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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

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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, i.e., 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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
NO DETECTABLE PARAMETERS				

EXECUTIVE SUMMARY - Detection Highlights

8304615 : D9G240312

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
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

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
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

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
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

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
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

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

NOTE(S) :

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(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G230301

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

NOTE (S) :

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(Continued on next page)

SAMPLE SUMMARY

8304615 : D9G240312

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

NOTE (S) :

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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 : D9G250146

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u> <u>DATE</u>	<u>SAMP</u> <u>TIME</u>
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.
- 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 : D9G250155

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u>	<u>SAMP</u>
				<u>DATE</u>	<u>TIME</u>
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.
- 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 : D9G250157

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

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.
- 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

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

QC DATA ASSOCIATION SUMMARY

D9G230298

Sample Preparation and Analysis Control Numbers

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

QC DATA ASSOCIATION SUMMARY

D9G230301

Sample Preparation and Analysis Control Numbers

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

QC DATA ASSOCIATION SUMMARY

D9G240312

Sample Preparation and Analysis Control Numbers

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

QC DATA ASSOCIATION SUMMARY

D9G250146

Sample Preparation and Analysis Control Numbers

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

QC DATA ASSOCIATION SUMMARY

D9G250155

Sample Preparation and Analysis Control Numbers

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

QC DATA ASSOCIATION SUMMARY

D9G250157

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

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

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					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

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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204215
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G230000-215B
Lab WorkOrder: LGXP7
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:34
Instrument ID: 024

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

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

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204215
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: M-77BMS
MS Lab Sample ID: D9G220275-001S
MS Lab WorkOrder: LGWWA
Date/Time Collected: 07/20/09 09:30
Date/Time Received: 07/22/09 09:30
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:48
Instrument ID: 024

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

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 Analysis

-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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204215
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G230000-215C
Lab WorkOrder: LGXP7
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:37
Instrument ID: 024

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	3.6		M
Selenium	1.053	3.500	100.0		M

Comments: _____

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: _____

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:

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:

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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204219
Sample Aliquot: 50 mL
Dilution Factor: 5

Client Sample ID: M-77BDISS
Lab Sample ID: D9G220275-002
Lab WorkOrder: LGWWD
Date/Time Collected: 07/20/09 09:30
Date/Time Received: 07/22/09 09:30
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:12
Instrument ID: 024

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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204219
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G230000-219B
Lab WorkOrder: LGXRH
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:07
Instrument ID: 024

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

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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:

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

Comments:

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

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204219
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: M-77BDISS
MS Lab Sample ID: D9G220275-002S
MS Lab WorkOrder: LGWWD
Date/Time Collected: 07/20/09 09:30
Date/Time Received: 07/22/09 09:30
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:21
Instrument ID: 024

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

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204219
MSD Sample Aliquot: 50 mL
MSD Dilution Factor: 5

Client Sample ID: M-77BDISS
MSD Lab Sample ID: D9G220275-002D
MSD Lab WorkOrder: LGWWD
Date/Time Collected: 07/20/09 09:30
Date/Time Received: 07/22/09 09:30
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:23
Instrument ID: 024

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

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:

Northgate Environmental Management, Inc.

Dissolved Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G220275
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9204219
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G230000-219C
Lab WorkOrder: LGXRH
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 07/30/09 06:10
Instrument ID: 024

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

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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	5.0		M
Selenium	1.312	3.500	100.0		M

Comments: _____

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:

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:

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																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
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

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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

**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.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>M-33B</u>	<u>D9G230298-001</u>
<u>M-33B MS</u>	<u>D9G230298-001S</u>
<u>M-33B MSD</u>	<u>D9G230298-001SD</u>

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

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

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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER

Lot/SDG Number: D9G230298

Matrix: WATER

% Moisture:

Basis: Wet

Analysis Method: 6020

Unit: ug/L

QC Batch ID: 9205162

Sample Aliquot: 50 mL

Dilution Factor: 1

Client Sample ID:

Lab Sample ID: D9G240000-162B

Lab WorkOrder: LG1L5

Date/Time Collected:

Date/Time Received:

Date Leached:

Date/Time Extracted: 07/28/09 12:00

Date/Time Analyzed: 08/01/09 01:59

Instrument ID: 024

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

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)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		1	2	3	C	C	C	C		
Arsenic	0.210 U	0.210 U	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	0.700 U	0.700 U	0.70	U	M	

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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.: 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

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

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

Total Metals Analysis
-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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G230298
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9205162
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G240000-162C
Lab WorkOrder: LG1L5
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/28/09 12:00
Date/Time Analyzed: 08/01/09 01:56
Instrument ID: 024

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	2.0		M
Selenium	2.302	3.500	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:

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: _____

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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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																															
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N								
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

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1060 mL
Dilution Factor: 1

Client Sample ID: M-97B
Lab Sample ID: D9G230301-001
Lab WorkOrder: LG0741AA
Date/Time Collected: 07/21/09 07:40
Date/Time Received: 07/23/09 09:30
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 17:59
Instrument ID: D2

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

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1060 mL
Dilution Factor: 1

Client Sample ID: M-97B
Lab Sample ID: D9G230301-001
Lab WorkOrder: LG0741AA
Date/Time Collected: 07/21/09 07:40
Date/Time Received: 07/23/09 09:30
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 17:59
Instrument ID: D2

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	

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G240000-274B
Lab WorkOrder: LG1WF1AA
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 16:37
Instrument ID: D2

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

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G240000-274B
Lab WorkOrder: LG1WF1AA
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 16:37
Instrument ID: D2

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

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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

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G240000-274C
Lab WorkOrder: LG1WF1AC
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 17:04
Instrument ID: D2

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	

Northgate Environmental Management, Inc.

Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 8141A
Unit: ug/L
QC Batch ID: 9205274
Sample Aliquot: 1000 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G240000-274L
Lab WorkOrder: LG1WF1AD
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 17:31
Instrument ID: D2

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	

Northgate Environmental Management, Inc.

Method Blank Summary

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: 8304615
Matrix: WATER
Analysis Method: 8141A
Extraction Method: I09P29H
QC Batch ID: 9205274

Lab File ID: 014F1401
Lab Sample ID: D9G240000-274B
Lab Work Order: LG1WF1AA
Date/Time Extracted: 07/24/09 12:00
Date/Time Analyzed: 08/06/09 16:37
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
- MSIN - Mis-Integrated
- MSID - Analyte Misidentified by the Data System

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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

- 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
- MSID - Analyte Misidentified by the Data System

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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
 SP - Split Peak
 TAIL - Peak Tailing or Fronting
 NOID - Analyte not Identified by the Data System
 MSIN - Mis-Integrated
 MSID - Analyte Misidentified by the Data System

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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
MSID - Analyte Misidentified by the Data System

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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	b	Coefficients ml	m2	%RSD or R^2
1 o,o'-TEPT	60356 1296938	153069	357384	597394	802659	1041312	QDAD	0.01686	0.29632	0.01695	0.99817
2 Dichlorvos	38766 950818	97090	236382	406483	566931	787168	WLINR	0.00661	1.91742		0.99400
4 Mevinphos	20784 692828	60215	167787	298068	405911	548507	WLINR	0.03011	1.39464		0.99361
5 Demeton-O	7328 232018	19905	53507	94931	130704	182737	WLINR	0.00965	1.40814		0.99537

* All weighted Linvars are 1/x

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

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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 : \\Densvtr03\Public\chem\GCS\GC_D2.1\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.1

Compound	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R ²
									m1	m2	
14 Atrazine	13368 318216	36826	88458	146146	208979	258175	QUAD	0.04814	1.04463	0.36910	0.99723
15 Propazine	7831 262507	23609	62163	114010	152109	202004	WLINR	0.02772	0.52221		0.99451
16 Disulfoton	26551 713903	70798	177395	316424	423156	558998	WLINR	0.01013	1.42645		0.99357
17 Demeton-S	19550 620416	57025	140910	267435	350018	493144	WLINR	0.01822	1.81159		0.99636
18 Dimethoate	30901 919664	85451	220034	399590	527786	710490	WLINR	0.01960	1.81946		0.99451
19 Ronnel	25402 650233	64796	158537	282907	372707	501398	WLINR	0.00596	1.27627		0.99446
20 Merphos-A (Merphos)	20208 609255	55934	138362	252361	335820	462632	LNLR	-0.10408	0.49687		0.99129

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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 : \\Densvvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Level 7	Curve	b	Coefficients		%RSD or R ²
										m1	m2	
21 Chlorpyrifos	21237 599899	60607	149544	268415	353328	483833		WLINR	0.01332	1.21172		0.99146
22 Fenuthion	18776 662162	40748	140951	281601	376566	475563		WLINR	0.04827	1.29154		0.99254
23 Trichloronate	35440 791153	108594	224757	386484	481097	670271		LINR	-0.09506	1.52853		0.98987 <-
24 Anilazine	++++ 29754	1365	5446	10658	16270	23122		WLINR	0.13324	0.06056		0.99580
25 Methyl Parathion	26057 764532	70514	178679	323523	438809	589284		WLINR	0.02018	1.50337		0.99568
26 Malathion	20378 564841	55317	137907	244307	331835	446246		WLINR	0.01372	1.12630		0.99453
27 Tokuthion	23347 601635	61910	155275	272176	360235	477103		WLINR	0.00493	1.21273		0.99184

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 : \\Densvyr03\Public\chem\GCS\GC_D2.1\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.1

Compound	Level							Curve	b	Coefficients		RSD or R ²
	1	2	3	4	5	6	m1			m2		
28 Parathion	27796 666755	68378	173641	303707	400079	532806	WLNLR	0.00066	1.34536		0.99155	
29 Merphos-B (Merphos Oxone)	8193 209905	19053	50092	87050	117192	160245	QUDAD	0.00002	3.99353	4.19550	0.99655	
30 Tetrachlorvinphos (stirophos)	14633 393087	40546	99267	176428	235430	312270	WLNLR	0.00822	0.79198		0.99305	
31 Carbophenothion methyl	19335 614237	59783	150574	273834	369428	485153	WLNLR	0.02156	1.24332		0.99364	
32 Bolstar	24830 568413	62262	148685	262486	345976	452745	WLNLR	-0.00656	1.14690		0.99176	
33 Carbophenothion	23920 638239	66481	158258	291027	391840	507573	WLNLR	0.00858	1.29364		0.99369	
35 Fensulfochton	21641 548194	55100	144111	244410	324575	446385	WLNLR	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 : \\Densvtr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

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

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 : \\DensSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.1

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

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_D2.1\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.1

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

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	

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	b	Coefficients ml	m2	%RSD or R ²
1 o,o'-TEPT	27235 667873	69103	176667	273888	380611	530397	WLNLR	0.00437	2.76150		0.99070
2 Dichlorvos	19624 4949664	49660	121959	217219	299105	394344	WLNLR	0.01094	2.07952		0.99581
3 Mevinphos	0.70987 1.02544	0.83613	1.19746	0.99299	1.02111	1.00792	AVRG		0.97013		16.02289
5 Thiomazin	16347 452629	46078	116071	198904	270134	356552	WLNLR	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	Level							Curve	b	Coefficients		RSD or R ²
	1	2	3	4	5	6	m1			m2		
6 Demeton-O	7663 171892	16576	43609	67743	105619	133217	WLINR	0.00170	2.18668		0.99112	
7 Ethoprop	17439 445757	42559	102655	203616	270063	352360	WLINR	0.01650	1.87535		0.99723	
8 Naled	789 104555	5395	17781	39234	55026	79043	WLINR	0.10055	0.42919		0.99646	
10 Sulfocepp	31103 591692	72734	161301	272812	358937	470909	WLINR	-0.02666	2.46816		0.99294	
11 Phorate	20942 443267	55180	119141	206533	269371	355358	LINR	-0.05994	1.79112		0.99682	
12 Dimethoate	13628 550587	46073	123499	234736	318948	429609	WLINR	0.04553	2.30912		0.99695	
13 Demeton-S	9874 283901	30199	72778	131092	169836	227643	WLINR	0.00915	1.77734		0.99385	

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 : \\Densvtr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	Coefficients							or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	
14 Simazine	5806	17101	46770	90943	120316	160354	WLNR	0.99565
15 Atrazine	7433	16880	47483	89027	116845	160200	WLNR	0.99545
16 propazine	6444	16038	42201	77939	101930	142131	WLNR	0.99593
17 Disulfoton	9740	23733	62379	107216	145630	207119	WLNR	0.99471
18 Diazinon	24787	54615	135177	234306	300229	416271	WLNR	0.99219
19 Methyl Parathion	10381	33545	83612	148922	192341	260459	WLNR	0.99344
20 Ronnel	11310	31990	79747	132002	186402	242078	WLNR	0.99292

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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 : \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients m1	m2	%RSD or R ²
21 Malathion	12017 280372	30837	73542	127531	167962	219045	WLNR	-0.00342	1.17261		0.99300
22 Fenthion	10574 301629	28555	72130	132190	176698	231332	WLNR	0.02002	1.25197		0.99537
23 Parathion	10134 313652	28660	75321	134353	181496	240220	WLNR	0.02603	1.30048		0.99472
24 Chlorpyrifos	1.88134 1.95897	1.87231	2.27378	1.86707	1.79826	1.72943	AVRG		1.91159		9.15814
25 Trichloronate	14112 371970	36498	89537	154049	208922	282505	WLNR	0.01257	1.51131		0.99446
26 Anllazine	++++ 16019	826	2826	5841	7461	13218	WLNR	0.14526	0.06857		0.98603
27 Merphos-A (Merphos)	11430 287727	31853	75953	132917	173016	233543	WLNR	0.00298	1.22464		0.99330

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 : \\DensVrr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

Compound	Level							Curve	b	Coefficients		%RSD or R ²
	1	2	3	4	5	6	m1			m2		
28 Tetrachloroethylenephos (Stikophos)	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 Carbofenothion-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 / Fampaur	24720 612450	69693	166272	286233	372086	489394	WLINR	-0.00260	1.30376		0.99138	
34 Carbofenothion	1.12961 1.49316	1.32850	1.77066	1.37892	1.53211	1.27764	AVRG		1.41580		14.57304	

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 : \\Densvrv03\Public\chem\GCS\GC_D2.1\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

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

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 : Falcom
 Method file : \\Densvrr03\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	b	Coefficients		%RSD or R ²
\$ 4 Chloromfos	1.95470	1.89064	2.71720	2.26391	2.28818	2.26782	AVRG		2.22859		12.07406
	2.21766										
	5.0000 Level 7										
\$ 35 Triphenyl phosphate	8112	25724	65323	113284	142596	191433	LINR	-0.03420	0.98195		0.99469
	241166										

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 : \\Densvtr03\Public\chem\GCS\GC_D2.1\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

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

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

Ccal Level Mode: BY SAMPLE

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

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
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
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

OK, see total demeton

OK, see total demeton

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

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
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
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

OK, see total demeton

OK, see total demeton

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

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
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
 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
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 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,LCS				
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,LCS				
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,LCS				
32	Vial 32	LG2W11AA,270-1				
33	Vial 33	LG4781AA,MB				
34	Vial 34	LG4781AC,LCS				
35	Vial 35	LG4781AD,LCS				
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 GSV082761				
53	Vial 53	LGNQ21AA,293-7				
54	Vial 54	LGNQ51AN,293-8				
55	Vial 55	LGNQ81AF,293-9				
56	Vial 56	LGNRJ1AR,293-10				
57	Vial 57	LGNRJ1AN,293-12				
58	Vial 58	LGNRK1AR,293-13				

9205274

9207019

9206111

9208404

9209010

9202116

0000
5/109

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

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.: _____

<u>Sample ID.</u>	<u>Lab Sample No.</u>
<u>CLD-4RB</u>	<u>D9G240312-001</u>
<u>CLD-4RB MS</u>	<u>D9G240312-001S</u>
<u>CLD-4RB MSD</u>	<u>D9G240312-001SD</u>

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

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

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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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.: D9G240312

AA CRDL Standard Source: _____

ICP CRDL Standard Source: Inorganic Ventures

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G240312
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: µg/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088B
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:34
Instrument ID: 024

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

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

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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.: 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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G240312
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: CLD-4RB
MS Lab Sample ID: D9G240312-001S
MS Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:49
Instrument ID: 024

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

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 Analysis
-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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G240312
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088C
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:37
Instrument ID: 024

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: _____

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: _____

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:

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																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

**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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250146
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 5

Client Sample ID: MW-6RB
Lab Sample ID: D9G250146-001
Lab WorkOrder: LG3WE
Date/Time Collected: 07/23/09 09:17
Date/Time Received: 07/25/09 08:30
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:54
Instrument ID: 024

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					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.: D9G250146

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				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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250146
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088B
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:34
Instrument ID: 024

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

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)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		1	2	3	C	C	C	C	C	
Arsenic	0.210 U	0.210 U	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	0.700 U	0.700 U	0.70	U	M	

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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.: 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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250146
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MS Lab Sample ID: D9G240312-001S
MS Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:49
Instrument ID: 024

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250146
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MSD Sample Aliquot: 50 mL
MSD Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MSD Lab Sample ID: D9G240312-001D
MSD Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:51
Instrument ID: 024

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.: 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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250146
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088C
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:37
Instrument ID: 024

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)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	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.: 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																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250155
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 5

Client Sample ID: M-35B
Lab Sample ID: D9G250155-001
Lab WorkOrder: LG3W9
Date/Time Collected: 07/24/09 11:10
Date/Time Received: 07/25/09 08:30
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:57
Instrument ID: 024

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					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.: D9G250155

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				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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250155
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088B
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:34
Instrument ID: 024

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

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

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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.: 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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250155
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MS Lab Sample ID: D9G240312-001S
MS Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:49
Instrument ID: 024

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250155
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MSD Sample Aliquot: 50 mL
MSD Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MSD Lab Sample ID: D9G240312-001D
MSD Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:51
Instrument ID: 024

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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250155
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088C
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:37
Instrument ID: 024

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)		Serial Dilution Result (S)		% Difference	Q	M
		C		C			
Arsenic	76.500		76.020		0.6		M
Selenium	2.222	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.: 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:

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																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K I	S E	A G	N A	T L	V L	Z N	C N				
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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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

**Total Metals Analysis
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE**

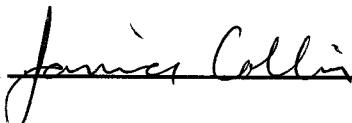
Contract: Northgate Environmental Management, Inc. SDG No.: D9G250157
 Lab Code: _____ Case No.: _____ SAS No.: _____
 SOW No.: _____

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 Yes/No NO
 application of background corrections?

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:  Name: Janice Collins
 Date: 8/6/09 Title: Metals Analyst

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

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

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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
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				
	True	Found	%R	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:

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250157
Matrix: WATER
% Moisture:
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088B
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:34
Instrument ID: 024

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

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

Comments:

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)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
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.: 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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250157
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MS Sample Aliquot: 50 mL
MS Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MS Lab Sample ID: D9G240312-001S
MS Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:49
Instrument ID: 024

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

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250157
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
MSD Sample Aliquot: 50 mL
MSD Dilution Factor: 5

Client Sample ID: LAB MS/MSD
MSD Lab Sample ID: D9G240312-001D
MSD Lab WorkOrder: LG282
Date/Time Collected: 07/22/09 09:50
Date/Time Received: 07/24/09 08:45
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:51
Instrument ID: 024

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: _____

Northgate Environmental Management, Inc.

Total Metals Analysis Data Sheet

Lab Name: TESTAMERICA DENVER
Lot/SDG Number: D9G250157
Matrix: WATER
% Moisture: N/A
Basis: Wet
Analysis Method: 6020
Unit: ug/L
QC Batch ID: 9208088
Sample Aliquot: 50 mL
Dilution Factor: 1

Client Sample ID:
Lab Sample ID: D9G270000-088C
Lab WorkOrder: LG6WK
Date/Time Collected:
Date/Time Received:
Date Leached:
Date/Time Extracted: 07/29/09 07:00
Date/Time Analyzed: 08/04/09 22:37
Instrument ID: 024

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: _____

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:

Total Metals Analysis

-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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	A L	T L	V	Z N	C N		
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																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
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 or
4
7-22-09
llw

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
C-Order # 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	TAT: Standard 30 day	<input checked="" type="checkbox"/>	Rush	Mark One				
Address:	4995 Yarrow Street	Project #:	2027.001	Address:	PO Box 55	If Rush, Date due							
City/State:	Avarda, CO 80002	Site Address:	560 W. Lake Mead Drive	City/State:	Henderson, NV 89009	QC level Required: Standard		Special	EPA Stage 4				
Lab P.M.:	Michael P. Phillips	City:	Henderson	State:	NV	Reimbursement project?	<input checked="" type="checkbox"/>	Non-reimbursement project?					
Phone/Fax:	303-736-0157	Site PM Name:	Derrick Willis	Send EDD to:	Frank Hagar Northgate Environmental Management, Inc	Mark one							
Lab PM email:	testamerica@ngem.com	Phone/Fax:	949-375-7004	CC Hardcopy report to:	PDF Electronic Version Only	MA MCP Cert?		CT RCP Cert?					
Applicable Lab Quote #:		Site PM Email:	derrick.willis@ngem.com	CC Hardcopy report to:	see additional comments below	Lab Project ID (lab use)							
ITEM #	SAMPLE ID		Valid Matrix Codes	MATRIX	MATRIX	MATRIX CODE	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED? (Y/N)	Requested Analyses	Comments/Lab Sample I.D.
	One Character per box. (A-Z, 0-9 / , -)												
	Samples IDs MUST BE UNIQUE		DRINKING WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	1	M-77B	WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	Y		
	2	M-77B DISS	WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	3	M-77B MS	WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	4	M-77B MSD	WASTE PRODUCT	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	5		SLURRY	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	6		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	7		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	8		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
	9		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N		
10		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N			
11		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N			
12		WASTE WATER	WV	WV	WG	G	7/20/2009	9:30 AM	1	N			

Additional Comments/Special Instructions:
As Se only by collision 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

REQUISITIONED BY AFFILIATION: Dana Brown, NGEM
DATE: 7/20/09
TIME: 14:30

ACCEPTED BY AFFILIATION: [Signature]
DATE SIGNED: 7-20-09
TIME: 14:30

PRINT NAME OF SAMPLER: Dana Brown
SIGNATURE OF SAMPLER: [Signature]

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

TEMP IN °C: [Blank]
SAMPLES ON ICE?: [Blank]
SAMPLE INTACT?: [Blank]

TestAmerica Denver
Sample Receiving Checklist

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

Company Name & Sampling Site: Norrigate - 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 # D9G220275

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
CHK

- 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).

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96230298 Date/Time Received: 7/23/09

Company Name & Sampling Site: Northgate - TRANOX

PM to Complete This Section: 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
AC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq 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
LM

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

Labeling and Storage Checks:

Initials
LM

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



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 4
Cooler # 1 of 1

Required Ship to Lab:

Required Project Information:

Required Invoice Information:

Lab Name: TestAmerica Site ID #: TRONOX LLC, HENDERSON
Address: 4955 Yarrow Street Project #: 2027.001
Arvada, CO 80002 Site Address: 560 W. Lake Mead Drive Henderson, NV 89009
Lab PM: Michael P. Phillips City: Henderson State: NV
Phone/Fax: 303-736-0157 Site PM Name: Derrick Willis
Lab PM email: testamerica@nc.com Phone/Fax: 949-375-7004
Applicable Lab Quote #: Site PM Email: derrick.willis@ngem.com

Send Invoice to: Susan Crowley Tmonox LLC
Address: PO Box 55
City/State: Henderson, NV 89009 Phone #: (949)260-9293
Reimbursement project? Non-reimbursement project?
Send EDD to: Frank Hagar - Northgate Environmental Management, Inc
CC Hardcopy report to: Frank.hagar@ngem.com
CC Hardcopy report to: PDF Electronic Version Only
TAT: Standard 30 day Rush
If Rush, Date due:
QC level Required: Standard Special EPA Stage 4
MA MCP Cert? CT RCP Cert? Mark one
Lab Project ID (lab use):

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9) / - / . Samples IDs MUST BE UNIQUE	VALID MATRIX Codes		MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives								Requested Analyses	Comments/lab Sample I.D.			
		UNPRESERVED	PRESERVED							H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other						
1	M-97B	0223	7-21-09	WG	G	7/21/2009	7:40 AM	1	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	500-ml-Plastic	
2	M-97B	0223	7-21-09	WG	G	7/21/2009	7:40 AM	1	Y	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	500-ml-Plastic	
3	M-97B	0223	7-21-09	WG	G	7/21/2009	7:40 AM	2	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2-1L Amber Glass	
4	EB-071709-GW			W	G	7/21/2009	9:01 AM	1	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	500 ml Plastic	
5	EB-071709-GW			W	G	7/21/2009	9:01 AM	2	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2-1L Amber Glass	
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Additional Comments/Special Instructions:

As per by collision 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	Sample Receipt Conditions
<i>[Signature]</i> DANA BROWN NGEM	7/21	14:00	<i>[Signature]</i> GRS	7/21	14:00	Temp in OC Y/N Samples on Ice? Y/N Sample intact? Y/N Trip Blank? Y/N
<i>[Signature]</i> GRS	7/21	16:00	<i>[Signature]</i> GRS	7/21	16:00	Temp in OC Y/N Samples on Ice? Y/N Sample intact? Y/N Trip Blank? Y/N
<i>[Signature]</i> GRS	7/21	11:30	<i>[Signature]</i> GRS	7/21	11:30	Temp in OC Y/N Samples on Ice? Y/N Sample intact? Y/N Trip Blank? Y/N

SHIPPING METHOD: (mark as appropriate) UPS (COURIER) FEDEX USPS FEDEX USPS

PRINT Name of SAMPLER: Dana Brown
SIGNATURE of SAMPLER: *[Signature]*
DATE Signed: 7/21/09
Time: 14:00

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

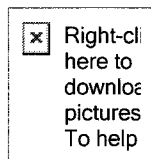
Michael,

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



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

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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

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: 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

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: 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

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TestAmerica Denver
Sample Receiving Checklist

Lot #: D96230301 Date/Time Received: 7/23/09 0930.

Company Name & Sampling Site: Northgate - TROJAX

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

Quote #: 83046

Special Instructions:

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

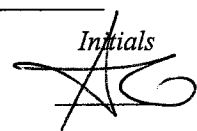
Unpacking Checks:

Cooler #(s): 2

Temperatures (°C): 2.5 3.7

N/A Yes No

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq 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 # D9G230301

Login Checks:

Initials

Ln.

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

- 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).



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. 2027.001.00255
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@testamerica.com

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

TAT: Standard 30 day

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

Valid Matrix Codes
MATRIX CODES: WP, WG, WQ, WS, WT, WL, WM, WT, WQ, WS, WT, WL, WM, WT, WQ, WS, WT, WL, WM

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							Requested Analyses	Comments/Lab Sample I.D.		
								Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other	
1	CLD-ARB	WG	G	7/22/2009	9:50 AM	1	N		X							X		500 ml Plastic
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

Additional Comments/Special Instructions:

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

REL. NOTIFIED BY: AFFILIATION**DATE****ACCEPTED BY: AFFILIATION****DATE****Sample Receipt Conditions**

Walter Brown, Ngem	7/22/09	14:30	Walter Brown, Ngem	7/22/09	14:30	Y/N	Y/N	Y/N	Y/N
Clindy Arnold	7/22/09	16:00	Clindy Arnold	7/22/09	16:00	Y/N	Y/N	Y/N	Y/N
Frank Hagar	7/22/09	17:30	Frank Hagar	7/22/09	17:30	Y/N	Y/N	Y/N	Y/N
Derrick Willis	7/22/09	08:45	Derrick Willis	7/22/09	08:45	Y/N	Y/N	Y/N	Y/N

Shipping Method (mark as appropriate):

US MAIL UPS COURIER FEDEX

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: DATE Signed: 7/22/09 Time: 14:30

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

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96240312 Date/Time Received: 7/24/09 0845

Company Name & Sampling Site: TRONOX

PM to Complete This Section: 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): _____

Temperatures (°C): 4.4 _____

N/A Yes No

Initials

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

N/A Yes No

AB

- 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:

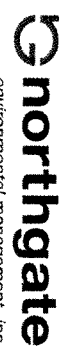
Initials

LL

- 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



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(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:		Required Project Information:		Required Invoice Information:		TAT: Standard 30 day		Rush		Special		EPA Stage		Mark One	
Lab Name:	TestAmerica	Site ID #:	TRONOX LLC, HENDERSON	Send Invoice to:	Susan Crowley	If Rush, Date due									
Address:	4955 Yarrow Street	Project #	2027.001	Address:	PO Box 55	QC level Required: Standard									
Arvada, CO 80002		Site Address	560 W. Lake Mead Drive	City/State	Henderson, NV 89009	Phone #:	(949)260-9293								
Lab P.M.:	Michael P. Phillips	City	Henderson	Reimbursement project?	<input checked="" type="checkbox"/>	Non-reimbursement project?									
Phone/Fax:	303-736-0157	State	NV	Send EDD to	Frank Hagar Northgate Environmental Management, Inc	Mark one									
Lab P.M. email	michael.phillips@testamericainc.com	Site P.M. Name	Derrick Willis	CC Hardcopy report to	PDF Electronic Version Only	MA MCP Cert?									
Phone/Fax:	testamericainc.com	Phone/Fax:	949-375-7004	CC Hardcopy report to	see additional comments below	CT RCP Cert?									
Applicable Lab Quote #:		Site P.M. Email:	derrick.willis@ngem.com			Lab Project ID (lab use)									
Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes		Valid Matrix Codes	
SAMPLE ID One Character per box. (A-Z, 0-9 / -)		MATRIX CODE		SAMPLE TYPE G=GRAB C=COMP		SAMPLE DATE		SAMPLE TIME		#OF CONTAINERS		FIELD FILTERED? (Y/N)		Requested Analyses	
Samples IDs MUST BE UNIQUE		WG		G		7/23/2009		8-17 AM		1		N		<input checked="" type="checkbox"/> EPA 8020 Collision Cell <input checked="" type="checkbox"/> EPA 8141A OPP Post Comments/Lab Sample I.D.	
1 MW-6RB															
2															
3															
4															
5		DRB													
6		7-23-09													
7															
8															
9															
10															
11															
12															

Additional Comments/Special Instructions:
As Se only by collision 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

REINQUISHED BY / AFFILIATION: DANA BROWN NGEM
DATE: 7/23/09
TIME: 14:30
ACCEPTED BY / AFFILIATION: [Signature]
DATE: 7/23/09
TIME: 14:30

SHIPPING METHOD: (mark as appropriate)
UPS COURIER FEDEX
SIGNATURE OF SAMPLER: Dana R Brown
DATE SIGNED: 7/23/2009
TIME: 14:30

SAMPLER NAME AND SIGNATURE: Dana R Brown
DATE SIGNED: 7/23/2009
TIME: 14:30

Temp in OC: 00
Samples on Ice? Y/N
Sample intact? Y/N
Trip Blank? Y/N

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96250146 Date/Time Received: 7/25/9 0830
Company Name & Sampling Site: Northgate

PM to Complete This Section: 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

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq 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
[Signature]

TestAmerica Denver
Sample Receiving Checklist

Lot # D9G250146

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).



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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

3/8

239

Required Ship to Lab:

Lab Name: TestAmerica
Address: 4955 Yarrow Street
Arvada, CO 80002

Required Project Information:

Site ID #: TRONOX LLC, HENDERSON
Project #: 2027.001
Site Address: 500 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
Address: PO Box 65
Henderson, NV 89009
Phone #: (949) 260-9293
City/State: Henderson, NV 89009
Reimbursement project? X
Non-reimbursement project?
Send EDD to: Frank Hagar Northgate Environmental Management, Inc
CC Hardcopy report to: PDF Electronic Version Only
CC Hardcopy report to: see additional comments below

TAT: Standard 30 day

if Rush, Date due: Rush

QC level Required: Standard

MA MCP Cert?

CT RCP Cert?

Lab Project ID (lab use)

Requested Analyses

ITEM #
M-35B
SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Samples IDs MUST BE UNIQUE

MATRIX CODE
WG

SAMPLE TYPE
G=GRAB C=COMP
G

SAMPLE DATE
7/24/2009

SAMPLE TIME
11:10 AM

#OF CONTAINERS
1

FIELD FILTERED? (Y/N)
N

Preservatives:
Unpreserved
H2SO4
HNO3
HCl
NaOH
Na2S2O3
Methanol
Other
EPA 6020(Collision Cert)
EPA 8141A OPP Test
Comments/lab Sample I.D.
500 ml Plastic

ITEM #	M-35B	WG	G	7/24/2009	11:10 AM	1	N	Preservatives							Requested Analyses	Comments/lab Sample I.D.				
								Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other			

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions
Cell DNA Brown, Ngem	7/24	14:30	[Signature]	7/24	14:30	Y/N
GES	7/24	16:00	[Signature]	7/25	08:30	Y/N

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

Shipping Method: (mark as appropriate)
UPS COURIER FEDEX
SIGNATURE of SAMPLER: [Signature]
DATE Signed: 7/24/09
Time: 14:30

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

TestAmerica Denver
Sample Receiving Checklist

Lot #: D96250155 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

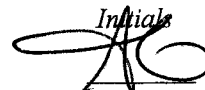
- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading ≤ to background levels? Yes: No:
- 3. Chain of custody present? If no, document on CUR.
- 4. Bottles broken and/or are leaking? If yes, document on CUR.
- 5. Multiphasic samples obvious? If yes, document on CUR.
- 6. Proper container & preservatives used? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR.
- 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 # D96250155

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.
- 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).

3.8

G 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:		Required Project Information:			Required Invoice Information:		
Lab Name:	TeledAmerica	Site ID #:	TRONOX LLC, HENDERSON	Send Invoice to:	Susan Crowley Tronox LLC		Mark One
Address:	4955 Yarrow Street	Project #:	2027.001	Address:	PO Box 55		
Arada, CO 80002		Site Address:	560 W. Lake Mead Drive	City/State:	Henderson, NV 89009	Phone #:	(949)260-9293
Lab Pk:	Michael P. Phillips	City:	Henderson	Reimbursement project?	<input checked="" type="checkbox"/>	Non-reimbursement project?	
Phone/Fax:	303-736-0157	Site PM Name:	Derrick Willis	Send EDD to:	Frank Hagar Northgate Environmental Management, Inc frank.hagar@ngem.com		Mark one
Lab PM email:	michael.p.phillips@teledamerica.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		

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives						Requested Analyses	Comments/Lab Sample I.D.			
								MA TRIX	WATERS	NO3	NO2	PHOSPHATE	AMMONIA			AMMONIUM	OTHER	AMMONIUM NITRATE
1	M-52B	WG	G	7/24/2009	8:10 AM	1	N											
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		

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

REGULATED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions	
DAVID CROWN NGEM		7/24	14:30	DAVID CROWN NGEM		7/24	14:30	Temp in OC	Y/N
DAVID CROWN NGEM		7/24	14:30	DAVID CROWN NGEM		7/24	14:30	Samples on Ice?	Y/N
DAVID CROWN NGEM		7/24	14:30	DAVID CROWN NGEM		7/24	14:30	Sample intact?	Y/N
DAVID CROWN NGEM		7/24	14:30	DAVID CROWN NGEM		7/24	14:30	Trip Blank?	Y/N

SHIPPING METHOD: (mark as appropriate)
 UPS COURIER FEDEX AIR MAIL
 SIGNATURE OF SAMPLER: [Signature]
 DATE Signed: 7/24/09
 Time: 14:30

SAMPLER NAME AND SIGNATURE: [Signature]
 DATE Signed: 7/24/09
 Time: 14:30
 Temp in OC: Y/N
 Samples on Ice?: Y/N
 Sample intact?: Y/N
 Trip Blank?: Y/N

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
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

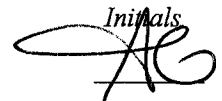
Initials
AC

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Coolers scanned for radiation. Is the reading \leq 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 # D96250157

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? 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).

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

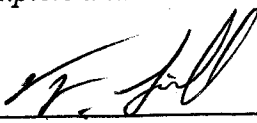
Lot ID: D9G220275

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

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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:

JRB

Prep Date: ~~07/23/09~~ ^{7/28/09} SRW
Due Date: 08/03/09

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

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

WJ checked
7/29/09

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: <u>Environmental Express</u> Lot #: <u>A901LS267</u>
Were samples filtered in the lab? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "yes", then the method blank and the LCS were filtered prior to digestion.	
Analyst(s) Initials: <u> </u>	

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: <u>14371</u>		Block & Cup #: <u>11/24</u>		
Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO3/HCl	<u>1200</u>	<u>94</u>	<u>1700</u>	<u>91</u>
Samples and QC revolved to: <u>50</u> mL		Analyst's Initials <u>JRW</u>		

COMMENTS:

I certify that all information above is correct and complete.

Signature: *Ay With*

Date: 7/28/09

Batch Number: 9204215

TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By: JN

Prep Date: ^{7/23/09} 07/23/09 SNW
Due Date: 08/03/09

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

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
1/21/09*

METALS PREP SHEET

SOP: DEN-IP-0014



THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9204215
PREP DATE: 7/28/2008

ALLIQUOTTED BY: JKH
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 revolved to: 50 mL Analyst's Initials JRW

COMMENTS:

I certify that all information above is correct and complete.

Signature: JRW

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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ho	1,000.0	1,000.0

STD4469-09, ICP-MS ICESA

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD4495-09, ICP-MS 10 ppm Sn

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 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

Volume (ml): 10.000

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	10.000

STD4496-09, ICP-MS 100 ppb cal

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 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

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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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
 Volume (ml): 10.000

Solvent: 5% HNO3 Lot No.: H12022
 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
 Date Prep./Opened: 07-29-2009
 Date Expires(1): 07-30-2009 (2 Days)
 pipettes: Met 20 and Met 8

Volume (ml): 10.000

Parent Std No.: STD4498-09, ICP-MS RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 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

Volume (ml): 10.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Sn	10.000	1,000.0

STD4502-09, ICPMS ICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 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

Volume (ml): 10.000

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
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
 Date Prep./Opened: 07-29-2009
 Date Expires(1): 07-30-2009 (1 Day)
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD4504-09, LLCCV/RLICV

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 07-29-2009
 Date Expires(1): 07-30-2009 (1 Day)
 Date Expires(2): 05-01-2010 (None)
 pipettes: Met 20

Volume (ml): 100.00

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Mo	0.2000	2.0000
Sb	0.2000	2.0000
Sn	1.0000	10.000

Reviewed By:

LRD 07/29/09

File
AG072909A

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		<input type="checkbox"/>
3	Cal Blank				1.0 07/29/09 17:47		<input type="checkbox"/>
4	100 ppb				1.0 07/29/09 17:49		<input type="checkbox"/>
5	ICV				1.0 07/29/09 17:52		<input type="checkbox"/>
6	RLIV				1.0 07/29/09 17:55		<input type="checkbox"/>
7	ICB				1.0 07/29/09 17:57		<input type="checkbox"/>
8	RL STD				1.0 07/29/09 18:00		<input type="checkbox"/>
9	AFCEE RL				1.0 07/29/09 18:03		<input type="checkbox"/>
10	ALTSe				1.0 07/29/09 18:06		<input type="checkbox"/>
11	ICSA				1.0 07/29/09 18:08		<input type="checkbox"/>
12	ICSAB				1.0 07/29/09 18:11		<input type="checkbox"/>
13	RINSE				1.0 07/29/09 18:14		<input type="checkbox"/>
14	LR				1.0 07/29/09 18:17		<input type="checkbox"/>
15	RINSE				1.0 07/29/09 18:19		<input type="checkbox"/>
16	CCV				1.0 07/29/09 18:22		<input type="checkbox"/>
17	CCB				1.0 07/29/09 18:25		<input type="checkbox"/>
18	RLCV				1.0 07/29/09 18:27		<input type="checkbox"/>
19	LGFE6D	H9G140108-13	9195211		1.0 07/29/09 18:30	Zn DQR <i>7/30/09</i>	<input type="checkbox"/>
20	CCV				1.0 07/29/09 18:33		<input type="checkbox"/>
21	CCB				1.0 07/29/09 18:36		<input type="checkbox"/>
22	RLCV				1.0 07/29/09 18:38		<input type="checkbox"/>
23	LGNWK	D9G170310-1	9201183	04	1.0 07/29/09 18:41		<input type="checkbox"/>
24	LGNXA	D9G170310-2	9201183	04	1.0 07/29/09 18:44		<input type="checkbox"/>
25	LGNXC	D9G170310-3	9201183	04	1.0 07/29/09 18:47		<input type="checkbox"/>
26	LGNXD	D9G170310-4	9201183	04	1.0 07/29/09 18:49		<input type="checkbox"/>
27	LGNXE	D9G170310-5	9201183	04	1.0 07/29/09 18:52		<input type="checkbox"/>
28	LGNXF	D9G170310-6	9201183	04	1.0 07/29/09 18:55		<input type="checkbox"/>
29	LGNXG	D9G170310-7	9201183	04	1.0 07/29/09 18:58		<input type="checkbox"/>
30	CCV				1.0 07/29/09 19:00		<input type="checkbox"/>
31	CCB				1.0 07/29/09 19:03		<input type="checkbox"/>
32	RLCV				1.0 07/29/09 19:06		<input type="checkbox"/>
33	LG1J4B	D9G240000	9205120	MS	1.0 07/29/09 19:09		<input type="checkbox"/>
34	LG1J4C	D9G240000	9205120	MS	1.0 07/29/09 19:12		<input type="checkbox"/>
35	LGX8R	D9G230197-1	9205120	MS	1.0 07/29/09 19:14		<input type="checkbox"/>
36	LGX80	D9G230197-2	9205120	MS	1.0 07/29/09 19:17		<input type="checkbox"/>
37	LGX83	D9G230197-3	9205120	MS	1.0 07/29/09 19:20		<input type="checkbox"/>
38	LGX85	D9G230197-4	9205120	MS	1.0 07/29/09 19:23		<input type="checkbox"/>
39	LGX85P5	D9G230197	9205120		5.0 07/29/09 19:25		<input type="checkbox"/>
40	LGX85Z	D9G230197-4	9205120		1.0 07/29/09 19:28		<input type="checkbox"/>
41	CCV				1.0 07/29/09 19:31		<input type="checkbox"/>
42	CCB				1.0 07/29/09 19:34		<input type="checkbox"/>
43	RLCV				1.0 07/29/09 19:36		<input type="checkbox"/>
44	LGX85S	D9G230197-4	9205120	MS	1.0 07/29/09 19:39		<input type="checkbox"/>
45	LGX85D	D9G230197-4	9205120	MS	1.0 07/29/09 19:42		<input type="checkbox"/>
46	LGX87	D9G230197-5	9205120	MS	1.0 07/29/09 19:44		<input type="checkbox"/>
47	LGX9A	D9G230197-6	9205120	MS	1.0 07/29/09 19:47	<i>7/30/09 did not use</i>	<input type="checkbox"/>

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 07/30/09 11:26:47
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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	<input type="checkbox"/>
49	LG02Q	D9G230277-1	9205120	MS	1.0	07/29/09 19:53	<input type="checkbox"/>
50	LG021	D9G230277-2	9205120	MS	1.0	07/29/09 19:55	<input type="checkbox"/>
51	CCV				1.0	07/29/09 19:58	<input type="checkbox"/>
52	CCB				1.0	07/29/09 20:01	<input type="checkbox"/>
53	RLCV				1.0	07/29/09 20:04	<input type="checkbox"/>
54	LGM62B	D9G170000	9198286	U2	1.0	07/29/09 20:07	<input type="checkbox"/>
55	LGM62C	D9G170000	9198286	U2	1.0	07/29/09 20:09	<input type="checkbox"/>
56	LGM62L	D9G170000	9198286	U2	1.0	07/29/09 20:12	<input type="checkbox"/>
57	RINSE				1.0	07/29/09 20:15	<input type="checkbox"/>
58	RINSE				1.0	07/29/09 20:18	<input type="checkbox"/>
59	RINSE				1.0	07/29/09 20:20	<input type="checkbox"/>
60	RINSE				1.0	07/29/09 20:23	<input type="checkbox"/>
61	RINSE				1.0	07/29/09 20:26	<input type="checkbox"/>
62	RINSE				1.0	07/29/09 20:28	<input type="checkbox"/>
63	Cal Blank				1.0	07/29/09 20:31	<input type="checkbox"/>
64	Cal Blank				1.0	07/29/09 20:34	<input type="checkbox"/>
65	100 ppb				1.0	07/29/09 20:37	<input type="checkbox"/>
66	CCV				1.0	07/29/09 20:39	<input type="checkbox"/>
67	CCB				1.0	07/29/09 20:42	<input type="checkbox"/>
68	RLCV				1.0	07/29/09 20:45	<input type="checkbox"/>
69	ICSA				1.0	07/29/09 20:48	<input type="checkbox"/>
70	ICSAB				1.0	07/29/09 20:51	<input type="checkbox"/>
71	WASH				1.0	07/29/09 20:53	<input type="checkbox"/>
72	CCV				1.0	07/29/09 20:56	<input type="checkbox"/>
73	CCB				1.0	07/29/09 20:59	<input type="checkbox"/>
74	RLCV				1.0	07/29/09 21:02	<input type="checkbox"/>
75	LGM62B	D9G170000	9198286	U2	1.0	07/29/09 21:04	<input type="checkbox"/>
76	LGM62C	D9G170000	9198286	U2	1.0	07/29/09 21:07	<input type="checkbox"/>
77	LGM62L	D9G170000	9198286	U2	1.0	07/29/09 21:10	<input type="checkbox"/>
78	LGL5Q	D9G160333-6	9198282	U2	1.0	07/29/09 21:13	<input type="checkbox"/>
79	LGL5QP5	D9G160333	9198282		5.0	07/29/09 21:15	<input type="checkbox"/>
80	LGL5QZ	D9G160333-6	9198282		1.0	07/29/09 21:18	<input type="checkbox"/>
81	LGL6M	D9G160333-28	9198282	U2	1.0	07/29/09 21:21	<input type="checkbox"/>
82	CCV		286		1.0	07/29/09 21:24	<input type="checkbox"/>
83	CCB		TEL 7/30/09		1.0	07/29/09 21:26	<input type="checkbox"/>
84	RLCV				1.0	07/29/09 21:29	<input type="checkbox"/>
85	LGQENBQ	D9G200000	9201320	U1	1.0	07/29/09 21:32	<input type="checkbox"/>
86	LGQENCQ	D9G200000	9201320	U1	1.0	07/29/09 21:35	<input type="checkbox"/>
87	LGN18Q	D9G170316-1	9201320	U1	1.0	07/29/09 21:37	<input type="checkbox"/>
88	LGN18P5Q	D9G170316	9201320		5.0	07/29/09 21:40	<input type="checkbox"/>
89	LGN18ZQ	D9G170316-1	9201320		1.0	07/29/09 21:43	<input type="checkbox"/>
90	LGN18SQ	D9G170316-1	9201320	U1	1.0	07/29/09 21:46	<input type="checkbox"/>
91	LGN18DQ	D9G170316-1	9201320	U1	1.0	07/29/09 21:48	<input type="checkbox"/>
92	LGN19Q	D9G170316-2	9201320	U1	1.0	07/29/09 21:51	<input type="checkbox"/>
93	LGN2AQ	D9G170316-3	9201320	U1	1.0	07/29/09 21:54	<input type="checkbox"/>

TEL 7/30/09 did not use.

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	<input type="checkbox"/>
95	CCV				1.0	07/29/09 21:59	<input type="checkbox"/>
96	CCB				1.0	07/29/09 22:02	<input type="checkbox"/>
97	RLCV				1.0	07/29/09 22:05	<input type="checkbox"/>
98	LGN2DQ	D9G170316-5	9201320	U1	1.0	07/29/09 22:07	<input type="checkbox"/>
99	LGN2EQ	D9G170316-6	9201320	U1	1.0	07/29/09 22:10	<input type="checkbox"/>
100	LGN2FQ	D9G170316-7	9201320	U1	1.0	07/29/09 22:13	<input type="checkbox"/>
101	LGN2GQ	D9G170316-8	9201320	U1	1.0	07/29/09 22:16	<input type="checkbox"/>
102	LGN2HQ	D9G170316-9	9201320	U1	1.0	07/29/09 22:18	<input type="checkbox"/>
103	LGN2JQ	D9G170316-10	9201320	U1	1.0	07/29/09 22:21	<input type="checkbox"/>
104	LGN2KQ	D9G170316-11	9201320	U1	1.0	07/29/09 22:24	<input type="checkbox"/>
105	LGN2LQ	D9G170316-12	9201320	U1	1.0	07/29/09 22:27	<input type="checkbox"/>
106	LGN2MQ	D9G170316-13	9201320	U1	1.0	07/29/09 22:29	<input type="checkbox"/>
107	LGN2NQ	D9G170316-14	9201320	U1	1.0	07/29/09 22:32	<input type="checkbox"/>
108	CCV				1.0	07/29/09 22:35	<input type="checkbox"/>
109	CCB				1.0	07/29/09 22:38	<input type="checkbox"/>
110	RLCV				1.0	07/29/09 22:40	<input type="checkbox"/>
111	LGQE7BQ	D9G200000	9201329	U1	1.0	07/29/09 22:43	<input type="checkbox"/>
112	LGQE7CQ	D9G200000	9201329	U1	1.0	07/29/09 22:46	<input type="checkbox"/>
113	LGN2PQ	D9G170316-15	9201329	U1	1.0	07/29/09 22:49	<input type="checkbox"/>
114	LGN2PP5Q	D9G170316	9201329		5.0	07/29/09 22:51	<input type="checkbox"/>
115	LGN2PZQ	D9G170316-15	9201329		1.0	07/29/09 22:54	<input type="checkbox"/>
116	LGN2PSQ	D9G170316-15	9201329	U1	1.0	07/29/09 22:57	<input type="checkbox"/>
117	LGN2PDQ	D9G170316-15	9201329	U1	1.0	07/29/09 23:00	<input type="checkbox"/>
118	LGN2QQ	D9G170316-16	9201329	U1	1.0	07/29/09 23:02	<input type="checkbox"/>
119	LGN2RQ	D9G170316-17	9201329	U1	1.0	07/29/09 23:05	<input type="checkbox"/>
120	LGN2TQ	D9G170316-18	9201329	U1	1.0	07/29/09 23:08	<input type="checkbox"/>
121	CCV				1.0	07/29/09 23:11	<input type="checkbox"/>
122	CCB				1.0	07/29/09 23:13	<input type="checkbox"/>
123	RLCV				1.0	07/29/09 23:16	<input type="checkbox"/>
124	LGN2VQ	D9G170316-19	9201329	U1	1.0	07/29/09 23:19	<input type="checkbox"/>
125	LGN2WQ	D9G170316-20	9201329	U1	1.0	07/29/09 23:22	<input type="checkbox"/>
126	LGN2XQ	D9G170316-21	9201329	U1	1.0	07/29/09 23:25	<input type="checkbox"/>
127	LGN20Q	D9G170316-22	9201329	U1	1.0	07/29/09 23:27	<input type="checkbox"/>
128	LGN21Q	D9G170316-23	9201329	U1	1.0	07/29/09 23:30	<input type="checkbox"/>
129	LGN22Q	D9G170316-24	9201329	U1	1.0	07/29/09 23:33	<input type="checkbox"/>
130	LGN23Q	D9G170316-25	9201329	U1	1.0	07/29/09 23:36	<input type="checkbox"/>
131	LGN24Q	D9G170316-26	9201329	U1	1.0	07/29/09 23:38	<input type="checkbox"/>
132	LGN25Q	D9G170316-27	9201329	U1	1.0	07/29/09 23:41	<input type="checkbox"/>
133	LGN26Q	D9G170316-28	9201329	U1	1.0	07/29/09 23:44	<input type="checkbox"/>
134	CCV				1.0	07/29/09 23:47	<input type="checkbox"/>
135	CCB				1.0	07/29/09 23:49	<input type="checkbox"/>
136	RLCV				1.0	07/29/09 23:52	<input type="checkbox"/>
137	LGQD8B	D9G200000	9201313	46	1.0	07/29/09 23:55	<input type="checkbox"/>
138	LGQD8C	D9G200000	9201313	46	1.0	07/29/09 23:58	<input type="checkbox"/>
139	LGN2P	D9G170316-15	9201313	U1	1.0	07/30/09 00:00	<input type="checkbox"/>

not 7/29/09 did not use.

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	<input type="checkbox"/>
141	LGN2PZ	D9G170316-15	9201313		1.0	07/30/09 00:06	<input type="checkbox"/>
142	LGN2PS	D9G170316-15	9201313	U1	1.0	07/30/09 00:09	<input type="checkbox"/>
143	LGN2PD	D9G170316-15	9201313	U1	1.0	07/30/09 00:11	<input type="checkbox"/>
144	LGN2Q	D9G170316-16	9201329	U1	1.0	07/30/09 00:14	<input type="checkbox"/>
145	LGN2R	D9G170316-17	9201313	U1	1.0	07/30/09 00:17	<input type="checkbox"/>
146	LGN2T	D9G170316-18	9201313	U1	1.0	07/30/09 00:20	<input type="checkbox"/>
147	CCV				1.0	07/30/09 00:22	<input type="checkbox"/>
148	CCB				1.0	07/30/09 00:25	<input type="checkbox"/>
149	RLCV				1.0	07/30/09 00:28	<input type="checkbox"/>
150	LGN2V	D9G170316-19	9201313	U1	1.0	07/30/09 00:31	<input type="checkbox"/>
151	LGN2W	D9G170316-20	9201313	U1	1.0	07/30/09 00:34	<input type="checkbox"/>
152	LGN2X	D9G170316-21	9201313	U1	1.0	07/30/09 00:36	<input type="checkbox"/>
153	LGN20	D9G170316-22	9201313	U1	1.0	07/30/09 00:39	<input type="checkbox"/>
154	LGN21	D9G170316-23	9201313	U1	1.0	07/30/09 00:42	<input type="checkbox"/>
155	LGN22	D9G170316-24	9201313	U1	1.0	07/30/09 00:45	<input type="checkbox"/>
156	LGN23	D9G170316-25	9201313	U1	1.0	07/30/09 00:47	<input type="checkbox"/>
157	LGN24	D9G170316-26	9201313	U1	1.0	07/30/09 00:50	<input type="checkbox"/>
158	LGN25	D9G170316-27	9201313	U1	1.0	07/30/09 00:53	<input type="checkbox"/>
159	LGN26	D9G170316-28	9201313	U1	1.0	07/30/09 00:56	<input type="checkbox"/>
160	CCV				1.0	07/30/09 00:58	<input type="checkbox"/>
161	CCB				1.0	07/30/09 01:01	<input type="checkbox"/>
162	RLCV				1.0	07/30/09 01:04	<input type="checkbox"/>
163	RINSE				1.0	07/30/09 01:07	<input type="checkbox"/>
164	RINSE				1.0	07/30/09 01:09	<input type="checkbox"/>
165	RINSE				1.0	07/30/09 01:12	<input type="checkbox"/>
166	RINSE				1.0	07/30/09 01:15	<input type="checkbox"/>
167	RINSE				1.0	07/30/09 01:18	<input type="checkbox"/>
168	RINSE				1.0	07/30/09 01:20	<input type="checkbox"/>
169	Cal Blank				1.0	07/30/09 01:25	<input type="checkbox"/>
170	Cal Blank				1.0	07/30/09 01:26	<input type="checkbox"/>
171	100 ppb				1.0	07/30/09 01:29	<input type="checkbox"/>
172	CCV				1.0	07/30/09 01:31	<input type="checkbox"/>
173	CCB				1.0	07/30/09 01:34	<input type="checkbox"/>
174	RLCV				1.0	07/30/09 01:37	<input type="checkbox"/>
175	LGR1WB	D9G210000	9202254	46	1.0	07/30/09 01:40	<input type="checkbox"/>
176	LGR1WC	D9G210000	9202254	46	1.0	07/30/09 01:42	<input type="checkbox"/>
177	LGQ0Q	D9G200202-1	9202254	U1	1.0	07/30/09 01:45	<input type="checkbox"/>
178	LGQ0R	D9G200202-2	9202254	U1	1.0	07/30/09 01:48	<input type="checkbox"/>
179	LGQ0T	D9G200202-3	9202254	U1	1.0	07/30/09 01:51	<input type="checkbox"/>
180	LGQ0V	D9G200202-4	9202254	U1	1.0	07/30/09 01:54	<input type="checkbox"/>
181	LGQ0W	D9G200202-5	9202254	U1	1.0	07/30/09 01:56	<input type="checkbox"/>
182	LGQ0X	D9G200202-6	9202254	U1	1.0	07/30/09 01:59	<input type="checkbox"/>
183	CCV				1.0	07/30/09 02:02	<input type="checkbox"/>
184	CCB				1.0	07/30/09 02:05	<input type="checkbox"/>
185	RLCV				1.0	07/30/09 02:07	<input type="checkbox"/>

Cal Blank 7/30/09 did not use.

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	<input type="checkbox"/>
187	LGQ01	D9G200202-8	9202254	U1	1.0	07/30/09 02:13	<input type="checkbox"/>
188	LGQ01P5	D9G200202	9202254		5.0	07/30/09 02:16	<input type="checkbox"/>
189	LGQ01Z	D9G200202-8	9202254		1.0	07/30/09 02:19	<input type="checkbox"/>
190	LGQ01S	D9G200202-8	9202254	U1	1.0	07/30/09 02:21	<input type="checkbox"/>
191	LGQ01D	D9G200202-8	9202254	U1	1.0	07/30/09 02:24	<input type="checkbox"/>
192	LGQ02	D9G200202-9	9202254	U1	1.0	07/30/09 02:27	<input type="checkbox"/>
193	LGQ03	D9G200202-10	9202254	U1	1.0	07/30/09 02:30	<input type="checkbox"/>
194	CCV				1.0	07/30/09 02:32	<input type="checkbox"/>
195	CCB				1.0	07/30/09 02:35	<input type="checkbox"/>
196	RLCV				1.0	07/30/09 02:38	<input type="checkbox"/>
197	LGQ04	D9G200202-11	9202254	U1	1.0	07/30/09 02:41	<input type="checkbox"/>
198	LGQ05	D9G200202-12	9202254	U1	1.0	07/30/09 02:44	<input type="checkbox"/>
199	LGQ06	D9G200202-13	9202254	U1	1.0	07/30/09 02:46	<input type="checkbox"/>
200	LGQ07	D9G200202-14	9202254	U1	1.0	07/30/09 02:49	<input type="checkbox"/>
201	LGQ08	D9G200202-15	9202254	U1	1.0	07/30/09 02:52	<input type="checkbox"/>
202	LGQ09	D9G200202-16	9202254	U1	1.0	07/30/09 02:55	<input type="checkbox"/>
203	LGQ1A	D9G200202-17	9202254	U1	1.0	07/30/09 02:57	<input type="checkbox"/>
204	CCV				1.0	07/30/09 03:00	<input type="checkbox"/>
205	CCB				1.0	07/30/09 03:03	<input type="checkbox"/>
206	RLCV				1.0	07/30/09 03:06	<input type="checkbox"/>
207	LGTHNB	D9G210000	9202361	46	1.0	07/30/09 03:09	<input type="checkbox"/>
208	LGTHNC	D9G210000	9202361	46	1.0	07/30/09 03:11	<input type="checkbox"/>
209	LGQ15	D9G200204-1	9202364	U1	1.0	07/30/09 03:14	<input type="checkbox"/>
210	LGQ17	D9G200204-2	9202361	U1	1.0	07/30/09 03:17	<input type="checkbox"/>
211	LGQ17P5	D9G200204	9202361		5.0	07/30/09 03:20	<input type="checkbox"/>
212	LGQ17Z	D9G200204-2	9202361		1.0	07/30/09 03:23	<input type="checkbox"/>
213	LGQ17S	D9G200204-2	9202364	U1	1.0	07/30/09 03:25	<input type="checkbox"/>
214	CCV				1.0	07/30/09 03:28	<input type="checkbox"/>
215	CCB				1.0	07/30/09 03:31	<input type="checkbox"/>
216	RLCV				1.0	07/30/09 03:34	<input type="checkbox"/>
217	LGQ17D	D9G200204-2	9202364	U1	1.0	07/30/09 03:37	<input type="checkbox"/>
218	LGQ19	D9G200204-3	9202361	U1	1.0	07/30/09 03:39	<input type="checkbox"/>
219	LGQ2A	D9G200204-4	9202361	U1	1.0	07/30/09 03:42	<input type="checkbox"/>
220	LGQ2C	D9G200204-5	9202361	U1	1.0	07/30/09 03:45	<input type="checkbox"/>
221	LGQ2D	D9G200204-6	9202361	U1	1.0	07/30/09 03:48	<input type="checkbox"/>
222	LGQ2E	D9G200204-7	9202361	U1	1.0	07/30/09 03:51	<input type="checkbox"/>
223	LGQ2F	D9G200204-8	9202361	U1	1.0	07/30/09 03:53	<input type="checkbox"/>
224	CCV				1.0	07/30/09 03:56	<input type="checkbox"/>
225	CCB				1.0	07/30/09 03:59	<input type="checkbox"/>
226	RLCV				1.0	07/30/09 04:02	<input type="checkbox"/>
227	LGQ2G	D9G200204-9	9202361	U1	1.0	07/30/09 04:05	<input type="checkbox"/>
228	LGQ2H	D9G200204-10	9202361	U1	1.0	07/30/09 04:07	<input type="checkbox"/>
229	LGQ2J	D9G200204-11	9202361	U1	1.0	07/30/09 04:10	<input type="checkbox"/>
230	LGQ2K	D9G200204-12	9202361	U1	1.0	07/30/09 04:13	<input type="checkbox"/>
231	LGQ2L	D9G200204-13	9202361	U1	1.0	07/30/09 04:16	<input type="checkbox"/>

Red 7/30/09 did not use.

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	<input type="checkbox"/>
233	LGQ2N	D9G200204-15	9202361	U1	1.0	07/30/09 04:21	<input type="checkbox"/>
234	CCV				1.0	07/30/09 04:24	<input type="checkbox"/>
235	CCB				1.0	07/30/09 04:27	<input type="checkbox"/>
236	RLCV				1.0	07/30/09 04:30	<input type="checkbox"/>
237	LGRW8B	D9G210000	9202231	MS	1.0	07/30/09 04:33	<input type="checkbox"/>
238	LGRW8C	D9G210000	9202231	MS	1.0	07/30/09 04:35	<input type="checkbox"/>
239	LGRW8L	D9G210000	9202231	MS	1.0	07/30/09 04:38	<input type="checkbox"/>
240	LGQ1E	D9G200202-19	9202231	U2	1.0	07/30/09 04:41	<input type="checkbox"/>
241	LGQ1EP5	D9G200202	9202231		5.0	07/30/09 04:44	<input type="checkbox"/>
242	LGQ1EZ	D9G200202-19	9202231		1.0	07/30/09 04:47	<input type="checkbox"/>
243	LGQ1F	D9G200202-20	9202231	U2	1.0	07/30/09 04:49	<input type="checkbox"/>
244	LGQ1G	D9G200202-21	9202231	U2	1.0	07/30/09 04:52	<input type="checkbox"/>
245	CCV				1.0	07/30/09 04:55	<input type="checkbox"/>
246	CCB				1.0	07/30/09 04:58	<input type="checkbox"/>
247	RLCV				1.0	07/30/09 05:01	<input type="checkbox"/>
248	RINSE				1.0	07/30/09 05:03	<input type="checkbox"/>
249	RINSE				1.0	07/30/09 05:06	<input type="checkbox"/>
250	RINSE				1.0	07/30/09 05:09	<input type="checkbox"/>
251	RINSE				1.0	07/30/09 05:12	<input type="checkbox"/>
252	RINSE				1.0	07/30/09 05:14	<input type="checkbox"/>
253	RINSE				1.0	07/30/09 05:17	<input type="checkbox"/>
254	Cal Blank				1.0	07/30/09 05:20	<input type="checkbox"/>
255	Cal Blank				1.0	07/30/09 05:23	<input type="checkbox"/>
256	100 ppb				1.0	07/30/09 05:25	<input type="checkbox"/>
257	CCV				1.0	07/30/09 05:28	<input type="checkbox"/>
258	CCB				1.0	07/30/09 05:31	<input type="checkbox"/>
259	RLCV				1.0	07/30/09 05:34	<input type="checkbox"/>
260	LGRXNB	D9G210000	9202240	U2	1.0	07/30/09 05:36	<input type="checkbox"/>
261	LGRXNC	D9G210000	9202240	U2	1.0	07/30/09 05:39	<input type="checkbox"/>
262	LGRXNL	D9G210000	9202240	U2	1.0	07/30/09 05:42	<input type="checkbox"/>
263	LGQ1E	D9G200202-19	9202231	U2	1.0	07/30/09 05:45	<input type="checkbox"/>
264	LGQ1EP5	D9G200202	9202231		5.0	07/30/09 05:48	<input type="checkbox"/>
265	LGQ1EZ	D9G200202-19	9202231		1.0	07/30/09 05:50	<input type="checkbox"/>
266	LGQ1F	D9G200202-20	9202231	U2	1.0	07/30/09 05:53	<input type="checkbox"/>
267	LGQ1G	D9G200202-21	9202231	U2	1.0	07/30/09 05:56	<input type="checkbox"/>
268	CCV				1.0	07/30/09 05:59	<input type="checkbox"/>
269	CCB				1.0	07/30/09 06:01	<input type="checkbox"/>
270	RLCV				1.0	07/30/09 06:04	<input type="checkbox"/>
271	LGXRHBF	D9G230000	9204219	MD	1.0	07/30/09 06:07	<input type="checkbox"/>
272	LGXRHCF	D9G230000	9204219	MD	1.0	07/30/09 06:10	<input type="checkbox"/>
273	LGWWDF 5X	D9G220275-2	9204219	MD	5.0	07/30/09 06:12	<input type="checkbox"/>
274	LGWWDP25f	D9G220275	9204219		25.0	07/30/09 06:15	<input type="checkbox"/>
275	LGWWDF 5	D9G220275-2	9204219		1.0	07/30/09 06:18	<input type="checkbox"/>
276	LGWWDSF 5	D9G220275-2	9204219	MD	5.0	07/30/09 06:21	<input type="checkbox"/>
277	LGWWDDF 5	D9G220275-2	9204219	MD	5.0	07/30/09 06:23	<input type="checkbox"/>

Cal 7/30/09 did not use.

Method: 6020 (ICP/MS)

ICPMS_024 (024)

Reported: 07/30/09 11:26:47

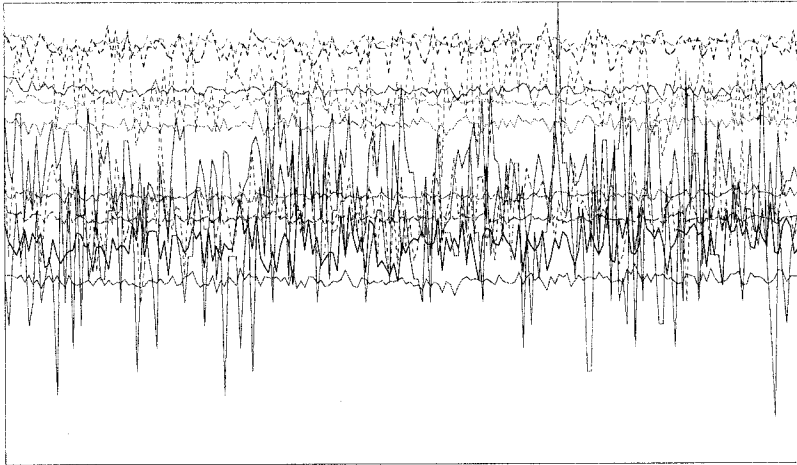
File ID: AG072909A

Analyst: TEL

#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
278	CCV				1.0 07/30/09 06:26		<input type="checkbox"/>
279	CCB				1.0 07/30/09 06:29		<input type="checkbox"/>
280	RLCV				1.0 07/30/09 06:32		<input type="checkbox"/>
281	LGXP7B	D9G230000	9204215	MS	1.0 07/30/09 06:34		<input type="checkbox"/>
282	LGXP7C	D9G230000	9204215	MS	1.0 07/30/09 06:37		<input type="checkbox"/>
283	LGWWA 5X	D9G220275-1	9204215	MS	5.0 07/30/09 06:40		<input type="checkbox"/>
284	LGWWAP25	D9G220275	9204215		25.0 07/30/09 06:43		<input type="checkbox"/>
285	LGWWAZ	D9G220275-1	9204215		1.0 07/30/09 06:46		<input type="checkbox"/>
286	LGWWAS 5X	D9G220275-1	9204215	MS	5.0 07/30/09 06:48		<input type="checkbox"/>
287	LGWWAD 5X	D9G220275-1	9204215	MS	5.0 07/30/09 06:51		<input type="checkbox"/>
288	CCV				1.0 07/30/09 06:54		<input type="checkbox"/>
289	CCB				1.0 07/30/09 06:57		<input type="checkbox"/>
290	RLCV				1.0 07/30/09 06:59		<input type="checkbox"/>
291	LGXFPB	D9G230000	9204156	MS	1.0 07/30/09 07:02		<input type="checkbox"/>
292	LGXFPC	D9G230000	9204156	MS	1.0 07/30/09 07:08		<input type="checkbox"/>
293	LGV5A	D9G220192-1	9204156	MS	1.0 07/30/09 07:08		<input type="checkbox"/>
294	LGV5L	D9G220192-2	9204156	MS	1.0 07/30/09 07:10		<input type="checkbox"/>
295	LGV5W	D9G220192-3	9204156	MS	1.0 07/30/09 07:13		<input type="checkbox"/>
296	LGV56	D9G220192-4	9204156	MS	1.0 07/30/09 07:16		<input type="checkbox"/>
297	LGV1D	D9G220173-1	9204156	MS	1.0 07/30/09 07:19		<input type="checkbox"/>
298	LGV1DP5	D9G220173	9204156		5.0 07/30/09 07:21		<input type="checkbox"/>
299	LGV1DZ	D9G220173-1	9204156		1.0 07/30/09 07:24		<input type="checkbox"/>
300	CCV				1.0 07/30/09 07:27		<input type="checkbox"/>
301	CCB				1.0 07/30/09 07:30		<input type="checkbox"/>
302	RLCV				1.0 07/30/09 07:33		<input type="checkbox"/>
303	LGV1DS	D9G220173-1	9204156	MS	1.0 07/30/09 07:35		<input type="checkbox"/>
304	LGV1DD	D9G220173-1	9204156	MS	1.0 07/30/09 07:38		<input type="checkbox"/>
305	LGV1L	D9G220173-2	9204156	MS	1.0 07/30/09 07:41		<input type="checkbox"/>
306	LGV1M	D9G220173-3	9204156	MS	1.0 07/30/09 07:44		<input type="checkbox"/>
307	LGV1N	D9G220173-4	9204156	MS	1.0 07/30/09 07:46		<input type="checkbox"/>
308	LGV1P	D9G220173-5	9204156	MS	1.0 07/30/09 07:49		<input type="checkbox"/>
309	LGV1Q	D9G220173-6	9204156	MS	1.0 07/30/09 07:52		<input type="checkbox"/>
310	LGV1T	D9G220173-7	9204156	MS	1.0 07/30/09 07:55		<input type="checkbox"/>
311	LGV1V	D9G220173-8	9204156	MS	1.0 07/30/09 07:58		<input type="checkbox"/>
312	CCV				1.0 07/30/09 08:00		<input type="checkbox"/>
313	CCB				1.0 07/30/09 08:03		<input type="checkbox"/>
314	RLCV				1.0 07/30/09 08:06	<i>At 7/30/09 did not use</i>	<input type="checkbox"/>

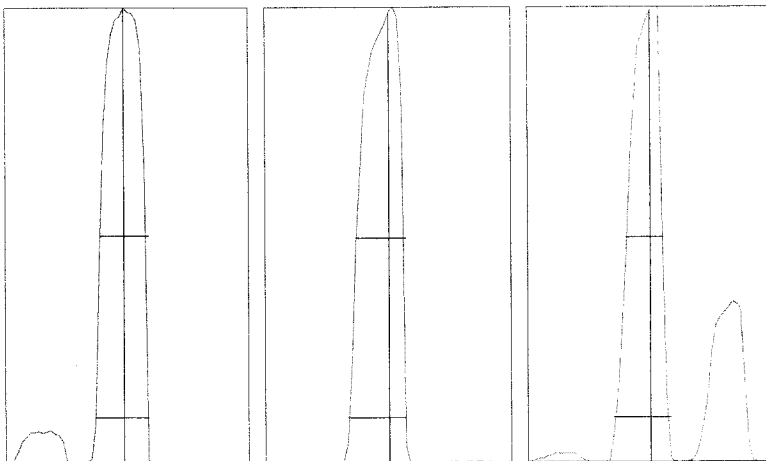
Tune Report

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

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

===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

===Octopole Parameters===

OctP RF : 180 V
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: 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

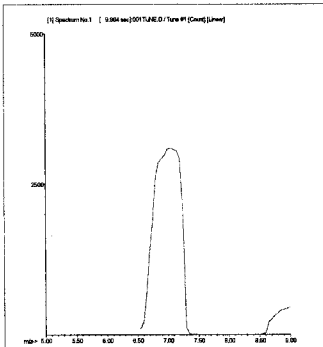
===Detector Parameters===

Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

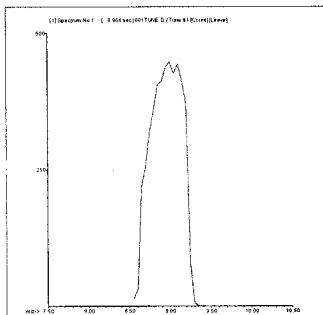
200.8 QC Tune Report

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

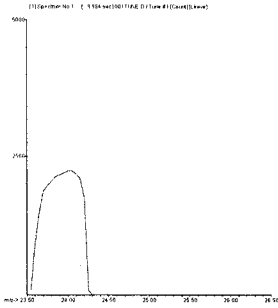
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32927	32678	32939	33233	32798	32985	0.64	5.00	
9 Be	4643	4585	4575	4586	4679	4790	1.98	5.00	
24 Mg	25379	25673	25303	25368	25176	25373	0.72	5.00	
59 Co	110171	111931	109672	110602	108807	109843	1.06	5.00	
115 In	1374029	1366412	1370475	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:



24 Mg

Mass Calib.

Actual: 24.00

Required: 23.90 - 24.10

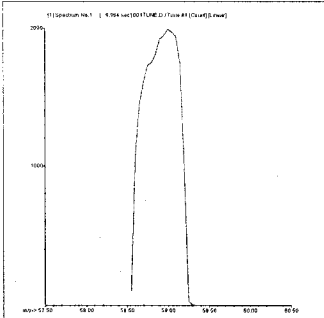
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



59 Co

Mass Calib.

Actual: 59.00

Required: 58.90 - 59.10

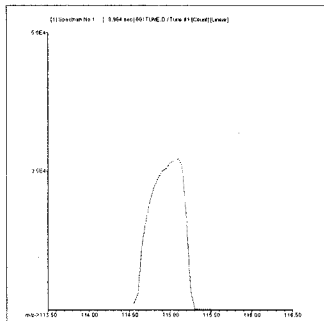
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.05

Required: 114.90 - 115.10

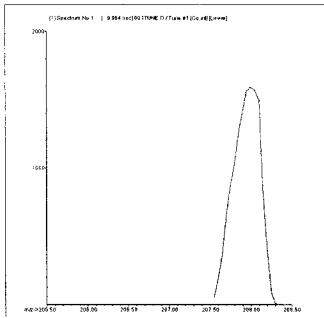
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



208 Pb

Mass Calib.

Actual: 208.00

Required: 207.90 - 208.10

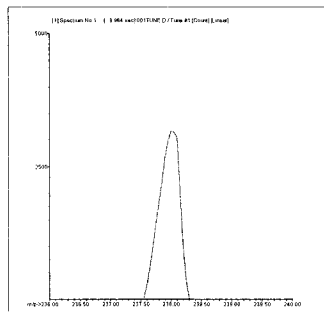
Flag:

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	85.60
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	85590	1.19
51	V	72	1372249	1.47
52	Cr	72	1369993	1.22
55	Mn	72	1468746	0.40
59	Co	72	1736210	0.95
60	Ni	72	394629	1.25
63	Cu	72	945328	0.84
66	Zn	72	192192	0.36
75	As	72	158313	0.57
78	Se	72	28353	1.71
95	Mo	72	411295	0.49
107	Ag	115	1196793	1.67
111	Cd	115	225711	0.95
118	Sn	115	605291	1.39
121	Sb	115	685171	0.78
137	Ba	115	285093	0.89
205	Tl	165	1890445	0.60
208	Pb	165	2627740	0.46
232	Th	165	2225694	2.81
238	U	165	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
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\
 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

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 **QC Summary:**
Operator: TEL **Analytes: Pass**
Sample Name: ICB **ISTD: Pass**
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 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 :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\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	1.00 ppb	7.53	1	100.1	50 - 150	
51	V	72	1.02 ppb	5.28	1	101.8	50 - 150	
52	Cr	72	1.02 ppb	5.58	1	101.7	50 - 150	
55	Mn	72	1.01 ppb	3.15	1	101.2	50 - 150	
59	Co	72	1.01 ppb	2.79	1	100.6	50 - 150	
60	Ni	72	1.08 ppb	10.89	1	108.0	50 - 150	
63	Cu	72	1.04 ppb	0.79	1	104.2	50 - 150	
66	Zn	72	10.81 ppb	1.76	10	108.1	50 - 150	
75	As	72	1.05 ppb	0.34	1	104.9	50 - 150	
78	Se	72	0.94 ppb	12.87	1	94.5	50 - 150	
95	Mo	72	1.03 ppb	6.66	1	103.0	50 - 150	
107	Ag	115	1.02 ppb	2.10	1	102.4	50 - 150	
111	Cd	115	1.06 ppb	2.57	1	105.6	50 - 150	
118	Sn	115	10.74 ppb	0.18	10	107.4	50 - 150	
121	Sb	115	1.05 ppb	2.81	1	104.7	50 - 150	
137	Ba	115	1.04 ppb	1.47	1	104.1	50 - 150	
205	Tl	165	1.08 ppb	1.76	1	108.0	50 - 150	
208	Pb	165	1.07 ppb	1.61	1	107.0	50 - 150	
232	Th	165	1.16 ppb	0.70	1	116.1	50 - 150	
238	U	165	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: AFCEEERL
 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 :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\AG072909A.B\011ICSA.D\011ICSA.D#
 Date Acquired: Jul 29 2009 06:08 pm
 Acq. Method: NormISIS.M QC Summary:
 Operator: TEL Analytes: Pass
 Sample Name: ICSA ISTD: Pass
 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 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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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 :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\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\
 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

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 :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\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 :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: 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	40333	0.22
51	V	72	722164	1.17
52	Cr	72	726368	0.48
55	Mn	72	796053	0.43
59	Co	72	953045	2.20
60	Ni	72	212732	1.05
63	Cu	72	509445	0.91
66	Zn	72	106923	0.91
75	As	72	92990	0.65
78	Se	72	17859	1.41
95	Mo	72	242381	0.58
107	Ag	115	717810	0.43
111	Cd	115	139111	0.72
118	Sn	115	382404	1.10
121	Sb	115	437775	0.89
137	Ba	115	189455	0.72
205	Tl	165	1371791	1.04
208	Pb	165	1860956	2.24
232	Th	165	1710234	3.35
238	U	165	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 :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\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 :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\AG072909A.B\069ICSA.D\069ICSA.D#
 Date Acquired: Jul 29 2009 08:48 pm
 Acq. Method: NormISIS.M QC Summary:
 Operator: TEL Analytes: Pass
 Sample Name: ICSA ISTD: Pass
 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 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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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\
 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

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	48.89 ppb	2.84	50	97.8	90 - 110	
51	V	72	50.34 ppb	1.11	50	100.7	90 - 110	
52	Cr	72	49.69 ppb	0.78	50	99.4	90 - 110	
55	Mn	72	49.74 ppb	0.79	50	99.5	90 - 110	
59	Co	72	48.82 ppb	0.43	50	97.6	90 - 110	
60	Ni	72	49.72 ppb	1.10	50	99.4	90 - 110	
63	Cu	72	49.63 ppb	1.48	50	99.3	90 - 110	
66	Zn	72	49.45 ppb	0.91	50	98.9	90 - 110	
75	As	72	49.70 ppb	0.93	50	99.4	90 - 110	
78	Se	72	49.69 ppb	2.40	50	99.4	90 - 110	
95	Mo	72	50.63 ppb	1.36	50	101.3	90 - 110	
107	Ag	115	50.07 ppb	2.62	50	100.1	90 - 110	
111	Cd	115	49.95 ppb	2.16	50	99.9	90 - 110	
118	Sn	115	49.84 ppb	2.03	50	99.7	90 - 110	
121	Sb	115	49.78 ppb	2.16	50	99.6	90 - 110	
137	Ba	115	49.80 ppb	1.28	50	99.6	90 - 110	
205	Tl	165	49.06 ppb	1.49	50	98.1	90 - 110	
208	Pb	165	49.61 ppb	1.63	50	99.2	90 - 110	
232	Th	165	48.89 ppb	0.33	50	97.8	90 - 110	
238	U	165	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 :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\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: 1204
 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	30336	1.95
51	V	72	603718	0.65
52	Cr	72	599208	0.16
55	Mn	72	664667	0.40
59	Co	72	771032	1.32
60	Ni	72	178446	1.70
63	Cu	72	418329	1.11
66	Zn	72	87527	0.36
75	As	72	78744	0.41
78	Se	72	14975	0.11
95	Mo	72	205820	1.67
107	Ag	115	605603	0.45
111	Cd	115	117482	1.12
118	Sn	115	329704	0.74
121	Sb	115	372718	0.32
137	Ba	115	164885	0.18
205	Tl	165	1207401	1.74
208	Pb	165	1649332	1.05
232	Th	165	1597652	3.03
238	U	165	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	48.78 ppb	3.92	50	97.6	90 - 110	
51	V	72	50.43 ppb	1.82	50	100.9	90 - 110	
52	Cr	72	50.16 ppb	1.12	50	100.3	90 - 110	
55	Mn	72	49.83 ppb	0.39	50	99.7	90 - 110	
59	Co	72	50.24 ppb	0.42	50	100.5	90 - 110	
60	Ni	72	50.05 ppb	1.27	50	100.1	90 - 110	
63	Cu	72	49.95 ppb	0.93	50	99.9	90 - 110	
66	Zn	72	46.47 ppb	0.86	50	92.9	90 - 110	
75	As	72	49.18 ppb	0.36	50	98.4	90 - 110	
78	Se	72	49.54 ppb	4.41	50	99.1	90 - 110	
95	Mo	72	49.91 ppb	2.15	50	99.8	90 - 110	
107	Ag	115	48.99 ppb	2.16	50	98.0	90 - 110	
111	Cd	115	48.60 ppb	1.36	50	97.2	90 - 110	
118	Sn	115	49.16 ppb	1.61	50	98.3	90 - 110	
121	Sb	115	49.06 ppb	1.27	50	98.1	90 - 110	
137	Ba	115	49.13 ppb	1.30	50	98.3	90 - 110	
205	Tl	165	50.58 ppb	0.99	50	101.2	90 - 110	
208	Pb	165	50.69 ppb	1.29	50	101.4	90 - 110	
232	Th	165	51.21 ppb	3.34	50	102.4	90 - 110	
238	U	165	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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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
 2 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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

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\
 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

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: LGWWD25F
 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 :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: 07/30/09 11:28:21

Department: 090 (Metals)

Source: Spreadsheet

Sample: LGWWDP25F

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG072909A # 274

Method 6020_

Acquired: 07/30/2009 06:15:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 07/30/2009 05:23:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	303	14.250	6.5600	117	0.70	NC	<input checked="" type="checkbox"/>
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

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	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\
 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

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 Channel 272
File: AG072909A # 275 Method 6020_
Acquired: 07/30/2009 06:18:00 ICPMS_024 Matrix: AQUEOUS
Calibrated: 07/30/2009 05:23:00 Units: ug/L

Table with columns: CASN, Analyte Name, M/S, Area, Amount, Sample, %Rec., Spike, Flag, Q. Rows include Beryllium, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Molybdenum, Silver, Cadmium, Tin, Antimony, Barium, Thallium, Lead, Uranium, Thorium, Lithium, Scandium, Indium, Germanium, Holmium.

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: LGWWSF 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

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	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\
 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\277 MSD.D\277 MSD.D#
 Date Acquired: Jul 30 2009 06:23 am
 Acq. Method: NormISIS.M
 Operator: TEL
 Sample Name: LGWDDDF 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	48.70 ppb	3.42	50	97.4	90 - 110	
51	V	72	48.89 ppb	1.54	50	97.8	90 - 110	
52	Cr	72	49.61 ppb	1.48	50	99.2	90 - 110	
55	Mn	72	49.51 ppb	0.90	50	99.0	90 - 110	
59	Co	72	49.31 ppb	1.25	50	98.6	90 - 110	
60	Ni	72	49.40 ppb	1.03	50	98.8	90 - 110	
63	Cu	72	49.69 ppb	1.05	50	99.4	90 - 110	
66	Zn	72	46.41 ppb	0.78	50	92.8	90 - 110	
75	As	72	49.14 ppb	0.56	50	98.3	90 - 110	
78	Se	72	52.07 ppb	6.66	50	104.1	90 - 110	
95	Mo	72	49.22 ppb	0.32	50	98.4	90 - 110	
107	Ag	115	48.42 ppb	0.78	50	96.8	90 - 110	
111	Cd	115	48.92 ppb	0.62	50	97.8	90 - 110	
118	Sn	115	48.92 ppb	1.19	50	97.8	90 - 110	
121	Sb	115	48.45 ppb	0.97	50	96.9	90 - 110	
137	Ba	115	49.04 ppb	1.27	50	98.1	90 - 110	
205	Tl	165	50.79 ppb	0.08	50	101.6	90 - 110	
208	Pb	165	50.94 ppb	0.16	50	101.9	90 - 110	
232	Th	165	49.83 ppb	3.56	50	99.7	90 - 110	
238	U	165	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 :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\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 :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\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\
 Tune File# 4 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG072909A.B\255CALB.D\255CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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: 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

Matrix: AQUEOUS

Calibrated: 07/30/2009 05:23:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	270	11.090	5.2660	111	0.70	NC	<input checked="" type="checkbox"/>
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

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	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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 Channel 272
File: AG072909A # 285 Method 6020_
Acquired: 07/30/2009 06:46:00 ICPMS_024 Matrix: AQUEOUS
Calibrated: 07/30/2009 05:23:00 Units: ug/L

Table with 10 columns: CASN, Analyte Name, M/S, Area, Amount, Sample, %Rec., Spike, Flag, Q. Rows include elements like Beryllium, Vanadium, Chromium, Manganese, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Molybdenum, Silver, Cadmium, Tin, Antimony, Barium, Thallium, Lead, Uranium, Thorium, Lithium, Scandium, Indium, Germanium, and Holmium.

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 :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\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	48.54 ppb	2.15	50	97.1	90 - 110	
51	V	72	48.95 ppb	1.12	50	97.9	90 - 110	
52	Cr	72	49.80 ppb	0.28	50	99.6	90 - 110	
55	Mn	72	51.24 ppb	0.71	50	102.5	90 - 110	
59	Co	72	49.29 ppb	0.38	50	98.6	90 - 110	
60	Ni	72	49.15 ppb	0.91	50	98.3	90 - 110	
63	Cu	72	48.86 ppb	1.20	50	97.7	90 - 110	
66	Zn	72	46.28 ppb	0.48	50	92.6	90 - 110	
75	As	72	49.31 ppb	0.59	50	98.6	90 - 110	
78	Se	72	49.32 ppb	7.04	50	98.6	90 - 110	
95	Mo	72	49.82 ppb	2.44	50	99.6	90 - 110	
107	Ag	115	48.57 ppb	2.29	50	97.1	90 - 110	
111	Cd	115	49.06 ppb	2.59	50	98.1	90 - 110	
118	Sn	115	49.30 ppb	2.90	50	98.6	90 - 110	
121	Sb	115	48.48 ppb	1.64	50	97.0	90 - 110	
137	Ba	115	49.65 ppb	1.57	50	99.3	90 - 110	
205	Tl	165	50.57 ppb	0.67	50	101.1	90 - 110	
208	Pb	165	50.68 ppb	0.91	50	101.4	90 - 110	
232	Th	165	50.09 ppb	2.09	50	100.2	90 - 110	
238	U	165	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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D96230298

Client: Northgate Environmental

Batch(es) #: 9205162

Associated Samples: 1

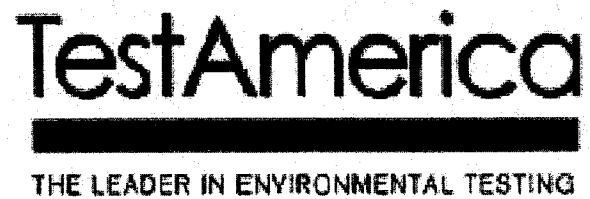
I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: V. Hill 8/3/09

Metals Raw Data RoadMap

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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**



Batch Number: 9205162

TestAmerica Laboratories, Inc. Metals Prep Log/ Batch Summary

Prepared By:

JRW

Prep Date: ^{7/28/09}~~07/24/09~~ SJW
Due Date: 08/04/09

<u>Lot</u>	<u>Work Order</u>			<u>Initial Weight/Volume</u>
D9G240000 Water	LG1L5	B	Due Date: SDG:	<u>50 mL</u>
D9G240000 Water	LG1L5	C	Due Date: SDG:	<u>50 mL</u>
D9G230298 Water	LG07X Total		Due Date: 08/04/09 SDG:	<u>50 mL</u>
D9G230298 Water	LG07X Total	S	Due Date: 08/04/09 SDG:	<u>50 mL</u>
D9G230298 Water	LG07X Total	D	Due Date: 08/04/09 SDG:	<u>50 mL</u>

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*

*✓
Z
8/31/09*

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: <u>Environmental Express</u> Lot #: <u>A901LS267</u>	
One or more samples were filtered prior to analysis at the instrument. <input type="checkbox"/> Yes <input type="checkbox"/> 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: <u> </u>	

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: <u>25894</u>		Block & Cup #: <u>2/34</u>		
Cycle	Start Time	Temperature (°C)	End Time	Temperature (°C)
HNO ₃	<u>1200</u>	<u>92</u>	<u>1615</u>	<u>95</u>
HNO ₃	<u>1630</u>	<u>95</u>	<u>1700</u>	<u>95</u>
HNO ₃				
Samples and QC revolumed to: <u>50</u> mL		Analyst's Initials <u>JRW</u>		

COMMENTS:

I certify that all information above is correct and complete.

Signature: Aly With

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.	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	200
Thallium	100	40	50		100	40	40	200
Tin	100	40	50		100	40	40	50
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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Sn	1,000.0	1,000.0

STD1853-09, 1 mg/l Se

Analyst: DIAZL

Solvent: 5% HNO3 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
 Date Prep./Opened: 06-16-2009
 Date Expires(1): 10-01-2009 (1 Year)

Volume (ml): 10.000

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
 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

Volume (ml): 250.00

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
Ho	1,000.0	1,000.0

STD4561-09, ICP-MS BLANK

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)

Analyst: DIAZL

Volume (ml): 1,000.0

Parent Std No.: STD4560-09, NITRIC ACID

Aliquot Amount (ml): 50.000

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
HNO3	100.00	5.0000

STD4562-09, ICP-MS HIGH CAL STD

Solvent: 5% HNO3

Lot No.: H12022

Date Prep./Opened: 07-31-2009

Date Expires(1): 08-01-2009 (1 Day)

Analyst: DIAZL

Volume (ml): 100.00

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD4564-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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 ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-31-2009 (1 Month)
 pipettes: Met 8

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.5000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)
 Date Expires(2): 04-21-2010 (None)

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)
 Date Expires(2): 05-01-2010 (None)
 pipettes: Met 20

Volume (ml): 100.00

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
 Date Prep./Opened: 07-31-2009
 Date Expires(1): 08-01-2009 (1 Day)
 pipettes: Met 21 and Met 8

Volume (ml): 50.000

Parent Std No.: STD1853-09, 1 mg/l Se

Aliquot Amount (ml): 0.1000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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		<input type="checkbox"/>
3	Cal Blank			1.0	07/31/09 17:31		<input type="checkbox"/>
4	100 ppb			1.0	07/31/09 17:34		<input type="checkbox"/>
5	ICV			1.0	07/31/09 17:36		<input type="checkbox"/>
6	RLIV			1.0	07/31/09 17:39		<input type="checkbox"/>
7	ICB			1.0	07/31/09 17:44		<input type="checkbox"/>
8	RL STD			1.0	07/31/09 17:47		<input type="checkbox"/>
9	AFCEE RL			1.0	07/31/09 17:50		<input type="checkbox"/>
10	ALTSe			1.0	07/31/09 17:53		<input type="checkbox"/>
11	ICSA			1.0	07/31/09 17:56		<input type="checkbox"/>
12	ICSAB			1.0	07/31/09 17:59	<i>Not 8/2/09 did not use.</i>	<input type="checkbox"/>
13	RINSE			1.0	07/31/09 18:02		<input type="checkbox"/>
14	LR			1.0	07/31/09 18:05		<input type="checkbox"/>
15	RINSE			1.0	07/31/09 18:07		<input type="checkbox"/>
16	ICSAB			1.0	07/31/09 18:12		<input type="checkbox"/>
17	RINSE			1.0	07/31/09 18:15		<input type="checkbox"/>
18	CCV			1.0	07/31/09 18:18		<input type="checkbox"/>
19	CCB			1.0	07/31/09 18:21		<input type="checkbox"/>
20	RLCV			1.0	07/31/09 18:24		<input type="checkbox"/>
21	LGMGHB	D9G170000	9198137	46	1.0	07/31/09 18:27	<input type="checkbox"/>
22	LGMGHC	D9G170000	9198137	46	1.0	07/31/09 18:30	<input type="checkbox"/>
23	LGJD3	D9G150267-2	9198137	46	1.0	07/31/09 18:33	<input type="checkbox"/>
24	LGJD4	D9G150267-3	9198137	46	1.0	07/31/09 18:36	<input type="checkbox"/>
25	LGJD5	D9G150267-4	9198137	46	1.0	07/31/09 18:39	<input type="checkbox"/>
26	LGJD5P5	D9G150267	9198137	5.0	07/31/09 18:41		<input type="checkbox"/>
27	LGJD5Z	D9G150267-4	9198137	1.0	07/31/09 18:44		<input type="checkbox"/>
28	LGJD5S	D9G150267-4	9198137	46	1.0	07/31/09 18:47	<input type="checkbox"/>
29	LGJD5D	D9G150267-4	9198137	46	1.0	07/31/09 18:50	<input type="checkbox"/>
30	CCV			1.0	07/31/09 18:53		<input type="checkbox"/>
31	CCB			1.0	07/31/09 18:56		<input type="checkbox"/>
32	RLCV			1.0	07/31/09 18:59		<input type="checkbox"/>
33	LGJED	D9G150267-5	9198137	46	1.0	07/31/09 19:02	<input type="checkbox"/>
34	LGJEF	D9G150267-6	9198137	46	1.0	07/31/09 19:05	<input type="checkbox"/>
35	LGJEJ	D9G150267-7	9198137	46	1.0	07/31/09 19:08	<input type="checkbox"/>
36	LGJEK	D9G150267-8	9198137	46	1.0	07/31/09 19:11	<input type="checkbox"/>
37	LGJEL	D9G150267-9	9198137	46	1.0	07/31/09 19:14	<input type="checkbox"/>
38	LGJEP	D9G150267-10	9198137	46	1.0	07/31/09 19:17	<input type="checkbox"/>
39	LGJER	D9G150267-11	9198137	46	1.0	07/31/09 19:20	<input type="checkbox"/>
40	LGJET	D9G150267-12	9198137	46	1.0	07/31/09 19:22	<input type="checkbox"/>
41	CCV			1.0	07/31/09 19:25		<input type="checkbox"/>
42	CCB			1.0	07/31/09 19:28		<input type="checkbox"/>
43	RLCV			1.0	07/31/09 19:31		<input type="checkbox"/>
44	LGQ7TB	D9G210000	9202068	46	1.0	07/31/09 19:34	<input type="checkbox"/>
45	LGQ7TC	D9G210000	9202068	46	1.0	07/31/09 19:37	<input type="checkbox"/>
46	LGLW8	D9G160318-1	9202068	46	1.0	07/31/09 19:40	<input type="checkbox"/>
47	LGLW8P5	D9G160318	9202068	5.0	07/31/09 19:43		<input type="checkbox"/>

Ni, Be only. 8/2/09

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	<input type="checkbox"/>
49	LGLW8S	D9G160318-1	9202068	46	1.0	07/31/09 19:49	<input type="checkbox"/>
50	LGLW8D	D9G160318-1	9202068	46	1.0	07/31/09 19:52	<input type="checkbox"/>
51	LGLXE	D9G160318-2	9202068	46	1.0	07/31/09 19:55	<input type="checkbox"/>
52	CCV				1.0	07/31/09 19:58	<input type="checkbox"/>
53	CCB				1.0	07/31/09 20:01	<input type="checkbox"/>
54	RLCV				1.0	07/31/09 20:04	<input type="checkbox"/>
55	ICSA				1.0	07/31/09 20:07	<input type="checkbox"/>
56	ICSAB				1.0	07/31/09 20:10	<input type="checkbox"/>
57	WASH				1.0	07/31/09 20:12	<input type="checkbox"/>
58	CCV				1.0	07/31/09 20:15	<input type="checkbox"/>
59	CCB				1.0	07/31/09 20:18	<input type="checkbox"/>
60	RLCV				1.0	07/31/09 20:21	<input type="checkbox"/>
61	LGQ2GQ	D9G200204-9	9202364	U1	1.0	07/31/09 20:24	<input type="checkbox"/>
62	LGQ2HQ	D9G200204-10	9202364	U1	1.0	07/31/09 20:27	<input type="checkbox"/>
63	LGQ2JQ	D9G200204-11	9202364	U1	1.0	07/31/09 20:30	<input type="checkbox"/>
64	LGQ2KQ	D9G200204-12	9202364	U1	1.0	07/31/09 20:33	<input type="checkbox"/>
65	LGQ2LQ	D9G200204-13	9202364	U1	1.0	07/31/09 20:36	<input type="checkbox"/>
66	LGQ2MQ	D9G200204-14	9202364	U1	1.0	07/31/09 20:39	<input type="checkbox"/>
67	LGQ2NQ	D9G200204-15	9202364	U1	1.0	07/31/09 20:42	<input type="checkbox"/>
68	CCV				1.0	07/31/09 20:45	<input type="checkbox"/>
69	CCB				1.0	07/31/09 20:48	<input type="checkbox"/>
70	RLCV				1.0	07/31/09 20:51	<input type="checkbox"/>
71	LGXFPB	D9G230000	9204156		1.0	07/31/09 20:53	<input type="checkbox"/>
72	LGXFPC	D9G230000	9204156		1.0	07/31/09 20:56	<input type="checkbox"/>
73	LGV1D 5X	D9G220173-1	9204156	MS	5.0	07/31/09 20:59	<input type="checkbox"/>
74	LGV1DP25	D9G220173	9204156		25.0	07/31/09 21:02	<input type="checkbox"/>
75	LGV1DZ	D9G220173-1	9204156		1.0	07/31/09 21:05	<input type="checkbox"/>
76	LGV1DS 5X	D9G220173-1	9204156	MS	5.0	07/31/09 21:08	<input type="checkbox"/>
77	LGV1DD 5X	D9G220173-1	9204156	MS	5.0	07/31/09 21:11	<input type="checkbox"/>
78	CCV				1.0	07/31/09 21:14	<input type="checkbox"/>
79	CCB				1.0	07/31/09 21:17	<input type="checkbox"/>
80	RLCV				1.0	07/31/09 21:20	<input type="checkbox"/>
81	LGV1L 5X	D9G220173-2	9204156	MS	5.0	07/31/09 21:23	<input type="checkbox"/>
82	LGV1M 5X	D9G220173-3	9204156	MS	5.0	07/31/09 21:26	<input type="checkbox"/>
83	LGV1N 10X	D9G220173-4	9204156	MS	10.0	07/31/09 21:30	<input type="checkbox"/>
84	LGV1P 10X	D9G220173-5	9204156	MS	10.0	07/31/09 21:33	<input type="checkbox"/>
85	RINSE				1.0	07/31/09 21:37	<input type="checkbox"/>
86	RINSE				1.0	07/31/09 21:40	<input type="checkbox"/>
87	RINSE				1.0	07/31/09 21:43	<input type="checkbox"/>
88	RINSE				1.0	07/31/09 21:46	<input type="checkbox"/>
89	RINSE				1.0	07/31/09 21:49	<input type="checkbox"/>
90	RINSE				1.0	07/31/09 21:52	<input type="checkbox"/>
91	Cal Blank				1.0	07/31/09 21:55	<input type="checkbox"/>
92	Cal Blank				1.0	07/31/09 21:57	<input type="checkbox"/>
93	100 ppb				1.0	07/31/09 22:00	<input type="checkbox"/>

Not 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
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	LGXFPB	D9G230000	9204156	1.0	07/31/09 22:35		
105	LGV1D 5X	D9G220173-1	9204156	MS 5.0	07/31/09 22:38	<i>Not played did not use.</i>	
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	<i>Not played did not use.</i>	

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	LG024 40X	D9G230277-2	9205120	MS	40.0	08/01/09 00:21	<input type="checkbox"/>
141	CCV			1.0	08/01/09 00:24		<input type="checkbox"/>
142	CCB			1.0	08/01/09 00:27		<input type="checkbox"/>
143	RLCV			1.0	08/01/09 00:30		<input type="checkbox"/>
144	RINSE			1.0	08/01/09 00:33		<input type="checkbox"/>
145	RINSE			1.0	08/01/09 00:36		<input type="checkbox"/>
146	RINSE			1.0	08/01/09 00:39		<input type="checkbox"/>
147	RINSE			1.0	08/01/09 00:42		<input type="checkbox"/>
148	RINSE			1.0	08/01/09 00:45		<input type="checkbox"/>
149	Cal Blank			1.0	08/01/09 00:48	<i>not used</i>	<input type="checkbox"/>
150	Cal Blank			1.0	08/01/09 00:51		<input type="checkbox"/>
151	100 ppb			1.0	08/01/09 00:53		<input type="checkbox"/>
152	CCV			1.0	08/01/09 00:56		<input type="checkbox"/>
153	CCB			1.0	08/01/09 00:59		<input type="checkbox"/>
154	RLCV			1.0	08/01/09 01:02		<input type="checkbox"/>
155	LG4KLB	D9G270000	9208139	04	1.0	08/01/09 01:05	<input type="checkbox"/>
156	LG4KLC	D9G270000	9208139	04	1.0	08/01/09 01:08	<input type="checkbox"/>
157	LG1WC	D9G240128-1	9208139	04	1.0	08/01/09 01:11	<input type="checkbox"/>
158	LG1WQ	D9G240128-2	9208139	04	1.0	08/01/09 01:14	<input type="checkbox"/>
159	LG0RV	D9G230254-1	9208139	04	1.0	08/01/09 01:17	<input type="checkbox"/>
160	LG1XL	D9G240136-1	9208139	04	1.0	08/01/09 01:20	<input type="checkbox"/>
161	CCV			1.0	08/01/09 01:23		<input type="checkbox"/>
162	CCB			1.0	08/01/09 01:26		<input type="checkbox"/>
163	RLCV			1.0	08/01/09 01:29		<input type="checkbox"/>
164	LG1XQ	D9G240136-2	9208139	04	1.0	08/01/09 01:32	<input type="checkbox"/>
165	LG1XQP5	D9G240136	9208139		5.0	08/01/09 01:35	<input type="checkbox"/>
166	LG1XQZ	D9G240136-2	9208139		1.0	08/01/09 01:38	<input type="checkbox"/>
167	LG1XQS	D9G240136-2	9208139	04	1.0	08/01/09 01:41	<input type="checkbox"/>
168	LG1XQD	D9G240136-2	9208139	04	1.0	08/01/09 01:44	<input type="checkbox"/>
169	CCV			1.0	08/01/09 01:47		<input type="checkbox"/>
170	CCB			1.0	08/01/09 01:50		<input type="checkbox"/>
171	RLCV			1.0	08/01/09 01:53		<input type="checkbox"/>
172	LG1L5B ^C	D9G240000	9205162	MS	1.0	08/01/09 01:56	<input type="checkbox"/>
173	LG1L5B ^B	D9G240000	9205162	MS	1.0	08/01/09 01:59	<input type="checkbox"/>
174	LG07X 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:02	<input type="checkbox"/>
175	LG07XP25	D9G230298	9205162		25.0	08/01/09 02:05	<input type="checkbox"/>
176	LG07XZ	D9G230298-1	9205162		1.0	08/01/09 02:08	<input type="checkbox"/>
177	LG07XS 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:10	<input type="checkbox"/>
178	LG07XD 5X	D9G230298-1	9205162	MS	5.0	08/01/09 02:13	<input type="checkbox"/>
179	CCV			1.0	08/01/09 02:16		<input type="checkbox"/>
180	CCB			1.0	08/01/09 02:19		<input type="checkbox"/>
181	RLCV			1.0	08/01/09 02:22		<input type="checkbox"/>
182	LGXLNB	D9G230000	9204201	04	1.0	08/01/09 02:25	<input type="checkbox"/>
183	LGXLNC	D9G230000	9204201	04	1.0	08/01/09 02:28	<input type="checkbox"/>
184	LGV14	D9G220178-1	9204201	04	1.0	08/01/09 02:31	<input type="checkbox"/>
185	LGV16	D9G220178-2	9204201	04	1.0	08/01/09 02:34	<input type="checkbox"/>

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	<input type="checkbox"/>
187	LGV19	D9G220178-4	9204201	04	1.0	08/01/09 02:40	<input type="checkbox"/>
188	LGV19P5	D9G220178	9204201		5.0	08/01/09 02:43	<input type="checkbox"/>
189	LGV19Z	D9G220178-4	9204201		1.0	08/01/09 02:46	<input type="checkbox"/>
190	LGV19S	D9G220178-4	9204201	04	1.0	08/01/09 02:49	<input type="checkbox"/>
191	CCV				1.0	08/01/09 02:52	<input type="checkbox"/>
192	CCB				1.0	08/01/09 02:55	<input type="checkbox"/>
193	RLCV				1.0	08/01/09 02:58	<input type="checkbox"/>
194	LGV19D	D9G220178-4	9204201	04	1.0	08/01/09 03:01	<input type="checkbox"/>
195	LGV2C	D9G220178-5	9204201	04	1.0	08/01/09 03:04	<input type="checkbox"/>
196	LGV2F	D9G220178-6	9204201	04	1.0	08/01/09 03:07	<input type="checkbox"/>
197	LGV2H	D9G220178-7	9204201	04	1.0	08/01/09 03:10	<input type="checkbox"/>
198	LGV2K	D9G220178-8	9204201	04	1.0	08/01/09 03:13	<input type="checkbox"/>
199	LGV2L	D9G220178-9	9204201	04	1.0	08/01/09 03:16	<input type="checkbox"/>
200	LGV2M	D9G220178-10	9204201	04	1.0	08/01/09 03:19	<input type="checkbox"/>
201	LGV2N	D9G220178-11	9204201	04	1.0	08/01/09 03:22	<input type="checkbox"/>
202	CCV				1.0	08/01/09 03:25	<input type="checkbox"/>
203	CCB				1.0	08/01/09 03:28	<input type="checkbox"/>
204	RLCV				1.0	08/01/09 03:31	<input type="checkbox"/>
205	LGV1QB	D9G220000	9203243	MS	1.0	08/01/09 03:34	<input type="checkbox"/>
206	LGV1QC	D9G220000	9203243	MS	1.0	08/01/09 03:37	<input type="checkbox"/>
207	LGV1QL	D9G220000	9203243	MS	1.0	08/01/09 03:40	<input type="checkbox"/>
208	LGT2T	D9G210319-28	9203243	U2	1.0	08/01/09 03:42	<input type="checkbox"/>
209	LGT2TP5	D9G210319	9203243		5.0	08/01/09 03:45	<input type="checkbox"/>
210	LGT2TZ	D9G210319-28	9203243		1.0	08/01/09 03:48	<input type="checkbox"/>
211	LGT22	D9G210319-29	9203243	U2	1.0	08/01/09 03:51	<input type="checkbox"/>
212	LGT24	D9G210319-30	9203243	U2	1.0	08/01/09 03:54	<input type="checkbox"/>
213	CCV				1.0	08/01/09 03:57	<input type="checkbox"/>
214	CCB				1.0	08/01/09 04:00	<input type="checkbox"/>
215	RLCV				1.0	08/01/09 04:03	<input type="checkbox"/>
216	RINSE				1.0	08/01/09 04:06	<input type="checkbox"/>
217	RINSE				1.0	08/01/09 04:09	<input type="checkbox"/>
218	RINSE				1.0	08/01/09 04:12	<input type="checkbox"/>
219	RINSE				1.0	08/01/09 04:15	<input type="checkbox"/>
220	RINSE				1.0	08/01/09 04:18	<input type="checkbox"/>
221	Cal Blank				1.0	08/01/09 04:21	<input type="checkbox"/>
222	Cal Blank				1.0	08/01/09 04:24	<input type="checkbox"/>
223	100 ppb				1.0	08/01/09 04:27	<input type="checkbox"/>
224	CCV				1.0	08/01/09 04:30	<input type="checkbox"/>
225	CCB				1.0	08/01/09 04:33	<input type="checkbox"/>
226	RLCV				1.0	08/01/09 04:36	<input type="checkbox"/>
227	LG1K1B	D9G240000	9205137	MS	1.0	08/01/09 04:39	<input type="checkbox"/>
228	LG1K1C	D9G240000	9205137	MS	1.0	08/01/09 04:42	<input type="checkbox"/>
229	LGVP1 5X	F9G220144-1	9205137	MS	5.0	08/01/09 04:44	<input type="checkbox"/>
230	LGVPW 5X	F9G220144-2	9205137	MS	5.0	08/01/09 04:48	<input type="checkbox"/>
231	LGXP1 5X	F9G230140-1	9206137	MS	5.0	08/01/09 04:51	<input type="checkbox"/>

not 8/3/09 did not use.

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	<input type="checkbox"/>
233	CCV				1.0	08/01/09 04:57	<input type="checkbox"/>
234	CCB				1.0	08/01/09 04:59	<input type="checkbox"/>
235	RLCV				1.0	08/01/09 05:02	<input type="checkbox"/>
236	LGXQAP25	F9G230140	9205137		25.0	08/01/09 05:05	<input type="checkbox"/>
237	LGXQAZ	F9G230140-2	9205137		1.0	08/01/09 05:08	<input type="checkbox"/>
238	LGXQAS 5X	F9G230140-2	9205137	MS	5.0	08/01/09 05:11	<input type="checkbox"/>
239	LGXQAD 5X	F9G230140-2	9205137	MS	5.0	08/01/09 05:14	<input type="checkbox"/>
240	LGXQC 5X	F9G230140-3	9205137	MS	5.0	08/01/09 05:17	<input type="checkbox"/>
241	CCV				1.0	08/01/09 05:20	<input type="checkbox"/>
242	CCB				1.0	08/01/09 05:23	<input type="checkbox"/>
243	RLCV				1.0	08/01/09 05:26	<input type="checkbox"/>
244	LG4FQB	D9G270000	9208086	MS	1.0	08/01/09 05:29	<input type="checkbox"/>
245	LG4FQC	D9G270000	9208086	MS	1.0	08/01/09 05:32	<input type="checkbox"/>
246	LG2PG 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:35	<input type="checkbox"/>
247	LG2PGP25	F9G240237	9208086		25.0	08/01/09 05:38	<input type="checkbox"/>
248	LG2PGZ	F9G240237-1	9208086		1.0	08/01/09 05:41	<input type="checkbox"/>
249	LG2PGS 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:44	<input type="checkbox"/>
250	LG2PGD 5X	F9G240237-1	9208086	MS	5.0	08/01/09 05:47	<input type="checkbox"/>
251	LG3K2 5X	F9G250110-1	9208086	MS	5.0	08/01/09 05:50	<input type="checkbox"/>
252	CCV				1.0	08/01/09 05:53	<input type="checkbox"/>
253	CCB				1.0	08/01/09 05:56	<input type="checkbox"/>
254	RLCV				1.0	08/01/09 05:59	<input type="checkbox"/>
255	LG7JRB	D9G290000	9210189	MS	1.0	08/01/09 06:02	<input type="checkbox"/>
256	LG7JRC	D9G290000	9210189	MS	1.0	08/01/09 06:05	<input type="checkbox"/>
257	LG5N7 5X	F9G280117-1	9210189	MS	5.0	08/01/09 06:08	<input type="checkbox"/>
258	LG5QV 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:11	<input type="checkbox"/>
259	LG5QVP25	F9G280117	9210189		25.0	08/01/09 06:14	<input type="checkbox"/>
260	LG5QVZ	F9G280117-2	9210189		1.0	08/01/09 06:17	<input type="checkbox"/>
261	LG5QVS 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:20	<input type="checkbox"/>
262	LG5QVD 5X	F9G280117-2	9210189	MS	5.0	08/01/09 06:23	<input type="checkbox"/>
263	CCV				1.0	08/01/09 06:26	<input type="checkbox"/>
264	CCB				1.0	08/01/09 06:29	<input type="checkbox"/>
265	RLCV				1.0	08/01/09 06:32	<input type="checkbox"/>
266	RINSE				1.0	08/01/09 06:35	<input type="checkbox"/>
267	RINSE				1.0	08/01/09 06:36 <i>not used</i>	<input type="checkbox"/>
268	Cal Blank				1.0	08/01/09 06:41	<input type="checkbox"/>
269	100 ppb				1.0	08/01/09 06:44	<input type="checkbox"/>
270	CCV				1.0	08/01/09 06:47	<input type="checkbox"/>
271	CCB				1.0	08/01/09 06:50	<input type="checkbox"/>
272	RLCV				1.0	08/01/09 06:53	<input type="checkbox"/>
273	LGV04B	D9G220000	9203272	46	1.0	08/01/09 06:56	<input type="checkbox"/>
274	LGV04C	D9G220000	9203272	46	1.0	08/01/09 06:59	<input type="checkbox"/>
275	LGT0P	D9G210319-1	9203272	U1	1.0	08/01/09 07:02	<input type="checkbox"/>
276	LGT0PP5	D9G210319	9203272		5.0	08/01/09 07:05	<input type="checkbox"/>
277	LGT0PZ	D9G210319-1	9203272		1.0	08/01/09 07:08	<input type="checkbox"/>

Denver

RUN SUMMARY

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 08/03/09 10:39:23
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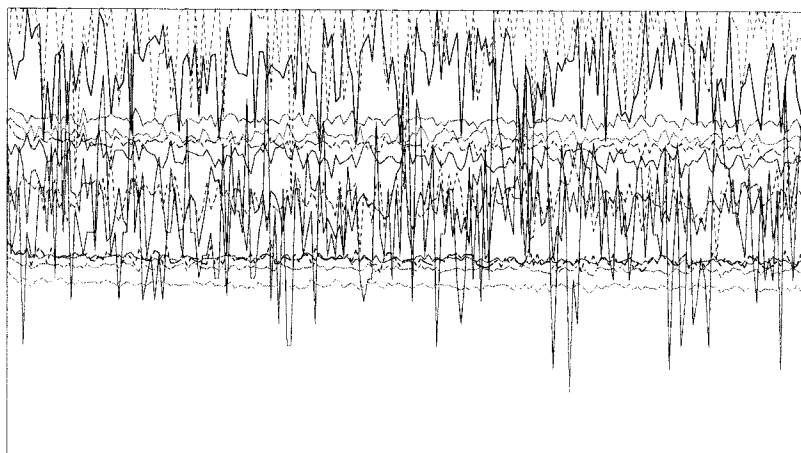
File ID: AG073109B

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		<input type="checkbox"/>
279	LGT0PD	D9G210319-1	9203272	U1	1.0 08/01/09 07:13		<input type="checkbox"/>
280	LGT00	D9G210319-2	9203272	U1	1.0 08/01/09 07:16		<input type="checkbox"/>
281	LGT02	D9G210319-3	9203272	U1	1.0 08/01/09 07:19		<input type="checkbox"/>
282	CCV				1.0 08/01/09 07:22		<input type="checkbox"/>
283	CCB				1.0 08/01/09 07:25		<input type="checkbox"/>
284	RLCV				1.0 08/01/09 07:28		<input type="checkbox"/>
285	LGT03	D9G210319-4	9203272	U1	1.0 08/01/09 07:31		<input type="checkbox"/>
286	LGT04	D9G210319-5	9203272	U1	1.0 08/01/09 07:34		<input type="checkbox"/>
287	LGT05	D9G210319-6	9203272	U1	1.0 08/01/09 07:37		<input type="checkbox"/>
288	LGT07	D9G210319-7	9203272	U1	1.0 08/01/09 07:40		<input type="checkbox"/>
289	LGT1E	D9G210319-8	9203272	U1	1.0 08/01/09 07:43		<input type="checkbox"/>
290	LGT1H	D9G210319-10	9203272	U1	1.0 08/01/09 07:46		<input type="checkbox"/>
291	LGT1K	D9G210319-11	9203272	U1	1.0 08/01/09 07:49		<input type="checkbox"/>
292	LGT1L	D9G210319-12	9203272	U1	1.0 08/01/09 07:52		<input type="checkbox"/>
293	CCV				1.0 08/01/09 07:55		<input type="checkbox"/>
294	CCB				1.0 08/01/09 07:58		<input type="checkbox"/>
295	RLCV				1.0 08/01/09 08:01		<input type="checkbox"/>
296	LGV1JB	D9G220000	9203274	46	1.0 08/01/09 08:04		<input type="checkbox"/>
297	LGV1JC	D9G220000	9203274	46	1.0 08/01/09 08:07		<input type="checkbox"/>
298	LGT1N	D9G210319-13	9203274	U1	1.0 08/01/09 08:10		<input type="checkbox"/>
299	LGT1V	D9G210319-14	9203274	U1	1.0 08/01/09 08:13		<input type="checkbox"/>
300	LGT1X	D9G210319-15	9203274	U1	1.0 08/01/09 08:16		<input type="checkbox"/>
301	LGT10	D9G210319-16	9203274	U1	1.0 08/01/09 08:19		<input type="checkbox"/>
302	LGT10PS	D9G210319	9203274	5.0	08/01/09 08:22	<i>W/ 8/3/09 did not use.</i>	<input type="checkbox"/>

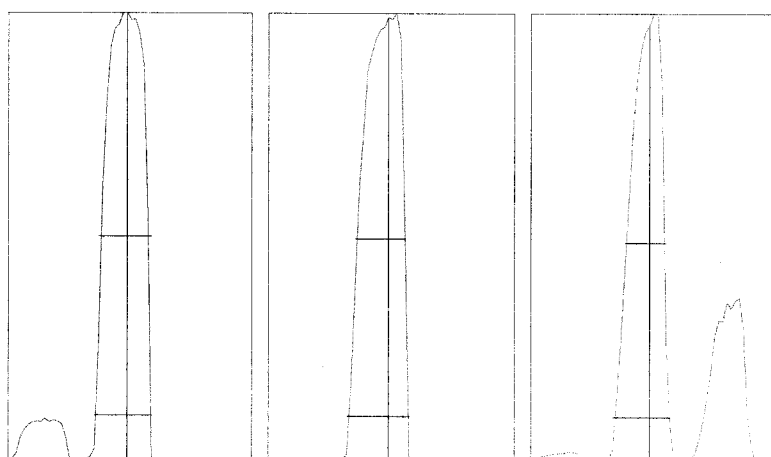
Tune Report

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

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 : 0.81 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 : -165 V
Omega Bias-ce : -34 V
Omega Lens-ce : 1 V
Cell Entrance : -30 V
QP Focus : 7 V
Cell Exit : -30 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

===Octopole Parameters===

OctP RF : 180 V
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: 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

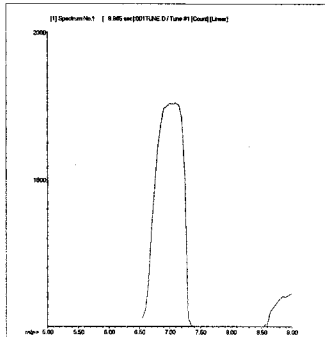
===Detector Parameters===

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

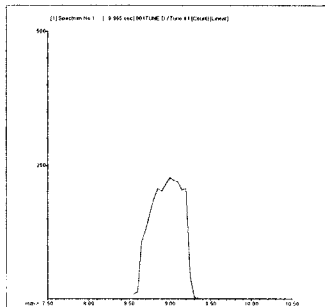
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



9 Be

Mass Calib.

Actual: 9.05

Required: 8.90 - 9.10

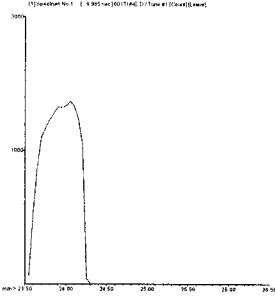
Flag:

Peak Width

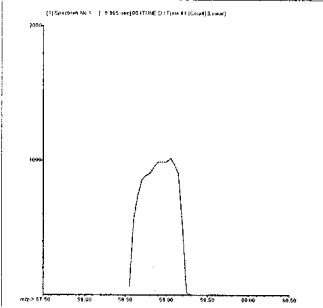
Actual: 0.60

Required: 0.90

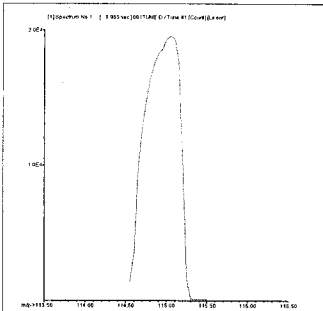
Flag:



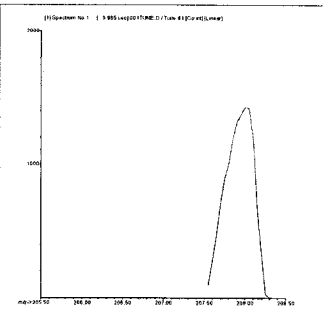
24 Mg
Mass Calib.
 Actual: 24.00
 Required: 23.90 - 24.10
 Flag:
Peak Width
 Actual: 0.60
 Required: 0.90
 Flag:



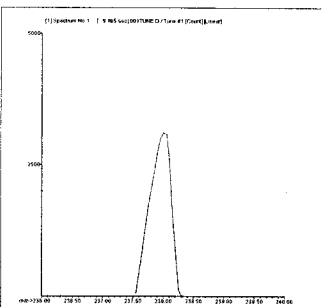
59 Co
Mass Calib.
 Actual: 59.00
 Required: 58.90 - 59.10
 Flag:
Peak Width
 Actual: 0.60
 Required: 0.90
 Flag:



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
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

Fail

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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Initial Calibration Blank (ICB) QC Report

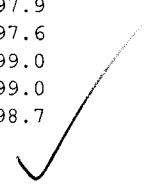
Data File: C:\ICPCHEM\1\DATA\AG073109B.B\007_ICB.D\007_ICB.D#
 Date Acquired: Jul 31 2009 05:44 pm **QC Summary:**
 Operator: TEL **Analytes: Pass**
 Sample Name: ICB **ISTD: Pass**
 Misc Info:
 Vial Number: 2104
 Current Method: C:\ICPCHEM\1\METHODS\6020isis.M
 Calibration File: C:\ICPCHEM\1\CALIB\6020isis.C
 Last Cal Update: Jul 31 2009 05:34 pm
 Sample Type: ICB
 Total Dil Factor: 1.00

QC 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	1.01 ppb	16.56	1	100.6	50 - 150	
23	Na	6	105.30 ppb	0.63	100	105.3	50 - 150	
24	Mg	6	106.70 ppb	0.66	100	106.7	50 - 150	
27	Al	45	107.30 ppb	1.43	100	107.3	50 - 150	
39	K	45	106.50 ppb	2.65	100	106.5	50 - 150	
43	Ca	45	108.80 ppb	2.62	100	108.8	50 - 150	
51	V	72	0.99 ppb	3.27	1	98.8	50 - 150	
52	Cr	72	1.02 ppb	3.35	1	101.5	50 - 150	
55	Mn	72	1.01 ppb	2.39	1	100.8	50 - 150	
57	Fe	72	103.60 ppb	1.91	100	103.6	50 - 150	
59	Co	72	1.06 ppb	0.67	1	105.9	50 - 150	
60	Ni	72	1.09 ppb	10.30	1	109.0	50 - 150	
63	Cu	72	1.05 ppb	8.84	1	104.8	50 - 150	
66	Zn	72	10.63 ppb	0.81	10	106.3	50 - 150	
75	As	72	0.97 ppb	1.20	1	96.9	50 - 150	
78	Se	72	0.41 ppb	213.75	1	40.5	50 - 150	Fail
93	Nb	72	3.04 ppb	6.29	2	152.0	50 - 150	Fail
95	Mo	72	0.95 ppb	1.14	1	94.7	50 - 150	
105	Pd	115	1.03 ppb	4.42	1	103.2	50 - 150	
107	Ag	115	1.03 ppb	4.44	1	103.0	50 - 150	
111	Cd	115	1.04 ppb	5.96	1	103.5	50 - 150	
118	Sn	115	10.33 ppb	2.04	10	103.3	50 - 150	
121	Sb	115	0.99 ppb	3.90	1	99.2	50 - 150	
137	Ba	115	0.99 ppb	5.11	1	98.7	50 - 150	
182	W	165	1.00 ppb	4.34	1	99.5	50 - 150	
195	Pt	165	1.04 ppb	10.30	1	104.0	50 - 150	
205	Tl	165	1.07 ppb	1.49	1	106.5	50 - 150	
208	Pb	165	1.05 ppb	1.30	1	105.4	50 - 150	
232	Th	165	0.99 ppb	0.99	1	99.2	50 - 150	
238	U	165	1.08 ppb	0.82	1	107.8	50 - 150	

Fail *NR*
 Fail

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\
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\003CALB.D\003CALB.D#

2 :Element Failures 0 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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

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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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

DNV
CRD
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	1297099	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
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 Tune File# 3 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

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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 Tune File# 4

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 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	49.51 ppb	0.35	50	99.0	90 - 110	
23	Na	6	4975.00 ppb	0.86	5000	99.5	90 - 110	
24	Mg	6	4991.00 ppb	0.82	5000	99.8	90 - 110	
27	Al	45	5039.00 ppb	0.83	5000	100.8	90 - 110	
39	K	45	5072.00 ppb	1.18	5000	101.4	90 - 110	
43	Ca	45	5114.00 ppb	1.51	5000	102.3	90 - 110	
51	V	72	49.92 ppb	0.26	50	99.8	90 - 110	
52	Cr	72	50.02 ppb	0.22	50	100.0	90 - 110	
55	Mn	72	50.32 ppb	0.31	50	100.6	90 - 110	
57	Fe	72	5095.00 ppb	1.36	5000	101.9	90 - 110	
59	Co	72	49.90 ppb	0.10	50	99.8	90 - 110	
60	Ni	72	50.49 ppb	0.97	50	101.0	90 - 110	
63	Cu	72	51.17 ppb	0.52	50	102.3	90 - 110	
66	Zn	72	49.88 ppb	0.40	50	99.8	90 - 110	
75	As	72	49.99 ppb	0.68	50	100.0	90 - 110	
78	Se	72	50.16 ppb	2.96	50	100.3	90 - 110	
93	Nb	72	97.95 ppb	1.51	100	98.0	90 - 110	
95	Mo	72	49.60 ppb	1.56	50	99.2	90 - 110	
105	Pd	115	50.76 ppb	3.06	50	101.5	90 - 110	
107	Ag	115	50.77 ppb	1.83	50	101.5	90 - 110	
111	Cd	115	49.91 ppb	1.98	50	99.8	90 - 110	
118	Sn	115	50.06 ppb	1.50	50	100.1	90 - 110	
121	Sb	115	49.79 ppb	0.97	50	99.6	90 - 110	
137	Ba	115	49.78 ppb	2.41	50	99.6	90 - 110	
182	W	165	50.56 ppb	1.81	50	101.1	90 - 110	
195	Pt	165	50.67 ppb	1.92	50	101.3	90 - 110	
205	Tl	165	50.93 ppb	1.82	50	101.9	90 - 110	
208	Pb	165	51.77 ppb	2.11	50	103.5	90 - 110	
232	Th	165	50.45 ppb	0.83	50	100.9	90 - 110	
238	U	165	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 :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\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 <i>NR</i>
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 :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\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	51.27 ppb	3.84	50	102.5	90 - 110	
23	Na	6	5247.00 ppb	1.73	5000	104.9	90 - 110	
24	Mg	6	5323.00 ppb	0.36	5000	106.5	90 - 110	
27	Al	45	4947.00 ppb	1.53	5000	98.9	90 - 110	
39	K	45	5170.00 ppb	1.85	5000	103.4	90 - 110	
43	Ca	45	5151.00 ppb	2.03	5000	103.0	90 - 110	
51	V	72	49.41 ppb	1.53	50	98.8	90 - 110	
52	Cr	72	49.13 ppb	1.68	50	98.3	90 - 110	
55	Mn	72	49.17 ppb	0.48	50	98.3	90 - 110	
57	Fe	72	4904.00 ppb	0.62	5000	98.1	90 - 110	
59	Co	72	49.48 ppb	0.23	50	99.0	90 - 110	
60	Ni	72	50.33 ppb	0.45	50	100.7	90 - 110	
63	Cu	72	50.74 ppb	0.48	50	101.5	90 - 110	
66	Zn	72	48.91 ppb	0.94	50	97.8	90 - 110	
75	As	72	51.19 ppb	0.18	50	102.4	90 - 110	
78	Se	72	49.89 ppb	2.15	50	99.8	90 - 110	
93	Nb	72	92.36 ppb	1.86	100	92.4	90 - 110	
95	Mo	72	49.14 ppb	0.72	50	98.3	90 - 110	
105	Pd	115	49.55 ppb	0.92	50	99.1	90 - 110	
107	Ag	115	49.50 ppb	1.01	50	99.0	90 - 110	
111	Cd	115	48.49 ppb	0.37	50	97.0	90 - 110	
118	Sn	115	49.38 ppb	1.65	50	98.8	90 - 110	
121	Sb	115	49.23 ppb	0.62	50	98.5	90 - 110	
137	Ba	115	50.95 ppb	1.51	50	101.9	90 - 110	
182	W	165	49.46 ppb	1.21	50	98.9	90 - 110	
195	Pt	165	50.86 ppb	0.57	50	101.7	90 - 110	
205	Tl	165	51.41 ppb	1.84	50	102.8	90 - 110	
208	Pb	165	52.14 ppb	1.72	50	104.3	90 - 110	
232	Th	165	51.86 ppb	2.44	50	103.7	90 - 110	
238	U	165	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\
 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\
Co only

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\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\
 Tune File# 4

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

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 :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\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 :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\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 :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: 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 :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\095_CCB.D\095_CCB.D#
 Date Acquired: Jul 31 2009 10:06 pm
 Operator: TEL **QC Summary:**
 Sample Name: CCB **Analytes: Fail**
 Misc Info: **ISTD: Pass**
 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 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 :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\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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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 :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\100_CC.V.D\100_CC.V.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
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

Fail

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 :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\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 :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: 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\
 Tune File# 4 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	51.78	ppb	4.91	50	103.6	90 - 110
23	Na	6	5005.00	ppb	1.04	5000	100.1	90 - 110
24	Mg	6	5084.00	ppb	0.41	5000	101.7	90 - 110
27	Al	45	5039.00	ppb	0.30	5000	100.8	90 - 110
39	K	45	5056.00	ppb	1.35	5000	101.1	90 - 110
43	Ca	45	5092.00	ppb	1.93	5000	101.8	90 - 110
51	V	72	49.33	ppb	1.34	50	98.7	90 - 110
52	Cr	72	50.01	ppb	0.71	50	100.0	90 - 110
55	Mn	72	50.11	ppb	0.79	50	100.2	90 - 110
57	Fe	72	4937.00	ppb	0.82	5000	98.7	90 - 110
59	Co	72	50.13	ppb	0.71	50	100.3	90 - 110
60	Ni	72	50.03	ppb	0.67	50	100.1	90 - 110
63	Cu	72	50.24	ppb	0.16	50	100.5	90 - 110
66	Zn	72	48.33	ppb	0.72	50	96.7	90 - 110
75	As	72	49.93	ppb	0.78	50	99.9	90 - 110
78	Se	72	49.49	ppb	2.44	50	99.0	90 - 110
93	Nb	72	97.24	ppb	0.60	100	97.2	90 - 110
95	Mo	72	49.68	ppb	1.35	50	99.4	90 - 110
105	Pd	115	50.36	ppb	2.72	50	100.7	90 - 110
107	Ag	115	50.98	ppb	2.18	50	102.0	90 - 110
111	Cd	115	50.71	ppb	1.67	50	101.4	90 - 110
118	Sn	115	51.00	ppb	1.94	50	102.0	90 - 110
121	Sb	115	50.63	ppb	0.76	50	101.3	90 - 110
137	Ba	115	50.22	ppb	1.83	50	100.4	90 - 110
182	W	165	49.39	ppb	0.72	50	98.8	90 - 110
195	Pt	165	49.40	ppb	0.74	50	98.8	90 - 110
205	Tl	165	50.03	ppb	0.46	50	100.1	90 - 110
208	Pb	165	49.55	ppb	1.10	50	99.1	90 - 110
232	Th	165	51.56	ppb	0.52	50	103.1	90 - 110
238	U	165	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	

Fail *NA*

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 :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\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 :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\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	52.42 ppb	3.64	50	104.8	90 - 110	
23	Na	6	5029.00 ppb	0.83	5000	100.6	90 - 110	
24	Mg	6	5085.00 ppb	0.20	5000	101.7	90 - 110	
27	Al	45	5097.00 ppb	0.18	5000	101.9	90 - 110	
39	K	45	5059.00 ppb	1.44	5000	101.2	90 - 110	
43	Ca	45	5228.00 ppb	5.21	5000	104.6	90 - 110	
51	V	72	50.31 ppb	1.23	50	100.6	90 - 110	
52	Cr	72	50.11 ppb	0.78	50	100.2	90 - 110	
55	Mn	72	50.71 ppb	1.27	50	101.4	90 - 110	
57	Fe	72	4947.00 ppb	1.14	5000	98.9	90 - 110	
59	Co	72	50.27 ppb	0.24	50	100.5	90 - 110	
60	Ni	72	50.56 ppb	1.45	50	101.1	90 - 110	
63	Cu	72	50.03 ppb	0.72	50	100.1	90 - 110	
66	Zn	72	49.22 ppb	1.97	50	98.4	90 - 110	
75	As	72	49.69 ppb	0.45	50	99.4	90 - 110	
78	Se	72	47.40 ppb	3.56	50	94.8	90 - 110	
93	Nb	72	86.13 ppb	1.18	100	86.1	90 - 110	Fail
95	Mo	72	49.60 ppb	0.95	50	99.2	90 - 110	
105	Pd	115	50.89 ppb	1.02	50	101.8	90 - 110	
107	Ag	115	50.61 ppb	1.60	50	101.2	90 - 110	
111	Cd	115	50.93 ppb	1.35	50	101.9	90 - 110	
118	Sn	115	50.52 ppb	2.11	50	101.0	90 - 110	
121	Sb	115	50.45 ppb	0.23	50	100.9	90 - 110	
137	Ba	115	50.88 ppb	1.49	50	101.8	90 - 110	
182	W	165	49.47 ppb	0.34	50	98.9	90 - 110	
195	Pt	165	50.24 ppb	0.68	50	100.5	90 - 110	
205	Tl	165	50.73 ppb	0.87	50	101.5	90 - 110	
208	Pb	165	50.07 ppb	0.59	50	100.1	90 - 110	
232	Th	165	53.14 ppb	1.37	50	106.3	90 - 110	
238	U	165	52.20 ppb	0.72	50	104.4	90 - 110	

Fail *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	93.9	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#

1 :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\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
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	

Fail *NR*

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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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: ~~LG115B~~ **LG115C** *WJ*
 Misc Info: **LCS** ~~BLANK~~ 9205162 6020 *8/3/09*
 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 :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\AG073109B.B\173_LCS.D\173_LCS.D#
 Date Acquired: Aug 1 2009 01:59 am
 Acq. Method: 6020isis.M
 Operator: TEL
 Sample Name: ~~LCS~~ **LG1LSB RT 8/3/09**
 Misc Info: ~~yes~~ **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

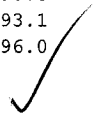
Analyte Elements

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 :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\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\
 Tune File# 3 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\AG073109B.B\150CALB.D\150CALB.D#

1 :Element Failures 0 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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

Channel 272

File: AG073109B # 175

Method 6020_

Acquired: 08/01/2009 02:05:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/01/2009 00:51:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	227	2.7105	11.510	76.5	0.70	NC	<input checked="" type="checkbox"/>
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: 

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

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	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

Channel 272

File: AG073109B # 176

Method 6020_

Acquired: 08/01/2009 02:08:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/01/2009 00:51:00

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		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	873919	204.20	6.2060	99.0	200		<input type="checkbox"/>
7440-47-3	Chromium	52	972519	230.60	34.100	98.2	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	1115180	239.80	42.800	98.5	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	1030950	194.80	0.96620	96.9	200		<input type="checkbox"/>
7440-02-0	Nickel	60	228730	191.70	3.1000	94.3	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	536979	187.20	0.18758	93.5	200		<input type="checkbox"/>
7440-66-6	Zinc	66	125500	184.40	0.22920	92.1	200		<input type="checkbox"/>
7440-38-2	Arsenic	75	124965	209.30	10.964	99.2	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	22289	205.10	2.3020	101	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	325487	199.40	0.28940	99.6	200		<input type="checkbox"/>
7440-22-4	Silver	107	204475	45.180	0.00701	90.3	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	183745	193.70	0.00425	96.8	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	481399	180.50	0.66640	89.9	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	650135	198.40	0.00965	99.2	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	284659	205.30	7.3960	99.0	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	2234650	186.00	0.02726	93.0	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	3012670	183.20	-0.94740	91.6	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	4069400	211.50	26.020	92.7	200		<input type="checkbox"/>
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: 

Date: 8/31/09

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

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	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
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

Fail *MR*

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\
 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

Semivolatile GC

Supporting Documentation

Sample Sequence, Chromatograms

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D96230301

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: *J. Sumner* 8/10/09

**GC SEMIVOLATILE
ORGANIC EXTRACTION
LOG SHEETS**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

R0C058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 7/29/09
Time: 17:20:24

LEV 1	LEV 2	LEV 1	LEV 2	Blank Check MS/MSD	Weights/Volumes	Expanded Deliverable
Y	Y	Y	Y	Y	Spike & Surrogate Worksheet	COC Completed
Y	Y	Y	Y	Y	Vial contains correct volume	Bench Sheet Copied
Y	Y	Y	Y	Y	Labels, greenbars, worksheets	Package Submitted to AnalyticalGr
Y	Y	Y	Y	Y	Computer batch: correct & all match	Bench Sheet Copied per COC
Y	Y	Y	Y	Y	Anomalies to Extraction Method	

Extractionist: 008726 Dane O. Oberhill
 009580 David Bourgerly
 Concentrationist: 006563 Lisa Hubbs

 * QC BATCH: 9205274 *
 * PREP DATE: 7/24/09 12:00
 * COMP DATE: 7/29/09 14:30

Reviewer/Date: HUBBSL / 7/29/09
 Compounds, Organophosphorus (8141A)
 LiQ/LiQ, SEP FUNNEL (PAH,P/P,TPH,Dioxin) - Nominal

EXTR EXPR	ANL DUE	LOT#, WORK ORDER	MSRUN#/ TEST FLGS	EXT MTH	MATRIX	INIT/ FIN WT/ VOL	INIT ADJT	PH"S ADJT	ADJ2	EXTRACTION VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
7/28/09	8/04/09	D9G230301-001	IG074-1-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	IG08H-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	IG08K-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	IG08L-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	IG08M-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	IG08V-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	IG085-1-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#, MSRNUM / WORK ORDER	TEST FIGS	EXT MTH	MATRIX	INIT/FIN WT/VOL	PH+S ADJ1	ADJ2	EXTRACTION VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD / SURROGATE ID
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7/28/09	8/04/09	D9G230310-001 IG09C-1-AA	DR	09	P2	WATER	1051mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675	6-4-09
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7/28/09	0/00/00	D9G240000-274 IG1WF-1-AAB		09	P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0675	6-4-09
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7/28/09	0/00/00	D9G240000-274 IG1WF-1-ACC		09	P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0844	7-22-09
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7/28/09	0/00/00	D9G240000-274 IG1WF-1-ADL		09	P2	WATER	1000mL 2.00mL	7.0	NA	NA	MECL2	180.0	HEXANE	50.0	1ML GSV0844	7-22-09
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COMMENTS: DV-OP-0006/7 BAL:M27995 NA2S04: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:H1E04 PIP:CON-6

R = RUSH C = CLP NUMBER OF WORK ORDERS IN BATCH: 11
E = EPA 600 D = EXP.DEL
M = CLIENT REQ MS/MSD

**GC SEMIVOLATILE
INSTRUMENT
LOG SHEETS**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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 GSV082761				
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

9209404

9209010

9202116

OPP 8/4/09

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

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
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 Pamphur	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)	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)

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	ON-COL (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 Calibration Date: 07-AUG-2009
 Lab File ID: 022F2201.D Calibration Time: 04:28
 Lab Smp Id: OPP CCV GSV0861 Client Smp ID: OPP CCV GSV0861
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	654091	327046	1308182	524243	-19.85
36 TOCP	355327	177664	710654	266956	-24.87

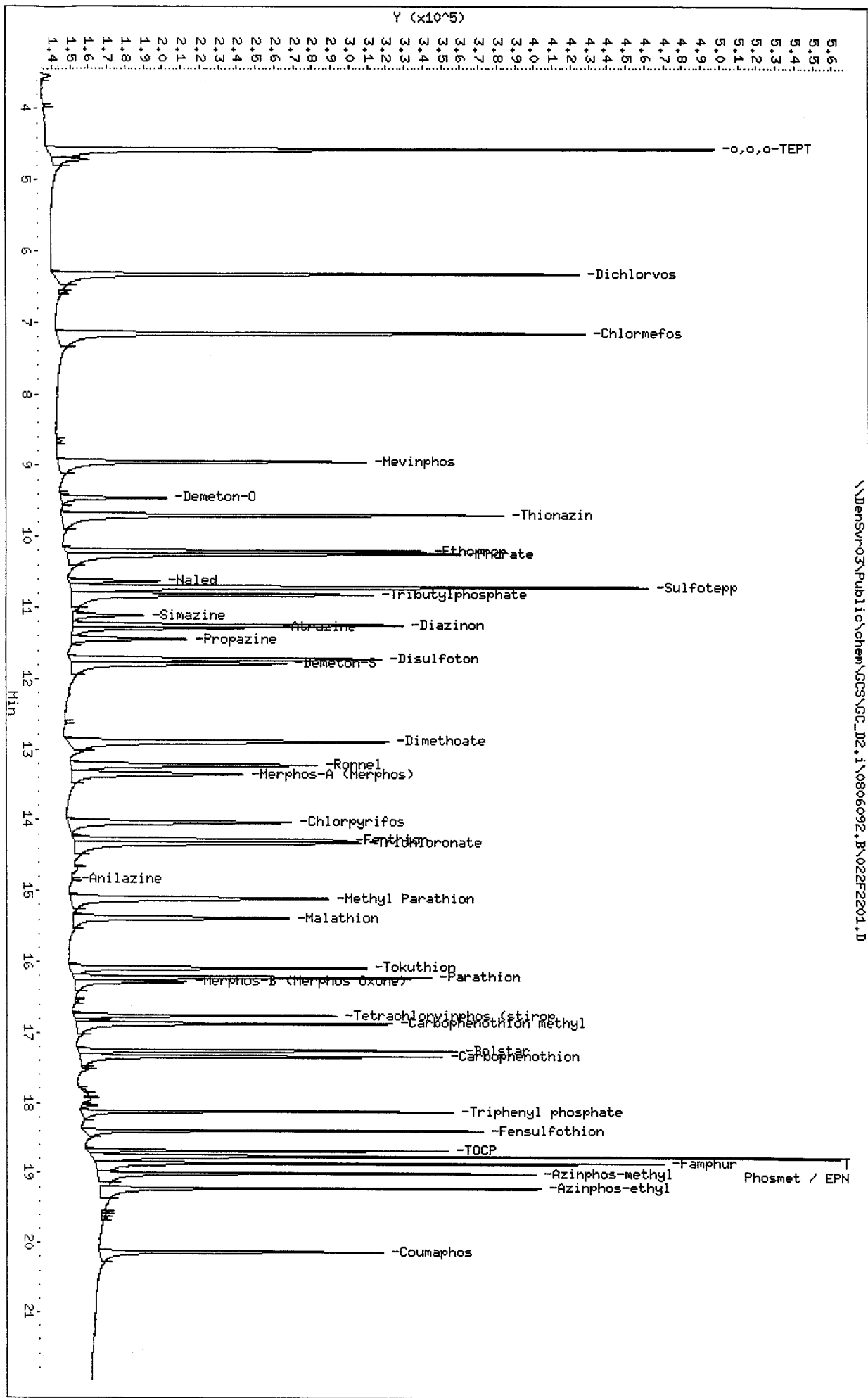
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.82	10.32	11.32	10.82	0.03
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

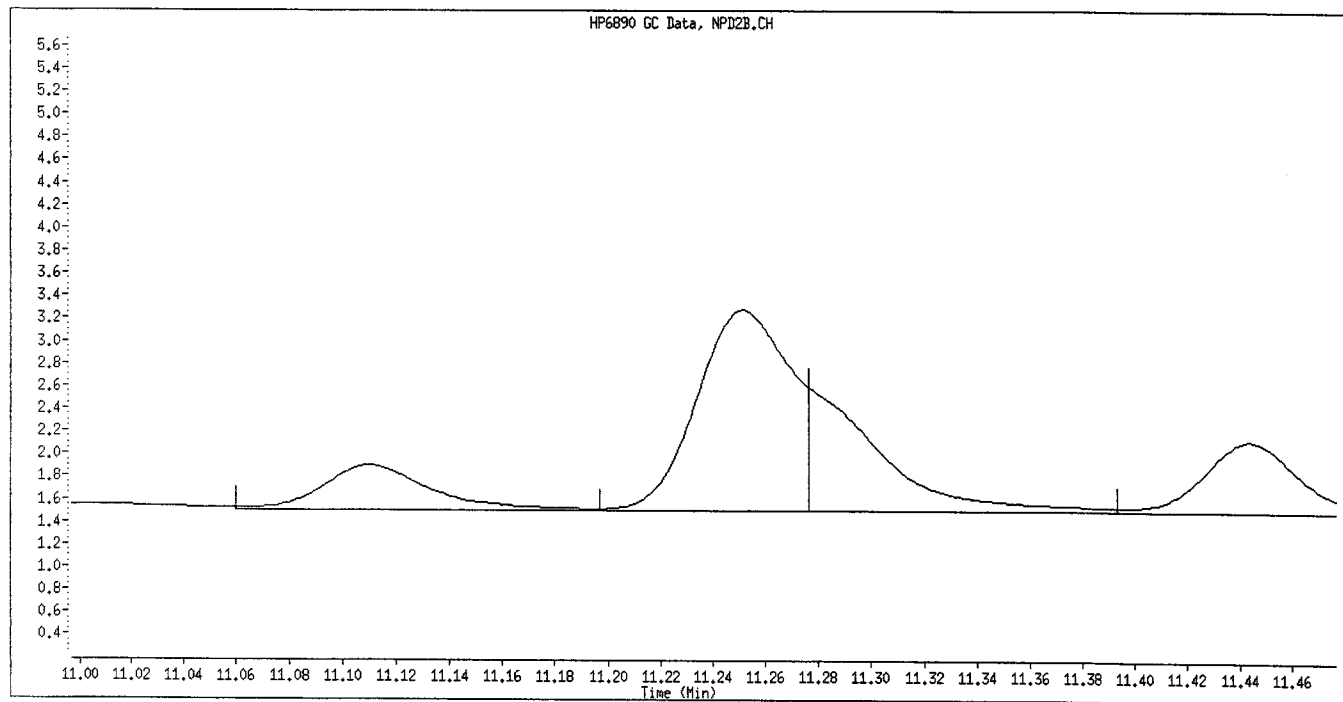
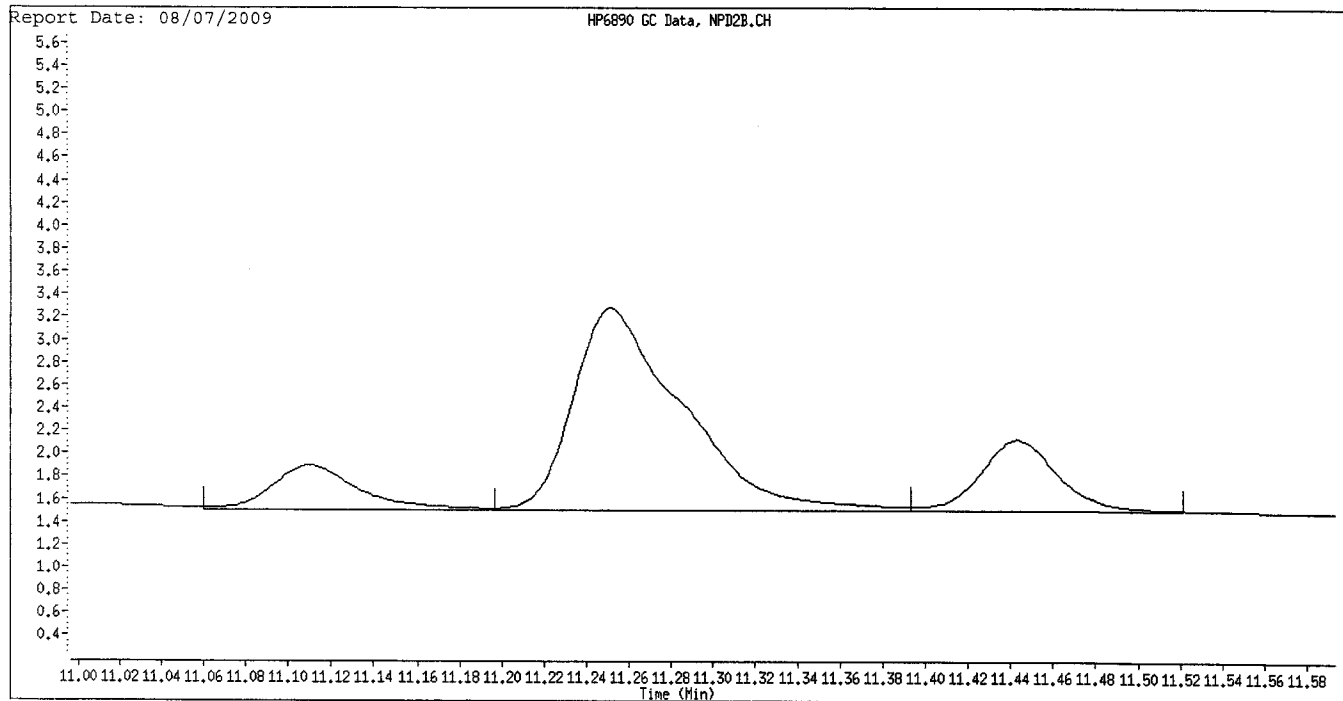
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 Date: 06-AUG-2009 21:37
 Client ID: OPP CCV GSV0861
 Sample Info: OPP CCV GSV0861
 Column phase: RTX-OPPest

Instrument: GC_D2.i
 Operator: HPK/TLM
 Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC_D2.i\0806092.B\022F2201.D



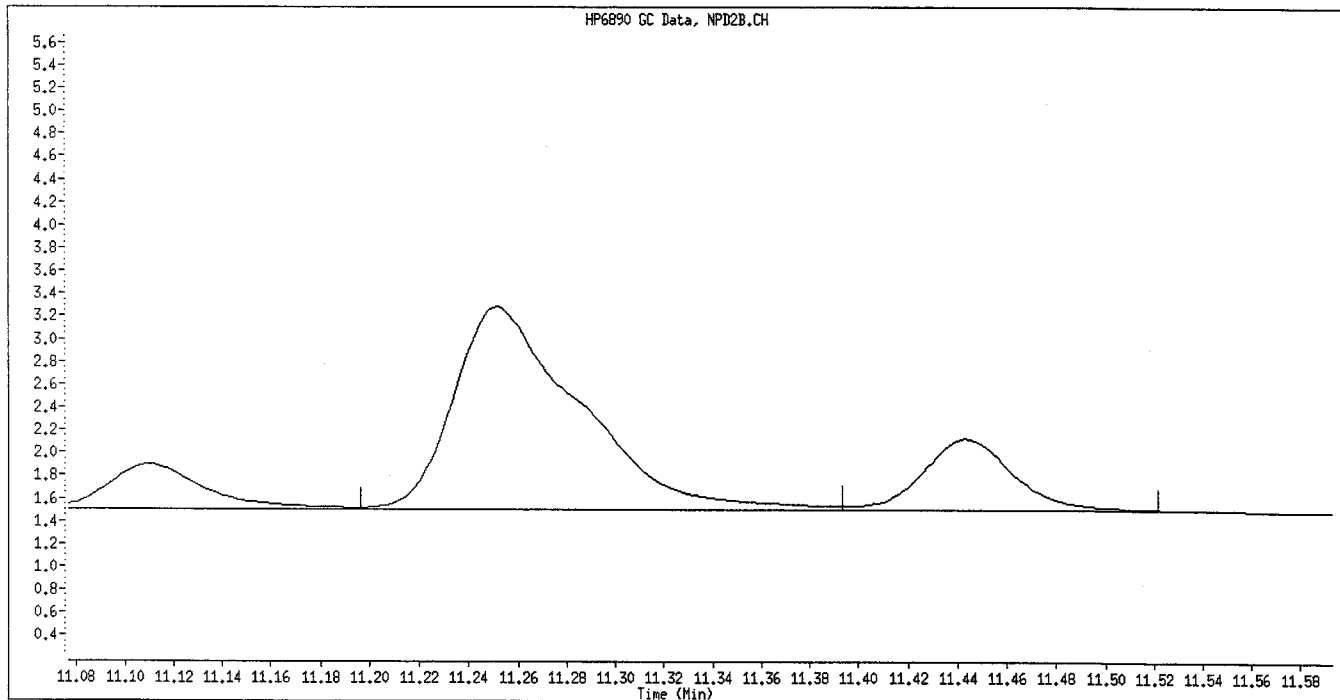
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Inj. Date and Time: 06-AUG-2009 21:37
Instrument ID: GC_D2.i
Client ID: OPP CCV GSV0861
Compound Name: Diazinon
CAS #:



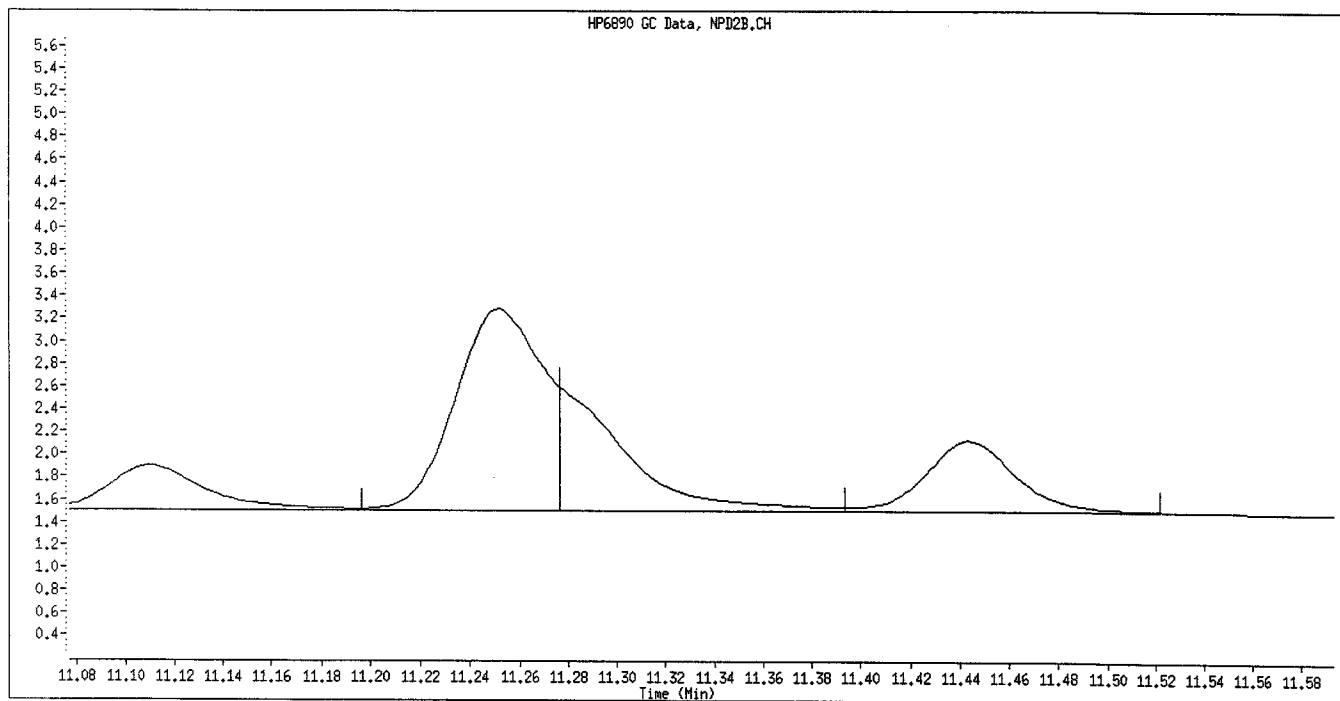
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

115076

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

williamst

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
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)	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)	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:

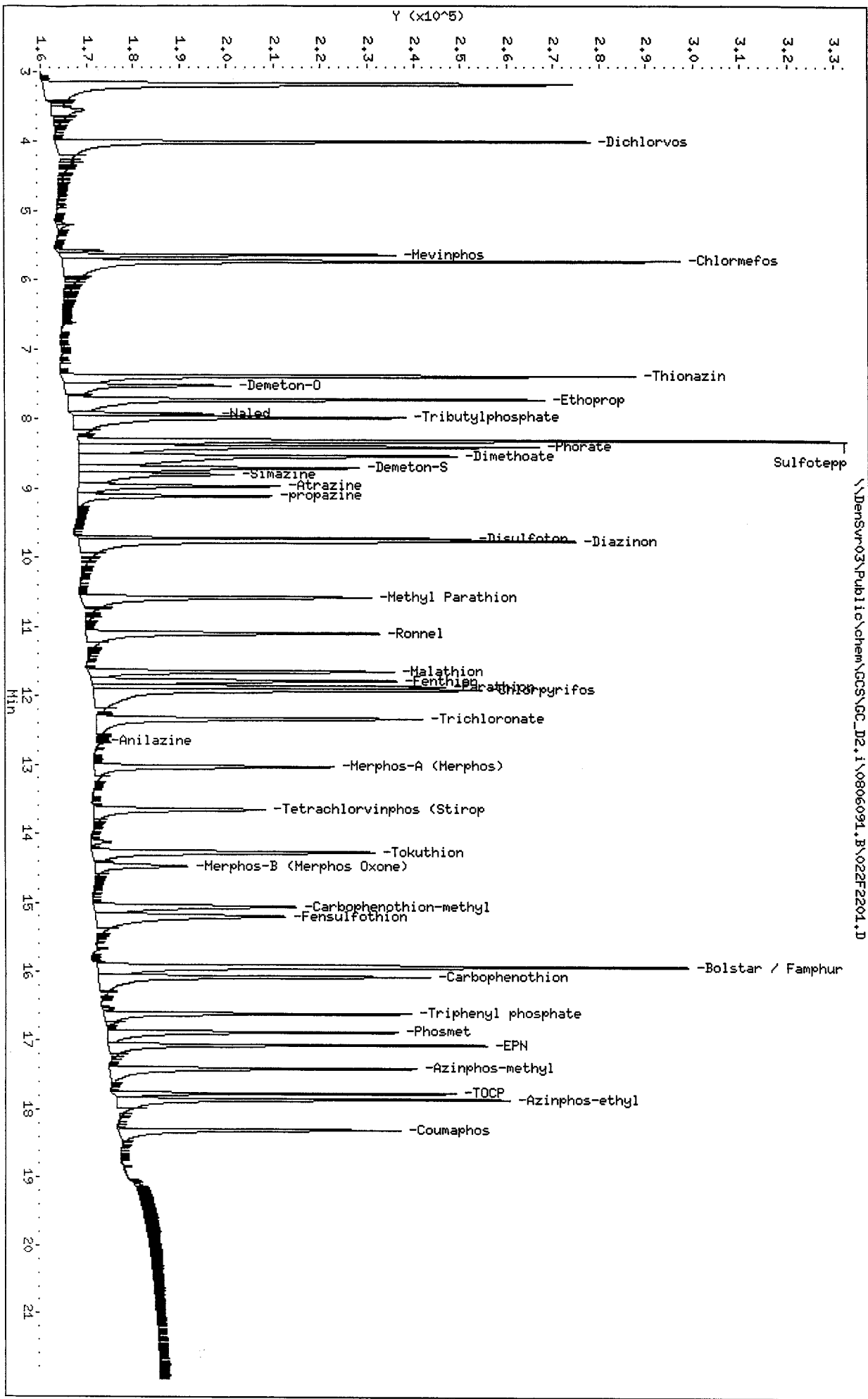
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	321331	160666	642662	249612	-22.32
39 TOCP	171665	85833	343330	125761	-26.74

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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: \\Densvyr03\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-LMS

Instrument: GC_D2.i
 Operator: MPK/TLM
 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)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 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						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled						
10 Sulfotepp						
* 11 Tributylphosphate	10.824	10.827	(1.000)	469288	2.00000	
12 Simazine						
13 Diazinon						
14 Atrazine						
15 Propazine						
16 Disulfoton						
17 Demeton-S						
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)						
21 Chlorpyrifos						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	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		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	469288	7.84
36 TOCP	224627	112314	449254	310084	38.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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: \\Densv03\Public\chem\GCS\GC_D2.i\0806092.B\011F1101.D

Date: 06-AUG-2009 16:37

Client ID: BLANK

Sample Info: LG1MF1A9.MB

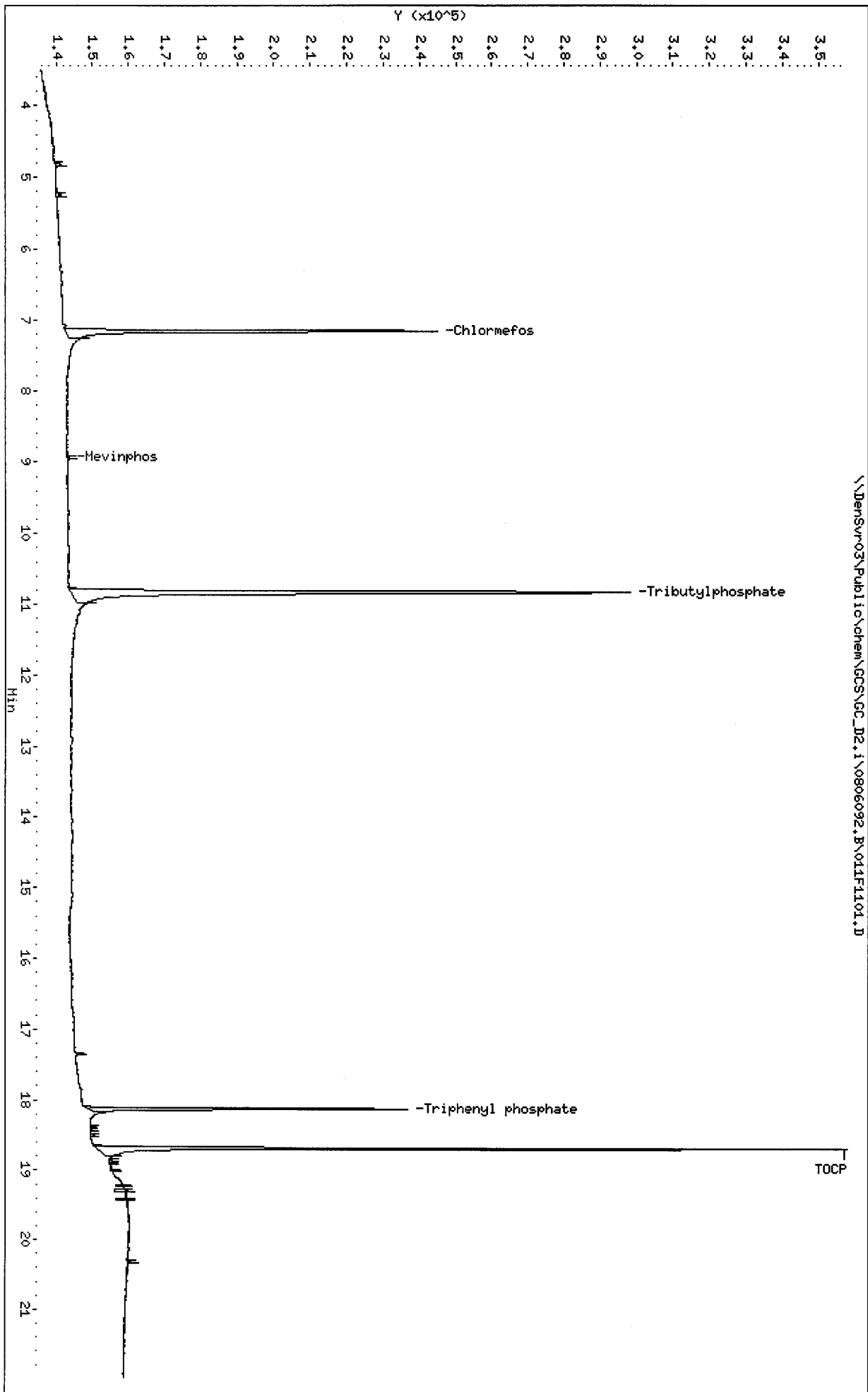
Column phase: RTX-0Pest

Instrument: GC_D2.i

Operator: HPK/TLM

Column diameter: 0.32

\\Densv03\Public\chem\GCS\GC_D2.i\0806092.B\011F1101.D



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)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 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						
7 Ethoprop						
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						
11 Phorate						
12 Dimethoate	8.533	8.536 (0.480)		353	0.09300	0.1860
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton	9.723	9.734 (0.547)		107	0.04056	0.08113
18 Diazinon						
19 Methyl Parathion						
20 Ronnel	11.124	11.102 (0.626)		70	0.03069	0.06137
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
23 Parathion						
24 Chlorpyrifos						
25 Trichloronate						
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						
30 Merphos-B (Merphos Oxone)						
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 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						
38 Azinphos-methyl						
* 39 TOCP	17.768	17.771	(1.000)	157711	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				144	0.00202	0.004044
M 43 Total Demeton						

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\0806091.B\8141A-1.m
 Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
 Calibration Time: 16:09
 Client Smp ID: BLANK
 Level: LOW
 Sample Type: WATER

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	219264	15.12
39 TOCP	106323	53162	212646	157711	48.33

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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

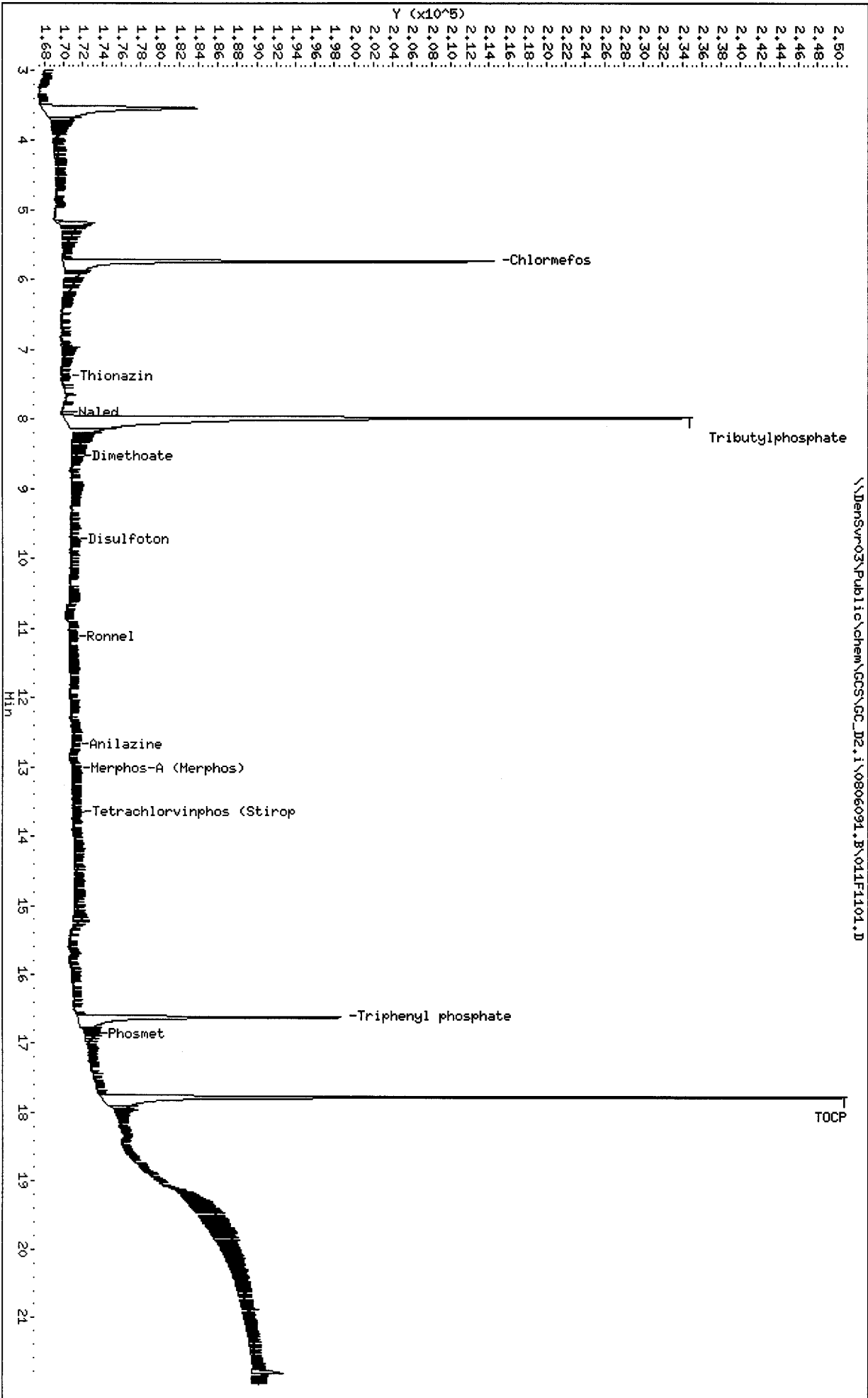
Data File: \\Densv03\Public\chem\GCS\GC_D2.i\0806091.B\011F1101.D
Date : 06-AUG-2009 16:37

Client ID: BLANK
Sample Info: LG1MF1A9.MB

Column phase: RTX-1MS

Instrument: GC_D2.i

Operator: MPK/TLM
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)	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)	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		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	524243	262122	1048486	456634	-12.90
36 TOCP	266956	133478	533912	242163	-9.29

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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:

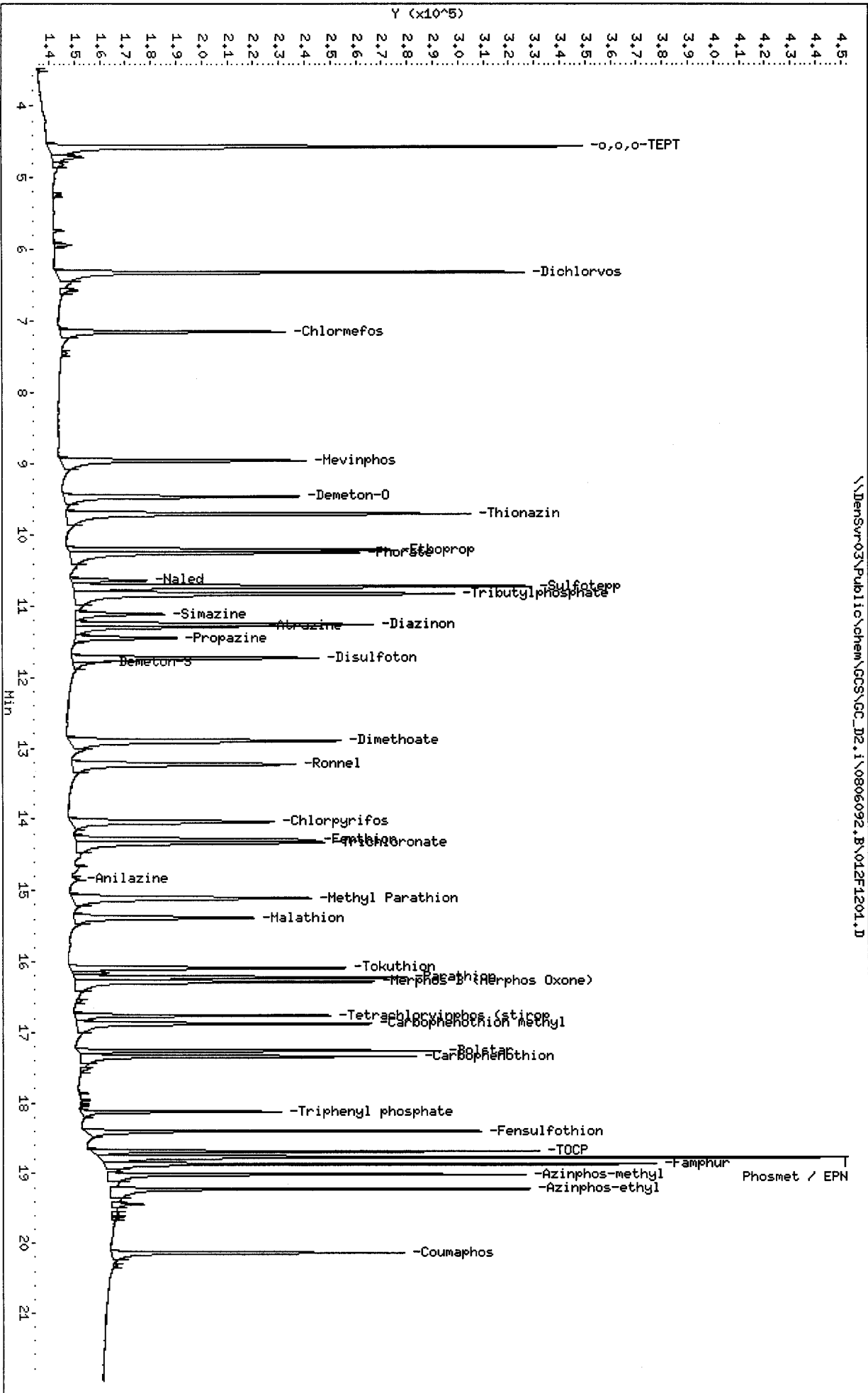
SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
1 o,o,o-TEPT	4.000	2.759	68.97	36-119
2 Dichlorvos	4.000	3.425	85.63	50-120
\$ 3 Chlormefos	2.000	1.509	75.43	58-114
4 Mevinphos	4.000	3.163	79.07	35-108
5 Demeton-O	2.800	2.836	101.27	36-119
6 Thionazin	4.000	3.506	87.64	65-116
7 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

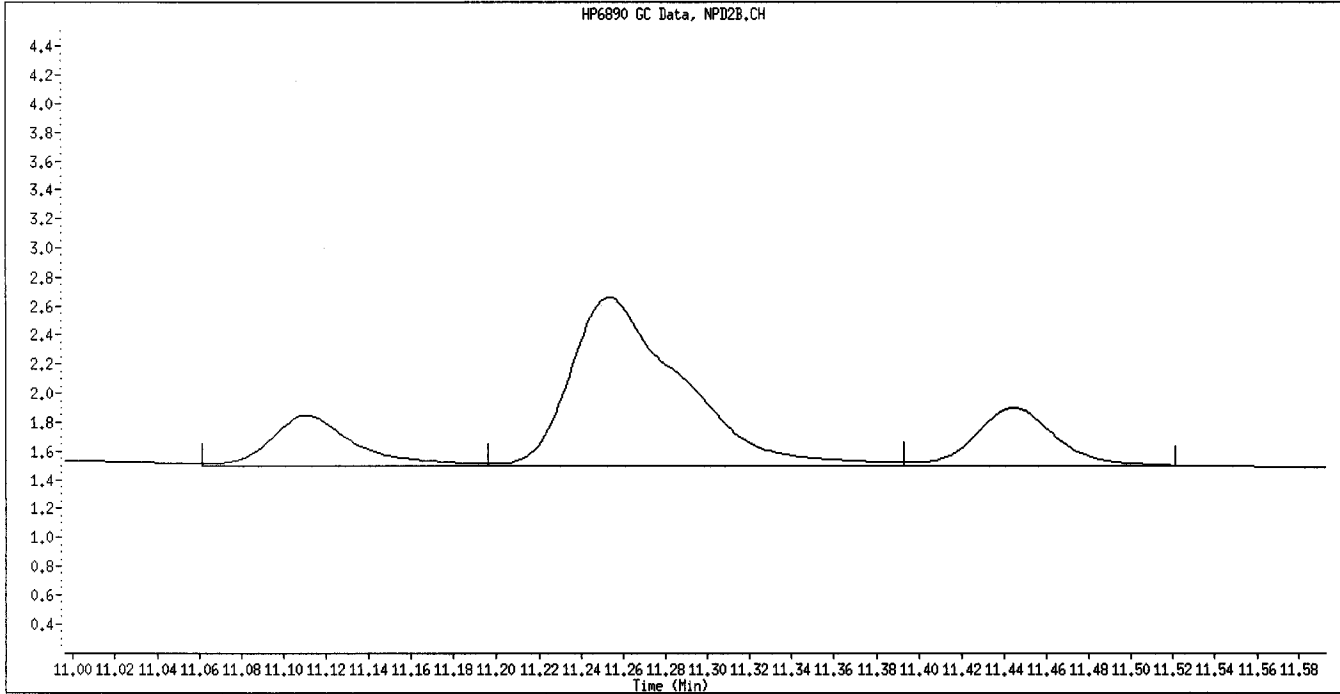
RECOVERY REPORT

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:

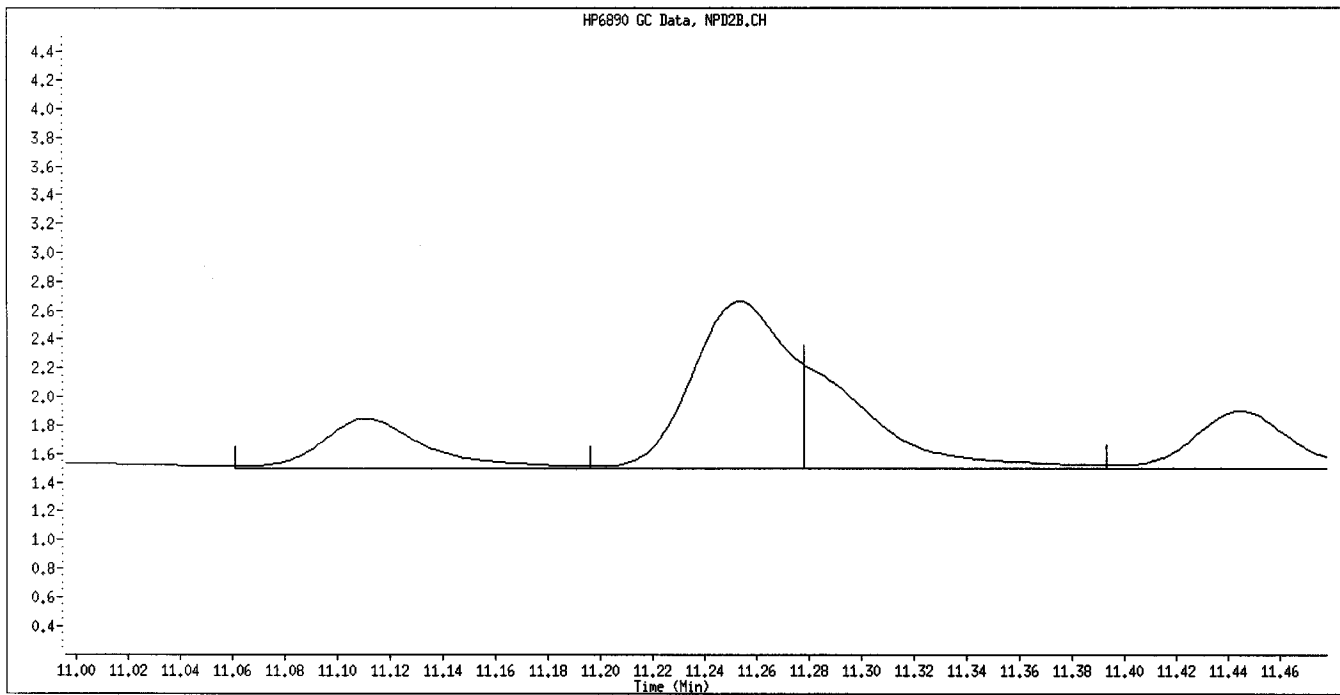
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 3 Chlormefos	2.000	1.509	75.43	48-114
\$ 34 Triphenyl phosphat	2.000	2.058	102.88	50-150



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



Original Integration

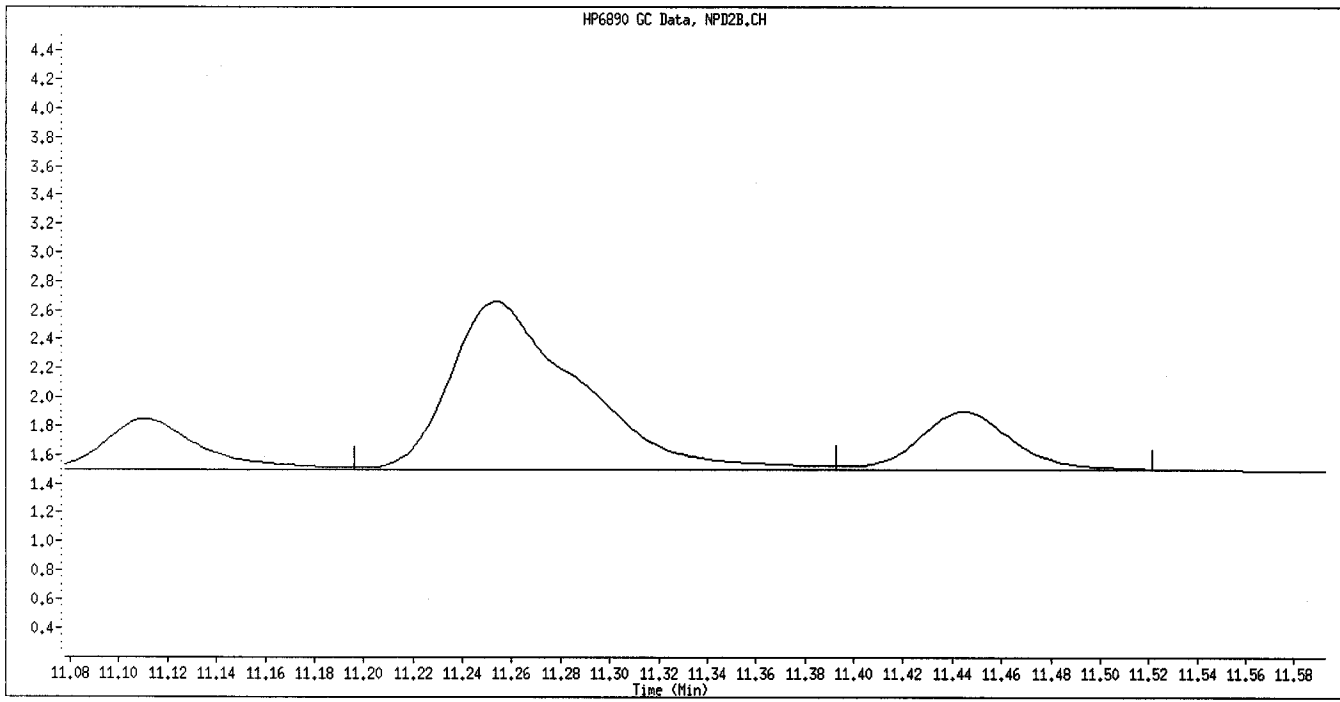


Manual Integration

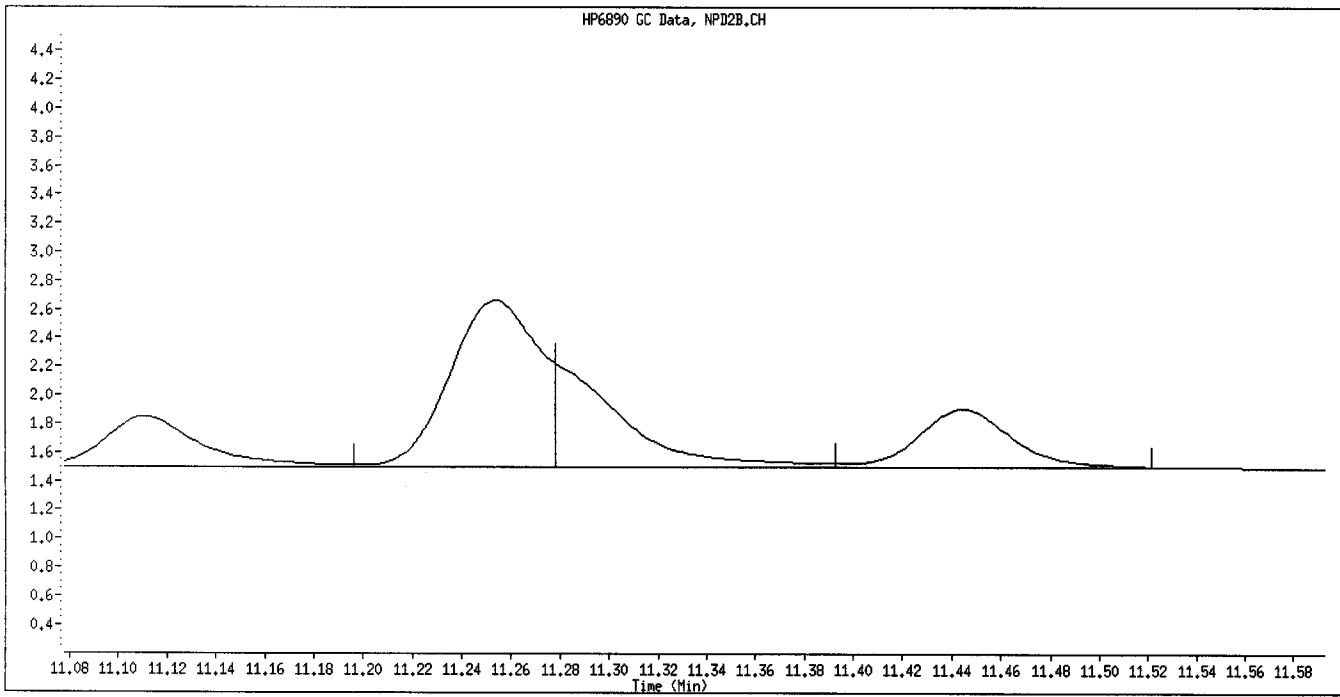
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

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11.28
0.710-

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



Original Integration

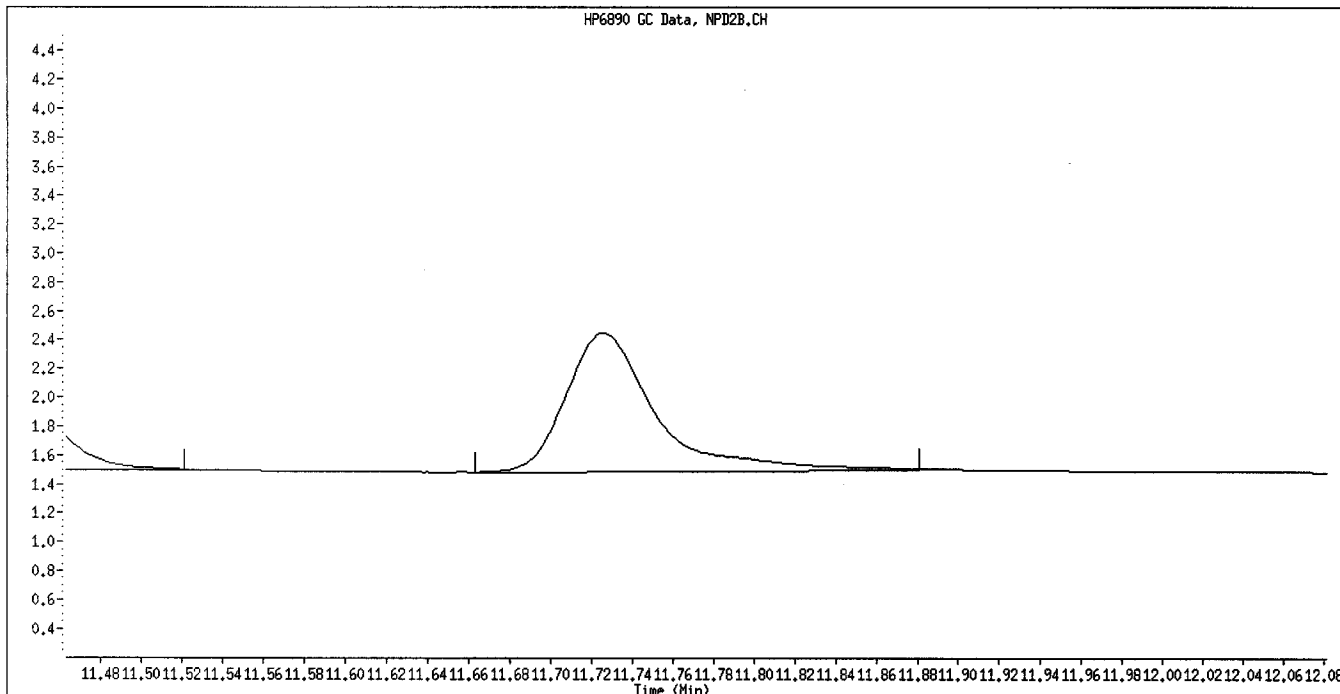


Manual Integration

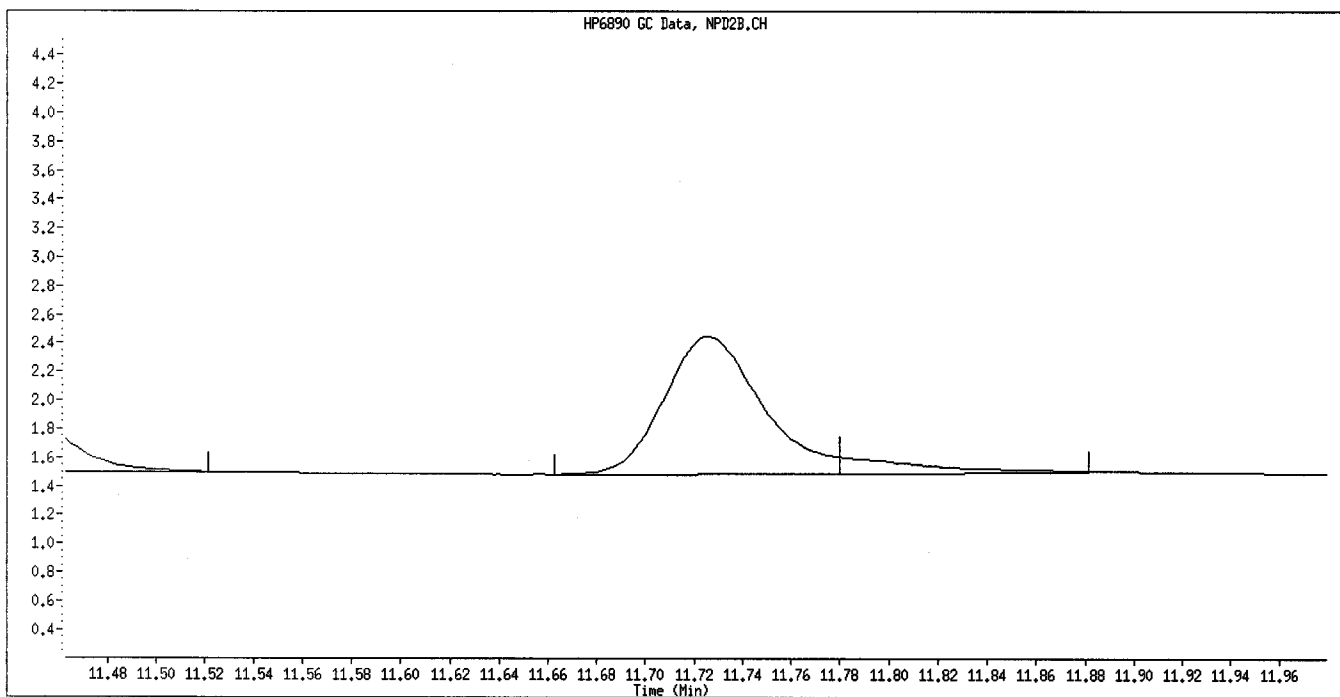
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Handwritten signature or initials

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



Original Integration

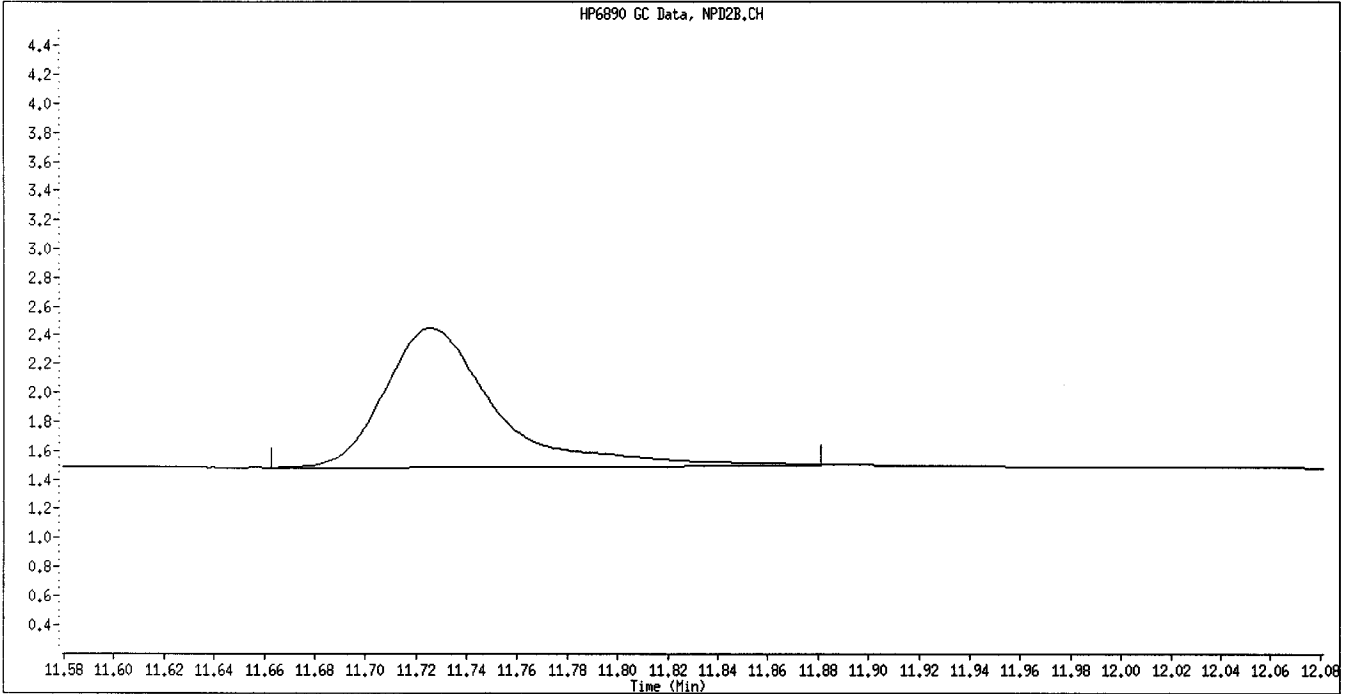


Manual Integration

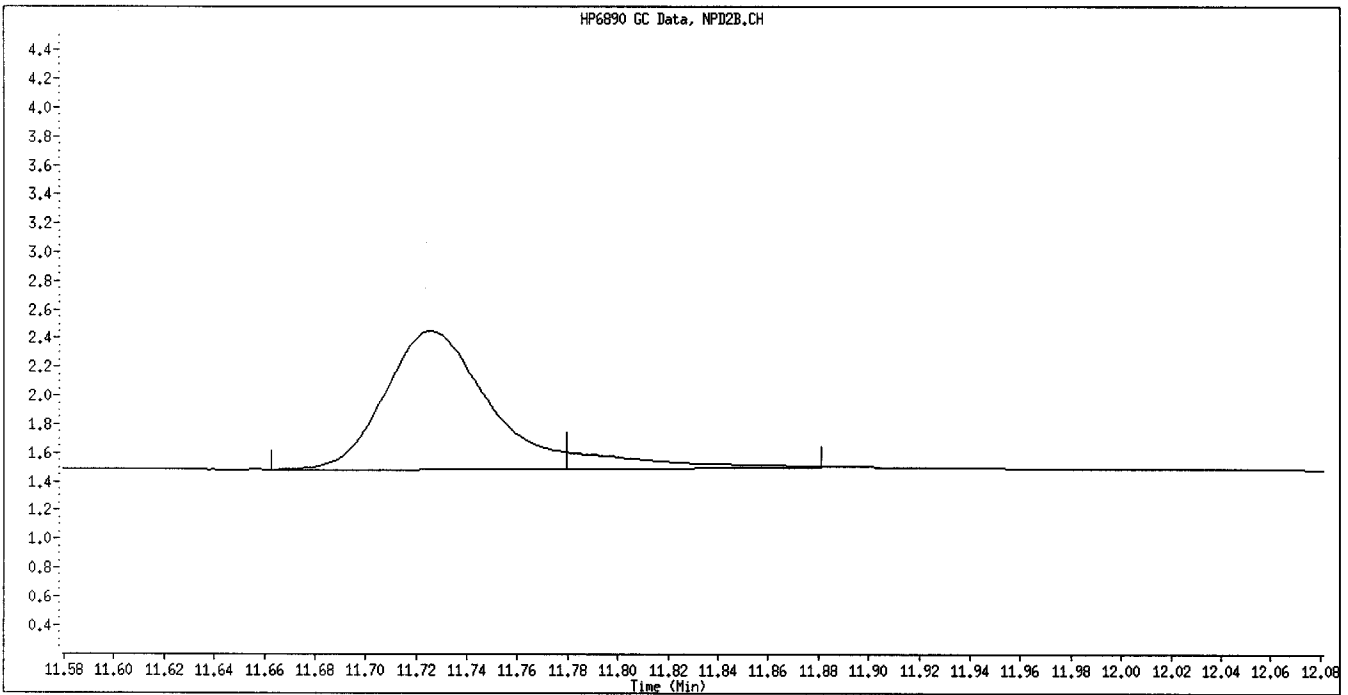
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

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W
8/7/09

Data File Name: 012F1201.D
Inj. Date and Time: 06-AUG-2009 17:04
Instrument ID: GC_D2.i
Client ID: LCS
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

williamst

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)	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)	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

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	214506	12.62
39 TOCP	106323	53162	212646	117249	10.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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

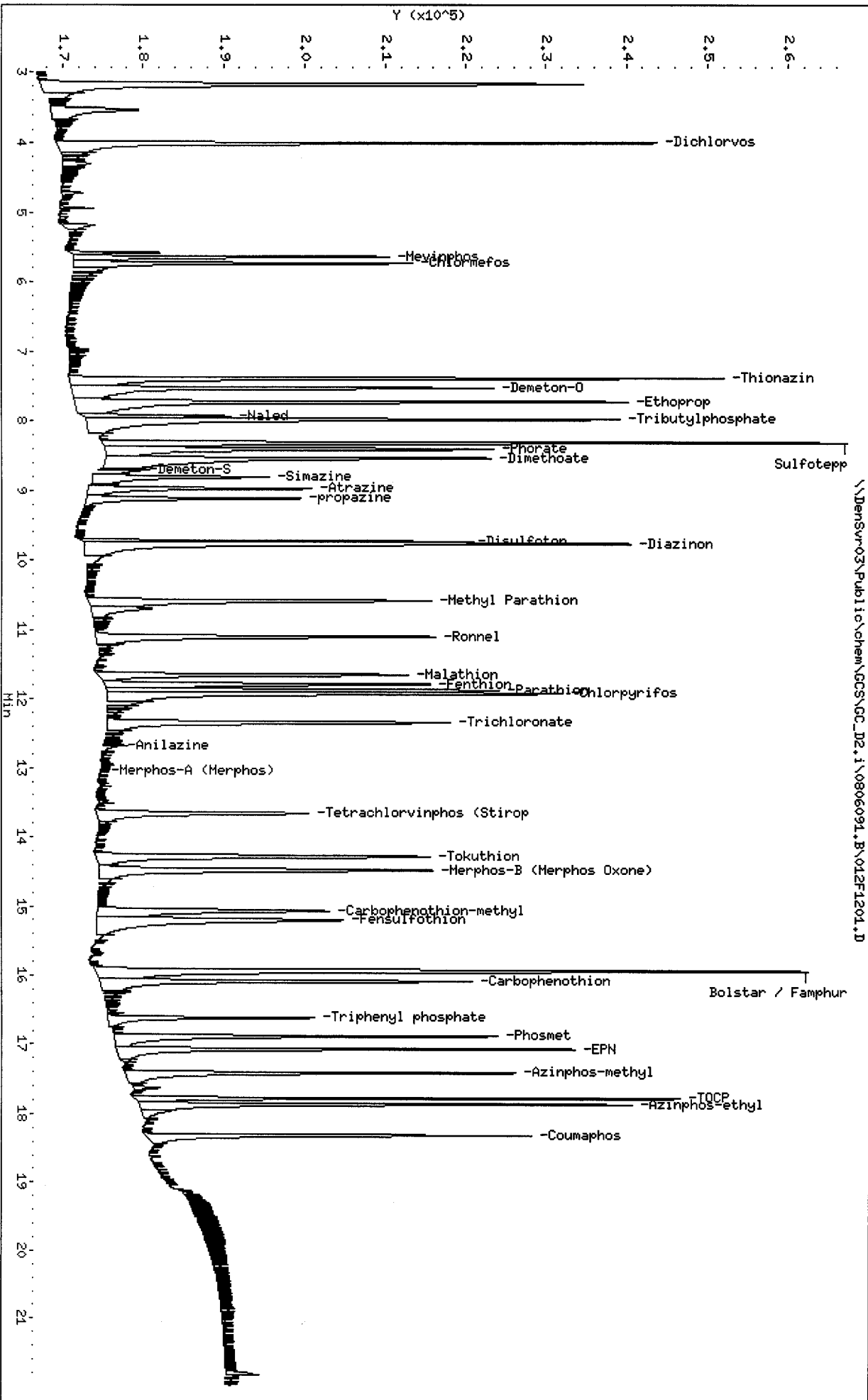
Client Name: Client SDG: D9G240000
 Sample Matrix: LIQUID Fraction: SV
 Lab Smp Id: LG1WF1AC Client Smp ID: LCS
 Level: LOW Operator: MPK/TLW
 Data Type: GC DATA SampleType: LCS
 SpikeList File: fullDFCwater.spk Quant Type: ISTD
 Sublist File: 8141A.sub
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 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

Column phase: RTX-1MS

Instrument: GC_D2.1
 Operator: MPK/TLW
 Column diameter: 0.32

\\Densvrv03\Public\chem\GCS\GC_D2.1\0806091.B\012F1201.D



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 - EPT 2"
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)	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

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	524243	262122	1048486	424461	-19.03
36 TOCP	266956	133478	533912	234298	-12.23

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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

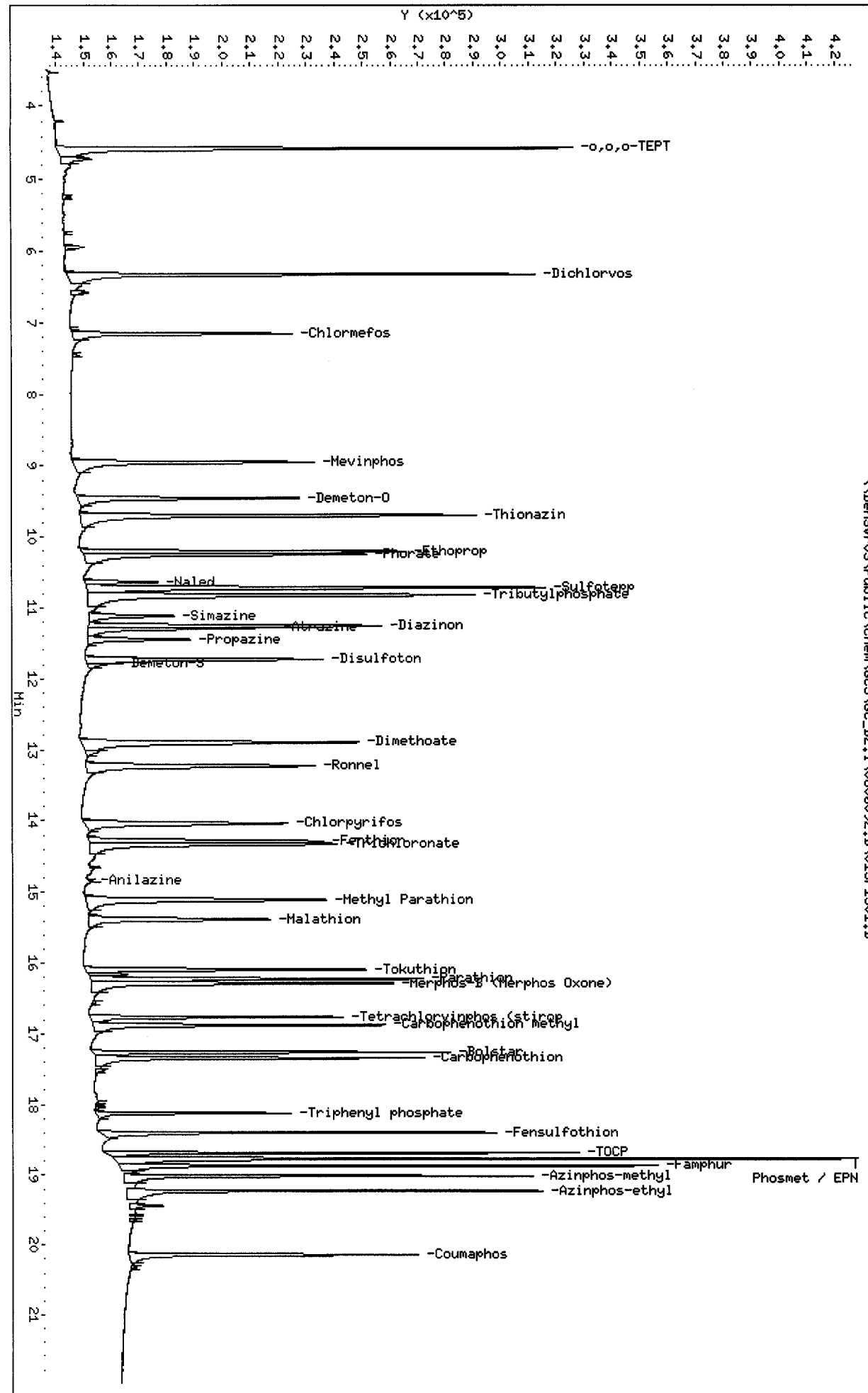
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RECOVERY REPORT

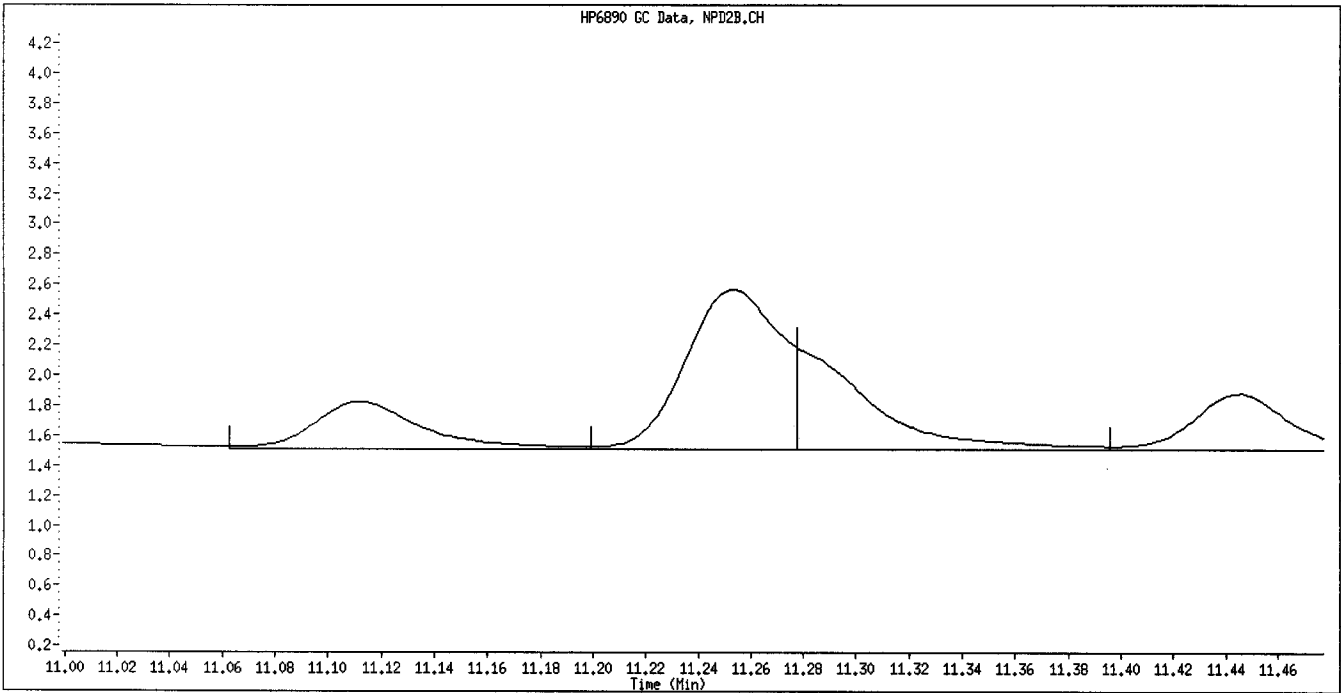
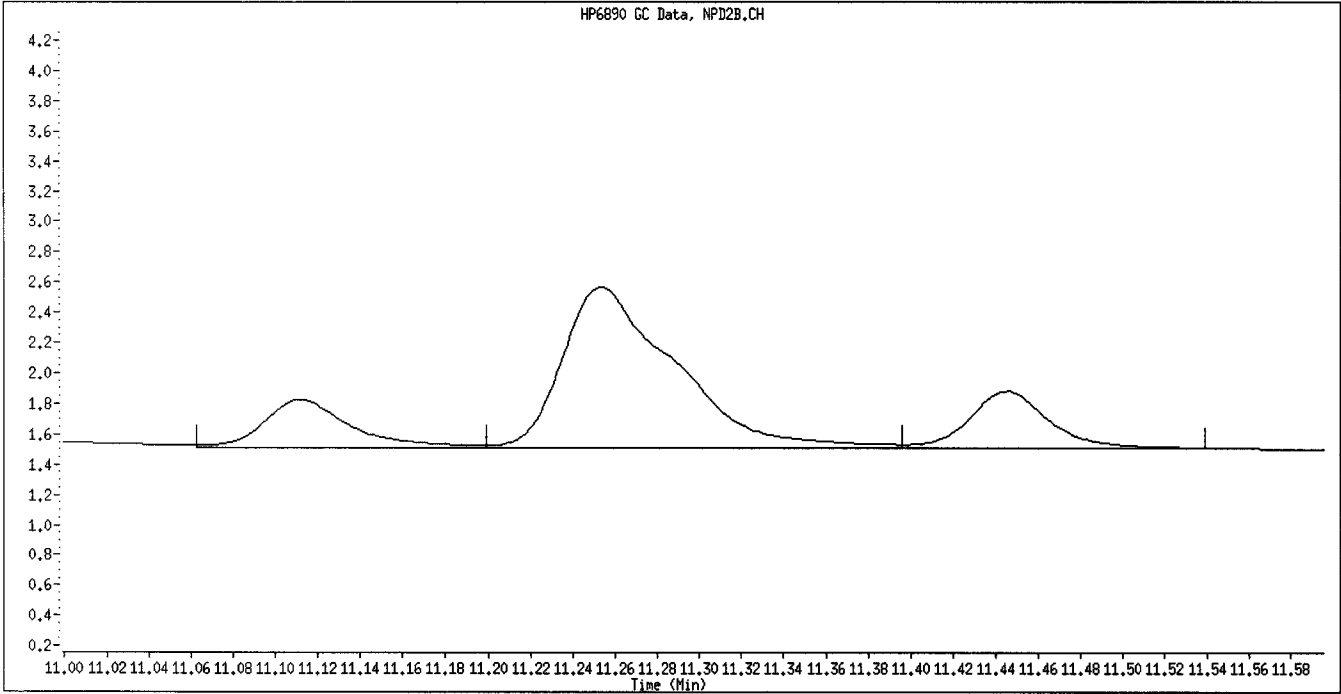
Client Name: Client SDG: D9G240000
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: LG1WF1AD Client Smp ID: LCSD
Level: LOW Operator: MPK/TLW
Data Type: GC DATA SampleType: LCSD
SpikeList File: fullDFCwater.spk Quant Type: ISTD
Sublist File: 8141A.sub
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
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

\\DensSvr03\Public\chem\GCS\GC_D2.1\0806092.B\013F1301.D



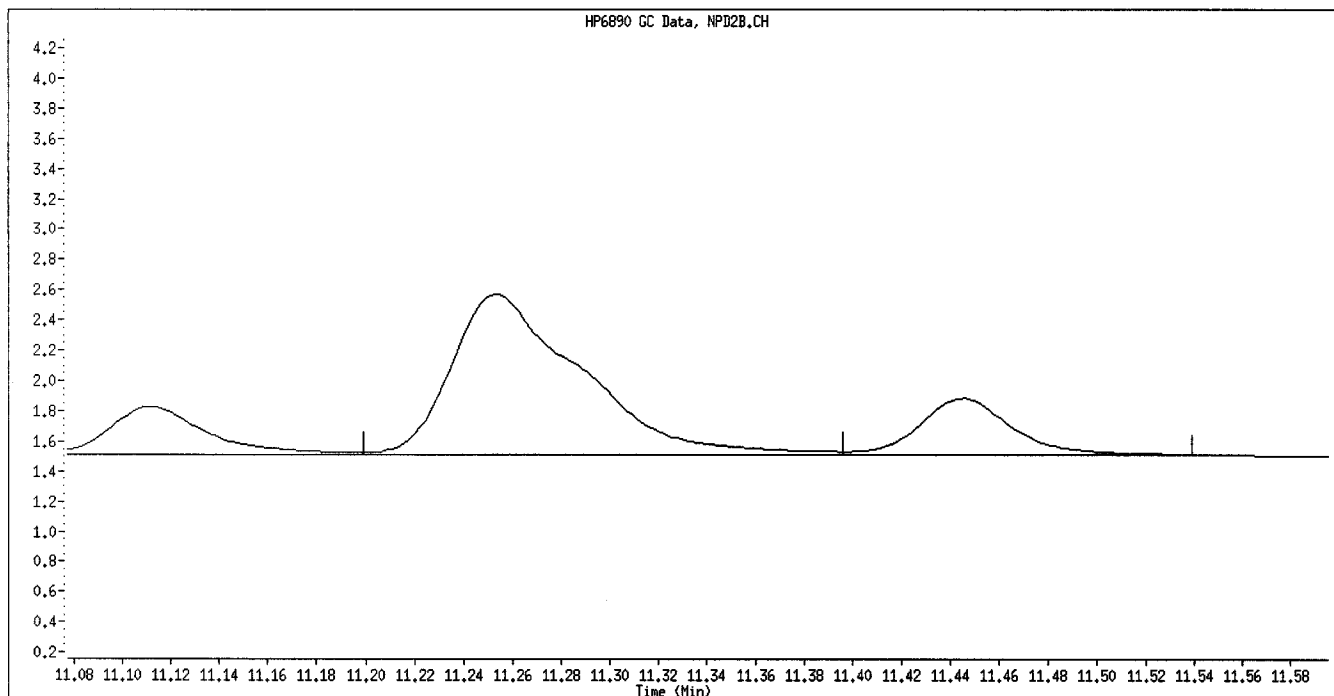
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Inj. Date and Time: 06-AUG-2009 17:31
Instrument ID: GC_D2.i
Client ID: LCSD
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



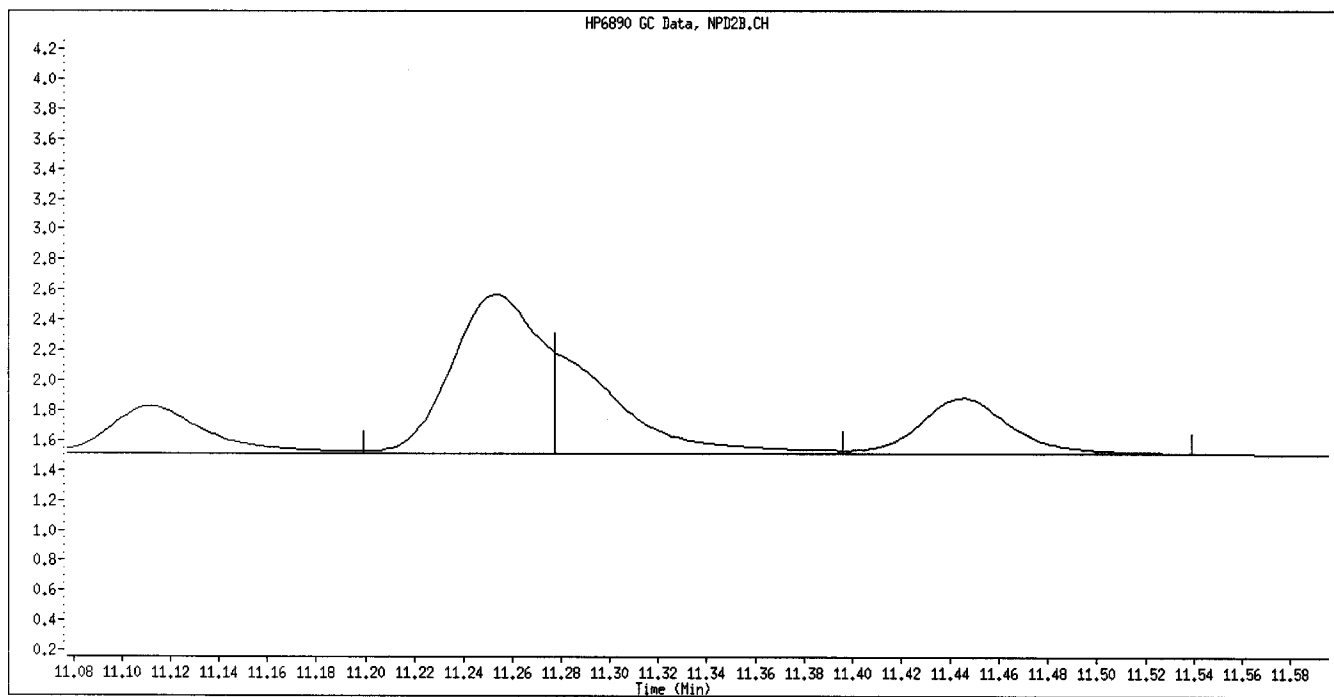
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11/07/09

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



Original Integration

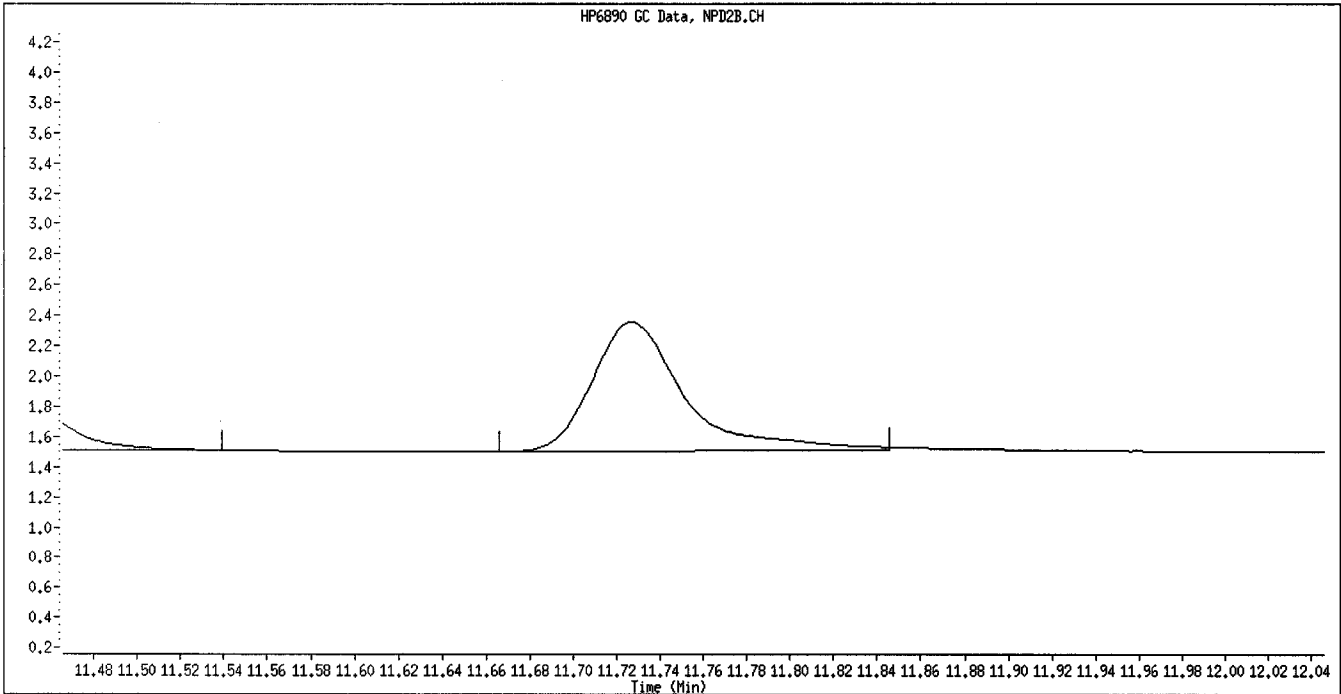


Manual Integration

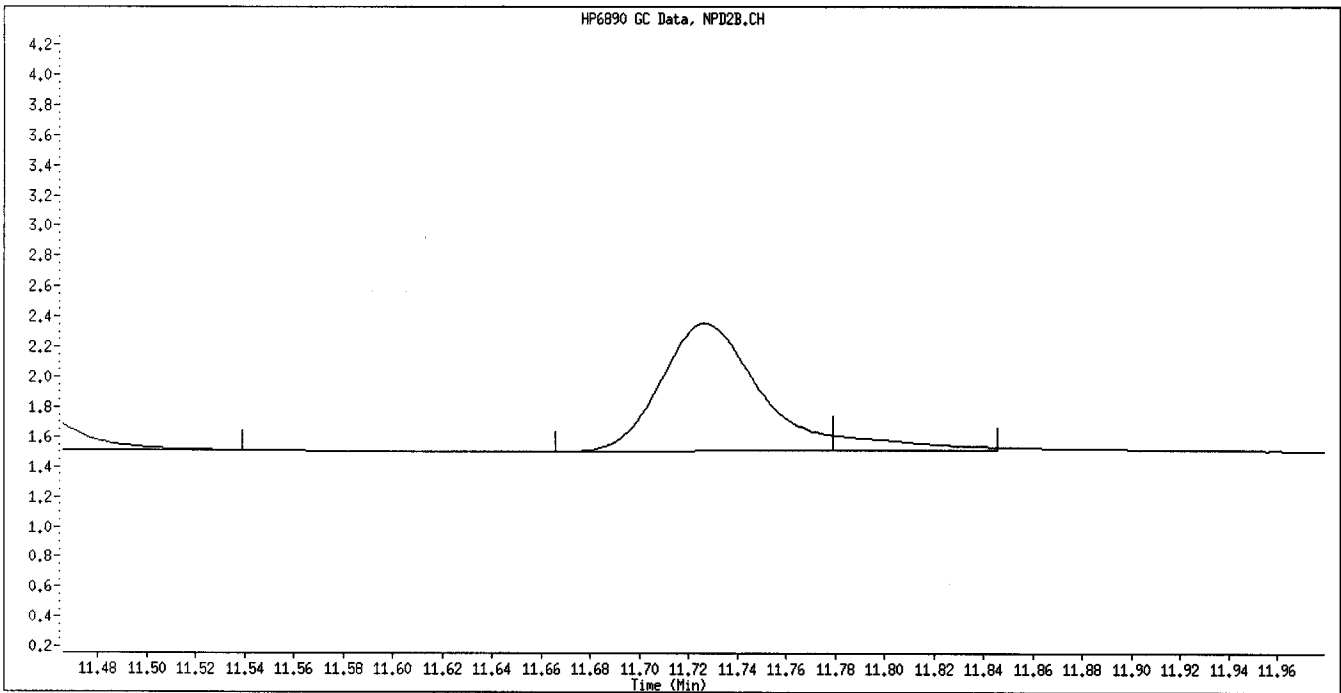
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Handwritten signature/initials

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



Original Integration

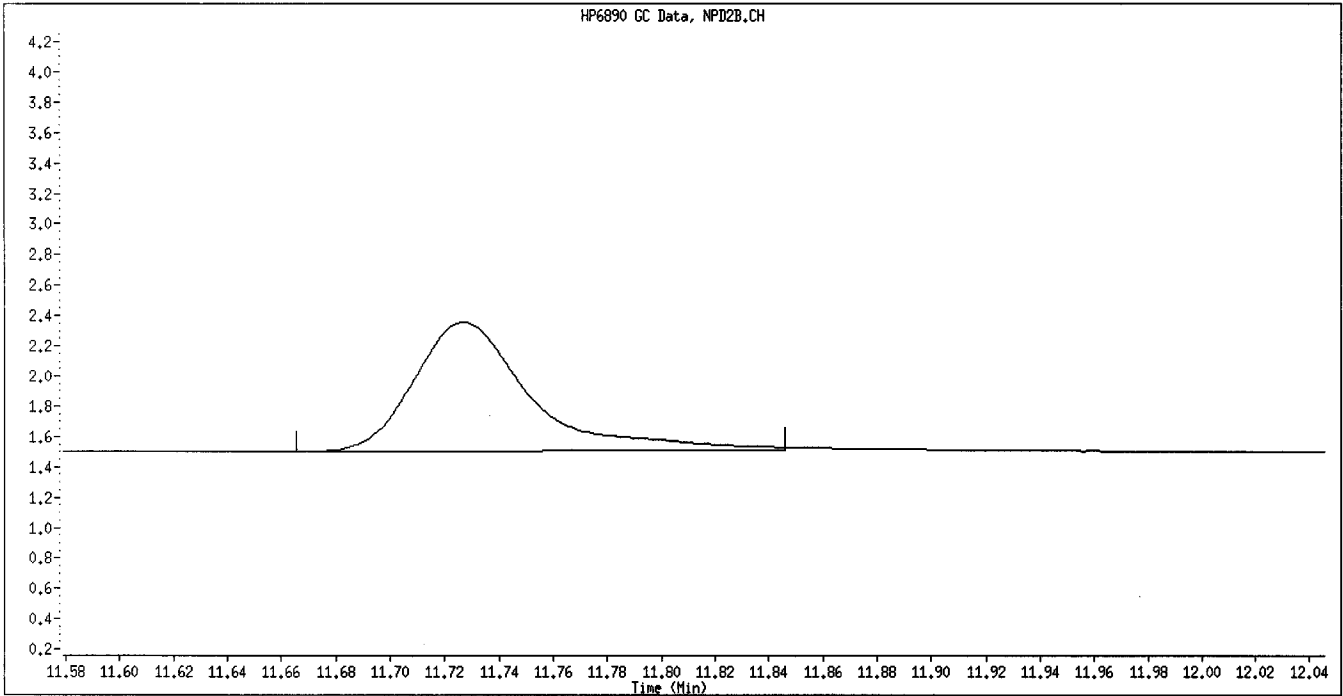


Manual Integration

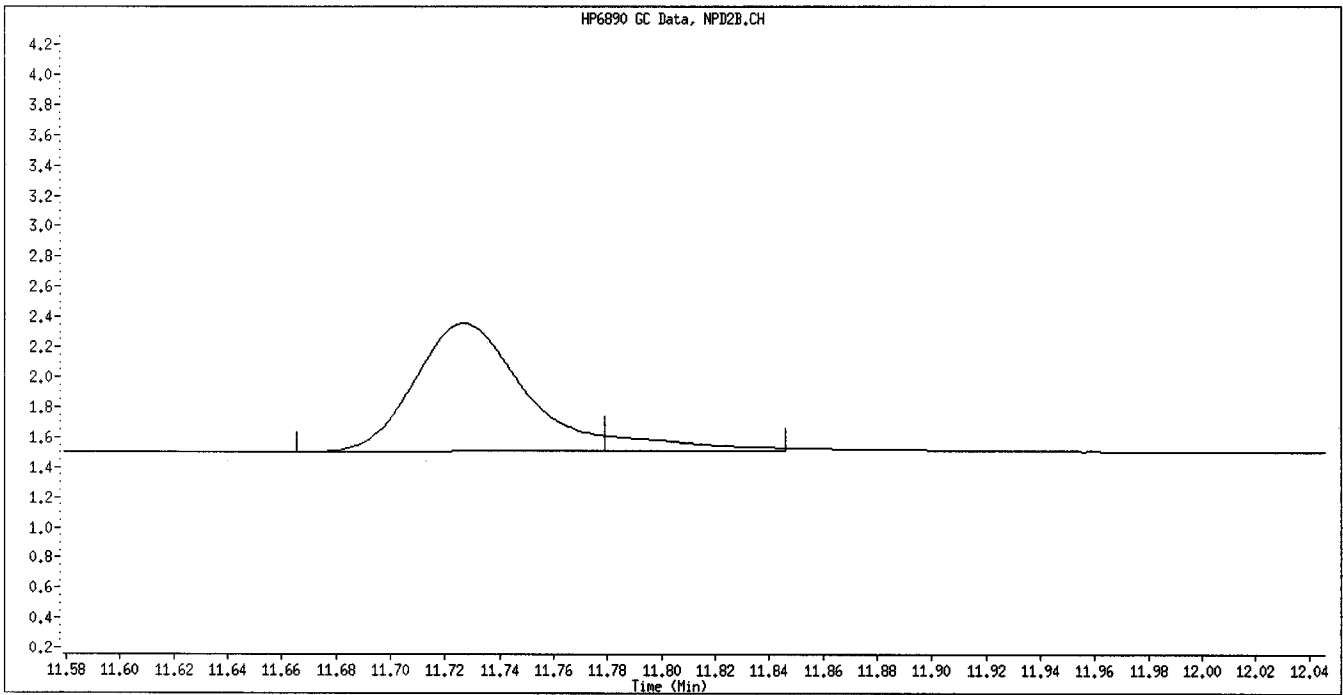
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Handwritten signature: KF 8/7/09

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

williamst

TestAmerica

Data file : \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\013F1301.D
 Lab Smp Id: LG1WF1AD Client Smp ID: LCS D
 Inj Date : 06-AUG-2009 17:31
 Operator : MPK/TLW Inst ID: GC_D2.i
 Smp Info : LG1WF1AD,LCS D
 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: LCS D
 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	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

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (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

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	217157	14.01
39 TOCP	106323	53162	212646	115255	8.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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

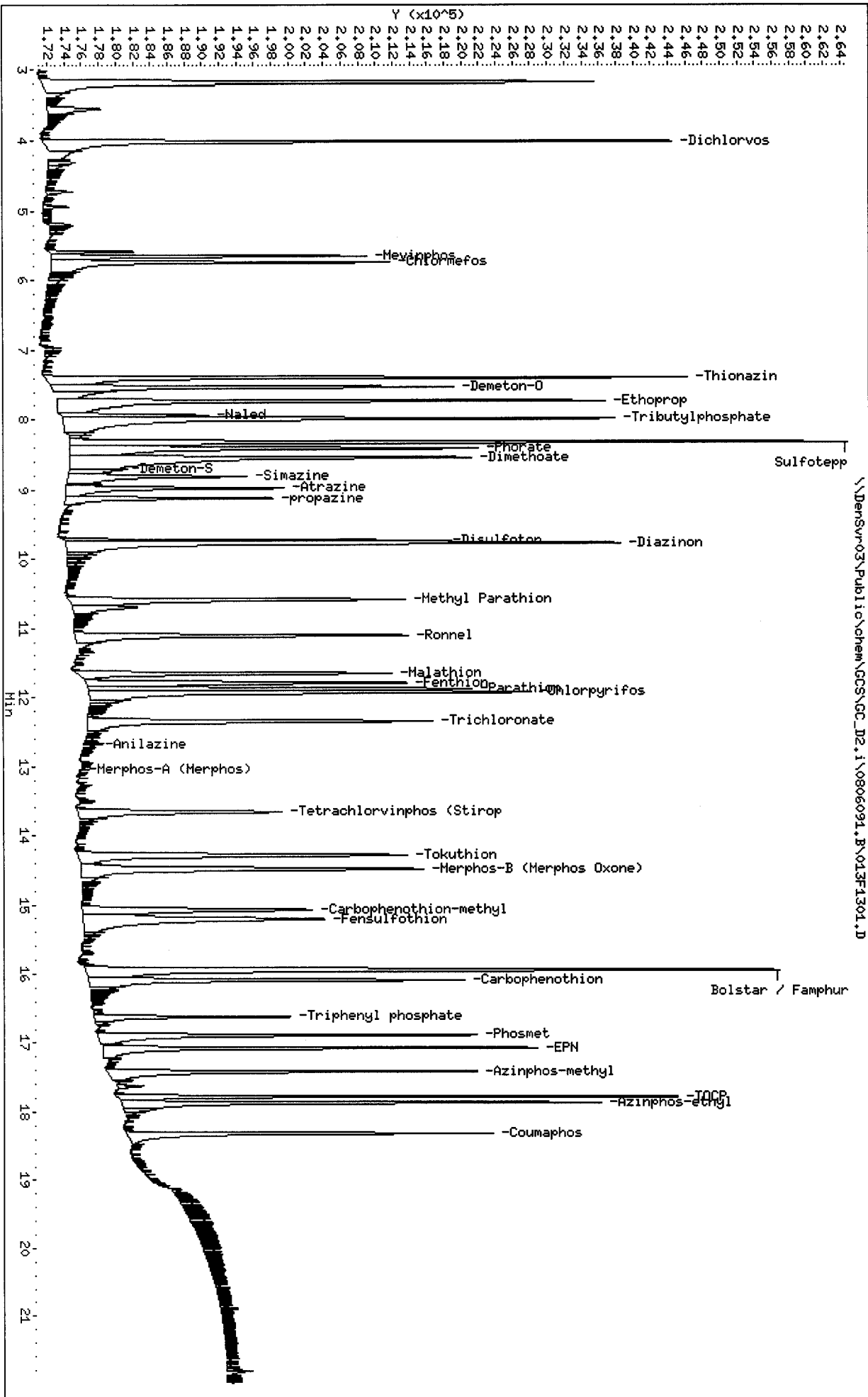
TestAmerica

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

\\Densv03\Public\chem\GCSS\GC_D2.i\0806091.B\013F1301.D



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)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
\$ 3 Chlormefos	7.156	7.159	(0.383)	184241	0.66134	1.248
4 Mevinphos						
5 Demeton-O						
6 Thionazin						
7 Ethoprop						
8 Phorate						
9 Naled						
10 Sulfotepp						
* 11 Tributylphosphate	10.823	10.827	(1.000)	400521	2.00000	
12 Simazine						
13 Diazinon						
14 Atrazine						
15 Propazine						
16 Disulfoton						
17 Demeton-S						
18 Dimethoate						
19 Ronnel						
20 Merphos-A (Merphos)						
21 Chlorpyrifos	14.105	14.039	(0.755)	6078	0.06597	0.1245
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	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		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	400521	-7.96
36 TOCP	224627	112314	449254	255054	13.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
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: \\Densv03\Public\chem\GCS\GC_D2.i\0806092.B\014F1401.D

Date: 06-AUG-2009 17:59

Client ID: H-97B

Sample Info: LG0741A0,301-1

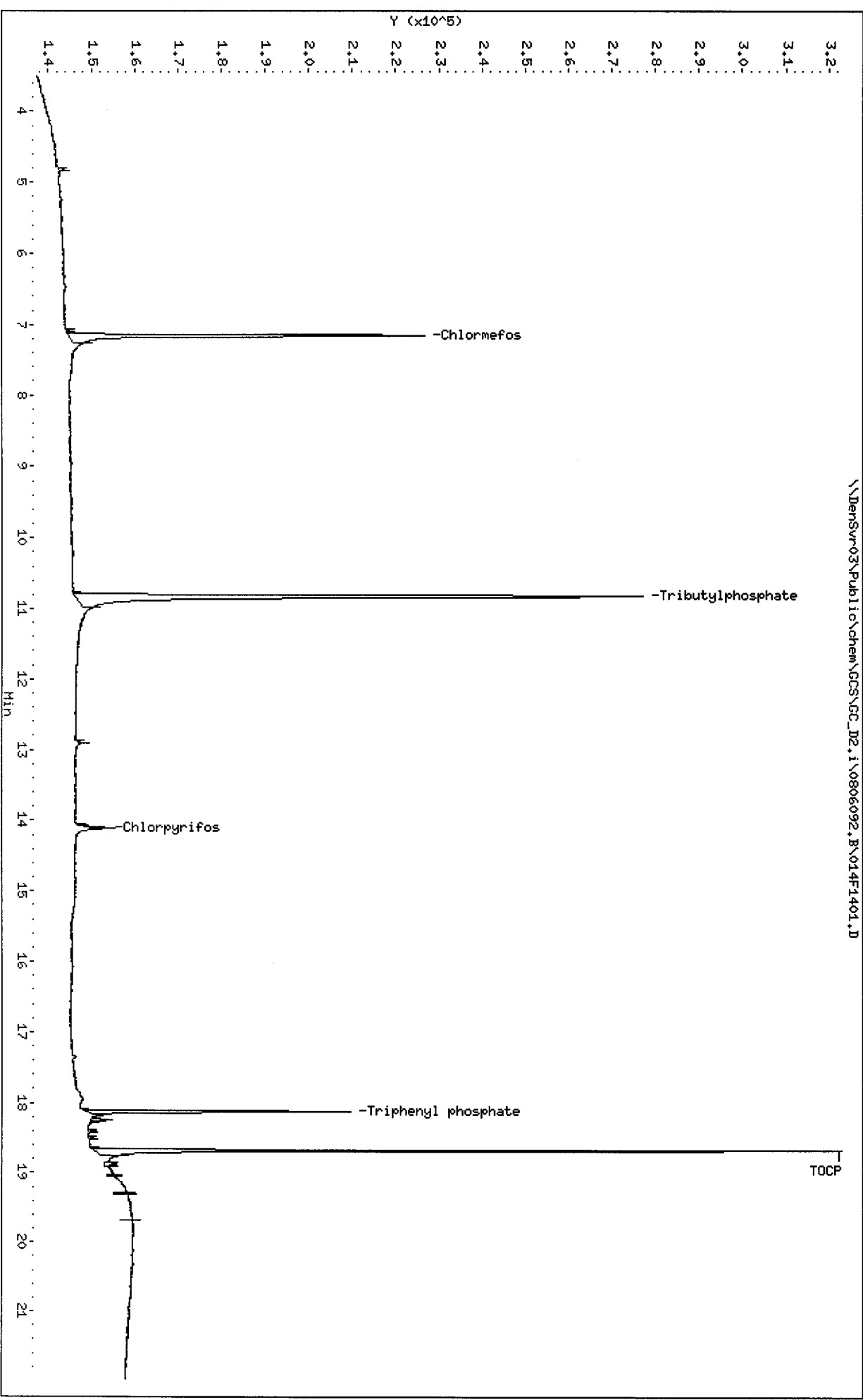
Column phase: RTX-OPpest

Instrument: GC_D2.i

Operator: MPK/TLM

Column diameter: 0.32

\\Densv03\Public\chem\GCS\GC_D2.i\0806092.B\014F1401.D



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)	FINAL (ug/L)
1 o,o,o-TEPT						
2 Dichlorvos						
3 Mevinphos						
\$ 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						
7 Ethoprop						
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						
11 Phorate						
12 Dimethoate	8.530	8.536	(0.480)	410	0.09367	0.1767
13 Demeton-S						
14 Simazine						
15 Atrazine						
16 propazine						
17 Disulfoton	9.725	9.734	(0.547)	103	0.04071	0.07681
18 Diazinon						
19 Methyl Parathion						
20 Ronnel	11.106	11.102	(0.625)	436	0.03487	0.06580
21 Malathion						
22 Fenthion						

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
					ON-COLUMN (ug/mL)	FINAL (ug/L)
23 Parathion						
24 Chlorpyrifos	11.911	11.922	(0.670)	56	4e-004	0.0008103 (a)
25 Trichloronate						
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						
30 Merphos-B (Merphos Oxone)						
31 Carbophenothion-methyl						
32 Fensulfothion						
33 Bolstar / Famphur						
34 Carbophenothion						
\$ 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						
38 Azinphos-methyl						
* 39 TOCP	17.768	17.771	(1.000)	136425	2.00000	
40 Azinphos-ethyl						
41 Coumaphos						
S 42 Merphos				291	0.00355	0.006698
M 43 Total Demeton						

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		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	212343	11.48
39 TOCP	106323	53162	212646	136425	28.31

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	-0.02
39 TOCP	17.77	17.27	18.27	17.77	-0.00

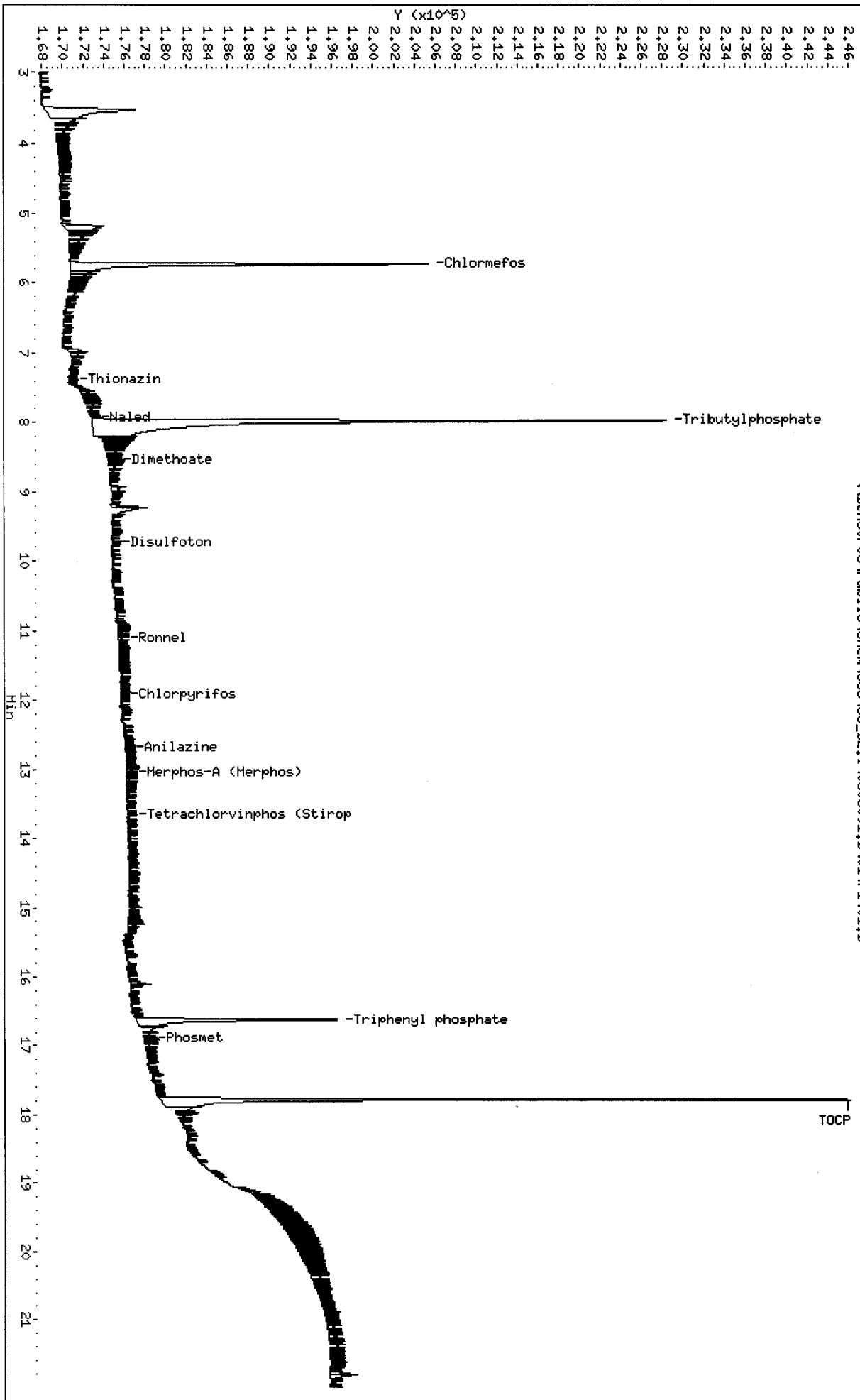
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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



**GC SEMIVOLATILE
INITIAL CALIBRATION DATA**

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

GC and HPLC ICAL Review Checklist

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: 02

Initial Calibration	Review Items	Level 1			Level 2	Comments
		Yes	No	N/A		
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 $r \geq 0.990$, (DOD projects require $r \geq 0.995$) quadratic fit COD $r^2 > 0.990$, or average response factors with RSD $\leq 20\%$? 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 -15.7%, Anilazine -46.5%, Carbophenothion-methyl -31.9%, Plusmet +16.8%

1st Level Reviewer: Wanda D. Williams Date: 8/9/09
 2nd Level Reviewer: Debra Turin Date: 8/17/09

Revision 1.1
 10/17/2008
 G:\QA\Edit\FORMS\Data Review\ GC HPLC ICAL Review

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 GSV082761				
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

9208401

9209010

9202116

0000
8/10/09

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

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

* 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 : \\Densvyr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

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

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 : \\Densvtr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	Level							Curve	b	Coefficients			%RSD or R ²
	1	2	3	4	5	6	m1			m2			
	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000							
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6							
	5.0000												
	Level 7												
14 Atrazine	13368	36826	88458	146146	208979	258175	QUAD	0.04814	1.04463	0.36910		0.99723	
	318216												
15 Propazine	7831	23609	62163	114010	152109	202004	WLINR	0.02772	0.52221			0.99451	
	262507												
16 Disulfoton	26551	70798	177395	316424	423156	558998	WLINR	0.01013	1.42645			0.99357	
	713903												
17 Demeton-S	19550	57025	140910	267435	350018	493144	WLINR	0.01822	1.81159			0.99636	
	620416												
18 Dimethoate	30901	85451	220034	399590	527786	710490	WLINR	0.01960	1.81946			0.99451	
	919664												
19 Ronnel	25402	64796	158537	282907	372707	501398	WLINR	0.00596	1.27627			0.99446	
	650233												
20 Merphos-A (Merphos)	20208	55934	138362	252361	335820	462632	WLINR	-0.10408	0.49687			0.99129	
	609259												

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 : \\Densvtr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

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

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	Coefficients							OR R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Curve	
28 Parathion	27796	68378	173641	303707	400079	532806	WLINR	0.99155
29 Merphos-B (Merphos Oxone)	8193	19053	50092	87050	117192	160245	QUAD	0.99655
30 Tetrachlorvinphos (stirophos)	14633	40546	99267	176428	235430	312270	WLINR	0.99305
31 Carbophenothion methyl	19335	59783	150574	273834	369428	485153	WLINR	0.99364
32 Bolstar	24830	62262	148685	262486	345976	452745	WLINR	0.99176
33 Carbophenothion	23920	66481	158258	291027	391840	507573	WLINR	0.99369
35 Fensulfochion	21641	55100	144111	244410	324575	446385	WLINR	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 : \\Densvyr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

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

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 : \\Densvrr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Last Edit : 07-Aug-2009 08:22 GC_D2.i

Compound	Concentration Levels							Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	m1			m2		
\$ 3 Chloroetos	44458	109656	277425	488546	662346	889230	WLNLR	0.00857	2.24268		0.99438	
	1130949											
\$ 34 Triphenyl phosphate	19386	48811	123629	218925	290427	377570	WLNLR	0.00300	0.96701		0.99176	
	480212											

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 : \\DensVvr03\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/ml	Response
Linear	Amt = b + Rsp/ml	Response
Wt Linear	Amt = b + Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

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	

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 : \\DensSvr03\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: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\009F0901.D
 Level 2: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\008F0801.D
 Level 3: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\007F0701.D
 Level 4: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\006F0601.D
 Level 5: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\005F0501.D
 Level 6: \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\004F0401.D
 Level 7: \\DensSvr03\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	b	Coefficients		%RSD or R^2
									m1	m2	
1 o,o'-TEPT	27235	69103	176667	273888	380611	530397	WLINR	0.00437	2.76150		0.99070
2 Dichlorvos	19624	49660	121959	217219	299105	394344	WLINR	0.01094	2.07952		0.99581
3 Mevinphos	0.70987	0.83613	1.19746	0.99299	1.02111	1.00792	AVRG		0.97013		16.02289
5 Thionazin	16347	46078	116071	198904	270134	356552	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_D2.1\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

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

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_D2.1\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

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

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 : \\Densvrr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.i

Compound	0.200000	0.500000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	%RSD	
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R ²
21 Malathion	12017	30837	73542	127531	167962	219045	WLNLR	-0.00342	1.17261		0.99300
	280372										
22 Fenthion	10574	28555	72130	132190	176698	231332	WLNLR	0.02002	1.25197		0.99537
	301629										
23 Parathion	10134	28660	75321	134353	181496	240220	WLNLR	0.02603	1.30048		0.99472
	313652										
24 Chlorpyrifos	1.88134	1.87231	2.27378	1.86707	1.79826	1.72943	AVRG		1.91159		9.15814
	1.95897										
25 Trichloronate	14112	36498	89537	154049	208922	282505	WLNLR	0.01257	1.51131		0.99446
	371970										
26 Anilazine	++++	826	2826	5841	7461	13218	WLNLR	0.14526	0.06857		0.98603
	16019										
27 Merphos-A (Merphos)	11430	31853	75953	132917	173016	233543	WLNLR	0.00298	1.22464		0.99330
	287727										

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 : \\DensSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.i

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

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	0.5000000	1.0000	2.0000	3.0000	4.0000	Curve	b	Coefficients	m1	m2	%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6						Or R^2
	5.0000											
	Level 7											
36 Phosmet	8837	25724	69014	125340	163123	221328	WLNLR	0.03634	1.22307			0.98684
	277254											<-
37 EPN	11005	28342	73819	140325	177040	245612	WLNLR	0.02030	1.28670			0.99525
	303505											
38 Azinphos-methyl	10147	23048	68525	125256	168294	229655	WLNLR	0.02923	1.20596			0.99461
	284466											
40 Azinphos-ethyl	26756	43178	85913	151651	188903	249137	WLNLR	-0.09682	1.23973			0.99481
	302773											
41 Coumaphos	8196	20857	56878	104402	142605	195717	WLNLR	0.03297	1.03529			0.99625
	249968											
S 42 Merphos	16102	39532	100404	175775	224385	302947	WLNLR	0.00044	1.59699			0.99227
	377164											
M 43 Total Demecon	17537	46775	116387	198835	275455	360860	WLNLR	0.00996	1.91689			0.99407
	455793											

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	0.200000 Level 1	0.500000 Level 2	1.0000 Level 3	2.0000 Level 4	3.0000 Level 5	4.0000 Level 6	Curve	b	Coefficients		%RSD or R^2
									m1	m2	
	5.0000 Level 7										
\$ 4 Chlorzefos	1.95470 2.21766	1.89064	2.71720	2.26391	2.28818	2.26782	AVRG		2.22859		12.07406
\$ 35 Triphenyl phosphate	8112 241166	25724	65323	113284	142596	191433	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_D2.1\0806091.B\8141A-1.m
 Last Edit : 07-Aug-2009 08:18 GC_D2.1

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

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	

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
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
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 Pensulfothion	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

OK, see total demeton

OK, see total demeton

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

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
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
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

ok, see total demeton

ok, see total demeton

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

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)	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)	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		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	482265	10.82
36 TOCP	224627	112314	449254	209263	-6.84

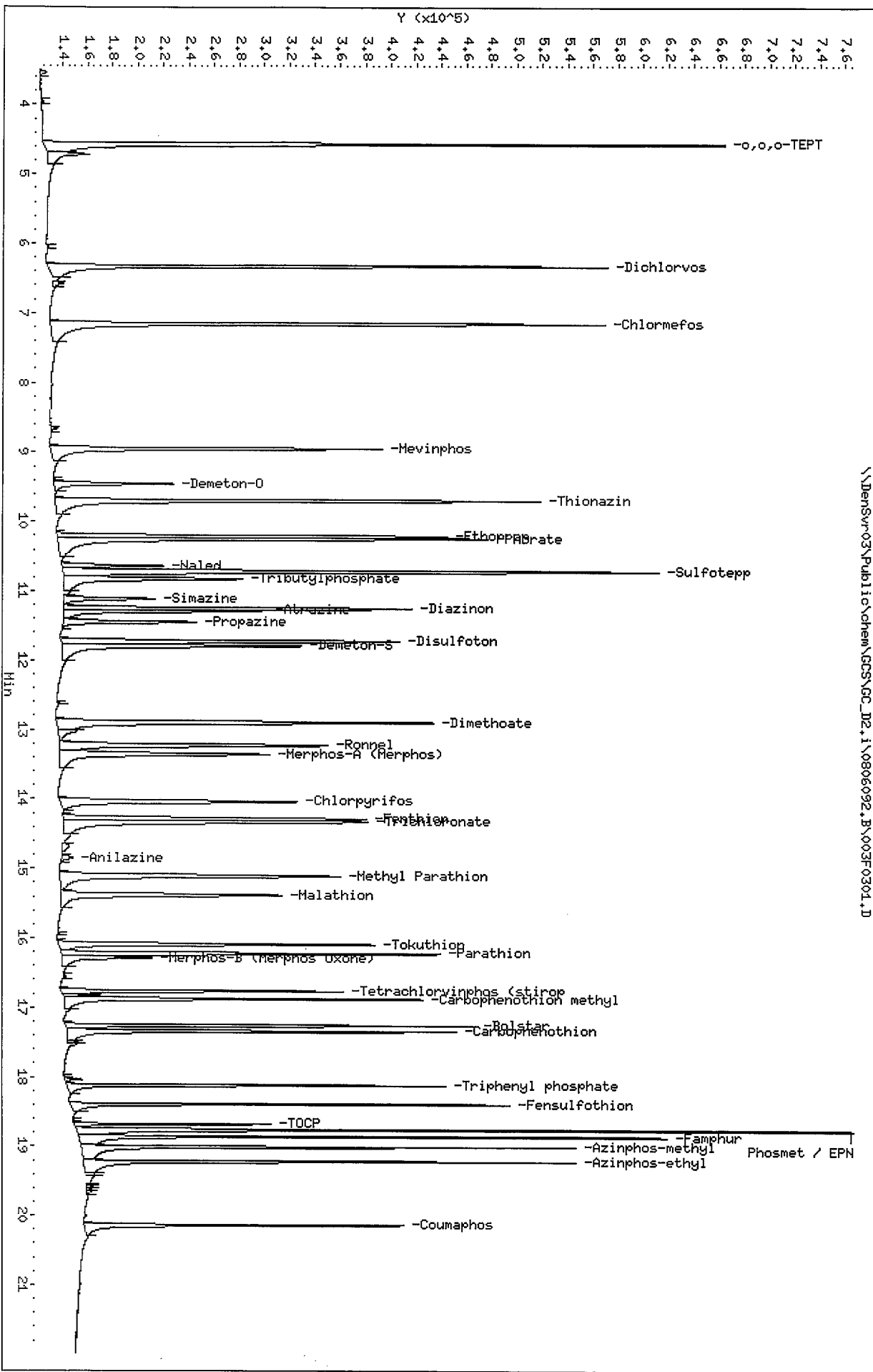
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

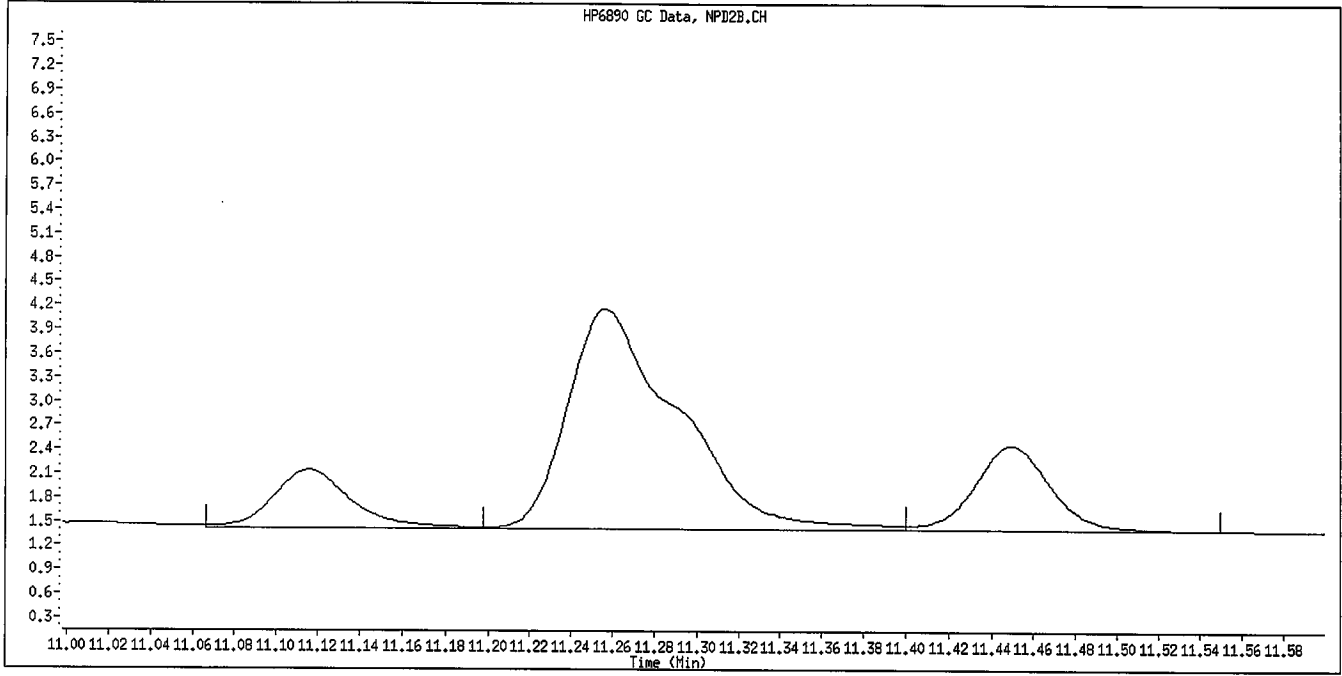
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 Date: 06-AUG-2009 12:58
 Client ID: OPP L7 GSV860-09
 Sample Info: OPP L7 GSV860-09
 Column phase: RTX-OPPest

Instrument: GC_D2.i
 Operator: MPR/TLM
 Column diameter: 0.32

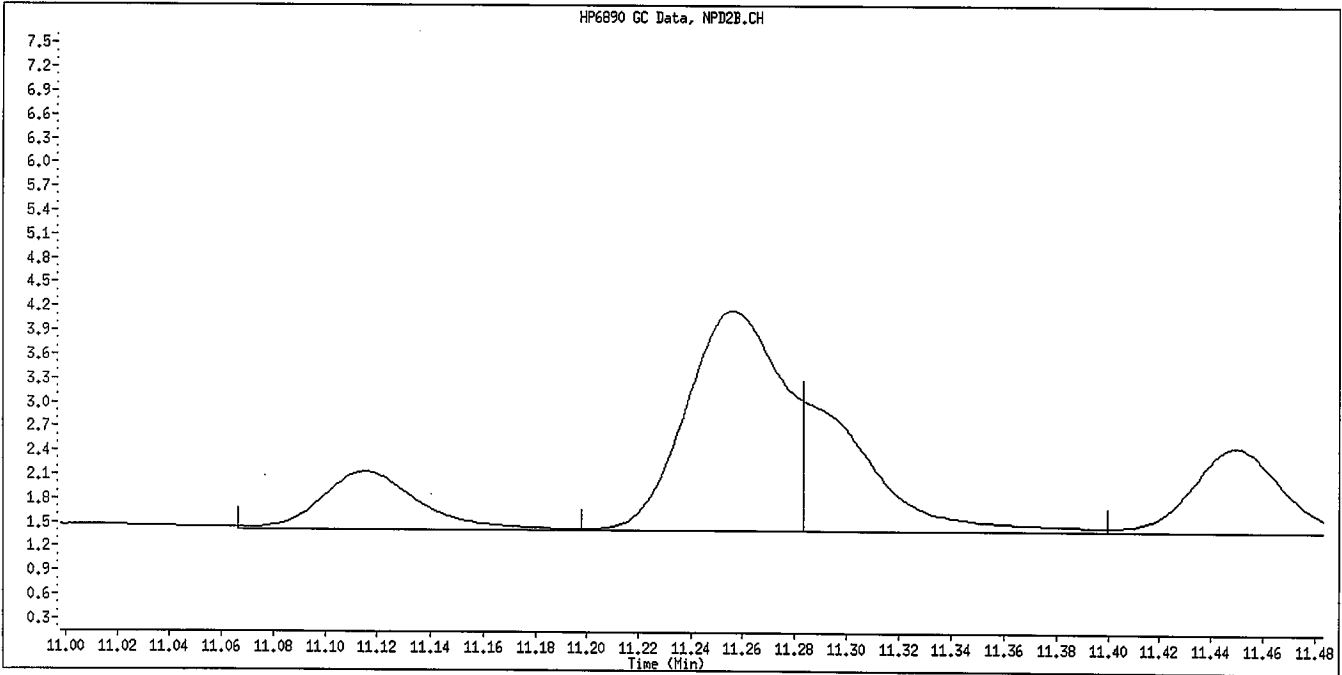
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Data File Name: 003F0301.D
Inj. Date and Time: 06-AUG-2009 12:58
Instrument ID: GC_D2.i
Client ID: OPP L7 GSV860-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

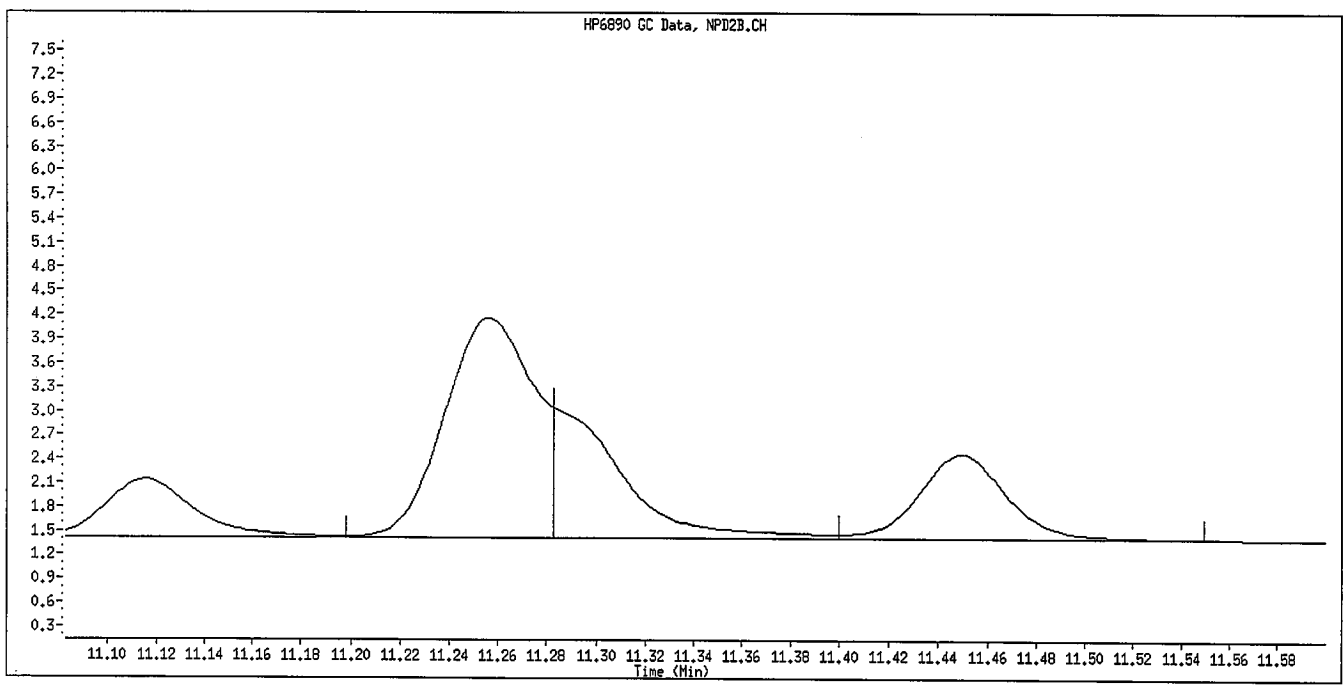
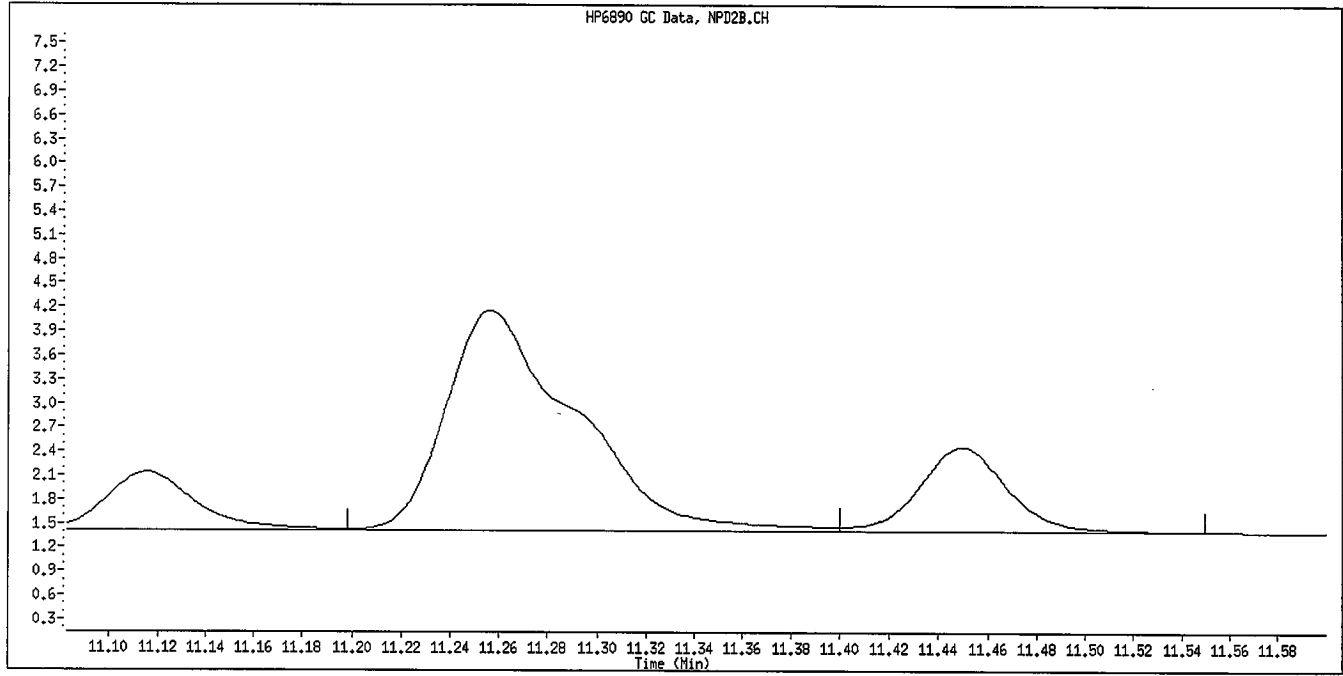


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

18876

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



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CF8771a

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						AMOUNTS	
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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:

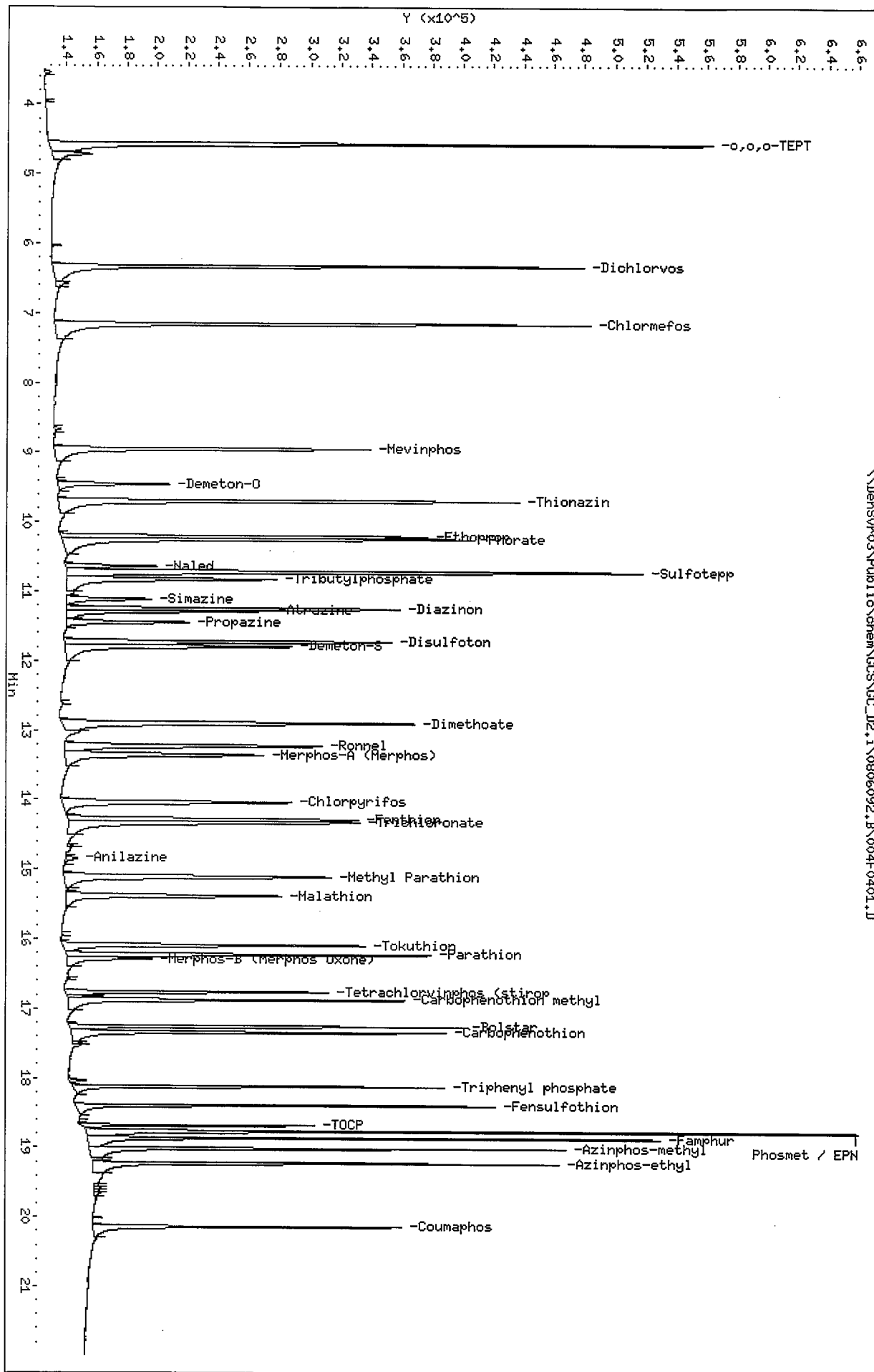
Calibration Date: 06-AUG-2009
 Calibration Time: 16:09
 Client Smp ID: OPP L6 GSV870-0
 Level:
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	446635	2.64
36 TOCP	224627	112314	449254	201011	-10.51

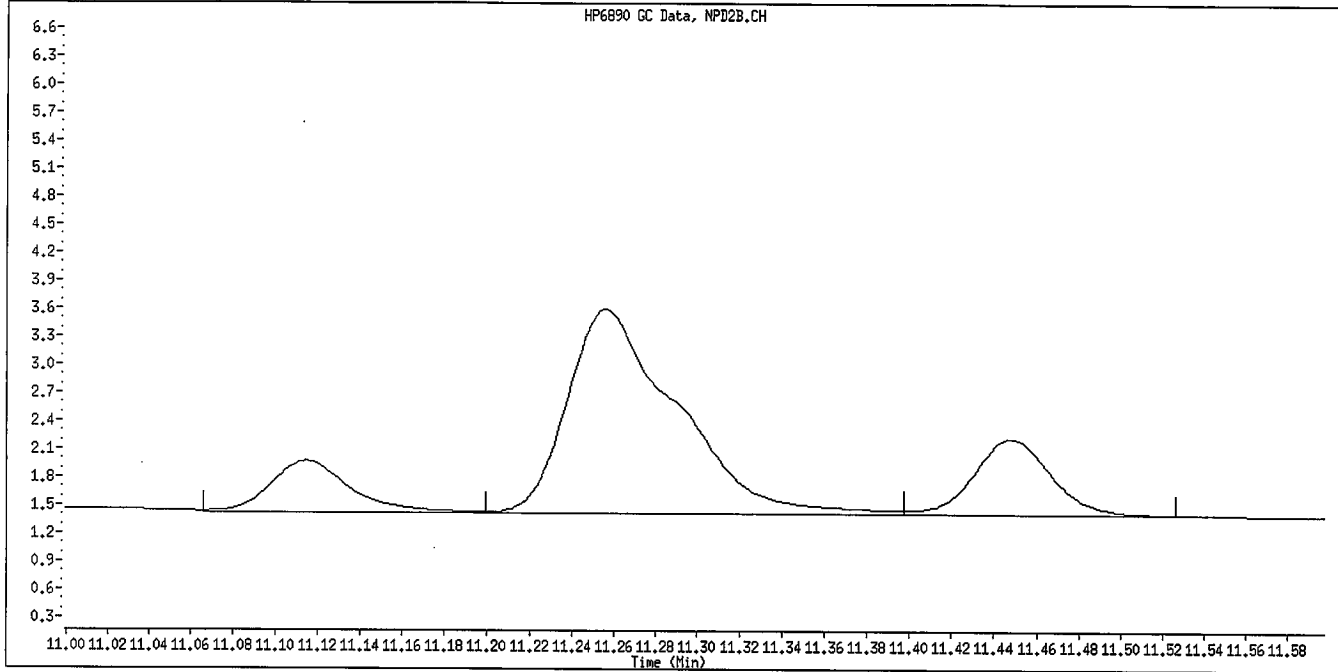
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

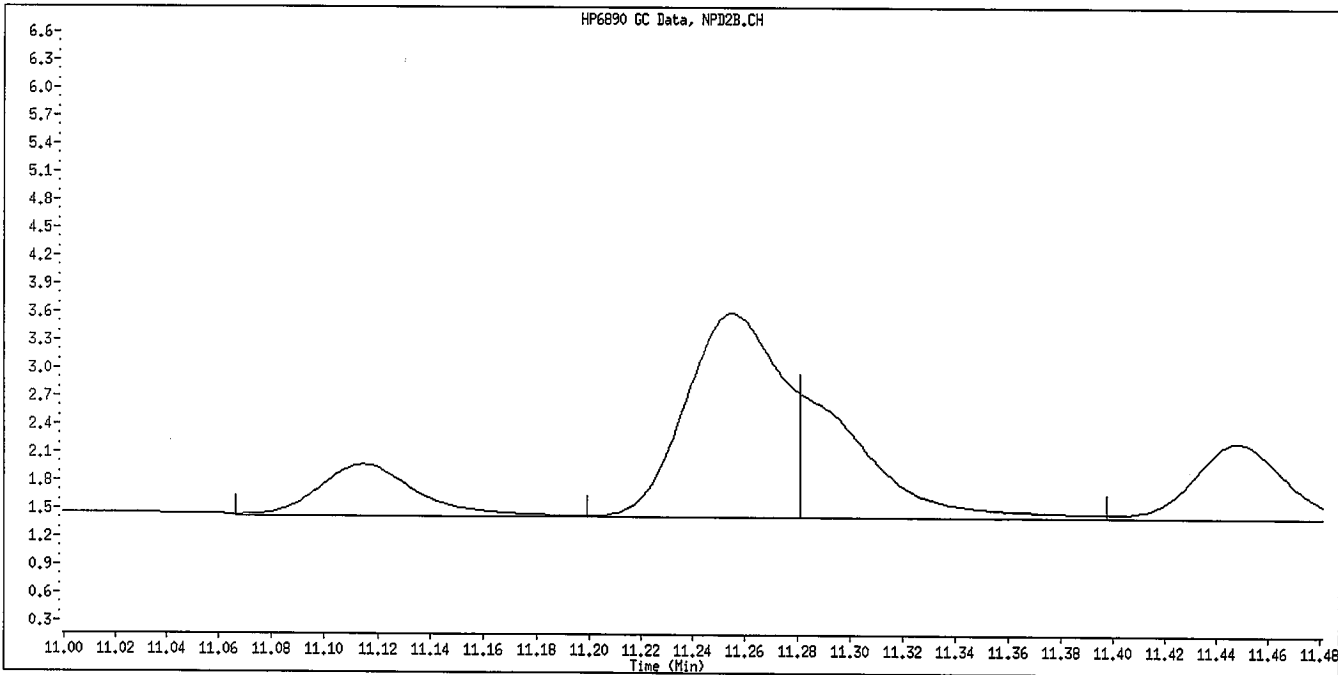
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Data File Name: 004F0401.D
Inj. Date and Time: 06-AUG-2009 13:25
Instrument ID: GC_D2.i
Client ID: OPP L6 GSV870-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

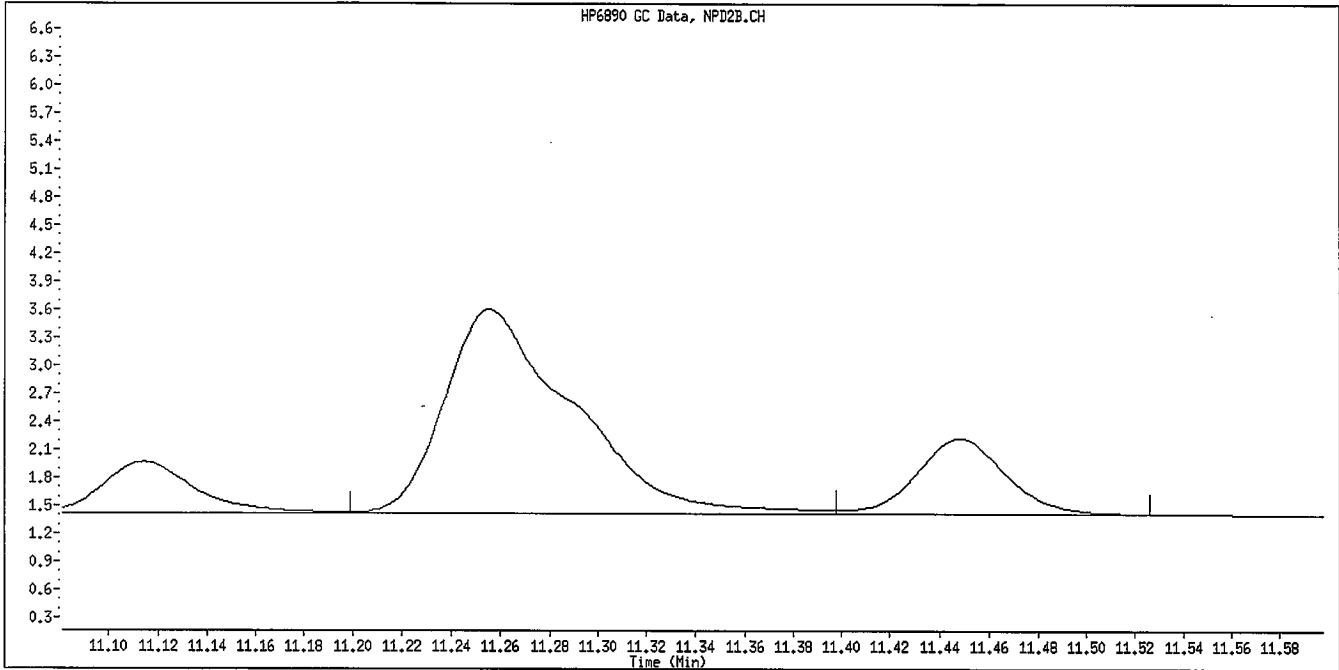


Manual Integration

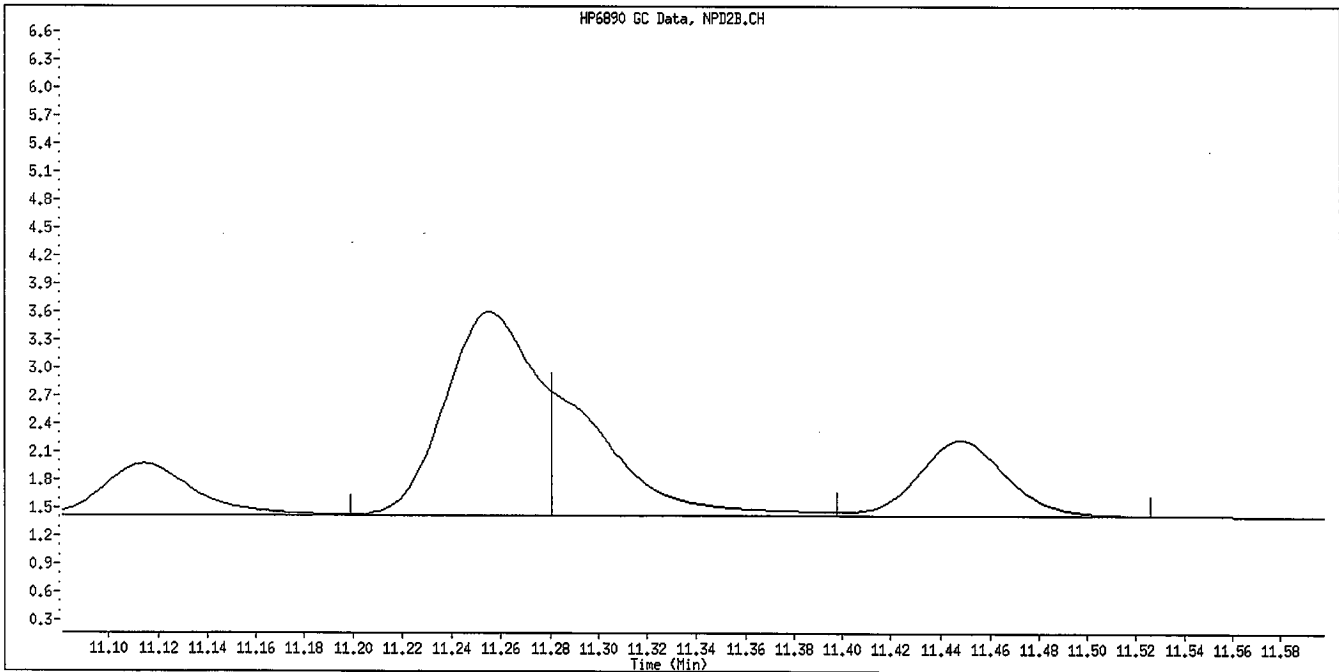
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

VF 8/7/09

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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

if 8770

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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

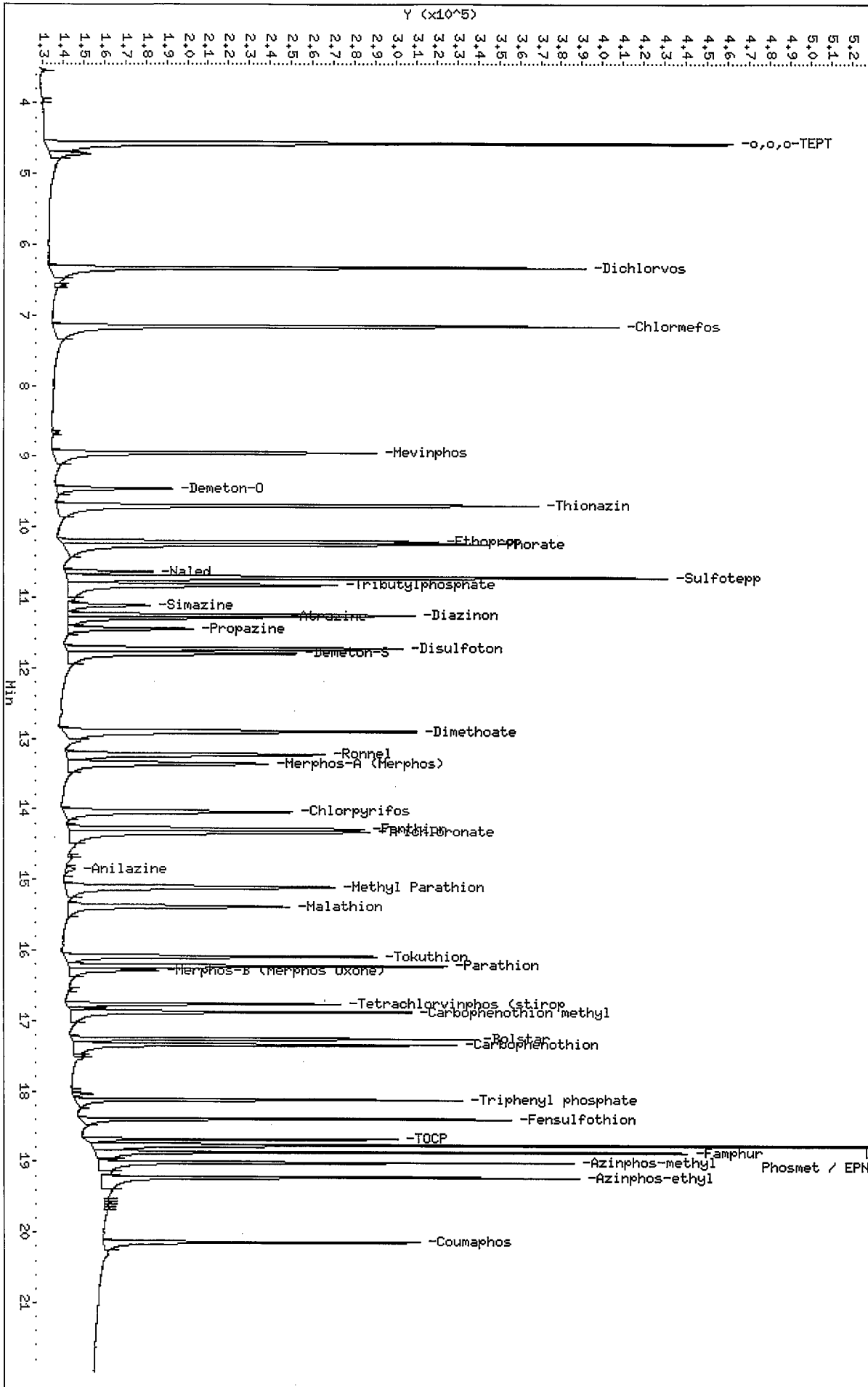
Instrument ID: GC D2.i
 Lab File ID: 005F0501.D
 Lab Smp Id: OPP L5 GSV871-09
 Analysis Type: SV
 Quant Type: ISTD
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Misc Info:

Calibration Date: 06-AUG-2009
 Calibration Time: 16:09
 Client Smp ID: OPP L5 GSV871-0
 Level:
 Sample Type:

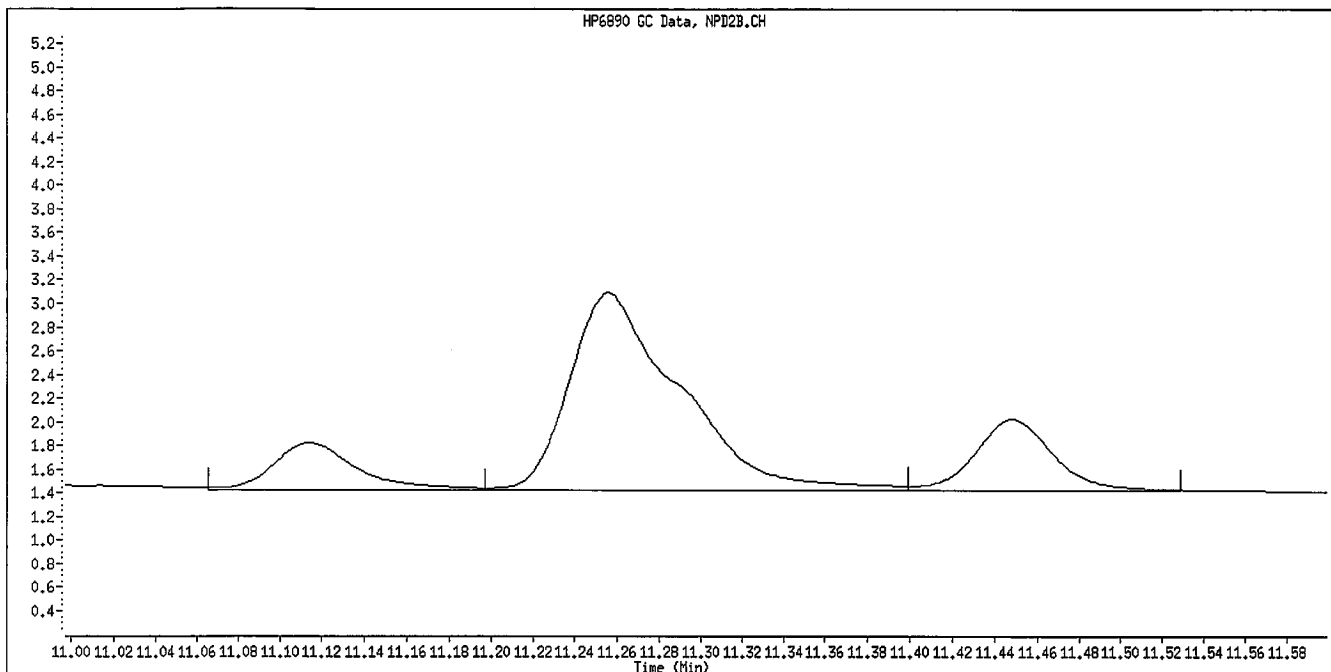
COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	435161	217581	870322	419384	-3.63
36 TOCP	224627	112314	449254	199526	-11.17

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

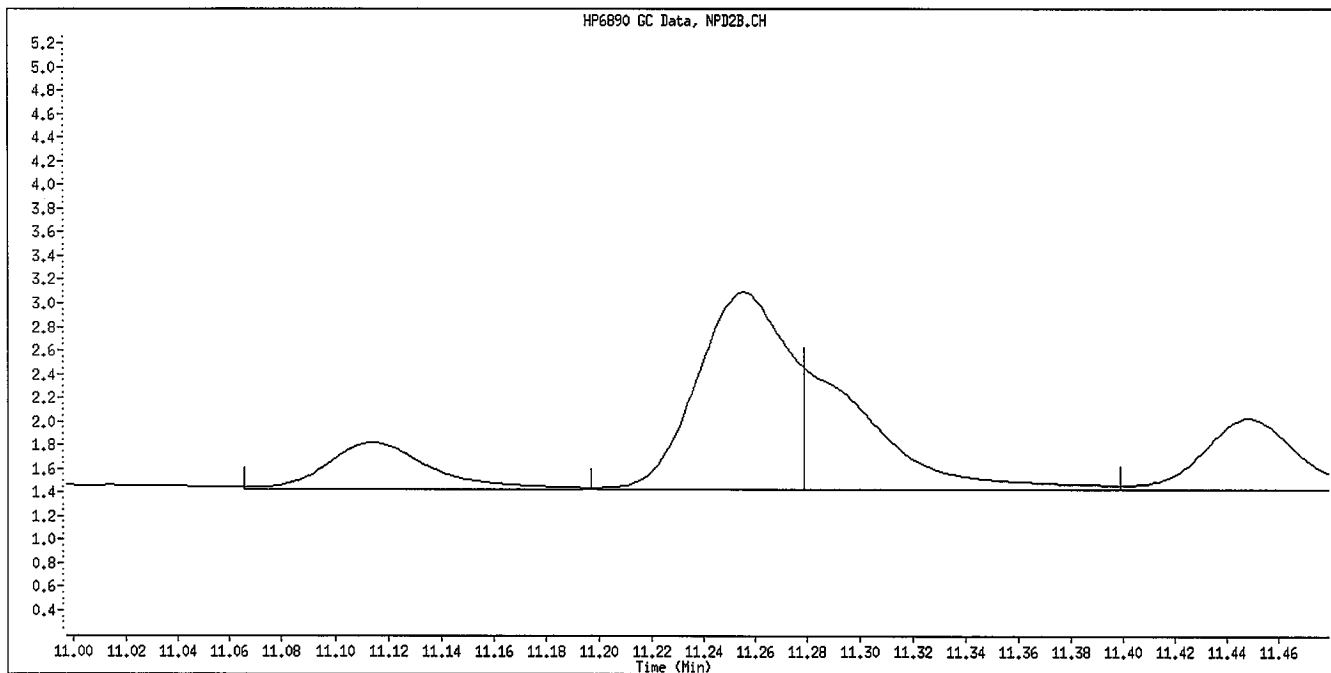
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File 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

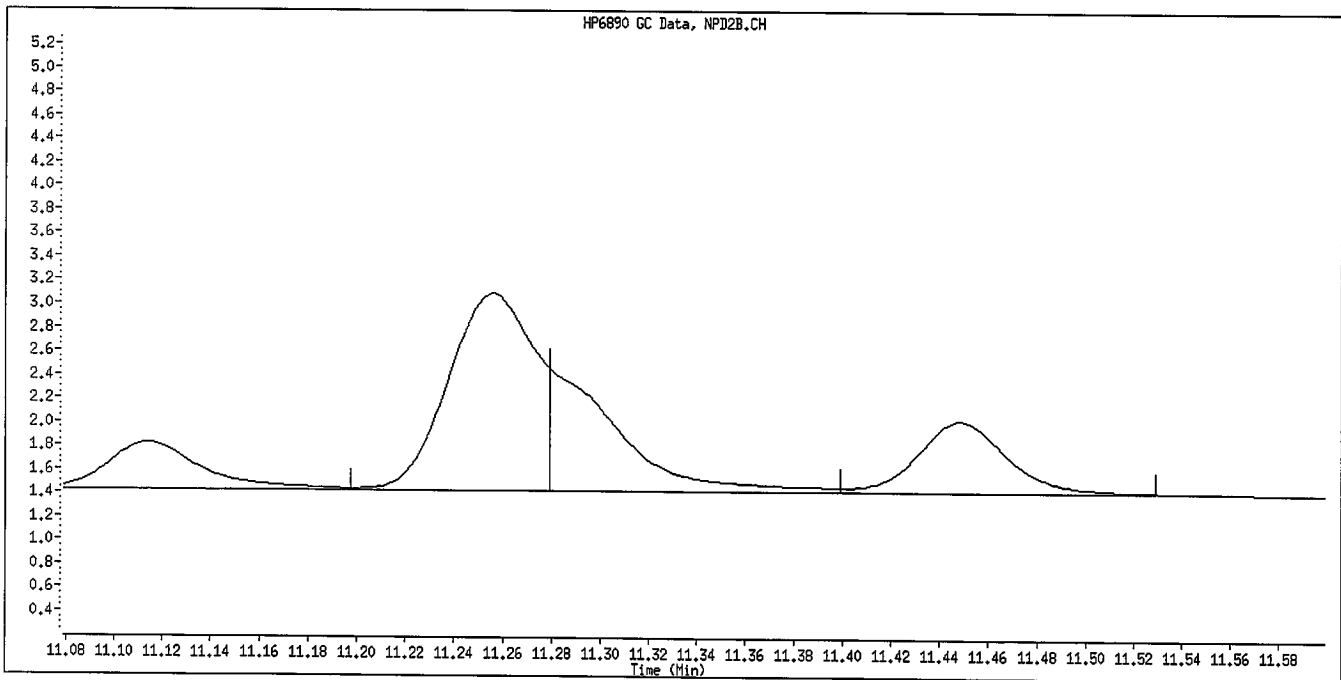
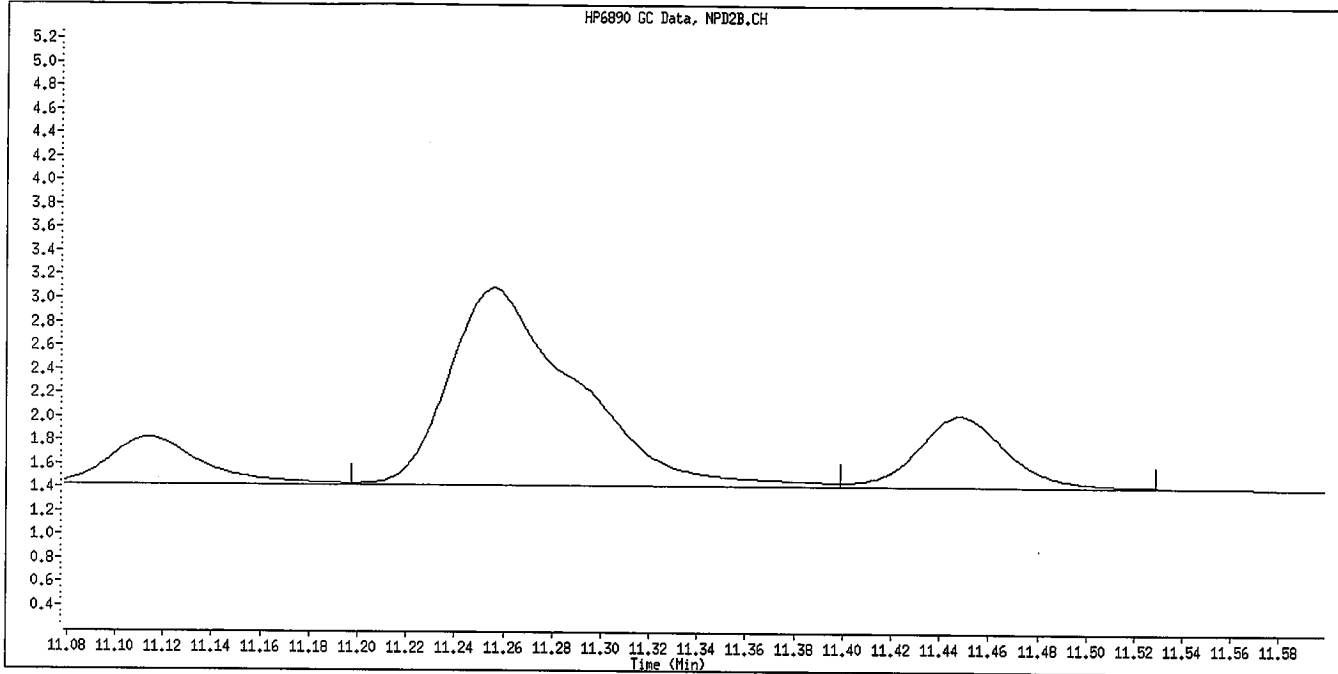


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

1587109

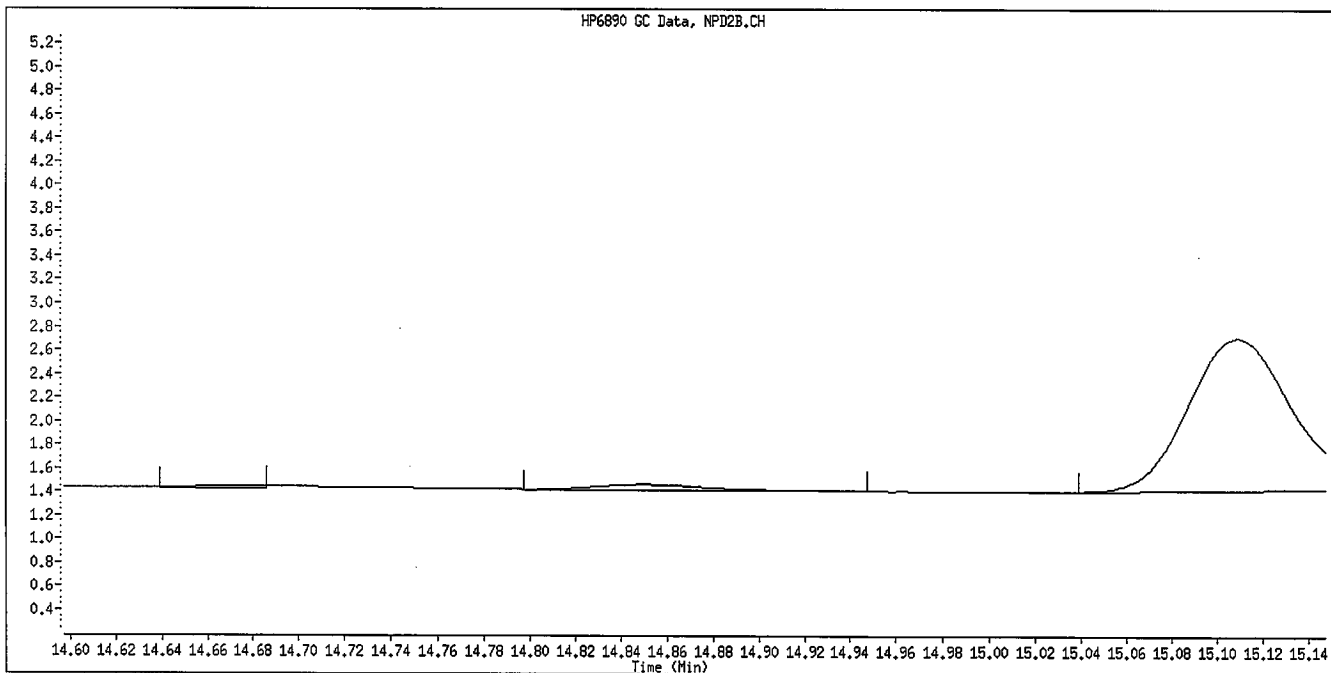
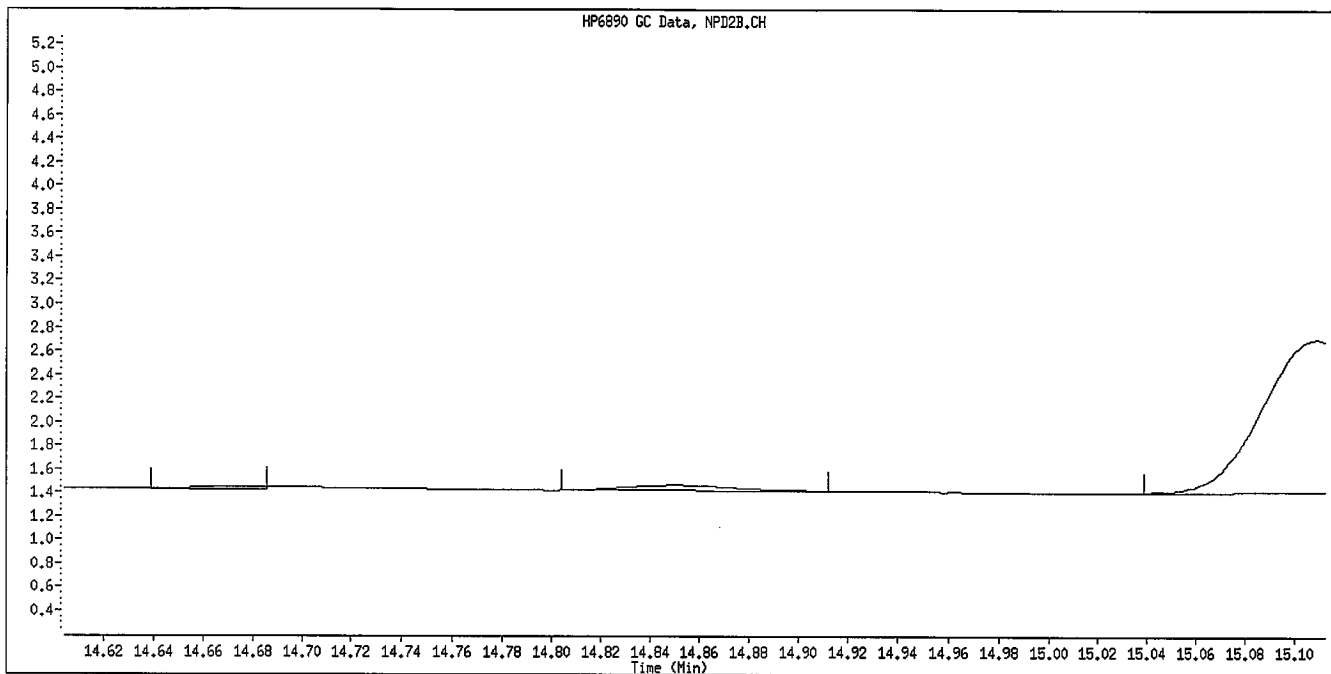
Data File Name: 005F0501.D
Inj. Date and Time: 06-AUG-2009 13:52
Instrument ID: GC_D2.i
Client ID: OPP L5 GSV871-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CV 87700

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



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

Williamst

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					AMOUNTS	
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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 Calibration Date: 06-AUG-2009
 Lab File ID: 006F0601.D Calibration Time: 16:09
 Lab Smp Id: OPP L4 GSV872-09 Client Smp ID: OPP L4 GSV872-0
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	423354	-2.71
36 TOCP	224627	112314	449254	217566	-3.14

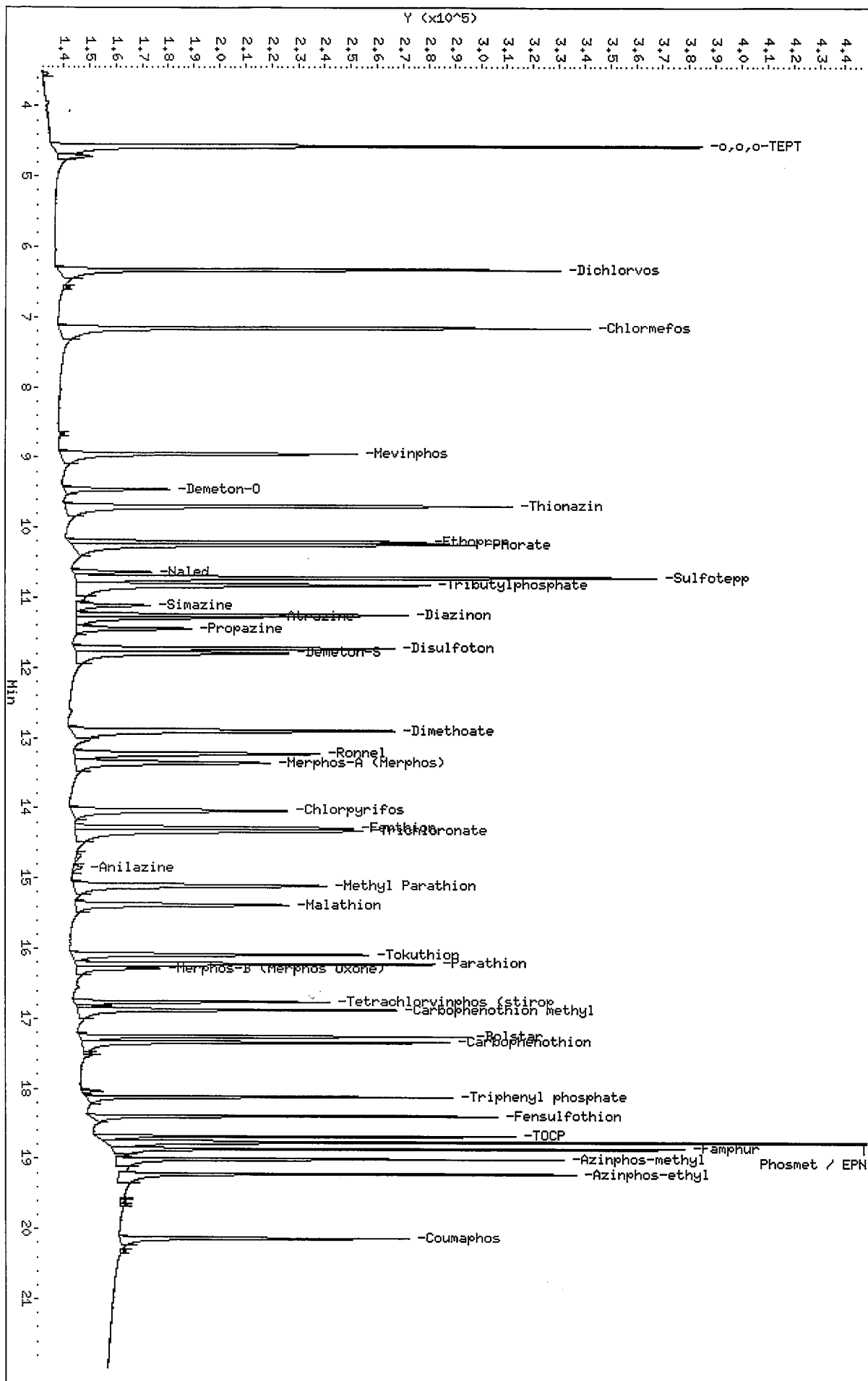
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.03
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

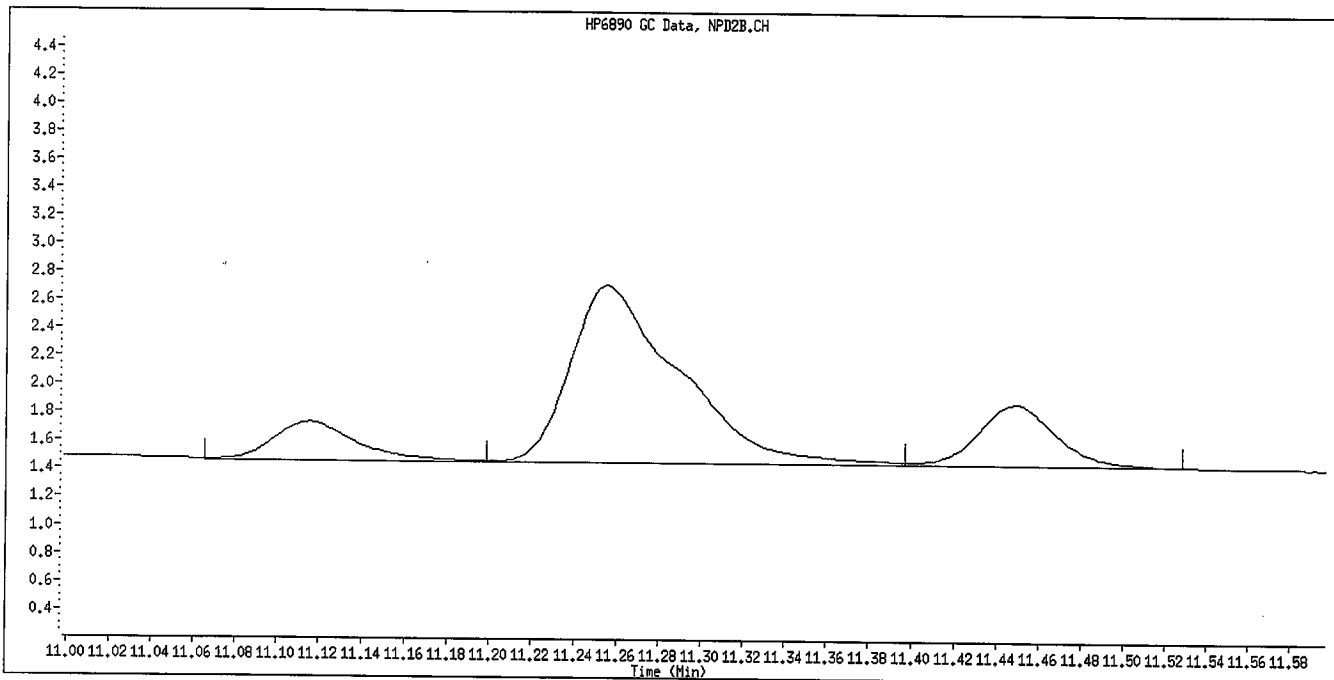
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 Date: 06-AUG-2009 14:20
 Client ID: OPP L4 GSV872-09
 Sample Info: OPP L4 GSV872-09
 Column phase: RTX-OPPest

Instrument: GC_D2.i
 Operator: HPK/TLM
 Column diameter: 0.32

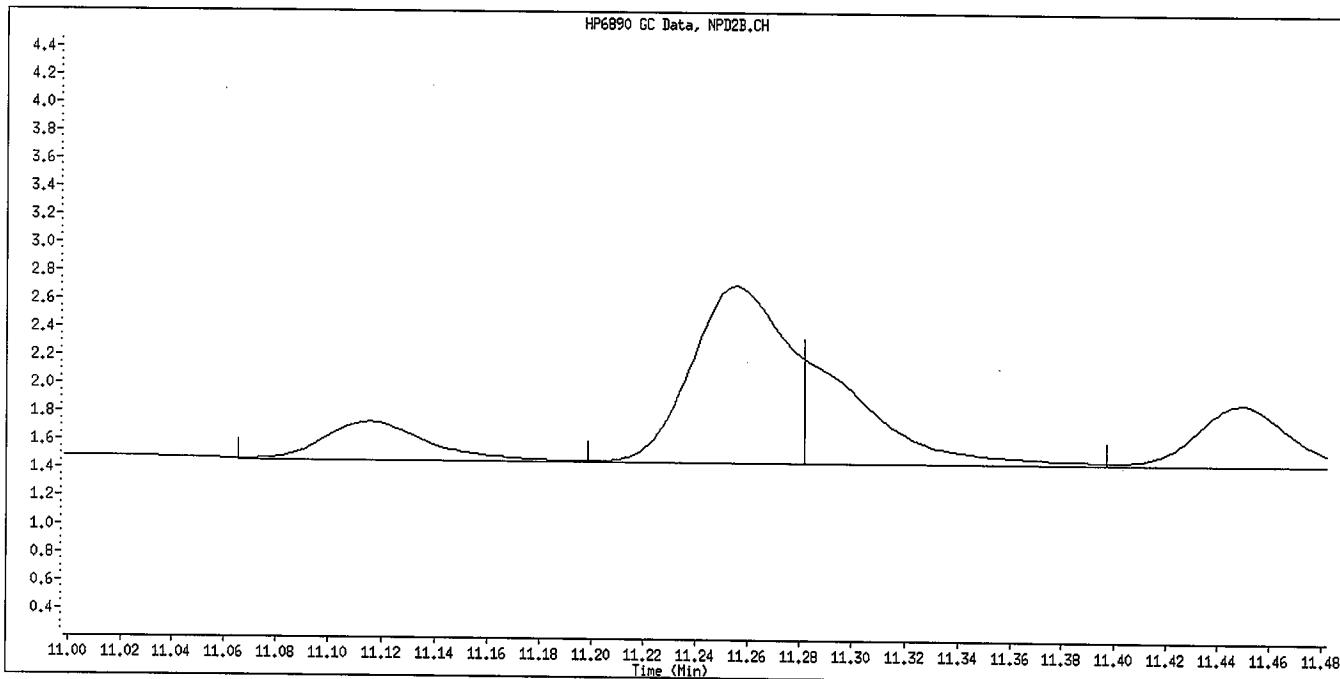
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Data File Name: 006F0601.D
Inj. Date and Time: 06-AUG-2009 14:20
Instrument ID: GC_D2.i
Client ID: OPP L4 GSV872-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

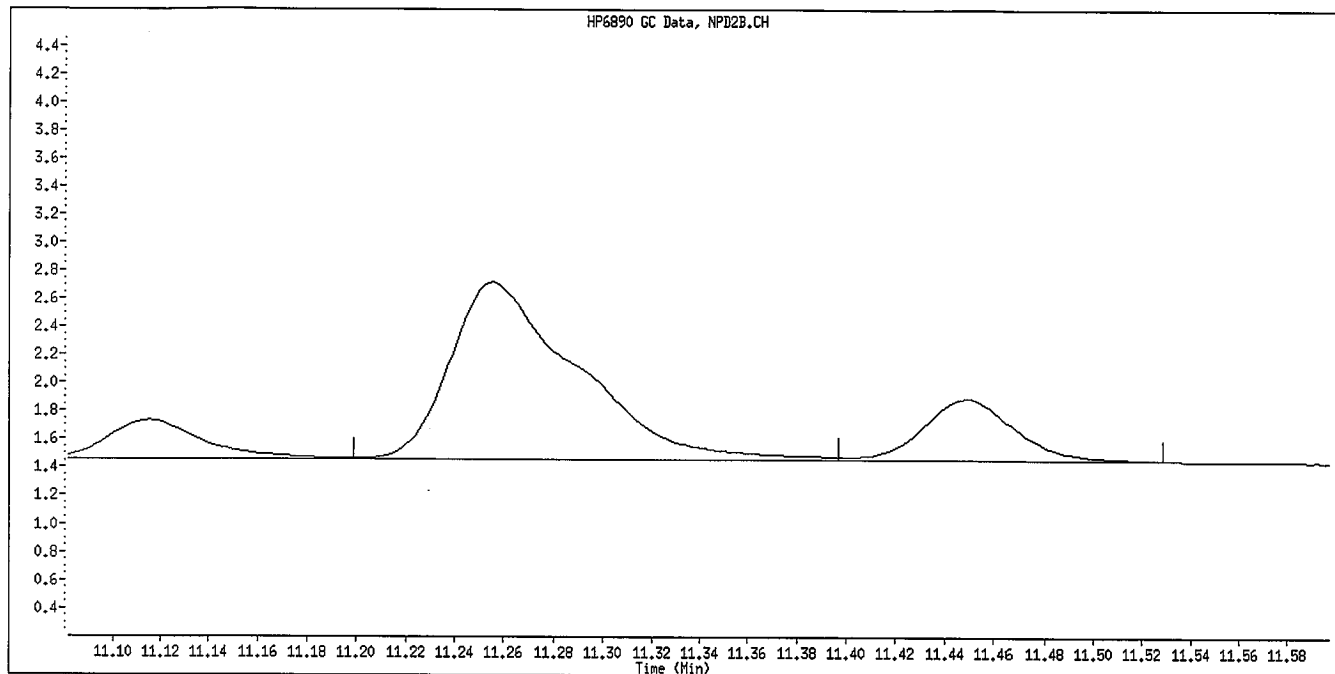


Manual Integration

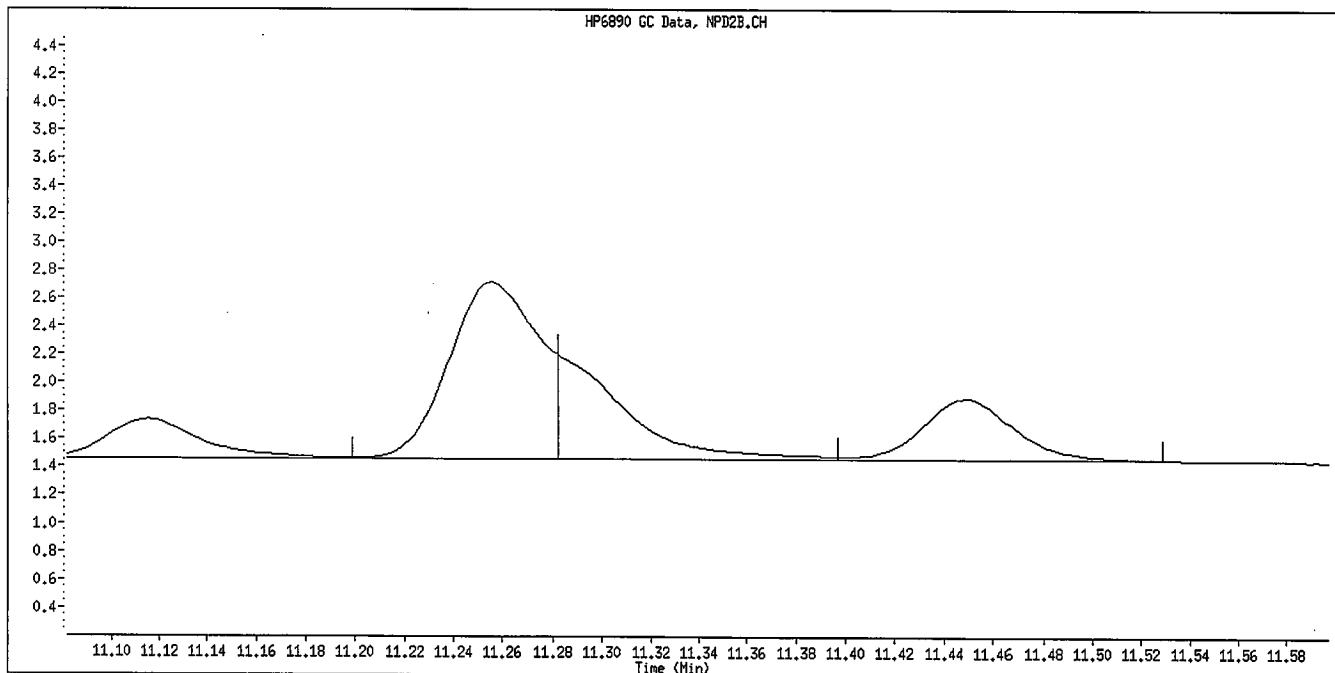
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LF 8/7/09

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

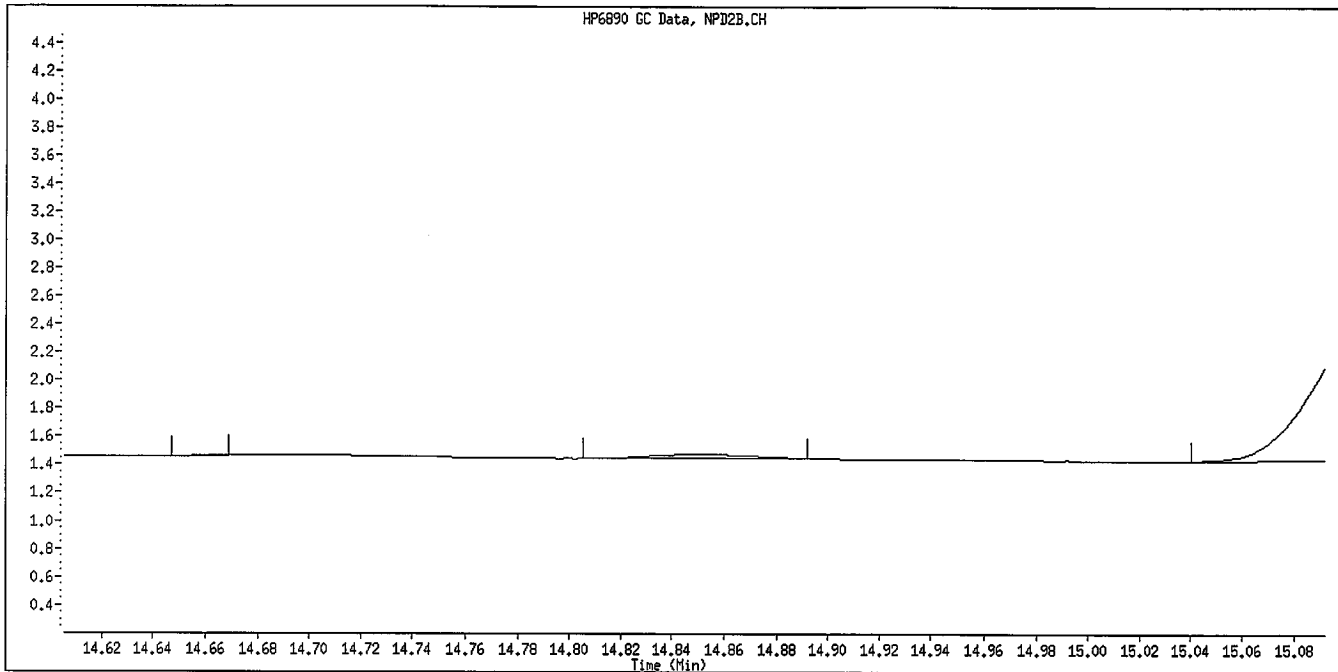


Manual Integration

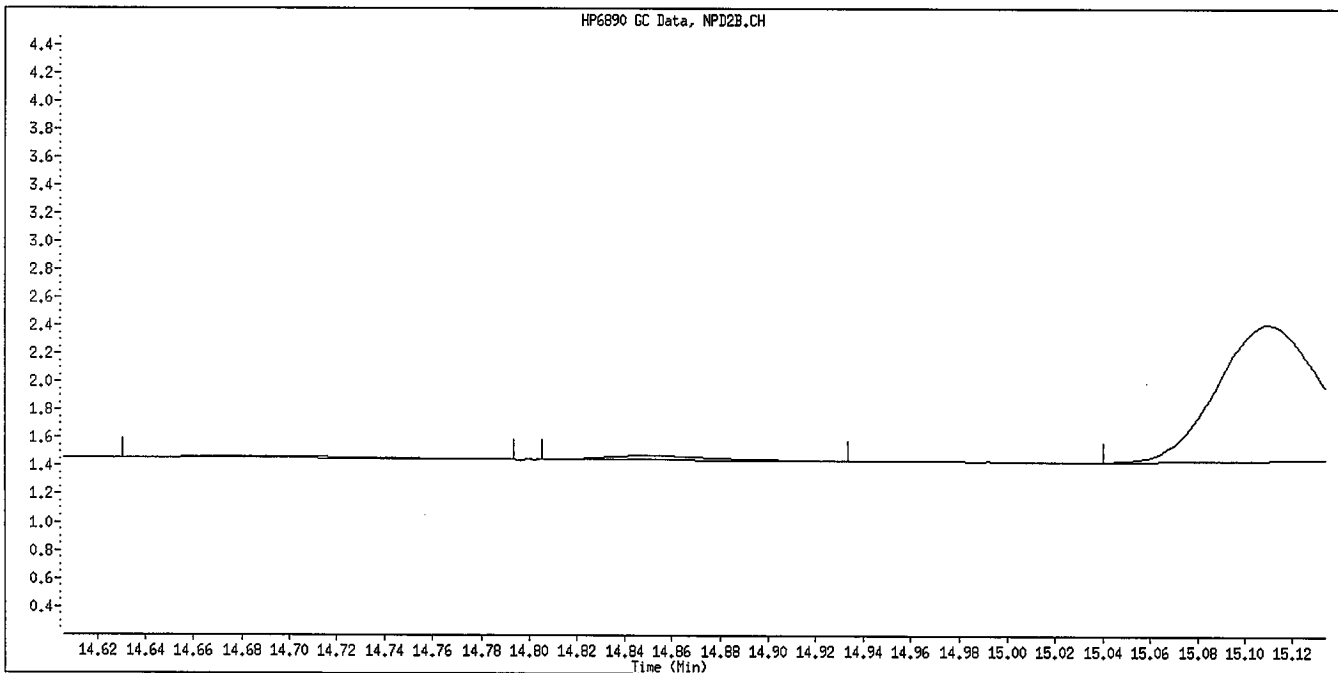
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

0081710r

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

16817108

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)	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)	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		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	377917	-13.15
36 TOCP	224627	112314	449254	206809	-7.93

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.01
36 TOCP	18.68	18.18	19.18	18.68	0.01

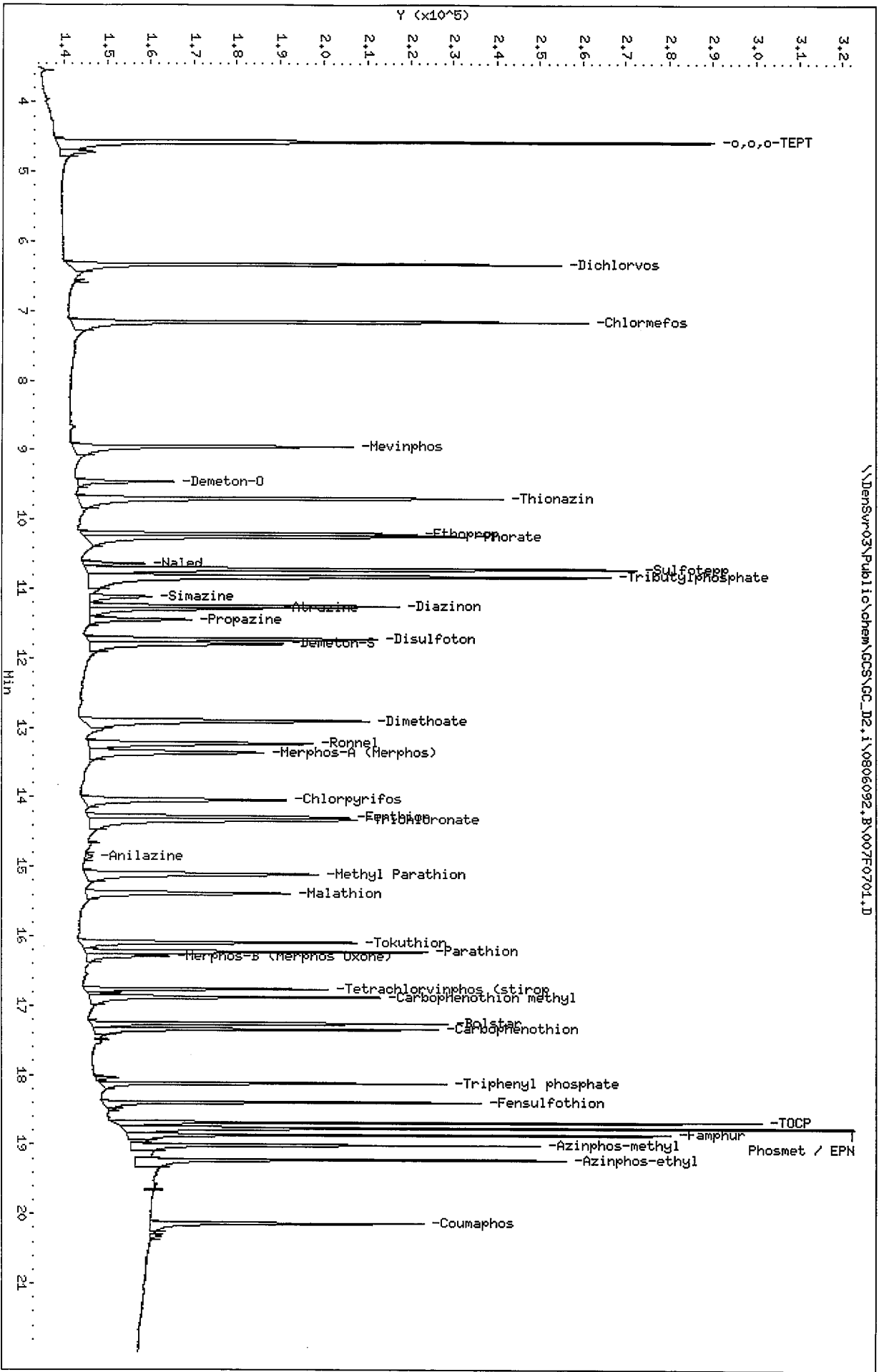
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

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 Sample Info: OPP L3 GSW873-09

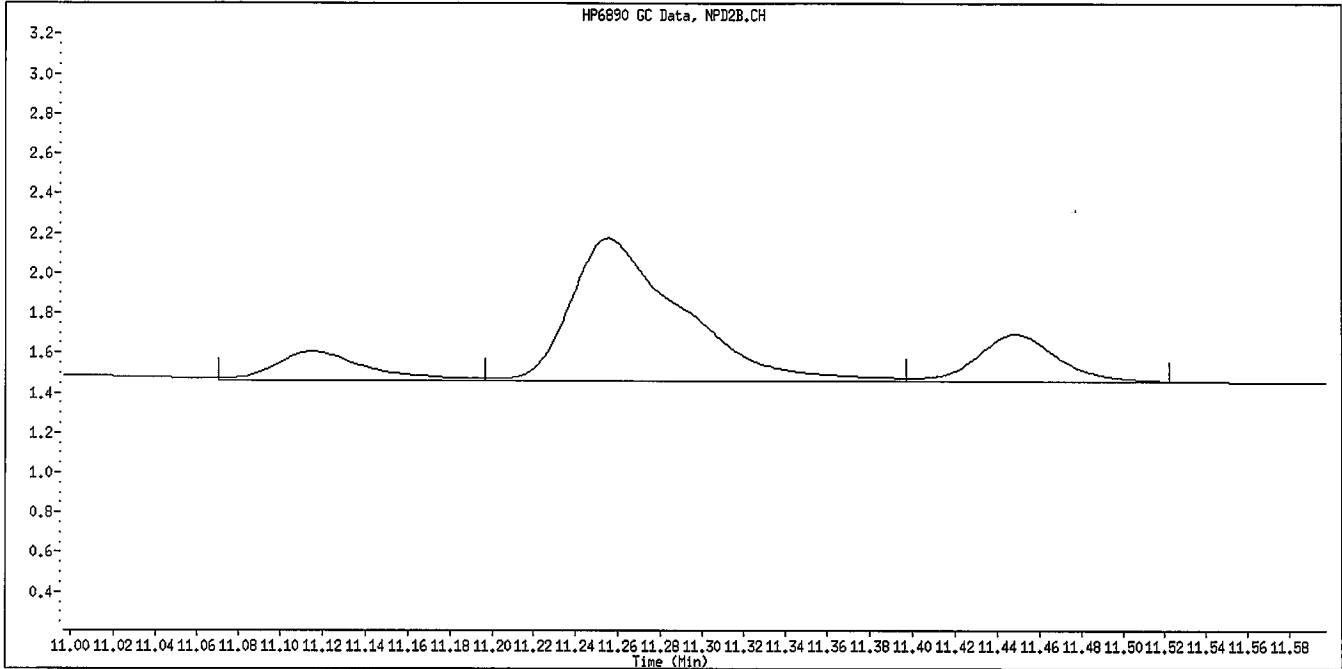
Column phase: RTX-OPPest

Instrument: GC_D2.1
 Operator: HPK/TLW
 Column diameter: 0.32

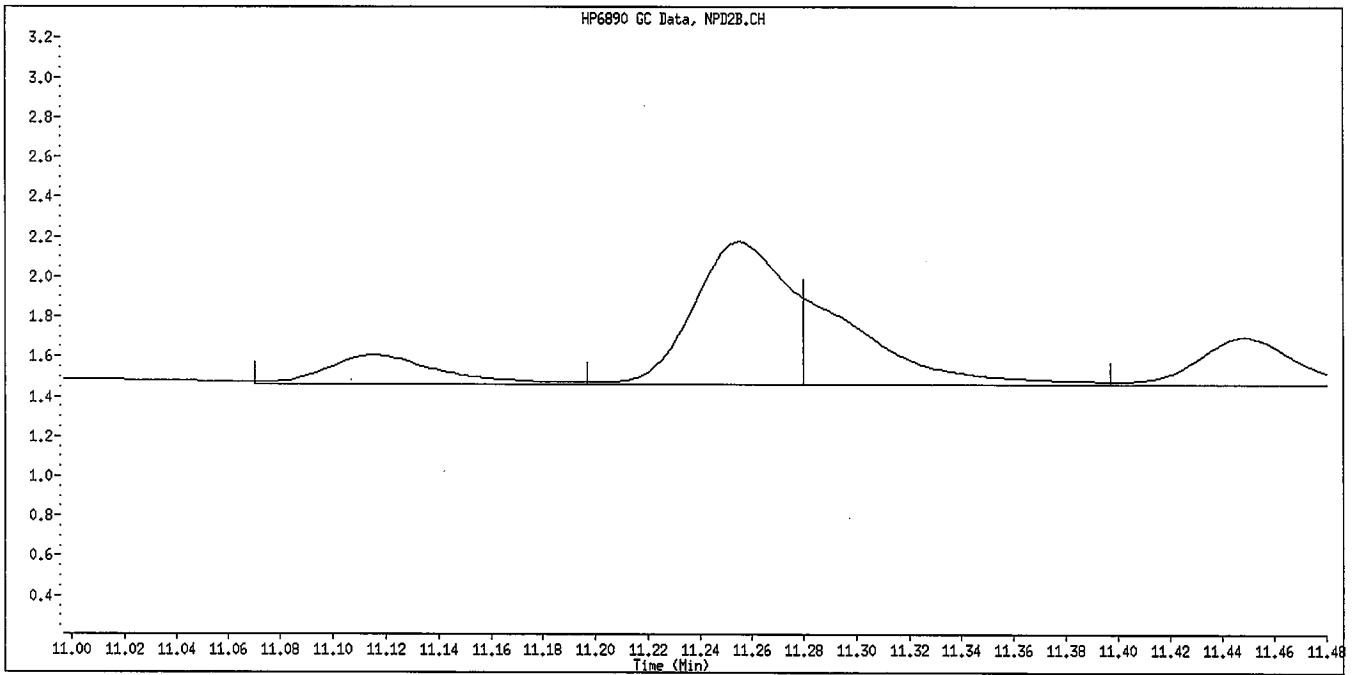
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Data File Name: 007F0701.D
Inj. Date and Time: 06-AUG-2009 14:47
Instrument ID: GC_D2.i
Client ID: OPP L3 GSV873-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration



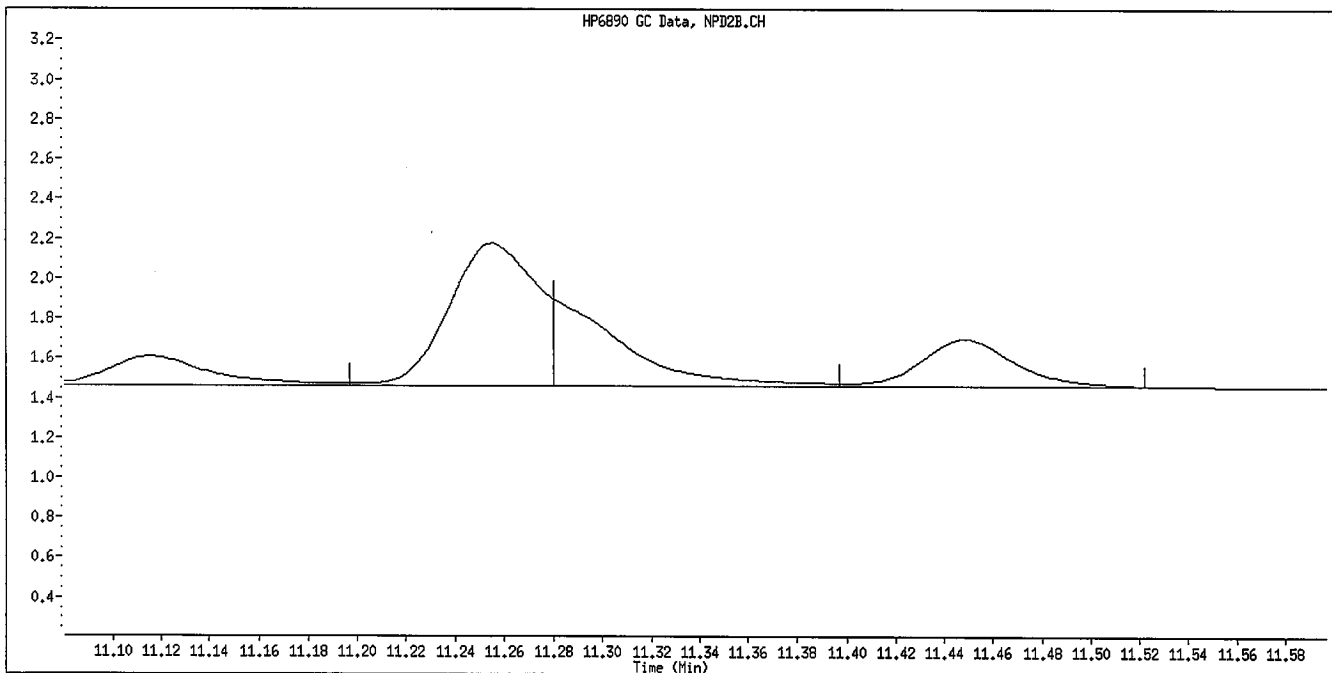
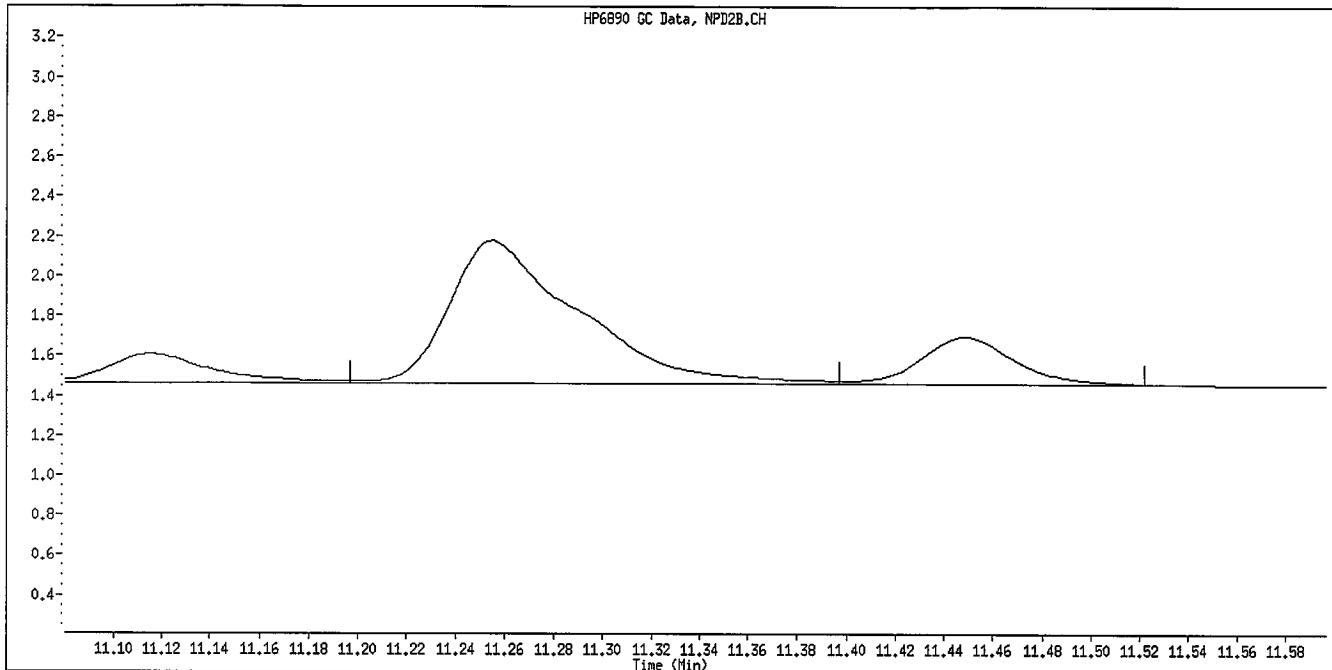
Manual Integration

11/8/09

MANUALLY UPDATED
BASELINE

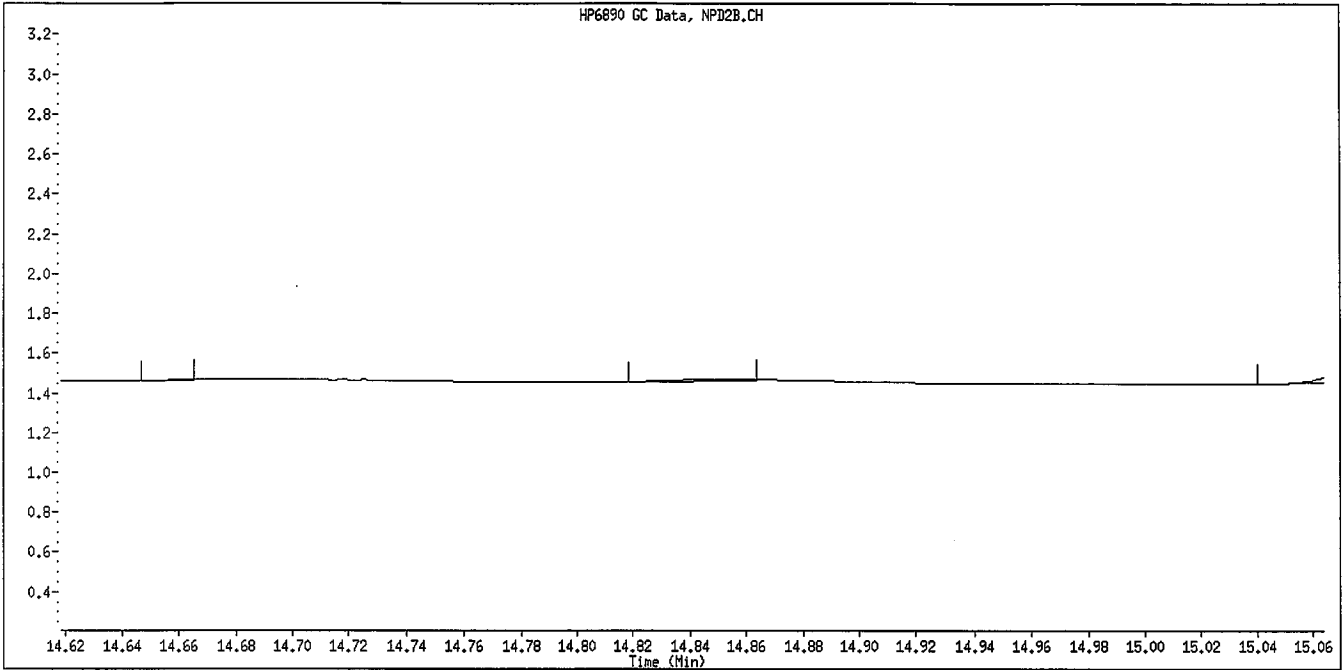
08/17/09
C. J. [Signature]

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

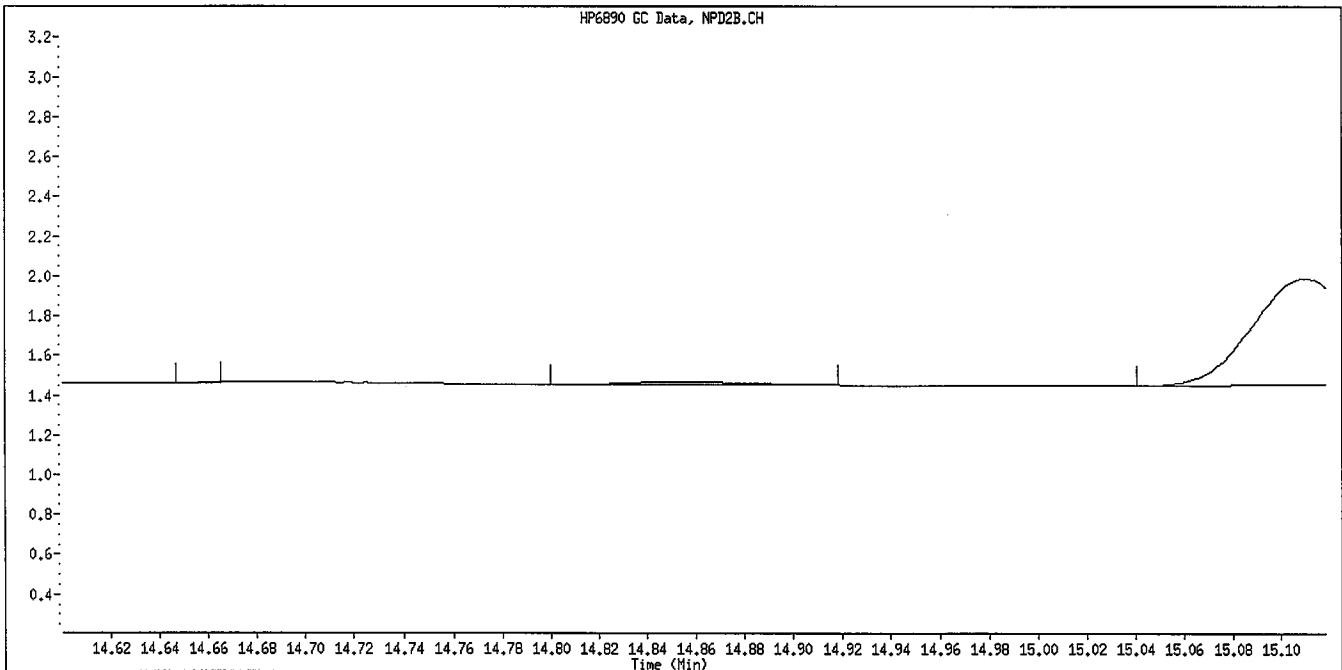


11/8/09
**MANUALLY UPDATED
BASELINE**
*501518
08/07/09*

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

15/8/09

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 Compound Sublist: 8141A.sub
 Integrator: Falcon
 Target Version: 4.14
 Processing Host: DENPC075

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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 Calibration Date: 06-AUG-2009
 Lab File ID: 008F0801.D Calibration Time: 16:09
 Lab Smp Id: OPP L2 GSV874-09 Client Smp ID: OPP L2 GSV874-0
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	435161	217581	870322	380678	-12.52
36 TOCP	224627	112314	449254	229009	1.95

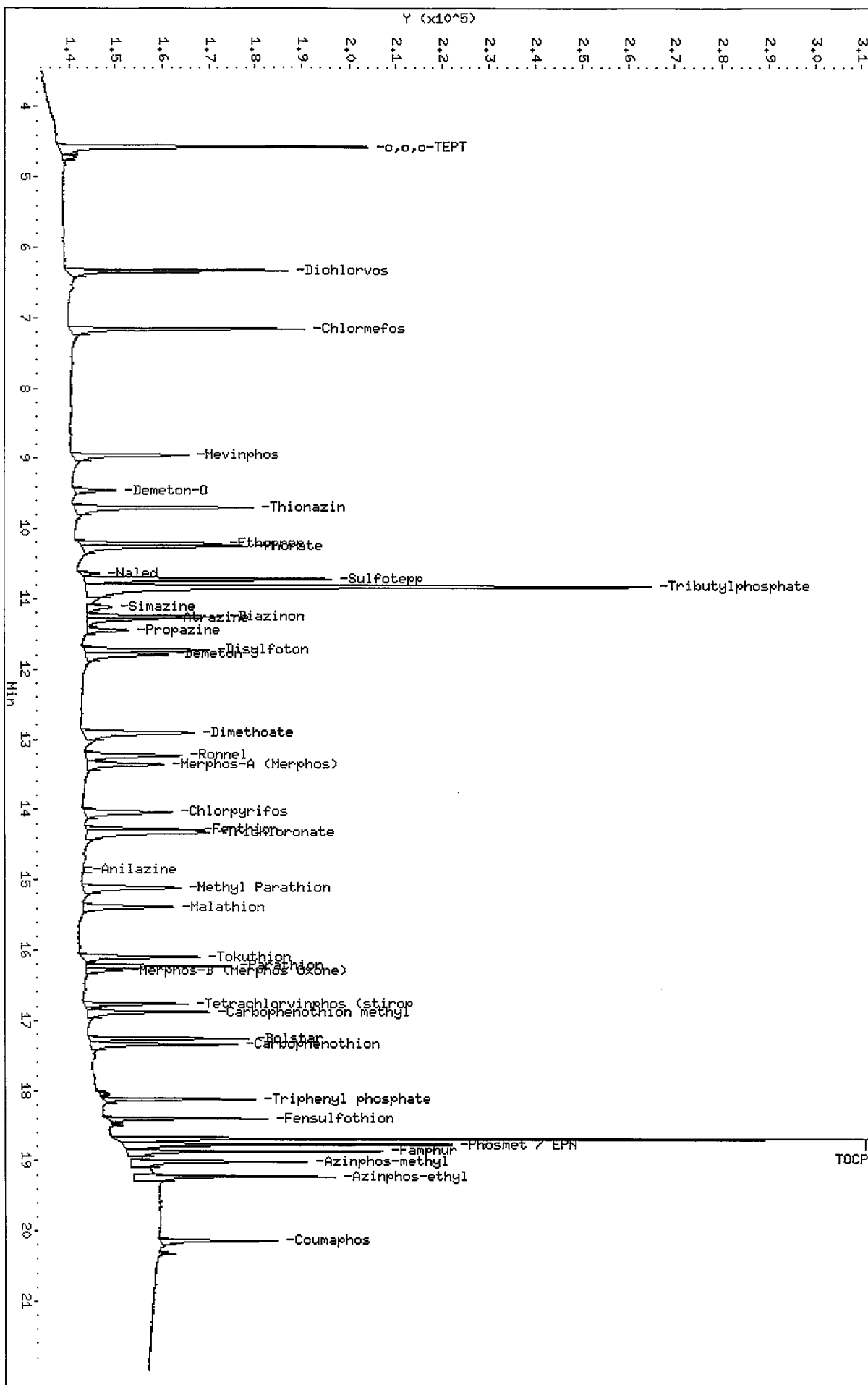
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

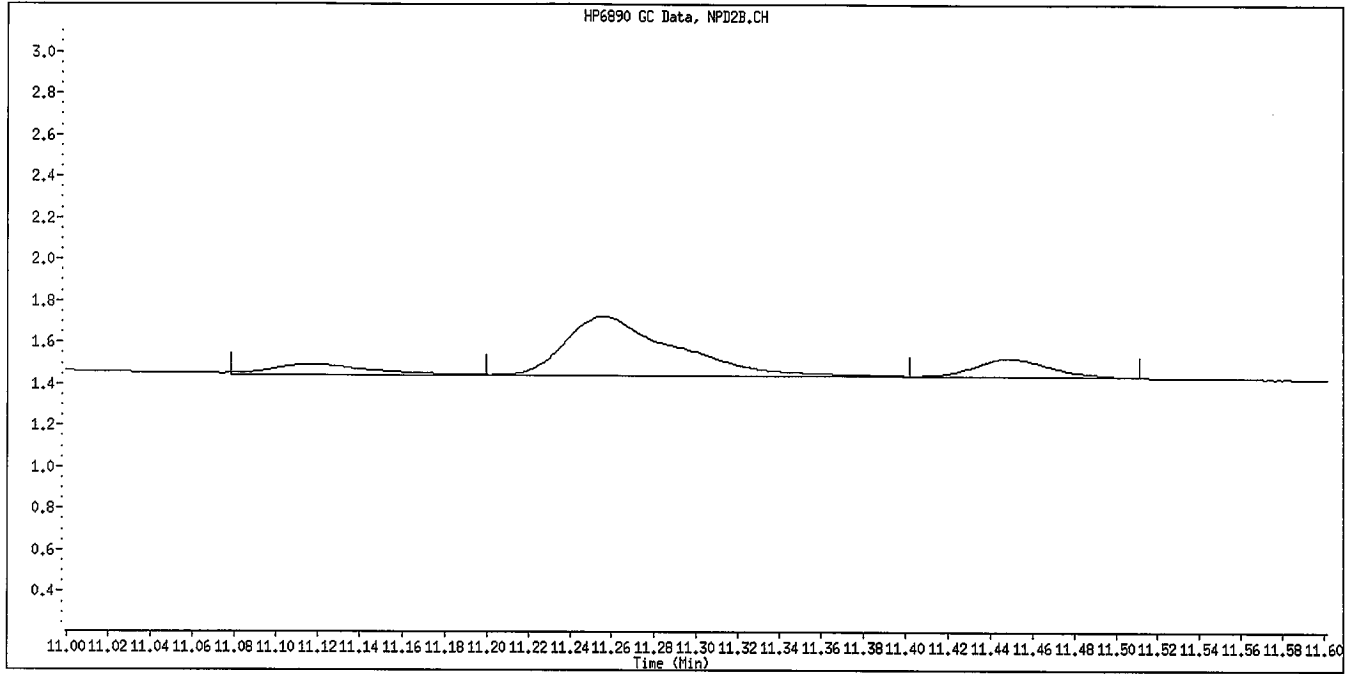
Data File: \\Densvr03\Public\chem\GCS\GC_D2.1\0806092.B\008F0801.D
 Date: 06-AUG-2009 15:15
 Client ID: OPP L2 GSV874-09
 Sample Info: OPP L2 GSV874-09
 Column phase: RTX-QPcast

Instrument: GC_D2.1
 Operator: MPK/TLM
 Column diameter: 0.32

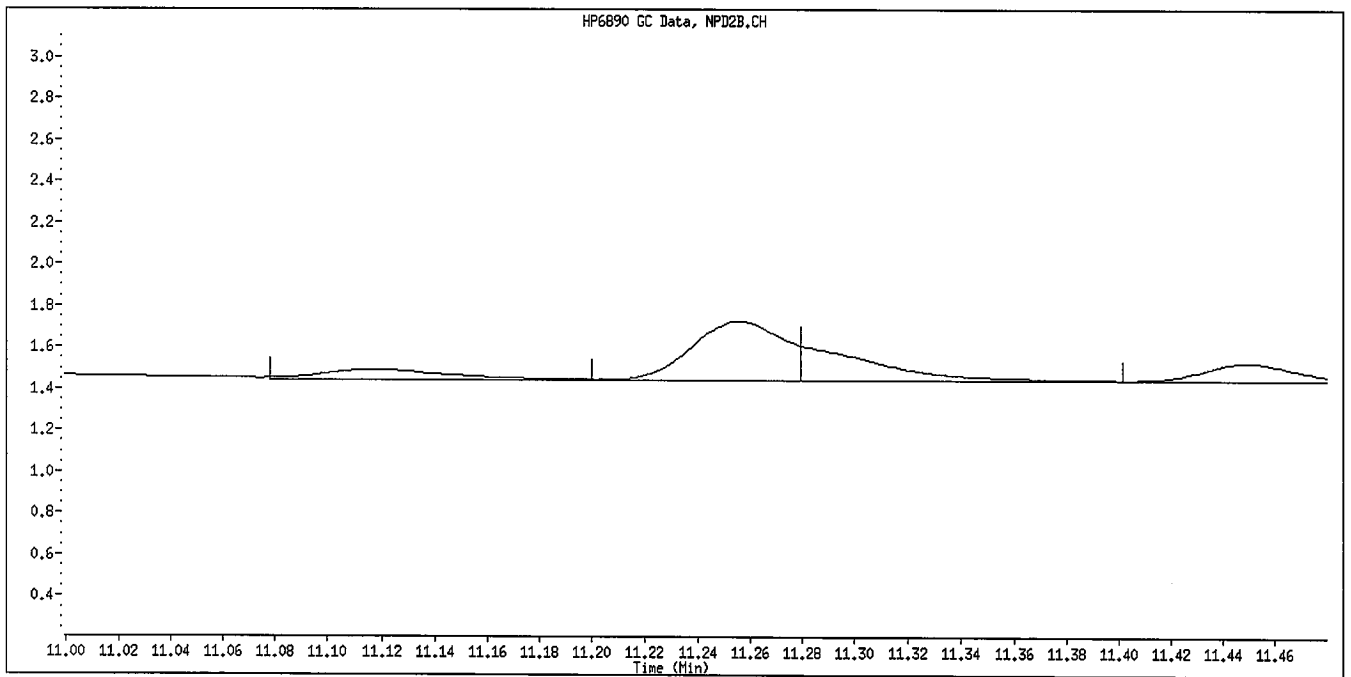
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Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Diazinon
CAS #:
Report Date: 08/07/2009



Original Integration

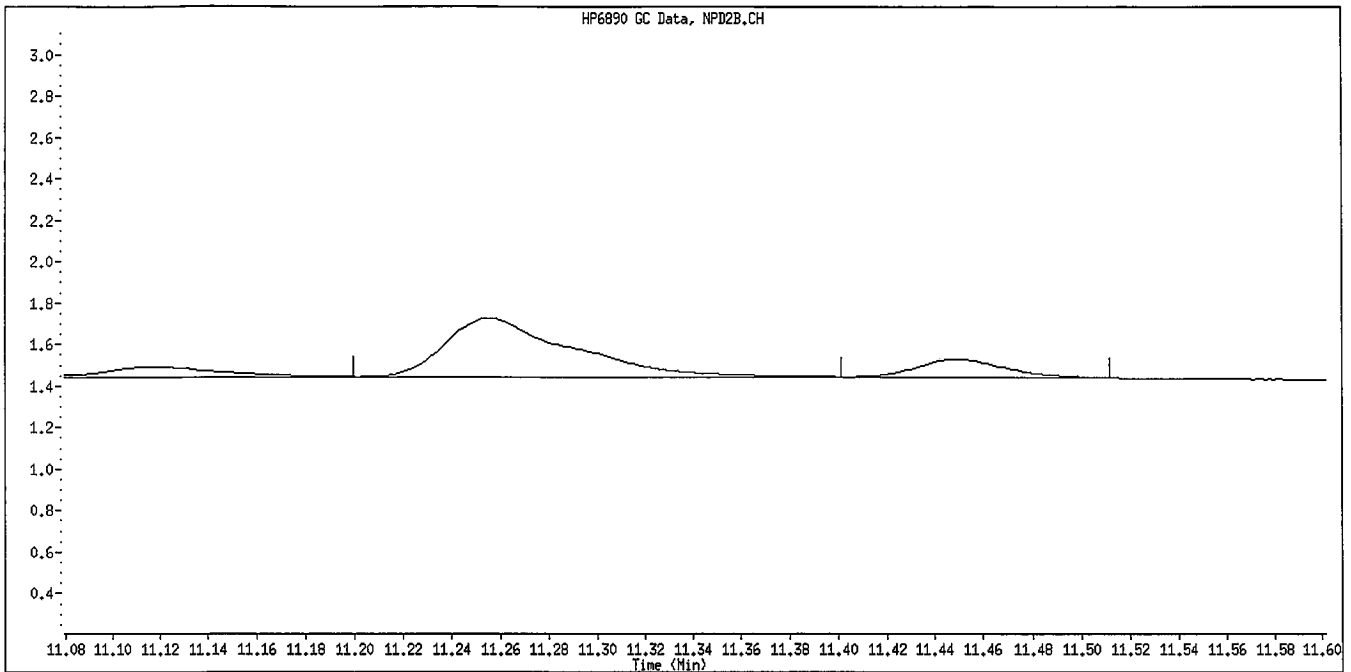


Manual Integration

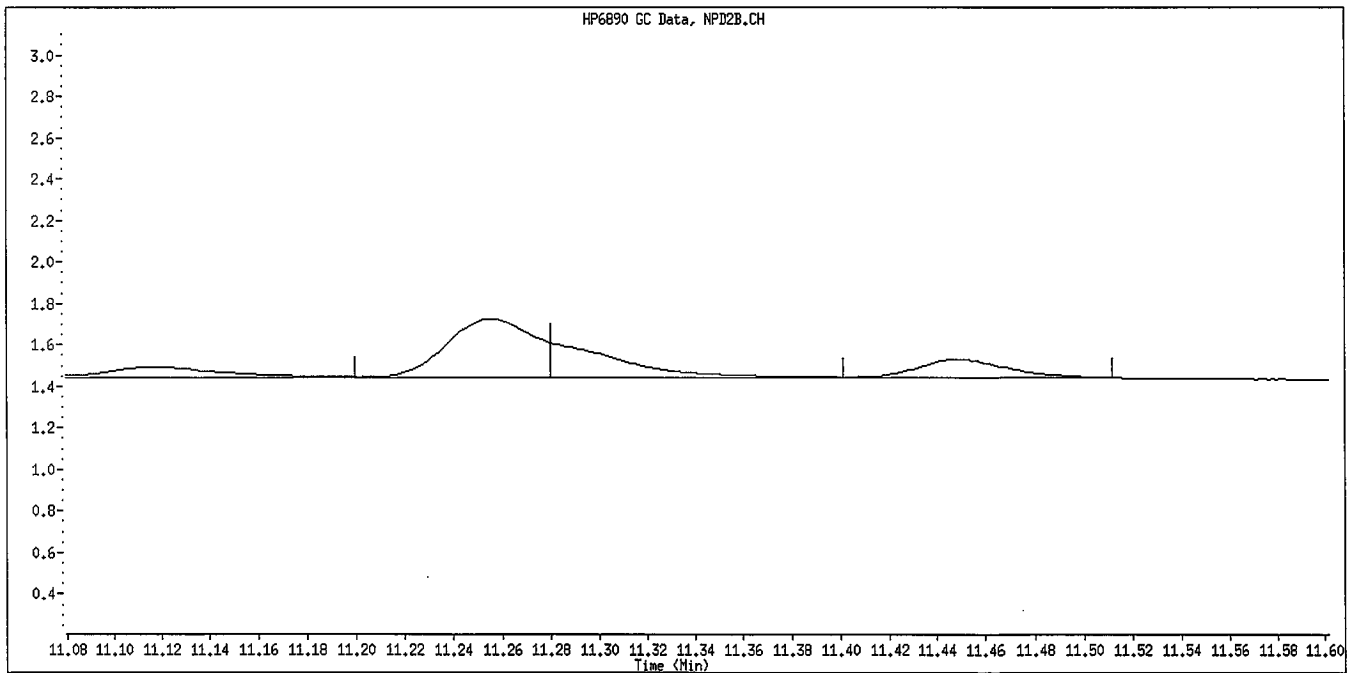
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11/27/09

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

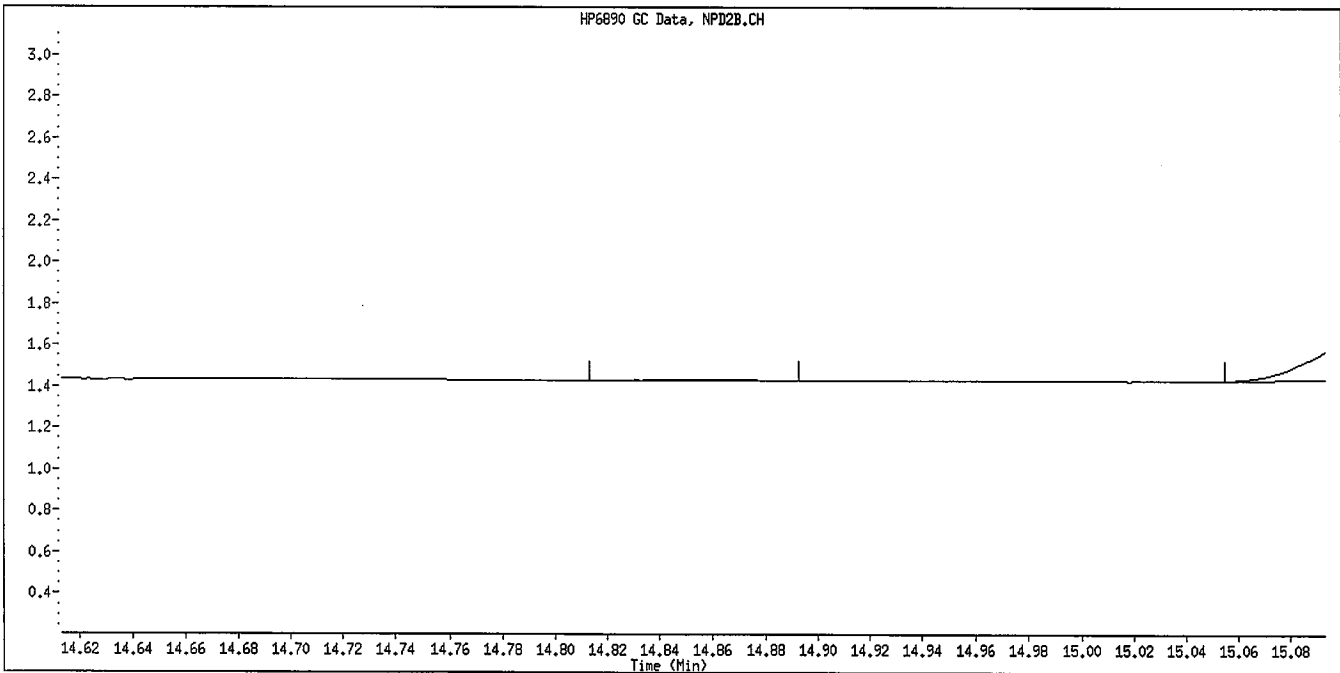
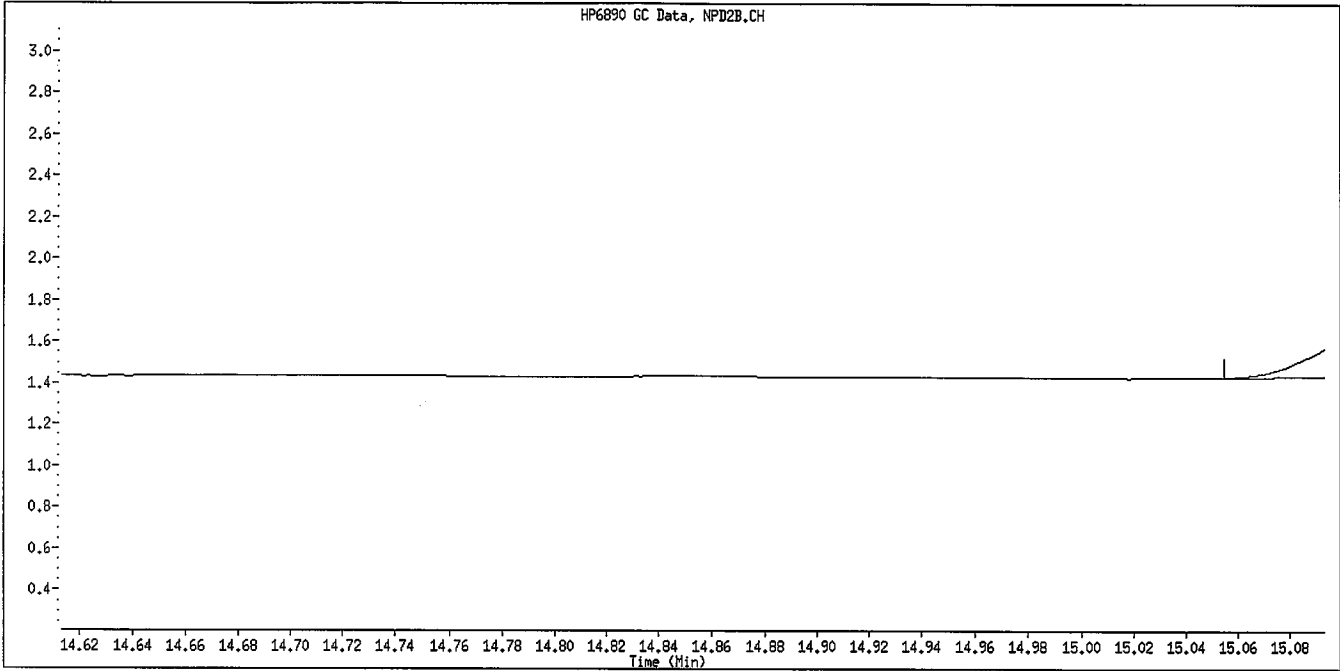


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11-8174

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



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

WJ
8/7/09

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	435161	217581	870322	378115	-13.11
36 TOCP	224627	112314	449254	232604	3.55

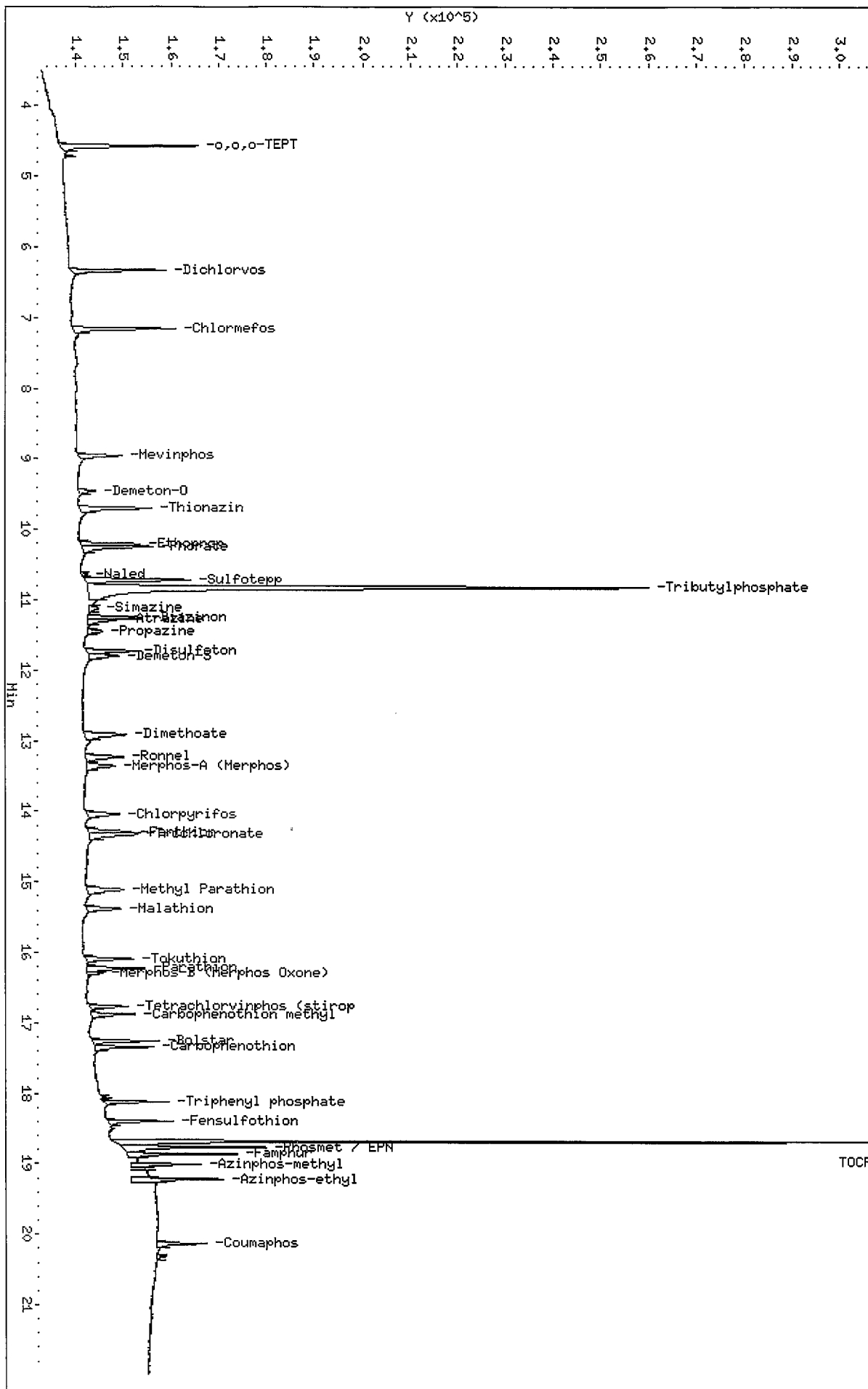
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
11 Tributylphosphate	10.83	10.33	11.33	10.83	0.02
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

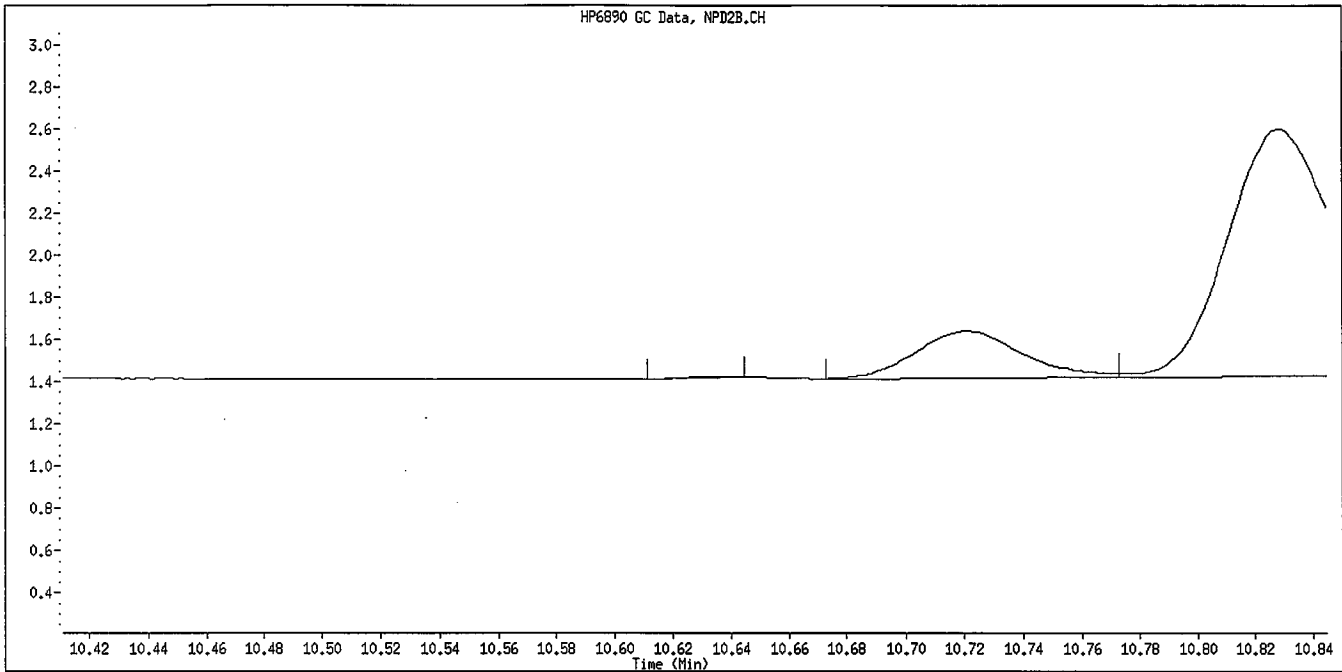
Data File: \\Densv03\Public\chem\GCS\GC_D2.1\0806092.B\009F0901.D
 Date: 06-AUG-2009 15:42
 Client ID: OPP L1 GSV875-09
 Sample Info: OPP L1 GSV875-09
 Column phase: RTX-QPest

Instrument: GC_D2.1
 Operator: MPK/TLM
 Column diameter: 0.32

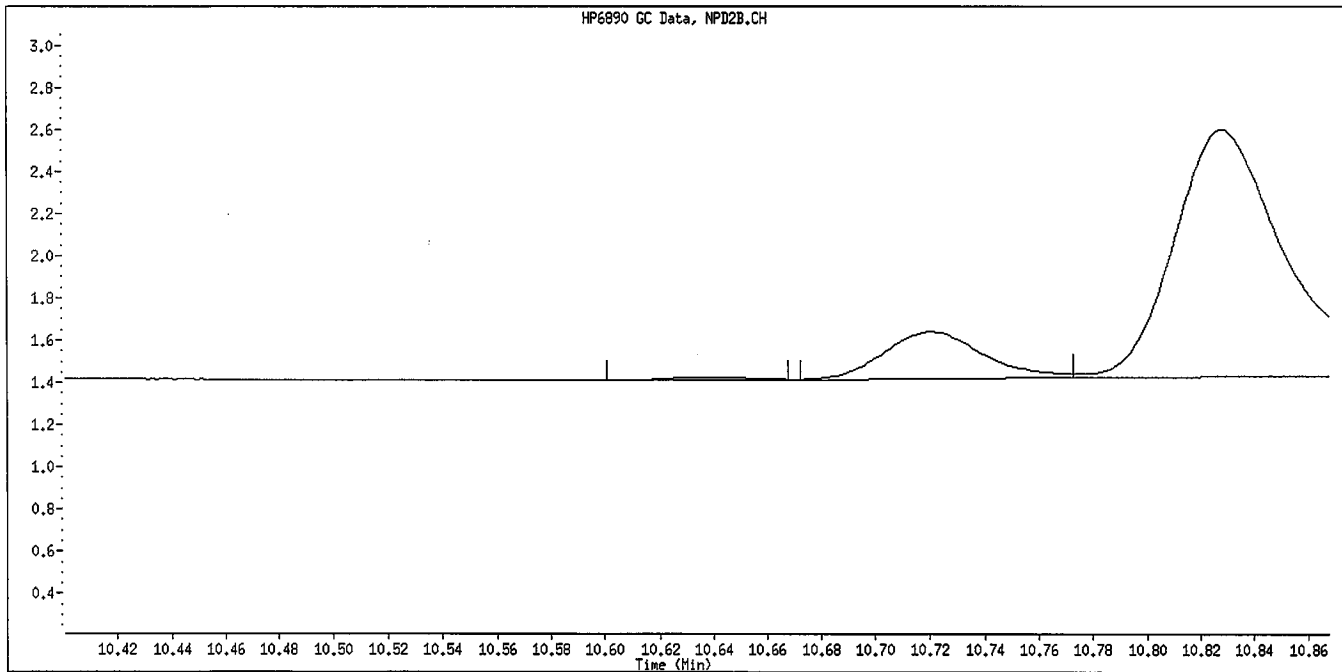
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Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Naled
CAS #:
Report Date: 08/07/2009



Original Integration

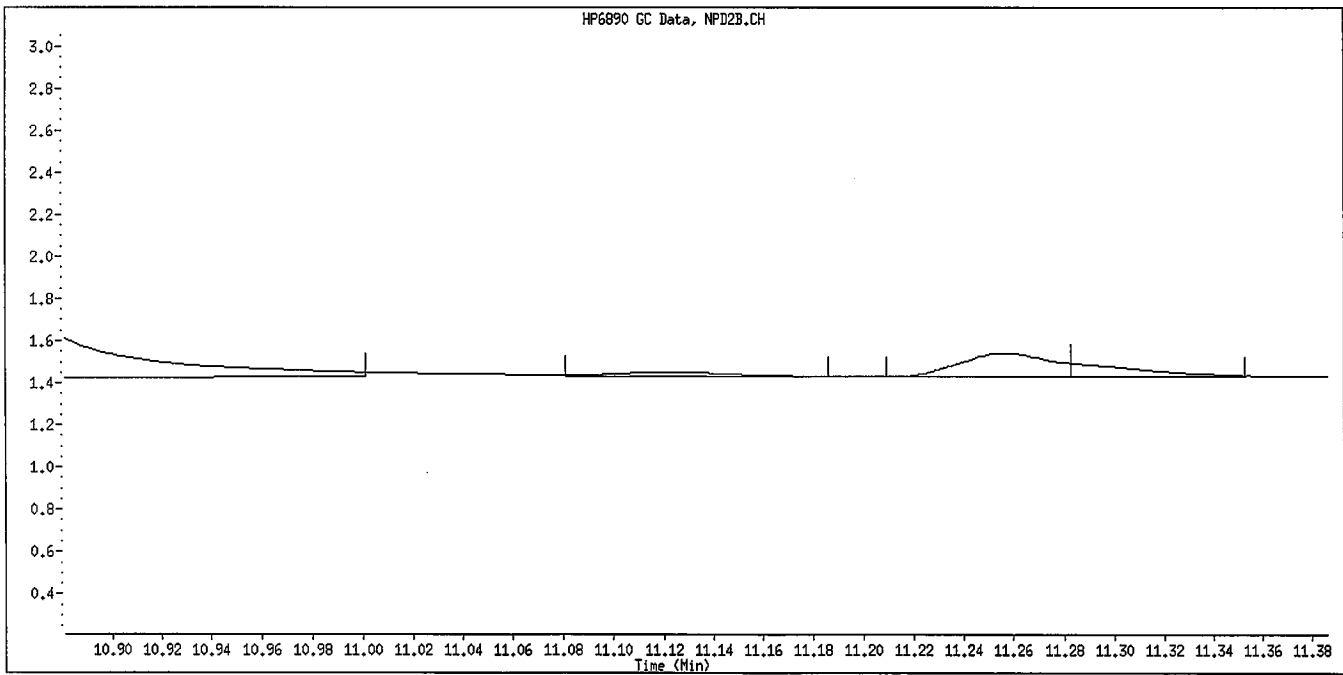
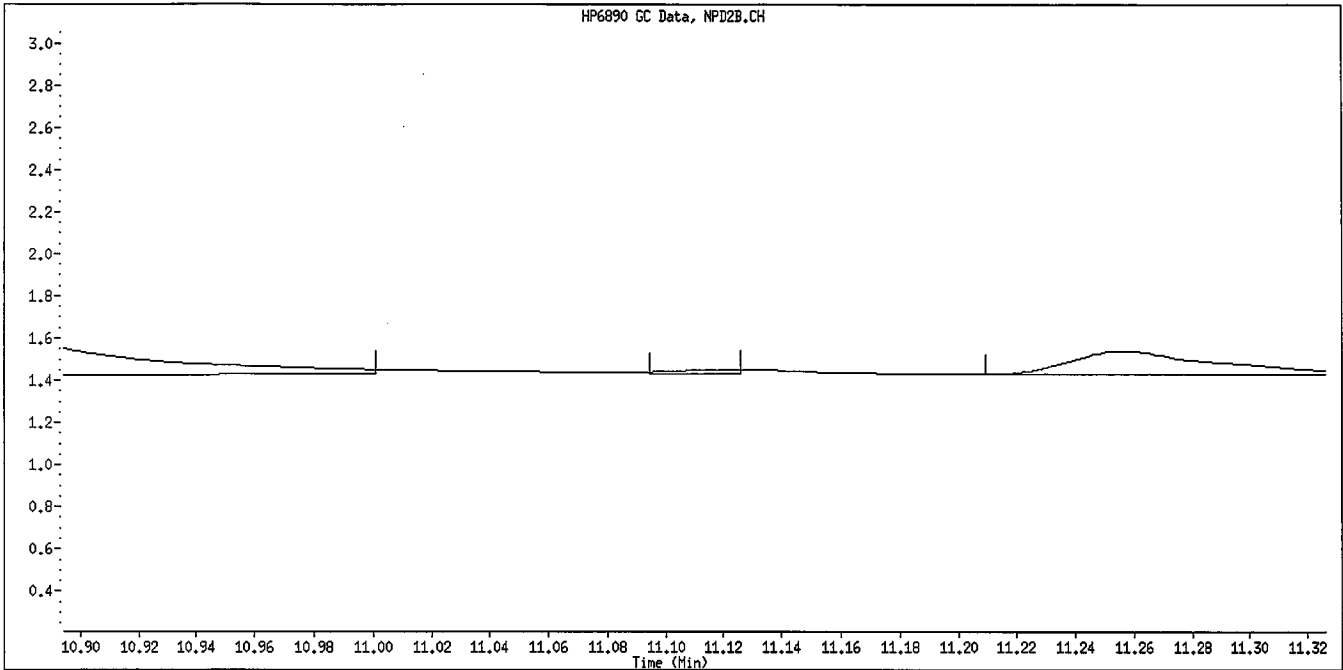


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

*CV
8/7/09*

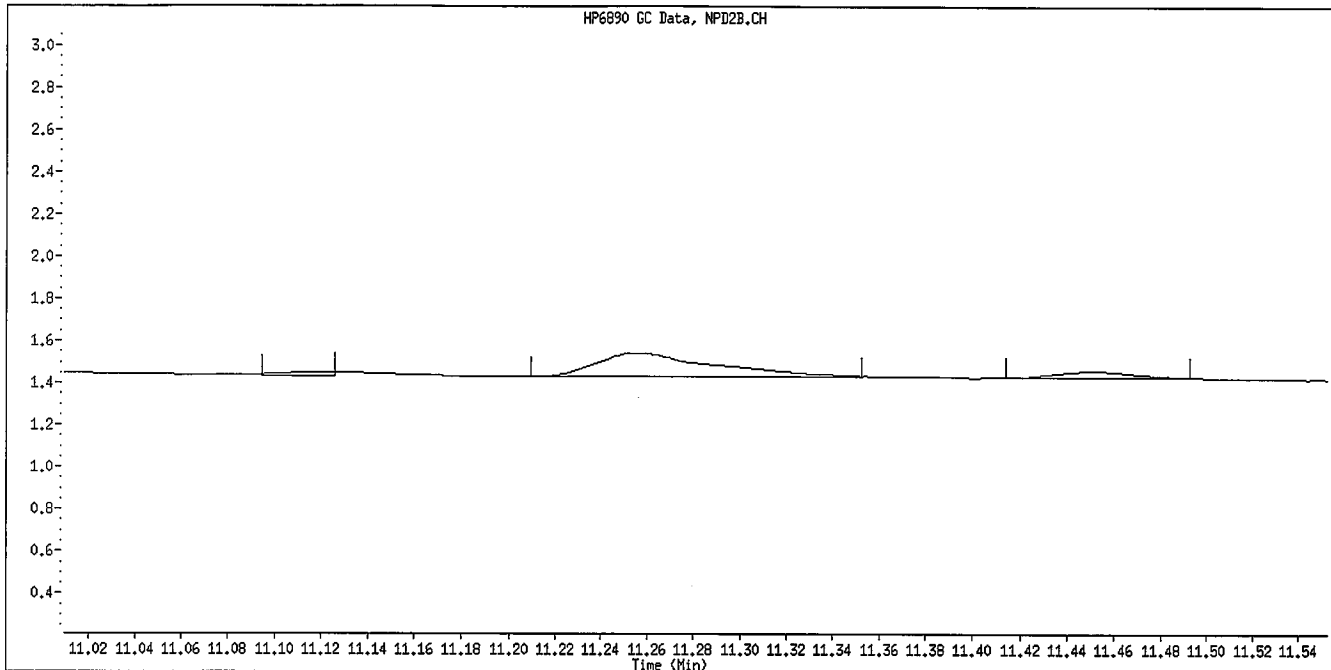
Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Simazine
CAS #:
Report Date: 08/07/2009



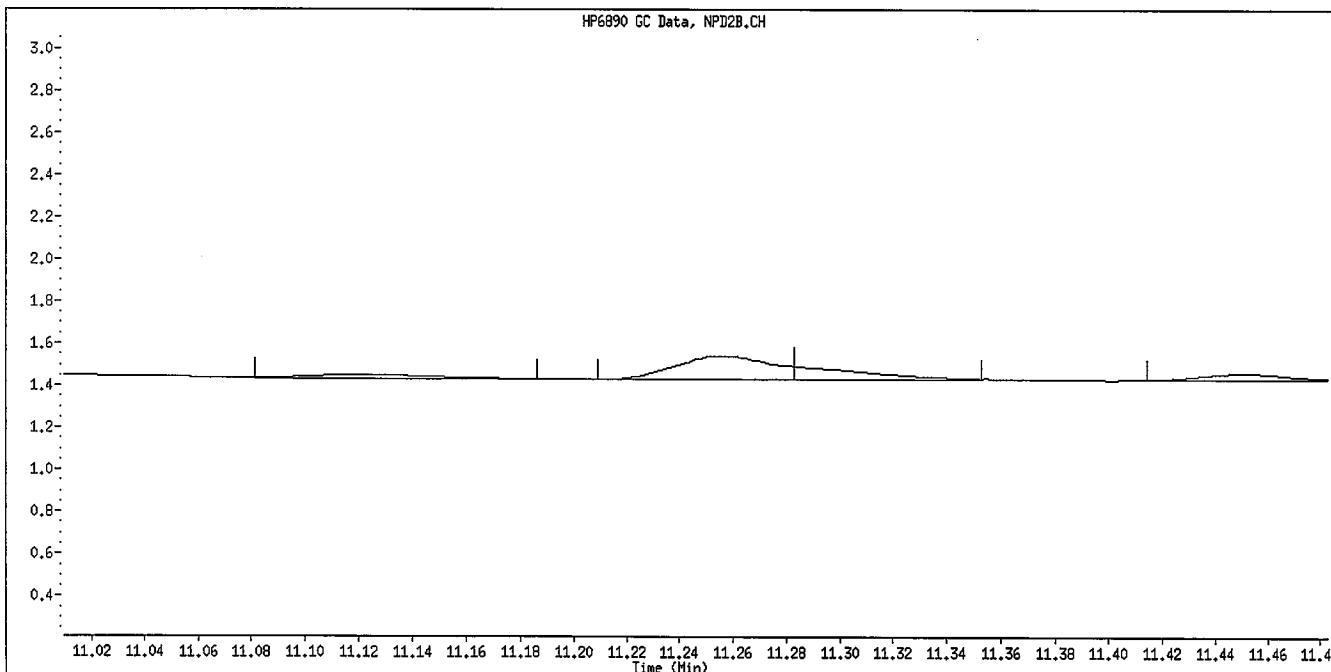
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

CV-81705

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

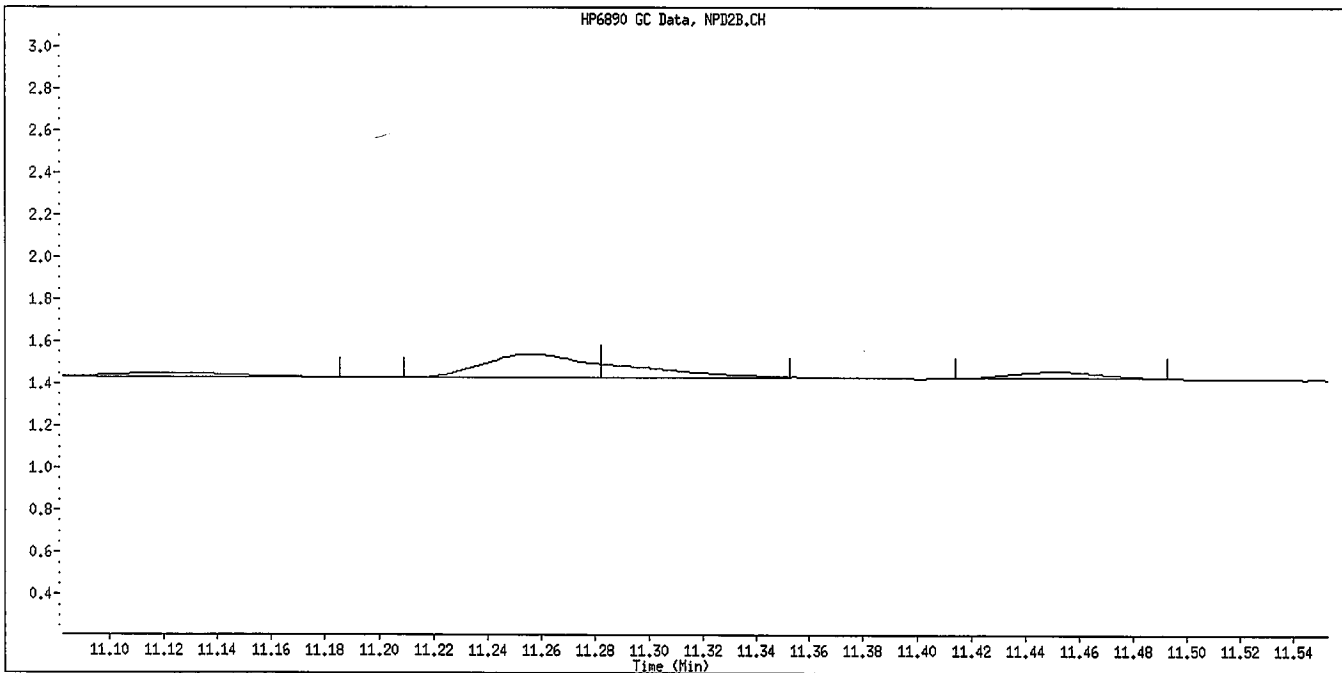
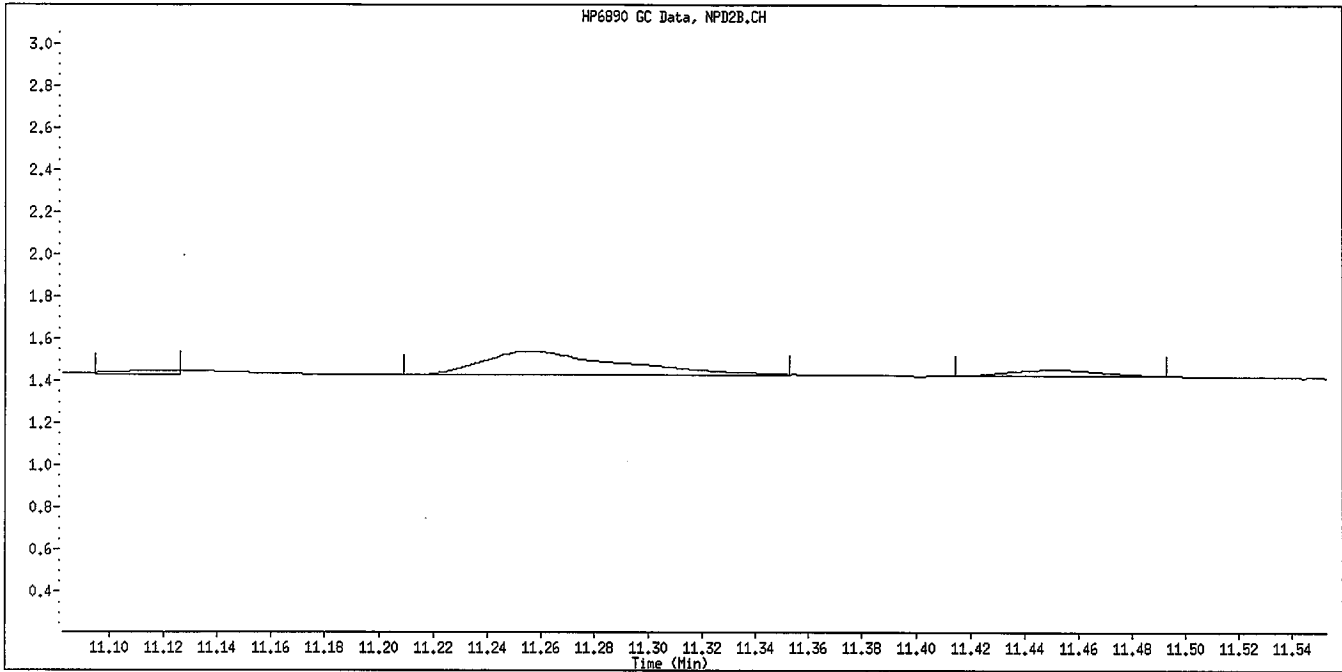


Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

IF 8/7/09

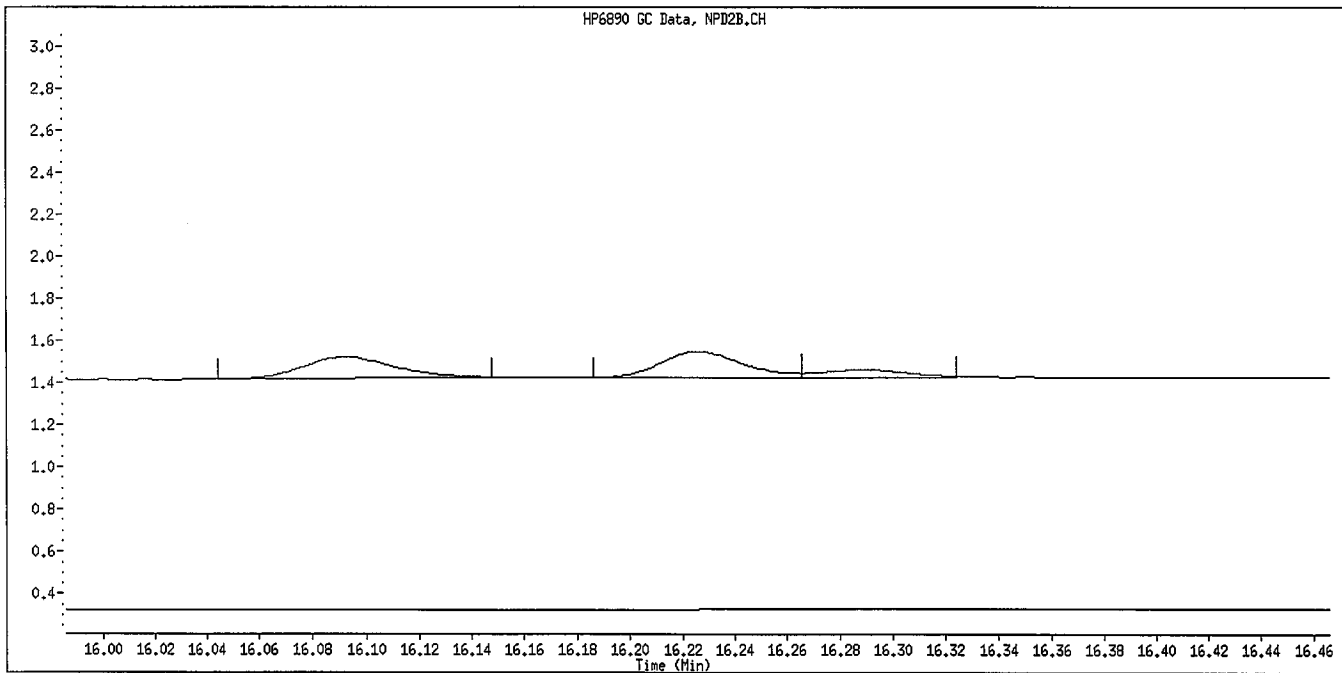
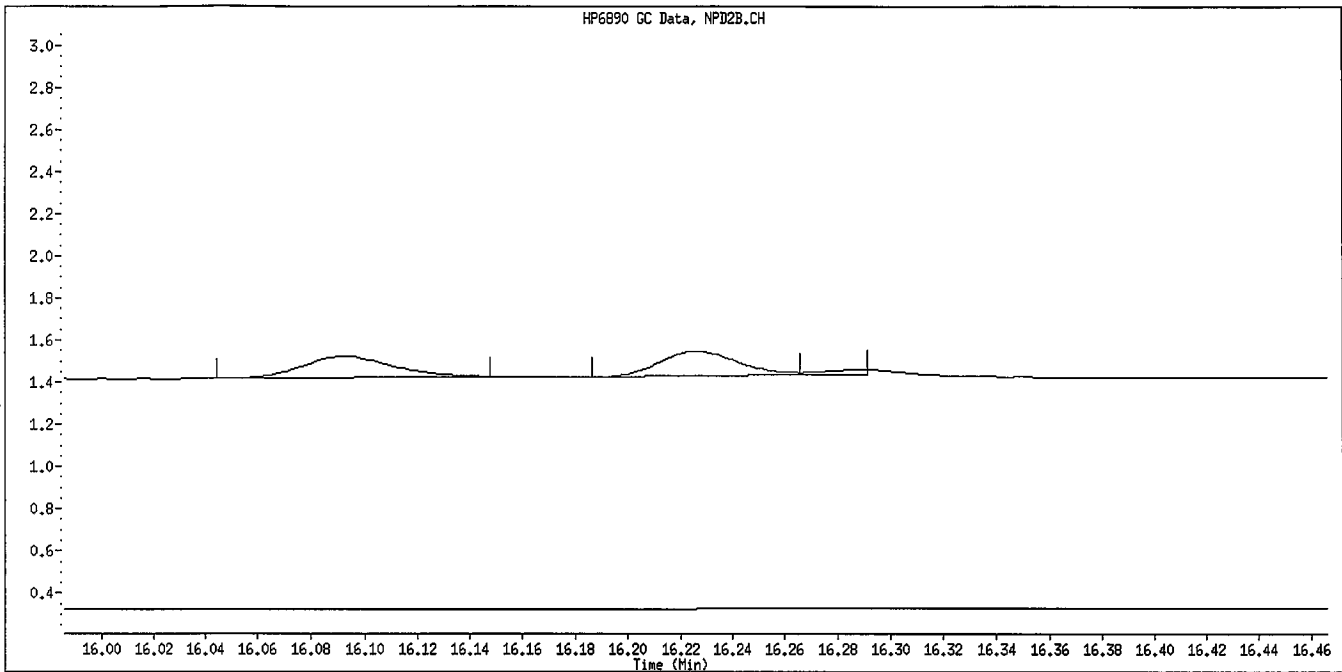
Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Atrazine
CAS #:
Report Date: 08/07/2009



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

VF-877c

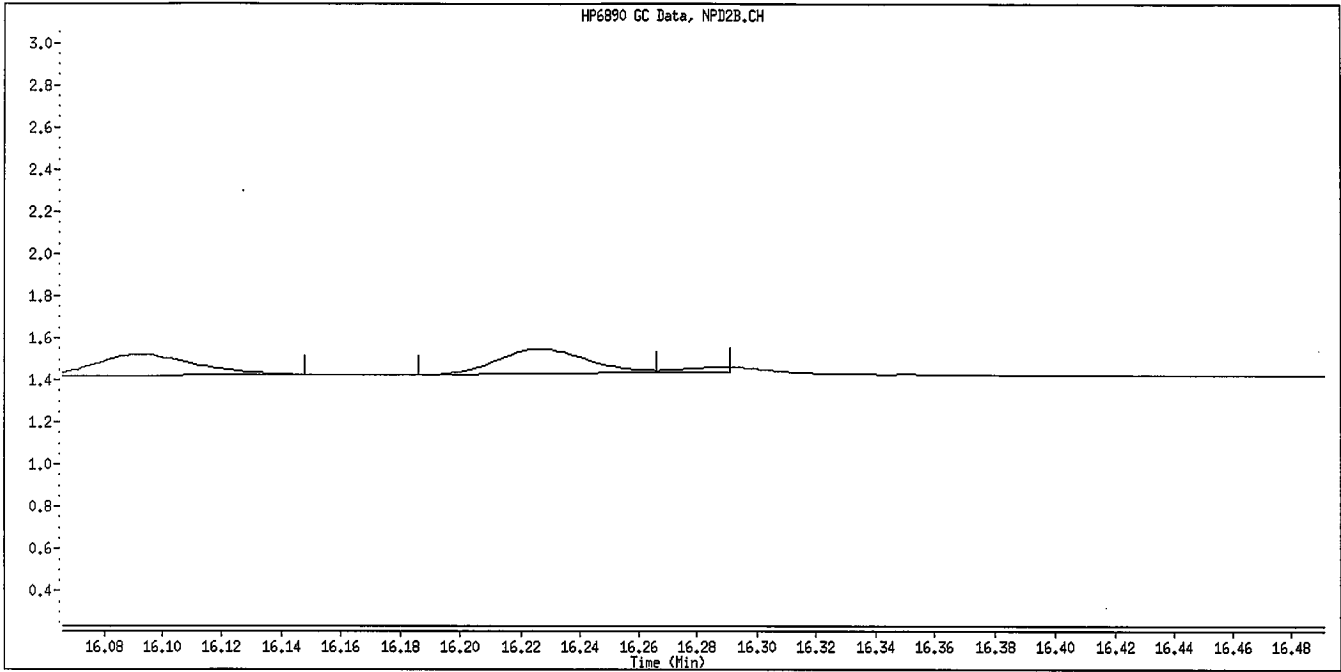
Data File Name: 009F0901.D
Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Parathion
CAS #:
Report Date: 08/07/2009



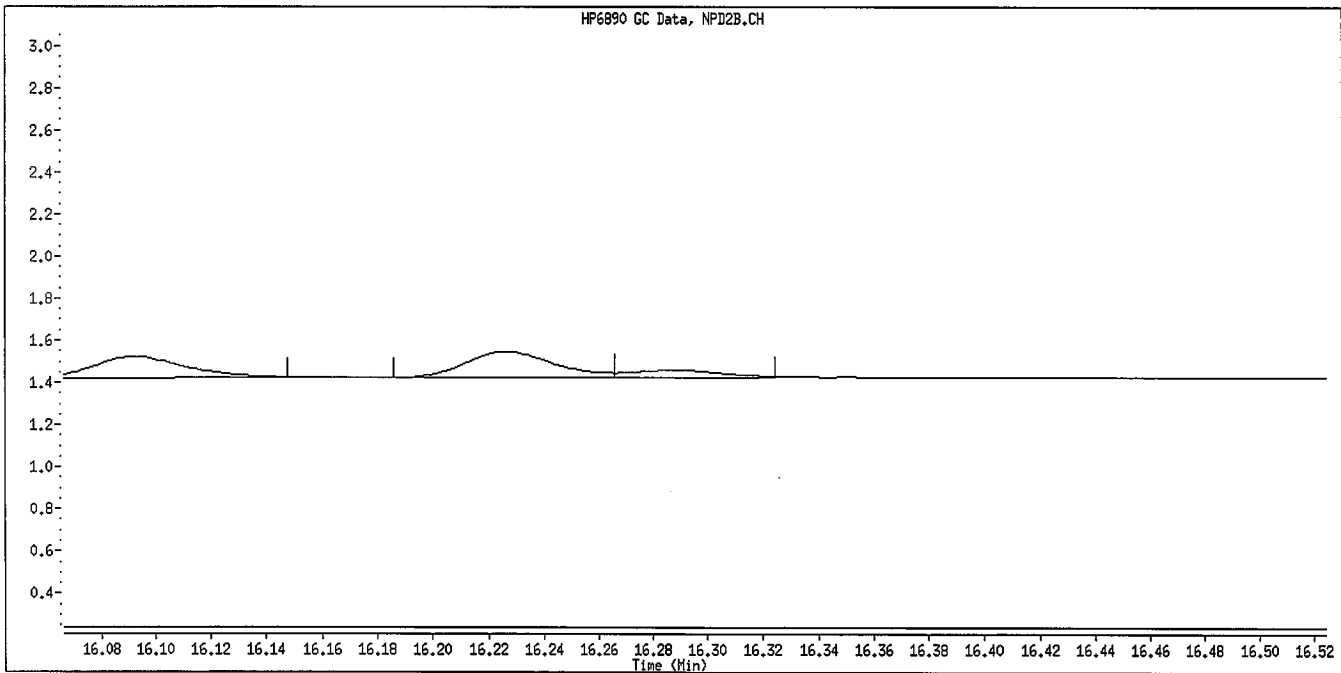
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LF 877105

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

cf 8710

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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 Calibration Date: 07-AUG-2009
 Lab File ID: 010F1001.D Calibration Time: 04:28
 Lab Smp Id: OPP SS GSV895-09 Client Smp ID: OPP SS GSV895-0
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806092.B\8141A-2.m
 Misc Info:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	654091	327046	1308182	435161	-33.47
36 TOCP	355327	177664	710654	224627	-36.78

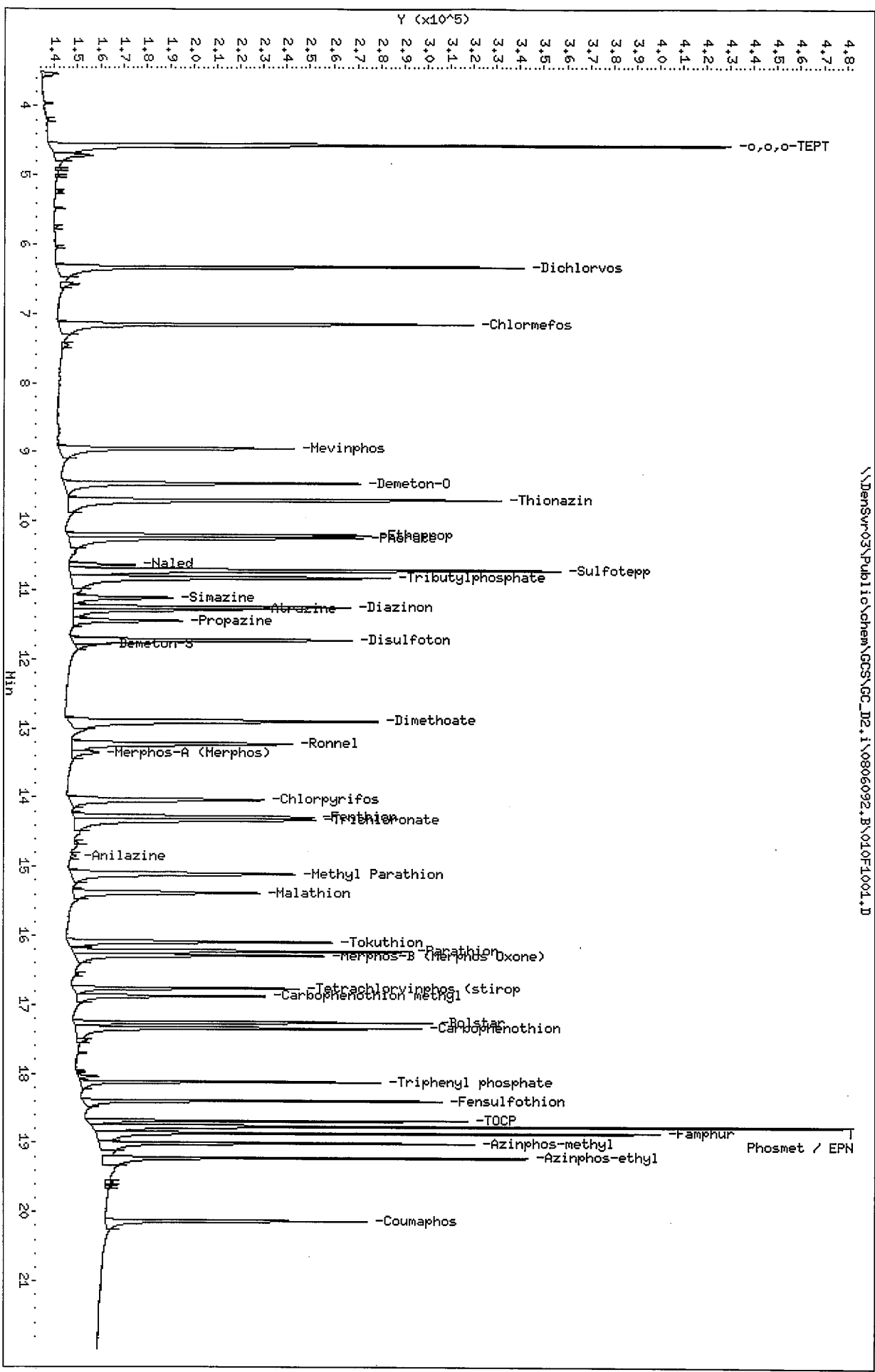
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
11 Tributylphosphate	10.82	10.32	11.32	10.83	0.08
36 TOCP	18.68	18.18	19.18	18.68	0.01

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.

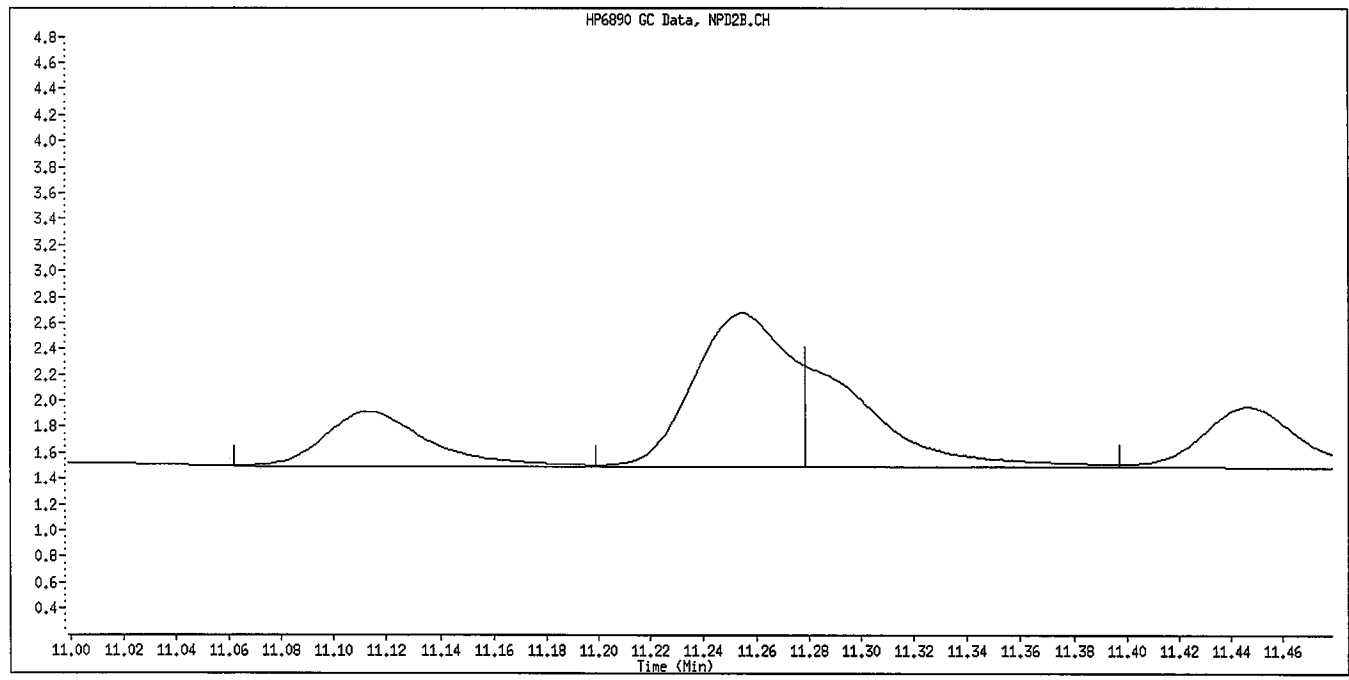
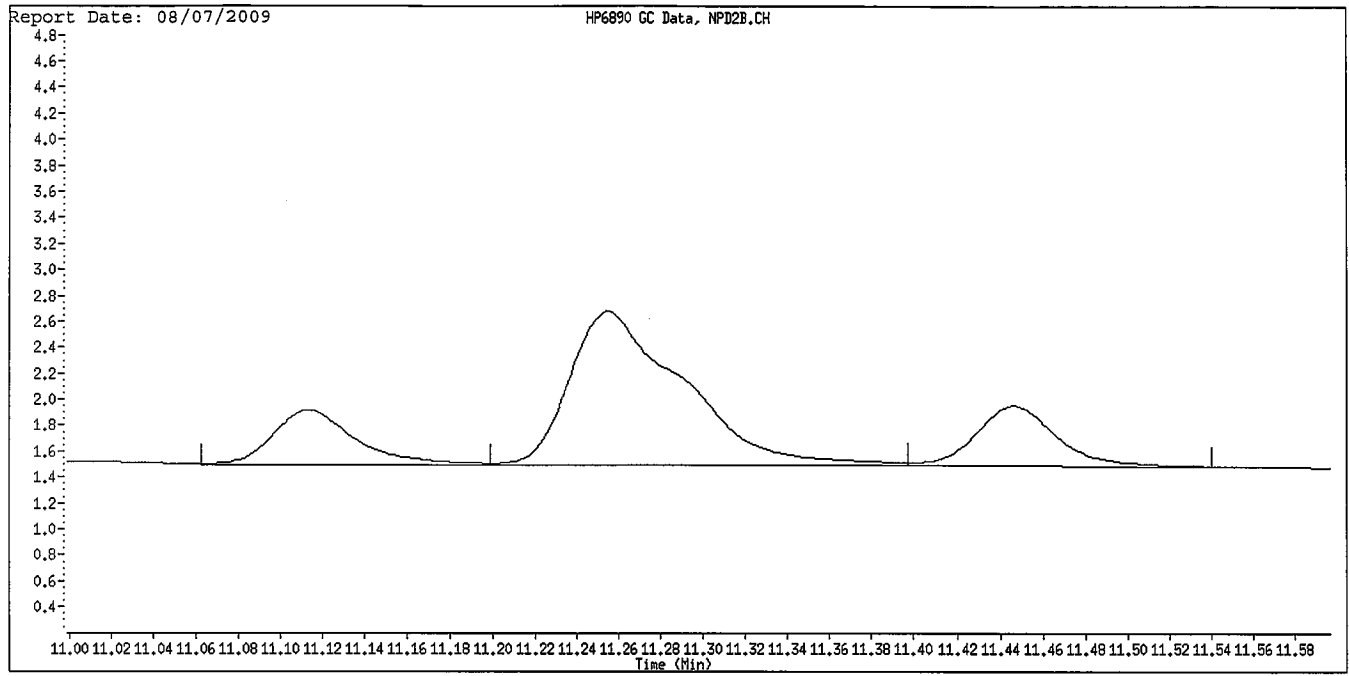
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 Date: 06-AUG-2009 16:09
 Client ID: OPP SS GSV895-09
 Sample Info: OPP SS GSV895-09
 Column phase: RTX-OPPest

Instrument: GC_D2.1
 Operator: HPK/TLM
 Column diameter: 0.32

\\Densvr03\Public\chem\GCS\GC_D2.1\0806092.B\010F1001.D



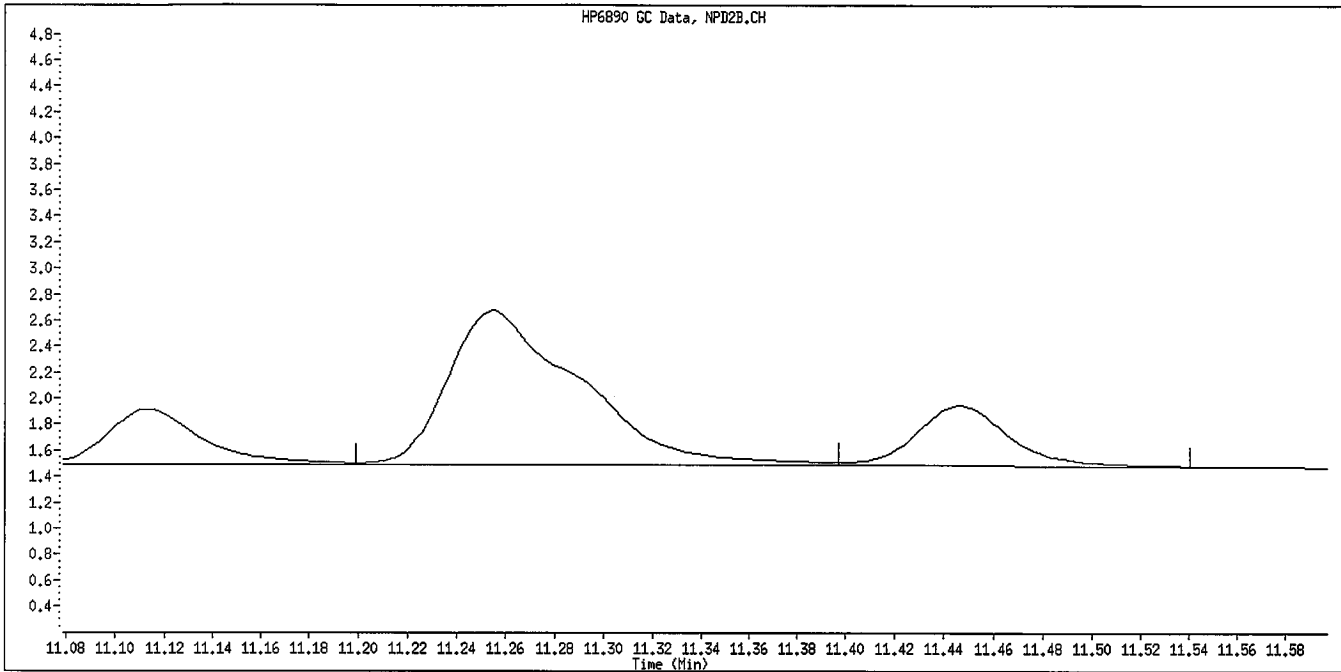
Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Diazinon
CAS #:



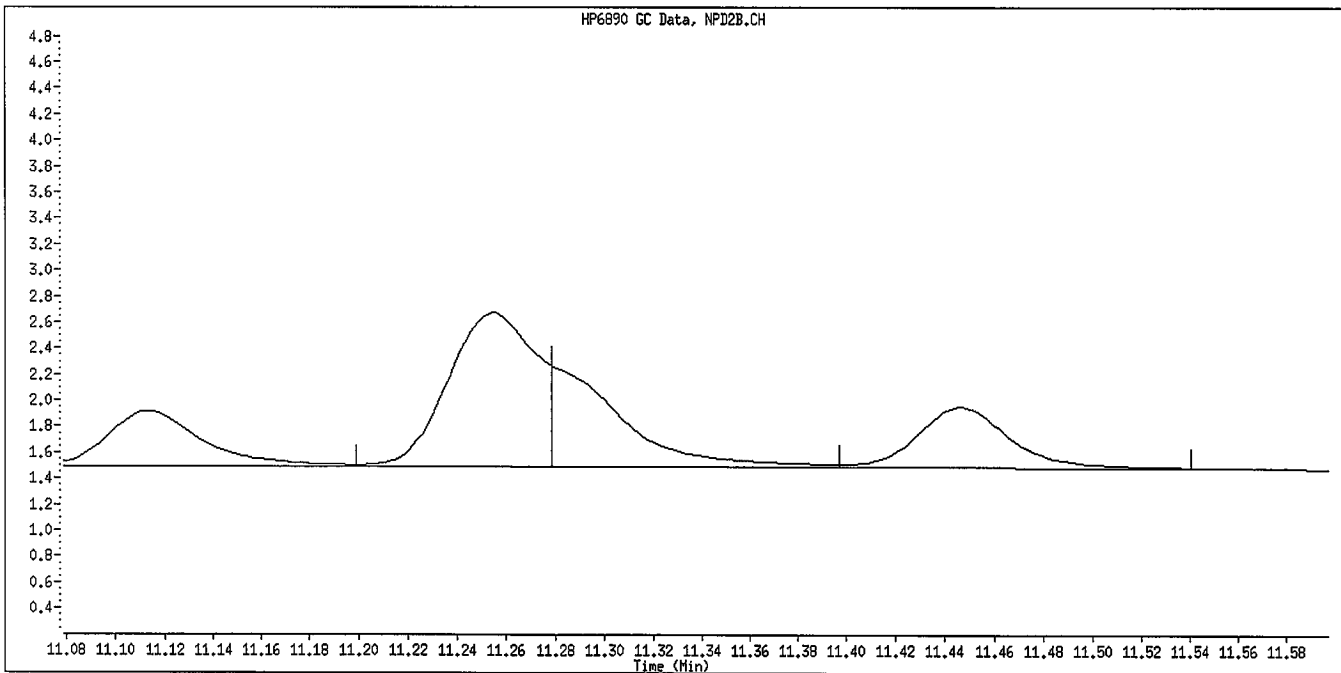
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

williamst

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

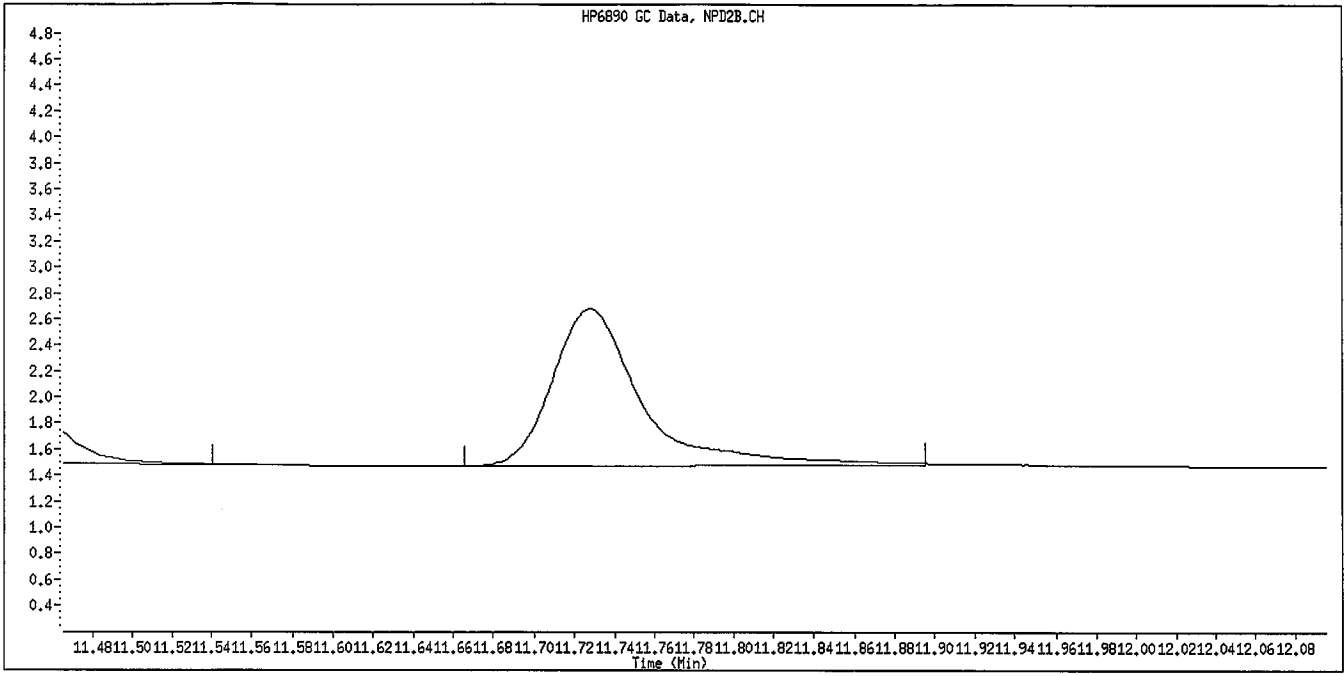


Manual Integration

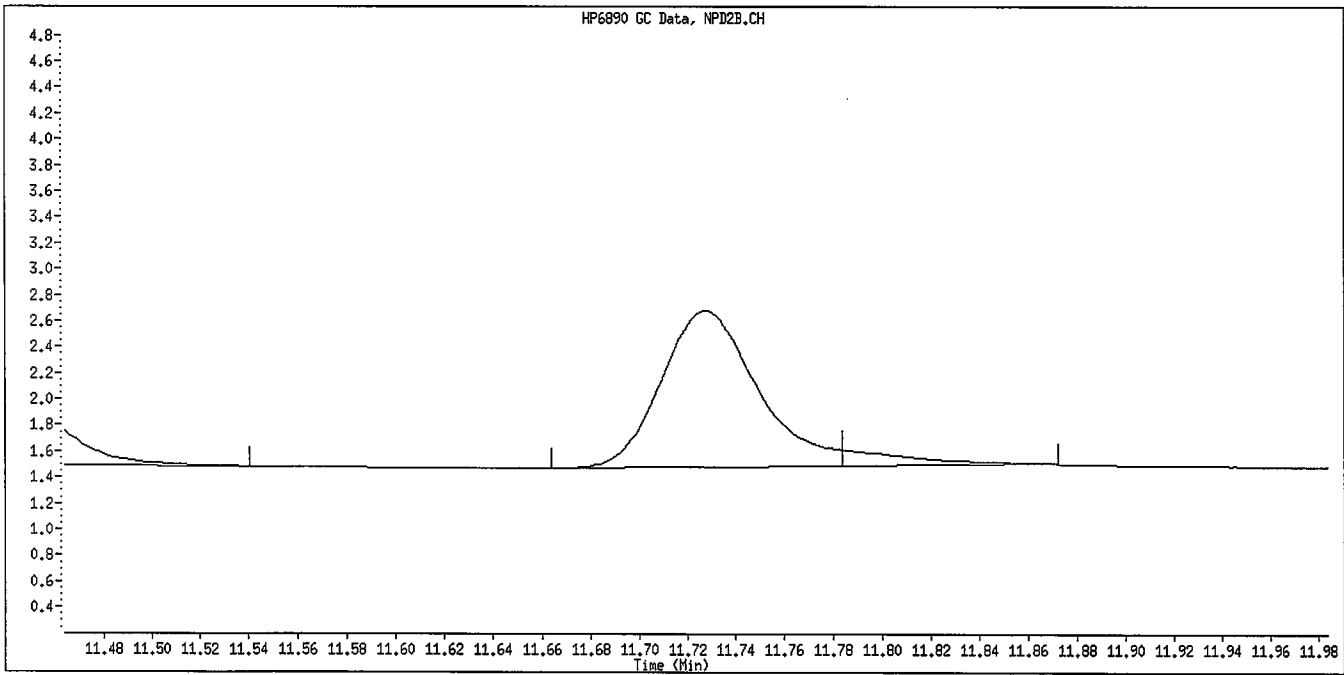
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

RF 876

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

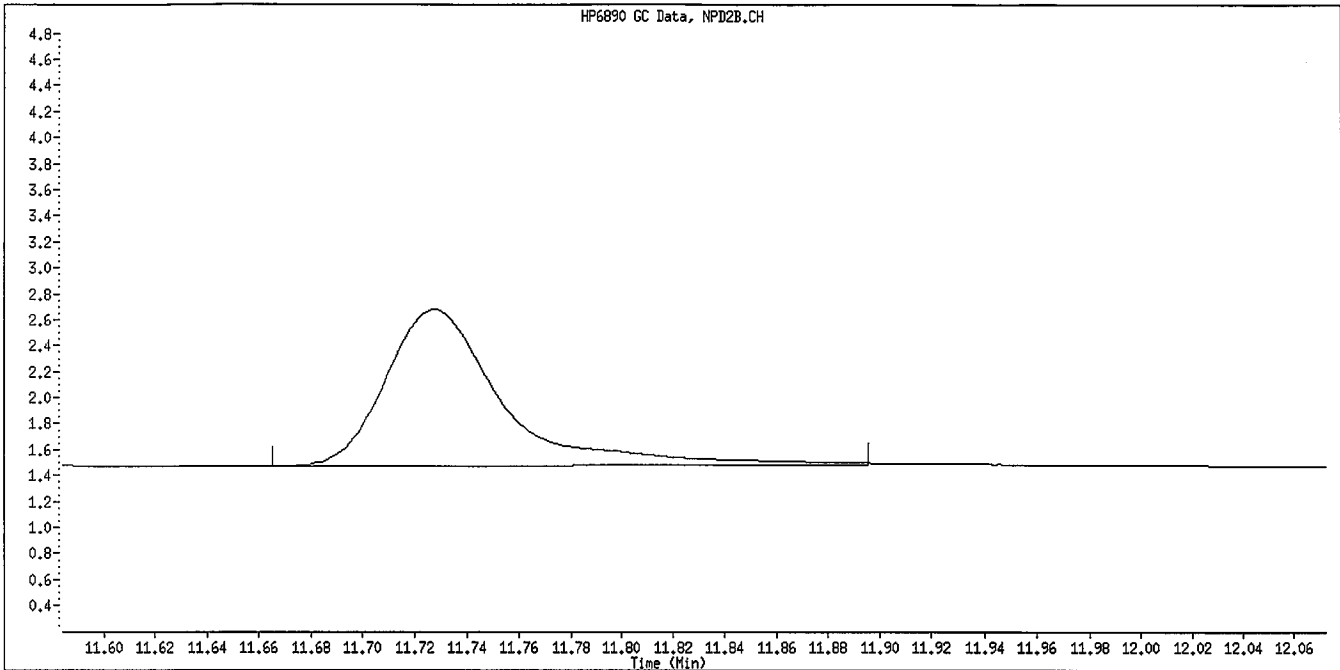


Manual Integration

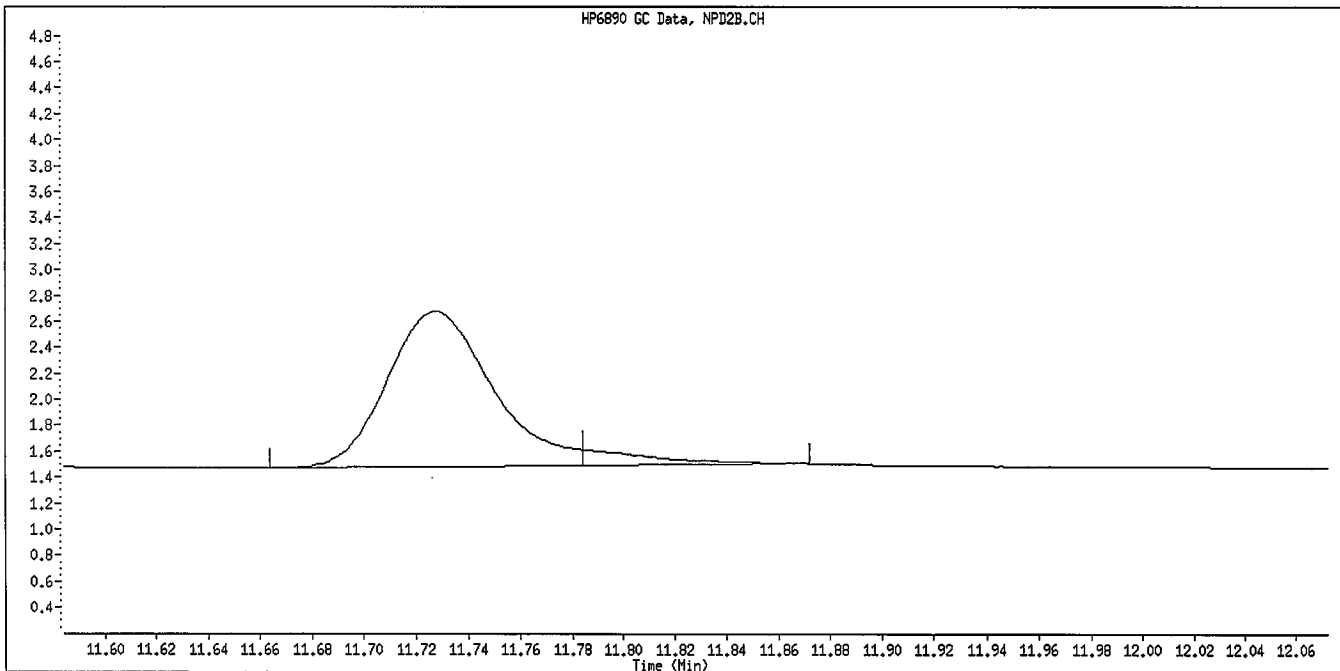
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11-8110

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

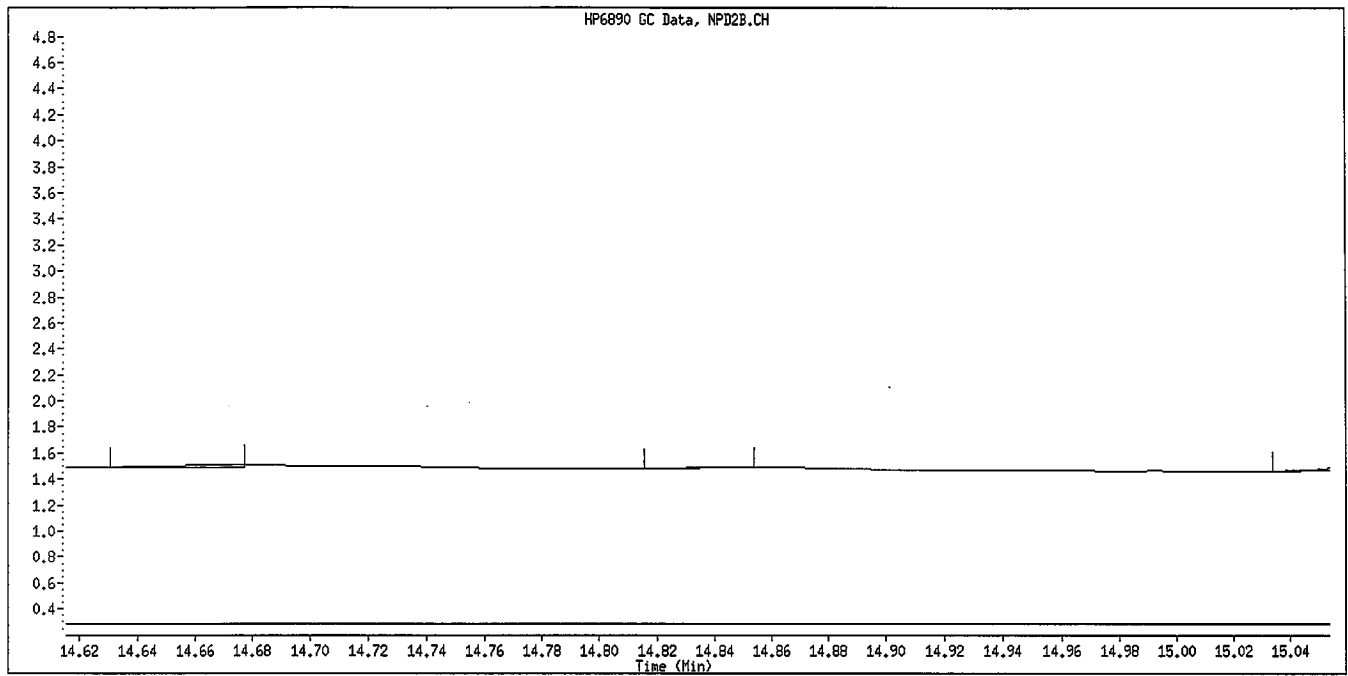


Manual Integration

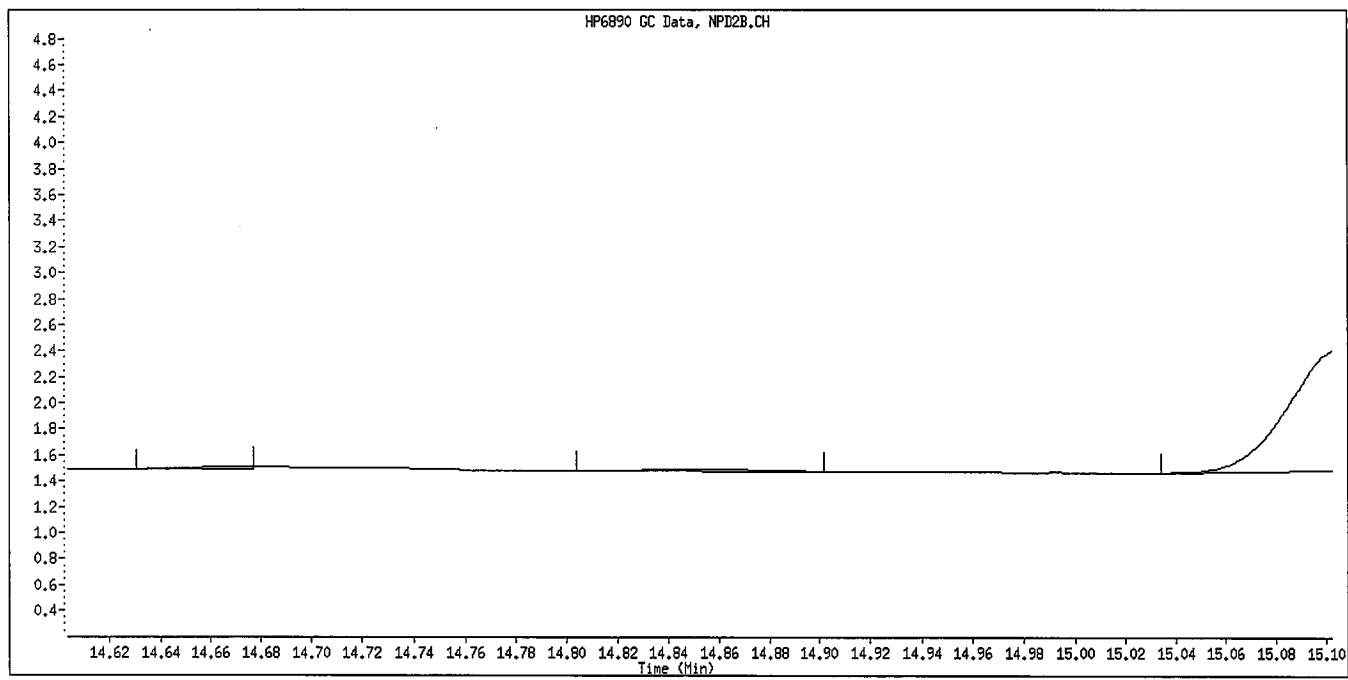
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

LF 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: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration



Manual Integration

Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11/8/09

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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
 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 L7 GSV860-0
 Level:
 Sample Type:

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	223311	17.24
39 TOCP	106323	53162	212646	96867	-8.89

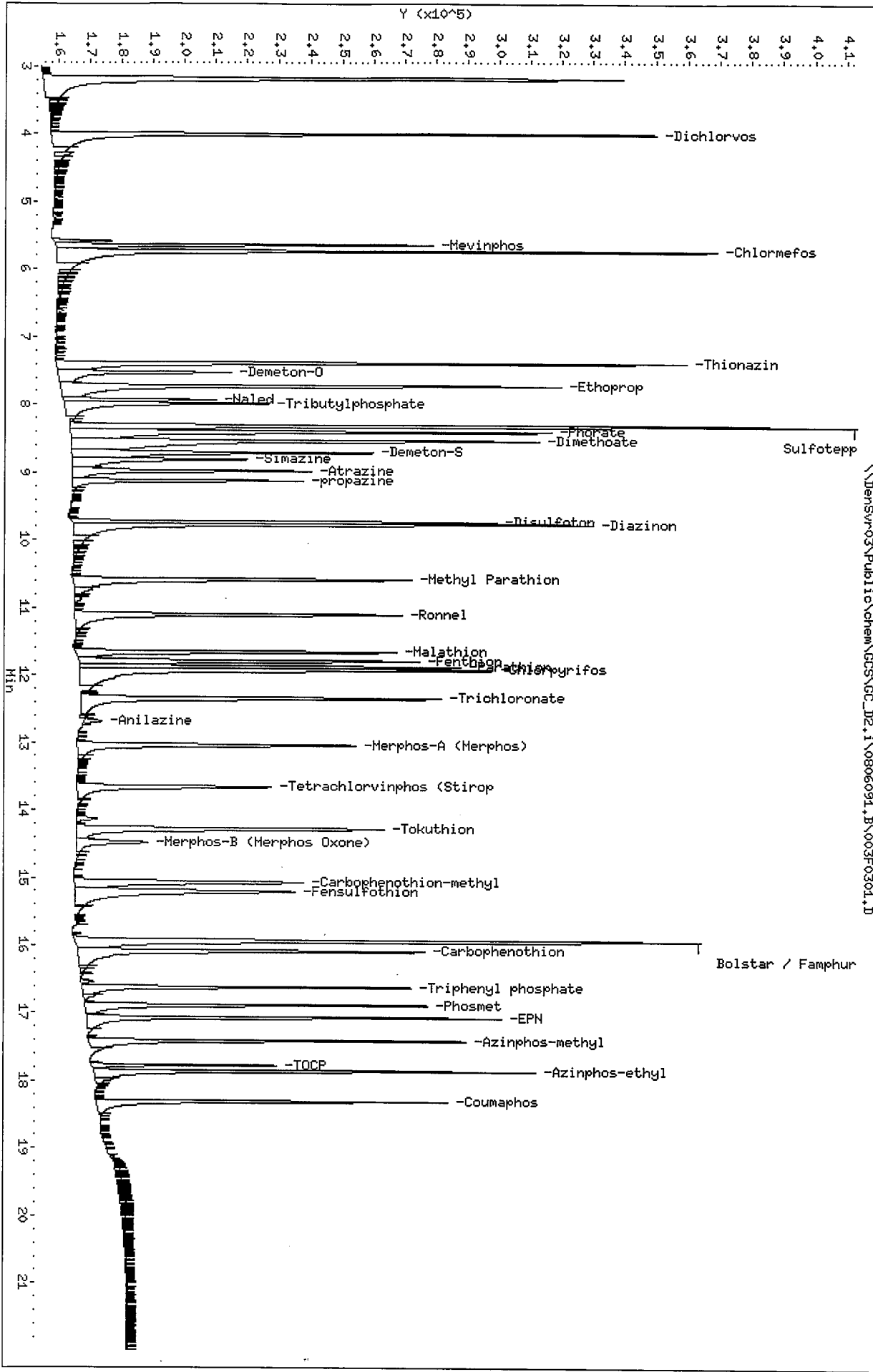
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.01

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.

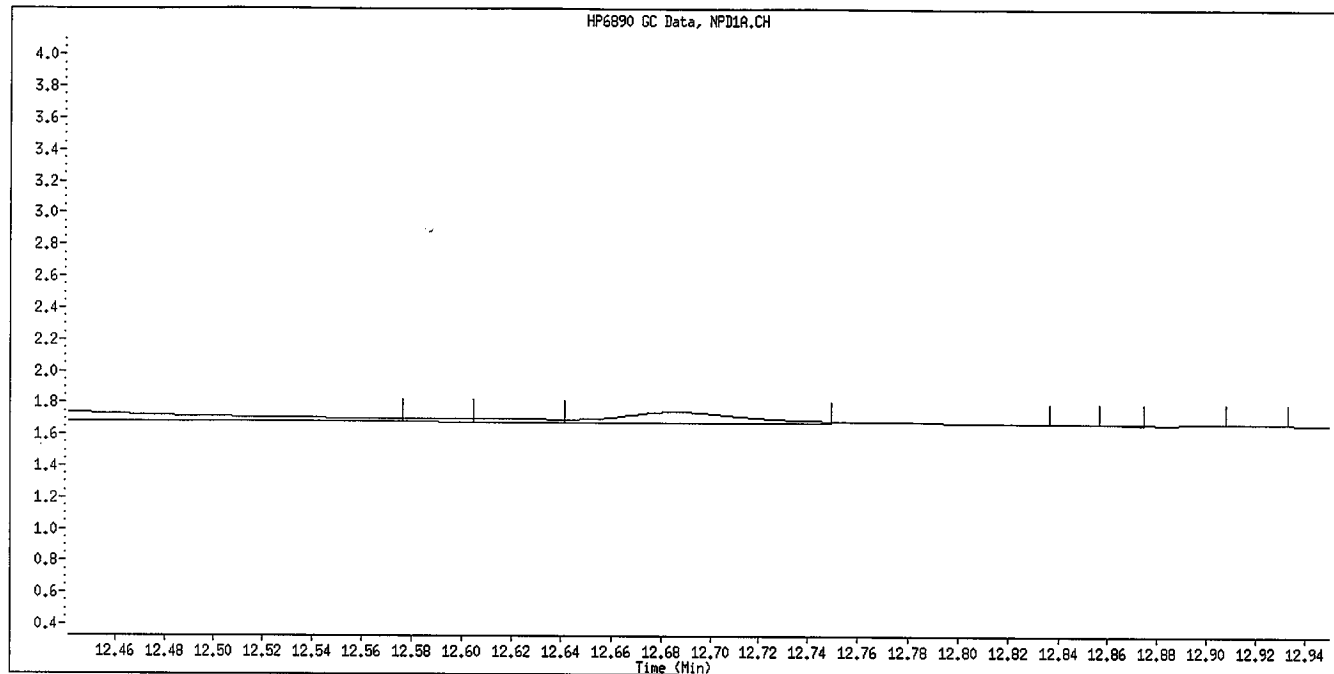
Data File: \\Densysv03\Public\chem\GCS\GC_D2.1\0806091.B\003F0301.D
 Date: 06-AUG-2009 12:58
 Client ID: OPP L7 GSV860-09
 Sample Info: OPP L7 GSV860-09
 Column phase: RTX-1MS

Instrument: GC_D2.1
 Operator: HPK/TLM
 Column diameter: 0.32

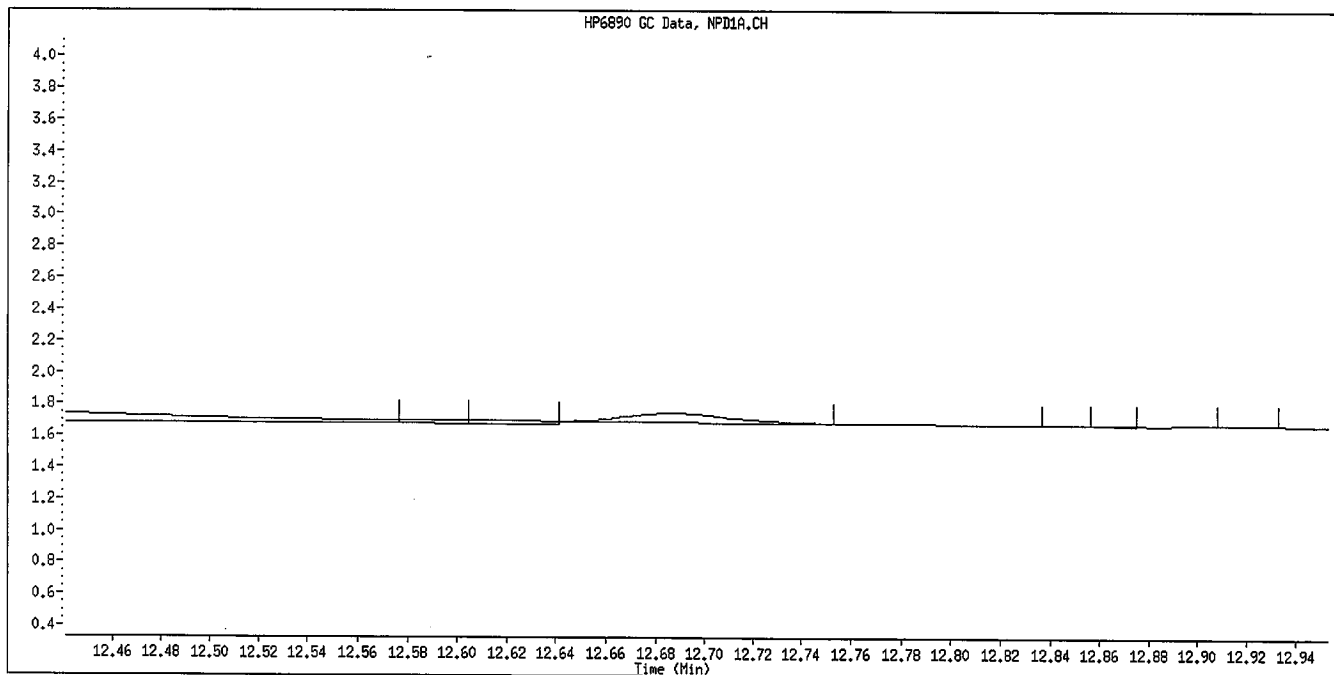
\\Densysv03\Public\chem\GCS\GC_D2.1\0806091.B\003F0301.D



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

Handwritten signature/initials

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						AMOUNTS	
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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 Calibration Date: 06-AUG-2009
 Lab File ID: 004F0401.D Calibration Time: 16:09
 Lab Smp Id: OPP L6 GSV870-09 Client Smp ID: OPP L6 GSV870-0
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Misc Info: IS - GSV0633-09

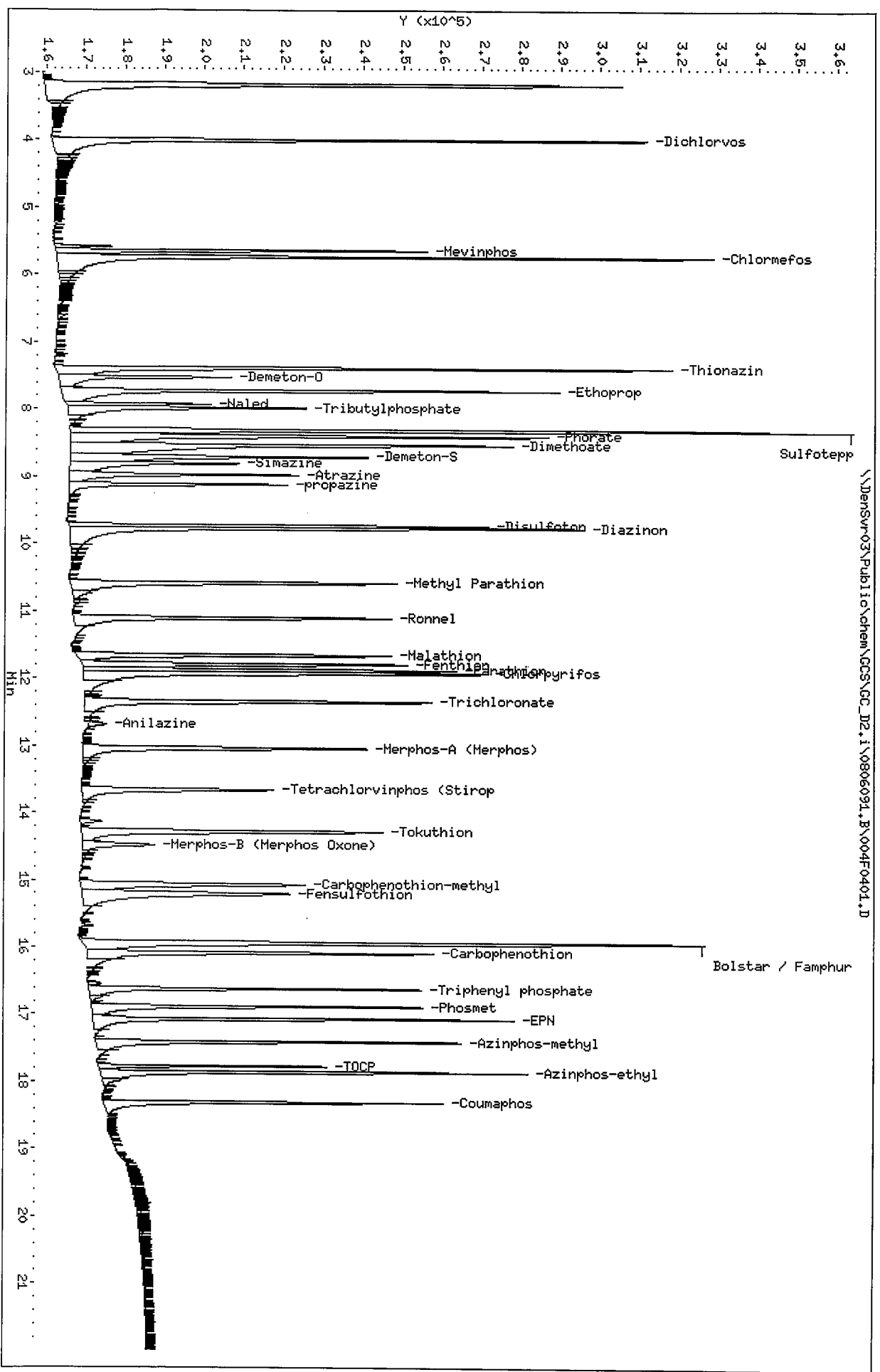
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	182769	-4.04
39 TOCP	106323	53162	212646	97984	-7.84

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.01

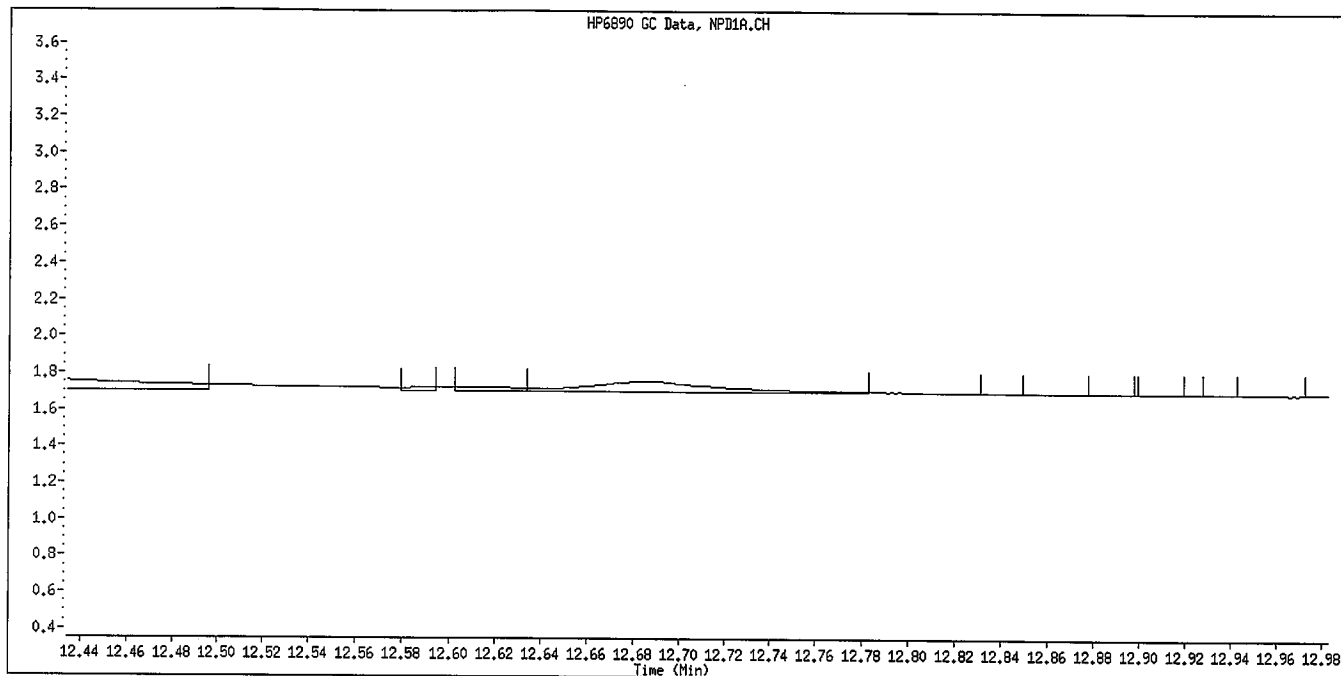
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densv03\Public\chem\CCS\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

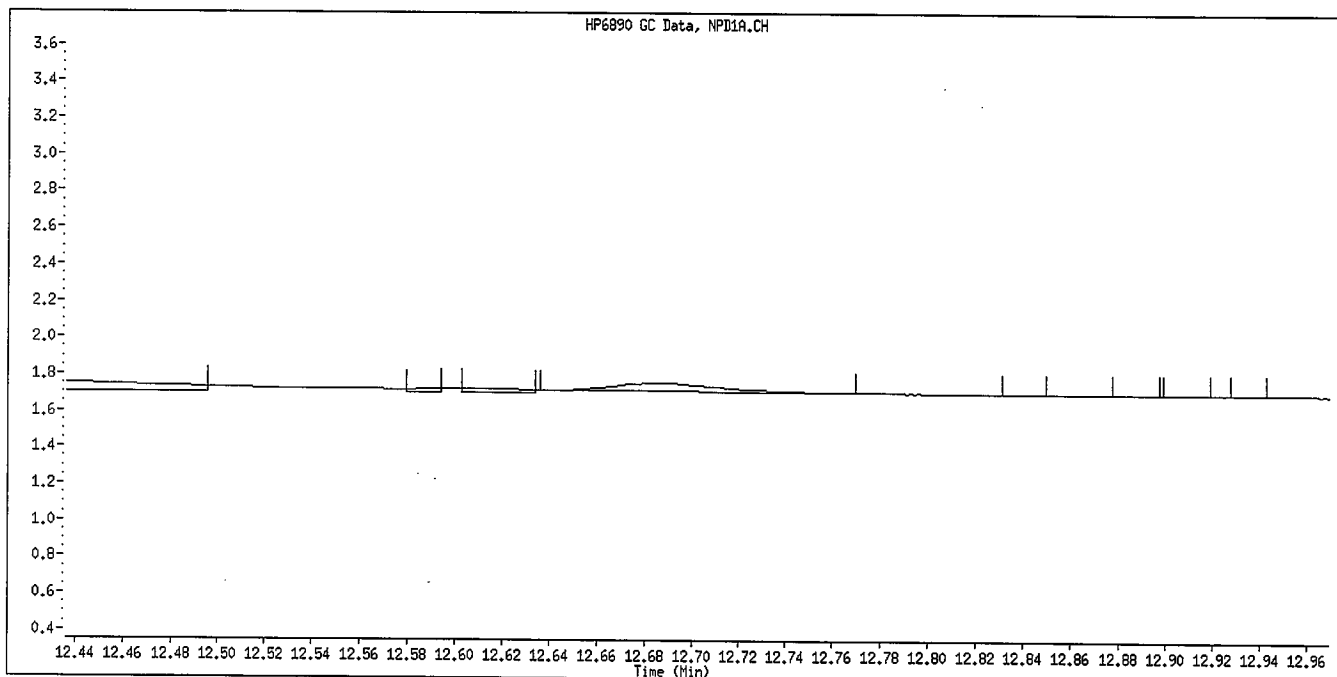
Instrument: GC_D2.i
 Operator: HPK/TLM
 Column diameter: 0.32



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

ck 8/7/09

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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:

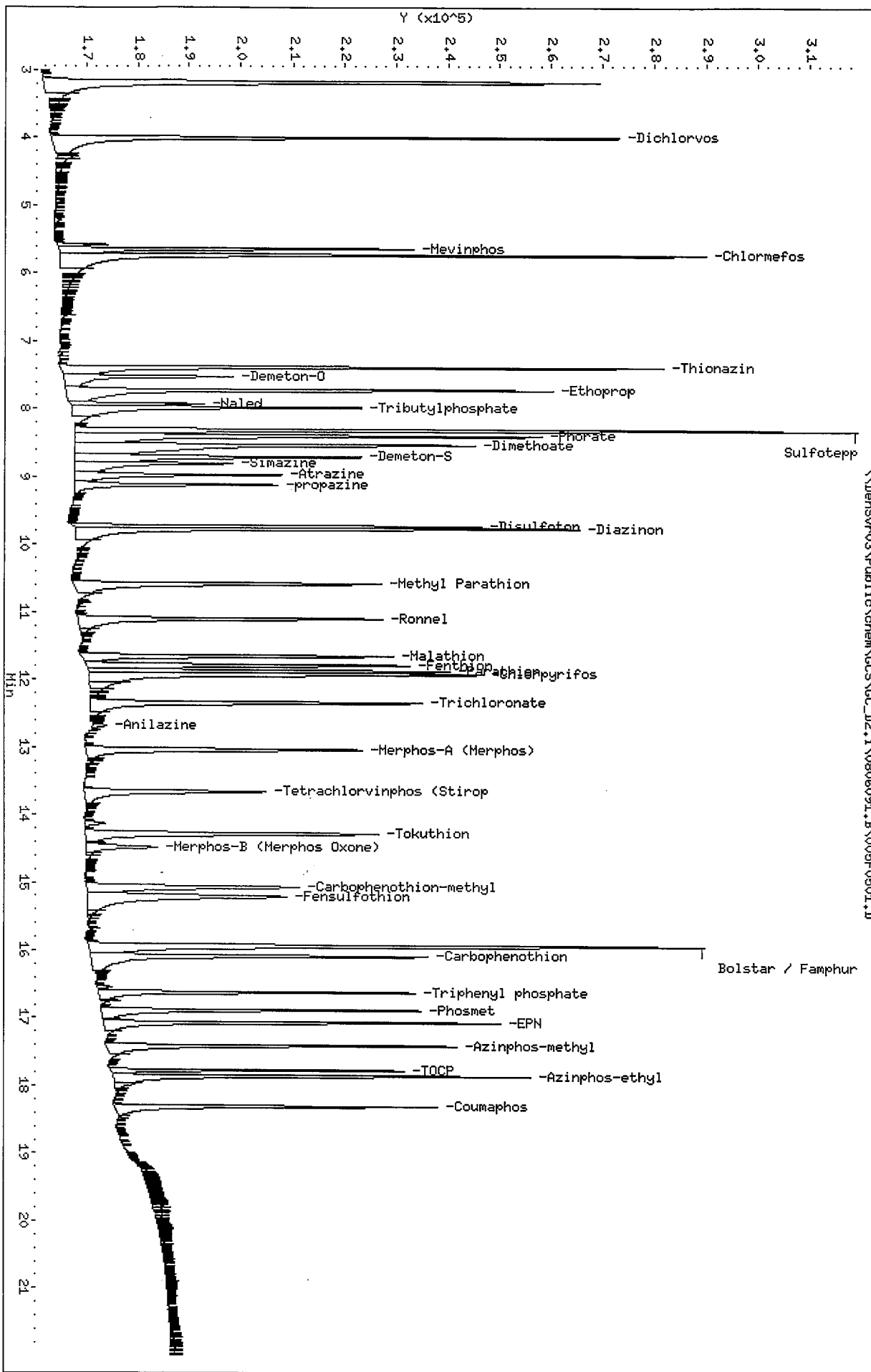
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	176981	-7.08
39 TOCP	106323	53162	212646	96052	-9.66

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

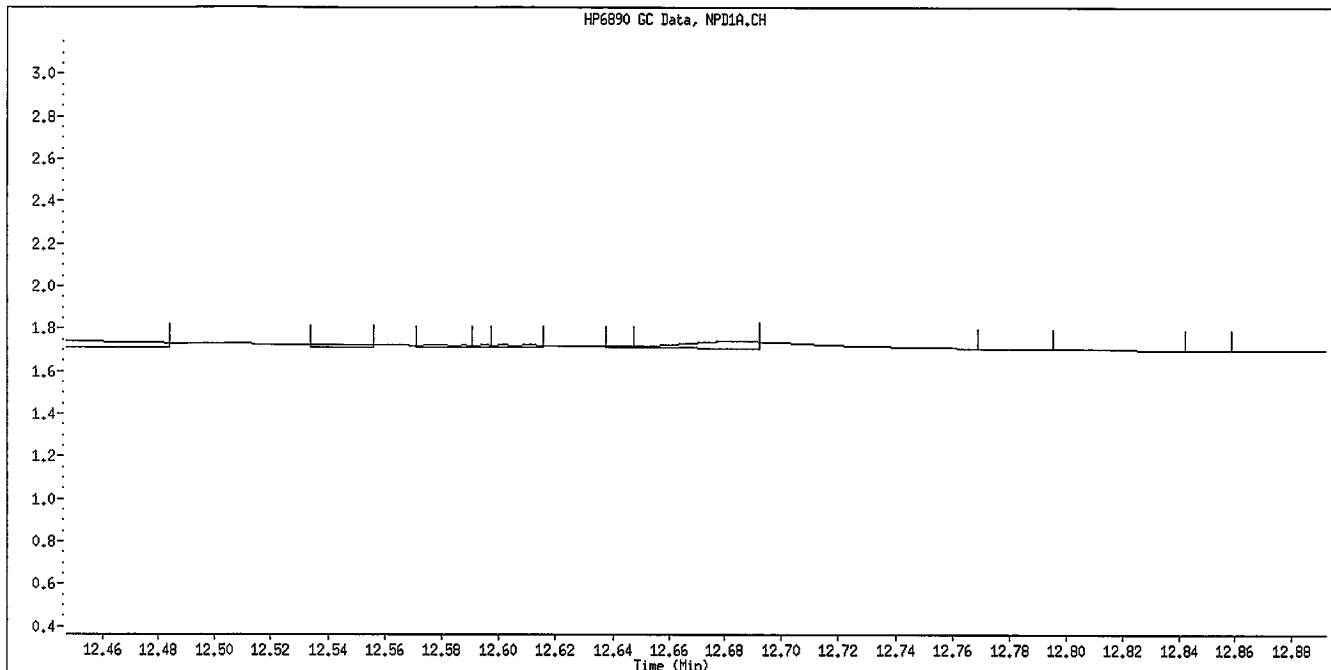
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\Densvr03\Public\chem\CCS\GC_D2.i\0806091.B\005F0501.D
 Date: 06-AUG-2009 13:52
 Client ID: DPP L5 GSW871-09
 Sample Info: DPP L5 GSW871-09
 Column phase: RTX-1MS

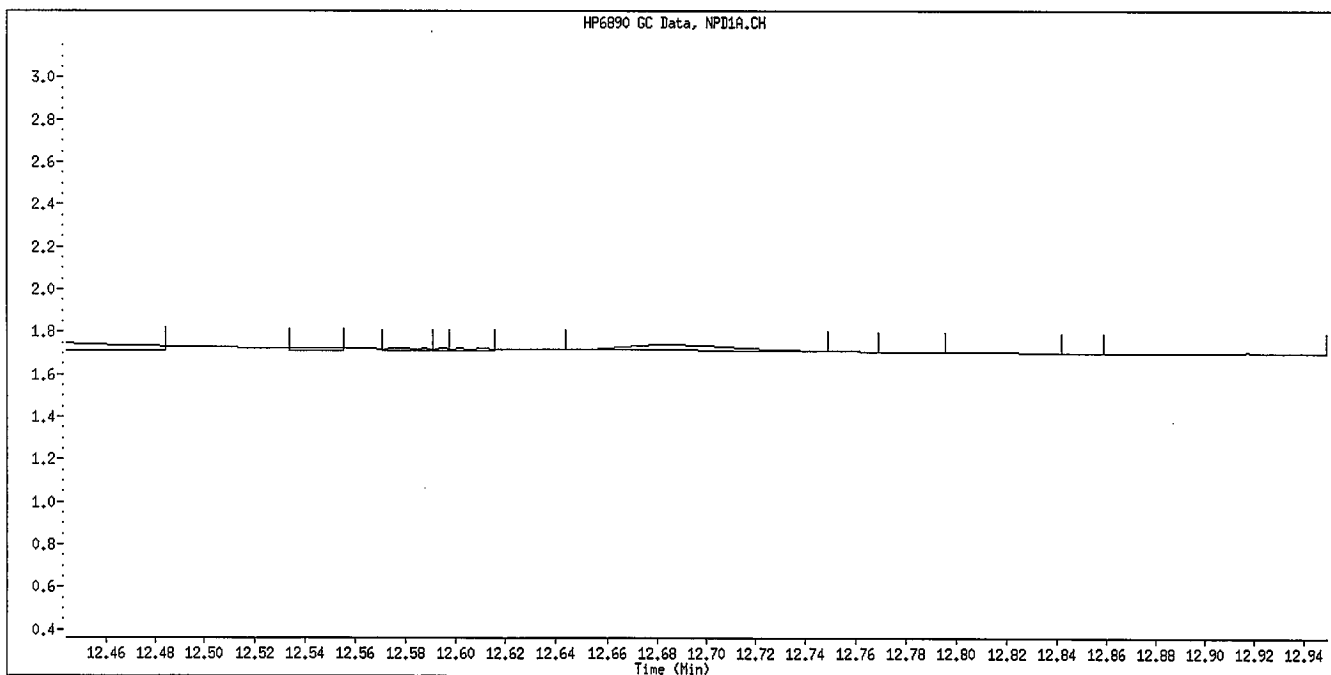
Instrument: GC_D2.i
 Operator: HPK/TLN
 Column diameter: 0.32



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

15-2075

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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 Chlorfepos	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 (Stiropfos)	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)	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:

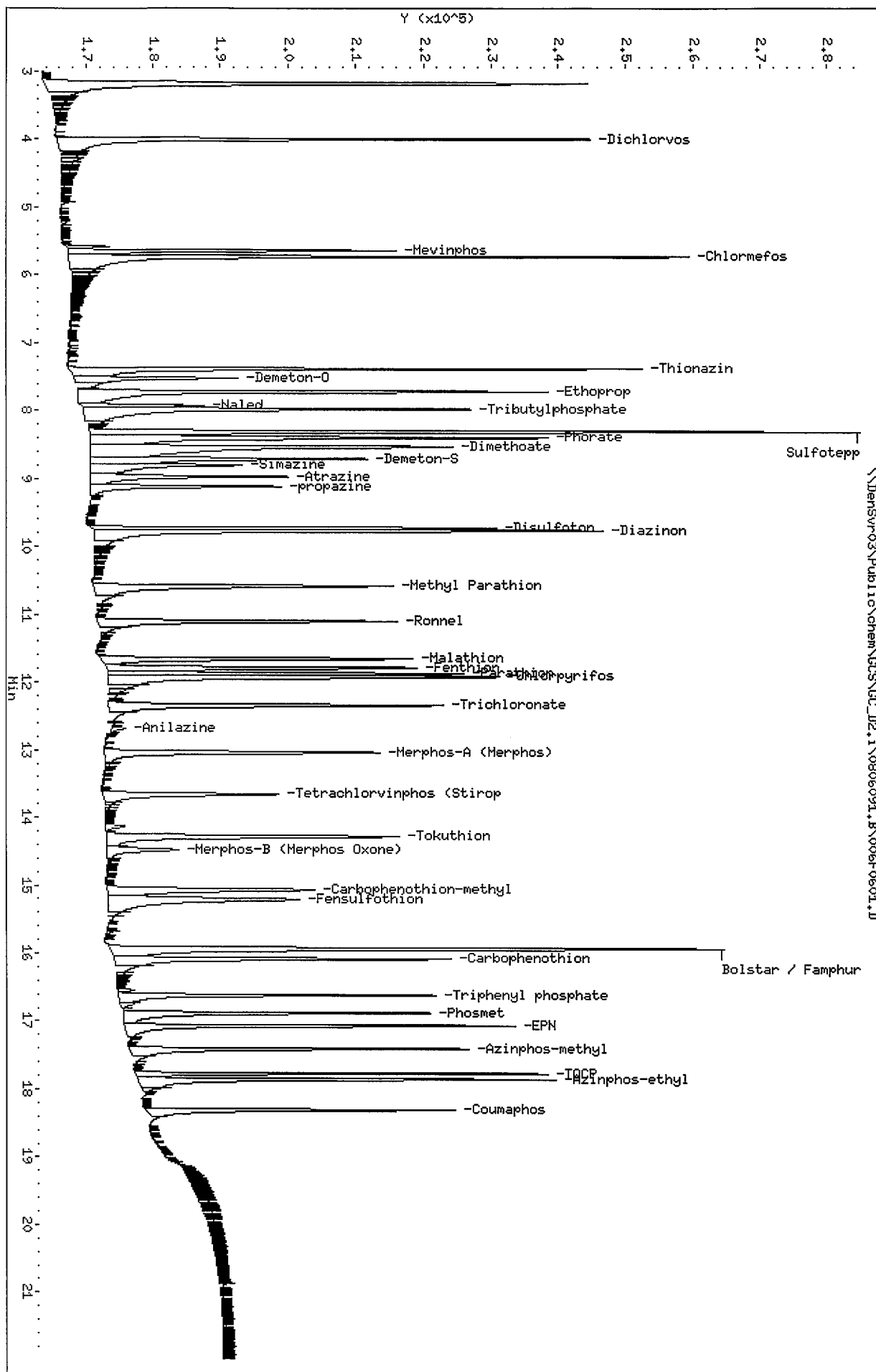
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	190454	-0.01
39 TOCP	106323	53162	212646	106617	0.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

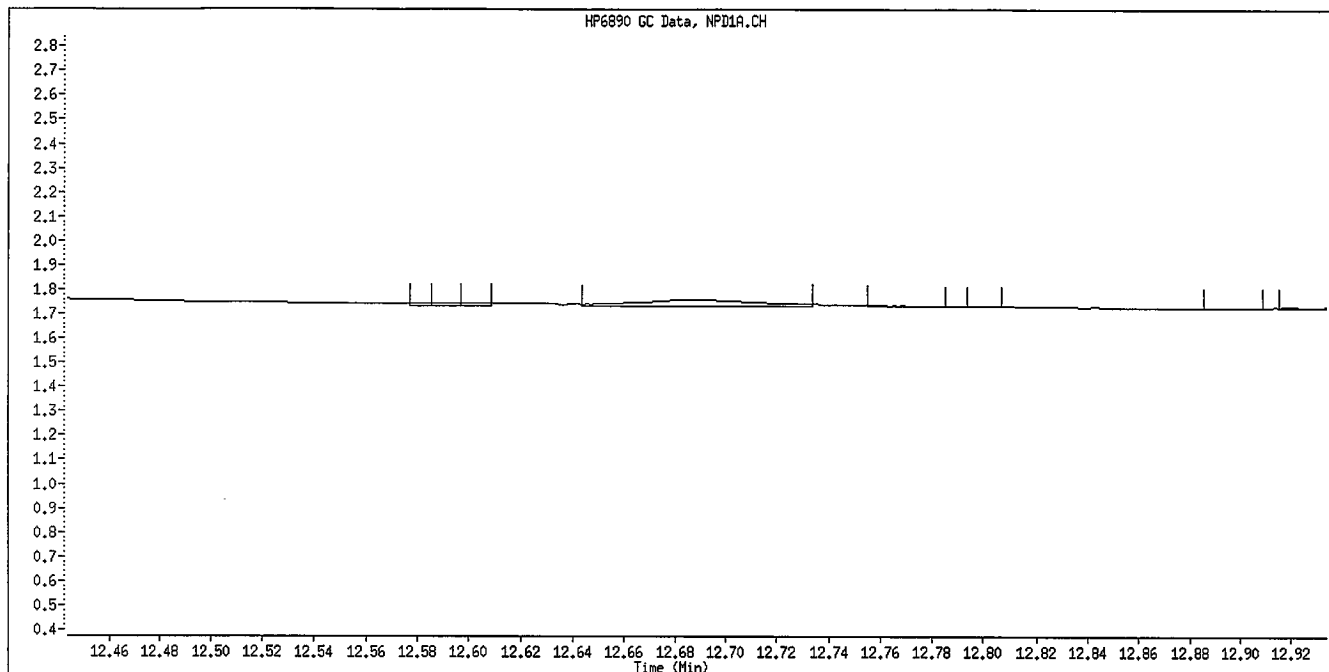
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: \\DensSvr-03\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-1HS

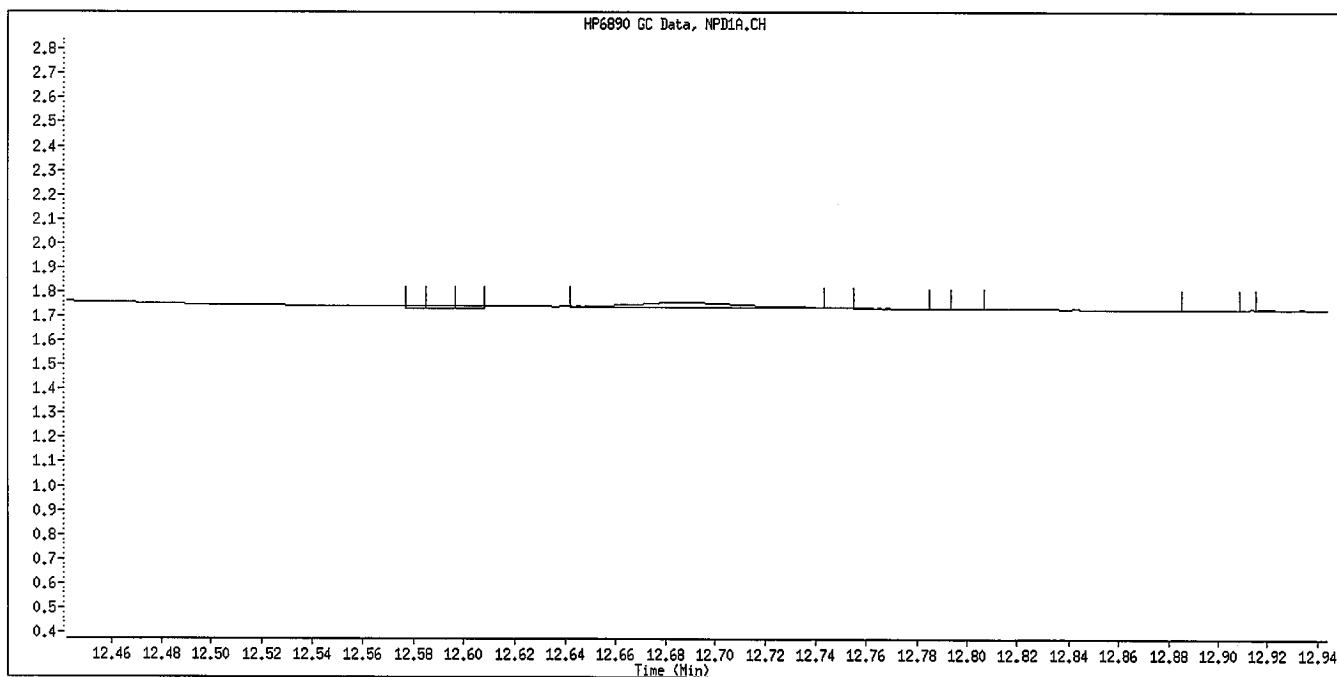
Instrument: GC_D2.i
 Operator: HPK/TLM
 Column diameter: 0.32



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

WF 8/7/09

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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 Pensulfothion	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)	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

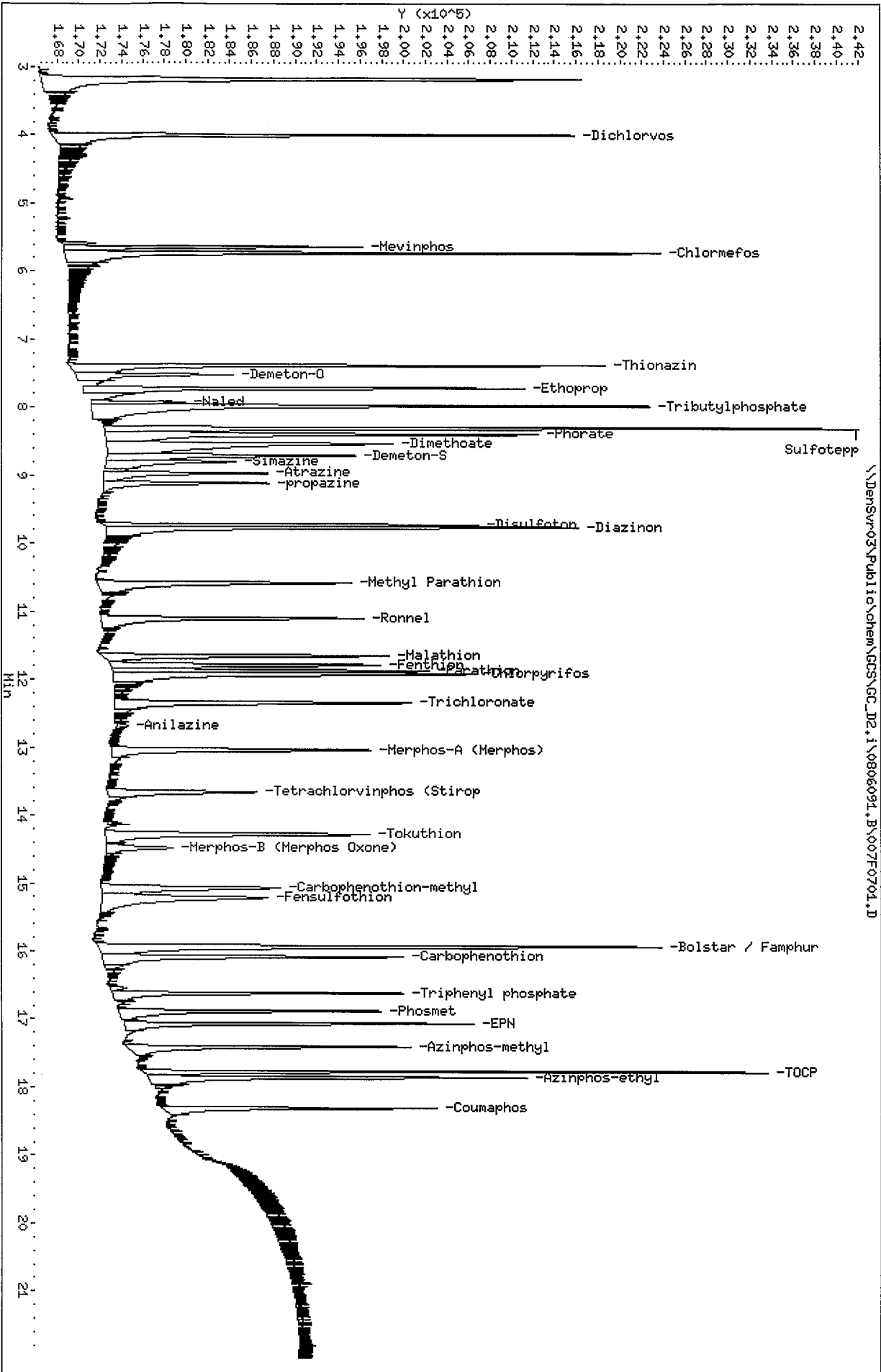
Instrument ID: GC_D2.i
 Lab File ID: 007F0701.D
 Lab Smp Id: OPP L3 GSV873-09
 Analysis Type: SV
 Quant Type: ISTD
 Operator: MPK/TLW
 Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m
 Misc Info: IS - GSV0633-09

Calibration Date: 06-AUG-2009
 Calibration Time: 16:09
 Client Smp ID: OPP L3 GSV873-0
 Level:
 Sample Type:

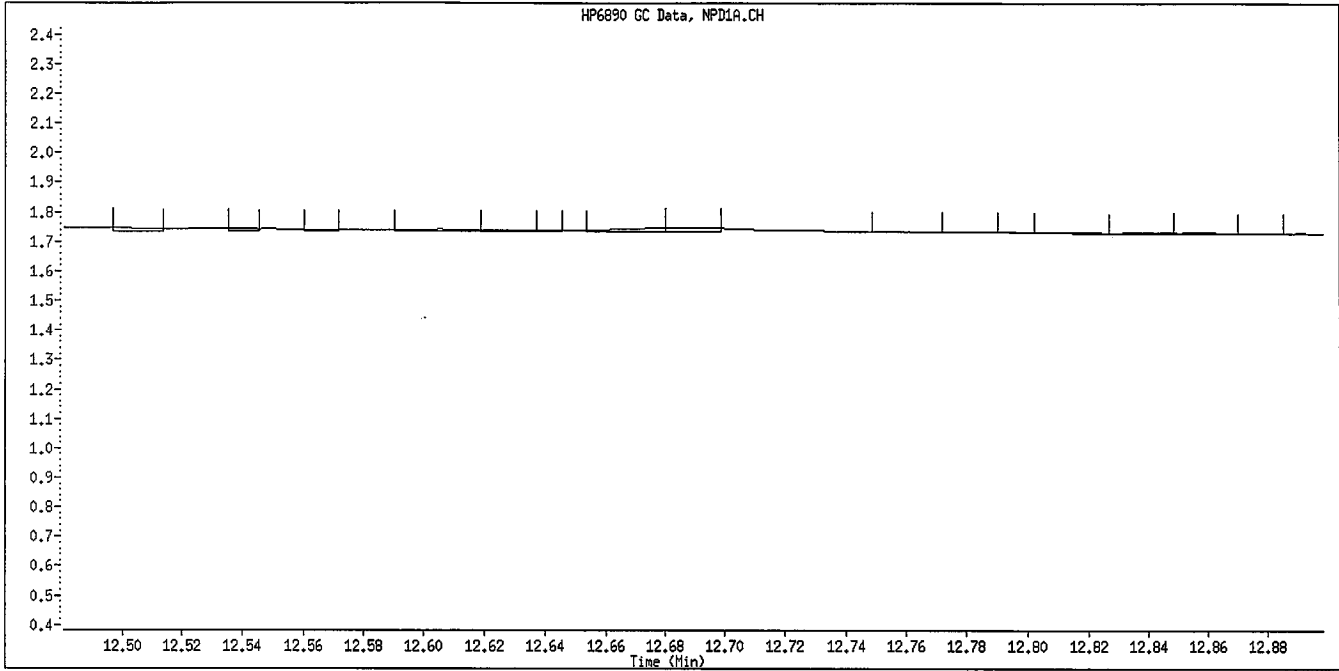
COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	190469	95235	380938	173246	-9.04
39 TOCP	106323	53162	212646	100725	-5.27

COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.02
39 TOCP	17.77	17.27	18.27	17.77	0.01

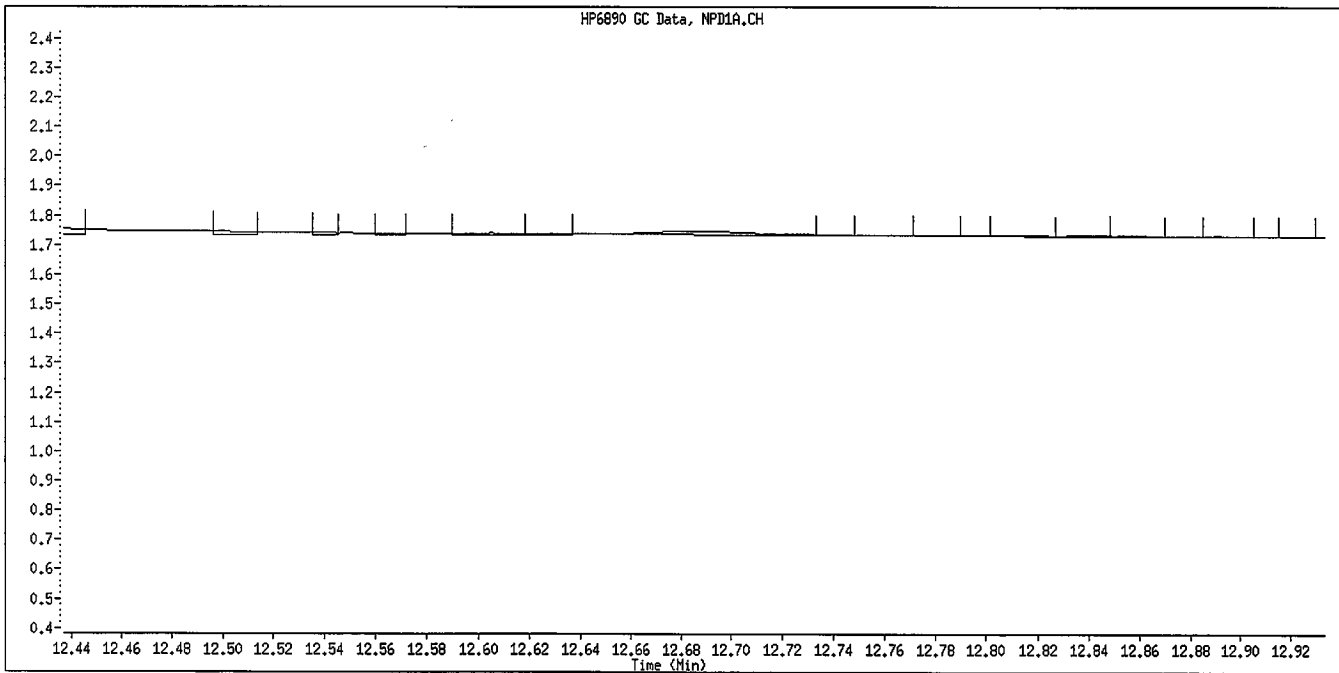
AREA UPPER LIMIT = +100% of internal standard area.
 AREA LOWER LIMIT = - 50% of internal standard area.
 RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
 RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



Data File 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

150716

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

Compounds	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (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 Chlorfepos	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)	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		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	186023	-2.33
39 TOCP	106323	53162	212646	110877	4.28

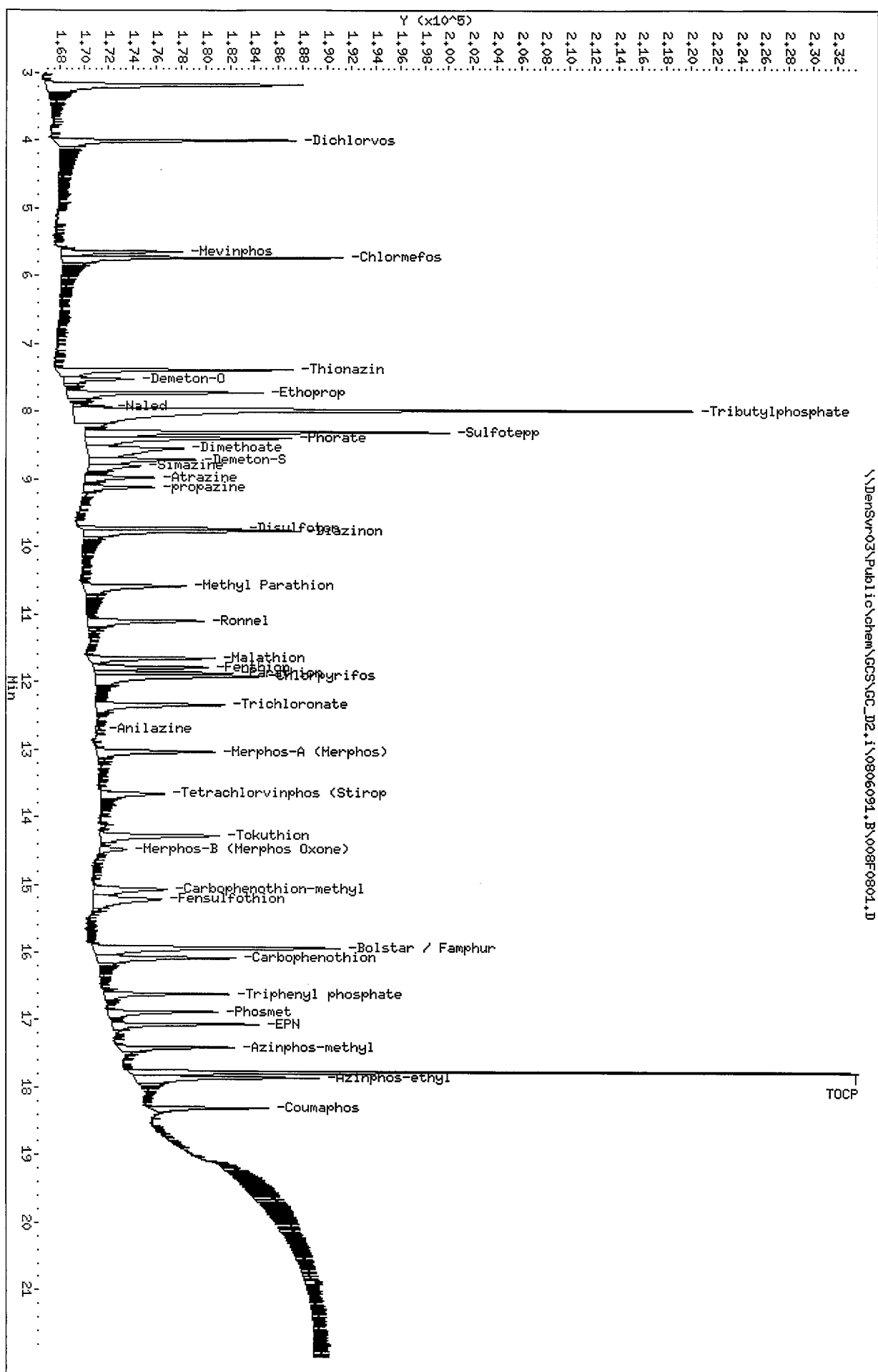
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.03
39 TOCP	17.77	17.27	18.27	17.77	0.00

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.

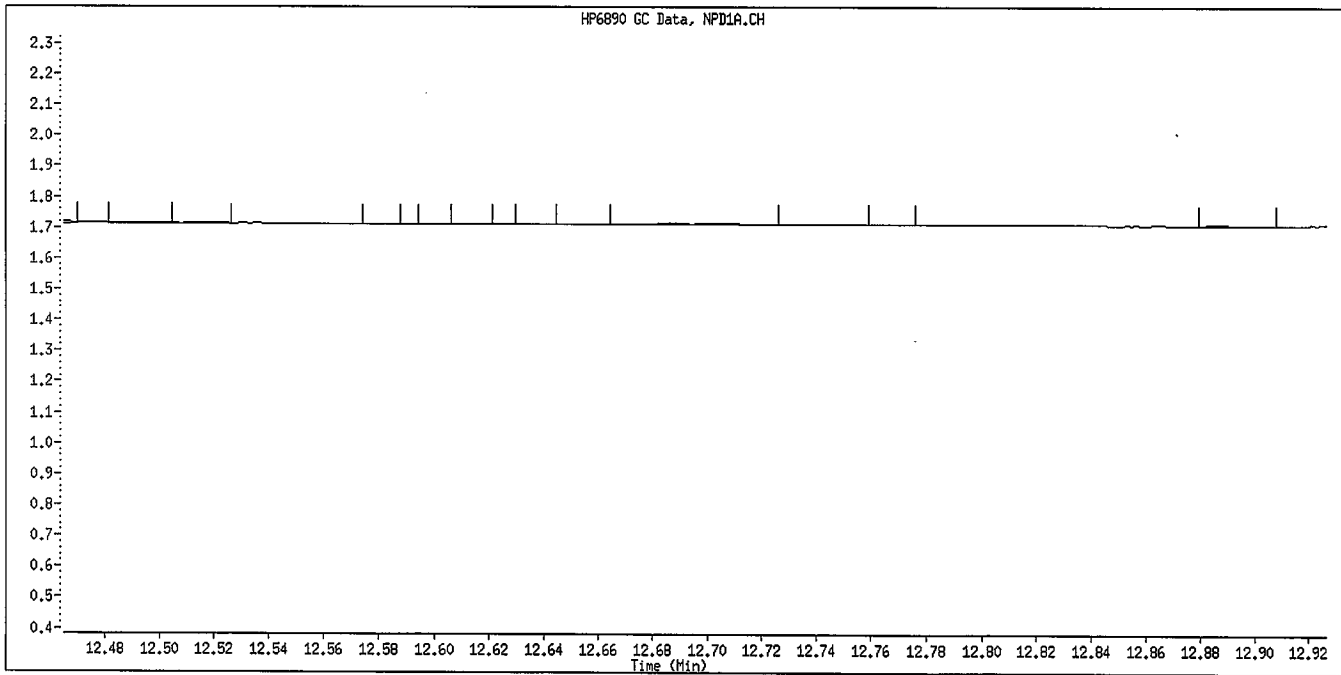
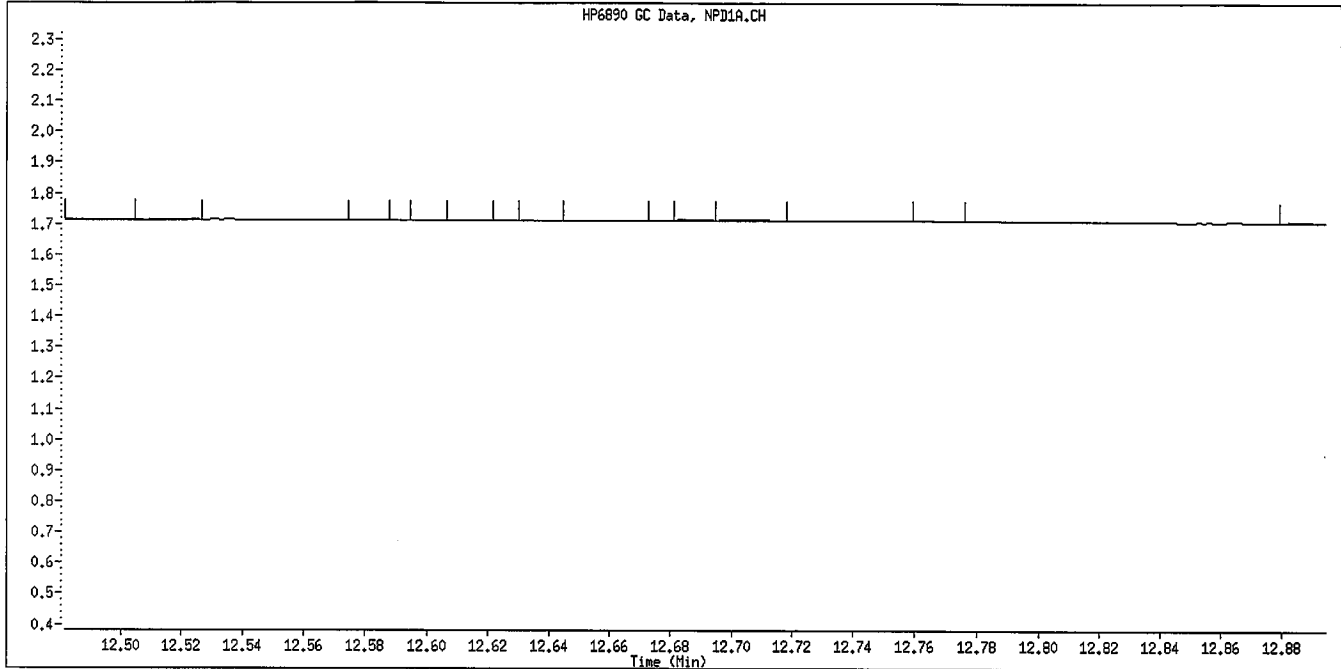
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 Date: 06-AUG-2009 15:15
 Client ID: OPP L2 GSV874-09
 Sample Info: OPP L2 GSV874-09
 Column phase: RTX-1MS

Instrument: GC_D2.1
 Operator: HPK/TLW
 Column diameter: 0.32

\\DensSvr-03\Public\chem\GCS\GC_D2.1\0806091.B\008F0801.D



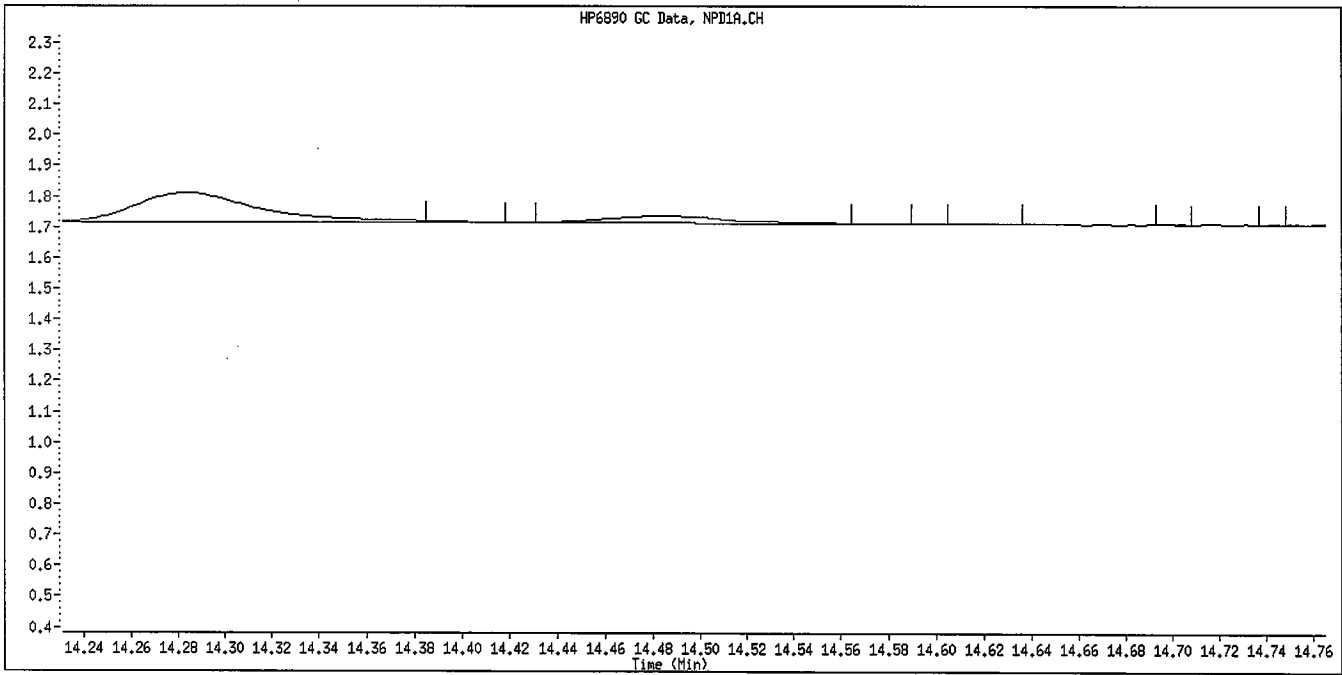
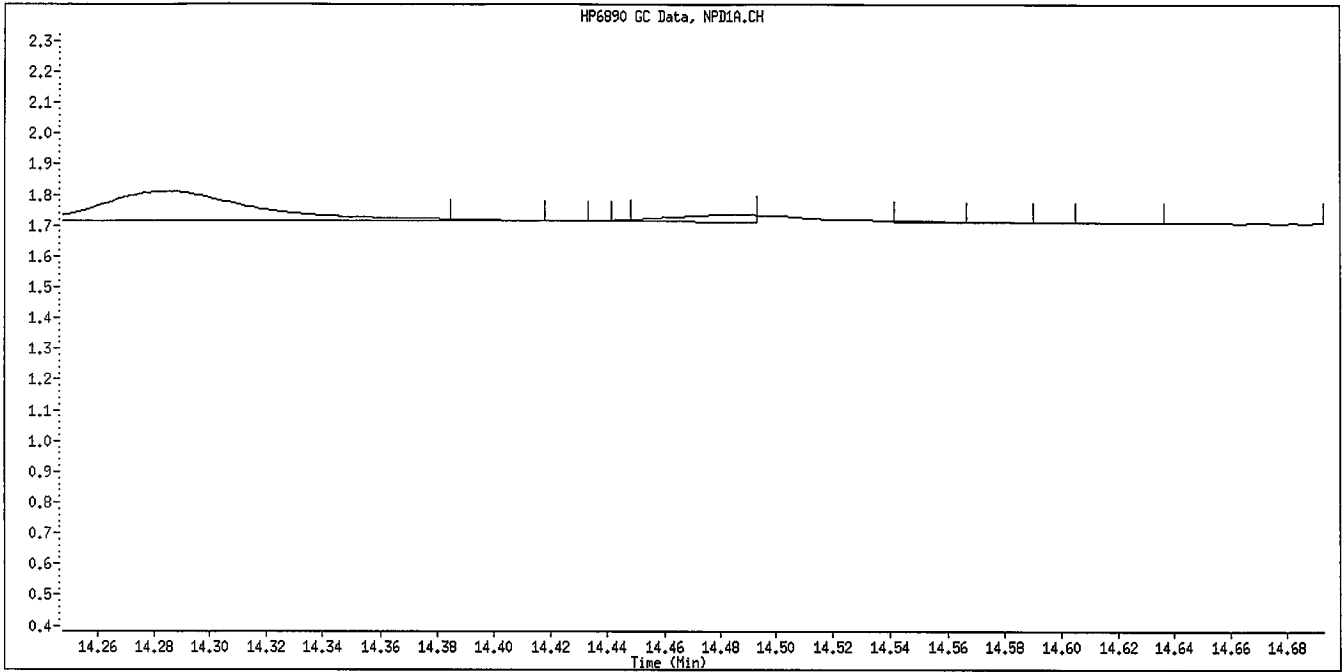
Data File Name: 008F0801.D
Inj. Date and Time: 06-AUG-2009 15:15
Instrument ID: GC_D2.i
Client ID: OPP L2 GSV874-09
Compound Name: Anilazine
CAS #:
Report Date: 08/07/2009



Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

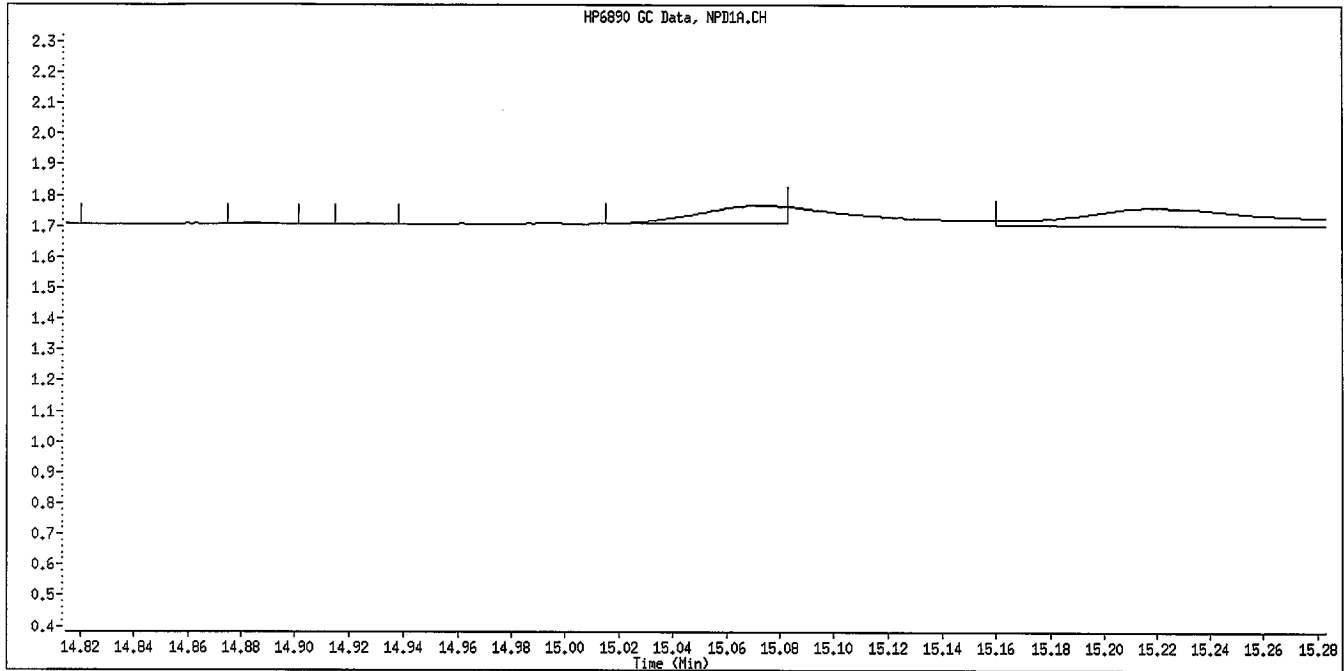
WJ
8/7/09

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

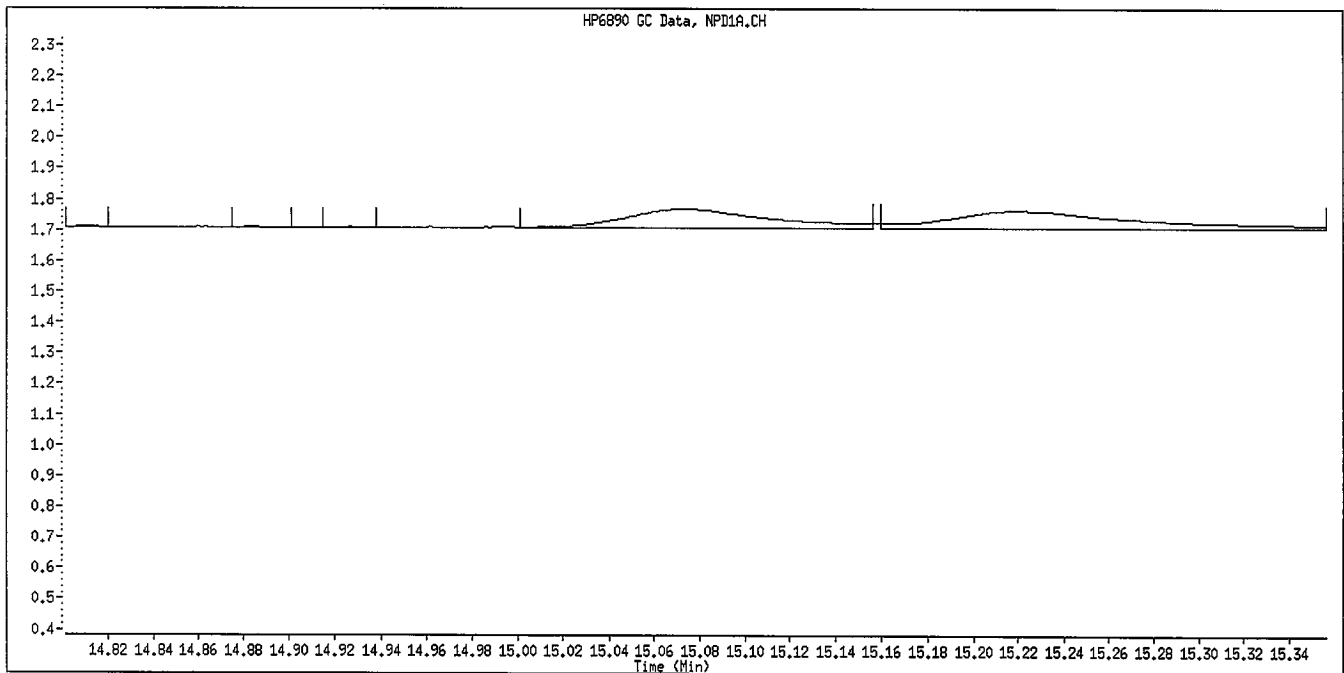


Manually Integrated By: williamst
Manual Integration Reason: Baseline Event (F 87)

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

18-8710c

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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)	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	Calibration Date: 06-AUG-2009
Lab File ID: 009F0901.D	Calibration Time: 16:09
Lab Smp Id: OPP L1 GSV875-09	Client Smp ID: OPP L1 GSV875-0
Analysis Type: SV	Level:
Quant Type: ISTD	Sample Type:
Operator: MPK/TLW	
Method File: \\DenSvr03\Public\chem\GCS\GC_D2.i\0806091.B\8141A-1.m	
Misc Info: IS - GSV0633-09	

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	190469	95235	380938	181603	-4.65
39 TOCP	106323	53162	212646	112048	5.38

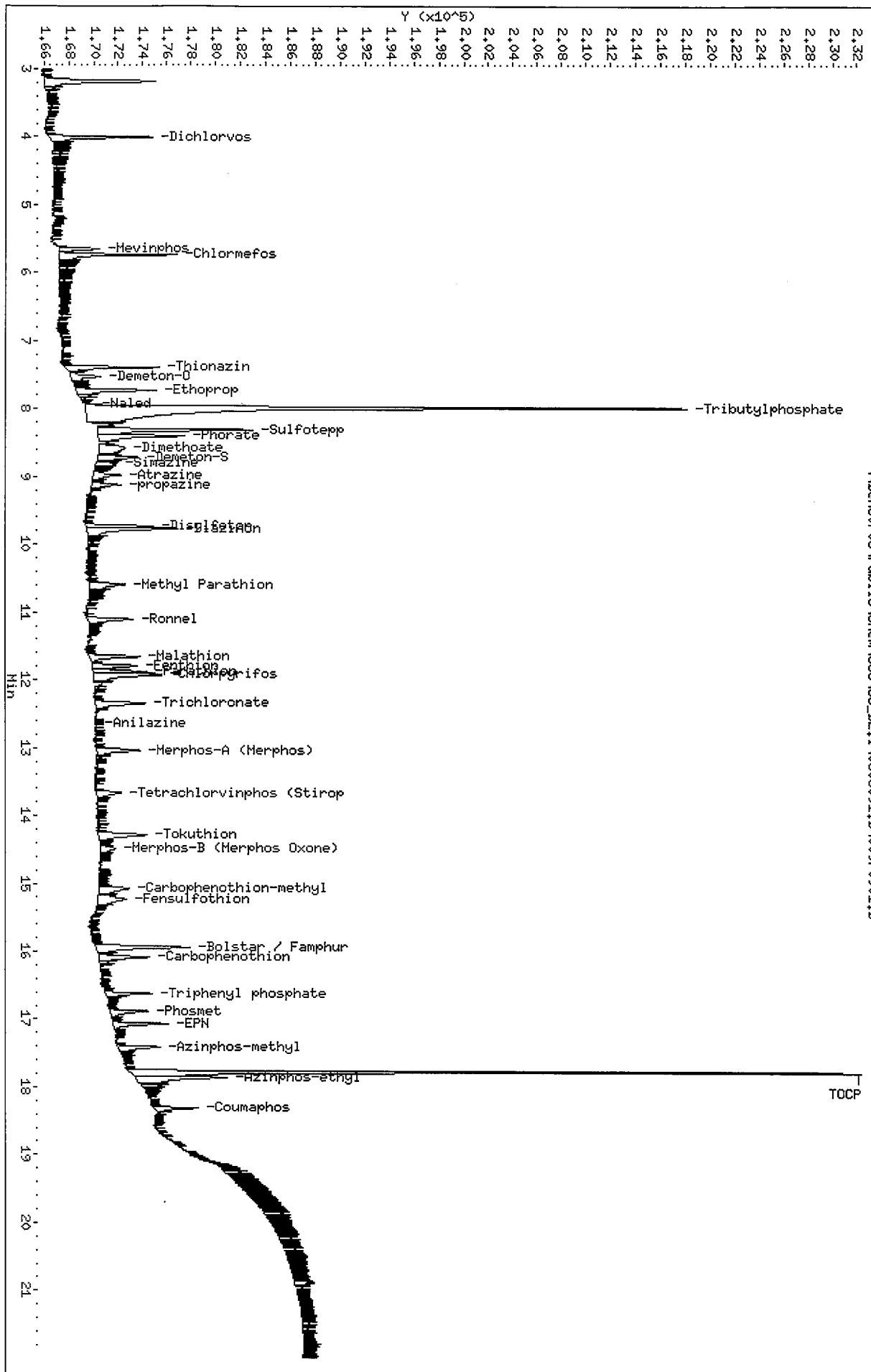
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
9 Tributylphosphate	7.98	7.48	8.48	7.99	0.05
39 TOCP	17.77	17.27	18.27	17.77	0.01

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.

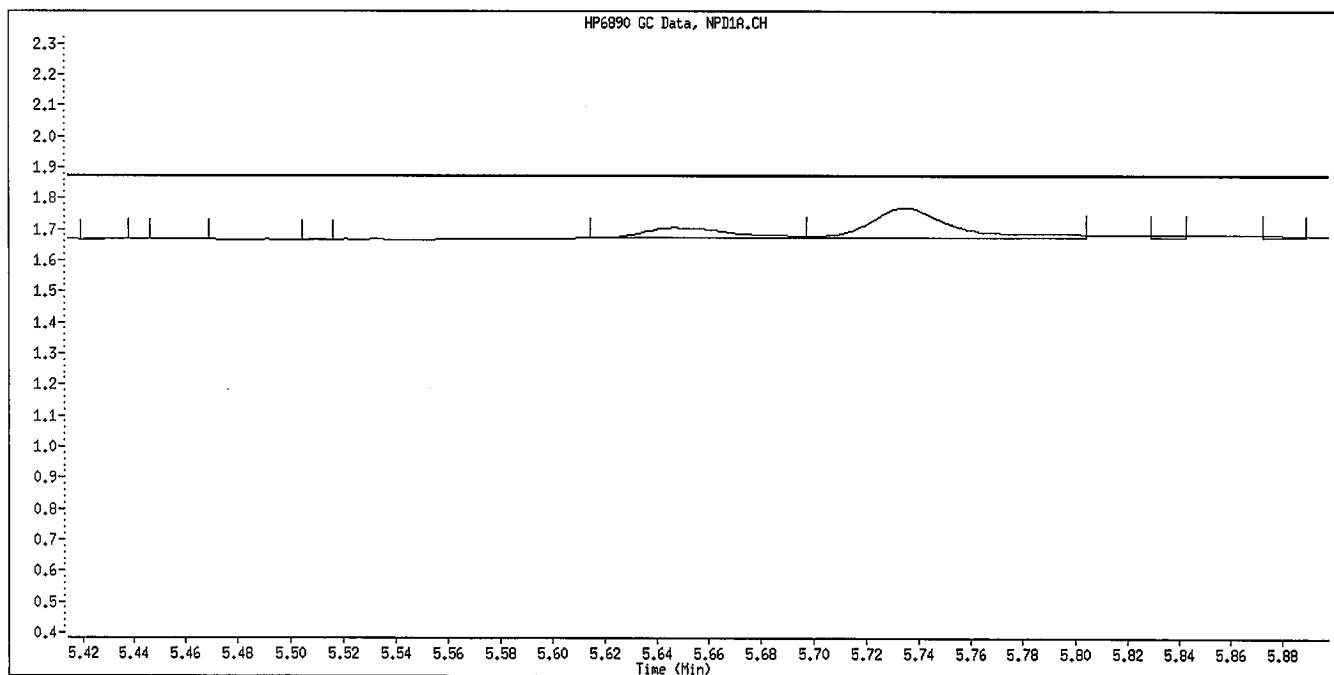
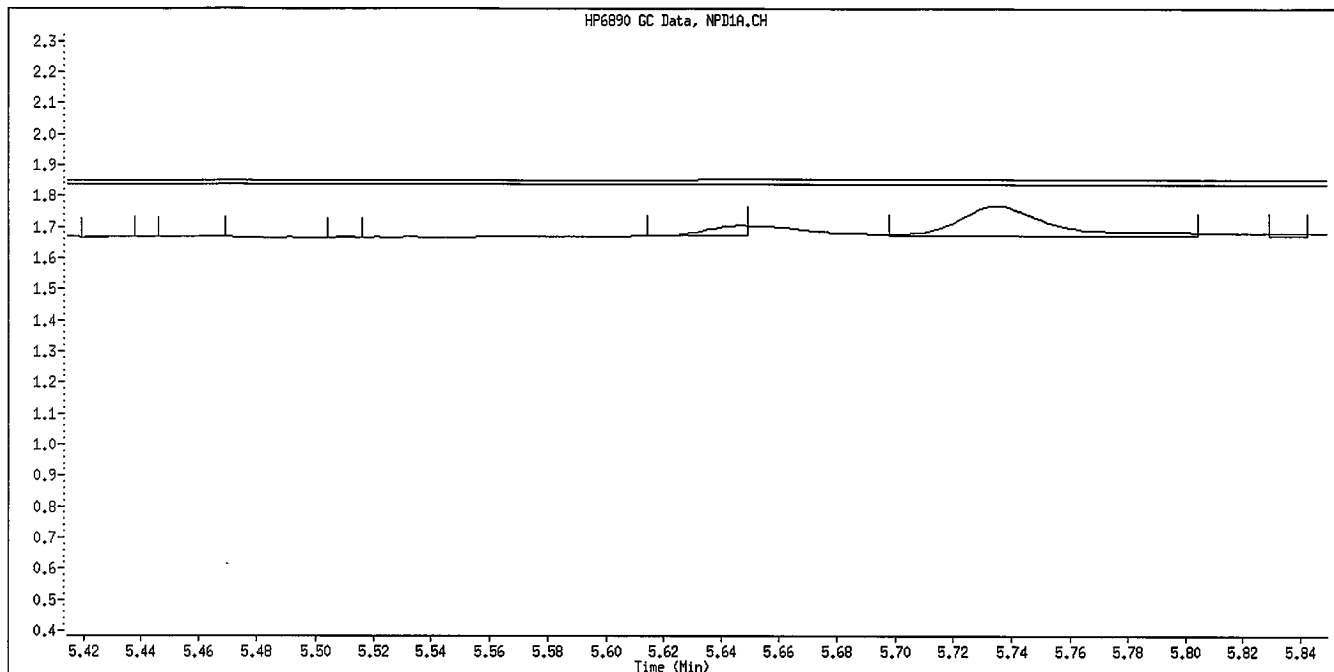
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 Date: 06-AUG-2009 15:42
 Client ID: OPP L1 GSV875-09
 Sample Info: OPP L1 GSV875-09
 Column phase: RTX-1MS

Instrument: GC_D2.1
 Operator: HPK/TLM
 Column diameter: 0.32

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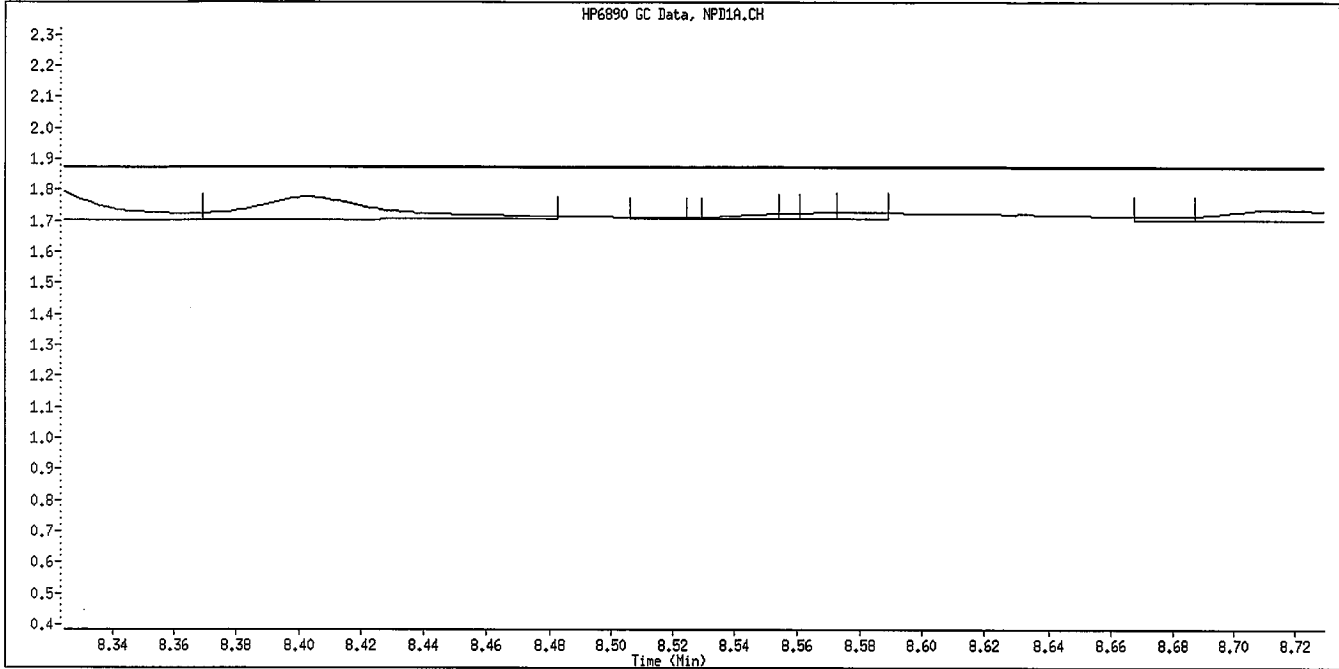
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Inj. Date and Time: 06-AUG-2009 15:42
Instrument ID: GC_D2.i
Client ID: OPP L1 GSV875-09
Compound Name: Mevinphos
CAS #:
Report Date: 08/07/2009



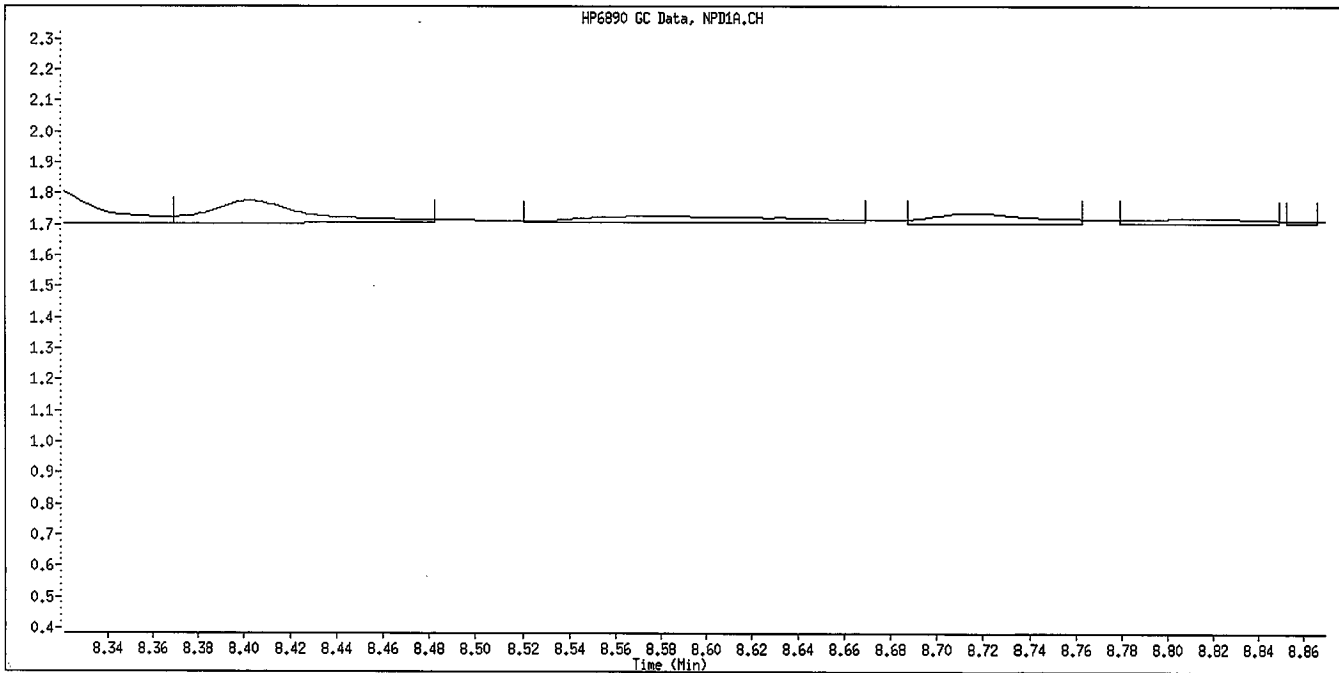
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

WF
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: Dimethoate
CAS #:
Report Date: 08/07/2009



Original Integration

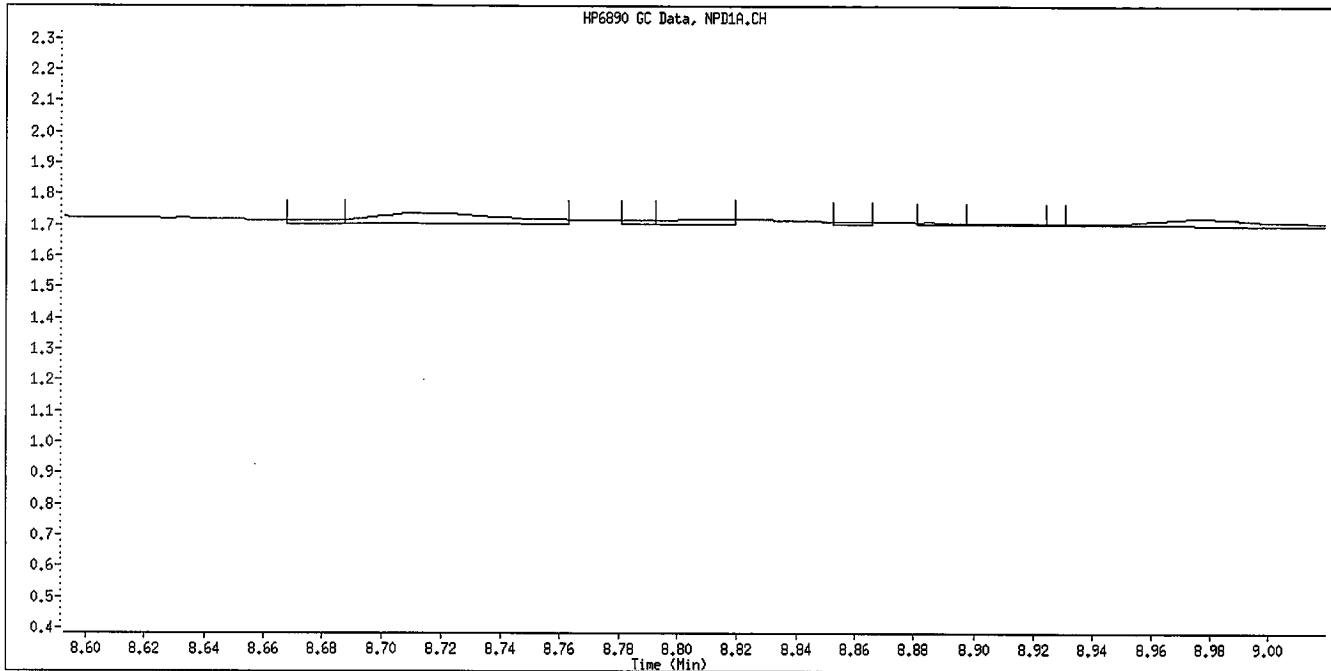


Manual Integration

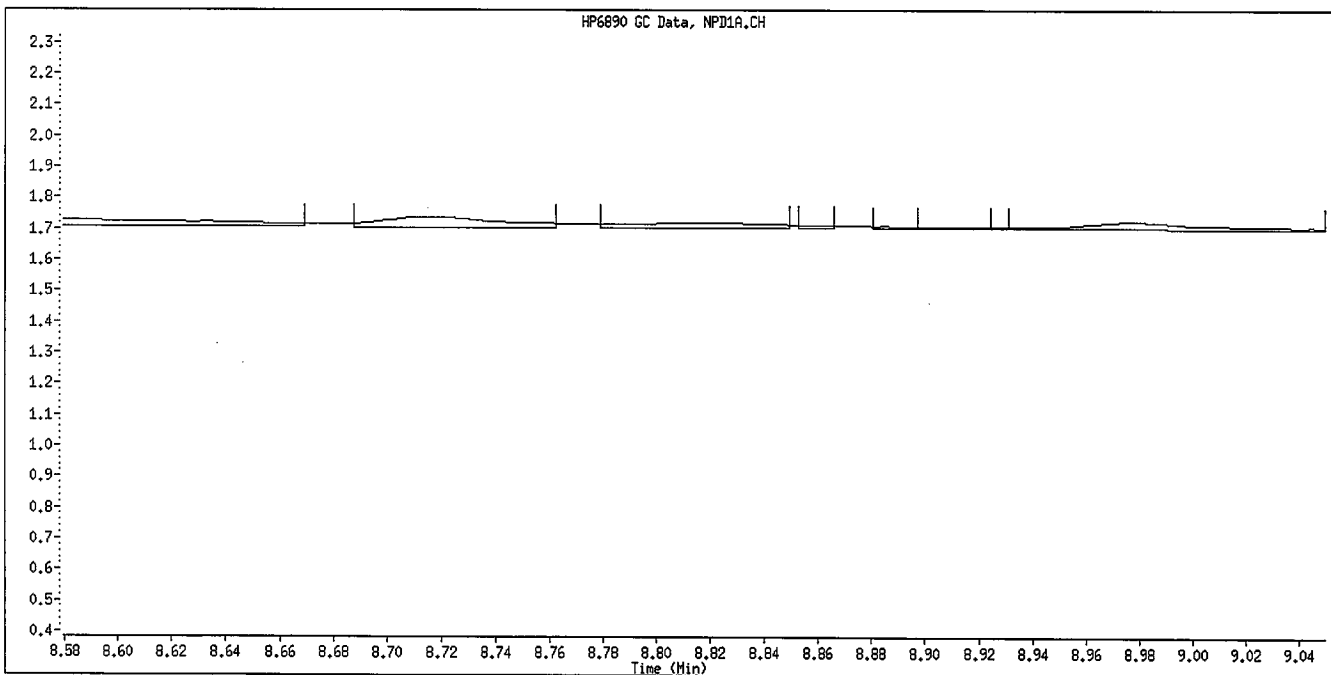
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

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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

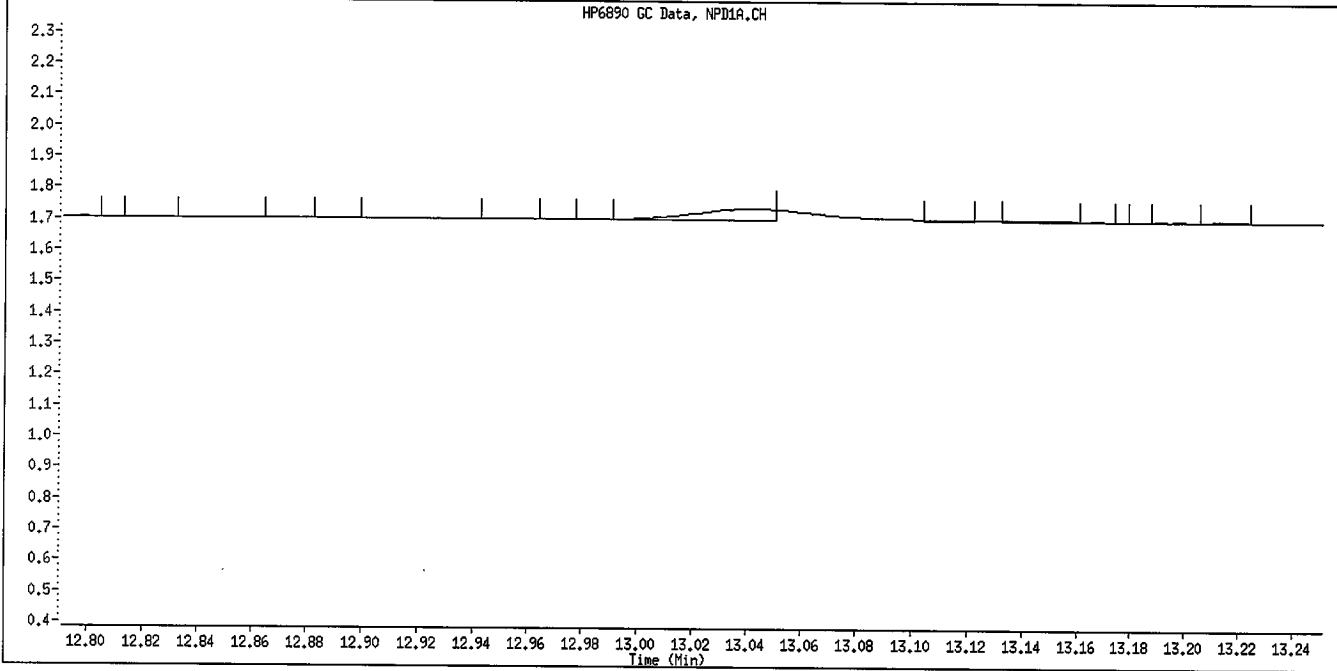


Manual Integration

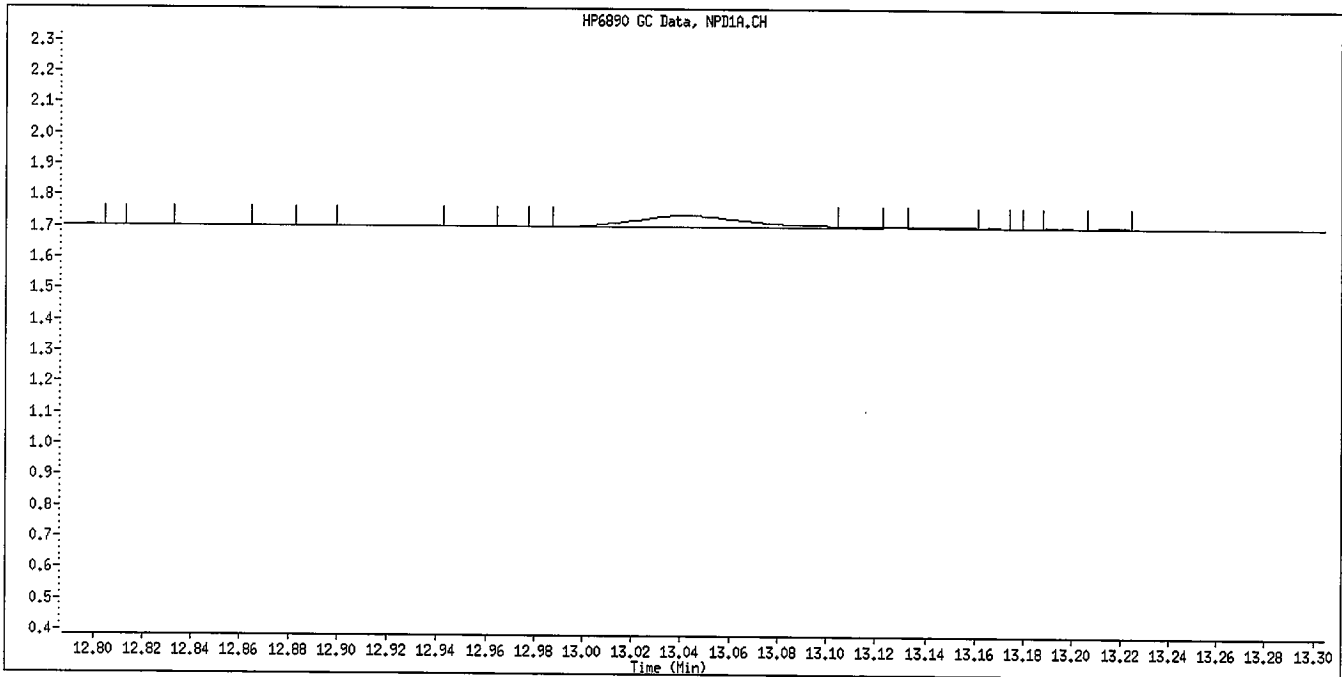
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Manual Integration Reason: Baseline Event

1/27/09

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-A (Merphos)
CAS #:
Report Date: 08/07/2009



Original Integration

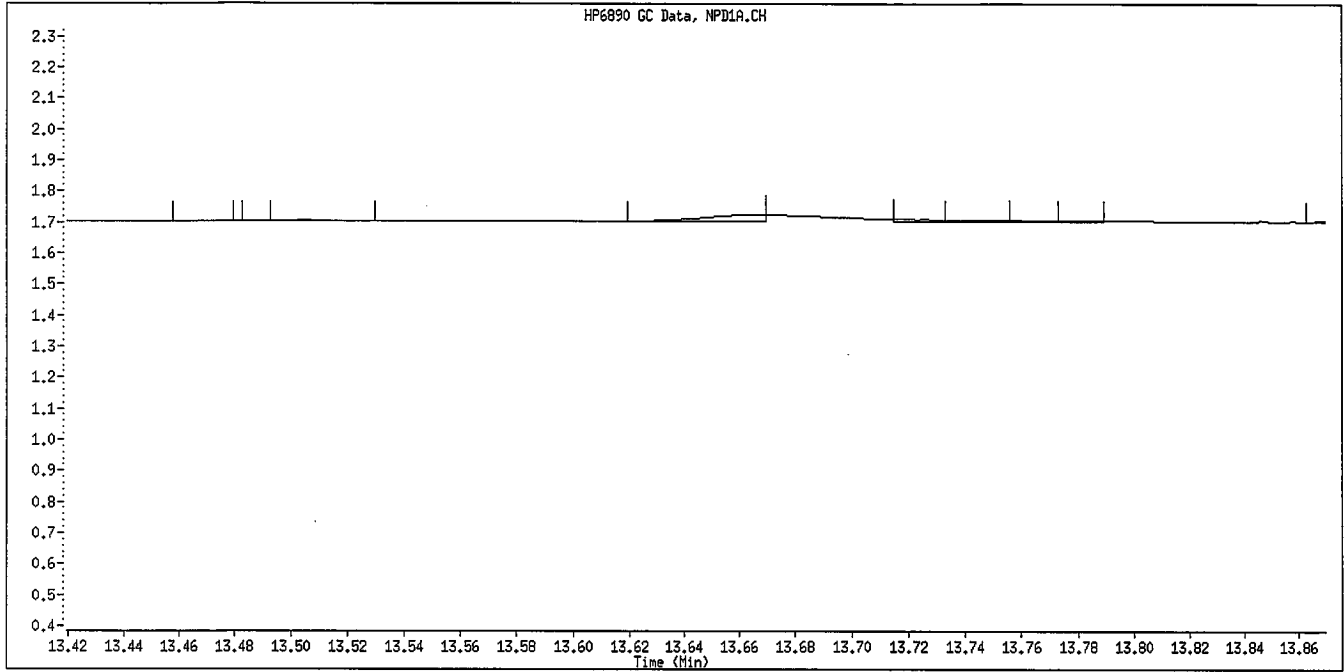


Manual Integration

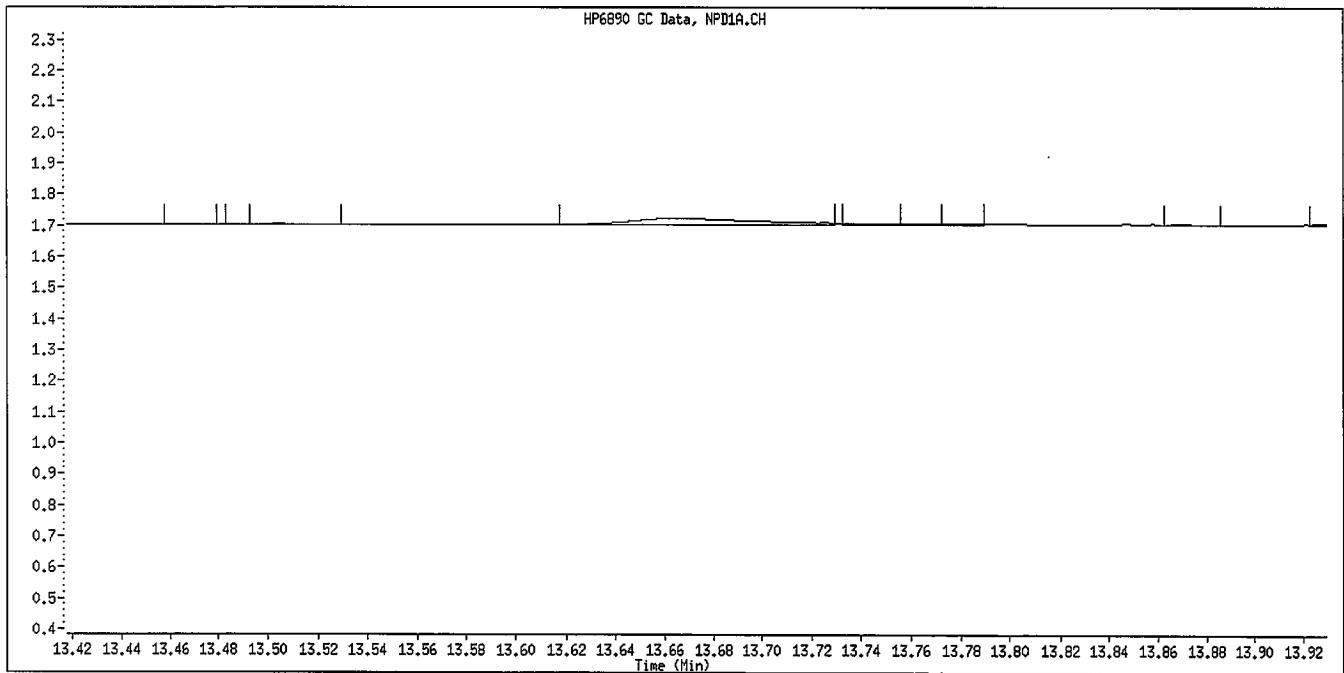
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

*16
08/07/09*

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



Original Integration

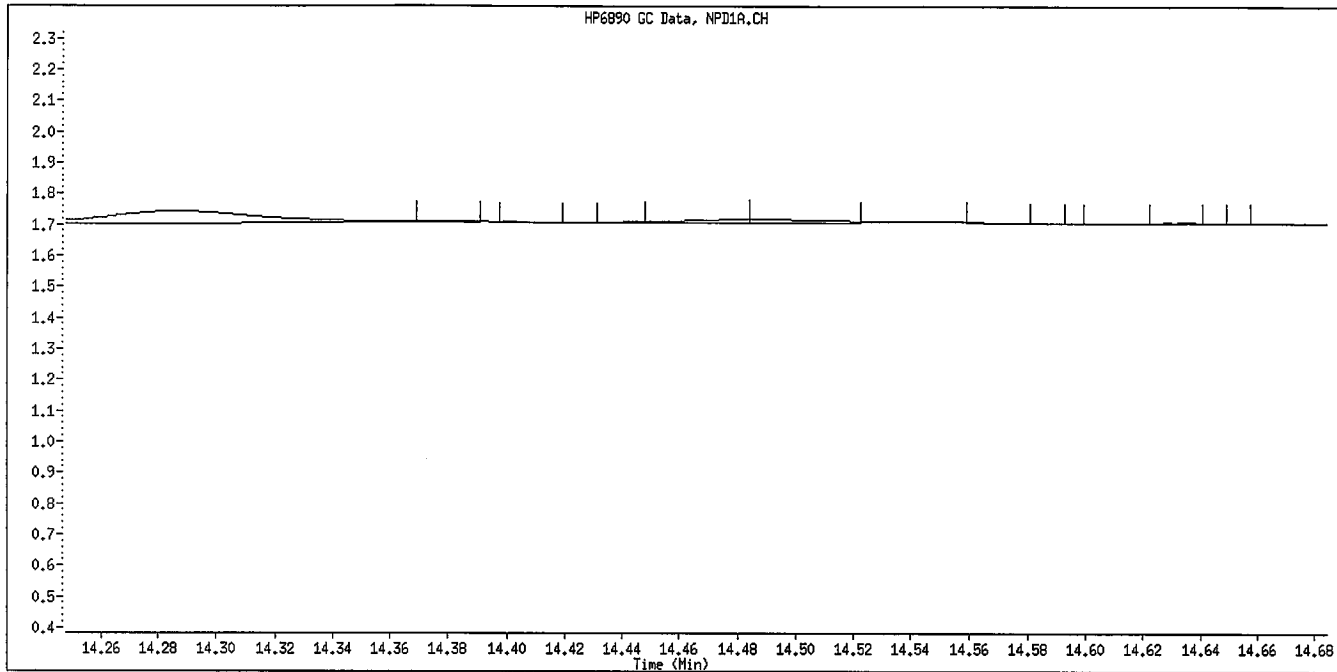


Manual Integration

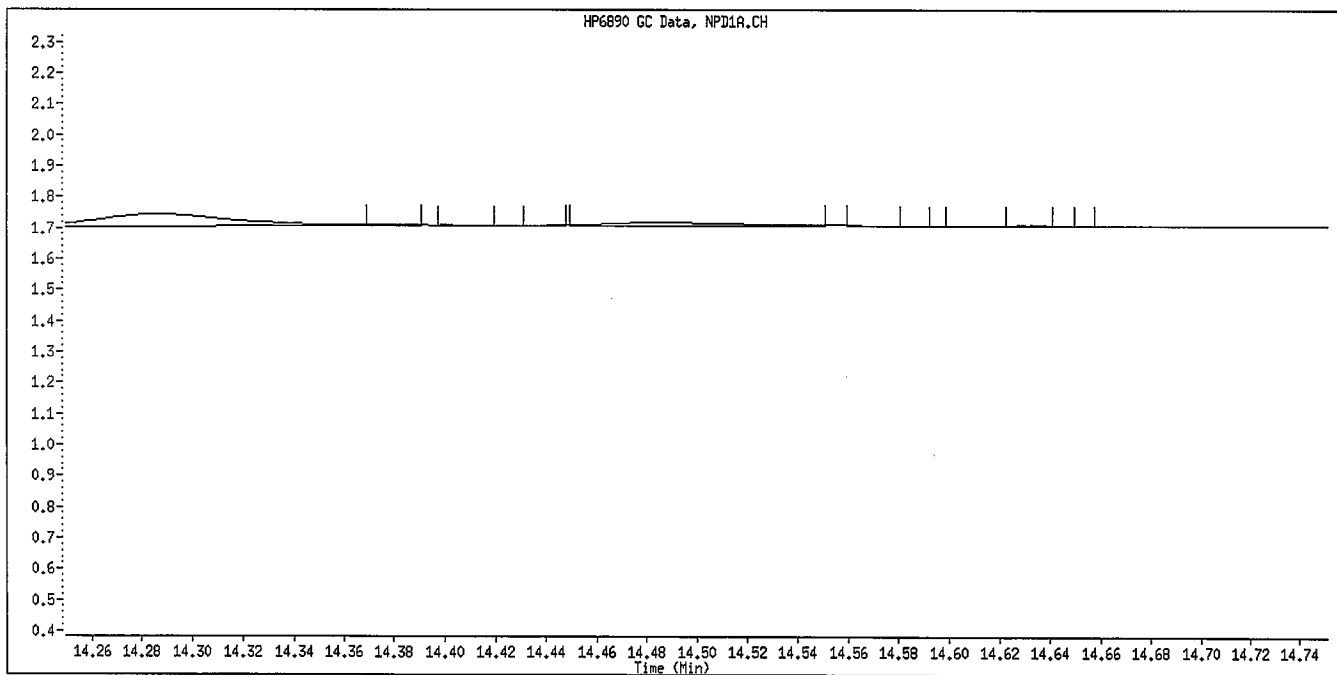
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

11-817109

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

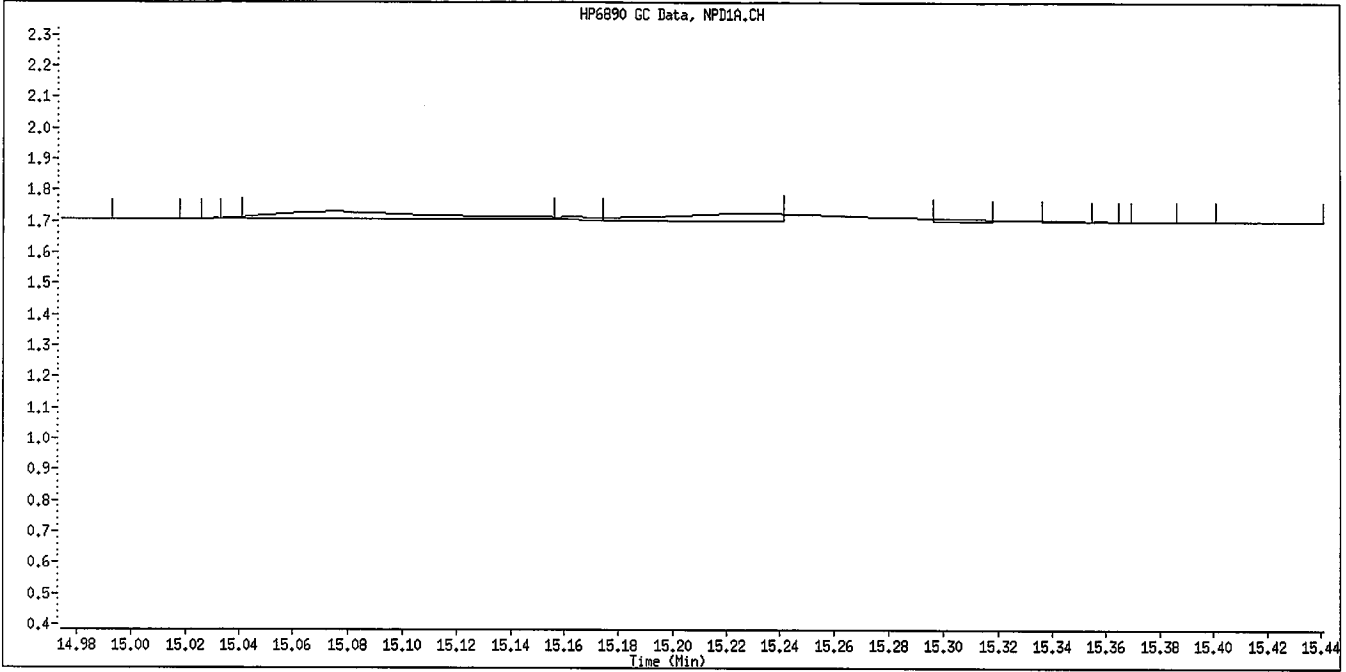


Manual Integration

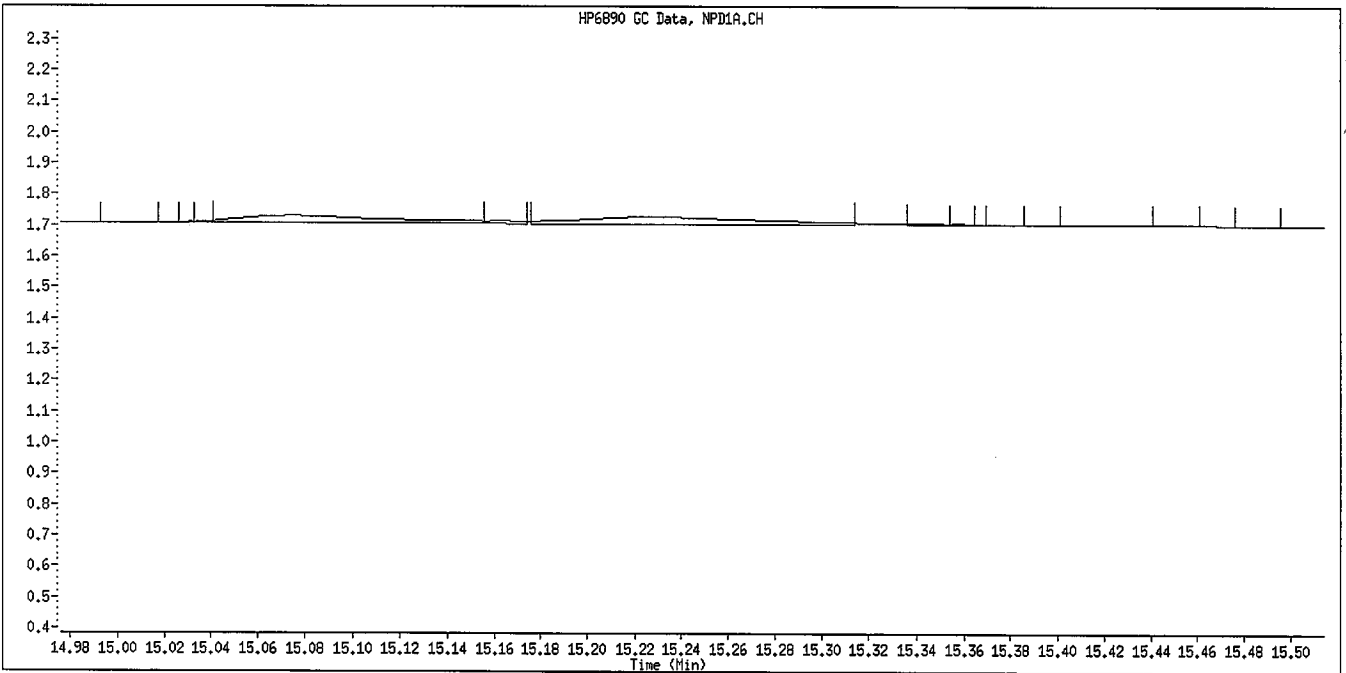
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

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877107

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

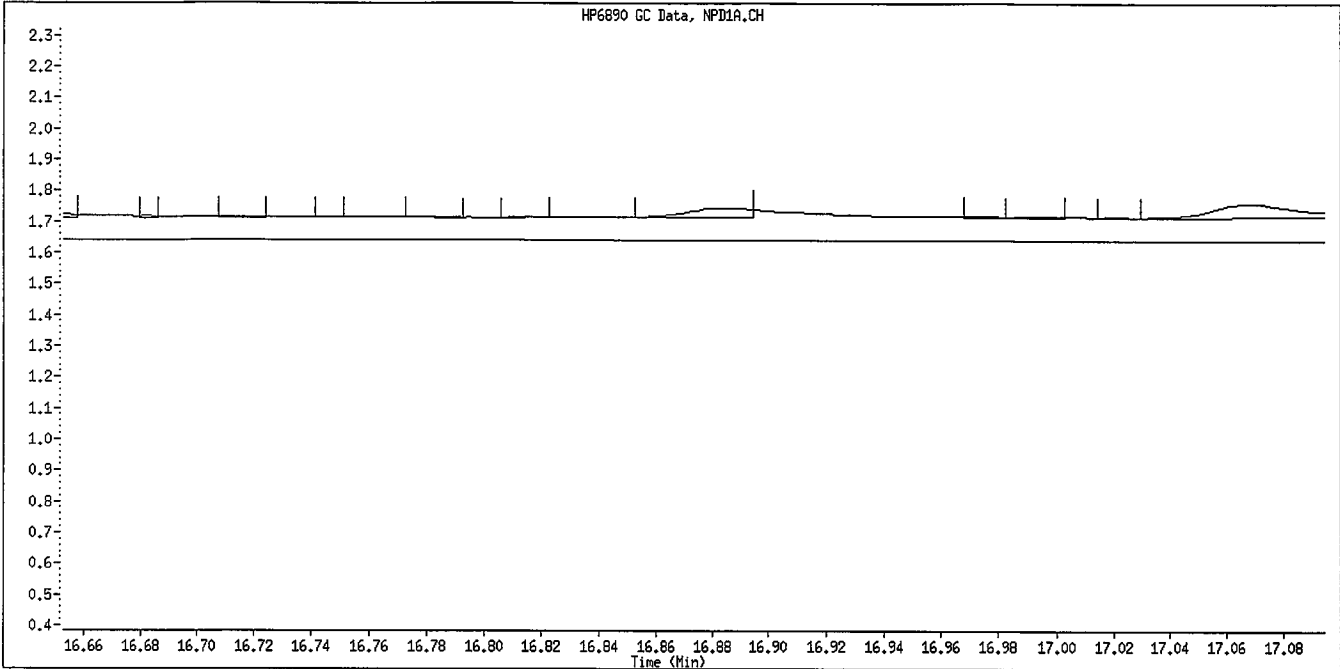


Manual Integration

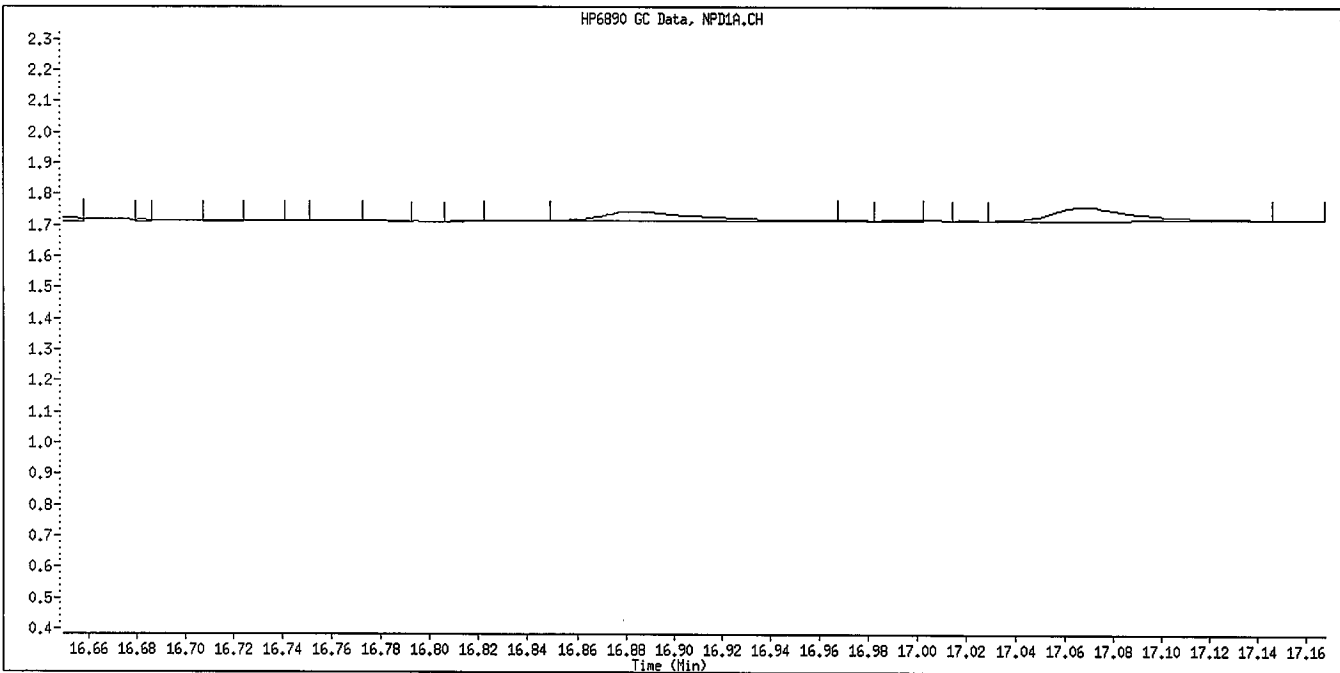
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

W-8770

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

Handwritten signature: HF 8/7/09

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	AMOUNTS					
	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	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 / Fampthur	15.933	15.936	(0.897)	307517	4.00000	4.432

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
					CAL-AMT (ug/mL)	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:

COMPOUND =====	STANDARD =====	AREA LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	321331	160666	642662	190469	-40.72
39 TOCP	171665	85833	343330	106323	-38.06

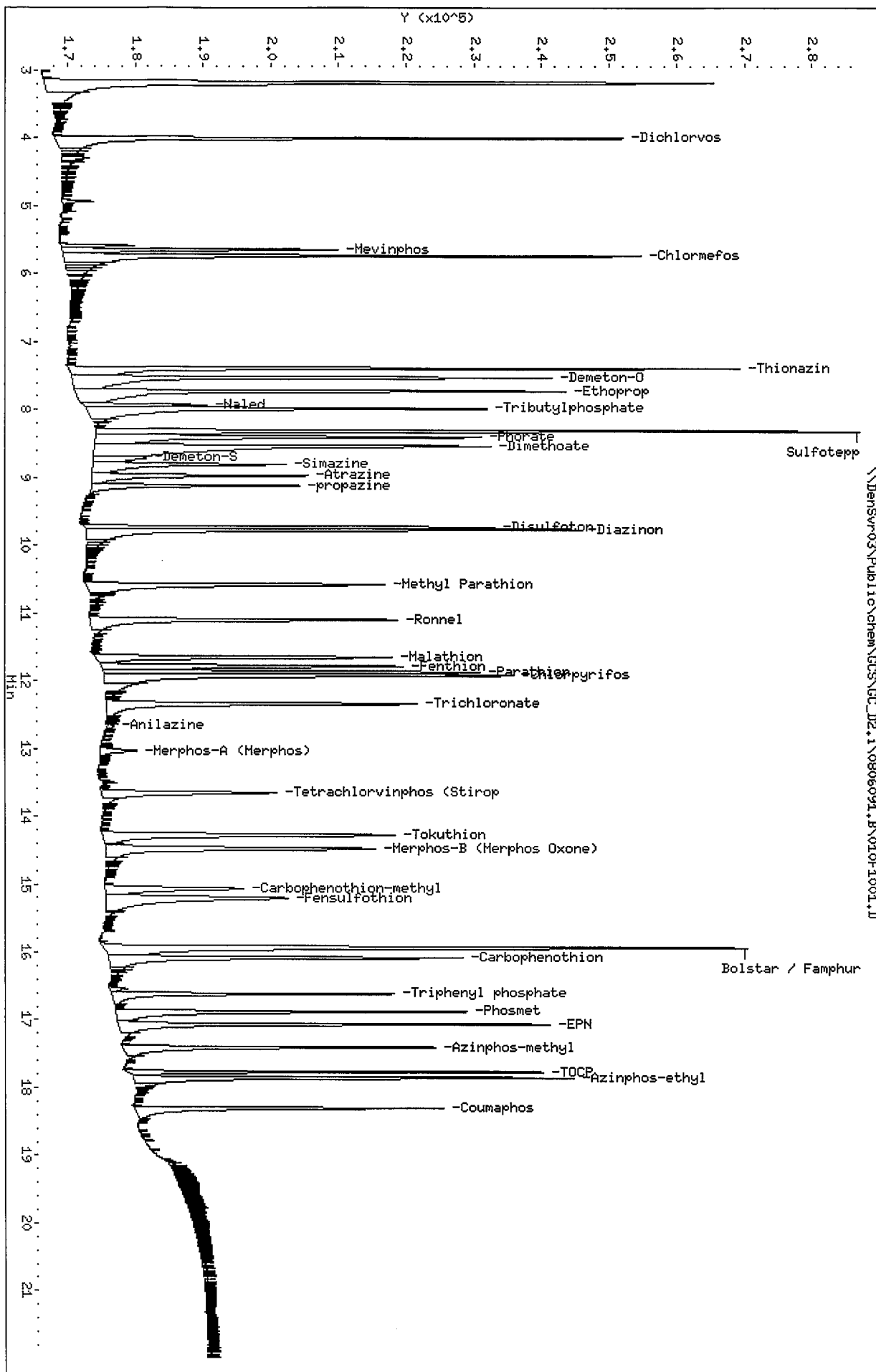
COMPOUND =====	STANDARD =====	RT LIMIT		SAMPLE =====	%DIFF =====
		LOWER =====	UPPER =====		
9 Tributylphosphate	7.98	7.48	8.48	7.98	0.05
39 TOCP	17.77	17.27	18.27	17.77	0.01

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.

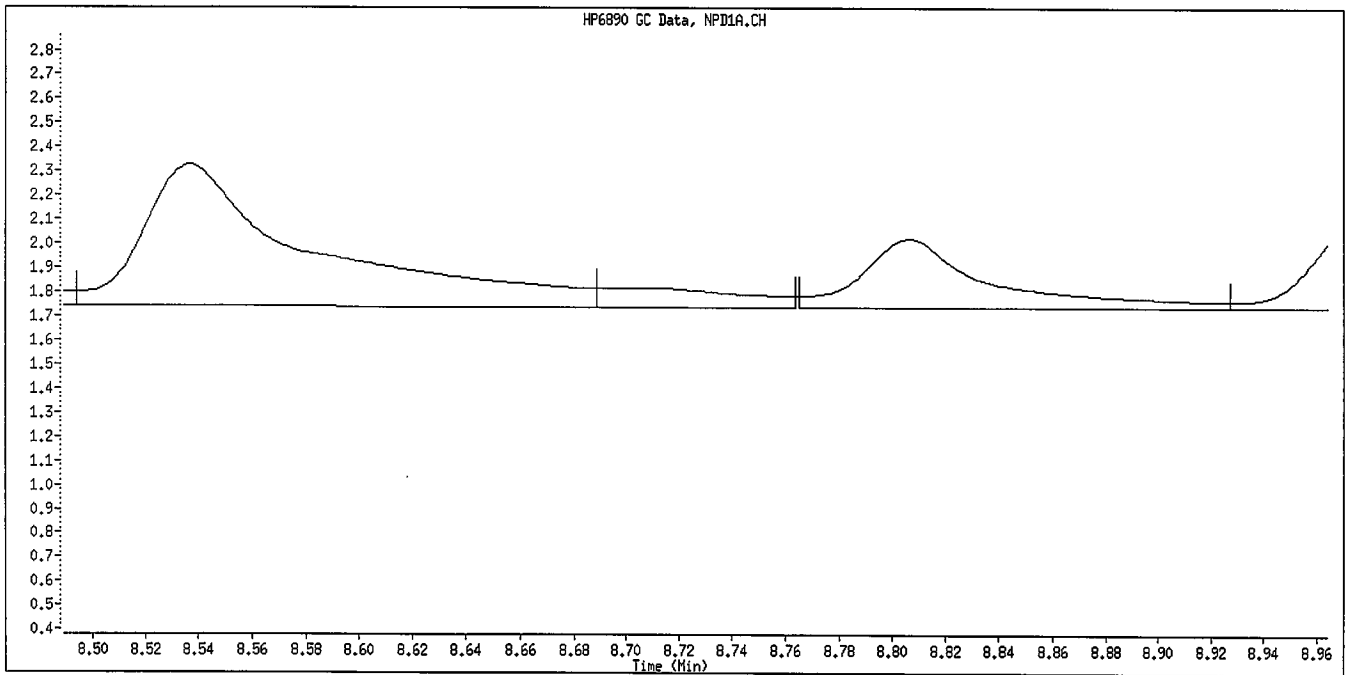
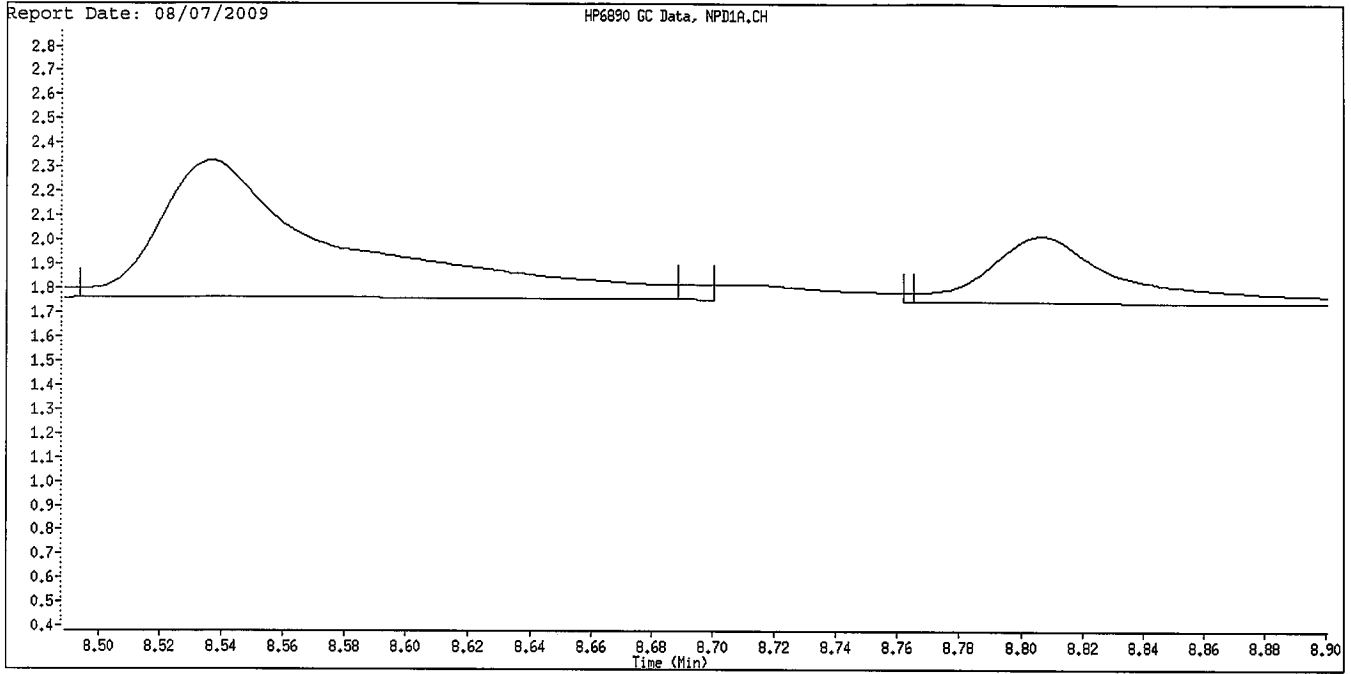
Data File: \\DensSurv-03\Public\chem\GCS\GC_D2.1\0806091.B\010F1001.D
 Date: 06-AUG-2009 16:09
 Client ID: OPP SS GSV895-09
 Sample Info: OPP SS GSV895-09
 Column phase: RTX-1MS

Instrument: GC_D2.1
 Operator: MPK/TLW
 Column diameter: 0.32

\\DensSurv-03\Public\chem\GCS\GC_D2.1\0806091.B\010F1001.D



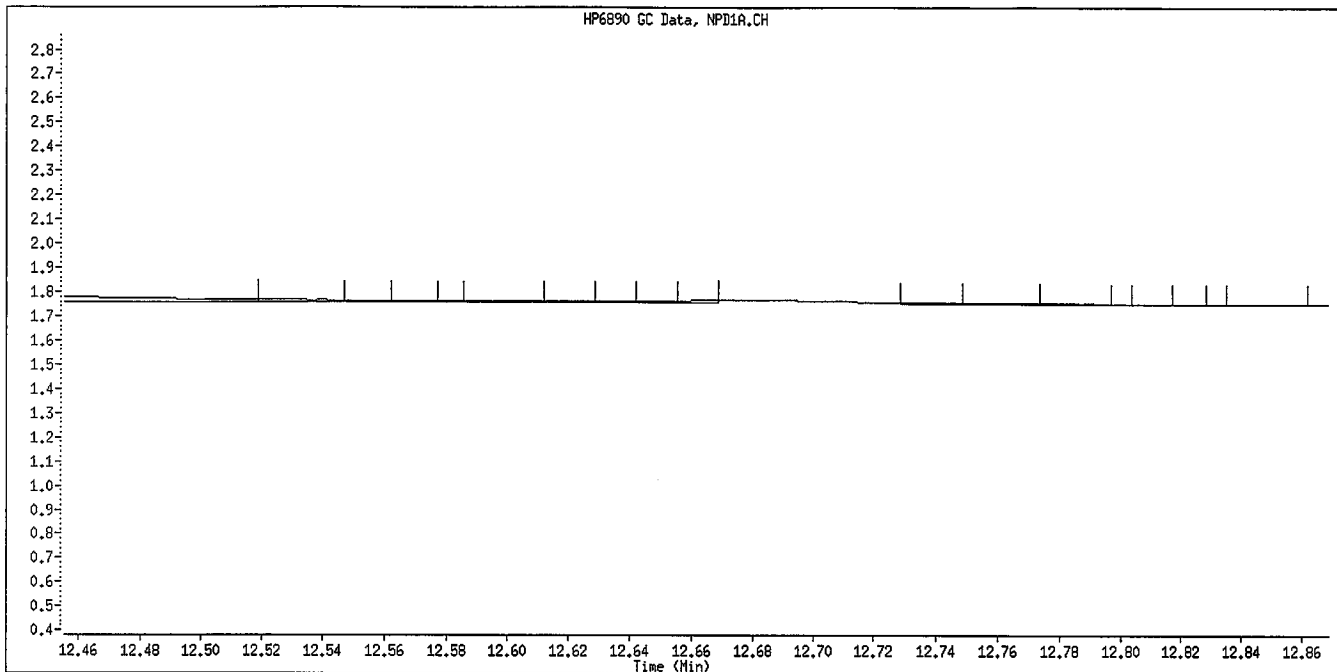
Data File Name: 010F1001.D
Inj. Date and Time: 06-AUG-2009 16:09
Instrument ID: GC_D2.i
Client ID: OPP SS GSV895-09
Compound Name: Demeton-S
CAS #:



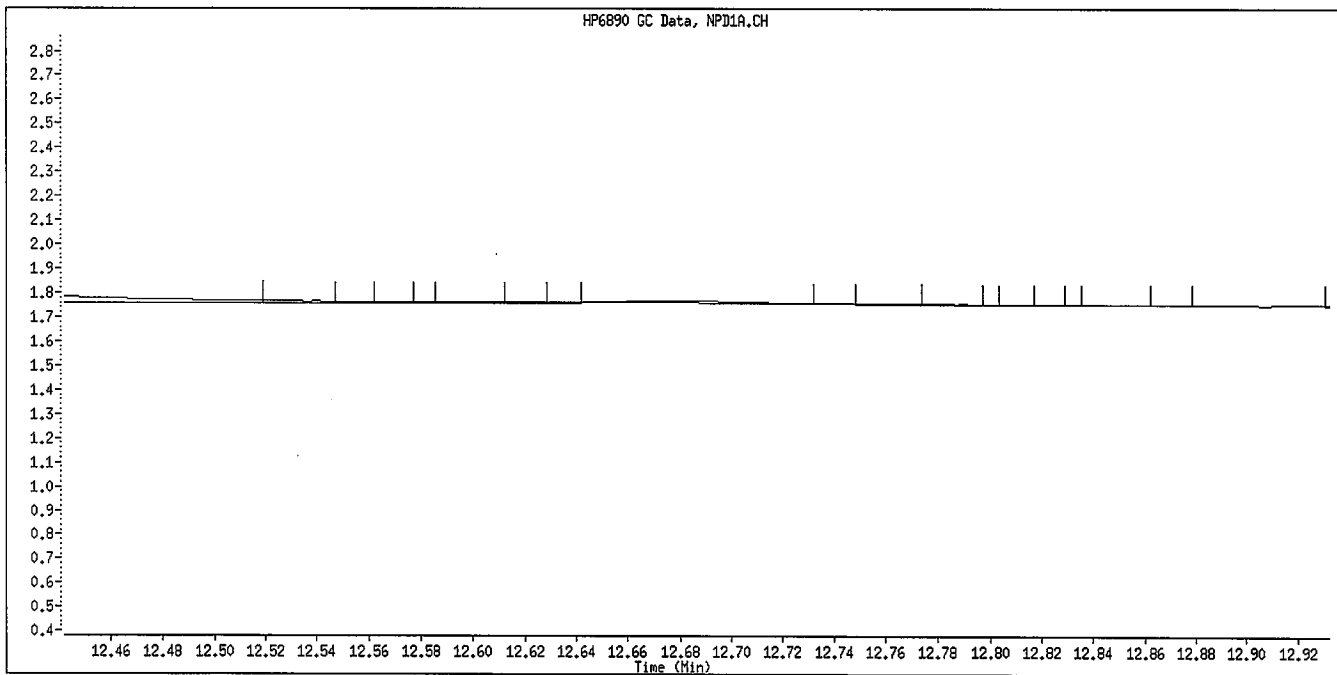
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

*W
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: Anilazine
CAS #:
Report Date: 08/07/2009



Original Integration

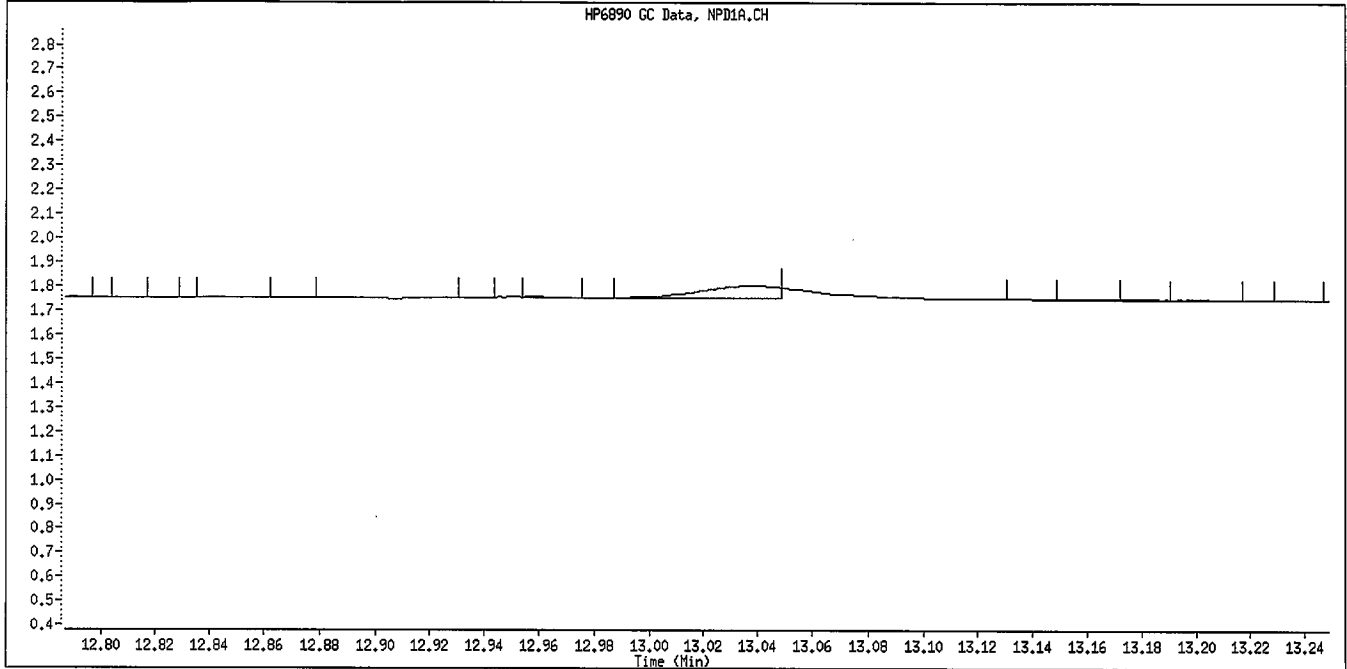


Manual Integration

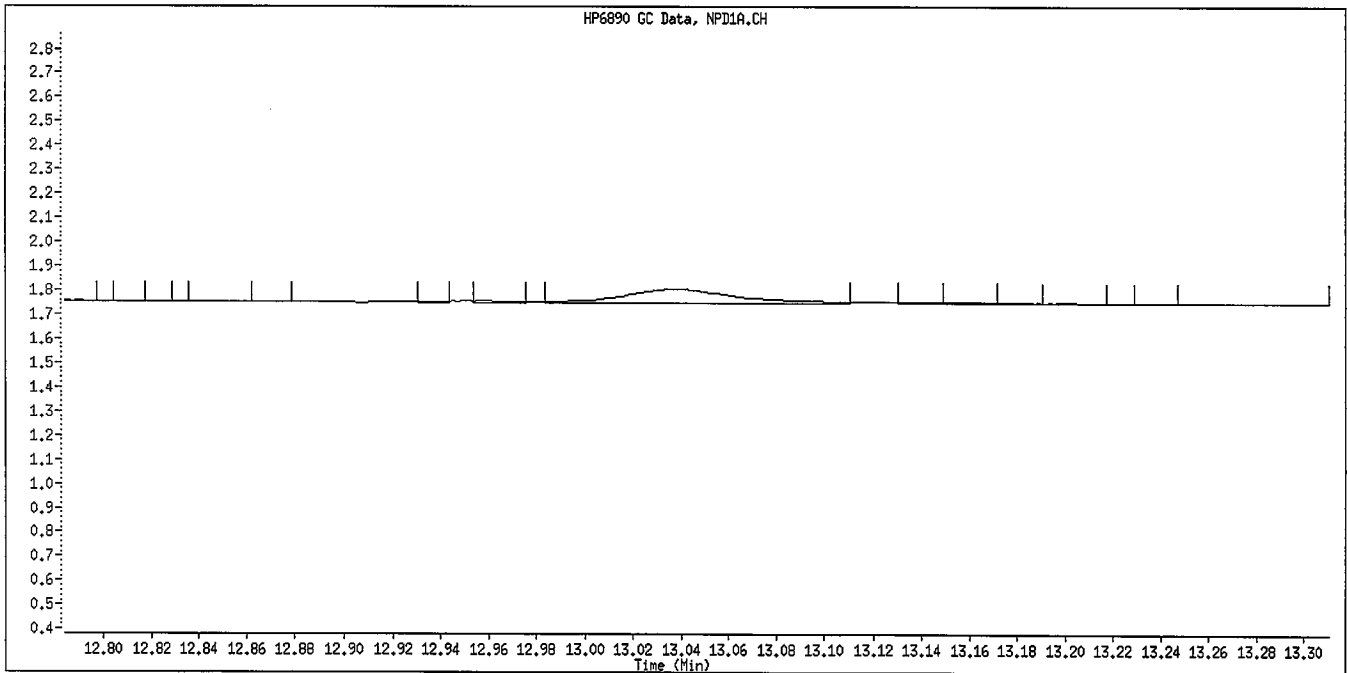
Manually Integrated By: williamst
Manual Integration Reason: Baseline Event

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

WF
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: *[Signature]* 8/5/09

Metals Raw Data RoadMap

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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

<u>Lot</u>	<u>Work Order</u>		<u>Initial Weight/Volume</u>
D9G270000 Water	LG6WK B	Due Date: SDG:	<u>50 mL</u>
D9G270000 Water	LG6WK C	Due Date: SDG:	<u>50 mL</u>
D9G240312 Water	LG282 Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 S Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 D Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G250146 Water	LG3WE Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250155 Water	LG3W9 Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250157 Water	LG3XG Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>

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*

HEC

END

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9208088
PREP DATE: 7.29.2009

ALLIQUOTTED BY: KS
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 revolved 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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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 ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 09-04-2009 (1 Month)
 Date Expires(2): 08-01-2010 (None)
 pipettes: Met 8

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
------------------	-----------------------------	--------------------------

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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)
 Date Expires(2): 08-01-2010 (None)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
------------------	----------------------------	--------------------------

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Volume (ml): 100.00

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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		<input type="checkbox"/>
4	100 ppb				1.0 08/04/09 17:33		<input type="checkbox"/>
5	ICV				1.0 08/04/09 17:35		<input type="checkbox"/>
6	RLIV				1.0 08/04/09 17:38		<input type="checkbox"/>
7	ICB				1.0 08/04/09 17:41		<input type="checkbox"/>
8	RL STD				1.0 08/04/09 17:44		<input type="checkbox"/>
9	AFCEE RL				1.0 08/04/09 17:47		<input type="checkbox"/>
10	ALTSe				1.0 08/04/09 17:50		<input type="checkbox"/>
11	ICSA				1.0 08/04/09 17:53		<input type="checkbox"/>
12	ICSAB				1.0 08/04/09 17:56		<input type="checkbox"/>
13	RINSE				1.0 08/04/09 17:59		<input type="checkbox"/>
14	LR				1.0 08/04/09 18:02		<input type="checkbox"/>
15	RINSE				1.0 08/04/09 18:05		<input type="checkbox"/>
16	CCV				1.0 08/04/09 18:08		<input type="checkbox"/>
17	CCB				1.0 08/04/09 18:10		<input type="checkbox"/>
18	RLCV				1.0 08/04/09 18:13		<input type="checkbox"/>
19	ALTLR				1.0 08/04/09 18:18		<input type="checkbox"/>
20	RINSE				1.0 08/04/09 18:21		<input type="checkbox"/>
21	CCV				1.0 08/04/09 18:24		<input type="checkbox"/>
22	CCB				1.0 08/04/09 18:27		<input type="checkbox"/>
23	RLCV				1.0 08/04/09 18:30		<input type="checkbox"/>
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0 08/04/09 18:33		<input type="checkbox"/>
25	CCV				1.0 08/04/09 18:35		<input type="checkbox"/>
26	CCB				1.0 08/04/09 18:38		<input type="checkbox"/>
27	RLCV				1.0 08/04/09 18:41		<input type="checkbox"/>
28	LGV1JB	D9G220000	9203274	46	1.0 08/04/09 18:44		<input type="checkbox"/>
29	LGV1JC	D9G220000	9203274	46	1.0 08/04/09 18:47		<input type="checkbox"/>
30	LGT1N	D9G210319-13	9203274	U1	1.0 08/04/09 18:50		<input type="checkbox"/>
31	LGT1V	D9G210319-14	9203274	U1	1.0 08/04/09 18:53	<i>Not 8/5/09 did not use.</i>	<input type="checkbox"/>
32	CCV				1.0 08/04/09 18:56		<input type="checkbox"/>
33	CCB				1.0 08/04/09 18:59		<input type="checkbox"/>
34	RLCV				1.0 08/04/09 19:02		<input type="checkbox"/>
35	LGVDGB	D9G220000	9203121	MS	1.0 08/04/09 19:05		<input type="checkbox"/>
36	LGVDGC	D9G220000	9203121	MS	1.0 08/04/09 19:08		<input type="checkbox"/>
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:11		<input type="checkbox"/>
38	LGR1DP25	D9G210208	9203121		25.0 08/04/09 19:14		<input type="checkbox"/>
39	LGR1DZ	D9G210208-1	9203121		1.0 08/04/09 19:16		<input type="checkbox"/>
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:19		<input type="checkbox"/>
41	CCV				1.0 08/04/09 19:22		<input type="checkbox"/>
42	CCB				1.0 08/04/09 19:25		<input type="checkbox"/>
43	RLCV				1.0 08/04/09 19:28		<input type="checkbox"/>
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:31		<input type="checkbox"/>
45	LGR1M	D9G210208-2	9203121	MS	1.0 08/04/09 19:34		<input type="checkbox"/>
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0 08/04/09 19:37		<input type="checkbox"/>
47	LGR1Q	D9G210208-4	9203121	MS	1.0 08/04/09 19:40		<input type="checkbox"/>
48	LGR1T	D9G210208-5	9203121	MS	1.0 08/04/09 19:43		<input type="checkbox"/>

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		<input type="checkbox"/>
50	CCB				1.0 08/04/09 19:49		<input type="checkbox"/>
51	RLCV				1.0 08/04/09 19:52		<input type="checkbox"/>
52	LG4K3BF	D9G270000	9208158	MD	1.0 08/04/09 19:55		<input type="checkbox"/>
53	LG4K3CF	D9G270000	9208158	MD	1.0 08/04/09 19:58		<input type="checkbox"/>
54	LG22HF	D9G240290-1	9208158	MD	1.0 08/04/09 20:01		<input type="checkbox"/>
55	LG29AF	D9G240311-1	9208158	MD	1.0 08/04/09 20:04		<input type="checkbox"/>
56	LG29PF	D9G240311-2	9208158	MD	1.0 08/04/09 20:07		<input type="checkbox"/>
57	LG29QF	D9G240311-3	9208158	MD	1.0 08/04/09 20:09		<input type="checkbox"/>
58	LG29RF	D9G240311-4	9208158	MD	1.0 08/04/09 20:12		<input type="checkbox"/>
59	LG29VF	D9G240311-5	9208158	MD	1.0 08/04/09 20:15		<input type="checkbox"/>
60	LG29XF	D9G240311-6	9208158	MD	1.0 08/04/09 20:18		<input type="checkbox"/>
61	LG290F	D9G240311-7	9208158	MD	1.0 08/04/09 20:21		<input type="checkbox"/>
62	CCV				1.0 08/04/09 20:24		<input type="checkbox"/>
63	CCB				1.0 08/04/09 20:27		<input type="checkbox"/>
64	RLCV				1.0 08/04/09 20:30		<input type="checkbox"/>
65	LG290P5F	D9G240311	9208158		5.0 08/04/09 20:33		<input type="checkbox"/>
66	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 20:36	<i>Not used</i>	<input type="checkbox"/>
67	LG290SF	D9G240311-7	9208158	MD	1.0 08/04/09 20:39		<input type="checkbox"/>
68	LG290DF	D9G240311-7	9208158	MD	1.0 08/04/09 20:42		<input type="checkbox"/>
69	LG292F	D9G240311-8	9208158	MD	1.0 08/04/09 20:45		<input type="checkbox"/>
70	LG293F	D9G240311-9	9208158	MD	1.0 08/04/09 20:48		<input type="checkbox"/>
71	LG294F	D9G240311-10	9208158	MD	1.0 08/04/09 20:51		<input type="checkbox"/>
72	LG296F	D9G240311-11	9208158	MD	1.0 08/04/09 20:54		<input type="checkbox"/>
73	CCV				1.0 08/04/09 20:57		<input type="checkbox"/>
74	CCB				1.0 08/04/09 21:00		<input type="checkbox"/>
75	RLCV				1.0 08/04/09 21:03		<input type="checkbox"/>
76	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 21:06		<input type="checkbox"/>
77	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 21:09		<input type="checkbox"/>
78	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 21:12		<input type="checkbox"/>
79	CCV				1.0 08/04/09 21:15		<input type="checkbox"/>
80	CCB				1.0 08/04/09 21:18		<input type="checkbox"/>
81	RLCV				1.0 08/04/09 21:21		<input type="checkbox"/>
82	RINSE				1.0 08/04/09 21:24		<input type="checkbox"/>
83	RINSE				1.0 08/04/09 21:27		<input type="checkbox"/>
84	RINSE				1.0 08/04/09 21:30		<input type="checkbox"/>
85	RINSE				1.0 08/04/09 21:32		<input type="checkbox"/>
86	RINSE				1.0 08/04/09 21:35		<input type="checkbox"/>
87	RINSE				1.0 08/04/09 21:38		<input type="checkbox"/>
88	Cal Blank				1.0 08/04/09 21:41	<i>Not used</i>	<input type="checkbox"/>
89	Cal Blank				1.0 08/04/09 21:44		<input type="checkbox"/>
90	100 ppb				1.0 08/04/09 21:47		<input type="checkbox"/>
91	CCV				1.0 08/04/09 21:50		<input type="checkbox"/>
92	CCB				1.0 08/04/09 21:53		<input type="checkbox"/>
93	RLCV				1.0 08/04/09 21:56		<input type="checkbox"/>
94	ICSA				1.0 08/04/09 21:59		<input type="checkbox"/>

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		<input type="checkbox"/>
96	WASH				1.0 08/04/09 22:04		<input type="checkbox"/>
97	CCV				1.0 08/04/09 22:07		<input type="checkbox"/>
98	CCB				1.0 08/04/09 22:10		<input type="checkbox"/>
99	RLCV				1.0 08/04/09 22:13		<input type="checkbox"/>
100	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 22:16		<input type="checkbox"/>
101	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 22:19		<input type="checkbox"/>
102	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 22:22		<input type="checkbox"/>
103	CCV				1.0 08/04/09 22:25		<input type="checkbox"/>
104	CCB				1.0 08/04/09 22:28		<input type="checkbox"/>
105	RLCV				1.0 08/04/09 22:31		<input type="checkbox"/>
106	LG6WKB	D9G270000	9208088	MS	1.0 08/04/09 22:34		<input type="checkbox"/>
107	LG6WKC	D9G270000	9208088	MS	1.0 08/04/09 22:37		<input type="checkbox"/>
108	LG282 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:40		<input type="checkbox"/>
109	LG282P25	D9G240312	9208088		25.0 08/04/09 22:43		<input type="checkbox"/>
110	LG282Z	D9G240312-1	9208088		1.0 08/04/09 22:46		<input type="checkbox"/>
111	LG282S 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:49		<input type="checkbox"/>
112	LG282D 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:51		<input type="checkbox"/>
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0 08/04/09 22:54		<input type="checkbox"/>
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0 08/04/09 22:57		<input type="checkbox"/>
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0 08/04/09 23:00		<input type="checkbox"/>
116	CCV				1.0 08/04/09 23:03		<input type="checkbox"/>
117	CCB				1.0 08/04/09 23:06		<input type="checkbox"/>
118	RLCV				1.0 08/04/09 23:09		<input type="checkbox"/>
119	LG15XB	D9G240000	9205339	MS	1.0 08/04/09 23:12		<input type="checkbox"/>
120	LG15XC	D9G240000	9205339	MS	1.0 08/04/09 23:15		<input type="checkbox"/>
121	LGWWE	D9G220274-1	9205339	MS	1.0 08/04/09 23:18		<input type="checkbox"/>
122	LGWWE5	D9G220274	9205339		5.0 08/04/09 23:21		<input type="checkbox"/>
123	LGWWEZ	D9G220274-1	9205339		1.0 08/04/09 23:24		<input type="checkbox"/>
124	LGWWES	D9G220274-1	9205339	MS	1.0 08/04/09 23:27		<input type="checkbox"/>
125	LGWWED	D9G220274-1	9205339	MS	1.0 08/04/09 23:30		<input type="checkbox"/>
126	CCV				1.0 08/04/09 23:33		<input type="checkbox"/>
127	CCB				1.0 08/04/09 23:37		<input type="checkbox"/>
128	RLCV				1.0 08/04/09 23:40		<input type="checkbox"/>
129	LG4LKBF	D9G270000	9208171	MD	1.0 08/04/09 23:43		<input type="checkbox"/>
130	LG4LKCF	D9G270000	9208171	MD	1.0 08/04/09 23:46		<input type="checkbox"/>
131	LG17CF	D9G240170-1	9208171	MD	1.0 08/04/09 23:49		<input type="checkbox"/>
132	LG17CP5F	D9G240170	9208171		5.0 08/04/09 23:52		<input type="checkbox"/>
133	LG17CZF	D9G240170-1	9208171		1.0 08/04/09 23:55		<input type="checkbox"/>
134	LG17CSF	D9G240170-1	9208171	MD	1.0 08/04/09 23:57		<input type="checkbox"/>
135	LG17CDF	D9G240170-1	9208171	MD	1.0 08/05/09 00:00		<input type="checkbox"/>
136	CCV				1.0 08/05/09 00:03		<input type="checkbox"/>
137	CCB				1.0 08/05/09 00:06		<input type="checkbox"/>
138	RLCV				1.0 08/05/09 00:09		<input type="checkbox"/>
139	LG1WEB	D9G240000	9205275	MS	1.0 08/05/09 00:12		<input type="checkbox"/>
140	LG1WEC	D9G240000	9205275	MS	1.0 08/05/09 00:15		<input type="checkbox"/>

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	<input type="checkbox"/>
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21	<input type="checkbox"/>
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24	<input type="checkbox"/>
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27	<input type="checkbox"/>
145	CCV			MS	1.0	08/05/09 00:30	<input type="checkbox"/>
146	CCB			069547	1.0	08/05/09 00:33	<input type="checkbox"/>
147	RLCV				1.0	08/05/09 00:36	<input type="checkbox"/>
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39	<input type="checkbox"/>
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42	<input type="checkbox"/>
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45	<input type="checkbox"/>
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48	<input type="checkbox"/>
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51	<input type="checkbox"/>
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54	<input type="checkbox"/>
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57	<input type="checkbox"/>
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00	<input type="checkbox"/>
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03	<input type="checkbox"/>
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06	<input type="checkbox"/>
158	CCV			46	1.0	08/05/09 01:09	<input type="checkbox"/>
159	CCB			D9G220290	1.0	08/05/09 01:12	<input type="checkbox"/>
160	RLCV			46	1.0	08/05/09 01:15	<input type="checkbox"/>
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17	<input type="checkbox"/>
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20	<input type="checkbox"/>
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23	<input type="checkbox"/>
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26	<input type="checkbox"/>
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29	<input type="checkbox"/>
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32	<input type="checkbox"/>
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35	<input type="checkbox"/>
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38	<input type="checkbox"/>
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41	<input type="checkbox"/>
170	CCV			46	1.0	08/05/09 01:44	<input type="checkbox"/>
171	CCB			D9G220290	1.0	08/05/09 01:47	<input type="checkbox"/>
172	RLCV				1.0	08/05/09 01:50	<input type="checkbox"/>
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53	<input type="checkbox"/>
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56	<input type="checkbox"/>
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59	<input type="checkbox"/>
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02	<input type="checkbox"/>
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05	<input type="checkbox"/>
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07	<input type="checkbox"/>
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10	<input type="checkbox"/>
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13	<input type="checkbox"/>
181	CCV				1.0	08/05/09 02:16	<input type="checkbox"/>
182	CCB				1.0	08/05/09 02:19	<input type="checkbox"/>
183	RLCV				1.0	08/05/09 02:22	<input type="checkbox"/>
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25	<input type="checkbox"/>
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28	<input type="checkbox"/>
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31	<input type="checkbox"/>

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	<input type="checkbox"/>
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37	<input type="checkbox"/>
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39	<input type="checkbox"/>
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42	<input type="checkbox"/>
191	CCV				1.0	08/05/09 02:45	<input type="checkbox"/>
192	CCB				1.0	08/05/09 02:48	<input type="checkbox"/>
193	RLCV				1.0	08/05/09 02:51	<input type="checkbox"/>
194	LG6MMB	D9G280000	9209279	46	1.0	08/05/09 02:54	<input type="checkbox"/>
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57	<input type="checkbox"/>
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00	<input type="checkbox"/>
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03	<input type="checkbox"/>
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06	<input type="checkbox"/>
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09	<input type="checkbox"/>
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12	<input type="checkbox"/>
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15	<input type="checkbox"/>
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17	<input type="checkbox"/>
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20	<input type="checkbox"/>
204	CCV				1.0	08/05/09 03:23	<input type="checkbox"/>
205	CCB				1.0	08/05/09 03:26	<input type="checkbox"/>
206	RLCV				1.0	08/05/09 03:29	<input type="checkbox"/>
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32	<input type="checkbox"/>
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35	<input type="checkbox"/>
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38	<input type="checkbox"/>
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41	<input type="checkbox"/>
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44	<input type="checkbox"/>
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47	<input type="checkbox"/>
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50	<input type="checkbox"/>
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53	<input type="checkbox"/>
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56	<input type="checkbox"/>
216	CCV				1.0	08/05/09 03:59	<input type="checkbox"/>
217	CCB				1.0	08/05/09 04:01	<input type="checkbox"/>
218	RLCV				1.0	08/05/09 04:04	<input type="checkbox"/>
219	RINSE				1.0	08/05/09 04:07	<input type="checkbox"/>
220	RINSE				1.0	08/05/09 04:10	<input type="checkbox"/>
221	RINSE				1.0	08/05/09 04:13	<input type="checkbox"/>
222	RINSE				1.0	08/05/09 04:16	<input type="checkbox"/>
223	RINSE				1.0	08/05/09 04:19	<input type="checkbox"/>
224	RINSE				1.0	08/05/09 04:22	<input type="checkbox"/>
225	Cal Blank				1.0	08/05/09 04:25	<input type="checkbox"/>
226	Cal Blank				1.0	08/05/09 04:28	<input type="checkbox"/>
227	100 ppb				1.0	08/05/09 04:31	<input type="checkbox"/>
228	CCV				1.0	08/05/09 04:34	<input type="checkbox"/>
229	CCB				1.0	08/05/09 04:36	<input type="checkbox"/>
230	RLCV				1.0	08/05/09 04:39	<input type="checkbox"/>
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42	<input type="checkbox"/>
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45	<input type="checkbox"/>

At 8/5/09 did not use.

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 08/05/09 11:09:30
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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	<input type="checkbox"/>
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51	<input type="checkbox"/>
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54	<input type="checkbox"/>
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57	<input type="checkbox"/>
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00	<input type="checkbox"/>
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03	<input type="checkbox"/>
239	CCV				1.0	08/05/09 05:06	<input type="checkbox"/>
240	CCB				1.0	08/05/09 05:09	<input type="checkbox"/>
241	RLCV				1.0	08/05/09 05:12	<input type="checkbox"/>
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15	<input type="checkbox"/>
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18	<input type="checkbox"/>
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21	<input type="checkbox"/>
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24	<input type="checkbox"/>
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27	<input type="checkbox"/>
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30	<input type="checkbox"/>
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33	<input type="checkbox"/>
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36	<input type="checkbox"/>
250	CCV				1.0	08/05/09 05:39	<input type="checkbox"/>
251	CCB				1.0	08/05/09 05:42	<input type="checkbox"/>
252	RLCV				1.0	08/05/09 05:45	<input type="checkbox"/>
253	RINSE				1.0	08/05/09 05:48	<input type="checkbox"/>
254	RINSE				1.0	08/05/09 05:51	<input type="checkbox"/>
255	RINSE				1.0	08/05/09 05:54	<input type="checkbox"/>
256	RINSE				1.0	08/05/09 05:57	<input type="checkbox"/>
257	RINSE				1.0	08/05/09 06:00	<input type="checkbox"/>
258	RINSE				1.0	08/05/09 06:03	<input type="checkbox"/>
259	Cal Blank				1.0	08/05/09 06:05	<input type="checkbox"/>
260	Cal Blank				1.0	08/05/09 06:08	<input type="checkbox"/>
261	100 ppb				1.0	08/05/09 06:11	<input type="checkbox"/>
262	CCV				1.0	08/05/09 06:14	<input type="checkbox"/>
263	CCB				1.0	08/05/09 06:17	<input type="checkbox"/>
264	RLCV				1.0	08/05/09 06:20	<input type="checkbox"/>
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23	<input type="checkbox"/>
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26	<input type="checkbox"/>
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29	<input type="checkbox"/>
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32	<input type="checkbox"/>
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35	<input type="checkbox"/>
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38	<input type="checkbox"/>
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41	<input type="checkbox"/>
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43	<input type="checkbox"/>
273	CCV				1.0	08/05/09 06:46	<input type="checkbox"/>
274	CCB				1.0	08/05/09 06:49	<input type="checkbox"/>
275	RLCV				1.0	08/05/09 06:52	<input type="checkbox"/>
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55	<input type="checkbox"/>
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58	<input type="checkbox"/>
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01	<input type="checkbox"/>

TEL 8/5/09

Method: 6020 (ICP/MS)

ICPMS_024 (024)

Reported: 08/05/09 11:09:30

File ID: AG080409

Analyst: TEL

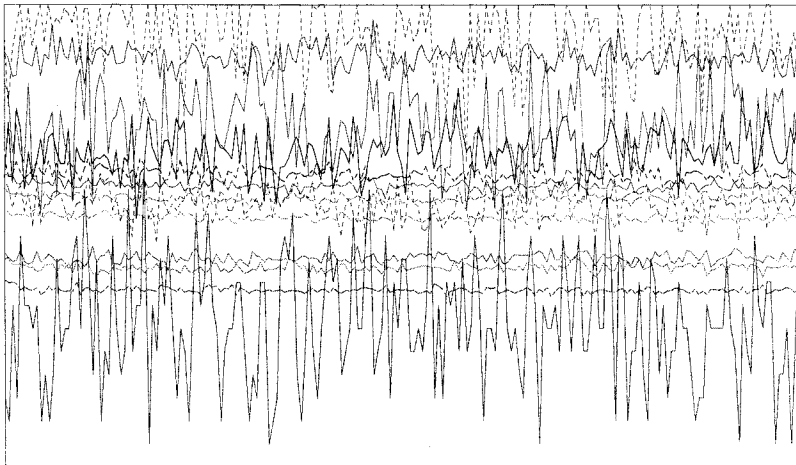
#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04	<input type="checkbox"/>
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07	<input type="checkbox"/>
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10	<input type="checkbox"/>
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13	<input type="checkbox"/>
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16	<input type="checkbox"/>
284	CCV				1.0	08/05/09 07:19	<input type="checkbox"/>
285	CCB				1.0	08/05/09 07:22	<input type="checkbox"/>
286	RLCV				1.0	08/05/09 07:25	<input type="checkbox"/>
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	<input type="checkbox"/>
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31	<input type="checkbox"/>
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34	<input type="checkbox"/>
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37	<input type="checkbox"/>
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39	<input type="checkbox"/>
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42	<input type="checkbox"/>
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45	<input type="checkbox"/>
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48	<input type="checkbox"/>
295	CCV				1.0	08/05/09 07:51	<input type="checkbox"/>
296	CCB				1.0	08/05/09 07:54	<input type="checkbox"/>
297	RLCV				1.0	08/05/09 07:57	<input type="checkbox"/>
298	RINSE				1.0	08/05/09 08:00	<input type="checkbox"/>
299	RINSE				1.0	08/05/09 08:03	<input type="checkbox"/>
300	RINSE				1.0	08/05/09 08:06	<input type="checkbox"/>
301	RINSE				1.0	08/05/09 08:09	<input type="checkbox"/>
302	RINSE				1.0	08/05/09 08:12	<input type="checkbox"/>
303	RINSE				1.0	08/05/09 08:15	<input type="checkbox"/>
304	RINSE				1.0	08/05/09 08:18	<input type="checkbox"/>
305	RINSE				1.0	08/05/09 08:21	<input type="checkbox"/>
306	RINSE				1.0	08/05/09 08:23	<input type="checkbox"/>
307	RINSE				1.0	08/05/09 08:26	<input type="checkbox"/>
308	Cal Blank				1.0	08/05/09 08:29	<input type="checkbox"/>
309	Cal Blank				1.0	08/05/09 08:32	<input type="checkbox"/>
310	100 ppb				1.0	08/05/09 08:35	<input type="checkbox"/>
311	CCV				1.0	08/05/09 08:38	<input type="checkbox"/>
312	CCB				1.0	08/05/09 08:41	<input type="checkbox"/>
313	ICSA				1.0	08/05/09 08:44	<input type="checkbox"/>
314	ICSAB				1.0	08/05/09 08:47	<input type="checkbox"/>
315	WASH				1.0	08/05/09 08:50	<input type="checkbox"/>
316	CCV				1.0	08/05/09 08:53	<input type="checkbox"/>
317	CCB				1.0	08/05/09 08:56	<input type="checkbox"/>
318	RLCV				1.0	08/05/09 08:59	<input type="checkbox"/>

} Take all but Ni
8/5/09

✓ 8/5/09

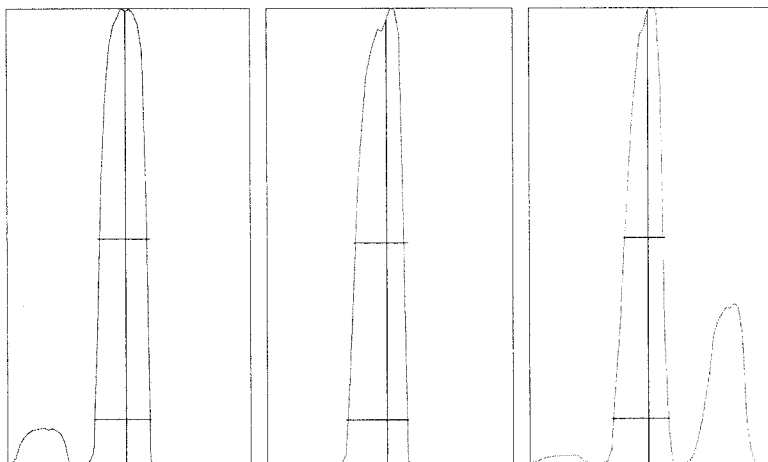
Tune Report

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

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 : 0.85 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 : -165 V
Omega Bias-ce : -34 V
Omega Lens-ce : 1 V
Cell Entrance : -30 V
QP Focus : 7 V
Cell Exit : -30 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

===Octopole Parameters===

OctP RF : 180 V
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

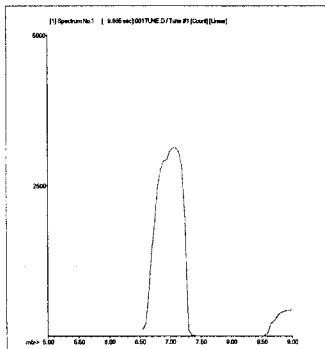
===Detector Parameters===

Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

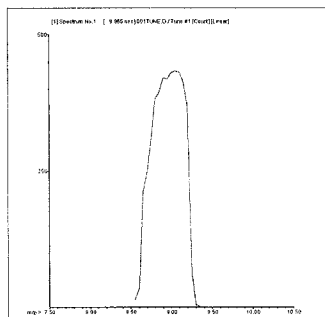
200.8 QC Tune Report

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

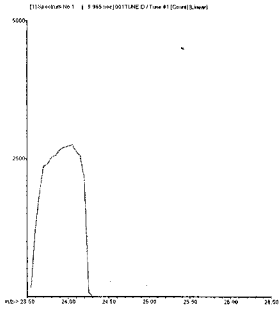
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	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:



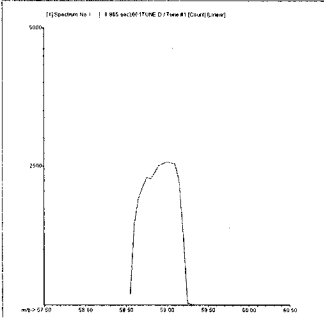
24 Mg

Mass Calib.

Actual: 24.00
 Required: 23.90 - 24.10
 Flag:

Peak Width

Actual: 0.60
 Required: 0.90
 Flag:



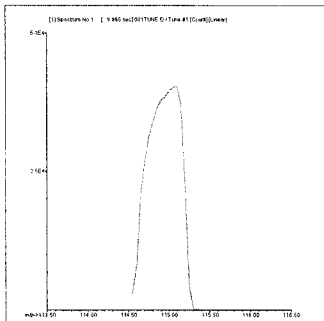
59 Co

Mass Calib.

Actual: 59.00
 Required: 58.90 - 59.10
 Flag:

Peak Width

Actual: 0.60
 Required: 0.90
 Flag:



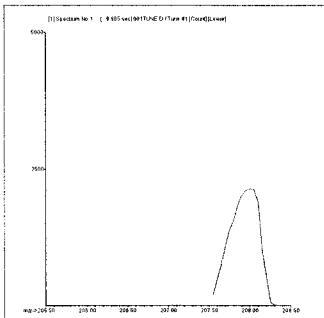
115 In

Mass Calib.

Actual: 115.00
 Required: 114.90 - 115.10
 Flag:

Peak Width

Actual: 0.60
 Required: 0.90
 Flag:



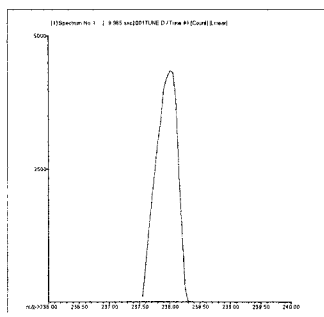
208 Pb

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	78880	1.03
23	Na	6	67854280	0.78
24	Mg	6	41046008	0.44
27	Al	45	36514528	1.31
39	K	45	62484832	0.32
43	Ca	45	154713	0.88
51	V	72	1748494	1.28
52	Cr	72	1712193	0.90
55	Mn	72	1838240	0.92
57	Fe	72	4331625	1.05
59	Co	72	2170643	0.67
60	Ni	72	494898	1.03
63	Cu	72	1147761	0.20
66	Zn	72	229614	0.57
75	As	72	199756	0.44
78	Se	72	35396	1.68
93	Nb	72	5397792	1.07
95	Mo	72	533263	0.26
105	Pd	115	657524	0.37
107	Ag	115	1430733	0.49
111	Cd	115	277412	0.99
118	Sn	115	778149	0.58
121	Sb	115	861506	0.48
137	Ba	115	372202	0.66
182	W	165	1191344	0.33
195	Pt	165	789081	0.96
205	Tl	165	2466925	0.69
208	Pb	165	3353142	0.67
232	Th	165	3430275	0.56
238	U	165	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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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
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

Fail

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: AFCEEERL
 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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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
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
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
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 :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\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\
 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 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 :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\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 :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\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\
 Tune File# 4

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
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

Fail

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 :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\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: 1107
 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\
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 Tune File# 4

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 :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\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	50.87 ppb	2.72	50	101.7	90 - 110	
23	Na	6	5030.00 ppb	0.84	5000	100.6	90 - 110	
24	Mg	6	4975.00 ppb	0.37	5000	99.5	90 - 110	
27	Al	45	4999.00 ppb	0.47	5000	100.0	90 - 110	
39	K	45	5015.00 ppb	0.50	5000	100.3	90 - 110	
43	Ca	45	4978.00 ppb	1.01	5000	99.6	90 - 110	
51	V	72	49.01 ppb	1.42	50	98.0	90 - 110	
52	Cr	72	50.21 ppb	0.85	50	100.4	90 - 110	
55	Mn	72	49.79 ppb	0.40	50	99.6	90 - 110	
57	Fe	72	5145.00 ppb	0.75	5000	102.9	90 - 110	
59	Co	72	50.00 ppb	0.78	50	100.0	90 - 110	
60	Ni	72	50.92 ppb	1.18	50	101.8	90 - 110	
63	Cu	72	50.89 ppb	0.59	50	101.8	90 - 110	
66	Zn	72	50.52 ppb	0.98	50	101.0	90 - 110	
75	As	72	50.18 ppb	0.62	50	100.4	90 - 110	
78	Se	72	50.48 ppb	2.52	50	101.0	90 - 110	
93	Nb	72	102.30 ppb	0.52	100	102.3	90 - 110	
95	Mo	72	49.96 ppb	0.89	50	99.9	90 - 110	
105	Pd	115	51.24 ppb	1.91	50	102.5	90 - 110	
107	Ag	115	52.00 ppb	1.21	50	104.0	90 - 110	
111	Cd	115	50.74 ppb	1.30	50	101.5	90 - 110	
118	Sn	115	50.67 ppb	2.00	50	101.3	90 - 110	
121	Sb	115	50.48 ppb	0.65	50	101.0	90 - 110	
137	Ba	115	50.64 ppb	1.63	50	101.3	90 - 110	
182	W	165	50.21 ppb	0.95	50	100.4	90 - 110	
195	Pt	165	50.66 ppb	0.75	50	101.3	90 - 110	
205	Tl	165	51.44 ppb	0.95	50	102.9	90 - 110	
208	Pb	165	51.96 ppb	0.78	50	103.9	90 - 110	
232	Th	165	51.39 ppb	0.50	50	102.8	90 - 110	
238	U	165	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 :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\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	
95 Mo	72	1	0.077 ppb	63.62	1.00	Fail
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\
 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: 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 :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\105WASH.D\105WASH.D#
 Date Acquired: Aug 4 2009 10:31 pm
 Operator: TEL **QC Summary:**
 Sample Name: RLCV **Analytes: Pass**
 Misc Info: **ISTD: Pass**
 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 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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 **QC Summary:**
 Acq. Method: 6020isis.M **Analytes: Pass**
 Operator: TEL **ISTD: Pass**
 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

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	90 - 110	
23	Na	6	1	75940.00 ppb	1.58	78180.00	90 - 110	
24	Mg	6	1	1755.00 ppb	0.84	1743.40	90 - 110	
27	Al	45	1	12.53 ppb	0.95	2.69	90 - 110	
39	K	45	1	246.20 ppb	2.26	233.80	90 - 110	
43	Ca	45	1	6618.00 ppb	1.13	6620.00	90 - 110	
51	V	72	1	494.20 ppb	0.71	524.60	90 - 110	
52	Cr	72	1	15.05 ppb	0.94	15.39	90 - 110	
55	Mn	72	1	0.71 ppb	2.74	0.67	90 - 110	
57	Fe	72	1	20.27 ppb	3.95	20.90	90 - 110	
59	Co	72	1	0.01 ppb	17.87	0.01	90 - 110	
60	Ni	72	1	0.34 ppb	5.58	0.15	90 - 110	
63	Cu	72	1	0.03 ppb	3.68	0.03	90 - 110	
66	Zn	72	1	0.05 ppb	23.95	0.11	90 - 110	
75	As	72	1	15.20 ppb	0.97	15.30	90 - 110	
78	Se	72	1	0.18 ppb	124.41	0.44	90 - 110	
93	Nb	72	1	0.39 ppb	25.09	0.19	90 - 110	
95	Mo	72	1	14.15 ppb	1.14	14.76	90 - 110	
105	Pd	115	1	0.11 ppb	19.09	0.10	90 - 110	
107	Ag	115	1	0.00 ppb	18.61	0.00	90 - 110	
111	Cd	115	1	0.02 ppb	35.53	0.02	90 - 110	
118	Sn	115	1	0.07 ppb	35.66	0.05	90 - 110	
121	Sb	115	1	0.02 ppb	19.22	0.02	90 - 110	
137	Ba	115	1	0.61 ppb	4.92	0.62	90 - 110	
182	W	165	1	65.26 ppb	1.61	63.56	90 - 110	
195	Pt	165	1	0.01 ppb	39.36	0.01	90 - 110	
205	Tl	165	1	0.01 ppb	27.81	0.01	90 - 110	
208	Pb	165	1	0.00 ppb	15.10	0.00	90 - 110	
232	Th	165	1	0.18 ppb	10.83	0.23	90 - 110	
238	U	165	1	0.32 ppb	3.00	0.33	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 :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: 08/05/09 11:10:10

Department: 090 (Metals)

Source: Spreadsheet

Sample: LG282P25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG080409 # 109

Method 6020_

Acquired: 08/04/2009 22:43:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	<input checked="" type="checkbox"/>
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

Channel 272

File: AG080409 # 110

Method 6020_

Acquired: 08/04/2009 22:46:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	<input type="checkbox"/>
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		<input type="checkbox"/>
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		<input checked="" type="checkbox"/>
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

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	8.23	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\
 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 :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\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 :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\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 :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\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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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

<u>Lot</u>	<u>Work Order</u>		<u>Initial Weight/Volume</u>
D9G270000 Water	LG6WK B	Due Date: SDG:	<u>50 mL</u>
D9G270000 Water	LG6WK C	Due Date: SDG:	<u>50 mL</u>
D9G240312 Water	LG282 Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 S Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 D Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G250146 Water	LG3WE Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250155 Water	LG3W9 Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250157 Water	LG3XG Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>

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*

HEC

END

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: <u>Environmental Express</u>	Lot #: <u>A901LS267</u>
One or more samples were filtered prior to analysis at the instrument.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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: <u>KS</u>	

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: <u>14859</u>		Block & Cup #: <u>5,34</u>		
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 revolved to: <u>50</u> mL		Analyst's Initials <u>KS</u>		

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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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 ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 09-04-2009 (1 Month)
 Date Expires(2): 08-01-2010 (None)
 pipettes: Met 8

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
------------------	-----------------------------	--------------------------

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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)
 Date Expires(2): 08-01-2010 (None)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
------------------	----------------------------	--------------------------

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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Volume (ml): 100.00

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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		<input type="checkbox"/>
4	100 ppb				1.0 08/04/09 17:33		<input type="checkbox"/>
5	ICV				1.0 08/04/09 17:35		<input type="checkbox"/>
6	RLIV				1.0 08/04/09 17:38		<input type="checkbox"/>
7	ICB				1.0 08/04/09 17:41		<input type="checkbox"/>
8	RL STD				1.0 08/04/09 17:44		<input type="checkbox"/>
9	AFCEE RL				1.0 08/04/09 17:47		<input type="checkbox"/>
10	ALTSe				1.0 08/04/09 17:50		<input type="checkbox"/>
11	ICSA				1.0 08/04/09 17:53		<input type="checkbox"/>
12	ICSAB				1.0 08/04/09 17:56		<input type="checkbox"/>
13	RINSE				1.0 08/04/09 17:59		<input type="checkbox"/>
14	LR				1.0 08/04/09 18:02		<input type="checkbox"/>
15	RINSE				1.0 08/04/09 18:05		<input type="checkbox"/>
16	CCV				1.0 08/04/09 18:08		<input type="checkbox"/>
17	CCB				1.0 08/04/09 18:10		<input type="checkbox"/>
18	RLCV				1.0 08/04/09 18:13		<input type="checkbox"/>
19	ALTLR				1.0 08/04/09 18:18		<input type="checkbox"/>
20	RINSE				1.0 08/04/09 18:21		<input type="checkbox"/>
21	CCV				1.0 08/04/09 18:24		<input type="checkbox"/>
22	CCB				1.0 08/04/09 18:27		<input type="checkbox"/>
23	RLCV				1.0 08/04/09 18:30		<input type="checkbox"/>
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0 08/04/09 18:33		<input type="checkbox"/>
25	CCV				1.0 08/04/09 18:35		<input type="checkbox"/>
26	CCB				1.0 08/04/09 18:38		<input type="checkbox"/>
27	RLCV				1.0 08/04/09 18:41		<input type="checkbox"/>
28	LGV1JB	D9G220000	9203274	46	1.0 08/04/09 18:44		<input type="checkbox"/>
29	LGV1JC	D9G220000	9203274	46	1.0 08/04/09 18:47		<input type="checkbox"/>
30	LGT1N	D9G210319-13	9203274	U1	1.0 08/04/09 18:50		<input type="checkbox"/>
31	LGT1V	D9G210319-14	9203274	U1	1.0 08/04/09 18:53	<i>Not 8/5/09 did not use.</i>	<input type="checkbox"/>
32	CCV				1.0 08/04/09 18:56		<input type="checkbox"/>
33	CCB				1.0 08/04/09 18:59		<input type="checkbox"/>
34	RLCV				1.0 08/04/09 19:02		<input type="checkbox"/>
35	LGVDGB	D9G220000	9203121	MS	1.0 08/04/09 19:05		<input type="checkbox"/>
36	LGVDGC	D9G220000	9203121	MS	1.0 08/04/09 19:08		<input type="checkbox"/>
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:11		<input type="checkbox"/>
38	LGR1DP25	D9G210208	9203121		25.0 08/04/09 19:14		<input type="checkbox"/>
39	LGR1DZ	D9G210208-1	9203121		1.0 08/04/09 19:16		<input type="checkbox"/>
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:19		<input type="checkbox"/>
41	CCV				1.0 08/04/09 19:22		<input type="checkbox"/>
42	CCB				1.0 08/04/09 19:25		<input type="checkbox"/>
43	RLCV				1.0 08/04/09 19:28		<input type="checkbox"/>
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:31		<input type="checkbox"/>
45	LGR1M	D9G210208-2	9203121	MS	1.0 08/04/09 19:34		<input type="checkbox"/>
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0 08/04/09 19:37		<input type="checkbox"/>
47	LGR1Q	D9G210208-4	9203121	MS	1.0 08/04/09 19:40		<input type="checkbox"/>
48	LGR1T	D9G210208-5	9203121	MS	1.0 08/04/09 19:43		<input type="checkbox"/>

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		<input type="checkbox"/>
50	CCB				1.0 08/04/09 19:49		<input type="checkbox"/>
51	RLCV				1.0 08/04/09 19:52		<input type="checkbox"/>
52	LG4K3BF	D9G270000	9208158	MD	1.0 08/04/09 19:55		<input type="checkbox"/>
53	LG4K3CF	D9G270000	9208158	MD	1.0 08/04/09 19:58		<input type="checkbox"/>
54	LG22HF	D9G240290-1	9208158	MD	1.0 08/04/09 20:01		<input type="checkbox"/>
55	LG29AF	D9G240311-1	9208158	MD	1.0 08/04/09 20:04		<input type="checkbox"/>
56	LG29PF	D9G240311-2	9208158	MD	1.0 08/04/09 20:07		<input type="checkbox"/>
57	LG29QF	D9G240311-3	9208158	MD	1.0 08/04/09 20:09		<input type="checkbox"/>
58	LG29RF	D9G240311-4	9208158	MD	1.0 08/04/09 20:12		<input type="checkbox"/>
59	LG29VF	D9G240311-5	9208158	MD	1.0 08/04/09 20:15		<input type="checkbox"/>
60	LG29XF	D9G240311-6	9208158	MD	1.0 08/04/09 20:18		<input type="checkbox"/>
61	LG290F	D9G240311-7	9208158	MD	1.0 08/04/09 20:21		<input type="checkbox"/>
62	CCV				1.0 08/04/09 20:24		<input type="checkbox"/>
63	CCB				1.0 08/04/09 20:27		<input type="checkbox"/>
64	RLCV				1.0 08/04/09 20:30		<input type="checkbox"/>
65	LG290P5F	D9G240311	9208158		5.0 08/04/09 20:33		<input type="checkbox"/>
66	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 20:36	<i>Not used</i>	<input type="checkbox"/>
67	LG290SF	D9G240311-7	9208158	MD	1.0 08/04/09 20:39		<input type="checkbox"/>
68	LG290DF	D9G240311-7	9208158	MD	1.0 08/04/09 20:42		<input type="checkbox"/>
69	LG292F	D9G240311-8	9208158	MD	1.0 08/04/09 20:45		<input type="checkbox"/>
70	LG293F	D9G240311-9	9208158	MD	1.0 08/04/09 20:48		<input type="checkbox"/>
71	LG294F	D9G240311-10	9208158	MD	1.0 08/04/09 20:51		<input type="checkbox"/>
72	LG296F	D9G240311-11	9208158	MD	1.0 08/04/09 20:54		<input type="checkbox"/>
73	CCV				1.0 08/04/09 20:57		<input type="checkbox"/>
74	CCB				1.0 08/04/09 21:00		<input type="checkbox"/>
75	RLCV				1.0 08/04/09 21:03		<input type="checkbox"/>
76	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 21:06		<input type="checkbox"/>
77	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 21:09		<input type="checkbox"/>
78	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 21:12		<input type="checkbox"/>
79	CCV				1.0 08/04/09 21:15		<input type="checkbox"/>
80	CCB				1.0 08/04/09 21:18		<input type="checkbox"/>
81	RLCV				1.0 08/04/09 21:21		<input type="checkbox"/>
82	RINSE				1.0 08/04/09 21:24		<input type="checkbox"/>
83	RINSE				1.0 08/04/09 21:27		<input type="checkbox"/>
84	RINSE				1.0 08/04/09 21:30		<input type="checkbox"/>
85	RINSE				1.0 08/04/09 21:32		<input type="checkbox"/>
86	RINSE				1.0 08/04/09 21:35		<input type="checkbox"/>
87	RINSE				1.0 08/04/09 21:38		<input type="checkbox"/>
88	Cal Blank				1.0 08/04/09 21:41	<i>Not used</i>	<input type="checkbox"/>
89	Cal Blank				1.0 08/04/09 21:44		<input type="checkbox"/>
90	100 ppb				1.0 08/04/09 21:47		<input type="checkbox"/>
91	CCV				1.0 08/04/09 21:50		<input type="checkbox"/>
92	CCB				1.0 08/04/09 21:53		<input type="checkbox"/>
93	RLCV				1.0 08/04/09 21:56		<input type="checkbox"/>
94	ICSA				1.0 08/04/09 21:59		<input type="checkbox"/>

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		<input type="checkbox"/>
96	WASH				1.0 08/04/09 22:04		<input type="checkbox"/>
97	CCV				1.0 08/04/09 22:07		<input type="checkbox"/>
98	CCB				1.0 08/04/09 22:10		<input type="checkbox"/>
99	RLCV				1.0 08/04/09 22:13		<input type="checkbox"/>
100	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 22:16		<input type="checkbox"/>
101	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 22:19		<input type="checkbox"/>
102	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 22:22		<input type="checkbox"/>
103	CCV				1.0 08/04/09 22:25		<input type="checkbox"/>
104	CCB				1.0 08/04/09 22:28		<input type="checkbox"/>
105	RLCV				1.0 08/04/09 22:31		<input type="checkbox"/>
106	LG6WKB	D9G270000	9208088	MS	1.0 08/04/09 22:34		<input type="checkbox"/>
107	LG6WKC	D9G270000	9208088	MS	1.0 08/04/09 22:37		<input type="checkbox"/>
108	LG282 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:40		<input type="checkbox"/>
109	LG282P25	D9G240312	9208088		25.0 08/04/09 22:43		<input type="checkbox"/>
110	LG282Z	D9G240312-1	9208088		1.0 08/04/09 22:46		<input type="checkbox"/>
111	LG282S 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:49		<input type="checkbox"/>
112	LG282D 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:51		<input type="checkbox"/>
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0 08/04/09 22:54		<input type="checkbox"/>
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0 08/04/09 22:57		<input type="checkbox"/>
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0 08/04/09 23:00		<input type="checkbox"/>
116	CCV				1.0 08/04/09 23:03		<input type="checkbox"/>
117	CCB				1.0 08/04/09 23:06		<input type="checkbox"/>
118	RLCV				1.0 08/04/09 23:09		<input type="checkbox"/>
119	LG15XB	D9G240000	9205339	MS	1.0 08/04/09 23:12		<input type="checkbox"/>
120	LG15XC	D9G240000	9205339	MS	1.0 08/04/09 23:15		<input type="checkbox"/>
121	LGWWE	D9G220274-1	9205339	MS	1.0 08/04/09 23:18		<input type="checkbox"/>
122	LGWWE5	D9G220274	9205339		5.0 08/04/09 23:21		<input type="checkbox"/>
123	LGWWEZ	D9G220274-1	9205339		1.0 08/04/09 23:24		<input type="checkbox"/>
124	LGWWES	D9G220274-1	9205339	MS	1.0 08/04/09 23:27		<input type="checkbox"/>
125	LGWWED	D9G220274-1	9205339	MS	1.0 08/04/09 23:30		<input type="checkbox"/>
126	CCV				1.0 08/04/09 23:33		<input type="checkbox"/>
127	CCB				1.0 08/04/09 23:37		<input type="checkbox"/>
128	RLCV				1.0 08/04/09 23:40		<input type="checkbox"/>
129	LG4LKBF	D9G270000	9208171	MD	1.0 08/04/09 23:43		<input type="checkbox"/>
130	LG4LKCF	D9G270000	9208171	MD	1.0 08/04/09 23:46		<input type="checkbox"/>
131	LG17CF	D9G240170-1	9208171	MD	1.0 08/04/09 23:49		<input type="checkbox"/>
132	LG17CP5F	D9G240170	9208171		5.0 08/04/09 23:52		<input type="checkbox"/>
133	LG17CZF	D9G240170-1	9208171		1.0 08/04/09 23:55		<input type="checkbox"/>
134	LG17CSF	D9G240170-1	9208171	MD	1.0 08/04/09 23:57		<input type="checkbox"/>
135	LG17CDF	D9G240170-1	9208171	MD	1.0 08/05/09 00:00		<input type="checkbox"/>
136	CCV				1.0 08/05/09 00:03		<input type="checkbox"/>
137	CCB				1.0 08/05/09 00:06		<input type="checkbox"/>
138	RLCV				1.0 08/05/09 00:09		<input type="checkbox"/>
139	LG1WEB	D9G240000	9205275	MS	1.0 08/05/09 00:12		<input type="checkbox"/>
140	LG1WEC	D9G240000	9205275	MS	1.0 08/05/09 00:15		<input type="checkbox"/>

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	<input type="checkbox"/>
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21	<input type="checkbox"/>
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24	<input type="checkbox"/>
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27	<input type="checkbox"/>
145	CCV			MS	1.0	08/05/09 00:30	<input type="checkbox"/>
146	CCB			069347	1.0	08/05/09 00:33	<input type="checkbox"/>
147	RLCV				1.0	08/05/09 00:36	<input type="checkbox"/>
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39	<input type="checkbox"/>
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42	<input type="checkbox"/>
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45	<input type="checkbox"/>
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48	<input type="checkbox"/>
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51	<input type="checkbox"/>
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54	<input type="checkbox"/>
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57	<input type="checkbox"/>
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00	<input type="checkbox"/>
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03	<input type="checkbox"/>
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06	<input type="checkbox"/>
158	CCV			46	1.0	08/05/09 01:09	<input type="checkbox"/>
159	CCB			Dist	1.0	08/05/09 01:12	<input type="checkbox"/>
160	RLCV			46	1.0	08/05/09 01:15	<input type="checkbox"/>
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17	<input type="checkbox"/>
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20	<input type="checkbox"/>
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23	<input type="checkbox"/>
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26	<input type="checkbox"/>
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29	<input type="checkbox"/>
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32	<input type="checkbox"/>
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35	<input type="checkbox"/>
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38	<input type="checkbox"/>
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41	<input type="checkbox"/>
170	CCV			46	1.0	08/05/09 01:44	<input type="checkbox"/>
171	CCB			Dist	1.0	08/05/09 01:47	<input type="checkbox"/>
172	RLCV				1.0	08/05/09 01:50	<input type="checkbox"/>
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53	<input type="checkbox"/>
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56	<input type="checkbox"/>
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59	<input type="checkbox"/>
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02	<input type="checkbox"/>
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05	<input type="checkbox"/>
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07	<input type="checkbox"/>
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10	<input type="checkbox"/>
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13	<input type="checkbox"/>
181	CCV				1.0	08/05/09 02:16	<input type="checkbox"/>
182	CCB				1.0	08/05/09 02:19	<input type="checkbox"/>
183	RLCV				1.0	08/05/09 02:22	<input type="checkbox"/>
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25	<input type="checkbox"/>
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28	<input type="checkbox"/>
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31	<input type="checkbox"/>

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	<input type="checkbox"/>
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37	<input type="checkbox"/>
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39	<input type="checkbox"/>
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42	<input type="checkbox"/>
191	CCV				1.0	08/05/09 02:45	<input type="checkbox"/>
192	CCB				1.0	08/05/09 02:48	<input type="checkbox"/>
193	RLCV				1.0	08/05/09 02:51	<input type="checkbox"/>
194	LG6MMB	D9G280000	9209279	46	1.0	08/05/09 02:54	<input type="checkbox"/>
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57	<input type="checkbox"/>
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00	<input type="checkbox"/>
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03	<input type="checkbox"/>
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06	<input type="checkbox"/>
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09	<input type="checkbox"/>
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12	<input type="checkbox"/>
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15	<input type="checkbox"/>
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17	<input type="checkbox"/>
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20	<input type="checkbox"/>
204	CCV				1.0	08/05/09 03:23	<input type="checkbox"/>
205	CCB				1.0	08/05/09 03:26	<input type="checkbox"/>
206	RLCV				1.0	08/05/09 03:29	<input type="checkbox"/>
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32	<input type="checkbox"/>
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35	<input type="checkbox"/>
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38	<input type="checkbox"/>
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41	<input type="checkbox"/>
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44	<input type="checkbox"/>
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47	<input type="checkbox"/>
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50	<input type="checkbox"/>
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53	<input type="checkbox"/>
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56	<input type="checkbox"/>
216	CCV				1.0	08/05/09 03:59	<input type="checkbox"/>
217	CCB				1.0	08/05/09 04:01	<input type="checkbox"/>
218	RLCV				1.0	08/05/09 04:04	<input type="checkbox"/>
219	RINSE				1.0	08/05/09 04:07	<input type="checkbox"/>
220	RINSE				1.0	08/05/09 04:10	<input type="checkbox"/>
221	RINSE				1.0	08/05/09 04:13	<input type="checkbox"/>
222	RINSE				1.0	08/05/09 04:16	<input type="checkbox"/>
223	RINSE				1.0	08/05/09 04:19	<input type="checkbox"/>
224	RINSE				1.0	08/05/09 04:22	<input type="checkbox"/>
225	Cal Blank				1.0	08/05/09 04:25	<input type="checkbox"/>
226	Cal Blank				1.0	08/05/09 04:28	<input type="checkbox"/>
227	100 ppb				1.0	08/05/09 04:31	<input type="checkbox"/>
228	CCV				1.0	08/05/09 04:34	<input type="checkbox"/>
229	CCB				1.0	08/05/09 04:36	<input type="checkbox"/>
230	RLCV				1.0	08/05/09 04:39	<input type="checkbox"/>
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42	<input type="checkbox"/>
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45	<input type="checkbox"/>

Not 8/5/09 did not use.

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 08/05/09 11:09:30
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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	<input type="checkbox"/>
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51	<input type="checkbox"/>
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54	<input type="checkbox"/>
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57	<input type="checkbox"/>
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00	<input type="checkbox"/>
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03	<input type="checkbox"/>
239	CCV				1.0	08/05/09 05:06	<input type="checkbox"/>
240	CCB				1.0	08/05/09 05:09	<input type="checkbox"/>
241	RLCV				1.0	08/05/09 05:12	<input type="checkbox"/>
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15	<input type="checkbox"/>
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18	<input type="checkbox"/>
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21	<input type="checkbox"/>
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24	<input type="checkbox"/>
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27	<input type="checkbox"/>
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30	<input type="checkbox"/>
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33	<input type="checkbox"/>
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36	<input type="checkbox"/>
250	CCV				1.0	08/05/09 05:39	<input type="checkbox"/>
251	CCB				1.0	08/05/09 05:42	<input type="checkbox"/>
252	RLCV				1.0	08/05/09 05:45	<input type="checkbox"/>
253	RINSE				1.0	08/05/09 05:48	<input type="checkbox"/>
254	RINSE				1.0	08/05/09 05:51	<input type="checkbox"/>
255	RINSE				1.0	08/05/09 05:54	<input type="checkbox"/>
256	RINSE				1.0	08/05/09 05:57	<input type="checkbox"/>
257	RINSE				1.0	08/05/09 06:00	<input type="checkbox"/>
258	RINSE				1.0	08/05/09 06:03	<input type="checkbox"/>
259	Cal Blank				1.0	08/05/09 06:05	<input type="checkbox"/>
260	Cal Blank				1.0	08/05/09 06:08	<input type="checkbox"/>
261	100 ppb				1.0	08/05/09 06:11	<input type="checkbox"/>
262	CCV				1.0	08/05/09 06:14	<input type="checkbox"/>
263	CCB				1.0	08/05/09 06:17	<input type="checkbox"/>
264	RLCV				1.0	08/05/09 06:20	<input type="checkbox"/>
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23	<input type="checkbox"/>
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26	<input type="checkbox"/>
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29	<input type="checkbox"/>
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32	<input type="checkbox"/>
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35	<input type="checkbox"/>
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38	<input type="checkbox"/>
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41	<input type="checkbox"/>
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43	<input type="checkbox"/>
273	CCV				1.0	08/05/09 06:46	<input type="checkbox"/>
274	CCB				1.0	08/05/09 06:49	<input type="checkbox"/>
275	RLCV				1.0	08/05/09 06:52	<input type="checkbox"/>
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55	<input type="checkbox"/>
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58	<input type="checkbox"/>
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01	<input type="checkbox"/>

TEL 8/5/09

Method: 6020 (ICP/MS)

ICPMS_024 (024)

Reported: 08/05/09 11:09:30

File ID: AG080409

Analyst: TEL

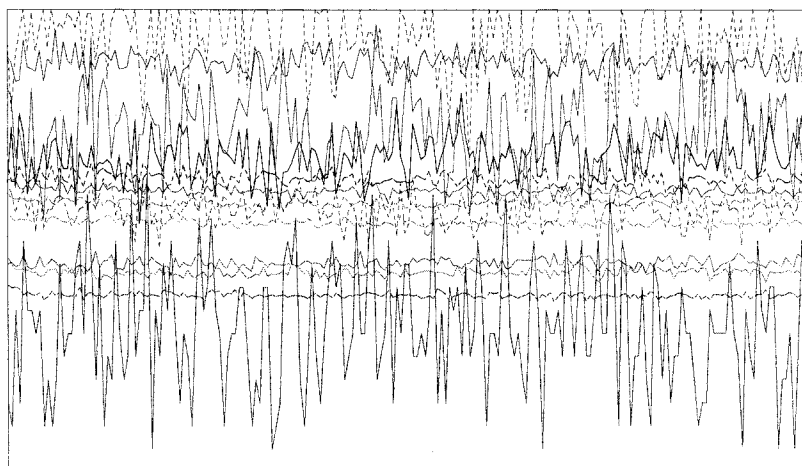
#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04	<input type="checkbox"/>
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07	<input type="checkbox"/>
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10	<input type="checkbox"/>
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13	<input type="checkbox"/>
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16	<input type="checkbox"/>
284	CCV				1.0	08/05/09 07:19	<input type="checkbox"/>
285	CCB				1.0	08/05/09 07:22	<input type="checkbox"/>
286	RLCV				1.0	08/05/09 07:25	<input type="checkbox"/>
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	<input type="checkbox"/>
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31	<input type="checkbox"/>
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34	<input type="checkbox"/>
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37	<input type="checkbox"/>
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39	<input type="checkbox"/>
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42	<input type="checkbox"/>
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45	<input type="checkbox"/>
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48	<input type="checkbox"/>
295	CCV				1.0	08/05/09 07:51	<input type="checkbox"/>
296	CCB				1.0	08/05/09 07:54	<input type="checkbox"/>
297	RLCV				1.0	08/05/09 07:57	<input type="checkbox"/>
298	RINSE				1.0	08/05/09 08:00	<input type="checkbox"/>
299	RINSE				1.0	08/05/09 08:03	<input type="checkbox"/>
300	RINSE				1.0	08/05/09 08:06	<input type="checkbox"/>
301	RINSE				1.0	08/05/09 08:09	<input type="checkbox"/>
302	RINSE				1.0	08/05/09 08:12	<input type="checkbox"/>
303	RINSE				1.0	08/05/09 08:15	<input type="checkbox"/>
304	RINSE				1.0	08/05/09 08:18	<input type="checkbox"/>
305	RINSE				1.0	08/05/09 08:21	<input type="checkbox"/>
306	RINSE				1.0	08/05/09 08:23	<input type="checkbox"/>
307	RINSE				1.0	08/05/09 08:26	<input type="checkbox"/>
308	Cal Blank				1.0	08/05/09 08:29	<input type="checkbox"/>
309	Cal Blank				1.0	08/05/09 08:32	<input type="checkbox"/>
310	100 ppb				1.0	08/05/09 08:35	<input type="checkbox"/>
311	CCV				1.0	08/05/09 08:38	<input type="checkbox"/>
312	CCB				1.0	08/05/09 08:41	<input type="checkbox"/>
313	ICSA				1.0	08/05/09 08:44	<input type="checkbox"/>
314	ICSAB				1.0	08/05/09 08:47	<input type="checkbox"/>
315	WASH				1.0	08/05/09 08:50	<input type="checkbox"/>
316	CCV				1.0	08/05/09 08:53	<input type="checkbox"/>
317	CCB				1.0	08/05/09 08:56	<input type="checkbox"/>
318	RLCV				1.0	08/05/09 08:59	<input type="checkbox"/>

} Take all but Ni
8/5/09

8/5/09

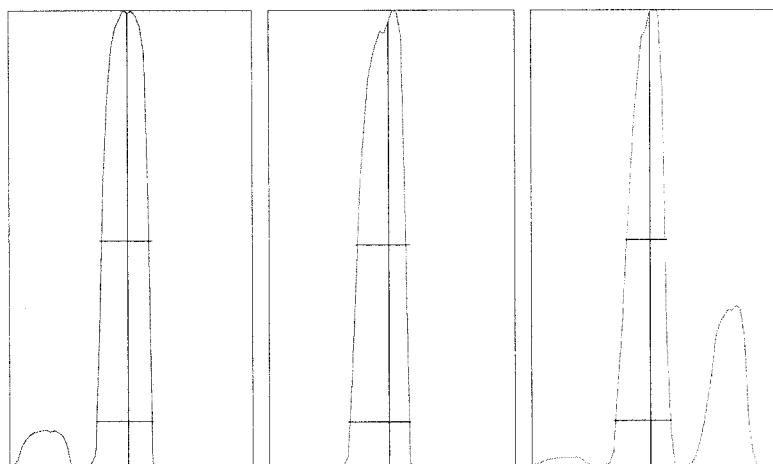
Tune Report

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

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 : 0.85 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 : -165 V
Omega Bias-ce : -34 V
Omega Lens-ce : 1 V
Cell Entrance : -30 V
QP Focus : 7 V
Cell Exit : -30 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

===Octopole Parameters===

OctP RF : 180 V
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

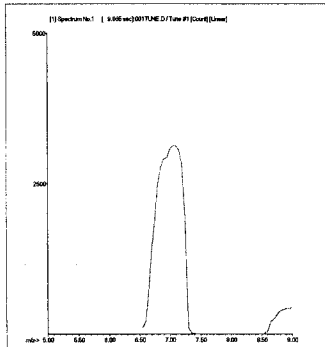
====Detector Parameters====

Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

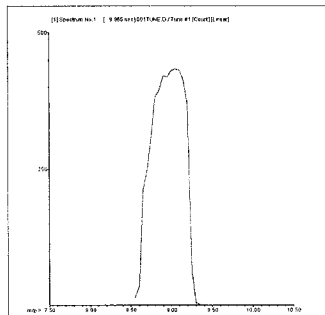
200.8 QC Tune Report

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

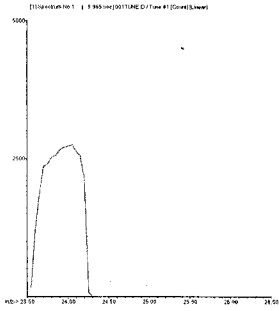
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	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:



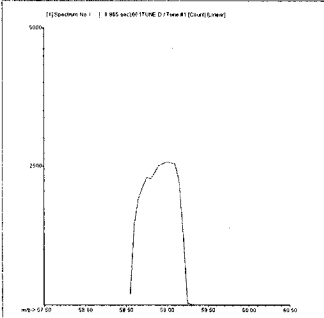
24 Mg

Mass Calib.

Actual: 24.00
Required: 23.90 - 24.10
Flag:

Peak Width

Actual: 0.60
Required: 0.90
Flag:



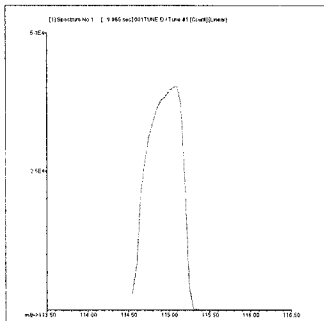
59 Co

Mass Calib.

Actual: 59.00
Required: 58.90 - 59.10
Flag:

Peak Width

Actual: 0.60
Required: 0.90
Flag:



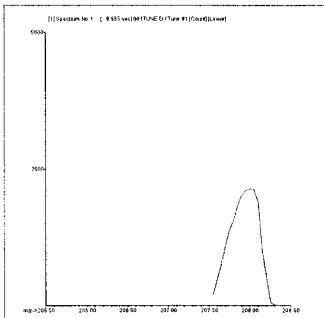
115 In

Mass Calib.

Actual: 115.00
Required: 114.90 - 115.10
Flag:

Peak Width

Actual: 0.60
Required: 0.90
Flag:



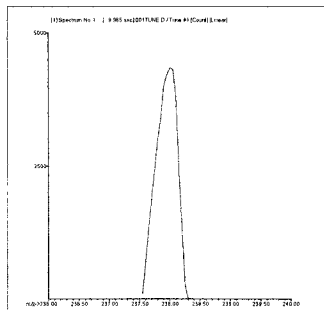
208 Pb

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

D6 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	78880	1.03
23	Na	6	67854280	0.78
24	Mg	6	41046008	0.44
27	Al	45	36514528	1.31
39	K	45	62484832	0.32
43	Ca	45	154713	0.88
51	V	72	1748494	1.28
52	Cr	72	1712193	0.90
55	Mn	72	1838240	0.92
57	Fe	72	4331625	1.05
59	Co	72	2170643	0.67
60	Ni	72	494898	1.03
63	Cu	72	1147761	0.20
66	Zn	72	229614	0.57
75	As	72	199756	0.44
78	Se	72	35396	1.68
93	Nb	72	5397792	1.07
95	Mo	72	533263	0.26
105	Pd	115	657524	0.37
107	Ag	115	1430733	0.49
111	Cd	115	277412	0.99
118	Sn	115	778149	0.58
121	Sb	115	861506	0.48
137	Ba	115	372202	0.66
182	W	165	1191344	0.33
195	Pt	165	789081	0.96
205	Tl	165	2466925	0.69
208	Pb	165	3353142	0.67
232	Th	165	3430275	0.56
238	U	165	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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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
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

Fail

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\
 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: AFCEEERL
 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 :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\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\
 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. 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 :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\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
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
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
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 :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\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 :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\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 :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\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\
 Tune File# 4

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\
 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
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

Fail

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 :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\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: 1107
 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\
 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 :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\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\
 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. 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 :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\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 :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\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	50.87 ppb	2.72	50	101.7	90 - 110	
23	Na	6	5030.00 ppb	0.84	5000	100.6	90 - 110	
24	Mg	6	4975.00 ppb	0.37	5000	99.5	90 - 110	
27	Al	45	4999.00 ppb	0.47	5000	100.0	90 - 110	
39	K	45	5015.00 ppb	0.50	5000	100.3	90 - 110	
43	Ca	45	4978.00 ppb	1.01	5000	99.6	90 - 110	
51	V	72	49.01 ppb	1.42	50	98.0	90 - 110	
52	Cr	72	50.21 ppb	0.85	50	100.4	90 - 110	
55	Mn	72	49.79 ppb	0.40	50	99.6	90 - 110	
57	Fe	72	5145.00 ppb	0.75	5000	102.9	90 - 110	
59	Co	72	50.00 ppb	0.78	50	100.0	90 - 110	
60	Ni	72	50.92 ppb	1.18	50	101.8	90 - 110	
63	Cu	72	50.89 ppb	0.59	50	101.8	90 - 110	
66	Zn	72	50.52 ppb	0.98	50	101.0	90 - 110	
75	As	72	50.18 ppb	0.62	50	100.4	90 - 110	
78	Se	72	50.48 ppb	2.52	50	101.0	90 - 110	
93	Nb	72	102.30 ppb	0.52	100	102.3	90 - 110	
95	Mo	72	49.96 ppb	0.89	50	99.9	90 - 110	
105	Pd	115	51.24 ppb	1.91	50	102.5	90 - 110	
107	Ag	115	52.00 ppb	1.21	50	104.0	90 - 110	
111	Cd	115	50.74 ppb	1.30	50	101.5	90 - 110	
118	Sn	115	50.67 ppb	2.00	50	101.3	90 - 110	
121	Sb	115	50.48 ppb	0.65	50	101.0	90 - 110	
137	Ba	115	50.64 ppb	1.63	50	101.3	90 - 110	
182	W	165	50.21 ppb	0.95	50	100.4	90 - 110	
195	Pt	165	50.66 ppb	0.75	50	101.3	90 - 110	
205	Tl	165	51.44 ppb	0.95	50	102.9	90 - 110	
208	Pb	165	51.96 ppb	0.78	50	103.9	90 - 110	
232	Th	165	51.39 ppb	0.50	50	102.8	90 - 110	
238	U	165	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 :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\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	
95 Mo	72	1	0.077 ppb	63.62	1.00	Fail
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\
 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 :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\105WASH.D\105WASH.D#	
Date Acquired:	Aug 4 2009 10:31 pm	
Operator:	TEL	QC Summary:
Sample Name:	RLCV	Analytes: Pass
Misc Info:		ISTD: Pass
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 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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 **QC Summary:**
 Acq. Method: 6020isis.M **Analytes: Pass**
 Operator: TEL **ISTD: Pass**
 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

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	90 - 110	
23	Na	6	1	75940.00 ppb	1.58	78180.00	90 - 110	
24	Mg	6	1	1755.00 ppb	0.84	1743.40	90 - 110	
27	Al	45	1	12.53 ppb	0.95	2.69	90 - 110	
39	K	45	1	246.20 ppb	2.26	233.80	90 - 110	
43	Ca	45	1	6618.00 ppb	1.13	6620.00	90 - 110	
51	V	72	1	494.20 ppb	0.71	524.60	90 - 110	
52	Cr	72	1	15.05 ppb	0.94	15.39	90 - 110	
55	Mn	72	1	0.71 ppb	2.74	0.67	90 - 110	
57	Fe	72	1	20.27 ppb	3.95	20.90	90 - 110	
59	Co	72	1	0.01 ppb	17.87	0.01	90 - 110	
60	Ni	72	1	0.34 ppb	5.58	0.15	90 - 110	
63	Cu	72	1	0.03 ppb	3.68	0.03	90 - 110	
66	Zn	72	1	0.05 ppb	23.95	0.11	90 - 110	
75	As	72	1	15.20 ppb	0.97	15.30	90 - 110	
78	Se	72	1	0.18 ppb	124.41	0.44	90 - 110	
93	Nb	72	1	0.39 ppb	25.09	0.19	90 - 110	
95	Mo	72	1	14.15 ppb	1.14	14.76	90 - 110	
105	Pd	115	1	0.11 ppb	19.09	0.10	90 - 110	
107	Ag	115	1	0.00 ppb	18.61	0.00	90 - 110	
111	Cd	115	1	0.02 ppb	35.53	0.02	90 - 110	
118	Sn	115	1	0.07 ppb	35.66	0.05	90 - 110	
121	Sb	115	1	0.02 ppb	19.22	0.02	90 - 110	
137	Ba	115	1	0.61 ppb	4.92	0.62	90 - 110	
182	W	165	1	65.26 ppb	1.61	63.56	90 - 110	
195	Pt	165	1	0.01 ppb	39.36	0.01	90 - 110	
205	Tl	165	1	0.01 ppb	27.81	0.01	90 - 110	
208	Pb	165	1	0.00 ppb	15.10	0.00	90 - 110	
232	Th	165	1	0.18 ppb	10.83	0.23	90 - 110	
238	U	165	1	0.32 ppb	3.00	0.33	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

Channel 272

File: AG080409 # 109

Method 6020_

Acquired: 08/04/2009 22:43:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	<input checked="" type="checkbox"/>
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\
 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

Channel 272

File: AG080409 # 110

Method 6020_

Acquired: 08/04/2009 22:46:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	<input type="checkbox"/>
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		<input type="checkbox"/>
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		<input checked="" type="checkbox"/>
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

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	8.23	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 :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\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 :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\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 :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\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 :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\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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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

<u>Lot</u>	<u>Work Order</u>		<u>Initial Weight/Volume</u>
D9G270000 Water	LG6WK B	Due Date: SDG:	<u>50 mL</u>
D9G270000 Water	LG6WK C	Due Date: SDG:	<u>50 mL</u>
D9G240312 Water	LG282 Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 S Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 D Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G250146 Water	LG3WE Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250155 Water	LG3W9 Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250157 Water	LG3XG Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>

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*

REC 1

END

TOTAL WATER DIGESTION FOR ICPMS (Prep code MS)

BATCH # 9208088
PREP DATE: 7.29.2009

ALLIQUOTTED BY: KS
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 revolved 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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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 ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 09-04-2009 (1 Month)
 Date Expires(2): 08-01-2010 (None)
 pipettes: Met 8

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
------------------	-----------------------------	--------------------------

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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)
 Date Expires(2): 08-01-2010 (None)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Volume (ml): 100.00

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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		<input type="checkbox"/>
4	100 ppb				1.0 08/04/09 17:33		<input type="checkbox"/>
5	ICV				1.0 08/04/09 17:35		<input type="checkbox"/>
6	RLIV				1.0 08/04/09 17:38		<input type="checkbox"/>
7	ICB				1.0 08/04/09 17:41		<input type="checkbox"/>
8	RL STD				1.0 08/04/09 17:44		<input type="checkbox"/>
9	AFCEE RL				1.0 08/04/09 17:47		<input type="checkbox"/>
10	ALTSe				1.0 08/04/09 17:50		<input type="checkbox"/>
11	ICSA				1.0 08/04/09 17:53		<input type="checkbox"/>
12	ICSAB				1.0 08/04/09 17:56		<input type="checkbox"/>
13	RINSE				1.0 08/04/09 17:59		<input type="checkbox"/>
14	LR				1.0 08/04/09 18:02		<input type="checkbox"/>
15	RINSE				1.0 08/04/09 18:05		<input type="checkbox"/>
16	CCV				1.0 08/04/09 18:08		<input type="checkbox"/>
17	CCB				1.0 08/04/09 18:10		<input type="checkbox"/>
18	RLCV				1.0 08/04/09 18:13		<input type="checkbox"/>
19	ALTLR				1.0 08/04/09 18:18		<input type="checkbox"/>
20	RINSE				1.0 08/04/09 18:21		<input type="checkbox"/>
21	CCV				1.0 08/04/09 18:24		<input type="checkbox"/>
22	CCB				1.0 08/04/09 18:27		<input type="checkbox"/>
23	RLCV				1.0 08/04/09 18:30		<input type="checkbox"/>
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0 08/04/09 18:33		<input type="checkbox"/>
25	CCV				1.0 08/04/09 18:35		<input type="checkbox"/>
26	CCB				1.0 08/04/09 18:38		<input type="checkbox"/>
27	RLCV				1.0 08/04/09 18:41		<input type="checkbox"/>
28	LGV1JB	D9G220000	9203274	46	1.0 08/04/09 18:44		<input type="checkbox"/>
29	LGV1JC	D9G220000	9203274	46	1.0 08/04/09 18:47		<input type="checkbox"/>
30	LGT1N	D9G210319-13	9203274	U1	1.0 08/04/09 18:50		<input type="checkbox"/>
31	LGT1V	D9G210319-14	9203274	U1	1.0 08/04/09 18:53	<i>Not 8/5/09 did not use.</i>	<input type="checkbox"/>
32	CCV				1.0 08/04/09 18:56		<input type="checkbox"/>
33	CCB				1.0 08/04/09 18:59		<input type="checkbox"/>
34	RLCV				1.0 08/04/09 19:02		<input type="checkbox"/>
35	LGVDGB	D9G220000	9203121	MS	1.0 08/04/09 19:05		<input type="checkbox"/>
36	LGVDGC	D9G220000	9203121	MS	1.0 08/04/09 19:08		<input type="checkbox"/>
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:11		<input type="checkbox"/>
38	LGR1DP25	D9G210208	9203121		25.0 08/04/09 19:14		<input type="checkbox"/>
39	LGR1DZ	D9G210208-1	9203121		1.0 08/04/09 19:16		<input type="checkbox"/>
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:19		<input type="checkbox"/>
41	CCV				1.0 08/04/09 19:22		<input type="checkbox"/>
42	CCB				1.0 08/04/09 19:25		<input type="checkbox"/>
43	RLCV				1.0 08/04/09 19:28		<input type="checkbox"/>
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:31		<input type="checkbox"/>
45	LGR1M	D9G210208-2	9203121	MS	1.0 08/04/09 19:34		<input type="checkbox"/>
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0 08/04/09 19:37		<input type="checkbox"/>
47	LGR1Q	D9G210208-4	9203121	MS	1.0 08/04/09 19:40		<input type="checkbox"/>
48	LGR1T	D9G210208-5	9203121	MS	1.0 08/04/09 19:43		<input type="checkbox"/>

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		<input type="checkbox"/>
50	CCB				1.0 08/04/09 19:49		<input type="checkbox"/>
51	RLCV				1.0 08/04/09 19:52		<input type="checkbox"/>
52	LG4K3BF	D9G270000	9208158	MD	1.0 08/04/09 19:55		<input type="checkbox"/>
53	LG4K3CF	D9G270000	9208158	MD	1.0 08/04/09 19:58		<input type="checkbox"/>
54	LG22HF	D9G240290-1	9208158	MD	1.0 08/04/09 20:01		<input type="checkbox"/>
55	LG29AF	D9G240311-1	9208158	MD	1.0 08/04/09 20:04		<input type="checkbox"/>
56	LG29PF	D9G240311-2	9208158	MD	1.0 08/04/09 20:07		<input type="checkbox"/>
57	LG29QF	D9G240311-3	9208158	MD	1.0 08/04/09 20:09		<input type="checkbox"/>
58	LG29RF	D9G240311-4	9208158	MD	1.0 08/04/09 20:12		<input type="checkbox"/>
59	LG29VF	D9G240311-5	9208158	MD	1.0 08/04/09 20:15		<input type="checkbox"/>
60	LG29XF	D9G240311-6	9208158	MD	1.0 08/04/09 20:18		<input type="checkbox"/>
61	LG290F	D9G240311-7	9208158	MD	1.0 08/04/09 20:21		<input type="checkbox"/>
62	CCV				1.0 08/04/09 20:24		<input type="checkbox"/>
63	CCB				1.0 08/04/09 20:27		<input type="checkbox"/>
64	RLCV				1.0 08/04/09 20:30		<input type="checkbox"/>
65	LG290P5F	D9G240311	9208158		5.0 08/04/09 20:33		<input type="checkbox"/>
66	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 20:36	<i>Not used</i>	<input type="checkbox"/>
67	LG290SF	D9G240311-7	9208158	MD	1.0 08/04/09 20:39		<input type="checkbox"/>
68	LG290DF	D9G240311-7	9208158	MD	1.0 08/04/09 20:42		<input type="checkbox"/>
69	LG292F	D9G240311-8	9208158	MD	1.0 08/04/09 20:45		<input type="checkbox"/>
70	LG293F	D9G240311-9	9208158	MD	1.0 08/04/09 20:48		<input type="checkbox"/>
71	LG294F	D9G240311-10	9208158	MD	1.0 08/04/09 20:51		<input type="checkbox"/>
72	LG296F	D9G240311-11	9208158	MD	1.0 08/04/09 20:54		<input type="checkbox"/>
73	CCV				1.0 08/04/09 20:57		<input type="checkbox"/>
74	CCB				1.0 08/04/09 21:00		<input type="checkbox"/>
75	RLCV				1.0 08/04/09 21:03		<input type="checkbox"/>
76	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 21:06		<input type="checkbox"/>
77	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 21:09		<input type="checkbox"/>
78	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 21:12		<input type="checkbox"/>
79	CCV				1.0 08/04/09 21:15		<input type="checkbox"/>
80	CCB				1.0 08/04/09 21:18		<input type="checkbox"/>
81	RLCV				1.0 08/04/09 21:21		<input type="checkbox"/>
82	RINSE				1.0 08/04/09 21:24		<input type="checkbox"/>
83	RINSE				1.0 08/04/09 21:27		<input type="checkbox"/>
84	RINSE				1.0 08/04/09 21:30		<input type="checkbox"/>
85	RINSE				1.0 08/04/09 21:32		<input type="checkbox"/>
86	RINSE				1.0 08/04/09 21:35		<input type="checkbox"/>
87	RINSE				1.0 08/04/09 21:38		<input type="checkbox"/>
88	Cal Blank				1.0 08/04/09 21:41	<i>Not used</i>	<input type="checkbox"/>
89	Cal Blank				1.0 08/04/09 21:44		<input type="checkbox"/>
90	100 ppb				1.0 08/04/09 21:47		<input type="checkbox"/>
91	CCV				1.0 08/04/09 21:50		<input type="checkbox"/>
92	CCB				1.0 08/04/09 21:53		<input type="checkbox"/>
93	RLCV				1.0 08/04/09 21:56		<input type="checkbox"/>
94	ICSA				1.0 08/04/09 21:59		<input type="checkbox"/>

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		<input type="checkbox"/>
96	WASH				1.0 08/04/09 22:04		<input type="checkbox"/>
97	CCV				1.0 08/04/09 22:07		<input type="checkbox"/>
98	CCB				1.0 08/04/09 22:10		<input type="checkbox"/>
99	RLCV				1.0 08/04/09 22:13		<input type="checkbox"/>
100	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 22:16		<input type="checkbox"/>
101	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 22:19		<input type="checkbox"/>
102	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 22:22		<input type="checkbox"/>
103	CCV				1.0 08/04/09 22:25		<input type="checkbox"/>
104	CCB				1.0 08/04/09 22:28		<input type="checkbox"/>
105	RLCV				1.0 08/04/09 22:31		<input type="checkbox"/>
106	LG6WKB	D9G270000	9208088	MS	1.0 08/04/09 22:34		<input type="checkbox"/>
107	LG6WKC	D9G270000	9208088	MS	1.0 08/04/09 22:37		<input type="checkbox"/>
108	LG282 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:40		<input type="checkbox"/>
109	LG282P25	D9G240312	9208088		25.0 08/04/09 22:43		<input type="checkbox"/>
110	LG282Z	D9G240312-1	9208088		1.0 08/04/09 22:46		<input type="checkbox"/>
111	LG282S 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:49		<input type="checkbox"/>
112	LG282D 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:51		<input type="checkbox"/>
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0 08/04/09 22:54		<input type="checkbox"/>
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0 08/04/09 22:57		<input type="checkbox"/>
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0 08/04/09 23:00		<input type="checkbox"/>
116	CCV				1.0 08/04/09 23:03		<input type="checkbox"/>
117	CCB				1.0 08/04/09 23:06		<input type="checkbox"/>
118	RLCV				1.0 08/04/09 23:09		<input type="checkbox"/>
119	LG15XB	D9G240000	9205339	MS	1.0 08/04/09 23:12		<input type="checkbox"/>
120	LG15XC	D9G240000	9205339	MS	1.0 08/04/09 23:15		<input type="checkbox"/>
121	LGWWE	D9G220274-1	9205339	MS	1.0 08/04/09 23:18		<input type="checkbox"/>
122	LGWWE5	D9G220274	9205339		5.0 08/04/09 23:21		<input type="checkbox"/>
123	LGWWEZ	D9G220274-1	9205339		1.0 08/04/09 23:24		<input type="checkbox"/>
124	LGWWES	D9G220274-1	9205339	MS	1.0 08/04/09 23:27		<input type="checkbox"/>
125	LGWWED	D9G220274-1	9205339	MS	1.0 08/04/09 23:30		<input type="checkbox"/>
126	CCV				1.0 08/04/09 23:33		<input type="checkbox"/>
127	CCB				1.0 08/04/09 23:37		<input type="checkbox"/>
128	RLCV				1.0 08/04/09 23:40		<input type="checkbox"/>
129	LG4LKBF	D9G270000	9208171	MD	1.0 08/04/09 23:43		<input type="checkbox"/>
130	LG4LKCF	D9G270000	9208171	MD	1.0 08/04/09 23:46		<input type="checkbox"/>
131	LG17CF	D9G240170-1	9208171	MD	1.0 08/04/09 23:49		<input type="checkbox"/>
132	LG17CP5F	D9G240170	9208171		5.0 08/04/09 23:52		<input type="checkbox"/>
133	LG17CZF	D9G240170-1	9208171		1.0 08/04/09 23:55		<input type="checkbox"/>
134	LG17CSF	D9G240170-1	9208171	MD	1.0 08/04/09 23:57		<input type="checkbox"/>
135	LG17CDF	D9G240170-1	9208171	MD	1.0 08/05/09 00:00		<input type="checkbox"/>
136	CCV				1.0 08/05/09 00:03		<input type="checkbox"/>
137	CCB				1.0 08/05/09 00:06		<input type="checkbox"/>
138	RLCV				1.0 08/05/09 00:09		<input type="checkbox"/>
139	LG1WEB	D9G240000	9205275	MS	1.0 08/05/09 00:12		<input type="checkbox"/>
140	LG1WEC	D9G240000	9205275	MS	1.0 08/05/09 00:15		<input type="checkbox"/>

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	<input type="checkbox"/>
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21	<input type="checkbox"/>
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24	<input type="checkbox"/>
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27	<input type="checkbox"/>
145	CCV			MS	1.0	08/05/09 00:30	<input type="checkbox"/>
146	CCB			069547	1.0	08/05/09 00:33	<input type="checkbox"/>
147	RLCV				1.0	08/05/09 00:36	<input type="checkbox"/>
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39	<input type="checkbox"/>
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42	<input type="checkbox"/>
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45	<input type="checkbox"/>
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48	<input type="checkbox"/>
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51	<input type="checkbox"/>
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54	<input type="checkbox"/>
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57	<input type="checkbox"/>
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00	<input type="checkbox"/>
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03	<input type="checkbox"/>
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06	<input type="checkbox"/>
158	CCV			46	1.0	08/05/09 01:09	<input type="checkbox"/>
159	CCB			Dist	1.0	08/05/09 01:12	<input type="checkbox"/>
160	RLCV			46	1.0	08/05/09 01:15	<input type="checkbox"/>
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17	<input type="checkbox"/>
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20	<input type="checkbox"/>
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23	<input type="checkbox"/>
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26	<input type="checkbox"/>
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29	<input type="checkbox"/>
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32	<input type="checkbox"/>
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35	<input type="checkbox"/>
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38	<input type="checkbox"/>
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41	<input type="checkbox"/>
170	CCV			46	1.0	08/05/09 01:44	<input type="checkbox"/>
171	CCB			Dist	1.0	08/05/09 01:47	<input type="checkbox"/>
172	RLCV				1.0	08/05/09 01:50	<input type="checkbox"/>
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53	<input type="checkbox"/>
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56	<input type="checkbox"/>
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59	<input type="checkbox"/>
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02	<input type="checkbox"/>
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05	<input type="checkbox"/>
178	LGWNRS	D9G220249-1	9205302	46	1.0	08/05/09 02:07	<input type="checkbox"/>
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10	<input type="checkbox"/>
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13	<input type="checkbox"/>
181	CCV				1.0	08/05/09 02:16	<input type="checkbox"/>
182	CCB				1.0	08/05/09 02:19	<input type="checkbox"/>
183	RLCV				1.0	08/05/09 02:22	<input type="checkbox"/>
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25	<input type="checkbox"/>
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28	<input type="checkbox"/>
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31	<input type="checkbox"/>

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	<input type="checkbox"/>
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37	<input type="checkbox"/>
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39	<input type="checkbox"/>
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42	<input type="checkbox"/>
191	CCV				1.0	08/05/09 02:45	<input type="checkbox"/>
192	CCB				1.0	08/05/09 02:48	<input type="checkbox"/>
193	RLCV				1.0	08/05/09 02:51	<input type="checkbox"/>
194	LG6MMB	D9G280000	9209279	46	1.0	08/05/09 02:54	<input type="checkbox"/>
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57	<input type="checkbox"/>
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00	<input type="checkbox"/>
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03	<input type="checkbox"/>
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06	<input type="checkbox"/>
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09	<input type="checkbox"/>
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12	<input type="checkbox"/>
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15	<input type="checkbox"/>
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17	<input type="checkbox"/>
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20	<input type="checkbox"/>
204	CCV				1.0	08/05/09 03:23	<input type="checkbox"/>
205	CCB				1.0	08/05/09 03:26	<input type="checkbox"/>
206	RLCV				1.0	08/05/09 03:29	<input type="checkbox"/>
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32	<input type="checkbox"/>
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35	<input type="checkbox"/>
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38	<input type="checkbox"/>
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41	<input type="checkbox"/>
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44	<input type="checkbox"/>
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47	<input type="checkbox"/>
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50	<input type="checkbox"/>
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53	<input type="checkbox"/>
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56	<input type="checkbox"/>
216	CCV				1.0	08/05/09 03:59	<input type="checkbox"/>
217	CCB				1.0	08/05/09 04:01	<input type="checkbox"/>
218	RLCV				1.0	08/05/09 04:04	<input type="checkbox"/>
219	RINSE				1.0	08/05/09 04:07	<input type="checkbox"/>
220	RINSE				1.0	08/05/09 04:10	<input type="checkbox"/>
221	RINSE				1.0	08/05/09 04:13	<input type="checkbox"/>
222	RINSE				1.0	08/05/09 04:16	<input type="checkbox"/>
223	RINSE				1.0	08/05/09 04:19	<input type="checkbox"/>
224	RINSE				1.0	08/05/09 04:22	<input type="checkbox"/>
225	Cal Blank				1.0	08/05/09 04:25	<input type="checkbox"/>
226	Cal Blank				1.0	08/05/09 04:28	<input type="checkbox"/>
227	100 ppb				1.0	08/05/09 04:31	<input type="checkbox"/>
228	CCV				1.0	08/05/09 04:34	<input type="checkbox"/>
229	CCB				1.0	08/05/09 04:36	<input type="checkbox"/>
230	RLCV				1.0	08/05/09 04:39	<input type="checkbox"/>
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42	<input type="checkbox"/>
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45	<input type="checkbox"/>

At 8/5/09 did not use.

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 08/05/09 11:09:30
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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	<input type="checkbox"/>
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51	<input type="checkbox"/>
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54	<input type="checkbox"/>
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57	<input type="checkbox"/>
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00	<input type="checkbox"/>
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03	<input type="checkbox"/>
239	CCV				1.0	08/05/09 05:06	<input type="checkbox"/>
240	CCB				1.0	08/05/09 05:09	<input type="checkbox"/>
241	RLCV				1.0	08/05/09 05:12	<input type="checkbox"/>
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15	<input type="checkbox"/>
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18	<input type="checkbox"/>
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21	<input type="checkbox"/>
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24	<input type="checkbox"/>
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27	<input type="checkbox"/>
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30	<input type="checkbox"/>
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33	<input type="checkbox"/>
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36	<input type="checkbox"/>
250	CCV				1.0	08/05/09 05:39	<input type="checkbox"/>
251	CCB				1.0	08/05/09 05:42	<input type="checkbox"/>
252	RLCV				1.0	08/05/09 05:45	<input type="checkbox"/>
253	RINSE				1.0	08/05/09 05:48	<input type="checkbox"/>
254	RINSE				1.0	08/05/09 05:51	<input type="checkbox"/>
255	RINSE				1.0	08/05/09 05:54	<input type="checkbox"/>
256	RINSE				1.0	08/05/09 05:57	<input type="checkbox"/>
257	RINSE				1.0	08/05/09 06:00	<input type="checkbox"/>
258	RINSE				1.0	08/05/09 06:03	<input type="checkbox"/>
259	Cal Blank				1.0	08/05/09 06:05	<input type="checkbox"/>
260	Cal Blank				1.0	08/05/09 06:08	<input type="checkbox"/>
261	100 ppb				1.0	08/05/09 06:11	<input type="checkbox"/>
262	CCV				1.0	08/05/09 06:14	<input type="checkbox"/>
263	CCB				1.0	08/05/09 06:17	<input type="checkbox"/>
264	RLCV				1.0	08/05/09 06:20	<input type="checkbox"/>
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23	<input type="checkbox"/>
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26	<input type="checkbox"/>
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29	<input type="checkbox"/>
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32	<input type="checkbox"/>
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35	<input type="checkbox"/>
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38	<input type="checkbox"/>
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41	<input type="checkbox"/>
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43	<input type="checkbox"/>
273	CCV				1.0	08/05/09 06:46	<input type="checkbox"/>
274	CCB				1.0	08/05/09 06:49	<input type="checkbox"/>
275	RLCV				1.0	08/05/09 06:52	<input type="checkbox"/>
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55	<input type="checkbox"/>
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58	<input type="checkbox"/>
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01	<input type="checkbox"/>

Method: 6020 (ICP/MS)

ICPMS_024 (024)

Reported: 08/05/09 11:09:30

File ID: AG080409

Analyst: TEL

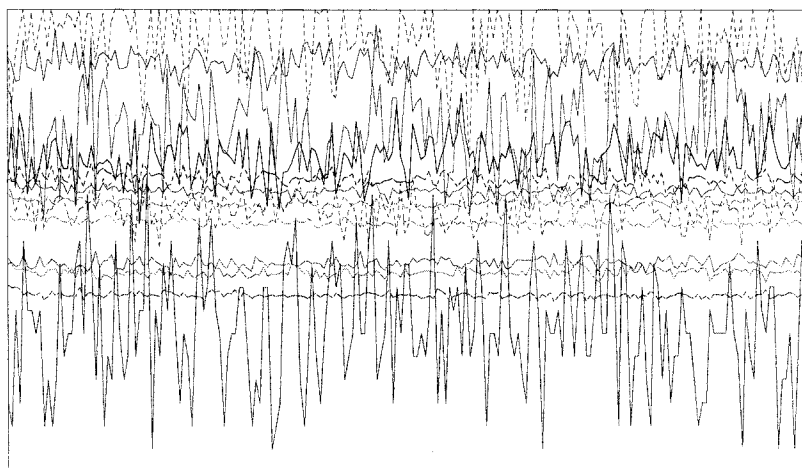
#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04	<input type="checkbox"/>
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07	<input type="checkbox"/>
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10	<input type="checkbox"/>
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13	<input type="checkbox"/>
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16	<input type="checkbox"/>
284	CCV				1.0	08/05/09 07:19	<input type="checkbox"/>
285	CCB				1.0	08/05/09 07:22	<input type="checkbox"/>
286	RLCV				1.0	08/05/09 07:25	<input type="checkbox"/>
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	<input type="checkbox"/>
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31	<input type="checkbox"/>
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34	<input type="checkbox"/>
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37	<input type="checkbox"/>
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39	<input type="checkbox"/>
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42	<input type="checkbox"/>
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45	<input type="checkbox"/>
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48	<input type="checkbox"/>
295	CCV				1.0	08/05/09 07:51	<input type="checkbox"/>
296	CCB				1.0	08/05/09 07:54	<input type="checkbox"/>
297	RLCV				1.0	08/05/09 07:57	<input type="checkbox"/>
298	RINSE				1.0	08/05/09 08:00	<input type="checkbox"/>
299	RINSE				1.0	08/05/09 08:03	<input type="checkbox"/>
300	RINSE				1.0	08/05/09 08:06	<input type="checkbox"/>
301	RINSE				1.0	08/05/09 08:09	<input type="checkbox"/>
302	RINSE				1.0	08/05/09 08:12	<input type="checkbox"/>
303	RINSE				1.0	08/05/09 08:15	<input type="checkbox"/>
304	RINSE				1.0	08/05/09 08:18	<input type="checkbox"/>
305	RINSE				1.0	08/05/09 08:21	<input type="checkbox"/>
306	RINSE				1.0	08/05/09 08:23	<input type="checkbox"/>
307	RINSE				1.0	08/05/09 08:26	<input type="checkbox"/>
308	Cal Blank				1.0	08/05/09 08:29	<input type="checkbox"/>
309	Cal Blank				1.0	08/05/09 08:32	<input type="checkbox"/>
310	100 ppb				1.0	08/05/09 08:35	<input type="checkbox"/>
311	CCV				1.0	08/05/09 08:38	<input type="checkbox"/>
312	CCB				1.0	08/05/09 08:41	<input type="checkbox"/>
313	ICSA				1.0	08/05/09 08:44	<input type="checkbox"/>
314	ICSAB				1.0	08/05/09 08:47	<input type="checkbox"/>
315	WASH				1.0	08/05/09 08:50	<input type="checkbox"/>
316	CCV				1.0	08/05/09 08:53	<input type="checkbox"/>
317	CCB				1.0	08/05/09 08:56	<input type="checkbox"/>
318	RLCV				1.0	08/05/09 08:59	<input type="checkbox"/>

} Take all but Ni
8/5/09

8/5/09

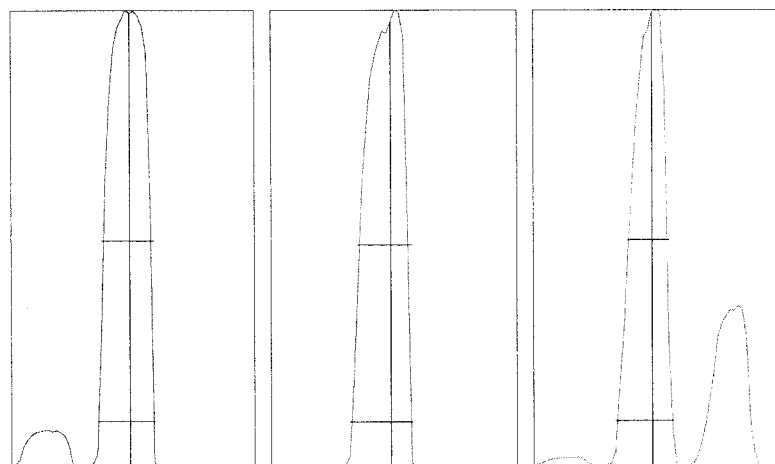
Tune Report

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

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 : 0.85 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 : -165 V
Omega Bias-ce : -34 V
Omega Lens-ce : 1 V
Cell Entrance : -30 V
QP Focus : 7 V
Cell Exit : -30 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

===Octopole Parameters===

OctP RF : 180 V
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

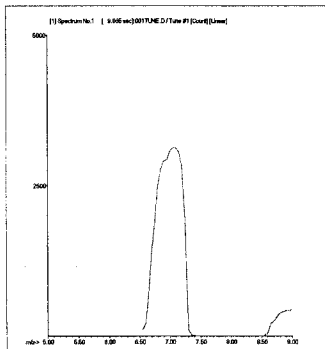
===Detector Parameters===

Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

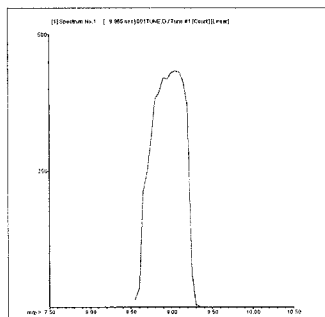
200.8 QC Tune Report

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

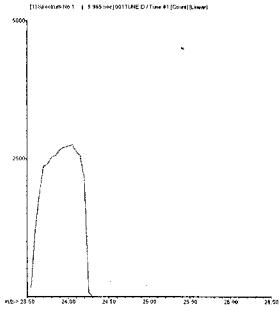
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	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:



24 Mg

Mass Calib.

Actual: 24.00

Required: 23.90 - 24.10

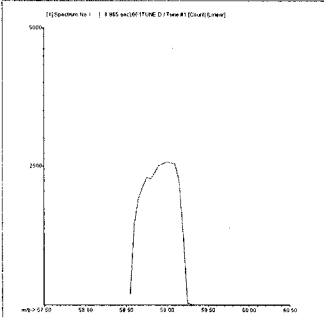
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



59 Co

Mass Calib.

Actual: 59.00

Required: 58.90 - 59.10

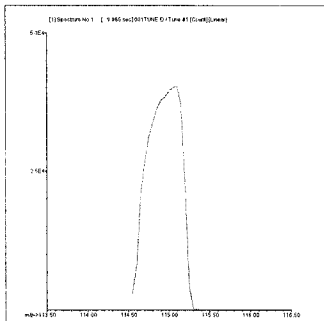
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.00

Required: 114.90 - 115.10

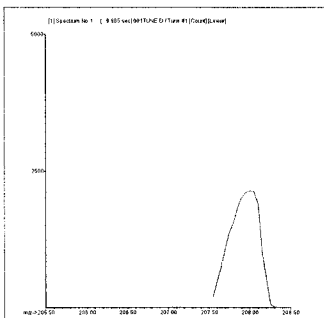
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



208 Pb

Mass Calib.

Actual: 208.00

Required: 207.90 - 208.10

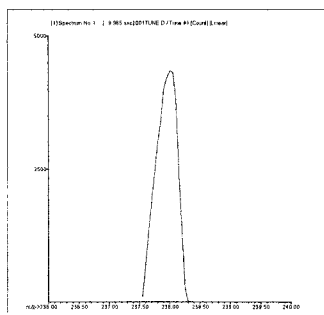
Flag:

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\
 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	78880	1.03
23	Na	6	67854280	0.78
24	Mg	6	41046008	0.44
27	Al	45	36514528	1.31
39	K	45	62484832	0.32
43	Ca	45	154713	0.88
51	V	72	1748494	1.28
52	Cr	72	1712193	0.90
55	Mn	72	1838240	0.92
57	Fe	72	4331625	1.05
59	Co	72	2170643	0.67
60	Ni	72	494898	1.03
63	Cu	72	1147761	0.20
66	Zn	72	229614	0.57
75	As	72	199756	0.44
78	Se	72	35396	1.68
93	Nb	72	5397792	1.07
95	Mo	72	533263	0.26
105	Pd	115	657524	0.37
107	Ag	115	1430733	0.49
111	Cd	115	277412	0.99
118	Sn	115	778149	0.58
121	Sb	115	861506	0.48
137	Ba	115	372202	0.66
182	W	165	1191344	0.33
195	Pt	165	789081	0.96
205	Tl	165	2466925	0.69
208	Pb	165	3353142	0.67
232	Th	165	3430275	0.56
238	U	165	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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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
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

Fail

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: AFCEEERL
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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 :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\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 :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\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\
 Tune File# 4 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

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\
 Tune File# 4

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\
 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\
 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
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

Fail

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: 1107
 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\
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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\
 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 :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\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	50.87 ppb	2.72	50	101.7	90 - 110	
23	Na	6	5030.00 ppb	0.84	5000	100.6	90 - 110	
24	Mg	6	4975.00 ppb	0.37	5000	99.5	90 - 110	
27	Al	45	4999.00 ppb	0.47	5000	100.0	90 - 110	
39	K	45	5015.00 ppb	0.50	5000	100.3	90 - 110	
43	Ca	45	4978.00 ppb	1.01	5000	99.6	90 - 110	
51	V	72	49.01 ppb	1.42	50	98.0	90 - 110	
52	Cr	72	50.21 ppb	0.85	50	100.4	90 - 110	
55	Mn	72	49.79 ppb	0.40	50	99.6	90 - 110	
57	Fe	72	5145.00 ppb	0.75	5000	102.9	90 - 110	
59	Co	72	50.00 ppb	0.78	50	100.0	90 - 110	
60	Ni	72	50.92 ppb	1.18	50	101.8	90 - 110	
63	Cu	72	50.89 ppb	0.59	50	101.8	90 - 110	
66	Zn	72	50.52 ppb	0.98	50	101.0	90 - 110	
75	As	72	50.18 ppb	0.62	50	100.4	90 - 110	
78	Se	72	50.48 ppb	2.52	50	101.0	90 - 110	
93	Nb	72	102.30 ppb	0.52	100	102.3	90 - 110	
95	Mo	72	49.96 ppb	0.89	50	99.9	90 - 110	
105	Pd	115	51.24 ppb	1.91	50	102.5	90 - 110	
107	Ag	115	52.00 ppb	1.21	50	104.0	90 - 110	
111	Cd	115	50.74 ppb	1.30	50	101.5	90 - 110	
118	Sn	115	50.67 ppb	2.00	50	101.3	90 - 110	
121	Sb	115	50.48 ppb	0.65	50	101.0	90 - 110	
137	Ba	115	50.64 ppb	1.63	50	101.3	90 - 110	
182	W	165	50.21 ppb	0.95	50	100.4	90 - 110	
195	Pt	165	50.66 ppb	0.75	50	101.3	90 - 110	
205	Tl	165	51.44 ppb	0.95	50	102.9	90 - 110	
208	Pb	165	51.96 ppb	0.78	50	103.9	90 - 110	
232	Th	165	51.39 ppb	0.50	50	102.8	90 - 110	
238	U	165	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\
 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 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	
95 Mo	72	1	0.077 ppb	63.62	1.00	Fail
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\
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 **QC Summary:**
 Acq. Method: 6020isis.M **Analytes: Pass**
 Operator: TEL **ISTD: Pass**
 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

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	90 - 110	
23	Na	6	1	75940.00 ppb	1.58	78180.00	90 - 110	
24	Mg	6	1	1755.00 ppb	0.84	1743.40	90 - 110	
27	Al	45	1	12.53 ppb	0.95	2.69	90 - 110	
39	K	45	1	246.20 ppb	2.26	233.80	90 - 110	
43	Ca	45	1	6618.00 ppb	1.13	6620.00	90 - 110	
51	V	72	1	494.20 ppb	0.71	524.60	90 - 110	
52	Cr	72	1	15.05 ppb	0.94	15.39	90 - 110	
55	Mn	72	1	0.71 ppb	2.74	0.67	90 - 110	
57	Fe	72	1	20.27 ppb	3.95	20.90	90 - 110	
59	Co	72	1	0.01 ppb	17.87	0.01	90 - 110	
60	Ni	72	1	0.34 ppb	5.58	0.15	90 - 110	
63	Cu	72	1	0.03 ppb	3.68	0.03	90 - 110	
66	Zn	72	1	0.05 ppb	23.95	0.11	90 - 110	
75	As	72	1	15.20 ppb	0.97	15.30	90 - 110	
78	Se	72	1	0.18 ppb	124.41	0.44	90 - 110	
93	Nb	72	1	0.39 ppb	25.09	0.19	90 - 110	
95	Mo	72	1	14.15 ppb	1.14	14.76	90 - 110	
105	Pd	115	1	0.11 ppb	19.09	0.10	90 - 110	
107	Ag	115	1	0.00 ppb	18.61	0.00	90 - 110	
111	Cd	115	1	0.02 ppb	35.53	0.02	90 - 110	
118	Sn	115	1	0.07 ppb	35.66	0.05	90 - 110	
121	Sb	115	1	0.02 ppb	19.22	0.02	90 - 110	
137	Ba	115	1	0.61 ppb	4.92	0.62	90 - 110	
182	W	165	1	65.26 ppb	1.61	63.56	90 - 110	
195	Pt	165	1	0.01 ppb	39.36	0.01	90 - 110	
205	Tl	165	1	0.01 ppb	27.81	0.01	90 - 110	
208	Pb	165	1	0.00 ppb	15.10	0.00	90 - 110	
232	Th	165	1	0.18 ppb	10.83	0.23	90 - 110	
238	U	165	1	0.32 ppb	3.00	0.33	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 :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: 08/05/09 11:10:10

Department: 090 (Metals)

Source: Spreadsheet

Sample: LG282P25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG080409 # 109

Method 6020_

Acquired: 08/04/2009 22:43:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	<input checked="" type="checkbox"/>
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\
 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

Channel 272

File: AG080409 # 110

Method 6020_

Acquired: 08/04/2009 22:46:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	<input type="checkbox"/>
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		<input type="checkbox"/>
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		<input checked="" type="checkbox"/>
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

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	8.23	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\
 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 :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\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 :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\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 :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\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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D961250157

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: W. Jell 8/5/09

Metals Raw Data RoadMap

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
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

<u>Lot</u>	<u>Work Order</u>		<u>Initial Weight/Volume</u>
D9G270000 Water	LG6WK B	Due Date: SDG:	<u>50 mL</u>
D9G270000 Water	LG6WK C	Due Date: SDG:	<u>50 mL</u>
D9G240312 Water	LG282 Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 S Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G240312 Water	LG282 D Total	Due Date: 08/05/09 SDG: 8304615	<u>50 mL</u>
D9G250146 Water	LG3WE Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250155 Water	LG3W9 Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>
D9G250157 Water	LG3XG Total	Due Date: 08/06/09 SDG: 8304615	<u>50 mL</u>

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*

HEC 1.1

ENC 1.1

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 revolved 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) ICB = Initial Calibration Blank
 CCV = Continuing Calibration Verification 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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD3611-09, ICP-MS 1ppm Sn/Zn

Aliquot Amount (ml): 0.0900

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)

Volume (ml): 10.000

Parent Std No.: STD4633-09, ICP-MS HIGH RL STD

Aliquot Amount (ml): 2.0000

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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 ICESA

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 09-04-2009 (1 Month)
 Date Expires(2): 08-01-2010 (None)
 pipettes: Met 8

Volume (ml): 50.000

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/L)</u>
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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
 Date Prep./Opened: 08-04-2009
 Date Expires(1): 08-05-2009 (1 Day)
 Date Expires(2): 08-01-2010 (None)

Volume (ml): 10.000

Parent Std No.: STD3109-09, ICP-MS CALSTD 1

Aliquot Amount (ml): 0.0500

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (ug/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Se	1.0000	0.0020

STD4641-09, ALTLR

Analyst: DIAZL

Solvent: 5% HNO3 Lot No.: H12022
Date Prep./Opened: 08-04-2009
Date Expires(1): 03-01-2010 (1 Year)
Ag/Cu 1000 ppb

Volume (ml): 100.00

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

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (mg/L)</u>
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

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
1000 Cu	1,000.0	1.0000

Reviewed By: _____

LRD 08/04/2009

File
AG080409

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		<input type="checkbox"/>
4	100 ppb				1.0 08/04/09 17:33		<input type="checkbox"/>
5	ICV				1.0 08/04/09 17:35		<input type="checkbox"/>
6	RLIV				1.0 08/04/09 17:38		<input type="checkbox"/>
7	ICB				1.0 08/04/09 17:41		<input type="checkbox"/>
8	RL STD				1.0 08/04/09 17:44		<input type="checkbox"/>
9	AFCEE RL				1.0 08/04/09 17:47		<input type="checkbox"/>
10	ALTSe				1.0 08/04/09 17:50		<input type="checkbox"/>
11	ICSA				1.0 08/04/09 17:53		<input type="checkbox"/>
12	ICSAB				1.0 08/04/09 17:56		<input type="checkbox"/>
13	RINSE				1.0 08/04/09 17:59		<input type="checkbox"/>
14	LR				1.0 08/04/09 18:02		<input type="checkbox"/>
15	RINSE				1.0 08/04/09 18:05		<input type="checkbox"/>
16	CCV				1.0 08/04/09 18:08		<input type="checkbox"/>
17	CCB				1.0 08/04/09 18:10		<input type="checkbox"/>
18	RLCV				1.0 08/04/09 18:13		<input type="checkbox"/>
19	ALTLR				1.0 08/04/09 18:18		<input type="checkbox"/>
20	RINSE				1.0 08/04/09 18:21		<input type="checkbox"/>
21	CCV				1.0 08/04/09 18:24		<input type="checkbox"/>
22	CCB				1.0 08/04/09 18:27		<input type="checkbox"/>
23	RLCV				1.0 08/04/09 18:30		<input type="checkbox"/>
24	LG3K2 10X	F9G250110-1	9208086	MS	10.0 08/04/09 18:33		<input type="checkbox"/>
25	CCV				1.0 08/04/09 18:35		<input type="checkbox"/>
26	CCB				1.0 08/04/09 18:38		<input type="checkbox"/>
27	RLCV				1.0 08/04/09 18:41		<input type="checkbox"/>
28	LGV1JB	D9G220000	9203274	46	1.0 08/04/09 18:44		<input type="checkbox"/>
29	LGV1JC	D9G220000	9203274	46	1.0 08/04/09 18:47		<input type="checkbox"/>
30	LGT1N	D9G210319-13	9203274	U1	1.0 08/04/09 18:50		<input type="checkbox"/>
31	LGT1V	D9G210319-14	9203274	U1	1.0 08/04/09 18:53	<i>Not 8/5/09 did not use.</i>	<input type="checkbox"/>
32	CCV				1.0 08/04/09 18:56		<input type="checkbox"/>
33	CCB				1.0 08/04/09 18:59		<input type="checkbox"/>
34	RLCV				1.0 08/04/09 19:02		<input type="checkbox"/>
35	LGVDGB	D9G220000	9203121	MS	1.0 08/04/09 19:05		<input type="checkbox"/>
36	LGVDGC	D9G220000	9203121	MS	1.0 08/04/09 19:08		<input type="checkbox"/>
37	LGR1D 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:11		<input type="checkbox"/>
38	LGR1DP25	D9G210208	9203121		25.0 08/04/09 19:14		<input type="checkbox"/>
39	LGR1DZ	D9G210208-1	9203121		1.0 08/04/09 19:16		<input type="checkbox"/>
40	LGR1DS 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:19		<input type="checkbox"/>
41	CCV				1.0 08/04/09 19:22		<input type="checkbox"/>
42	CCB				1.0 08/04/09 19:25		<input type="checkbox"/>
43	RLCV				1.0 08/04/09 19:28		<input type="checkbox"/>
44	LGR1DD 5X	D9G210208-1	9203121	MS	5.0 08/04/09 19:31		<input type="checkbox"/>
45	LGR1M	D9G210208-2	9203121	MS	1.0 08/04/09 19:34		<input type="checkbox"/>
46	LGR1P 2X	D9G210208-3	9203121	MS	2.0 08/04/09 19:37		<input type="checkbox"/>
47	LGR1Q	D9G210208-4	9203121	MS	1.0 08/04/09 19:40		<input type="checkbox"/>
48	LGR1T	D9G210208-5	9203121	MS	1.0 08/04/09 19:43		<input type="checkbox"/>

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		<input type="checkbox"/>
50	CCB				1.0 08/04/09 19:49		<input type="checkbox"/>
51	RLCV				1.0 08/04/09 19:52		<input type="checkbox"/>
52	LG4K3BF	D9G270000	9208158	MD	1.0 08/04/09 19:55		<input type="checkbox"/>
53	LG4K3CF	D9G270000	9208158	MD	1.0 08/04/09 19:58		<input type="checkbox"/>
54	LG22HF	D9G240290-1	9208158	MD	1.0 08/04/09 20:01		<input type="checkbox"/>
55	LG29AF	D9G240311-1	9208158	MD	1.0 08/04/09 20:04		<input type="checkbox"/>
56	LG29PF	D9G240311-2	9208158	MD	1.0 08/04/09 20:07		<input type="checkbox"/>
57	LG29QF	D9G240311-3	9208158	MD	1.0 08/04/09 20:09		<input type="checkbox"/>
58	LG29RF	D9G240311-4	9208158	MD	1.0 08/04/09 20:12		<input type="checkbox"/>
59	LG29VF	D9G240311-5	9208158	MD	1.0 08/04/09 20:15		<input type="checkbox"/>
60	LG29XF	D9G240311-6	9208158	MD	1.0 08/04/09 20:18		<input type="checkbox"/>
61	LG290F	D9G240311-7	9208158	MD	1.0 08/04/09 20:21		<input type="checkbox"/>
62	CCV				1.0 08/04/09 20:24		<input type="checkbox"/>
63	CCB				1.0 08/04/09 20:27		<input type="checkbox"/>
64	RLCV				1.0 08/04/09 20:30		<input type="checkbox"/>
65	LG290P5F	D9G240311	9208158		5.0 08/04/09 20:33		<input type="checkbox"/>
66	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 20:36	<i>not used</i>	<input type="checkbox"/>
67	LG290SF	D9G240311-7	9208158	MD	1.0 08/04/09 20:39		<input type="checkbox"/>
68	LG290DF	D9G240311-7	9208158	MD	1.0 08/04/09 20:42		<input type="checkbox"/>
69	LG292F	D9G240311-8	9208158	MD	1.0 08/04/09 20:45		<input type="checkbox"/>
70	LG293F	D9G240311-9	9208158	MD	1.0 08/04/09 20:48		<input type="checkbox"/>
71	LG294F	D9G240311-10	9208158	MD	1.0 08/04/09 20:51		<input type="checkbox"/>
72	LG296F	D9G240311-11	9208158	MD	1.0 08/04/09 20:54		<input type="checkbox"/>
73	CCV				1.0 08/04/09 20:57		<input type="checkbox"/>
74	CCB				1.0 08/04/09 21:00		<input type="checkbox"/>
75	RLCV				1.0 08/04/09 21:03		<input type="checkbox"/>
76	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 21:06		<input type="checkbox"/>
77	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 21:09		<input type="checkbox"/>
78	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 21:12		<input type="checkbox"/>
79	CCV				1.0 08/04/09 21:15		<input type="checkbox"/>
80	CCB				1.0 08/04/09 21:18		<input type="checkbox"/>
81	RLCV				1.0 08/04/09 21:21		<input type="checkbox"/>
82	RINSE				1.0 08/04/09 21:24		<input type="checkbox"/>
83	RINSE				1.0 08/04/09 21:27		<input type="checkbox"/>
84	RINSE				1.0 08/04/09 21:30		<input type="checkbox"/>
85	RINSE				1.0 08/04/09 21:32		<input type="checkbox"/>
86	RINSE				1.0 08/04/09 21:35		<input type="checkbox"/>
87	RINSE				1.0 08/04/09 21:38		<input type="checkbox"/>
88	Cal Blank				1.0 08/04/09 21:41	<i>not used</i>	<input type="checkbox"/>
89	Cal Blank				1.0 08/04/09 21:44		<input type="checkbox"/>
90	100 ppb				1.0 08/04/09 21:47		<input type="checkbox"/>
91	CCV				1.0 08/04/09 21:50		<input type="checkbox"/>
92	CCB				1.0 08/04/09 21:53		<input type="checkbox"/>
93	RLCV				1.0 08/04/09 21:56		<input type="checkbox"/>
94	ICSA				1.0 08/04/09 21:59		<input type="checkbox"/>

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		<input type="checkbox"/>
96	WASH				1.0 08/04/09 22:04		<input type="checkbox"/>
97	CCV				1.0 08/04/09 22:07		<input type="checkbox"/>
98	CCB				1.0 08/04/09 22:10		<input type="checkbox"/>
99	RLCV				1.0 08/04/09 22:13		<input type="checkbox"/>
100	LG290ZF	D9G240311-7	9208158		1.0 08/04/09 22:16		<input type="checkbox"/>
101	LG298F	D9G240311-12	9208158	MD	1.0 08/04/09 22:19		<input type="checkbox"/>
102	LG3ACF	D9G240311-13	9208158	MD	1.0 08/04/09 22:22		<input type="checkbox"/>
103	CCV				1.0 08/04/09 22:25		<input type="checkbox"/>
104	CCB				1.0 08/04/09 22:28		<input type="checkbox"/>
105	RLCV				1.0 08/04/09 22:31		<input type="checkbox"/>
106	LG6WKB	D9G270000	9208088	MS	1.0 08/04/09 22:34		<input type="checkbox"/>
107	LG6WKC	D9G270000	9208088	MS	1.0 08/04/09 22:37		<input type="checkbox"/>
108	LG282 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:40		<input type="checkbox"/>
109	LG282P25	D9G240312	9208088		25.0 08/04/09 22:43		<input type="checkbox"/>
110	LG282Z	D9G240312-1	9208088		1.0 08/04/09 22:46		<input type="checkbox"/>
111	LG282S 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:49		<input type="checkbox"/>
112	LG282D 5X	D9G240312-1	9208088	MS	5.0 08/04/09 22:51		<input type="checkbox"/>
113	LG3WE 5X	D9G250146-1	9208088	MS	5.0 08/04/09 22:54		<input type="checkbox"/>
114	LG3W9 5X	D9G250155-1	9208088	MS	5.0 08/04/09 22:57		<input type="checkbox"/>
115	LG3XG 5X	D9G250157-1	9208088	MS	5.0 08/04/09 23:00		<input type="checkbox"/>
116	CCV				1.0 08/04/09 23:03		<input type="checkbox"/>
117	CCB				1.0 08/04/09 23:06		<input type="checkbox"/>
118	RLCV				1.0 08/04/09 23:09		<input type="checkbox"/>
119	LG15XB	D9G240000	9205339	MS	1.0 08/04/09 23:12		<input type="checkbox"/>
120	LG15XC	D9G240000	9205339	MS	1.0 08/04/09 23:15		<input type="checkbox"/>
121	LGWWE	D9G220274-1	9205339	MS	1.0 08/04/09 23:18		<input type="checkbox"/>
122	LGWWE5	D9G220274	9205339		5.0 08/04/09 23:21		<input type="checkbox"/>
123	LGWWEZ	D9G220274-1	9205339		1.0 08/04/09 23:24		<input type="checkbox"/>
124	LGWWES	D9G220274-1	9205339	MS	1.0 08/04/09 23:27		<input type="checkbox"/>
125	LGWWED	D9G220274-1	9205339	MS	1.0 08/04/09 23:30		<input type="checkbox"/>
126	CCV				1.0 08/04/09 23:33		<input type="checkbox"/>
127	CCB				1.0 08/04/09 23:37		<input type="checkbox"/>
128	RLCV				1.0 08/04/09 23:40		<input type="checkbox"/>
129	LG4LKBF	D9G270000	9208171	MD	1.0 08/04/09 23:43		<input type="checkbox"/>
130	LG4LKCF	D9G270000	9208171	MD	1.0 08/04/09 23:46		<input type="checkbox"/>
131	LG17CF	D9G240170-1	9208171	MD	1.0 08/04/09 23:49		<input type="checkbox"/>
132	LG17CP5F	D9G240170	9208171		5.0 08/04/09 23:52		<input type="checkbox"/>
133	LG17CZF	D9G240170-1	9208171		1.0 08/04/09 23:55		<input type="checkbox"/>
134	LG17CSF	D9G240170-1	9208171	MD	1.0 08/04/09 23:57		<input type="checkbox"/>
135	LG17CDF	D9G240170-1	9208171	MD	1.0 08/05/09 00:00		<input type="checkbox"/>
136	CCV				1.0 08/05/09 00:03		<input type="checkbox"/>
137	CCB				1.0 08/05/09 00:06		<input type="checkbox"/>
138	RLCV				1.0 08/05/09 00:09		<input type="checkbox"/>
139	LG1WEB	D9G240000	9205275	MS	1.0 08/05/09 00:12		<input type="checkbox"/>
140	LG1WEC	D9G240000	9205275	MS	1.0 08/05/09 00:15		<input type="checkbox"/>

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	<input type="checkbox"/>
142	LGW51	D9G220290-15	9205275	U2	1.0	08/05/09 00:21	<input type="checkbox"/>
143	LGW51P5	D9G220290	9205275		5.0	08/05/09 00:24	<input type="checkbox"/>
144	LGW51Z	D9G220290-15	9205275		1.0	08/05/09 00:27	<input type="checkbox"/>
145	CCV			MS	1.0	08/05/09 00:30	<input type="checkbox"/>
146	CCB			069347	1.0	08/05/09 00:33	<input type="checkbox"/>
147	RLCV				1.0	08/05/09 00:36	<input type="checkbox"/>
148	LG1T7B	D9G240000	9205253	46	1.0	08/05/09 00:39	<input type="checkbox"/>
149	LG1T7C	D9G240000	9205253	46	1.0	08/05/09 00:42	<input type="checkbox"/>
150	LGW5C	D9G220290-5	9205253	U1	1.0	08/05/09 00:45	<input type="checkbox"/>
151	LGW5G	D9G220290-6	9205253	U1	1.0	08/05/09 00:48	<input type="checkbox"/>
152	LGW5GP5	D9G220290	9205253		5.0	08/05/09 00:51	<input type="checkbox"/>
153	LGW5GZ	D9G220290-6	9205253		1.0	08/05/09 00:54	<input type="checkbox"/>
154	LGW5GS	D9G220290-6	9205253	U1	1.0	08/05/09 00:57	<input type="checkbox"/>
155	LGW5GD	D9G220290-6	9205253	U1	1.0	08/05/09 01:00	<input type="checkbox"/>
156	LGW5L	D9G220290-7	9205253	U1	1.0	08/05/09 01:03	<input type="checkbox"/>
157	LGW5P	D9G220290-8	9205253	U1	1.0	08/05/09 01:06	<input type="checkbox"/>
158	CCV			46	1.0	08/05/09 01:09	<input type="checkbox"/>
159	CCB			D9G220290	1.0	08/05/09 01:12	<input type="checkbox"/>
160	RLCV			46	1.0	08/05/09 01:15	<input type="checkbox"/>
161	LGW5Q	D9G220290-9	9205253	U1	1.0	08/05/09 01:17	<input type="checkbox"/>
162	LGW5R	D9G220290-10	9205253	U1	1.0	08/05/09 01:20	<input type="checkbox"/>
163	LGW5T	D9G220290-11	9205253	U1	1.0	08/05/09 01:23	<input type="checkbox"/>
164	LGW5W	D9G220290-12	9205253	U1	1.0	08/05/09 01:26	<input type="checkbox"/>
165	LGW5X	D9G220290-13	9205253	U1	1.0	08/05/09 01:29	<input type="checkbox"/>
166	LG09D	D9G220290-17	9205253	U1	1.0	08/05/09 01:32	<input type="checkbox"/>
167	LG09F	D9G220290-18	9205253	U1	1.0	08/05/09 01:35	<input type="checkbox"/>
168	LG09G	D9G220290-19	9205253	U1	1.0	08/05/09 01:38	<input type="checkbox"/>
169	LG09H	D9G220290-20	9205253	U1	1.0	08/05/09 01:41	<input type="checkbox"/>
170	CCV			46	1.0	08/05/09 01:44	<input type="checkbox"/>
171	CCB			D9G220290	1.0	08/05/09 01:47	<input type="checkbox"/>
172	RLCV				1.0	08/05/09 01:50	<input type="checkbox"/>
173	LG11QB	D9G240000	9205302	46	1.0	08/05/09 01:53	<input type="checkbox"/>
174	LG11QC	D9G240000	9205302	46	1.0	08/05/09 01:56	<input type="checkbox"/>
175	LGWNR	D9G220249-1	9205302	46	1.0	08/05/09 01:59	<input type="checkbox"/>
176	LGWNRP5	D9G220249	9205302		5.0	08/05/09 02:02	<input type="checkbox"/>
177	LGWNRZ	D9G220249-1	9205302		1.0	08/05/09 02:05	<input type="checkbox"/>
178	LGWNR5	D9G220249-1	9205302	46	1.0	08/05/09 02:07	<input type="checkbox"/>
179	LGWNRD	D9G220249-1	9205302	46	1.0	08/05/09 02:10	<input type="checkbox"/>
180	LGWPD	D9G220249-2	9205302	46	1.0	08/05/09 02:13	<input type="checkbox"/>
181	CCV				1.0	08/05/09 02:16	<input type="checkbox"/>
182	CCB				1.0	08/05/09 02:19	<input type="checkbox"/>
183	RLCV				1.0	08/05/09 02:22	<input type="checkbox"/>
184	LGWPG	D9G220249-3	9205302	46	1.0	08/05/09 02:25	<input type="checkbox"/>
185	LGWPH	D9G220249-4	9205302	46	1.0	08/05/09 02:28	<input type="checkbox"/>
186	LGWPK	D9G220249-5	9205302	46	1.0	08/05/09 02:31	<input type="checkbox"/>

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	<input type="checkbox"/>
188	LGWPN	D9G220249-7	9205302	46	1.0	08/05/09 02:37	<input type="checkbox"/>
189	LGWPQ	D9G220249-8	9205302	46	1.0	08/05/09 02:39	<input type="checkbox"/>
190	LGWPT	D9G220249-9	9205302	46	1.0	08/05/09 02:42	<input type="checkbox"/>
191	CCV				1.0	08/05/09 02:45	<input type="checkbox"/>
192	CCB				1.0	08/05/09 02:48	<input type="checkbox"/>
193	RLCV				1.0	08/05/09 02:51	<input type="checkbox"/>
194	LG6MMB	D9G280000	9209279	46	1.0	08/05/09 02:54	<input type="checkbox"/>
195	LG6MMC	D9G280000	9209279	46	1.0	08/05/09 02:57	<input type="checkbox"/>
196	LG22V	D9G240291-1	9209279	46	1.0	08/05/09 03:00	<input type="checkbox"/>
197	LG22W	D9G240291-2	9209279	46	1.0	08/05/09 03:03	<input type="checkbox"/>
198	LG22X	D9G240291-3	9209279	46	1.0	08/05/09 03:06	<input type="checkbox"/>
199	LG22XP5	D9G240291	9209279		5.0	08/05/09 03:09	<input type="checkbox"/>
200	LG22XZ	D9G240291-3	9209279		1.0	08/05/09 03:12	<input type="checkbox"/>
201	LG22XS	D9G240291-3	9209279	46	1.0	08/05/09 03:15	<input type="checkbox"/>
202	LG22XD	D9G240291-3	9209279	46	1.0	08/05/09 03:17	<input type="checkbox"/>
203	LG220	D9G240291-4	9209279	46	1.0	08/05/09 03:20	<input type="checkbox"/>
204	CCV				1.0	08/05/09 03:23	<input type="checkbox"/>
205	CCB				1.0	08/05/09 03:26	<input type="checkbox"/>
206	RLCV				1.0	08/05/09 03:29	<input type="checkbox"/>
207	LG221	D9G240291-5	9209279	46	1.0	08/05/09 03:32	<input type="checkbox"/>
208	LG222	D9G240291-6	9209279	46	1.0	08/05/09 03:35	<input type="checkbox"/>
209	LG223	D9G240291-7	9209279	46	1.0	08/05/09 03:38	<input type="checkbox"/>
210	LG23A	D9G240291-8	9209279	46	1.0	08/05/09 03:41	<input type="checkbox"/>
211	LG23D	D9G240291-9	9209279	46	1.0	08/05/09 03:44	<input type="checkbox"/>
212	LG23E	D9G240291-10	9209279	46	1.0	08/05/09 03:47	<input type="checkbox"/>
213	LG23F	D9G240291-11	9209279	46	1.0	08/05/09 03:50	<input type="checkbox"/>
214	LG23H	D9G240291-12	9209279	46	1.0	08/05/09 03:53	<input type="checkbox"/>
215	LG23J	D9G240291-13	9209279	46	1.0	08/05/09 03:56	<input type="checkbox"/>
216	CCV				1.0	08/05/09 03:59	<input type="checkbox"/>
217	CCB				1.0	08/05/09 04:01	<input type="checkbox"/>
218	RLCV				1.0	08/05/09 04:04	<input type="checkbox"/>
219	RINSE				1.0	08/05/09 04:07	<input type="checkbox"/>
220	RINSE				1.0	08/05/09 04:10	<input type="checkbox"/>
221	RINSE				1.0	08/05/09 04:13	<input type="checkbox"/>
222	RINSE				1.0	08/05/09 04:16	<input type="checkbox"/>
223	RINSE				1.0	08/05/09 04:19	<input type="checkbox"/>
224	RINSE				1.0	08/05/09 04:22	<input type="checkbox"/>
225	Cal Blank				1.0	08/05/09 04:25	<input type="checkbox"/>
226	Cal Blank				1.0	08/05/09 04:28	<input type="checkbox"/>
227	100 ppb				1.0	08/05/09 04:31	<input type="checkbox"/>
228	CCV				1.0	08/05/09 04:34	<input type="checkbox"/>
229	CCB				1.0	08/05/09 04:36	<input type="checkbox"/>
230	RLCV				1.0	08/05/09 04:39	<input type="checkbox"/>
231	LG88DBF	D9G300000	9211109	MD	1.0	08/05/09 04:42	<input type="checkbox"/>
232	LG88DCF	D9G300000	9211109	MD	1.0	08/05/09 04:45	<input type="checkbox"/>

At 8/5/09 did not use.

Method: 6020 (ICP/MS)	ICPMS_024 (024)	Reported: 08/05/09 11:09:30
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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	<input type="checkbox"/>
234	LG7WEP25F	D9G290174	9211109		25.0	08/05/09 04:51	<input type="checkbox"/>
235	LG7WEZF	D9G290174-2	9211109		1.0	08/05/09 04:54	<input type="checkbox"/>
236	LG7WESF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 04:57	<input type="checkbox"/>
237	LG7WEDF 5X	D9G290174-2	9211109	MD	5.0	08/05/09 05:00	<input type="checkbox"/>
238	LG7WHF 5X	D9G290174-4	9211109	MD	5.0	08/05/09 05:03	<input type="checkbox"/>
239	CCV				1.0	08/05/09 05:06	<input type="checkbox"/>
240	CCB				1.0	08/05/09 05:09	<input type="checkbox"/>
241	RLCV				1.0	08/05/09 05:12	<input type="checkbox"/>
242	LG87WB	D9G300000	9211099	MS	1.0	08/05/09 05:15	<input type="checkbox"/>
243	LG87WC	D9G300000	9211099	MS	1.0	08/05/09 05:18	<input type="checkbox"/>
244	LG7V7 5X	D9G290174-1	9211099	MS	5.0	08/05/09 05:21	<input type="checkbox"/>
245	LG7WG 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:24	<input type="checkbox"/>
246	LG7WGP25	D9G290174	9211099		25.0	08/05/09 05:27	<input type="checkbox"/>
247	LG7WGZ	D9G290174-3	9211099		1.0	08/05/09 05:30	<input type="checkbox"/>
248	LG7WGS 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:33	<input type="checkbox"/>
249	LG7WGD 5X	D9G290174-3	9211099	MS	5.0	08/05/09 05:36	<input type="checkbox"/>
250	CCV				1.0	08/05/09 05:39	<input type="checkbox"/>
251	CCB				1.0	08/05/09 05:42	<input type="checkbox"/>
252	RLCV				1.0	08/05/09 05:45	<input type="checkbox"/>
253	RINSE				1.0	08/05/09 05:48	<input type="checkbox"/>
254	RINSE				1.0	08/05/09 05:51	<input type="checkbox"/>
255	RINSE				1.0	08/05/09 05:54	<input type="checkbox"/>
256	RINSE				1.0	08/05/09 05:57	<input type="checkbox"/>
257	RINSE				1.0	08/05/09 06:00	<input type="checkbox"/>
258	RINSE				1.0	08/05/09 06:03	<input type="checkbox"/>
259	Cal Blank				1.0	08/05/09 06:05	<input type="checkbox"/>
260	Cal Blank				1.0	08/05/09 06:08	<input type="checkbox"/>
261	100 ppb				1.0	08/05/09 06:11	<input type="checkbox"/>
262	CCV				1.0	08/05/09 06:14	<input type="checkbox"/>
263	CCB				1.0	08/05/09 06:17	<input type="checkbox"/>
264	RLCV				1.0	08/05/09 06:20	<input type="checkbox"/>
265	LHCJRB	D9G310000	9212184	MS	1.0	08/05/09 06:23	<input type="checkbox"/>
266	LHCJRC	D9G310000	9212184	MS	1.0	08/05/09 06:26	<input type="checkbox"/>
267	LG9VV 10X	F9G300205-1	9212184	MS	10.0	08/05/09 06:29	<input type="checkbox"/>
268	LG9V2 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:32	<input type="checkbox"/>
269	LG9V2P50	F9G300205	9212184		50.0	08/05/09 06:35	<input type="checkbox"/>
270	LG9V2Z	F9G300205-2	9212184		1.0	08/05/09 06:38	<input type="checkbox"/>
271	LG9V2S 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:41	<input type="checkbox"/>
272	LG9V2D 10X	F9G300205-2	9212184	MS	10.0	08/05/09 06:43	<input type="checkbox"/>
273	CCV				1.0	08/05/09 06:46	<input type="checkbox"/>
274	CCB				1.0	08/05/09 06:49	<input type="checkbox"/>
275	RLCV				1.0	08/05/09 06:52	<input type="checkbox"/>
276	LG87PB	D9G300000	9211097	MS	1.0	08/05/09 06:55	<input type="checkbox"/>
277	LG87PC	D9G300000	9211097	MS	1.0	08/05/09 06:58	<input type="checkbox"/>
278	LG7WR 10X	F9G290178-1	9211097	MS	10.0	08/05/09 07:01	<input type="checkbox"/>

TEL 8/5/09

Method: 6020 (ICP/MS)

ICPMS_024 (024)

Reported: 08/05/09 11:09:30

File ID: AG080409

Analyst: TEL

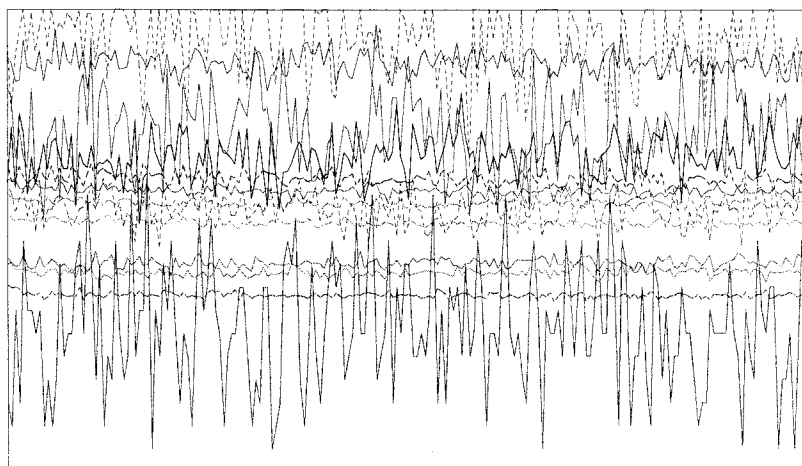
#	Sample ID	Lot No.	Batch	DF	Analyzed Date	Comment	Q
279	LG7XN 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:04	<input type="checkbox"/>
280	LG7XNP50	F9G290178	9211097		50.0	08/05/09 07:07	<input type="checkbox"/>
281	LG7XNZ	F9G290178-2	9211097		1.0	08/05/09 07:10	<input type="checkbox"/>
282	LG7XNS 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:13	<input type="checkbox"/>
283	LG7XND 10X	F9G290178-2	9211097	MS	10.0	08/05/09 07:16	<input type="checkbox"/>
284	CCV				1.0	08/05/09 07:19	<input type="checkbox"/>
285	CCB				1.0	08/05/09 07:22	<input type="checkbox"/>
286	RLCV				1.0	08/05/09 07:25	<input type="checkbox"/>
287	LHE9QB	D9H030000	9215113	MS	1.0	08/05/09 07:28	<input type="checkbox"/>
288	LHE9QC	D9H030000	9215113	MS	1.0	08/05/09 07:31	<input type="checkbox"/>
289	LHC91 10X	F9G310218-1	9215113	MS	10.0	08/05/09 07:34	<input type="checkbox"/>
290	LHC99 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:37	<input type="checkbox"/>
291	LHC99P50	F9G310218	9215113		50.0	08/05/09 07:39	<input type="checkbox"/>
292	LHC99Z	F9G310218-2	9215113		1.0	08/05/09 07:42	<input type="checkbox"/>
293	LHC99S 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:45	<input type="checkbox"/>
294	LHC99D 10X	F9G310218-2	9215113	MS	10.0	08/05/09 07:48	<input type="checkbox"/>
295	CCV				1.0	08/05/09 07:51	<input type="checkbox"/>
296	CCB				1.0	08/05/09 07:54	<input type="checkbox"/>
297	RLCV				1.0	08/05/09 07:57	<input type="checkbox"/>
298	RINSE				1.0	08/05/09 08:00	<input type="checkbox"/>
299	RINSE				1.0	08/05/09 08:03	<input type="checkbox"/>
300	RINSE				1.0	08/05/09 08:06	<input type="checkbox"/>
301	RINSE				1.0	08/05/09 08:09	<input type="checkbox"/>
302	RINSE				1.0	08/05/09 08:12	<input type="checkbox"/>
303	RINSE				1.0	08/05/09 08:15	<input type="checkbox"/>
304	RINSE				1.0	08/05/09 08:18	<input type="checkbox"/>
305	RINSE				1.0	08/05/09 08:21	<input type="checkbox"/>
306	RINSE				1.0	08/05/09 08:23	<input type="checkbox"/>
307	RINSE				1.0	08/05/09 08:26	<input type="checkbox"/>
308	Cal Blank				1.0	08/05/09 08:29	<input type="checkbox"/>
309	Cal Blank				1.0	08/05/09 08:32	<input type="checkbox"/>
310	100 ppb				1.0	08/05/09 08:35	<input type="checkbox"/>
311	CCV				1.0	08/05/09 08:38	<input type="checkbox"/>
312	CCB				1.0	08/05/09 08:41	<input type="checkbox"/>
313	ICSA				1.0	08/05/09 08:44	<input type="checkbox"/>
314	ICSAB				1.0	08/05/09 08:47	<input type="checkbox"/>
315	WASH				1.0	08/05/09 08:50	<input type="checkbox"/>
316	CCV				1.0	08/05/09 08:53	<input type="checkbox"/>
317	CCB				1.0	08/05/09 08:56	<input type="checkbox"/>
318	RLCV				1.0	08/05/09 08:59	<input type="checkbox"/>

} Take all but Ni
8/5/09

✓ 8/5/09

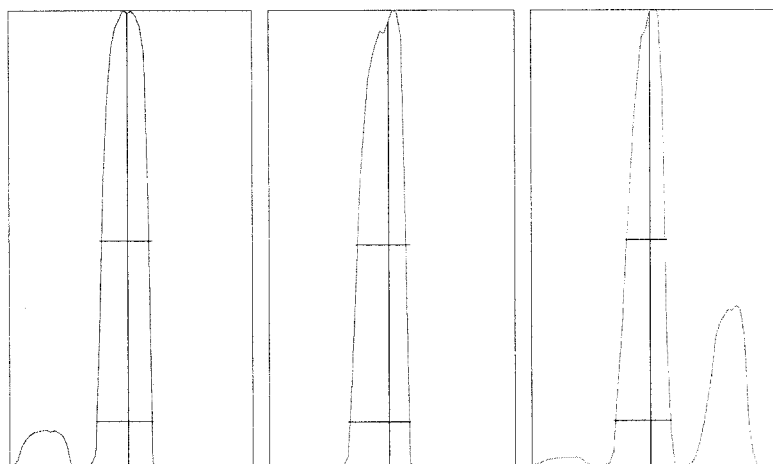
Tune Report

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

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 : 0.85 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 : -165 V
Omega Bias-ce : -34 V
Omega Lens-ce : 1 V
Cell Entrance : -30 V
QP Focus : 7 V
Cell Exit : -30 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

===Octopole Parameters===

OctP RF : 180 V
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

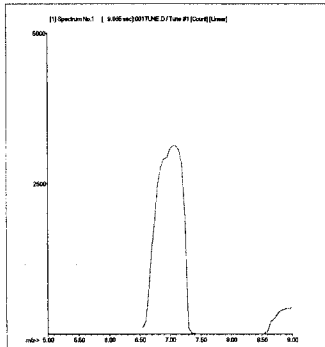
===Detector Parameters===

Discriminator: 8.0 mV
Analog HV: 1720 V
Pulse HV: 1390 V

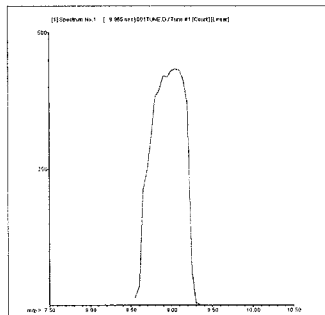
200.8 QC Tune Report

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

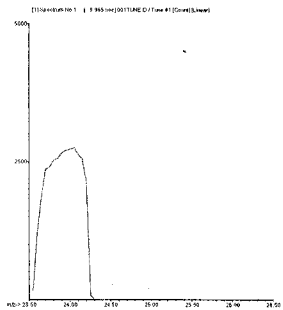
Element	CPS Mean	Rep1	Rep2	Rep3	Rep4	Rep5	%RSD	Required	Flag
7 Li	32565	32856	32489	32705	32484	32292	0.67	5.00	
9 Be	4574	4521	4647	4677	4498	4526	1.78	5.00	
24 Mg	31269	31441	31461	31505	31231	30708	1.06	5.00	
59 Co	144228	146798	144211	144312	143571	142246	1.15	5.00	
115 In	2098342	2107510	2092543	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:



24 Mg

Mass Calib.

Actual: 24.00

Required: 23.90 - 24.10

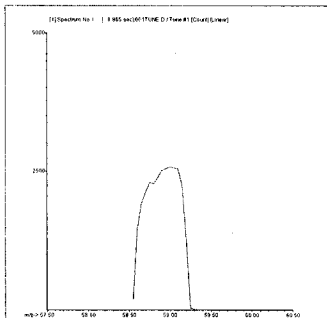
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



59 Co

Mass Calib.

Actual: 59.00

Required: 58.90 - 59.10

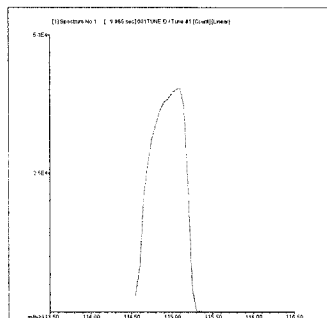
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



115 In

Mass Calib.

Actual: 115.00

Required: 114.90 - 115.10

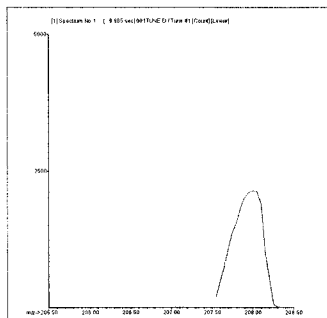
Flag:

Peak Width

Actual: 0.60

Required: 0.90

Flag:



208 Pb

Mass Calib.

Actual: 208.00

Required: 207.90 - 208.10

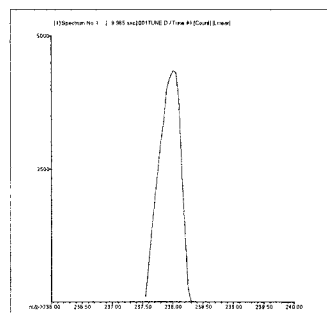
Flag:

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

D6 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	78880	1.03
23	Na	6	67854280	0.78
24	Mg	6	41046008	0.44
27	Al	45	36514528	1.31
39	K	45	62484832	0.32
43	Ca	45	154713	0.88
51	V	72	1748494	1.28
52	Cr	72	1712193	0.90
55	Mn	72	1838240	0.92
57	Fe	72	4331625	1.05
59	Co	72	2170643	0.67
60	Ni	72	494898	1.03
63	Cu	72	1147761	0.20
66	Zn	72	229614	0.57
75	As	72	199756	0.44
78	Se	72	35396	1.68
93	Nb	72	5397792	1.07
95	Mo	72	533263	0.26
105	Pd	115	657524	0.37
107	Ag	115	1430733	0.49
111	Cd	115	277412	0.99
118	Sn	115	778149	0.58
121	Sb	115	861506	0.48
137	Ba	115	372202	0.66
182	W	165	1191344	0.33
195	Pt	165	789081	0.96
205	Tl	165	2466925	0.69
208	Pb	165	3353142	0.67
232	Th	165	3430275	0.56
238	U	165	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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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
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

Fail

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: AFCEEERL
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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
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
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
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 :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\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 :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\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\
 Tune File# 4

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\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\
 Tune File# 4

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 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
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

Fail

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\
 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

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: 1107
 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\
 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 :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\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\
 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. 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 :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\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	50.87 ppb	2.72	50	101.7	90 - 110	
23	Na	6	5030.00 ppb	0.84	5000	100.6	90 - 110	
24	Mg	6	4975.00 ppb	0.37	5000	99.5	90 - 110	
27	Al	45	4999.00 ppb	0.47	5000	100.0	90 - 110	
39	K	45	5015.00 ppb	0.50	5000	100.3	90 - 110	
43	Ca	45	4978.00 ppb	1.01	5000	99.6	90 - 110	
51	V	72	49.01 ppb	1.42	50	98.0	90 - 110	
52	Cr	72	50.21 ppb	0.85	50	100.4	90 - 110	
55	Mn	72	49.79 ppb	0.40	50	99.6	90 - 110	
57	Fe	72	5145.00 ppb	0.75	5000	102.9	90 - 110	
59	Co	72	50.00 ppb	0.78	50	100.0	90 - 110	
60	Ni	72	50.92 ppb	1.18	50	101.8	90 - 110	
63	Cu	72	50.89 ppb	0.59	50	101.8	90 - 110	
66	Zn	72	50.52 ppb	0.98	50	101.0	90 - 110	
75	As	72	50.18 ppb	0.62	50	100.4	90 - 110	
78	Se	72	50.48 ppb	2.52	50	101.0	90 - 110	
93	Nb	72	102.30 ppb	0.52	100	102.3	90 - 110	
95	Mo	72	49.96 ppb	0.89	50	99.9	90 - 110	
105	Pd	115	51.24 ppb	1.91	50	102.5	90 - 110	
107	Ag	115	52.00 ppb	1.21	50	104.0	90 - 110	
111	Cd	115	50.74 ppb	1.30	50	101.5	90 - 110	
118	Sn	115	50.67 ppb	2.00	50	101.3	90 - 110	
121	Sb	115	50.48 ppb	0.65	50	101.0	90 - 110	
137	Ba	115	50.64 ppb	1.63	50	101.3	90 - 110	
182	W	165	50.21 ppb	0.95	50	100.4	90 - 110	
195	Pt	165	50.66 ppb	0.75	50	101.3	90 - 110	
205	Tl	165	51.44 ppb	0.95	50	102.9	90 - 110	
208	Pb	165	51.96 ppb	0.78	50	103.9	90 - 110	
232	Th	165	51.39 ppb	0.50	50	102.8	90 - 110	
238	U	165	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	451853	0.49	474143	95.3	30 - 120	
45	Sc	2375883	0.80	2484770	95.6	30 - 120	
72	Ge	1117949	0.39	1162179	96.2	30 - 120	
115	In	2884699	0.90	3064413	94.1	30 - 120	
165	Ho	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	
95 Mo	72	1	0.077 ppb	63.62	1.00	Fail
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\
 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 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 **QC Summary:**
 Acq. Method: 6020isis.M **Analytes: Pass**
 Operator: TEL **ISTD: Pass**
 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

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	90 - 110	
23	Na	6	1	75940.00 ppb	1.58	78180.00	90 - 110	
24	Mg	6	1	1755.00 ppb	0.84	1743.40	90 - 110	
27	Al	45	1	12.53 ppb	0.95	2.69	90 - 110	
39	K	45	1	246.20 ppb	2.26	233.80	90 - 110	
43	Ca	45	1	6618.00 ppb	1.13	6620.00	90 - 110	
51	V	72	1	494.20 ppb	0.71	524.60	90 - 110	
52	Cr	72	1	15.05 ppb	0.94	15.39	90 - 110	
55	Mn	72	1	0.71 ppb	2.74	0.67	90 - 110	
57	Fe	72	1	20.27 ppb	3.95	20.90	90 - 110	
59	Co	72	1	0.01 ppb	17.87	0.01	90 - 110	
60	Ni	72	1	0.34 ppb	5.58	0.15	90 - 110	
63	Cu	72	1	0.03 ppb	3.68	0.03	90 - 110	
66	Zn	72	1	0.05 ppb	23.95	0.11	90 - 110	
75	As	72	1	15.20 ppb	0.97	15.30	90 - 110	
78	Se	72	1	0.18 ppb	124.41	0.44	90 - 110	
93	Nb	72	1	0.39 ppb	25.09	0.19	90 - 110	
95	Mo	72	1	14.15 ppb	1.14	14.76	90 - 110	
105	Pd	115	1	0.11 ppb	19.09	0.10	90 - 110	
107	Ag	115	1	0.00 ppb	18.61	0.00	90 - 110	
111	Cd	115	1	0.02 ppb	35.53	0.02	90 - 110	
118	Sn	115	1	0.07 ppb	35.66	0.05	90 - 110	
121	Sb	115	1	0.02 ppb	19.22	0.02	90 - 110	
137	Ba	115	1	0.61 ppb	4.92	0.62	90 - 110	
182	W	165	1	65.26 ppb	1.61	63.56	90 - 110	
195	Pt	165	1	0.01 ppb	39.36	0.01	90 - 110	
205	Tl	165	1	0.01 ppb	27.81	0.01	90 - 110	
208	Pb	165	1	0.00 ppb	15.10	0.00	90 - 110	
232	Th	165	1	0.18 ppb	10.83	0.23	90 - 110	
238	U	165	1	0.32 ppb	3.00	0.33	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 :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: 08/05/09 11:10:10

Department: 090 (Metals)

Source: Spreadsheet

Sample: LG282P25

Serial Dilution: 25.00

Sample Dilution: 5.00

Instrument: Agilent7500

Channel 272

File: AG080409 # 109

Method 6020_

Acquired: 08/04/2009 22:43:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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	<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	743	4.4340	11.110	60.1	0.70	NC	<input checked="" type="checkbox"/>
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\
 Tune File#

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

Channel 272

File: AG080409 # 110

Method 6020_

Acquired: 08/04/2009 22:46:00

ICPMS_024

Matrix: AQUEOUS

Calibrated: 08/04/2009 21:44:00

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		<input checked="" type="checkbox"/>
7440-62-2	Vanadium	51	33670900	2790.0	2624.0	83.0	200	*	<input type="checkbox"/>
7440-47-3	Chromium	52	3299620	283.10	76.960	103	200		<input checked="" type="checkbox"/>
7439-96-5	Manganese	55	2619960	206.70	3.3240	102	200		<input type="checkbox"/>
7440-48-4	Cobalt	59	3027890	201.20	0.04388	101	200		<input checked="" type="checkbox"/>
7440-02-0	Nickel	60	687443	202.30	0.76700	101	200		<input checked="" type="checkbox"/>
7440-50-8	Copper	63	1583710	198.30	0.15510	99.1	200		<input checked="" type="checkbox"/>
7440-66-6	Zinc	66	318514	199.70	0.55100	99.6	200		<input checked="" type="checkbox"/>
7440-38-2	Arsenic	75	400051	280.90	76.500	102	200		<input checked="" type="checkbox"/>
7782-49-2	Selenium	78	52573	208.30	2.2220	103	200		<input checked="" type="checkbox"/>
7439-98-7	Molybdenum	95	1110980	290.90	73.820	109	200		<input type="checkbox"/>
7440-22-4	Silver	107	504654	48.400	0.02404	96.8	50.0		<input checked="" type="checkbox"/>
7440-43-9	Cadmium	111	396924	196.20	0.10928	98.0	200		<input checked="" type="checkbox"/>
7440-31-5	Tin	118	1065060	186.00	0.27240	92.9	200		<input checked="" type="checkbox"/>
7440-36-0	Antimony	121	1277300	201.00	0.09060	100	200		<input checked="" type="checkbox"/>
7440-39-3	Barium	137	587321	208.30	3.0900	103	200		<input checked="" type="checkbox"/>
7440-28-0	Thallium	205	3758720	188.80	0.04024	94.4	200		<input checked="" type="checkbox"/>
7439-92-1	Lead	208	5056980	188.50	0.01079	94.2	200		<input checked="" type="checkbox"/>
7440-61-1	Uranium	238	5828310	196.50	1.6438	97.4	200		<input checked="" type="checkbox"/>
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

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	8.23	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\
 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 :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\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 :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\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 :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\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 :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\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 :Max. Number of Failures Allowed
 0 :ISTD Failures 0 :Max. Number of ISTD Failures Allowed