: SA
Dilution Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.01	0.01	ppb	173.21	3600	
23 Na	6	1	-1.08	-1.08	ppb	30.22	100000	
24 Mg	6	1	0.90	0.90	ppb	8.10	100000	
27 Al	45	1	0.66	0.66	ppb	6.43	100000	
39 K	45	1	0.89	0.89	ppb	42.26	100000	
43 Ca	45	1	0.94	0.94	ppb	32.30	100000	
51 V	72	1	0.01	0.01	ppb	182.83	3600	
52 Cr	72	1	0.01	0.01	ppb	138.67	3600	
55 Mn	72	1	0.00	0.00	ppb	594.11	18000	
57 Fe	72	1	1.09	1.09	ppb	24.34	100000	
59 Co	72	1	0.00	0.00	ppb	124.28	3600	
60 Ni	72	1	-0.01	-0.01	ppb	33.43	3600	
63 Cu	72	1	0.07	0.07	ppb	30.65	3600	
66 Zn	72	1	-0.05	-0.05	ppb	13.23	3600	
75 As	72	1	-0.01	-0.01	ppb	56.38	3600	
78 Se	72	1	0.13	0.13	ppb	263.90	3600	
93 Nb	72	1	0.99	0.99	ppb	14.14	2000	
95 Mo	72	1	0.03	0.03	ppb	62.65	3600	
105 Pd	115	1	0.04	0.04	ppb	28.83	1000	
107 Ag	115	1	0.06	0.06	ppb	34.60	3600	
111 Cd	115	1	0.01	0.01	ppb	36.71	3600	
118 Sn	115	1	-0.09	-0.09	ppb	11.11	3600	
121 Sb	115	1	0.03	0.03	ppb	12.48	3600	
137 Ba	115	1	0.01	0.01	ppb	32.40	3600	
182 W	165	1	0.00	0.00	ppb	113.47	1000	
195 Pt	165	1	0.01	0.01	ppb	47.21	1000	
205 Tl	165	1	0.00	0.00	ppb	22.13	3600	
208 Pb	165	1	0.00	0.00	ppb	71.75	3600	
232 Th	165	1	-0.01	-0.01	ppb	15.66	1000	
238 U	165	1	0.01	0.01	ppb	11.09	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	641513	1.37	613401	104.6	30 - 120	
45 Sc	1	3366434	1.69	3328415	101.1	30 - 120	
72 Ge	1	1514557	0.93	1482070	102.2	30 - 120	
115 In	1	3724160	0.53	3719636	100.1	30 - 120	
165 Ho	1	5321318	0.19	5558876	95.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\021_CCV.D\021_CCV.D#
Date Acquired: Aug 4 2009 06:24 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	48.03	ppb	0.94	50	96.1	90 - 110	
23 Na	6	1	4744.00	ppb	2.21	5000	94.9	90 - 110	
24 Mg	6	1	4798.00	ppb	0.73	5000	96.0	90 - 110	
27 Al	45	1	5084.00	ppb	2.25	5000	101.7	90 - 110	
39 K	45	1	5110.00	ppb	0.62	5000	102.2	90 - 110	
43 Ca	45	1	5069.00	ppb	0.73	5000	101.4	90 - 110	
51 V	72	1	51.56	ppb	1.43	50	103.1	90 - 110	
52 Cr	72	1	50.99	ppb	1.52	50	102.0	90 - 110	
55 Mn	72	1	51.46	ppb	1.14	50	102.9	90 - 110	
57 Fe	72	1	5155.00	ppb	0.58	5000	103.1	90 - 110	
59 Co	72	1	51.58	ppb	1.14	50	103.2	90 - 110	
60 Ni	72	1	51.36	ppb	1.50	50	102.7	90 - 110	
63 Cu	72	1	51.89	ppb	1.29	50	103.8	90 - 110	
66 Zn	72	1	50.99	ppb	0.93	50	102.0	90 - 110	
75 As	72	1	50.84	ppb	1.52	50	101.7	90 - 110	
78 Se	72	1	51.24	ppb	1.36	50	102.5	90 - 110	
93 Nb	72	1	94.55	ppb	0.52	100	94.6	90 - 110	
95 Mo	72	1	49.93	ppb	1.53	50	99.9	90 - 110	
105 Pd	115	1	50.85	ppb	0.34	50	101.7	90 - 110	
107 Ag	115	1	51.69	ppb	0.86	50	103.4	90 - 110	
111 Cd	115	1	50.15	ppb	0.49	50	100.3	90 - 110	
118 Sn	115	1	50.23	ppb	0.51	50	100.5	90 - 110	
121 Sb	115	1	49.70	ppb	0.83	50	99.4	90 - 110	
137 Ba	115	1	50.28	ppb	0.28	50	100.6	90 - 110	
182 W	165	1	48.40	ppb	0.99	50	96.8	90 - 110	
195 Pt	165	1	50.19	ppb	1.03	50	100.4	90 - 110	
205 Tl	165	1	51.30	ppb	0.24	50	102.6	90 - 110	
208 Pb	165	1	51.13	ppb	0.92	50	102.3	90 - 110	
232 Th	165	1	50.02	ppb	1.31	50	100.0	90 - 110	
238 U	165	1	50.40	ppb	0.39	50	100.8	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	637798	1.11	613401	104.0	30 - 120	
45 Sc	1	3256719	1.41	3328415	97.8	30 - 120	
72 Ge	1	1445937	0.36	1482070	97.6	30 - 120	
115 In	1	3556246	0.63	3719636	95.6	30 - 120	
165 Ho	1	5266849	0.14	5558876	94.7	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\022_CCB.D\022_CCB.D#
Date Acquired: Aug 4 2009 06:27 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.008	ppb	173.18	1.00	
23 Na	6	1	-5.657	ppb	6.88	20.00	
24 Mg	6	1	0.282	ppb	35.67	20.00	
27 Al	45	1	0.364	ppb	31.23	20.00	
39 K	45	1	0.504	ppb	74.31	20.00	
43 Ca	45	1	-0.577	ppb	232.24	20.00	
51 V	72	1	-0.031	ppb	73.13	1.00	
52 Cr	72	1	-0.012	ppb	100.88	1.00	
55 Mn	72	1	0.000	ppb	6998.30	1.00	
57 Fe	72	1	0.867	ppb	28.00	20.00	
59 Co	72	1	0.001	ppb	226.14	1.00	
60 Ni	72	1	0.014	ppb	104.94	1.00	
63 Cu	72	1	0.023	ppb	40.09	1.00	
66 Zn	72	1	-0.069	ppb	6.01	10.00	
75 As	72	1	-0.003	ppb	205.31	1.00	
78 Se	72	1	0.070	ppb	329.91	1.00	
93 Nb	72	1	3.296	ppb	11.66	2.00	Fail
95 Mo	72	1	0.043	ppb	22.77	1.00	
105 Pd	115	1	0.033	ppb	13.82	1.00	
107 Ag	115	1	0.014	ppb	53.32	1.00	
111 Cd	115	1	0.005	ppb	37.33	1.00	
118 Sn	115	1	-0.066	ppb	13.39	10.00	
121 Sb	115	1	0.174	ppb	1.91	1.00	
137 Ba	115	1	0.007	ppb	32.98	1.00	
182 W	165	1	0.034	ppb	15.67	5.00	
195 Pt	165	1	0.009	ppb	63.42	1.00	
205 Tl	165	1	0.011	ppb	35.61	1.00	
208 Pb	165	1	0.003	ppb	37.08	1.00	
232 Th	165	1	0.271	ppb	11.18	2.00	
238 U	165	1	0.010	ppb	9.62	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	639094	1.93	613401	104.2	30 - 120	
45 Sc	1	3307521	1.41	3328415	99.4	30 - 120	
72 Ge	1	1478496	0.34	1482070	99.8	30 - 120	
115 In	1	3684210	0.86	3719636	99.0	30 - 120	
165 Ho	1	5345603	0.83	5558876	96.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\023WASH.D\023WASH.D#
Date Acquired: Aug 4 2009 06:30 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 05:33 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	1.029 ppb	12.28	1.30	
23 Na	6	1	47.570 ppb	0.74	65.00	
24 Mg	6	1	54.960 ppb	0.32	65.00	
27 Al	45	1	34.190 ppb	0.42	39.00	
39 K	45	1	109.700 ppb	0.43	130.00	
43 Ca	45	1	50.300 ppb	12.46	65.00	
51 V	72	1	5.194 ppb	1.40	6.50	
52 Cr	72	1	2.165 ppb	0.83	2.60	
55 Mn	72	1	1.041 ppb	7.83	1.30	
57 Fe	72	1	55.780 ppb	1.03	65.00	
59 Co	72	1	1.076 ppb	4.16	1.30	
60 Ni	72	1	2.241 ppb	1.15	2.60	
63 Cu	72	1	2.192 ppb	2.30	2.60	
66 Zn	72	1	10.470 ppb	1.51	13.00	
75 As	72	1	5.234 ppb	0.88	6.50	
78 Se	72	1	4.928 ppb	3.74	6.50	
93 Nb	72	1	44.410 ppb	1.15	52.00	
95 Mo	72	1	2.015 ppb	1.75	2.60	
105 Pd	115	1	0.924 ppb	4.65	1.30	
107 Ag	115	1	5.423 ppb	1.73	6.50	
111 Cd	115	1	1.049 ppb	1.47	1.30	
118 Sn	115	1	10.170 ppb	1.85	13.00	
121 Sb	115	1	2.016 ppb	0.80	2.60	
137 Ba	115	1	1.044 ppb	1.15	1.30	
182 W	165	1	4.928 ppb	0.25	6.50	
195 Pt	165	1	1.060 ppb	6.37	1.30	
205 Tl	165	1	1.096 ppb	0.95	1.30	
208 Pb	165	1	1.109 ppb	1.02	1.30	
232 Th	165	1	2.531 ppb	4.87	2.60	
238 U	165	1	1.102 ppb	0.12	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	630390	0.15	613401	102.8	30 - 120	
45 Sc	1	3346385	0.19	3328415	100.5	30 - 120	
72 Ge	1	1491495	1.26	1482070	100.6	30 - 120	
115 In	1	3717652	0.76	3719636	99.9	30 - 120	
165 Ho	1	5359965	0.44	5558876	96.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\003CALB.D\003CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Reslope Before Continuing Analytical Run

Corrective action was taken as stated in method 6020 section 7.8

..."During the course of an analytical run, the instrument may be "resloped" or recalibrated to correct for instrument drift. A recalibration must then be followed immediately by a new analysis of a CCV and CCB before any further samples are analyzed."

Analyst: LRD

Date: 08/04/2009

Calibration Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#
Date Acquired: Aug 4 2009 09:44 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: Cal Blank
Misc Info:
Vial Number: 2101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:42 pm
Sample Type: CalBlk

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	0	0.00
23	Na	6	1	178484	1.47
24	Mg	6	1	14468	3.45
27	Al	45	1	12259	2.42
39	K	45	1	291167	0.16
43	Ca	45	1	117	30.31
51	V	72	1	62	998.48
52	Cr	72	1	3150	3.30
55	Mn	72	1	817	14.72
57	Fe	72	1	1950	3.11
59	Co	72	1	130	27.41
60	Ni	72	1	133	4.91
63	Cu	72	1	733	18.66
66	Zn	72	1	501	5.89
75	As	72	1	82	4.27
78	Se	72	1	760	16.24
93	Nb	72	1	9040	12.14
95	Mo	72	1	630	15.13
105	Pd	115	1	30	32.80
107	Ag	115	1	47	43.69
111	Cd	115	1	21	37.48
118	Sn	115	1	1340	13.26
121	Sb	115	1	107	20.01
137	Ba	115	1	127	14.14
182	W	165	1	970	10.27
195	Pt	165	1	193	16.47
205	Tl	165	1	123	18.04
208	Pb	165	1	272	24.67
232	Th	165	1	633	14.00
238	U	165	1	150	16.83

Internal Standard Elements

Element		Tune	CPS Mean	RSD(%)
6	Li	1	474143	0.42
45	Sc	1	2484770	0.24
72	Ge	1	1162179	0.64
115	In	1	3064413	0.99
165	Ho	1	4475388	0.32

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

Calibration Standard QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\090ICAL.D\090ICAL.D#
Date Acquired: Aug 4 2009 09:47 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: 100 ppb
Misc Info:
Vial Number: 2102
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:45 pm
Sample Type: ICAL

QC Elements

Element		IS Ref	Tune	CPS Mean	RSD(%)
9	Be	6	1	57654	0.96
23	Na	6	1	47290952	0.20
24	Mg	6	1	28755110	0.81
27	Al	45	1	26040040	0.31
39	K	45	1	46198380	0.52
43	Ca	45	1	115441	0.38
51	V	72	1	1322279	2.55
52	Cr	72	1	1278938	2.13
55	Mn	72	1	1389024	2.06
57	Fe	72	1	3272399	1.40
59	Co	72	1	1648690	2.74
60	Ni	72	1	372393	1.98
63	Cu	72	1	875339	1.93
66	Zn	72	1	175015	1.90
75	As	72	1	156097	1.98
78	Se	72	1	28029	1.73
93	Nb	72	1	4307845	2.13
95	Mo	72	1	418828	1.87
105	Pd	115	1	523266	0.92
107	Ag	115	1	1134900	0.27
111	Cd	115	1	220605	1.15
118	Sn	115	1	625068	1.30
121	Sb	115	1	692878	1.09
137	Ba	115	1	307510	1.18
182	W	165	1	947071	1.18
195	Pt	165	1	658257	1.17
205	Tl	165	1	2087953	0.61
208	Pb	165	1	2813110	0.86
232	Th	165	1	2965553	0.76
238	U	165	1	3109441	0.25

ISTD Elements

Element		Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	443695	0.31	474143	93.6	30 - 120	
45	Sc	1	2341196	0.60	2484770	94.2	30 - 120	
72	Ge	1	1096796	1.48	1162179	94.4	30 - 120	
115	In	1	2858030	0.81	3064413	93.3	30 - 120	
165	Ho	1	4293346	0.21	4475388	95.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0
0 :ISTD Failures 0

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\091_CCV.D\091_CCV.D#
Date Acquired: Aug 4 2009 09:50 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.75	ppb	2.38	50	101.5	90 - 110	
23 Na	6	1	5030.00	ppb	0.76	5000	100.6	90 - 110	
24 Mg	6	1	5070.00	ppb	2.00	5000	101.4	90 - 110	
27 Al	45	1	5077.00	ppb	0.58	5000	101.5	90 - 110	
39 K	45	1	5046.00	ppb	1.31	5000	100.9	90 - 110	
43 Ca	45	1	5110.00	ppb	1.76	5000	102.2	90 - 110	
51 V	72	1	49.26	ppb	0.37	50	98.5	90 - 110	
52 Cr	72	1	50.67	ppb	0.26	50	101.3	90 - 110	
55 Mn	72	1	50.26	ppb	0.80	50	100.5	90 - 110	
57 Fe	72	1	5175.00	ppb	1.75	5000	103.5	90 - 110	
59 Co	72	1	50.69	ppb	0.60	50	101.4	90 - 110	
60 Ni	72	1	51.38	ppb	0.38	50	102.8	90 - 110	
63 Cu	72	1	51.26	ppb	0.64	50	102.5	90 - 110	
66 Zn	72	1	51.04	ppb	0.43	50	102.1	90 - 110	
75 As	72	1	50.48	ppb	0.68	50	101.0	90 - 110	
78 Se	72	1	49.38	ppb	1.31	50	98.8	90 - 110	
93 Nb	72	1	104.00	ppb	0.79	100	104.0	90 - 110	
95 Mo	72	1	50.31	ppb	0.31	50	100.6	90 - 110	
105 Pd	115	1	50.43	ppb	2.44	50	100.9	90 - 110	
107 Ag	115	1	51.37	ppb	0.85	50	102.7	90 - 110	
111 Cd	115	1	50.44	ppb	0.84	50	100.9	90 - 110	
118 Sn	115	1	50.18	ppb	0.58	50	100.4	90 - 110	
121 Sb	115	1	50.27	ppb	0.24	50	100.5	90 - 110	
137 Ba	115	1	50.21	ppb	0.87	50	100.4	90 - 110	
182 W	165	1	49.77	ppb	1.37	50	99.5	90 - 110	
195 Pt	165	1	50.42	ppb	1.61	50	100.8	90 - 110	
205 Tl	165	1	51.69	ppb	0.62	50	103.4	90 - 110	
208 Pb	165	1	51.58	ppb	0.71	50	103.2	90 - 110	
232 Th	165	1	51.36	ppb	1.04	50	102.7	90 - 110	
238 U	165	1	50.74	ppb	0.66	50	101.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	445523	0.71	474143	94.0	30 - 120	
45 Sc	1	2345322	1.04	2484770	94.4	30 - 120	
72 Ge	1	1098830	0.62	1162179	94.5	30 - 120	
115 In	1	2880071	0.20	3064413	94.0	30 - 120	
165 Ho	1	4310631	0.28	4475388	96.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\092_CCB.D\092_CCB.D#
Date Acquired: Aug 4 2009 09:53 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.60	1.00	
23 Na	6	1	-2.469	ppb	14.44	20.00	
24 Mg	6	1	0.728	ppb	3.99	20.00	
27 Al	45	1	0.569	ppb	31.92	20.00	
39 K	45	1	1.055	ppb	52.13	20.00	
43 Ca	45	1	9.441	ppb	18.68	20.00	
51 V	72	1	-0.003	ppb	936.55	1.00	
52 Cr	72	1	0.019	ppb	67.57	1.00	
55 Mn	72	1	0.006	ppb	92.29	1.00	
57 Fe	72	1	0.940	ppb	70.09	20.00	
59 Co	72	1	0.007	ppb	26.51	1.00	
60 Ni	72	1	0.007	ppb	235.68	1.00	
63 Cu	72	1	0.012	ppb	109.20	1.00	
66 Zn	72	1	0.597	ppb	3.65	10.00	
75 As	72	1	0.006	ppb	196.78	1.00	
78 Se	72	1	0.133	ppb	38.77	1.00	
93 Nb	72	1	3.759	ppb	11.75	2.00	Fail
95 Mo	72	1	0.005	ppb	571.85	1.00	
105 Pd	115	1	0.037	ppb	17.09	1.00	
107 Ag	115	1	0.004	ppb	77.56	1.00	
111 Cd	115	1	0.004	ppb	100.36	1.00	
118 Sn	115	1	0.001	ppb	4722.60	10.00	
121 Sb	115	1	0.195	ppb	5.19	1.00	
137 Ba	115	1	0.000	ppb	1432.70	1.00	
182 W	165	1	0.065	ppb	15.72	5.00	
195 Pt	165	1	0.000	ppb	570.74	1.00	
205 Tl	165	1	0.034	ppb	3.20	1.00	
208 Pb	165	1	0.012	ppb	12.70	1.00	
232 Th	165	1	0.315	ppb	10.07	2.00	
238 U	165	1	0.014	ppb	4.38	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458285	0.52	474143	96.7	30 - 120	
45 Sc	1	2423480	1.64	2484770	97.5	30 - 120	
72 Ge	1	1125409	0.33	1162179	96.8	30 - 120	
115 In	1	2976971	0.11	3064413	97.1	30 - 120	
165 Ho	1	4386990	0.35	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\093WASH.D\093WASH.D#
Date Acquired: Aug 4 2009 09:56 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.970 ppb	1.25	1.30	
23 Na	6	1	49.500 ppb	0.87	65.00	
24 Mg	6	1	55.400 ppb	1.06	65.00	
27 Al	45	1	32.730 ppb	0.97	39.00	
39 K	45	1	104.900 ppb	0.89	130.00	
43 Ca	45	1	54.920 ppb	13.10	65.00	
51 V	72	1	5.096 ppb	3.25	6.50	
52 Cr	72	1	2.148 ppb	2.32	2.60	
55 Mn	72	1	1.052 ppb	2.55	1.30	
57 Fe	72	1	54.430 ppb	1.16	65.00	
59 Co	72	1	1.065 ppb	2.09	1.30	
60 Ni	72	1	2.263 ppb	5.73	2.60	
63 Cu	72	1	2.200 ppb	4.92	2.60	
66 Zn	72	1	10.700 ppb	1.85	13.00	
75 As	72	1	5.312 ppb	3.05	6.50	
78 Se	72	1	5.832 ppb	7.17	6.50	
93 Nb	72	1	45.720 ppb	2.05	52.00	
95 Mo	72	1	1.995 ppb	3.37	2.60	
105 Pd	115	1	0.969 ppb	8.73	1.30	
107 Ag	115	1	5.402 ppb	1.43	6.50	
111 Cd	115	1	1.111 ppb	2.62	1.30	
118 Sn	115	1	10.270 ppb	3.18	13.00	
121 Sb	115	1	2.053 ppb	1.10	2.60	
137 Ba	115	1	1.034 ppb	3.28	1.30	
182 W	165	1	5.145 ppb	1.66	6.50	
195 Pt	165	1	1.024 ppb	3.68	1.30	
205 Tl	165	1	1.113 ppb	1.88	1.30	
208 Pb	165	1	1.114 ppb	3.16	1.30	
232 Th	165	1	2.515 ppb	7.50	2.60	
238 U	165	1	1.095 ppb	1.48	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455069	0.82	474143	96.0	30 - 120	
45 Sc	1	2446968	0.47	2484770	98.5	30 - 120	
72 Ge	1	1128565	1.30	1162179	97.1	30 - 120	
115 In	1	2992883	0.67	3064413	97.7	30 - 120	
165 Ho	1	4387134	0.62	4475388	98.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Interference Check Solution A (ICS-A) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\094ICSA.D\094ICSA.D#
Date Acquired: Aug 4 2009 09:59 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSA
Misc Info:
Vial Number: 2108
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSA
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit ppb	Flag
9 Be	6	1	0.01 ppb	86.63	1.00	
23 Na	6	1	98320.00 ppb	0.42	100.00	
24 Mg	6	1	95360.00 ppb	0.89	100.00	
27 Al	45	1	100700.00 ppb	1.38	100.00	
39 K	45	1	99400.00 ppb	1.67	100.00	
43 Ca	45	1	104800.00 ppb	1.65	100.00	
51 V	72	1	-0.28 ppb	37.57	1.00	
52 Cr	72	1	0.72 ppb	2.04	1.00	
55 Mn	72	1	3.64 ppb	0.48	1.00	
57 Fe	72	1	98190.00 ppb	0.33	100.00	
59 Co	72	1	1.57 ppb	3.16	1.00	
60 Ni	72	1	1.73 ppb	3.25	1.00	
63 Cu	72	1	1.54 ppb	0.54	1.00	
66 Zn	72	1	3.11 ppb	1.46	10.00	
75 As	72	1	0.47 ppb	5.96	1.00	
78 Se	72	1	-0.41 ppb	3.60	1.00	
93 Nb	72	1	4.26 ppb	8.33	2.00	
95 Mo	72	1	2031.00 ppb	1.28	2000.00	
105 Pd	115	1	0.11 ppb	11.68	1.00	
107 Ag	115	1	0.04 ppb	3.09	1.00	
111 Cd	115	1	3.27 ppb	2.45	1.00	
118 Sn	115	1	0.20 ppb	12.29	10.00	
121 Sb	115	1	0.30 ppb	4.78	1.00	
137 Ba	115	1	0.04 ppb	16.65	1.00	
182 W	165	1	0.14 ppb	23.34	5.00	
195 Pt	165	1	0.00 ppb	35.04	1.00	
205 Tl	165	1	0.03 ppb	46.05	1.00	
208 Pb	165	1	0.11 ppb	7.16	1.00	
232 Th	165	1	0.09 ppb	28.99	2.00	
238 U	165	1	0.00 ppb	200.21	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	459671	0.67	474143	96.9	30 - 120	
45 Sc	1	2308339	1.69	2484770	92.9	30 - 120	
72 Ge	1	1044007	0.53	1162179	89.8	30 - 120	
115 In	1	2661248	0.76	3064413	86.8	30 - 120	
165 Ho	1	4140212	0.09	4475388	92.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Nnumber of ISTD Failures Allowed

Interference Check Solution AB (ICS-AB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\095ICSB.D\095ICSB.D#
Date Acquired: Aug 4 2009 10:02 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: ICSAB
Misc Info:
Vial Number: 2109
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: ICSAB
Dilution Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	%Recovery	QC Range(%)	Flag
9 Be	6	1	96.32	1.28	100	96.3	80 - 120	
23 Na	6	1	105200.00	0.58	110000	95.6	80 - 120	
24 Mg	6	1	102400.00	0.40	110000	93.1	80 - 120	
27 Al	45	1	107900.00	0.79	110000	98.1	80 - 120	
39 K	45	1	106300.00	0.33	110000	96.6	80 - 120	
43 Ca	45	1	111000.00	0.16	110000	100.9	80 - 120	
51 V	72	1	100.60	0.93	100	100.6	80 - 120	
52 Cr	72	1	100.70	0.13	100	100.7	80 - 120	
55 Mn	72	1	101.80	0.94	100	101.8	80 - 120	
57 Fe	72	1	104800.00	0.86	110000	95.3	80 - 120	
59 Co	72	1	99.01	0.04	100	99.0	80 - 120	
60 Ni	72	1	96.66	1.28	100	96.7	80 - 120	
63 Cu	72	1	94.38	1.35	100	94.4	80 - 120	
66 Zn	72	1	96.36	1.54	100	96.4	80 - 120	
75 As	72	1	99.30	1.06	100	99.3	80 - 120	
78 Se	72	1	99.29	3.35	100	99.3	80 - 120	
93 Nb	72	1	198.80	1.14	200	99.4	80 - 120	
95 Mo	72	1	2085.00	0.09	2100	99.3	80 - 120	
105 Pd	115	1	96.05	0.65	100	96.1	80 - 120	
107 Ag	115	1	88.64	5.52	100	88.6	80 - 120	
111 Cd	115	1	99.13	1.34	100	99.1	80 - 120	
118 Sn	115	1	100.50	1.16	100	100.5	80 - 120	
121 Sb	115	1	102.10	0.79	100	102.1	80 - 120	
137 Ba	115	1	102.40	1.38	100	102.4	80 - 120	
182 W	165	1	101.50	1.12	100	101.5	80 - 120	
195 Pt	165	1	95.01	0.62	100	95.0	80 - 120	
205 Tl	165	1	95.85	0.52	100	95.9	80 - 120	
208 Pb	165	1	95.62	0.56	100	95.6	80 - 120	
232 Th	165	1	99.13	1.09	100	99.1	80 - 120	
238 U	165	1	98.87	0.92	100	98.9	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	458521	0.47	474143	96.7	30 - 120	
45 Sc	1	2282460	0.85	2484770	91.9	30 - 120	
72 Ge	1	1049641	1.14	1162179	90.3	30 - 120	
115 In	1	2646524	0.84	3064413	86.4	30 - 120	
165 Ho	1	4131415	0.80	4475388	92.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\096WASH.D\096WASH.D#
Date Acquired: Aug 4 2009 10:04 pm
Operator: TEL
Sample Name: WASH
Misc Info:
Vial Number: 1101
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.005 ppb	173.21	1.30	
23 Na	6	1	12.240 ppb	16.49	65.00	
24 Mg	6	1	8.620 ppb	21.44	65.00	
27 Al	45	1	10.170 ppb	15.99	39.00	
39 K	45	1	6.753 ppb	15.22	130.00	
43 Ca	45	1	9.370 ppb	32.31	65.00	
51 V	72	1	0.008 ppb	405.72	6.50	
52 Cr	72	1	0.026 ppb	46.31	2.60	
55 Mn	72	1	0.005 ppb	106.07	1.30	
57 Fe	72	1	11.250 ppb	18.36	65.00	
59 Co	72	1	0.010 ppb	10.14	1.30	
60 Ni	72	1	0.015 ppb	47.08	2.60	
63 Cu	72	1	-0.003 ppb	437.61	2.60	
66 Zn	72	1	0.066 ppb	29.89	13.00	
75 As	72	1	0.013 ppb	82.10	6.50	
78 Se	72	1	0.195 ppb	201.23	6.50	
93 Nb	72	1	4.577 ppb	12.60	52.00	
95 Mo	72	1	1.211 ppb	10.88	2.60	
105 Pd	115	1	0.013 ppb	64.65	1.30	
107 Ag	115	1	0.014 ppb	22.07	6.50	
111 Cd	115	1	0.008 ppb	27.07	1.30	
118 Sn	115	1	-0.023 ppb	88.90	13.00	
121 Sb	115	1	0.127 ppb	5.44	2.60	
137 Ba	115	1	-0.006 ppb	163.76	1.30	
182 W	165	1	0.067 ppb	4.32	6.50	
195 Pt	165	1	0.010 ppb	98.77	1.30	
205 Tl	165	1	0.012 ppb	10.40	1.30	
208 Pb	165	1	0.013 ppb	18.73	1.30	
232 Th	165	1	0.448 ppb	10.88	2.60	
238 U	165	1	0.020 ppb	8.71	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465019	1.73	474143	98.1	30 - 120	
45 Sc	1	2361340	0.44	2484770	95.0	30 - 120	
72 Ge	1	1114627	1.15	1162179	95.9	30 - 120	
115 In	1	2938079	0.52	3064413	95.9	30 - 120	
165 Ho	1	4404170	0.74	4475388	98.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\097_CCV.D\097_CCV.D#
Date Acquired: Aug 4 2009 10:07 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.87	ppb	2.72	50	101.7	90 - 110	
23 Na	6	1	5030.00	ppb	0.84	5000	100.6	90 - 110	
24 Mg	6	1	4975.00	ppb	0.37	5000	99.5	90 - 110	
27 Al	45	1	4999.00	ppb	0.47	5000	100.0	90 - 110	
39 K	45	1	5015.00	ppb	0.50	5000	100.3	90 - 110	
43 Ca	45	1	4978.00	ppb	1.01	5000	99.6	90 - 110	
51 V	72	1	49.01	ppb	1.42	50	98.0	90 - 110	
52 Cr	72	1	50.21	ppb	0.85	50	100.4	90 - 110	
55 Mn	72	1	49.79	ppb	0.40	50	99.6	90 - 110	
57 Fe	72	1	5145.00	ppb	0.75	5000	102.9	90 - 110	
59 Co	72	1	50.00	ppb	0.78	50	100.0	90 - 110	
60 Ni	72	1	50.92	ppb	1.18	50	101.8	90 - 110	
63 Cu	72	1	50.89	ppb	0.59	50	101.8	90 - 110	
66 Zn	72	1	50.52	ppb	0.98	50	101.0	90 - 110	
75 As	72	1	50.18	ppb	0.62	50	100.4	90 - 110	
78 Se	72	1	50.48	ppb	2.52	50	101.0	90 - 110	
93 Nb	72	1	102.30	ppb	0.52	100	102.3	90 - 110	
95 Mo	72	1	49.96	ppb	0.89	50	99.9	90 - 110	
105 Pd	115	1	51.24	ppb	1.91	50	102.5	90 - 110	
107 Ag	115	1	52.00	ppb	1.21	50	104.0	90 - 110	
111 Cd	115	1	50.74	ppb	1.30	50	101.5	90 - 110	
118 Sn	115	1	50.67	ppb	2.00	50	101.3	90 - 110	
121 Sb	115	1	50.48	ppb	0.65	50	101.0	90 - 110	
137 Ba	115	1	50.64	ppb	1.63	50	101.3	90 - 110	
182 W	165	1	50.21	ppb	0.95	50	100.4	90 - 110	
195 Pt	165	1	50.66	ppb	0.75	50	101.3	90 - 110	
205 Tl	165	1	51.44	ppb	0.95	50	102.9	90 - 110	
208 Pb	165	1	51.96	ppb	0.78	50	103.9	90 - 110	
232 Th	165	1	51.39	ppb	0.50	50	102.8	90 - 110	
238 U	165	1	51.14	ppb	0.75	50	102.3	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451853	0.49	474143	95.3	30 - 120	
45 Sc	1	2375883	0.80	2484770	95.6	30 - 120	
72 Ge	1	1117949	0.39	1162179	96.2	30 - 120	
115 In	1	2884699	0.90	3064413	94.1	30 - 120	
165 Ho	1	4343104	0.09	4475388	97.0	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File:	C:\ICPCHEM\1\DATA\AG080409.B\098_CCB.D\098_CCB.D#
Date Acquired:	Aug 4 2009 10:10 pm
Operator:	TEL
Sample Name:	CCB
Misc Info:	
Vial Number:	1307
Current Method:	C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File:	C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update:	Aug 04 2009 09:48 pm
Sample Type:	CCB
Total Dil Factor:	1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.011	ppb	86.62	1.00	
23 Na	6	1	-0.490	ppb	61.81	20.00	
24 Mg	6	1	1.180	ppb	7.96	20.00	
27 Al	45	1	1.100	ppb	10.01	20.00	
39 K	45	1	2.088	ppb	54.65	20.00	
43 Ca	45	1	6.293	ppb	52.60	20.00	
51 V	72	1	0.014	ppb	77.05	1.00	
52 Cr	72	1	0.021	ppb	28.37	1.00	
55 Mn	72	1	-0.001	ppb	855.24	1.00	
57 Fe	72	1	1.036	ppb	33.15	20.00	
59 Co	72	1	0.006	ppb	23.17	1.00	
60 Ni	72	1	0.004	ppb	179.98	1.00	
63 Cu	72	1	0.011	ppb	54.22	1.00	
66 Zn	72	1	0.597	ppb	3.14	10.00	
75 As	72	1	0.015	ppb	1.13	1.00	
78 Se	72	1	0.358	ppb	47.89	1.00	
93 Nb	72	1	3.709	ppb	10.86	2.00	Fail
95 Mo	72	1	0.077	ppb	63.62	1.00	
105 Pd	115	1	0.027	ppb	62.89	1.00	
107 Ag	115	1	0.010	ppb	19.56	1.00	
111 Cd	115	1	0.006	ppb	124.41	1.00	
118 Sn	115	1	-0.013	ppb	18.38	10.00	
121 Sb	115	1	0.174	ppb	3.42	1.00	
137 Ba	115	1	-0.004	ppb	188.93	1.00	
182 W	165	1	0.059	ppb	19.97	5.00	
195 Pt	165	1	0.007	ppb	116.96	1.00	
205 Tl	165	1	0.023	ppb	14.74	1.00	
208 Pb	165	1	0.010	ppb	17.15	1.00	
232 Th	165	1	0.319	ppb	13.63	2.00	
238 U	165	1	0.012	ppb	11.50	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	465208	0.92	474143	98.1	30 - 120	
45 Sc	1	2436587	0.89	2484770	98.1	30 - 120	
72 Ge	1	1130740	1.00	1162179	97.3	30 - 120	
115 In	1	3009733	1.46	3064413	98.2	30 - 120	
165 Ho	1	4399005	0.53	4475388	98.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\099WASH.D\099WASH.D#
Date Acquired: Aug 4 2009 10:13 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.886 ppb	5.66	1.30	
23 Na	6	1	50.810 ppb	1.06	65.00	
24 Mg	6	1	56.000 ppb	0.89	65.00	
27 Al	45	1	33.700 ppb	1.84	39.00	
39 K	45	1	110.100 ppb	2.95	130.00	
43 Ca	45	1	60.140 ppb	8.21	65.00	
51 V	72	1	5.031 ppb	2.05	6.50	
52 Cr	72	1	2.150 ppb	2.93	2.60	
55 Mn	72	1	1.027 ppb	2.91	1.30	
57 Fe	72	1	53.480 ppb	4.59	65.00	
59 Co	72	1	1.040 ppb	2.92	1.30	
60 Ni	72	1	2.121 ppb	5.54	2.60	
63 Cu	72	1	2.137 ppb	0.81	2.60	
66 Zn	72	1	10.480 ppb	0.89	13.00	
75 As	72	1	5.104 ppb	1.55	6.50	
78 Se	72	1	5.343 ppb	9.92	6.50	
93 Nb	72	1	44.650 ppb	1.78	52.00	
95 Mo	72	1	2.036 ppb	3.83	2.60	
105 Pd	115	1	0.925 ppb	0.87	1.30	
107 Ag	115	1	5.458 ppb	0.05	6.50	
111 Cd	115	1	1.039 ppb	1.83	1.30	
118 Sn	115	1	10.330 ppb	0.19	13.00	
121 Sb	115	1	2.032 ppb	1.67	2.60	
137 Ba	115	1	1.015 ppb	2.72	1.30	
182 W	165	1	4.992 ppb	2.53	6.50	
195 Pt	165	1	1.006 ppb	6.57	1.30	
205 Tl	165	1	1.109 ppb	1.70	1.30	
208 Pb	165	1	1.085 ppb	3.59	1.30	
232 Th	165	1	2.535 ppb	7.55	2.60	
238 U	165	1	1.089 ppb	0.63	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	466268	0.29	474143	98.3	30 - 120	
45 Sc	1	2447934	0.46	2484770	98.5	30 - 120	
72 Ge	1	1160377	0.46	1162179	99.8	30 - 120	
115 In	1	3020765	0.22	3064413	98.6	30 - 120	
165 Ho	1	4470835	1.08	4475388	99.9	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\103_CCV.D\103_CCV.D#
Date Acquired: Aug 4 2009 10:25 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.28	ppb	2.14	50	100.6	90 - 110	
23 Na	6	1	4992.00	ppb	1.18	5000	99.8	90 - 110	
24 Mg	6	1	5023.00	ppb	0.93	5000	100.5	90 - 110	
27 Al	45	1	5130.00	ppb	0.32	5000	102.6	90 - 110	
39 K	45	1	5118.00	ppb	1.21	5000	102.4	90 - 110	
43 Ca	45	1	5057.00	ppb	2.22	5000	101.1	90 - 110	
51 V	72	1	50.09	ppb	1.27	50	100.2	90 - 110	
52 Cr	72	1	51.30	ppb	2.05	50	102.6	90 - 110	
55 Mn	72	1	51.28	ppb	2.11	50	102.6	90 - 110	
57 Fe	72	1	5291.00	ppb	1.94	5000	105.8	90 - 110	
59 Co	72	1	51.04	ppb	1.54	50	102.1	90 - 110	
60 Ni	72	1	51.89	ppb	1.14	50	103.8	90 - 110	
63 Cu	72	1	52.55	ppb	1.70	50	105.1	90 - 110	
66 Zn	72	1	51.61	ppb	1.59	50	103.2	90 - 110	
75 As	72	1	51.49	ppb	2.14	50	103.0	90 - 110	
78 Se	72	1	52.27	ppb	0.90	50	104.5	90 - 110	
93 Nb	72	1	97.20	ppb	3.17	100	97.2	90 - 110	
95 Mo	72	1	51.47	ppb	1.86	50	102.9	90 - 110	
105 Pd	115	1	50.33	ppb	0.52	50	100.7	90 - 110	
107 Ag	115	1	51.20	ppb	1.13	50	102.4	90 - 110	
111 Cd	115	1	50.51	ppb	0.65	50	101.0	90 - 110	
118 Sn	115	1	50.09	ppb	1.28	50	100.2	90 - 110	
121 Sb	115	1	49.91	ppb	0.36	50	99.8	90 - 110	
137 Ba	115	1	50.13	ppb	1.27	50	100.3	90 - 110	
182 W	165	1	50.24	ppb	0.96	50	100.5	90 - 110	
195 Pt	165	1	50.77	ppb	0.49	50	101.5	90 - 110	
205 Tl	165	1	50.94	ppb	0.98	50	101.9	90 - 110	
208 Pb	165	1	52.16	ppb	0.35	50	104.3	90 - 110	
232 Th	165	1	51.35	ppb	0.64	50	102.7	90 - 110	
238 U	165	1	51.25	ppb	1.68	50	102.5	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	447184	0.90	474143	94.3	30 - 120	
45 Sc	1	2312946	0.44	2484770	93.1	30 - 120	
72 Ge	1	1065416	2.50	1162179	91.7	30 - 120	
115 In	1	2842346	0.30	3064413	92.8	30 - 120	
165 Ho	1	4216146	0.60	4475388	94.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\104_CCB.D\104_CCB.D#
Date Acquired: Aug 4 2009 10:28 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	-1.388	ppb	16.22	20.00	
24 Mg	6	1	1.680	ppb	16.01	20.00	
27 Al	45	1	1.656	ppb	20.34	20.00	
39 K	45	1	2.240	ppb	29.77	20.00	
43 Ca	45	1	9.909	ppb	41.45	20.00	
51 V	72	1	0.027	ppb	76.41	1.00	
52 Cr	72	1	0.025	ppb	7.23	1.00	
55 Mn	72	1	0.008	ppb	122.53	1.00	
57 Fe	72	1	1.735	ppb	20.77	20.00	
59 Co	72	1	0.008	ppb	79.14	1.00	
60 Ni	72	1	0.005	ppb	260.75	1.00	
63 Cu	72	1	0.016	ppb	76.22	1.00	
66 Zn	72	1	0.581	ppb	0.81	10.00	
75 As	72	1	0.017	ppb	47.47	1.00	
78 Se	72	1	0.165	ppb	169.10	1.00	
93 Nb	72	1	3.203	ppb	10.95	2.00	Fail
95 Mo	72	1	0.006	ppb	107.43	1.00	
105 Pd	115	1	0.028	ppb	29.11	1.00	
107 Ag	115	1	0.009	ppb	28.48	1.00	
111 Cd	115	1	0.011	ppb	67.75	1.00	
118 Sn	115	1	0.006	ppb	554.16	10.00	
121 Sb	115	1	0.175	ppb	5.25	1.00	
137 Ba	115	1	0.012	ppb	49.97	1.00	
182 W	165	1	0.050	ppb	47.77	5.00	
195 Pt	165	1	-0.002	ppb	188.60	1.00	
205 Tl	165	1	0.024	ppb	8.44	1.00	
208 Pb	165	1	0.014	ppb	9.02	1.00	
232 Th	165	1	0.315	ppb	9.83	2.00	
238 U	165	1	0.016	ppb	3.39	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	455735	0.38	474143	96.1	30 - 120	
45 Sc	1	2326399	1.68	2484770	93.6	30 - 120	
72 Ge	1	1077897	1.90	1162179	92.7	30 - 120	
115 In	1	2908241	0.58	3064413	94.9	30 - 120	
165 Ho	1	4259418	0.08	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\105WASH.D\105WASH.D#
Date Acquired: Aug 4 2009 10:31 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.956 ppb	22.42	1.30	
23 Na	6	1	43.810 ppb	0.76	65.00	
24 Mg	6	1	52.970 ppb	0.19	65.00	
27 Al	45	1	32.240 ppb	1.91	39.00	
39 K	45	1	108.000 ppb	3.32	130.00	
43 Ca	45	1	56.920 ppb	15.97	65.00	
51 V	72	1	5.027 ppb	2.57	6.50	
52 Cr	72	1	2.120 ppb	4.35	2.60	
55 Mn	72	1	1.043 ppb	4.77	1.30	
57 Fe	72	1	51.710 ppb	3.05	65.00	
59 Co	72	1	1.057 ppb	1.97	1.30	
60 Ni	72	1	2.225 ppb	5.10	2.60	
63 Cu	72	1	2.217 ppb	3.42	2.60	
66 Zn	72	1	10.490 ppb	1.83	13.00	
75 As	72	1	5.088 ppb	2.33	6.50	
78 Se	72	1	5.285 ppb	5.92	6.50	
93 Nb	72	1	44.440 ppb	2.43	52.00	
95 Mo	72	1	1.935 ppb	5.21	2.60	
105 Pd	115	1	0.935 ppb	5.81	1.30	
107 Ag	115	1	5.431 ppb	1.20	6.50	
111 Cd	115	1	1.034 ppb	4.40	1.30	
118 Sn	115	1	10.330 ppb	1.78	13.00	
121 Sb	115	1	2.021 ppb	1.57	2.60	
137 Ba	115	1	0.991 ppb	5.25	1.30	
182 W	165	1	5.080 ppb	3.66	6.50	
195 Pt	165	1	1.015 ppb	2.13	1.30	
205 Tl	165	1	1.113 ppb	2.57	1.30	
208 Pb	165	1	1.127 ppb	2.10	1.30	
232 Th	165	1	2.553 ppb	4.82	2.60	
238 U	165	1	1.106 ppb	0.30	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	451108	0.38	474143	95.1	30 - 120	
45 Sc	1	2321208	0.32	2484770	93.4	30 - 120	
72 Ge	1	1091161	1.22	1162179	93.9	30 - 120	
115 In	1	2903775	0.62	3064413	94.8	30 - 120	
165 Ho	1	4258910	0.36	4475388	95.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Blank QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\106_BLK.D\106_BLK.D#
Date Acquired: Aug 4 2009 10:34 pm
Operator: TEL
Sample Name: LG6WKB
Misc Info: BLANK 9208088 6020
Vial Number: 3411
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: BLK
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.006 ppb	173.21	2.00	
23 Na	6	1	-11.110 ppb	2.67	40.00	
24 Mg	6	1	-2.443 ppb	2.33	40.00	
27 Al	45	1	9.282 ppb	3.27	40.00	
39 K	45	1	-5.111 ppb	12.18	40.00	
43 Ca	45	1	-2.781 ppb	79.43	40.00	
51 V	72	1	0.016 ppb	48.75	2.00	
52 Cr	72	1	0.078 ppb	22.78	2.00	
55 Mn	72	1	0.011 ppb	20.66	2.00	
57 Fe	72	1	-2.358 ppb	13.87	40.00	
59 Co	72	1	-0.004 ppb	24.33	2.00	
60 Ni	72	1	0.028 ppb	89.01	2.00	
63 Cu	72	1	0.044 ppb	7.46	2.00	
66 Zn	72	1	0.207 ppb	8.07	20.00	
75 As	72	1	0.000 ppb	1063.60	2.00	
78 Se	72	1	0.081 ppb	405.60	2.00	
93 Nb	72	1	2.236 ppb	15.51	4.00	
95 Mo	72	1	-0.108 ppb	6.90	2.00	
105 Pd	115	1	0.007 ppb	65.31	2.00	
107 Ag	115	1	0.001 ppb	156.35	2.00	
111 Cd	115	1	0.000 ppb	1007.50	2.00	
118 Sn	115	1	2.580 ppb	3.76	20.00	
121 Sb	115	1	0.045 ppb	8.63	2.00	
137 Ba	115	1	-0.020 ppb	0.31	2.00	
182 W	165	1	0.020 ppb	43.41	10.00	
195 Pt	165	1	-0.013 ppb	20.43	2.00	
205 Tl	165	1	0.024 ppb	32.54	2.00	
208 Pb	165	1	0.008 ppb	12.06	2.00	
232 Th	165	1	0.050 ppb	13.70	4.00	
238 U	165	1	-0.001 ppb	58.20	2.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	443353	0.44	474143	93.5	30 - 120	
45 Sc	1	2303547	0.16	2484770	92.7	30 - 120	
72 Ge	1	1042111	1.32	1162179	89.7	30 - 120	
115 In	1	2848598	0.33	3064413	93.0	30 - 120	
165 Ho	1	4212309	0.60	4475388	94.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Laboratory Control Spike (LCS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\107_LCS.D\107_LCS.D#
Date Acquired: Aug 4 2009 10:37 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG6WKC
Misc Info: LCS
Vial Number: 3412
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: LCS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

Analyte Elements

Element	IS Ref	Tune	Conc. ppb	RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	41.10	1.77	40	102.8	80 - 120	
23 Na	6	1	-5.98	6.48	4000	-0.1	80 - 120	
24 Mg	6	1	-3.07	3.10	4000	-0.1	80 - 120	
27 Al	45	1	61.03	0.40	4000	1.5	80 - 120	
39 K	45	1	-5.36	5.54	4000	-0.1	80 - 120	
43 Ca	45	1	1.00	360.44	4000	0.0	80 - 120	
51 V	72	1	41.75	1.10	40	104.4	80 - 120	
52 Cr	72	1	43.53	1.31	40	108.8	80 - 120	
55 Mn	72	1	43.51	0.89	40	108.8	80 - 120	
57 Fe	72	1	-0.59	124.99	4000	0.0	80 - 120	
59 Co	72	1	43.57	0.96	40	108.9	80 - 120	
60 Ni	72	1	44.61	1.17	40	111.5	80 - 120	
63 Cu	72	1	45.11	0.62	40	112.8	80 - 120	
66 Zn	72	1	42.91	0.73	40	107.3	80 - 120	
75 As	72	1	40.85	0.29	40	102.1	80 - 120	
78 Se	72	1	40.47	2.43	40	101.2	80 - 120	
93 Nb	72	1	1.30	15.92	80	1.6	80 - 120	
95 Mo	72	1	42.75	0.78	40	106.9	80 - 120	
105 Pd	115	1	0.01	51.80	40	0.0	80 - 120	
107 Ag	115	1	44.07	0.36	40	110.2	80 - 120	
111 Cd	115	1	41.44	0.77	40	103.6	80 - 120	
118 Sn	115	1	2.47	1.50	40	6.2	80 - 120	
121 Sb	115	1	41.30	0.71	40	103.3	80 - 120	
137 Ba	115	1	42.58	1.26	40	106.5	80 - 120	
182 W	165	1	0.03	19.85	40	0.1	80 - 120	
195 Pt	165	1	0.03	56.43	40	0.1	80 - 120	
205 Tl	165	1	44.13	0.97	40	110.3	80 - 120	
208 Pb	165	1	44.82	1.03	40	112.1	80 - 120	
232 Th	165	1	40.79	3.92	40	102.0	80 - 120	
238 U	165	1	43.30	0.67	40	108.3	80 - 120	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	434159	0.13	474143	91.6	30 - 120	
45 Sc	1	2245964	0.46	2484770	90.4	30 - 120	
72 Ge	1	1040207	0.28	1162179	89.5	30 - 120	
115 In	1	2808160	0.40	3064413	91.6	30 - 120	
165 Ho	1	4176288	0.64	4475388	93.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#
Date Acquired: Aug 4 2009 10:40 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282 5X
Misc Info: D9G240312
Vial Number: 3501
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: AllRef
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.06	0.01	ppb	173.25	3600	
23 Na	6	1	1,954,500.00	390900.00	ppb	0.47	100000	>LDR
24 Mg	6	1	43,585.00	8717.00	ppb	0.88	100000	
27 Al	45	1	67.35	13.47	ppb	1.31	100000	
39 K	45	1	5,845.00	1169.00	ppb	0.83	100000	
43 Ca	45	1	165,500.00	33100.00	ppb	0.25	100000	
51 V	72	1	13,115.00	2623.00	ppb	2.23	3600	
52 Cr	72	1	384.80	76.96	ppb	0.84	3600	
55 Mn	72	1	16.63	3.33	ppb	0.84	18000	
57 Fe	72	1	522.50	104.50	ppb	2.32	100000	
59 Co	72	1	0.22	0.04	ppb	6.05	3600	
60 Ni	72	1	3.84	0.77	ppb	5.45	3600	
63 Cu	72	1	0.78	0.16	ppb	2.22	3600	
66 Zn	72	1	2.76	0.55	ppb	12.62	3600	
75 As	72	1	382.50	76.50	ppb	1.87	3600	
78 Se	72	1	11.11	2.22	ppb	14.28	3600	
93 Nb	72	1	4.68	0.94	ppb	22.12	2000	
95 Mo	72	1	369.10	73.82	ppb	0.21	3600	
105 Pd	115	1	2.61	0.52	ppb	2.99	1000	
107 Ag	115	1	0.12	0.02	ppb	17.30	3600	
111 Cd	115	1	0.55	0.11	ppb	10.50	3600	
118 Sn	115	1	1.36	0.27	ppb	11.83	3600	
121 Sb	115	1	0.45	0.09	ppb	7.93	3600	
137 Ba	115	1	15.45	3.09	ppb	0.98	3600	
182 W	165	1	1,589.00	317.80	ppb	1.89	1000	
195 Pt	165	1	0.18	0.04	ppb	17.00	1000	
205 Tl	165	1	0.20	0.04	ppb	30.21	3600	
208 Pb	165	1	0.05	0.01	ppb	11.58	3600	
232 Th	165	1	5.76	1.15	ppb	24.14	1000	
238 U	165	1	8.22	1.64	ppb	0.77	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	436178	1.63	474143	92.0	30 - 120	
45 Sc	1	2274781	1.61	2484770	91.5	30 - 120	
72 Ge	1	993940	1.82	1162179	85.5	30 - 120	
115 In	1	2592855	0.52	3064413	84.6	30 - 120	
165 Ho	1	4047087	1.11	4475388	90.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Dilution Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\109SDIL.D\109SDIL.D#
Date Acquired: Aug 4 2009 10:43 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282P25
Misc Info: SERIAL DILUTION
Vial Number: 3502
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SDIL
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Dilution Ref File: C:\ICPCHEM\1\DATA\AG080409.B\108AREF.D\108AREF.D#

QC elements

Element	IS Ref	Tune	Conc.ppb		RSD(%)	Ref Conc.	Actual(%)	QC Range(%)	Flag
9 Be	6	1	0.00	ppb	0.00	0.00	0.0	90 - 110	
23 Na	6	1	75940.00	ppb	1.58	78180.00	97.1	90 - 110	
24 Mg	6	1	1755.00	ppb	0.84	1743.40	100.7	90 - 110	
27 Al	45	1	12.53	ppb	0.95	2.69	465.1	90 - 110	
39 K	45	1	246.20	ppb	2.26	233.80	105.3	90 - 110	
43 Ca	45	1	6618.00	ppb	1.13	6620.00	100.0	90 - 110	
51 V	72	1	494.20	ppb	0.71	524.60	94.2	90 - 110	
52 Cr	72	1	15.05	ppb	0.94	15.39	97.8	90 - 110	
55 Mn	72	1	0.71	ppb	2.74	0.67	107.3	90 - 110	
57 Fe	72	1	20.27	ppb	3.95	20.90	97.0	90 - 110	
59 Co	72	1	0.01	ppb	17.87	0.01	124.2	90 - 110	
60 Ni	72	1	0.34	ppb	5.58	0.15	224.1	90 - 110	
63 Cu	72	1	0.03	ppb	3.68	0.03	104.4	90 - 110	
66 Zn	72	1	0.05	ppb	23.95	0.11	48.0	90 - 110	
75 As	72	1	15.20	ppb	0.97	15.30	99.3	90 - 110	
78 Se	72	1	0.18	ppb	124.41	0.44	39.9	90 - 110	
93 Nb	72	1	0.39	ppb	25.09	0.19	208.8	90 - 110	
95 Mo	72	1	14.15	ppb	1.14	14.76	95.8	90 - 110	
105 Pd	115	1	0.11	ppb	19.09	0.10	104.5	90 - 110	
107 Ag	115	1	0.00	ppb	18.61	0.00	58.4	90 - 110	
111 Cd	115	1	0.02	ppb	35.53	0.02	74.9	90 - 110	
118 Sn	115	1	0.07	ppb	35.66	0.05	135.3	90 - 110	
121 Sb	115	1	0.02	ppb	19.22	0.02	124.1	90 - 110	
137 Ba	115	1	0.61	ppb	4.92	0.62	98.4	90 - 110	
182 W	165	1	65.26	ppb	1.61	63.56	102.7	90 - 110	
195 Pt	165	1	0.01	ppb	39.36	0.01	74.4	90 - 110	
205 Tl	165	1	0.01	ppb	27.81	0.01	71.8	90 - 110	
208 Pb	165	1	0.00	ppb	15.10	0.00	129.2	90 - 110	
232 Th	165	1	0.18	ppb	10.83	0.23	76.0	90 - 110	
238 U	165	1	0.32	ppb	3.00	0.33	98.6	90 - 110	

ISTD elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	454347	0.40	474143	95.8	30 - 120	
45 Sc	1	2296546	1.95	2484770	92.4	30 - 120	
72 Ge	1	1064111	1.02	1162179	91.6	30 - 120	
115 In	1	2784362	0.32	3064413	90.9	30 - 120	
165 Ho	1	4230492	1.00	4475388	94.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures 0 :Max. Number of Failures Allowed
0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Denver

SERIAL DILUTION

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:10

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282P25** | Serial Dilution: **25.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 109
Acquired: 08/04/2009 22:43:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Dilution	Sample	%Diff.	MDL	Flag	Q
7440-41-7	Beryllium	9		0	0.05777	100		*	
7440-62-2	Vanadium	51	6341210	12355	13120	5.83		*	
7440-47-3	Chromium	52	189196	376.20	384.80	2.23		*	
7439-96-5	Manganese	55	10361	17.840	16.620	7.34		*	
7440-48-4	Cobalt	59	293	0.27260	0.21940	24.2		*	
7440-02-0	Nickel	60	1363	8.5950	3.8350	124		*	
7440-50-8	Copper	63	947	0.80950	0.77550	4.38		*	
7440-66-6	Zinc	66	549	1.3240	2.7550	51.9		*	
7440-38-2	Arsenic	75	23092	380.10	382.50	0.627	0.21	0.6	☑
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	☑
7439-98-7	Molybdenum	95	58016	353.80	369.10	4.15		*	
7440-22-4	Silver	107	73	0.07020	0.12020	41.6		*	
7440-43-9	Cadmium	111	54	0.40945	0.54640	25.1		*	
7440-31-5	Tin	118	1667	1.8425	1.3620	35.3		*	
7440-36-0	Antimony	121	249	0.56250	0.45300	24.2		*	
7440-39-3	Barium	137	1937	15.205	15.450	1.59		*	
7440-28-0	Thallium	205	236	0.14455	0.20120	28.2		*	
7439-92-1	Lead	208	334	0.06970	0.05397	29.1		*	
7440-61-1	Uranium	238	10075	8.1050	8.2190	1.39		*	
7440-23-5	Sodium	23	66615000	1898500	1954000	2.84		*	
7439-95-4	Magnesium	24	5179020	43875	43590	0.654		*	
7429-90-5	Aluminum	27	43329	313.35	67.330	365		*	
7440-09-7	Potassium	39	1378260	6155.0	5847.0	5.27		*	
7440-70-2	Calcium	43	74980	165450	165500	0.0302		*	
7439-89-6	Iron	57	8219	506.50	522.30	3.03		*	
7440-03-1	Niobium	93	16447	9.7700	4.6800	109		*	
7440-05-3	Palladium	105	583	2.7280	2.6100	4.52		*	
7440-33-7	Tungsten	182	609292	1631.5	1589.0	2.67		*	
7440-06-4	Platinum	195	217	0.13115	0.17630	25.6		*	
7440-29-1	Thorium	232	5708	4.3755	5.7600	24.0		*	
7439-93-2	Lithium	6			0			*	
7440-20-2	Scandium	45			0			*	
7440-74-6	Indium	115			0			*	
7440-56-4	Germanium	72			0			*	
7440-60-0	Holmium	165			0			*	

*** Analyte not requested for this batch, no MDL**

NC : Serial dilution concentration < 100 X MDL

E : Difference greater than Limit (10%)

Reviewed by: Date:

Post Digestion Spiked Sample (PDS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\110PDS.D\110PDS.D#
Date Acquired: Aug 4 2009 10:46 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282Z
Misc Info: POST DIGESTION SPIKE
Vial Number: 3503
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: PDS
Prep Dil. Factor: 1.00
Autodil Factor: Undiluted
Final Dil Factor: 1.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	199.70	0.01	ppb	0.42	200	99.8	75 - 125	
23 Na	6	1	380300.00	390900.00	ppb	0.45	200000	64.4	75 - 125	
24 Mg	6	1	8577.00	8717.00	ppb	0.39	200000	4.1	75 - 125	
27 Al	45	1	25.90	13.47	ppb	0.84	200000	0.0	75 - 125	
39 K	45	1	1168.00	1169.00	ppb	2.06	200000	0.6	75 - 125	
43 Ca	45	1	32420.00	33100.00	ppb	1.04	200000	13.9	75 - 125	
51 V	72	1	2790.00	2623.00	ppb	0.09	200	98.8	75 - 125	
52 Cr	72	1	283.10	76.96	ppb	1.15	200	102.2	75 - 125	
55 Mn	72	1	206.70	3.33	ppb	0.93	200	101.7	75 - 125	
57 Fe	72	1	99.88	104.50	ppb	0.92	200000	0.0	75 - 125	
59 Co	72	1	201.20	0.04	ppb	1.04	200	100.6	75 - 125	
60 Ni	72	1	202.30	0.77	ppb	0.98	200	100.8	75 - 125	
63 Cu	72	1	198.30	0.16	ppb	1.46	200	99.1	75 - 125	
66 Zn	72	1	199.70	0.55	ppb	1.18	200	99.6	75 - 125	
75 As	72	1	280.90	76.50	ppb	1.22	200	101.6	75 - 125	
78 Se	72	1	208.30	2.22	ppb	0.98	200	103.0	75 - 125	
93 Nb	72	1	0.54	0.94	ppb	19.66	400	0.1	75 - 125	
95 Mo	72	1	290.90	73.82	ppb	0.43	200	106.2	75 - 125	
105 Pd	115	1	0.50	0.52	ppb	9.48	200	0.2	75 - 125	
107 Ag	115	1	48.40	0.02	ppb	21.88	50	96.8	75 - 125	
111 Cd	115	1	196.20	0.11	ppb	1.16	200	98.0	75 - 125	
118 Sn	115	1	186.00	0.27	ppb	0.78	200	92.9	75 - 125	
121 Sb	115	1	201.00	0.09	ppb	0.92	200	100.5	75 - 125	
137 Ba	115	1	208.30	3.09	ppb	1.26	200	102.6	75 - 125	
182 W	165	1	312.40	317.80	ppb	0.69	200	60.3	75 - 125	
195 Pt	165	1	0.01	0.04	ppb	102.55	200	0.0	75 - 125	
205 Tl	165	1	188.80	0.04	ppb	1.71	200	94.4	75 - 125	
208 Pb	165	1	188.50	0.01	ppb	1.13	200	94.2	75 - 125	
232 Th	165	1	0.17	1.15	ppb	20.30	200	0.1	75 - 125	
238 U	165	1	196.50	1.64	ppb	0.98	200	97.4	75 - 125	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	447198	0.63	474143	94.3	30 - 120	
45 Sc	1	2276632	1.23	2484770	91.6	30 - 120	
72 Ge	1	1000813	1.44	1162179	86.1	30 - 120	
115 In	1	2621111	1.15	3064413	85.5	30 - 120	
165 Ho	1	4094710	0.62	4475388	91.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Denver

SAMPLE SPIKE

Method: 6020 (ICP/MS) | ICPMS_024 | Reported: 08/05/09 11:10:13

Department: 090 (Metals) | Source: Spreadsheet

Sample: **LG282Z** | Spike Dilution: **1.00** | Sample Dilution: **5.00**

Instrument: **Agilent7500**
File: AG080409 # 110
Acquired: 08/04/2009 22:46:00
Calibrated: 08/04/2009 21:44:00

Channel 272
Method 6020_
ICPMS_024

Matrix: AQUEOUS
Units: ug/L

CASN	Analyte Name	M/S	Area	Amount	Sample	%Rec.	Spike	Flag	Q
7440-41-7	Beryllium	9	116045	199.70	0.01155	99.8	200		☑
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	☐
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		☑
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		☐
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		☑
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		☑
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		☑
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		☑
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		☑
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		☑
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		☐
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		☑
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		☑
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		☑
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		☑
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		☑
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		☑
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		☑
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		☑
7440-23-5	Sodium	23	06460000	380300	390800				
7439-95-4	Magnesium	24	24859400	8577.0	8718.0				
7429-90-5	Aluminum	27	76784	25.900	13.466				
7440-09-7	Potassium	39	5482330	1168.0	1169.4				
7440-70-2	Calcium	43	363702	32420	33100				
7439-89-6	Iron	57	31489	99.880	104.46				
7440-03-1	Niobium	93	18313	0.53550	0.93600				
7440-05-3	Palladium	105	2417	0.49870	0.52200				
7440-33-7	Tungsten	182	2819960	312.40	317.80				
7440-06-4	Platinum	195	223	0.00742	0.03526				
7440-29-1	Thorium	232	5468	0.17270	1.1520				
7439-93-2	Lithium	6			0				
7440-20-2	Scandium	45			0				
7440-74-6	Indium	115			0				
7440-56-4	Germanium	72			0				
7440-60-0	Holmium	165			0				

Reviewed by: Date:

Spiked Sample (MS) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#
Date Acquired: Aug 4 2009 10:49 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282S 5X
Misc Info: MATRIX SPIKE
Vial Number: 3504
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MS
Prep Dil. Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

Spike Ref. File: ---

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	Ref Conc		RSD(%)	Spk Amt	Rec(%)	QC Range(%)	QC Flag
9 Be	6	1	8.23	0.01	ppb	8.01	40	20.6	50 - 150	
23 Na	6	1	390000.00	390900.00	ppb	2.86	4000	98.8	50 - 150	
24 Mg	6	1	8775.00	8717.00	ppb	1.88	4000	69.0	50 - 150	
27 Al	45	1	12.30	13.47	ppb	1.88	4000	0.3	50 - 150	
39 K	45	1	1182.00	1169.00	ppb	0.79	4000	22.9	50 - 150	
43 Ca	45	1	32920.00	33100.00	ppb	0.39	4000	88.7	50 - 150	
51 V	72	1	2708.00	2623.00	ppb	1.55	40	101.7	50 - 150	
52 Cr	72	1	87.61	76.96	ppb	0.28	40	74.9	50 - 150	
55 Mn	72	1	12.06	3.33	ppb	1.72	40	27.8	50 - 150	
57 Fe	72	1	106.60	104.50	ppb	5.04	4000	2.6	50 - 150	
59 Co	72	1	8.79	0.04	ppb	0.93	40	21.9	50 - 150	
60 Ni	72	1	9.19	0.77	ppb	3.26	40	22.5	50 - 150	
63 Cu	72	1	8.74	0.16	ppb	1.34	40	21.8	50 - 150	
66 Zn	72	1	8.85	0.55	ppb	1.84	40	21.8	50 - 150	
75 As	72	1	87.97	76.50	ppb	0.97	40	75.5	50 - 150	
78 Se	72	1	11.04	2.22	ppb	2.73	40	26.1	50 - 150	
93 Nb	72	1	0.31	0.94	ppb	31.47	80	0.4	50 - 150	
95 Mo	72	1	84.02	73.82	ppb	0.52	40	73.8	50 - 150	
105 Pd	115	1	0.48	0.52	ppb	5.03	40	1.2	50 - 150	
107 Ag	115	1	8.01	0.02	ppb	0.64	40	20.0	50 - 150	
111 Cd	115	1	8.34	0.11	ppb	1.25	40	20.8	50 - 150	
118 Sn	115	1	0.52	0.27	ppb	4.93	40	1.3	50 - 150	
121 Sb	115	1	8.85	0.09	ppb	1.25	40	22.1	50 - 150	
137 Ba	115	1	11.90	3.09	ppb	2.04	40	27.6	50 - 150	
182 W	165	1	320.40	317.80	ppb	0.74	40	89.5	50 - 150	
195 Pt	165	1	0.00	0.04	ppb	550.43	40	0.0	50 - 150	
205 Tl	165	1	8.18	0.04	ppb	0.67	40	20.4	50 - 150	
208 Pb	165	1	9.53	0.01	ppb	0.40	40	23.8	50 - 150	
232 Th	165	1	8.09	1.15	ppb	3.41	40	19.7	50 - 150	
238 U	165	1	10.34	1.64	ppb	0.19	40	24.8	50 - 150	

ISTD Elements

Element	Tune	Counts	RSD(%)	Ref. Counts	Rec(%)	QC Range(%)	QC Flag
6 Li	1	456052	0.71	474143	96.2	30 - 120	
45 Sc	1	2346727	1.70	2484770	94.4	30 - 120	
72 Ge	1	1003004	0.29	1162179	86.3	30 - 120	
115 In	1	2646059	0.29	3064413	86.3	30 - 120	
165 Ho	1	4172310	0.47	4475388	93.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Duplicate Spike (MSD) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\112_MSD.D\112_MSD.D#
Date Acquired: Aug 4 2009 10:51 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG282D 5X
Misc Info: MATRIX SPIKE DUPLICATE
Vial Number: 3505
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: MSD
Dilution Factor: 5.00

QC Summary:
Analytes: Pass
ISTD: Pass

Duplicate Ref File: C:\ICPCHEM\1\DATA\AG080409.B\111_MS.D\111_MS.D#

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Ref Conc	Differ(%)	High Limit	Flag
9 Be	6	1	8.47	ppb	4.31	8.23	2.93	20	
23 Na	6	1	384100.00	ppb	2.05	390000.00	1.52	20	
24 Mg	6	1	8659.00	ppb	1.83	8775.00	1.33	20	
27 Al	45	1	36.63	ppb	2.29	12.30	99.45	20	
39 K	45	1	1173.00	ppb	1.07	1182.00	0.76	20	
43 Ca	45	1	32700.00	ppb	1.37	32920.00	0.67	20	
51 V	72	1	2605.00	ppb	1.83	2708.00	3.88	20	
52 Cr	72	1	85.60	ppb	0.30	87.61	2.32	20	
55 Mn	72	1	11.58	ppb	0.73	12.06	4.06	20	
57 Fe	72	1	100.10	ppb	1.57	106.60	6.29	20	
59 Co	72	1	8.59	ppb	1.00	8.78	2.29	20	
60 Ni	72	1	8.86	ppb	1.48	9.19	3.62	20	
63 Cu	72	1	8.41	ppb	1.28	8.74	3.90	20	
66 Zn	72	1	8.96	ppb	2.22	8.85	1.29	20	
75 As	72	1	84.83	ppb	0.04	87.97	3.63	20	
78 Se	72	1	11.10	ppb	4.27	11.04	0.54	20	
93 Nb	72	1	0.20	ppb	41.77	0.31	44.27	20	
95 Mo	72	1	82.09	ppb	0.48	84.02	2.32	20	
105 Pd	115	1	0.46	ppb	7.30	0.48	3.69	20	
107 Ag	115	1	8.00	ppb	1.88	8.01	0.21	20	
111 Cd	115	1	8.35	ppb	1.35	8.34	0.19	20	
118 Sn	115	1	0.40	ppb	18.83	0.52	27.74	20	
121 Sb	115	1	8.67	ppb	2.14	8.85	2.15	20	
137 Ba	115	1	11.66	ppb	1.15	11.90	2.04	20	
182 W	165	1	317.80	ppb	1.18	320.40	0.81	20	
195 Pt	165	1	0.00	ppb	83.52	0.00	799.57	20	
205 Tl	165	1	8.05	ppb	1.80	8.18	1.63	20	
208 Pb	165	1	8.11	ppb	1.87	9.53	16.14	20	
232 Th	165	1	8.21	ppb	0.18	8.09	1.40	20	
238 U	165	1	10.25	ppb	1.88	10.34	0.87	20	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	457621	0.75	474143	96.5	30 - 120	
45 Sc	1	2354252	2.04	2484770	94.7	30 - 120	
72 Ge	1	1033720	0.41	1162179	88.9	30 - 120	
115 In	1	2666740	1.63	3064413	87.0	30 - 120	
165 Ho	1	4188523	1.14	4475388	93.6	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref. File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\113SMPL.D\113SMPL.D#
Date Acquired: Aug 4 2009 10:54 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3WE 5X
Misc Info: D9G250146
Vial Number: 3506
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.00	0.00	ppb	0.00	3600	
23 Na	6	1	540,500.00	108100.00	ppb	0.78	100000	>LDR
24 Mg	6	1	135,600.00	27120.00	ppb	1.34	100000	
27 Al	45	1	66.60	13.32	ppb	1.76	100000	
39 K	45	1	12,845.00	2569.00	ppb	0.26	100000	
43 Ca	45	1	224,150.00	44830.00	ppb	0.59	100000	
51 V	72	1	46.25	9.25	ppb	4.95	3600	
52 Cr	72	1	94.35	18.87	ppb	1.10	3600	
55 Mn	72	1	0.93	0.19	ppb	10.17	18000	
57 Fe	72	1	691.00	138.20	ppb	1.49	100000	
59 Co	72	1	0.99	0.20	ppb	7.03	3600	
60 Ni	72	1	12.70	2.54	ppb	5.67	3600	
63 Cu	72	1	0.68	0.14	ppb	9.54	3600	
66 Zn	72	1	3.86	0.77	ppb	6.49	3600	
75 As	72	1	156.60	31.32	ppb	0.99	3600	
78 Se	72	1	7.35	1.47	ppb	37.07	3600	
93 Nb	72	1	0.17	0.03	ppb	202.73	2000	
95 Mo	72	1	40.28	8.06	ppb	3.96	3600	
105 Pd	115	1	4.72	0.94	ppb	1.64	1000	
107 Ag	115	1	0.03	0.01	ppb	18.39	3600	
111 Cd	115	1	0.06	0.01	ppb	48.30	3600	
118 Sn	115	1	1.46	0.29	ppb	4.91	3600	
121 Sb	115	1	0.18	0.04	ppb	21.78	3600	
137 Ba	115	1	14.11	2.82	ppb	1.98	3600	
182 W	165	1	3.36	0.67	ppb	1.71	1000	
195 Pt	165	1	0.05	0.01	ppb	38.59	1000	
205 Tl	165	1	0.05	0.01	ppb	16.17	3600	
208 Pb	165	1	0.08	0.02	ppb	16.26	3600	
232 Th	165	1	1.55	0.31	ppb	17.87	1000	
238 U	165	1	55.00	11.00	ppb	1.26	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477981	0.32	474143	100.8	30 - 120	
45 Sc	1	2396366	1.00	2484770	96.4	30 - 120	
72 Ge	1	1069958	1.82	1162179	92.1	30 - 120	
115 In	1	2824370	0.48	3064413	92.2	30 - 120	
165 Ho	1	4347158	1.06	4475388	97.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\114SMPL.D\114SMPL.D#
Date Acquired: Aug 4 2009 10:57 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3W9 5X
Misc Info: D9G250155
Vial Number: 3507
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.08	0.02	ppb	100.00	3600	
23 Na	6	1	803,500.00	160700.00	ppb	0.95	100000	>LDR
24 Mg	6	1	104,600.00	20920.00	ppb	1.62	100000	
27 Al	45	1	7.07	1.41	ppb	18.99	100000	
39 K	45	1	49,190.00	9838.00	ppb	1.07	100000	
43 Ca	45	1	213,750.00	42750.00	ppb	1.04	100000	
51 V	72	1	-52.35	-10.47	ppb	16.90	3600	
52 Cr	72	1	4,215.00	843.00	ppb	0.53	3600	
55 Mn	72	1	11.23	2.25	ppb	1.02	18000	
57 Fe	72	1	654.50	130.90	ppb	0.23	100000	
59 Co	72	1	1.56	0.31	ppb	2.98	3600	
60 Ni	72	1	10.86	2.17	ppb	2.43	3600	
63 Cu	72	1	0.41	0.08	ppb	11.30	3600	
66 Zn	72	1	1.10	0.22	ppb	3.81	3600	
75 As	72	1	103.75	20.75	ppb	1.10	3600	
78 Se	72	1	5.08	1.02	ppb	21.06	3600	
93 Nb	72	1	0.24	0.05	ppb	153.47	2000	
95 Mo	72	1	25.98	5.20	ppb	3.18	3600	
105 Pd	115	1	4.09	0.82	ppb	6.25	1000	
107 Ag	115	1	0.02	0.00	ppb	146.33	3600	
111 Cd	115	1	0.09	0.02	ppb	4.38	3600	
118 Sn	115	1	1.14	0.23	ppb	11.01	3600	
121 Sb	115	1	0.18	0.04	ppb	32.08	3600	
137 Ba	115	1	35.68	7.14	ppb	2.20	3600	
182 W	165	1	1.90	0.38	ppb	3.59	1000	
195 Pt	165	1	0.06	0.01	ppb	56.86	1000	
205 Tl	165	1	0.09	0.02	ppb	3.65	3600	
208 Pb	165	1	0.07	0.01	ppb	29.05	3600	
232 Th	165	1	0.71	0.14	ppb	15.80	1000	
238 U	165	1	26.74	5.35	ppb	1.02	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	481575	0.05	474143	101.6	30 - 120	
45 Sc	1	2403823	1.78	2484770	96.7	30 - 120	
72 Ge	1	1066209	1.23	1162179	91.7	30 - 120	
115 In	1	2812335	1.47	3064413	91.8	30 - 120	
165 Ho	1	4362379	1.24	4475388	97.5	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

1 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Sample QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\115SMPL.D\115SMPL.D#
Date Acquired: Aug 4 2009 11:00 pm
Acq. Method: 6020isis.M
Operator: TEL
Sample Name: LG3XG 5X
Misc Info: D9G250157
Vial Number: 3508
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal. Update: Aug 04 2009 09:48 pm
Sample Type: SA
Dilution Factor: 5.00
Autodil Factor: Undiluted
Final Dil Factor: 5.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Corr Conc	Raw Conc	Units	RSD(%)	High Limit	Flag
9 Be	6	1	0.14	0.03	ppb	69.53	3600	
23 Na	6	1	1,612,000.00	322400.00	ppb	0.70	100000	>LDR
24 Mg	6	1	164,300.00	32860.00	ppb	0.31	100000	
27 Al	45	1	158.35	31.67	ppb	0.89	100000	
39 K	45	1	27,445.00	5489.00	ppb	0.37	100000	
43 Ca	45	1	502,000.00	100400.00	ppb	1.91	100000	>LDR
51 V	72	1	-76.55	-15.31	ppb	28.13	3600	
52 Cr	72	1	6,030.00	1206.00	ppb	2.17	3600	
55 Mn	72	1	36.22	7.24	ppb	3.63	18000	
57 Fe	72	1	1,674.50	334.90	ppb	1.26	100000	
59 Co	72	1	0.88	0.18	ppb	10.91	3600	
60 Ni	72	1	6.49	1.30	ppb	1.24	3600	
63 Cu	72	1	1.64	0.33	ppb	13.57	3600	
66 Zn	72	1	9.54	1.91	ppb	2.31	3600	
75 As	72	1	183.25	36.65	ppb	1.59	3600	
78 Se	72	1	9.87	1.97	ppb	2.16	3600	
93 Nb	72	1	0.05	0.01	ppb	590.02	2000	
95 Mo	72	1	25.86	5.17	ppb	2.65	3600	
105 Pd	115	1	9.63	1.93	ppb	5.84	1000	
107 Ag	115	1	0.03	0.01	ppb	32.12	3600	
111 Cd	115	1	0.06	0.01	ppb	21.45	3600	
118 Sn	115	1	2.09	0.42	ppb	7.46	3600	
121 Sb	115	1	0.19	0.04	ppb	16.41	3600	
137 Ba	115	1	21.18	4.24	ppb	2.29	3600	
182 W	165	1	2.36	0.47	ppb	4.43	1000	
195 Pt	165	1	0.75	0.15	ppb	5.04	1000	
205 Tl	165	1	0.18	0.04	ppb	8.09	3600	
208 Pb	165	1	0.34	0.07	ppb	5.55	3600	
232 Th	165	1	0.31	0.06	ppb	17.38	1000	
238 U	165	1	20.78	4.16	ppb	0.38	3600	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	474840	0.28	474143	100.1	30 - 120	
45 Sc	1	2418556	0.76	2484770	97.3	30 - 120	
72 Ge	1	1026866	2.28	1162179	88.4	30 - 120	
115 In	1	2732762	1.46	3064413	89.2	30 - 120	
165 Ho	1	4267340	0.43	4475388	95.4	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures

0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Verification (CCV) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\116_CCV.D\116_CCV.D#
Date Acquired: Aug 4 2009 11:03 pm
Operator: TEL
Sample Name: CCV
Misc Info:
Vial Number: 1107
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCV
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	Expected	Rec(%)	QC Range(%)	Flag
9 Be	6	1	50.03	ppb	1.20	50	100.1	90 - 110	
23 Na	6	1	4958.00	ppb	0.71	5000	99.2	90 - 110	
24 Mg	6	1	4855.00	ppb	0.68	5000	97.1	90 - 110	
27 Al	45	1	5029.00	ppb	0.18	5000	100.6	90 - 110	
39 K	45	1	5031.00	ppb	0.89	5000	100.6	90 - 110	
43 Ca	45	1	5069.00	ppb	0.53	5000	101.4	90 - 110	
51 V	72	1	49.69	ppb	0.91	50	99.4	90 - 110	
52 Cr	72	1	51.07	ppb	0.29	50	102.1	90 - 110	
55 Mn	72	1	50.66	ppb	0.58	50	101.3	90 - 110	
57 Fe	72	1	5230.00	ppb	0.60	5000	104.6	90 - 110	
59 Co	72	1	50.66	ppb	1.03	50	101.3	90 - 110	
60 Ni	72	1	51.72	ppb	0.66	50	103.4	90 - 110	
63 Cu	72	1	51.50	ppb	0.97	50	103.0	90 - 110	
66 Zn	72	1	51.32	ppb	0.83	50	102.6	90 - 110	
75 As	72	1	50.86	ppb	1.41	50	101.7	90 - 110	
78 Se	72	1	51.46	ppb	2.98	50	102.9	90 - 110	
93 Nb	72	1	93.95	ppb	0.33	100	94.0	90 - 110	
95 Mo	72	1	51.05	ppb	1.81	50	102.1	90 - 110	
105 Pd	115	1	50.34	ppb	0.79	50	100.7	90 - 110	
107 Ag	115	1	51.43	ppb	0.27	50	102.9	90 - 110	
111 Cd	115	1	50.48	ppb	0.55	50	101.0	90 - 110	
118 Sn	115	1	50.00	ppb	0.64	50	100.0	90 - 110	
121 Sb	115	1	50.12	ppb	0.37	50	100.2	90 - 110	
137 Ba	115	1	50.31	ppb	0.70	50	100.6	90 - 110	
182 W	165	1	50.18	ppb	1.38	50	100.4	90 - 110	
195 Pt	165	1	50.81	ppb	1.87	50	101.6	90 - 110	
205 Tl	165	1	51.62	ppb	1.51	50	103.2	90 - 110	
208 Pb	165	1	52.02	ppb	1.59	50	104.0	90 - 110	
232 Th	165	1	51.15	ppb	0.19	50	102.3	90 - 110	
238 U	165	1	51.20	ppb	1.60	50	102.4	90 - 110	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477218	1.17	474143	100.6	30 - 120	
45 Sc	1	2413621	0.42	2484770	97.1	30 - 120	
72 Ge	1	1120205	0.47	1162179	96.4	30 - 120	
115 In	1	2979247	0.40	3064413	97.2	30 - 120	
165 Ho	1	4435335	0.48	4475388	99.1	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures — 0 :Max. Number of Failures Allowed
0 :ISTD Failures — 0 :Max. Number of ISTD Failures Allowed

Continuing Calibration Blank (CCB) QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\117_CCB.D\117_CCB.D#
Date Acquired: Aug 4 2009 11:06 pm
Operator: TEL
Sample Name: CCB
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: CCB
Total Dil Factor: 1.00

QC Summary:
Analytes: Fail
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.		RSD(%)	High Limit	Flag
9 Be	6	1	0.000	ppb	0.00	1.00	
23 Na	6	1	47.410	ppb	7.00	20.00	Fail
24 Mg	6	1	1.735	ppb	35.06	20.00	
27 Al	45	1	1.030	ppb	60.93	20.00	
39 K	45	1	4.946	ppb	24.89	20.00	
43 Ca	45	1	10.440	ppb	14.99	20.00	
51 V	72	1	0.087	ppb	2.99	1.00	
52 Cr	72	1	0.054	ppb	26.90	1.00	
55 Mn	72	1	0.003	ppb	257.57	1.00	
57 Fe	72	1	0.684	ppb	55.47	20.00	
59 Co	72	1	0.011	ppb	33.89	1.00	
60 Ni	72	1	0.002	ppb	184.29	1.00	
63 Cu	72	1	0.032	ppb	10.84	1.00	
66 Zn	72	1	0.631	ppb	5.90	10.00	
75 As	72	1	0.015	ppb	57.71	1.00	
78 Se	72	1	0.149	ppb	453.29	1.00	
93 Nb	72	1	2.798	ppb	11.28	2.00	Fail
95 Mo	72	1	-0.015	ppb	88.80	1.00	
105 Pd	115	1	0.025	ppb	10.21	1.00	
107 Ag	115	1	0.010	ppb	44.97	1.00	
111 Cd	115	1	0.012	ppb	47.25	1.00	
118 Sn	115	1	-0.019	ppb	40.67	10.00	
121 Sb	115	1	0.157	ppb	6.34	1.00	
137 Ba	115	1	0.018	ppb	52.55	1.00	
182 W	165	1	0.149	ppb	7.65	5.00	
195 Pt	165	1	0.012	ppb	58.91	1.00	
205 Tl	165	1	0.026	ppb	18.33	1.00	
208 Pb	165	1	0.014	ppb	21.75	1.00	
232 Th	165	1	0.316	ppb	8.31	2.00	
238 U	165	1	0.016	ppb	6.18	1.00	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	477705	0.35	474143	100.8	30 - 120	
45 Sc	1	2438330	0.66	2484770	98.1	30 - 120	
72 Ge	1	1136995	0.64	1162179	97.8	30 - 120	
115 In	1	3039039	0.82	3064413	99.2	30 - 120	
165 Ho	1	4487402	0.88	4475388	100.3	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

2 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed

Wash QC Report

Data File: C:\ICPCHEM\1\DATA\AG080409.B\118WASH.D\118WASH.D#
Date Acquired: Aug 4 2009 11:09 pm
Operator: TEL
Sample Name: RLCV
Misc Info:
Vial Number: 1204
Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
Last Cal Update: Aug 04 2009 09:48 pm
Sample Type: WASH
Total Dil Factor: 1.00

QC Summary:
Analytes: Pass
ISTD: Pass

QC Elements

Element	IS Ref	Tune	Conc.	RSD(%)	High Limit	Flag
9 Be	6	1	0.990 ppb	10.14	1.30	
23 Na	6	1	82.900 ppb	1.32	65.00	
24 Mg	6	1	53.540 ppb	2.05	65.00	
27 Al	45	1	32.510 ppb	1.61	39.00	
39 K	45	1	107.800 ppb	3.48	130.00	
43 Ca	45	1	51.340 ppb	18.06	65.00	
51 V	72	1	5.078 ppb	2.70	6.50	
52 Cr	72	1	2.152 ppb	2.87	2.60	
55 Mn	72	1	1.076 ppb	1.82	1.30	
57 Fe	72	1	53.250 ppb	4.55	65.00	
59 Co	72	1	1.064 ppb	1.86	1.30	
60 Ni	72	1	2.188 ppb	7.06	2.60	
63 Cu	72	1	2.215 ppb	1.55	2.60	
66 Zn	72	1	10.760 ppb	2.15	13.00	
75 As	72	1	5.152 ppb	0.85	6.50	
78 Se	72	1	5.134 ppb	5.71	6.50	
93 Nb	72	1	43.860 ppb	0.66	52.00	
95 Mo	72	1	1.972 ppb	3.43	2.60	
105 Pd	115	1	0.934 ppb	2.26	1.30	
107 Ag	115	1	5.456 ppb	1.46	6.50	
111 Cd	115	1	1.059 ppb	2.85	1.30	
118 Sn	115	1	10.340 ppb	1.71	13.00	
121 Sb	115	1	2.028 ppb	1.83	2.60	
137 Ba	115	1	1.042 ppb	4.45	1.30	
182 W	165	1	5.136 ppb	1.94	6.50	
195 Pt	165	1	0.977 ppb	4.60	1.30	
205 Tl	165	1	1.116 ppb	0.67	1.30	
208 Pb	165	1	1.107 ppb	3.23	1.30	
232 Th	165	1	2.504 ppb	5.02	2.60	
238 U	165	1	1.092 ppb	0.67	1.30	

ISTD Elements

Element	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	476982	0.69	474143	100.6	30 - 120	
45 Sc	1	2433824	0.31	2484770	97.9	30 - 120	
72 Ge	1	1126114	0.86	1162179	96.9	30 - 120	
115 In	1	3000501	0.62	3064413	97.9	30 - 120	
165 Ho	1	4482447	0.35	4475388	100.2	30 - 120	

Tune File# 1 c:\icpchem\1\7500\he.u
Tune File# 2 C:\ICPCHEM\1\7500\
Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG080409.B\089CALB.D\089CALB.D#

0 :Element Failures
0 :ISTD Failures
0 :Max. Number of Failures Allowed
0 :Max. Number of ISTD Failures Allowed