

LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS

ADMINISTRATIVE RECORD

Volume 5 of 16

2011

Bate Stamp Numbers

00102506 – 00103379

Prepared for

**Department of the Army
Longhorn Army Ammunition Plant**

1976 – 2011

***LONGHORN ARMY AMMUNITION PLANT
KARNACK, TEXAS
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX***

VOLUME 5 of 16

2011

- A. Title: Report (continued) – Final Feasibility Study LHAAP-47, Plant 3 Area,
Group 4, Longhorn Army Ammunition Plant, Karnack, Texas
Author(s): Shaw Environmental, Inc., Houston, Texas
Recipient: All Stakeholders
Date: July 27, 2011
Bate Stamp: 00102506 - 00103379



156 Starlite Drive, Marietta, OH 45750 • TEL 740-373-4071 • FAX 740-373-4835 • <http://www.kemron.com>

Laboratory Report Number: L08030315

Please find enclosed the analytical results for the samples you submitted to KEMRON Environmental Services.

Review and compilation of your report was completed by KEMRON's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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This report was reviewed on March 25, 2008.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

STEPHANIE MOSSBURG - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the NELAP standards and other applicable contract terms and conditions. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of KEMRON Environmental Services.

This report was certified on March 25, 2008.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Vice President

FL DOH NELAP ID: E8755

This report contains a total of 79 pages.

Protecting Our Environmental Future



KEMRON REPORT L08030315
PREPARED FOR Shaw E I, Inc.
WORK ID: LONGHORN AAP KARNACK TX

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1.0 Introduction

KEMRON ENVIRONMENTAL SERVICES
REPORT NARRATIVE

KEMRON Login No.: L08030315

CHAIN OF CUSTODY: The chain of custody number was 10249.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 1 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and KEMRON Environmental Services, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 20-MAR-08
<i>Stephanie Mousburg</i>

Laboratory Data Package Cover Page

00102510

This data Package consists of:

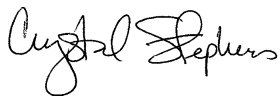
This signature page, the laboratory review checklists, and the following reportable data:

- ✓R1 Field chain-of-custody documentation;
- ✓R2 sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs)
- ✓R4 Surrogate recovery data including:
 - a) Calculated recovery (%R) for each analyte, and
 - b) The laboratory's surrogate QC limits.
- ✓R5 Test reports/summary forms for blank samples;
- ✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amount,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %R and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ✓R10 Other problems or anomalies.
- ✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

CRYSTAL M. STEPHENS



Chemist I

March 24, 2008

Name (Printed)

Signature

Official Title (printed)

DATE

KEMRON Environmental Services
Laboratory Review Checklist

Laboratory Name: KEMRON
Laboratory Log Number: L08030315
Project Name: 798-LONGHORN
Method: 8260B
Prep Batch Number(s): 266112, 266199
Reviewer Name: CRYSTAL M. STEPHENS
LRC Date: March 24, 2008

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?	✓				
Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?	✓				
Were ion abundance data within the method-required QC limits?	✓				
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?		✓			1
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00102512

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

00102513

EXCEPTIONS REPORT

ER# - Description

#1: 1,4-Dichlorobenzene-d4 and chlorobenzene-d5 were below the lower control limits in the analysis of sample 01.

1,4-Dichlorobenzene-d4, chlorobenzene-d5, and fluorobenzene were below the lower control limits in the analysis of sample 02.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L08030315

00102517

03/25/08 08:10

Submitted By

KEMRON Environmental Services

156 Starlite Drive

Marietta, OH 45750

(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Larry Duty

Project Number: 2773.025
Project: Longhorn AAP
Site: QUARTERLY EFFLUENT SAMPLES

P.O. Number: 322255 0P

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW33-031408	L08030315-01	8260B	1	15-MAR-08
47WW34-031408	L08030315-02	8260B	25	15-MAR-08
17WW17-031408	L08030315-03	8260B	1	15-MAR-08
TRIP BLANK	L08030315-04	8260B	1	15-MAR-08

Report Number: L08030315

Report Date : March 25, 2008

00102518

Sample Number: L08030315-01
 Client ID: 47WW33-031408
 Matrix: Water
 Workgroup Number: WG266112
 Collect Date: 03/14/2008 09:50
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS/ASP
 Dilution: 1
 Units: ug/L

Instrument: HPMS6
 Prep Date: 03/21/2008 18:50
 Cal Date: 03/17/2008 16:10
 Run Date: 03/21/2008 18:50
 File ID: 6M73640

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	1.27	J	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125

1 of 8



Report Number: **L08030315**Report Date : **March 25, 2008**

00102519

Sample Number: **L08030315-01**
 Client ID: **47WW33-031408**
 Matrix: **Water**
 Workgroup Number: **WG266112**
 Collect Date: **03/14/2008 09:50**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **CMS/ASP**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **03/21/2008 18:50**
 Cal Date: **03/17/2008 16:10**
 Run Date: **03/21/2008 18:50**
 File ID: **6M73640**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	1.44		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	98.2	86	118		
1,2-Dichloroethane-d4	98.7	80	120		
Toluene-d8	102	88	110		
4-Bromofluorobenzene	96.8	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Report Number: L08030315

Report Date : March 25, 2008

00102520

Sample Number: L08030315-02
 Client ID: 47WW34-031408
 Matrix: Water
 Workgroup Number: WG266112
 Collect Date: 03/14/2008 12:00
 Sample Tag: DL01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS/ASP
 Dilution: 25
 Units: ug/L

Instrument: HPMS6
 Prep Date: 03/21/2008 19:22
 Cal Date: 03/17/2008 16:10
 Run Date: 03/21/2008 19:22
 File ID: 6M73641

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	250	62.5
Benzene	71-43-2		U	25.0	3.13
Bromobenzene	108-86-1		U	25.0	3.13
Bromochloromethane	74-97-5		U	25.0	5.00
Bromodichloromethane	75-27-4		U	25.0	6.25
Bromoform	75-25-2		U	25.0	12.5
Bromomethane	74-83-9		U	25.0	12.5
2-Butanone	78-93-3		U	250	62.5
n-Butylbenzene	104-51-8		U	25.0	6.25
sec-Butylbenzene	135-98-8		U	25.0	6.25
tert-Butylbenzene	98-06-6		U	25.0	6.25
Carbon disulfide	75-15-0		U	25.0	12.5
Carbon tetrachloride	56-23-5		U	25.0	6.25
Chlorobenzene	108-90-7		U	25.0	3.13
Chlorodibromomethane	124-48-1		U	25.0	6.25
Chloroethane	75-00-3		U	25.0	12.5
2-Chloroethyl vinyl ether	110-75-8		U	250	50.0
Chloroform	67-66-3		U	25.0	3.13
Chloromethane	74-87-3		U	25.0	6.25
2-Chlorotoluene	95-49-8		U	25.0	3.13
4-Chlorotoluene	106-43-4		U	25.0	6.25
1,2-Dibromo-3-chloropropane	96-12-8		U	125	25.0
1,2-Dibromoethane	106-93-4		U	25.0	6.25
Dibromomethane	74-95-3		U	25.0	6.25
1,2-Dichlorobenzene	95-50-1		U	25.0	3.13
1,3-Dichlorobenzene	541-73-1		U	25.0	6.25
1,4-Dichlorobenzene	106-46-7		U	25.0	3.13
Dichlorodifluoromethane	75-71-8		U	25.0	6.25
1,1-Dichloroethane	75-34-3		U	25.0	3.13
1,2-Dichloroethane	107-06-2		U	25.0	6.25
1,1-Dichloroethene	75-35-4		U	25.0	12.5
cis-1,2-Dichloroethene	156-59-2	183		25.0	6.25
trans-1,2-Dichloroethene	156-60-5		U	25.0	6.25
1,2-Dichloropropane	78-87-5		U	25.0	5.00
1,3-Dichloropropane	142-28-9		U	25.0	5.00
2,2-Dichloropropane	594-20-7		U	25.0	6.25
cis-1,3-Dichloropropene	10061-01-5		U	25.0	6.25
trans-1,3-Dichloropropene	10061-02-6		U	25.0	12.5
1,1-Dichloropropene	563-58-6		U	25.0	6.25
Ethylbenzene	100-41-4		U	25.0	6.25
2-Hexanone	591-78-6		U	250	62.5
Hexachlorobutadiene	87-68-3		U	25.0	6.25
Isopropylbenzene	98-82-8		U	25.0	6.25
p-Isopropyltoluene	99-87-6		U	25.0	6.25
4-Methyl-2-pentanone	108-10-1		U	250	62.5
Methylene chloride	75-09-2		U	125	6.25
Naphthalene	91-20-3		U	25.0	5.00
n-Propylbenzene	103-65-1		U	25.0	3.13

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Report Number: **L08030315**Report Date : **March 25, 2008**

00102521

Sample Number: **L08030315-02**
 Client ID: **47WW34-031408**
 Matrix: **Water**
 Workgroup Number: **WG266112**
 Collect Date: **03/14/2008 12:00**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **CMS/ASP**
 Dilution: **25**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **03/21/2008 19:22**
 Cal Date: **03/17/2008 16:10**
 Run Date: **03/21/2008 19:22**
 File ID: **6M73641**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Styrene	100-42-5		U	25.0	3.13
1,1,1,2-Tetrachloroethane	630-20-6		U	25.0	6.25
1,1,2,2-Tetrachloroethane	79-34-5		U	25.0	3.13
Tetrachloroethene	127-18-4		U	25.0	6.25
Toluene	108-88-3		U	25.0	6.25
1,2,3-Trichlorobenzene	87-61-6		U	25.0	3.13
1,2,4-Trichlorobenzene	120-82-1		U	25.0	5.00
1,1,1-Trichloroethane	71-55-6		U	25.0	6.25
1,1,2-Trichloroethane	79-00-5		U	25.0	6.25
Trichloroethene	79-01-6	2150		25.0	6.25
Trichlorofluoromethane	75-69-4		U	25.0	6.25
1,2,3-Trichloropropane	96-18-4		U	25.0	12.5
1,2,4-Trimethylbenzene	95-63-6		U	25.0	6.25
1,3,5-Trimethylbenzene	108-67-8		U	25.0	6.25
Vinyl acetate	108-05-4		U	250	62.5
Vinyl chloride	75-01-4	11.1	J	25.0	6.25
o-Xylene	95-47-6		U	25.0	6.25
m-,p-Xylene	136777-61-2		U	25.0	12.5
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	98.9	86	118		
1,2-Dichloroethane-d4	98.4	80	120		
Toluene-d8	103	88	110		
4-Bromofluorobenzene	95.7	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Report Number: L08030315

Report Date : March 25, 2008

00102522

Sample Number: L08030315-03
 Client ID: 17WW17-031408
 Matrix: Water
 Workgroup Number: WG266199
 Collect Date: 03/14/2008 15:10
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS
 Dilution: 1
 Units: ug/L

Instrument: HPMS6
 Prep Date: 03/22/2008 17:05
 Cal Date: 03/17/2008 16:10
 Run Date: 03/22/2008 17:05
 File ID: 6M73668

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0	2.52		1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3	4.96		1.00	0.125
1,2-Dichloroethane	107-06-2	2.52		1.00	0.250
1,1-Dichloroethene	75-35-4	5.87		1.00	0.500
cis-1,2-Dichloroethene	156-59-2	26.4		1.00	0.250
trans-1,2-Dichloroethene	156-60-5	0.698	J	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4	0.409	J	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2	30.2		5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1	0.383	J	1.00	0.125

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Report Number: **L08030315**Report Date : **March 25, 2008**

00102523

Sample Number: **L08030315-03**
 Client ID: **17WW17-031408**
 Matrix: **Water**
 Workgroup Number: **WG266199**
 Collect Date: **03/14/2008 15:10**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **CMS**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **03/22/2008 17:05**
 Cal Date: **03/17/2008 16:10**
 Run Date: **03/22/2008 17:05**
 File ID: **6M73668**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.489	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6	2.95		1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	112		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6	3.61		1.00	0.250
1,3,5-Trimethylbenzene	108-67-8	1.05		1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6	1.19		1.00	0.250
m-,p-Xylene	136777-61-2	2.00		1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	99.6	86	118		
1,2-Dichloroethane-d4	102	80	120		
Toluene-d8	95.0	88	110		
4-Bromofluorobenzene	91.3	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Report Number: L08030315

Report Date : March 25, 2008

00102524

Sample Number: L08030315-04
 Client ID: TRIP BLANK
 Matrix: Water
 Workgroup Number: WG266112
 Collect Date: 03/14/2008 00:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: CMS/ASP
 Dilution: 1
 Units: ug/L

Instrument: HPMS6
 Prep Date: 03/21/2008 14:33
 Cal Date: 03/17/2008 16:10
 Run Date: 03/21/2008 14:33
 File ID: 6M73632

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	8.84	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125

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Report Number: **L08030315**Report Date : **March 25, 2008**

00102525

Sample Number: **L08030315-04**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG266112**
 Collect Date: **03/14/2008 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **CMS/ASP**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **03/21/2008 14:33**
 Cal Date: **03/17/2008 16:10**
 Run Date: **03/21/2008 14:33**
 File ID: **6M73632**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.125
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	96.2	86	118		
1,2-Dichloroethane-d4	97.0	80	120		
Toluene-d8	97.5	88	110		
4-Bromofluorobenzene	96.3	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100

RF = Calculated Response Factor **1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

$$Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Vs = Purge volume of sample (mL)	10
Vn = Nominal purge volume of sample (mL) (10.0 mL)	10
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

$$Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Ws = Weight of sample purged (g)	5
Wn = Nominal purge weight (g) (5.0 g)	5
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	254.4856

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

$$y = 86550/593147 = 0.1459$$

Step 3: Solve for x

$$x = (y - b)/m = [(0.1459 - (-0.00642))/0.213] = 0.7152$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.7152) = 17.88$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.213
Intercept from curve, b:	-0.00642
Area of analyte, Ax:	86550
Area of Internal Standard, Ais:	593147
Concentration of IS, Cis	25.00
Response Ratio:	0.145917
Amount Ratio:	0.715195
Concentration:	17.87988
Units of Internal Standard:	ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{b^2 - 4a(c - y)}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	-0.00629
Value of B from plot:	0.511
Value of C from plot:	-0.0276
Area of unknown from quantitation report:	293821
Area of IS from quantitation report:	784848
Response ratio, y:	0.374367
C - y:	-0.40197
Root 1 - Computed amount ratio, X1:	80.44567
Root 2 - Computed amount ratio, X2:	0.794396 use this solution
Concentration of IS, Cis:	25.00
Concentration of analyte, Cx:	19.86 ug/L

Instrument Run Log

Instrument: HPMS6 Dataset: 031708
 Analyst1: CMS Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 10
 Method: 624 SOP: MSV10 Rev: 9
 Method: 5030B SOP: PAT01 Rev: 10
 Maintenance Log ID: 23349

Internal Standard: STD24971 Surrogate Standard: STD25166
 CCV: STD25172 LCS: STD25182 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG265645

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M73512	SYSTEM BLANK	NA	1	1		03/17/08 08:09
2	6M73513	SYSTEM BLANK	NA	1	1		03/17/08 08:40
3	6M73514	WG265645-01 BFB 50ng STD 8260	NA	1	1	STD25005	03/17/08 09:12
4	6M73515	WG265645-02 0.30ug/L STD 8260	NA	1	1	STD25172	03/17/08 09:45
5	6M73516	WG265645-03 0.40ug/L STD 8260	NA	1	1	STD25172	03/17/08 10:17
6	6M73517	WG265645-04 1ug/L STD 8260	NA	1	1	STD25172	03/17/08 10:49
7	6M73518	WG265645-05 2ug/L STD 8260	NA	1	1	STD25172	03/17/08 11:21
8	6M73519	WG265645-06 5ug/L STD 8260	NA	1	1	STD25172	03/17/08 11:52
9	6M73520	WG265645-07 20ug/L STD 8260	NA	1	1	STD25172	03/17/08 12:24
10	6M73521	WG265645-08 50ug/L STD 8260	NA	1	1	STD25172	03/17/08 12:57
11	6M73522	WG265645-09 100ug/L STD 8260	NA	1	1	STD25172	03/17/08 13:29
12	6M73523	WG265645-10 200ug/L STD 8260	NA	1	1	STD25172	03/17/08 14:01
13	6M73524	WG265645-11 300ug/L STD 8260	NA	1	1	STD25172	03/17/08 14:33
14	6M73525	SYSTEM BLANK	NA	1	1		03/17/08 15:05
15	6M73526	SYSTEM BLANK	NA	1	1		03/17/08 15:37
16	6M73527	WG265645-06 5ug/L STD 8260	NA	1	1	STD25172	03/17/08 16:10
17	6M73528	WG265645-12 20ug/L ALT SRC STD 8260	NA	1	1	STD25182	03/17/08 16:49
18	6M73529	SYSTEM BLANK	NA	1	1		03/17/08 17:21
19	6M73530	SYSTEM BLANK	NA	1	1		03/17/08 17:52

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8	X			
File ID: 6M73519				
DNR				

Approved: March 20, 2008

Page: 1

Ken C. [Signature]



Instrument Run Log

Instrument: HPMS6 Dataset: 032108
 Analyst1: CMS Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 10
 Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 23385

Internal Standard: STD24971 Surrogate Standard: STD25166
 CCV: STD25172 LCS: STD25182 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG266112

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M73620	SYSTEM BLANK	NA	1	1		03/21/08 08:44
2	6M73621	WG266110-01 BFB 50ng STD 8260	NA	1	1	STD25005	03/21/08 09:17
3	6M73622	WG266110-02 50ug/L STD 8260	NA	1	1	STD25172	03/21/08 09:43
4	6M73624	WG266112-01 VBLK0321 BLANK 8260	NA	1	1		03/21/08 10:17
5	6M73625	WG266112-01 VBLK0321 BLANK 8260	NA	1	1		03/21/08 10:49
6	6M73626	WG266112-02 20ug/L LCS STD 8260	NA	1	1	STD25182	03/21/08 11:21
7	6M73627	WG266112-03 20ug/L LCSDUP STD 8260	NA	1	1	STD25182	03/21/08 11:53
8	6M73628	L08030381-03 A 250X 826-SPE	=5	1	250		03/21/08 12:25
9	6M73629	L08030268-01 K 10X 826-TC	NA	17	10		03/21/08 12:58
10	6M73630	L08030268-02 M 10X 826-TC	NA	17	10		03/21/08 13:29
11	6M73631	L08030345-03 A 826-LOW	<2	1	1		03/21/08 14:01
12	6M73632	L08030315-04 A 826-LOW	<2	1	1		03/21/08 14:33
13	6M73633	L08030313-01 A 826-SPE	<2	1	1		03/21/08 15:05
14	6M73634	L08030307-01 A 826-SPE1	<2	1	1		03/21/08 15:37
15	6M73635	L08030307-02 A 826-SPE1	<2	1	1		03/21/08 16:09
16	6M73636	L08030317-01 A 10X 826-TC	NA	17	10		03/21/08 16:40
17	6M73637	L08030306-01 A 826-SPE	<2	1	1		03/21/08 17:13
18	6M73638	L08030306-03 A 826-SPE	=7	1	1		03/21/08 17:45
19	6M73639	L08030306-05 A 826-SPE	<2	1	1		03/21/08 18:17
20	6M73640	L08030315-01 A 826-LOW	<2	1	1		03/21/08 18:50
21	6M73641	L08030315-02 A 25X 826-LOW	<2	1	25		03/21/08 19:22
22	6M73642	L08030315-03 A 10X 826-LOW	<2	1	10		03/21/08 19:54
23	6M73643	L08030345-01 A 826-LOW	<2	1	1		03/21/08 20:27
24	6M73644	L08030345-02 A 826-LOW	<2	1	1		03/21/08 20:59
25	6M73645	SYSTEM BLANK	NA	1	1		03/21/08 21:31
26	6M73646	L08030331-01 100X SCREEN	NA	7	1		03/21/08 22:03
27	6M73647	L08030331-03 100X SCREEN	NA	7	1		03/21/08 22:35
28	6M73648	L08030331-04 100X SCREEN	NA	1	1		03/21/08 23:07
29	6M73649	L08030331-05 100X SCREEN	NA	1	1		03/21/08 23:40
30	6M73650	L08030331-02 100X SCREEN	NA	1	1		03/22/08 00:12
31	6M73651	L08030313-02 100X SCREEN	NA	1	1		03/22/08 00:45
32	6M73652	SYSTEM BLANK	NA	1	1		03/22/08 01:17
33	6M73653	SYSTEM BLANK	NA	1	1		03/22/08 01:49

Approved: March 24, 2008

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Shanna Ryle

Instrument Run Log

Instrument: HPMS6 Dataset: 032108
 Analyst1: CMS Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 10
 Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 23385

Internal Standard: STD24971 Surrogate Standard: STD25166
 CCV: STD25172 LCS: STD25182 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG266112

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4	X		Carry-over contamination	
File ID: 6M73624				
DNR				
22	X	1	Analyzed too dilute	
File ID: 6M73642				
DNR				
24	X		Internal standard failure	
File ID: 6M73644				
DNR				

Approved: March 24, 2008

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Shauna Ryck



Instrument Run Log

Instrument: HPMS6 Dataset: 032208
 Analyst1: CMS Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 10
 Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 23387

Internal Standard: STD24971 Surrogate Standard: STD25166
 CCV: STD25172 LCS: STD25182 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG266199

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M73655	SYSTEM BLANK	NA	1	1		03/22/08 10:26
2	6M73656	WG266197-01 BFB 50ng STD 8260	NA	1	1	STD25005	03/22/08 10:57
3	6M73657	WG266197-01 BFB 50ng STD 8260	NA	1	1	STD25005	03/22/08 11:16
4	6M73658	WG266197-02 50ug/L STD 8260	NA	1	1	STD25172	03/22/08 11:38
5	6M73659	WG266197-02 50ug/L STD 8260	NA	1	1	STD25172	03/22/08 12:15
6	6M73660	WG266199-01 VBLK0322 BLANK 8260	NA	1	1		03/22/08 12:48
7	6M73661	WG266199-01 VBLK0322 BLANK 8260	NA	1	1		03/22/08 13:20
8	6M73662	WG266199-02 20ug/L LCS STD 8260	NA	1	1	STD25182	03/22/08 13:52
9	6M73663	WG266199-03 20ug/L LCSDUP STD 8260	NA	1	1	STD25182	03/22/08 14:24
10	6M73664	L08030409-01 A 25X 826-SPE	<2	1	25		03/22/08 14:56
11	6M73665	L08030338-01 A 826-SPE	<2	1	1		03/22/08 15:29
12	6M73666	L08030338-02 A 826-SPE	<2	1	1		03/22/08 16:01
13	6M73667	L08030288-03 A 826-SPE	<2	1	1		03/22/08 16:33
14	6M73668	L08030315-03 B 826-SPE	<2	1	1		03/22/08 17:05
15	6M73669	L08030288-01 A 826-SPE	<2	1	1		03/22/08 17:37
16	6M73670	L08030288-02 A 826-SPE	<2	1	1		03/22/08 18:10
17	6M73671	L08030330-01 A 826-SPE	=5	1	1		03/22/08 18:42
18	6M73672	L08030330-02 A 826-SPE	=7	1	1		03/22/08 19:14
19	6M73673	L08030330-03 A 826-SPE	=7	1	1		03/22/08 19:46
20	6M73674	L08030330-04 A 826-SPE	<2	1	1		03/22/08 20:18
21	6M73675	L08030330-05 A 826-SPE	=7	1	1		03/22/08 20:51
22	6M73676	L08030330-06 A 826-SPE	=7	1	1		03/22/08 21:23
23	6M73677	L08030330-07 A 826-SPE	<2	1	1		03/22/08 21:55
24	6M73678	L08030330-08 A 826-SPE	<2	1	1		03/22/08 22:28
25	6M73679	L08030330-09 A 826-SPE	=7	1	1		03/22/08 23:00
26	6M73680	SYSTEM BLANK	NA	1	1		03/22/08 23:32

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
File ID: 6M73656				
Tune failed/DNR				
4	X		Check Standard Failure	

Approved: March 24, 2008

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Shanna Ryle

Instrument Run Log

Instrument: HPMS6 Dataset: 032208
 Analyst1: CMS Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 10
 Method: 5030B SOP: PAT01 Rev: 10

Maintenance Log ID: 23387

Internal Standard: STD24971 Surrogate Standard: STD25166
 CCV: STD25172 LCS: STD25182 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG266199

Comments: Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 6M73658				
DNR				
6	X		Carry-over contamination	
File ID: 6M73660				
DNR				
17	X	100	Over Calibration Range	BTEX, n-propylben., 135-TMB, 124-TMB, Naph., SS conf
File ID: 6M73671				
18	X	50	Over Calibration Range	EB, m+p-Xyl., o-Xyl., n-propylben., 135-TMB, 124-TMB, Naph
File ID: 6M73672				
19	X	100	Over Calibration Range	Ben., EB, m+p-Xyl., o-Xyl., n-propylben., 135-TMB, 124-TMB, Naph
File ID: 6M73673				
20	X		Carry-over contamination	
File ID: 6M73674				
DNR				
21	X		Carry-over contamination	
File ID: 6M73675				
DNR				
22	X		Carry-over contamination	
File ID: 6M73676				
DNR				
23	X		Carry-over contamination	
File ID: 6M73677				
DNR				
24	X		Carry-over contamination	
File ID: 6M73678				
DNR				
25	X		Carry-over contamination	
File ID: 6M73679				
DNR				

Approved: March 24, 2008

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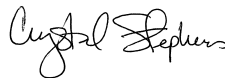

00102534

Data Checklist

Date: 17 - MAR - 2008
 Analyst: CMS
 Analyst: NA
 Method: 8260B/624
 Instrument: HPMS6
 Curve Workgroup: NA
 Runlog ID: 21215
 Analytical Workgroups: WG265645

System Performance Check	X
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	NA
Project/Client Specific Requirements	NA
Special Standards	NA
Blanks	NA
TCL's	NA
Surrogates	NA
LCS (Laboratory Control Sample)	NA
Recoveries	NA
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	NA
TCL Hits	NA
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Library Searches	NA
Calculations & Correct Factors	NA
Dilutions Run	NA
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
20 - MAR - 2008



Secondary Reviewer:
20 - MAR - 2008



CHECKLIST1 - Modified 03/05/2008

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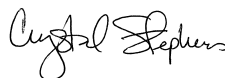
00102535

Data Checklist

Date: 21-MAR-2008
 Analyst: CMS
 Analyst: NA
 Method: 8260B
 Instrument: HPMS6
 Curve Workgroup: NA
 Runlog ID: 21253
 Analytical Workgroups: WG266112

System Performance Check	X
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	SMH
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
24-MAR-2008



Secondary Reviewer:
24-MAR-2008



CHECKLIST1 - Modified 03/05/2008

Generated: MAR-24-2008 14:14:40

KEMRON
ENVIRONMENTAL SERVICES

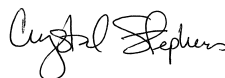
00102536

Data Checklist

Date: 22-MAR-2008
 Analyst: CMS
 Analyst: NA
 Method: 8260B
 Instrument: HPMS6
 Curve Workgroup: NA
 Runlog ID: 21256
 Analytical Workgroups: WG266199

System Performance Check	X
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	CMS
Secondary Reviewer	SMH
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
24-MAR-2008



Secondary Reviewer:
24-MAR-2008



CHECKLIST1 - Modified 03/05/2008

Generated: MAR-24-2008 15:47:36

KEMRON
ENVIRONMENTAL SERVICES

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

00102537

Analytical Method: 8260BAAB#: WG266112Login Number: L08030315

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW34-031408	03/14/08	03/15/08	03/21/08	14	7.31	03/21/08	14	7.31	
TRIP BLANK	03/14/08	03/15/08	03/21/08	14	7.61	03/21/08	14	7.61	
47WW33-031408	03/14/08	03/15/08	03/21/08	14	7.38	03/21/08	14	7.38	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

Analytical Method: 8260B
Login Number: L08030315

AAB#: WG266199

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
17WW17-031408	03/14/08	03/15/08	03/22/08	14	8.08	03/22/08	14	8.08	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

Login Number: L08030315
Instrument Id: HPMS6
Workgroup (AAB#): WG266199

Method: 8260
CAL ID: HPMS6 - 17-MAR-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08030315-03	1.00	01	102	99.6	91.3	95.0
WG266199-01	1.00	01	94.6	95.1	91.7	95.2
WG266199-02	1.00	01	96.2	97.5	89.0	94.7
WG266199-03	1.00	01	95.6	100	93.9	98.1

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Login Number: L08030315
Instrument Id: HPMS6
Workgroup (AAB#): WG266112

Method: 8260
CAL ID: HPMS6 - 17-MAR-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08030315-01	1.00	01	98.7	98.2	96.8	102
L08030315-02	25.0	DL01	98.4	98.9	95.7	103
L08030315-04	1.00	01	97.0	96.2	96.3	97.5
WG266112-01	1.00	01	97.2	99.9	99.2	103
WG266112-02	1.00	01	95.8	97.4	89.6	95.6
WG266112-03	1.00	01	96.0	98.9	94.2	97.1

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

Login Number: L08030315
Blank File ID: 6M73625
Prep Date: 03/21/08 10:49
Analyzed Date: 03/21/08 10:49
Analyst: CMS/ASP

Work Group: WG266112
Blank Sample ID: WG266112-01
Instrument ID: HPMS6
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG266112-02	6M73626	03/21/08 11:21	01
LCS2	WG266112-03	6M73627	03/21/08 11:53	01
TRIP BLANK	L08030315-04	6M73632	03/21/08 14:33	01
47WW33-031408	L08030315-01	6M73640	03/21/08 18:50	01
47WW34-031408	L08030315-02	6M73641	03/21/08 19:22	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1046994
Report generated 03/24/2008 16:32



METHOD BLANK SUMMARY

Login Number: L08030315 _____ Work Group: WG266199 _____
Blank File ID: 6M73661 _____ Blank Sample ID: WG266199-01 _____
Prep Date: 03/22/08 13:20 _____ Instrument ID: HPMS6 _____
Analyzed Date: 03/22/08 13:20 _____ Method: 8260B _____
Analyst: CMS _____

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG266199-02	6M73662	03/22/08 13:52	01
LCS2	WG266199-03	6M73663	03/22/08 14:24	01
17WW17-031408	L08030315-03	6M73668	03/22/08 17:05	01

Report Name: BLANK_SUMMARY
PDF File ID: 1046994
Report generated 03/24/2008 16:32



METHOD BLANK REPORT

00102543

Login Number: L08030315 Prep Date: 03/21/08 10:49 Sample ID: WG266112-01
 Instrument ID: HPMS6 Run Date: 03/21/08 10:49 Prep Method: 5030B
 File ID: 6M73625 Analyst: CMS/ASP Method: 8260B
 Workgroup (AAB#): WG266112 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 17-MAR-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1046995

24-MAR-2008 16:32



METHOD BLANK REPORT

00102544

Login Number: L08030315 Prep Date: 03/21/08 10:49 Sample ID: WG266112-01
 Instrument ID: HPMS6 Run Date: 03/21/08 10:49 Prep Method: 5030B
 File ID: 6M73625 Analyst: CMS/ASP Method: 8260B
 Workgroup (AAB#): WG266112 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 17-MAR-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.125	1.00	0.217	1	J
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	99.9	86 - 118	PASS
1,2-Dichloroethane-d4	97.2	80 - 120	PASS
Toluene-d8	103	88 - 110	PASS
4-Bromofluorobenzene	99.2	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* Analyte concentration > RL

Report Name: BLANK

PDF ID: 1046995

24-MAR-2008 16:32



METHOD BLANK REPORT

00102545

Login Number: L08030315 Prep Date: 03/22/08 13:20 Sample ID: WG266199-01
 Instrument ID: HPMS6 Run Date: 03/22/08 13:20 Prep Method: 5030B
 File ID: 6M73661 Analyst: CMS Method: 8260B
 Workgroup (AAB#): WG266199 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 17-MAR-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1046995

24-MAR-2008 16:32



METHOD BLANK REPORT

00102546

Login Number: L08030315 Prep Date: 03/22/08 13:20 Sample ID: WG266199-01
 Instrument ID: HPMS6 Run Date: 03/22/08 13:20 Prep Method: 5030B
 File ID: 6M73661 Analyst: CMS Method: 8260B
 Workgroup (AAB#): WG266199 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 17-MAR-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.125	1.00	0.248	1	J
1,2,4-Trichlorobenzene	0.200	1.00	0.204	1	J
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	95.1	86 - 118	PASS
1,2-Dichloroethane-d4	94.6	80 - 120	PASS
Toluene-d8	95.2	88 - 110	PASS
4-Bromofluorobenzene	91.7	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* Analyte concentration > RL

Report Name: BLANK

PDF ID: 1046995

24-MAR-2008 16:32



Login Number: L08030315 Analyst: CMS Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG266199 Units: ug/L
QC Key: STD Lot #: STD25182
Sample ID: WG266199-02 LCS File ID: 6M73662 Run Date: 03/22/2008 13:52
Sample ID: WG266199-03 LCS2 File ID: 6M73663 Run Date: 03/22/2008 14:24

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	19.8	98.8	20.0	17.5	87.3	12.4	40 - 142	20	
Benzene	20.0	17.9	89.3	20.0	19.1	95.3	6.54	80 - 121	20	
Bromobenzene	20.0	18.1	90.5	20.0	19.4	97.1	7.11	80 - 120	20	
Bromochloromethane	20.0	19.6	98.1	20.0	19.7	98.3	0.137	65 - 130	20	
Bromodichloromethane	20.0	20.3	101	20.0	21.2	106	4.55	80 - 131	20	
Bromoform	20.0	19.1	95.5	20.0	18.1	90.5	5.45	70 - 130	20	
Bromomethane	20.0	21.3	107	20.0	23.5	118	9.85	30 - 145	20	
2-Butanone	20.0	15.9	79.3	20.0	14.3	71.5	10.3	30 - 150	20	
n-Butylbenzene	20.0	19.4	97.2	20.0	21.1	105	8.10	80 - 131	20	
sec-Butylbenzene	20.0	19.2	96.2	20.0	21.1	106	9.49	80 - 127	20	
tert-Butylbenzene	20.0	19.2	95.8	20.0	20.9	104	8.54	80 - 126	20	
Carbon disulfide	20.0	16.7	83.4	20.0	18.2	91.2	8.88	58 - 138	20	
Carbon tetrachloride	20.0	20.9	105	20.0	22.9	114	8.83	65 - 140	20	
Chlorobenzene	20.0	17.6	87.8	20.0	18.6	92.8	5.57	80 - 120	20	
Chlorodibromomethane	20.0	19.6	98.2	20.0	19.8	99.1	0.947	60 - 135	20	
Chloroethane	20.0	16.7	83.5	20.0	17.8	88.9	6.30	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.2	96.1	20.0	17.9	89.5	7.05	58 - 151	20	
Chloroform	20.0	19.6	97.8	20.0	20.5	103	4.81	80 - 125	20	
Chloromethane	20.0	15.4	77.2	20.0	16.4	81.9	5.91	40 - 125	20	
2-Chlorotoluene	20.0	17.0	85.2	20.0	19.8	99.0	15.0	80 - 127	20	
4-Chlorotoluene	20.0	18.5	92.3	20.0	19.0	94.9	2.80	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	19.7	98.3	20.0	19.1	95.5	2.89	50 - 130	20	
1,2-Dibromoethane	20.0	18.9	94.5	20.0	18.7	93.7	0.782	80 - 125	20	
Dibromomethane	20.0	20.6	103	20.0	20.3	101	1.55	75 - 125	20	
1,2-Dichlorobenzene	20.0	18.5	92.4	20.0	19.4	97.2	5.07	80 - 125	20	
1,3-Dichlorobenzene	20.0	17.6	88.1	20.0	18.9	94.3	6.75	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.2	96.1	20.0	20.1	101	4.69	80 - 120	20	
Dichlorodifluoromethane	20.0	14.9	74.3	20.0	15.9	79.7	7.07	50 - 133	20	
1,1-Dichloroethane	20.0	18.5	92.5	20.0	19.6	98.0	5.78	80 - 125	20	
1,2-Dichloroethane	20.0	19.1	95.3	20.0	19.5	97.4	2.22	80 - 129	20	
1,1-Dichloroethene	20.0	18.9	94.7	20.0	20.3	101	6.79	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.3	96.4	20.0	20.8	104	7.41	70 - 125	20	
trans-1,2-Dichloroethene	20.0	17.8	88.9	20.0	19.8	99.0	10.8	80 - 127	20	
1,2-Dichloropropane	20.0	17.6	88.1	20.0	19.0	94.8	7.35	80 - 120	20	
1,3-Dichloropropane	20.0	18.5	92.4	20.0	18.0	90.1	2.53	80 - 120	20	
2,2-Dichloropropane	20.0	19.5	97.6	20.0	21.3	107	8.82	80 - 133	20	
cis-1,3-Dichloropropene	20.0	19.1	95.7	20.0	19.3	96.7	1.06	70 - 130	20	
trans-1,3-Dichloropropene	20.0	17.9	89.4	20.0	17.6	88.0	1.51	80 - 130	20	
1,1-Dichloropropene	20.0	19.0	94.9	20.0	20.8	104	9.04	75 - 130	20	
Ethylbenzene	20.0	18.5	92.7	20.0	20.0	99.8	7.34	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1046511
Report generated: 03/24/2008 16:32



Login Number: L08030315 Analyst: CMS Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG266199 Units: ug/L
QC Key: STD Lot #: STD25182
Sample ID: WG266199-02 LCS File ID: 6M73662 Run Date: 03/22/2008 13:52
Sample ID: WG266199-03 LCS2 File ID: 6M73663 Run Date: 03/22/2008 14:24

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	17.1	85.7	20.0	15.3	76.3	11.6	55 - 130	20	
Hexachlorobutadiene	20.0	19.6	97.9	20.0	21.1	105	7.47	72 - 132	20	
Isopropylbenzene	20.0	18.0	90.1	20.0	19.2	96.2	6.57	80 - 122	20	
p-Isopropyltoluene	20.0	18.9	94.5	20.0	20.4	102	7.65	80 - 122	20	
4-Methyl-2-pentanone	20.0	18.8	94.2	20.0	17.7	88.7	6.05	64 - 140	20	
Methylene chloride	20.0	18.3	91.6	20.0	19.3	96.7	5.35	80 - 123	20	
Naphthalene	20.0	19.2	96.1	20.0	18.4	92.1	4.28	59 - 149	20	
n-Propylbenzene	20.0	18.7	93.5	20.0	20.6	103	9.71	80 - 129	20	
Styrene	20.0	19.4	97.0	20.0	20.3	102	4.65	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	18.6	92.8	20.0	19.6	97.9	5.37	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	17.1	85.4	20.0	17.2	86.0	0.752	79 - 125	20	
Tetrachloroethene	20.0	18.4	91.9	20.0	20.3	101	9.73	80 - 124	20	
Toluene	20.0	18.0	89.9	20.0	19.3	96.4	6.96	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.8	93.9	20.0	18.5	92.7	1.26	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	18.9	94.5	20.0	18.9	94.4	0.144	65 - 135	20	
1,1,1-Trichloroethane	20.0	20.2	101	20.0	21.9	109	7.79	80 - 134	20	
1,1,2-Trichloroethane	20.0	18.2	91.0	20.0	17.7	88.7	2.65	80 - 125	20	
Trichloroethene	20.0	19.0	94.9	20.0	20.9	104	9.52	80 - 122	20	
Trichlorofluoromethane	20.0	16.2	81.0	20.0	17.3	86.5	6.57	62 - 151	20	
1,2,3-Trichloropropane	20.0	19.2	96.0	20.0	19.4	96.8	0.899	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	18.6	92.9	20.0	20.1	100	7.77	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	18.8	94.1	20.0	20.5	103	8.64	80 - 127	20	
Vinyl acetate	20.0	14.9	74.4	20.0	14.5	72.5	2.56	10 - 150	20	
Vinyl chloride	20.0	17.5	87.5	20.0	18.4	92.1	5.04	65 - 140	20	
o-Xylene	20.0	19.0	94.9	20.0	20.0	99.9	5.19	80 - 122	20	
m-, p-Xylene	40.0	36.7	91.7	40.0	38.9	97.2	5.91	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	97.5	100	86 - 118	PASS
1,2-Dichloroethane-d4	96.2	95.6	80 - 120	PASS
Toluene-d8	94.7	98.1	88 - 110	PASS
4-Bromofluorobenzene	89.0	93.9	86 - 115	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1046511
Report generated: 03/24/2008 16:32



Login Number: L08030315 Analyst: CMS/ASP Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG266112 Units: ug/L
QC Key: STD Lot #: STD25182
Sample ID: WG266112-02 LCS File ID: 6M73626 Run Date: 03/21/2008 11:21
Sample ID: WG266112-03 LCS2 File ID: 6M73627 Run Date: 03/21/2008 11:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	20.0	100	20.0	19.1	95.6	4.70	40 - 142	20	
Benzene	20.0	18.1	90.4	20.0	17.8	89.2	1.28	80 - 121	20	
Bromobenzene	20.0	17.8	89.0	20.0	17.6	87.9	1.19	80 - 120	20	
Bromochloromethane	20.0	18.4	92.1	20.0	18.4	92.1	0.0889	65 - 130	20	
Bromodichloromethane	20.0	19.2	96.2	20.0	18.8	93.9	2.38	80 - 131	20	
Bromoform	20.0	18.7	93.3	20.0	17.8	88.9	4.73	70 - 130	20	
Bromomethane	20.0	18.2	91.2	20.0	18.6	92.8	1.81	30 - 145	20	
2-Butanone	20.0	21.3	107	20.0	19.4	97.1	9.46	30 - 150	20	
n-Butylbenzene	20.0	18.9	94.7	20.0	19.2	96.1	1.49	80 - 131	20	
sec-Butylbenzene	20.0	19.0	94.8	20.0	19.2	96.1	1.35	80 - 127	20	
tert-Butylbenzene	20.0	18.4	91.9	20.0	19.2	95.8	4.12	80 - 126	20	
Carbon disulfide	20.0	15.1	75.7	20.0	15.1	75.7	0.0825	58 - 138	20	
Carbon tetrachloride	20.0	20.2	101	20.0	20.2	101	0.0633	65 - 140	20	
Chlorobenzene	20.0	17.3	86.7	20.0	17.2	86.1	0.602	80 - 120	20	
Chlorodibromomethane	20.0	19.4	96.9	20.0	18.7	93.5	3.50	60 - 135	20	
Chloroethane	20.0	17.6	88.2	20.0	17.7	88.6	0.529	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	18.5	92.4	20.0	17.9	89.3	3.36	58 - 151	20	
Chloroform	20.0	18.7	93.7	20.0	18.5	92.6	1.14	80 - 125	20	
Chloromethane	20.0	14.5	72.7	20.0	14.5	72.6	0.220	40 - 125	20	
2-Chlorotoluene	20.0	17.6	88.0	20.0	17.0	84.9	3.59	80 - 127	20	
4-Chlorotoluene	20.0	17.0	84.8	20.0	18.0	90.2	6.19	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.9	94.6	20.0	19.0	94.9	0.347	50 - 130	20	
1,2-Dibromoethane	20.0	18.8	94.1	20.0	18.0	89.9	4.57	80 - 125	20	
Dibromomethane	20.0	19.7	98.7	20.0	19.1	95.4	3.37	75 - 125	20	
1,2-Dichlorobenzene	20.0	18.0	90.1	20.0	18.2	90.9	0.943	80 - 125	20	
1,3-Dichlorobenzene	20.0	17.2	86.0	20.0	17.2	86.2	0.189	80 - 120	20	
1,4-Dichlorobenzene	20.0	18.5	92.6	20.0	18.7	93.5	0.911	80 - 120	20	
Dichlorodifluoromethane	20.0	14.0	70.2	20.0	14.5	72.3	2.94	50 - 133	20	
1,1-Dichloroethane	20.0	17.8	89.0	20.0	18.3	91.5	2.77	80 - 125	20	
1,2-Dichloroethane	20.0	18.8	93.8	20.0	17.9	89.3	4.87	80 - 129	20	
1,1-Dichloroethene	20.0	18.0	90.2	20.0	18.2	91.0	0.970	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.0	94.8	20.0	19.3	96.3	1.54	70 - 125	20	
trans-1,2-Dichloroethene	20.0	17.5	87.4	20.0	17.6	88.0	0.688	80 - 127	20	
1,2-Dichloropropane	20.0	17.6	87.8	20.0	17.7	88.3	0.594	80 - 120	20	
1,3-Dichloropropane	20.0	17.9	89.7	20.0	17.0	85.0	5.43	80 - 120	20	
2,2-Dichloropropane	20.0	18.7	93.4	20.0	18.9	94.7	1.39	80 - 133	20	
cis-1,3-Dichloropropene	20.0	18.1	90.7	20.0	18.0	89.9	0.831	70 - 130	20	
trans-1,3-Dichloropropene	20.0	17.7	88.3	20.0	16.5	82.4	6.95	80 - 130	20	
1,1-Dichloropropene	20.0	18.1	90.5	20.0	18.5	92.7	2.44	75 - 130	20	
Ethylbenzene	20.0	18.5	92.5	20.0	18.6	92.9	0.424	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1046511
Report generated: 03/24/2008 16:32



Login Number: L08030315 Analyst: CMS/ASP Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG266112 Units: ug/L
QC Key: STD Lot #: STD25182
Sample ID: WG266112-02 LCS File ID: 6M73626 Run Date: 03/21/2008 11:21
Sample ID: WG266112-03 LCS2 File ID: 6M73627 Run Date: 03/21/2008 11:53

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	18.0	89.9	20.0	16.8	84.1	6.59	55 - 130	20	
Hexachlorobutadiene	20.0	18.8	94.2	20.0	19.5	97.6	3.55	72 - 132	20	
Isopropylbenzene	20.0	17.8	88.8	20.0	17.7	88.4	0.468	80 - 122	20	
p-Isopropyltoluene	20.0	18.2	91.2	20.0	18.5	92.6	1.57	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.6	97.8	20.0	18.6	93.2	4.82	64 - 140	20	
Methylene chloride	20.0	18.4	91.8	20.0	18.7	93.4	1.71	80 - 123	20	
Naphthalene	20.0	18.6	92.9	20.0	18.5	92.5	0.430	59 - 149	20	
n-Propylbenzene	20.0	18.2	91.0	20.0	18.5	92.6	1.67	80 - 129	20	
Styrene	20.0	19.2	96.1	20.0	18.9	94.6	1.55	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	17.9	89.7	20.0	17.5	87.6	2.32	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	17.8	88.8	20.0	17.1	85.3	4.04	79 - 125	20	
Tetrachloroethene	20.0	18.2	91.1	20.0	18.0	89.9	1.29	80 - 124	20	
Toluene	20.0	18.1	90.5	20.0	18.1	90.3	0.226	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.2	91.1	20.0	18.3	91.6	0.594	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	17.9	89.5	20.0	18.2	91.2	1.93	65 - 135	20	
1,1,1-Trichloroethane	20.0	19.1	95.3	20.0	19.2	96.1	0.884	80 - 134	20	
1,1,2-Trichloroethane	20.0	17.8	89.2	20.0	17.6	87.8	1.57	80 - 125	20	
Trichloroethene	20.0	18.5	92.6	20.0	18.6	93.0	0.462	80 - 122	20	
Trichlorofluoromethane	20.0	14.6	73.1	20.0	15.0	74.8	2.25	62 - 151	20	
1,2,3-Trichloropropane	20.0	19.6	98.0	20.0	17.9	89.7	8.91	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	17.9	89.4	20.0	18.2	91.1	1.82	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	18.3	91.4	20.0	18.3	91.3	0.123	80 - 127	20	
Vinyl acetate	20.0	17.2	86.0	20.0	16.7	83.6	2.91	10 - 150	20	
Vinyl chloride	20.0	18.3	91.4	20.0	17.6	88.2	3.64	65 - 140	20	
o-Xylene	20.0	18.7	93.3	20.0	18.7	93.6	0.375	80 - 122	20	
m-, p-Xylene	40.0	36.4	91.1	40.0	36.0	90.0	1.12	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
Dibromofluoromethane	97.4	98.9	86 - 118	PASS
1,2-Dichloroethane-d4	95.8	96.0	80 - 120	PASS
Toluene-d8	95.6	97.1	88 - 110	PASS
4-Bromofluorobenzene	89.6	94.2	86 - 115	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1046511
Report generated: 03/24/2008 16:32



BFB

Login Number: L08030315

Tune ID: WG265645-01

Instrument: HPMS6

Run Date: 03/17/2008

Analyst: CMS

Run Time: 09:12

Workgroup: WG265645

File ID: 6M73514

Cal ID: HPMS6-17-MAR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	21.1	6677	PASS
75.0	95.0	30.0	60.0	52.8	16743	PASS
95.0	95.0	100	100	100	31712	PASS
96.0	95.0	5.00	9.00	6.45	2046	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	83.7	26528	PASS
175	174	5.00	9.00	7.44	1974	PASS
176	174	95.0	101	95.3	25272	PASS
177	176	5.00	9.00	6.70	1692	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG265645-02	STD	01	03/17/2008 09:45	
WG265645-03	STD	01	03/17/2008 10:17	
WG265645-04	STD	01	03/17/2008 10:49	
WG265645-05	STD	01	03/17/2008 11:21	
WG265645-07	STD	01	03/17/2008 12:24	
WG265645-08	STD-CCV	01	03/17/2008 12:57	
WG265645-09	STD	01	03/17/2008 13:29	
WG265645-10	STD	01	03/17/2008 14:01	
WG265645-11	STD	01	03/17/2008 14:33	
WG265645-06	STD	01	03/17/2008 16:10	
WG265645-12	SSCV	01	03/17/2008 16:49	

* Sample past 12 hour tune limit

BFB

Login Number: L08030315

Tune ID: WG266110-01

Instrument: HPMS6

Run Date: 03/21/2008

Analyst: CMS/ASP

Run Time: 09:17

Workgroup: WG266110

File ID: 6M73621

Cal ID: HPMS6-17-MAR-08

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	22.6	8112	PASS
75.0	95.0	30.0	60.0	54.1	19442	PASS
95.0	95.0	100	100	100	35904	PASS
96.0	95.0	5.00	9.00	6.94	2492	PASS
173	174	0	2.00	0.367	100	PASS
174	95.0	50.0	100	76.0	27274	PASS
175	174	5.00	9.00	8.05	2195	PASS
176	174	95.0	101	99.3	27080	PASS
177	176	5.00	9.00	6.81	1844	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG266110-02	CCV	01	03/21/2008 09:43	
WG266112-01	BLANK	01	03/21/2008 10:49	
WG266112-02	LCS	01	03/21/2008 11:21	
WG266112-03	LCS2	01	03/21/2008 11:53	
L08030315-04	TRIP BLANK	01	03/21/2008 14:33	
L08030315-01	47WW33-031408	01	03/21/2008 18:50	
L08030315-02	47WW34-031408	DL01	03/21/2008 19:22	

* Sample past 12 hour tune limit

BFB

Login Number: L08030315 _____ Tune ID: WG266197-01 _____
Instrument: HPMS6 _____ Run Date: 03/22/2008 _____
Analyst: CMS _____ Run Time: 11:16 _____
Workgroup: WG266197 _____ File ID: 6M73657 _____
Cal ID: HPMS6-17-MAR-08 _____

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
50.0	95.0	15.0	40.0	21.2	6776	PASS
75.0	95.0	30.0	60.0	48.7	15539	PASS
95.0	95.0	100	100	100	31898	PASS
96.0	95.0	5.00	9.00	6.08	1940	PASS
173	174	0	2.00	0.545	129	PASS
174	95.0	50.0	100	74.2	23666	PASS
175	174	5.00	9.00	7.04	1667	PASS
176	174	95.0	101	98.3	23272	PASS
177	176	5.00	9.00	7.49	1743	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG266197-02	CCV	01	03/22/2008 12:15	
WG266199-01	BLANK	01	03/22/2008 13:20	
WG266199-02	LCS	01	03/22/2008 13:52	
WG266199-03	LCS2	01	03/22/2008 14:24	
L08030315-03	17WW17-031408	01	03/22/2008 17:05	

* Sample past 12 hour tune limit

INITIAL CALIBRATION SUMMARY

00102554

Login Number: L08030315
 Analytical Method: 8260B
 ICAL Workgroup: WG265645

Instrument ID: HPMS6
 Initial Calibration Date: 17-MAR-08 16:10
 Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD(R ²)
1,1-Dichloroethene	CCC	0.4470	10.7		
1,2-Dichloropropane	CCC	0.2244	5.94		
Chloroform	CCC	0.5321	6.21		
Ethylbenzene	CCC	0.4929	5.79		
Toluene	CCC	1.276	5.36		
Vinyl Chloride	CCC	0.3600	15.8		1.00
1,1,2,2-Tetrachloroethane	SPCC	0.3487	10.8		
1,1-Dichloroethane	SPCC	0.5127	3.80		
Bromoform	SPCC	0.1658	16.7		1.00
Chlorobenzene	SPCC	0.9552	13.2		
Chloromethane	SPCC	0.3987	10.0		
1,1,1,2-Tetrachloroethane		0.3589	14.4		
1,1,1-Trichloroethane		0.4921	6.74		
1,1,2-Trichloroethane		0.2072	9.88		
1,1-Dichloropropene		0.3539	6.21		
1,2,3-Trichlorobenzene		0.7075	10.2		
1,2,3-Trichloropropane		0.1157	6.20		
1,2,4-Trichlorobenzene		0.8789	6.58		
1,2,4-Trimethylbenzene		2.461	5.99		
1,2-Dibromo-3-Chloropropane		0.06048	20.5		1.00
1,2-Dibromoethane		0.2054	7.49		
1,2-Dichlorobenzene		1.217	13.2		
1,2-Dichloroethane		0.3554	8.02		
1,3,5-Trimethylbenzene		2.286	4.33		
1,3-Dichlorobenzene		1.436	12.7		
1,3-Dichloropropane		0.3695	11.4		
1,4-Dichlorobenzene		1.495	15.2		1.00
2,2-Dichloropropane		0.4692	6.32		
2-Butanone		0.05233	11.3		
2-Chloroethyl Vinyl Ether		0.08830	14.1		
2-Chlorotoluene		2.109	11.9		
2-Hexanone		0.09682	12.7		
4-Chlorotoluene		2.020	10.4		
4-Methyl-2-Pentanone		0.04170	15.3		0.999
Acetone		0.03833	7.60		
Benzene		0.9259	4.61		
Bromobenzene		0.6658	11.4		
Bromochloromethane		0.1527	4.07		
Bromodichloromethane		0.3611	6.93		
Bromomethane		0.1753	27.8		1.00
Carbon Disulfide		0.7865	5.44		
Carbon Tetrachloride		0.4400	9.80		
Chloroethane		0.2139	9.90		
Dibromochloromethane		0.2966	8.55		
Dibromomethane		0.1209	7.83		

INT_CAL - Modified 03/06/2008

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Report generated 03/24/2008 16:32



INITIAL CALIBRATION SUMMARY

00102555

Login Number: L08030315
 Analytical Method: 8260B
 ICAL Workgroup: WG265645

Instrument ID: HPMS6
 Initial Calibration Date: 17-MAR-08 16:10
 Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R)	QUAD(R ²)
Dichlorodifluoromethane	0.5110	12.7		
Hexachlorobutadiene	0.4834	6.12		
Isopropylbenzene	1.523	2.36		
Methylene Chloride	0.3048	36.2		1.00
Naphthalene	1.278	8.44		
Styrene	0.9688	4.30		
Tetrachloroethene	0.3635	2.18		
Trichloroethene	0.2699	5.00		
Trichlorofluoromethane	0.6467	12.2		
Vinyl Acetate	0.2539	7.63		
cis-1,2-Dichloroethene	0.2694	4.53		
cis-1,3-Dichloropropene	0.3590	8.88		
m-,p-Xylene	0.6352	5.55		
n-Butylbenzene	2.345	3.84		
n-Propylbenzene	3.122	2.86		
o-Xylene	0.5945	3.73		
p-Isopropyltoluene	2.508	4.61		
sec-Butylbenzene	2.820	3.59		
tert-Butylbenzene	0.4712	8.55		
trans-1,2-Dichloroethene	0.2686	4.57		
trans-1,3-Dichloropropene	0.4125	4.53		

R = Correlation coefficient; 0.995 minimum

R² = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
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 Report generated 03/24/2008 16:32



INITIAL CALIBRATION DATA

00102556

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-02			WG265645-03			WG265645-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	2396.00000	0.3290	1.00	8929.00000	0.4642
1,2-Dichloropropane	NA	NA	NA	0.400	1748.00000	0.2400	1.00	4740.00000	0.2464
Chloroform	0.300	3700.00000	0.5133	0.400	4472.00000	0.6140	1.00	10364.0000	0.5388
Ethylbenzene	NA	NA	NA	0.400	3090.00000	0.5488	1.00	7152.00000	0.4792
Toluene	NA	NA	NA	0.400	7795.00000	1.385	1.00	20140.0000	1.350
Vinyl Chloride	NA	NA	NA	0.400	3332.00000	0.4575	1.00	6085.00000	0.3164
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1174.00000	0.3469	1.00	3984.00000	0.4353
1,1-Dichloroethane	NA	NA	NA	0.400	3990.00000	0.5478	1.00	10235.0000	0.5321
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2423.00000	0.1624
Chlorobenzene	NA	NA	NA	0.400	6934.00000	1.232	1.00	15771.0000	1.057
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	8301.00000	0.4316
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.400	2672.00000	0.4746	1.00	5162.00000	0.3459
1,1,1-Trichloroethane	NA	NA	NA	0.400	3067.00000	0.4211	1.00	9747.00000	0.5067
1,1,2-Trichloroethane	NA	NA	NA	0.400	1387.00000	0.2464	1.00	3482.00000	0.2333
1,1-Dichloropropene	NA	NA	NA	0.400	2210.00000	0.3034	1.00	6901.00000	0.3588
1,2,3-Trichlorobenzene	0.300	1681.00000	0.5701	0.400	2770.00000	0.8186	1.00	7257.00000	0.7929
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	1.00	1120.00000	0.1224
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	3271.00000	0.9666	1.00	8705.00000	0.9511
1,2,4-Trimethylbenzene	NA	NA	NA	0.400	9362.00000	2.767	1.00	23483.0000	2.566
1,2-Dibromo-3-Chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	0.400	1338.00000	0.2377	1.00	2898.00000	0.1942
1,2-Dichlorobenzene	0.300	2939.00000	0.9968	0.400	5308.00000	1.569	1.00	12441.0000	1.359
1,2-Dichloroethane	NA	NA	NA	0.400	2891.00000	0.3969	1.00	7775.00000	0.4042
1,3,5-Trimethylbenzene	NA	NA	NA	0.400	8110.00000	2.397	1.00	20772.0000	2.270
1,3-Dichlorobenzene	NA	NA	NA	0.400	6295.00000	1.860	1.00	13941.0000	1.523
1,3-Dichloropropane	NA	NA	NA	0.400	2638.00000	0.4686	1.00	5731.00000	0.3840
1,4-Dichlorobenzene	0.300	4724.00000	1.602	0.400	6844.00000	2.022	1.00	14971.0000	1.636
2,2-Dichloropropane	NA	NA	NA	0.400	3078.00000	0.4226	1.00	9018.00000	0.4688
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	0.400	8773.00000	2.593	1.00	21182.0000	2.314
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	NA	NA	NA	0.400	8461.00000	2.500	1.00	19559.0000	2.137
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	7360.00000	1.011	1.00	18591.0000	0.9665
Bromobenzene	0.300	1691.00000	0.5735	0.400	2767.00000	0.8177	1.00	6961.00000	0.7606
Bromochloromethane	NA	NA	NA	0.400	1070.00000	0.1469	1.00	3087.00000	0.1605
Bromodichloromethane	NA	NA	NA	0.400	2943.00000	0.4041	1.00	6916.00000	0.3596
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	1905.00000	0.09900
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	13310.0000	0.6920
Carbon Tetrachloride	NA	NA	NA	0.400	2541.00000	0.3489	1.00	7835.00000	0.4073

INT_CAL - Modified 03/06/2008

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INITIAL CALIBRATION DATA

00102557

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-05			WG265645-06			WG265645-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	17821.0000	0.4635	5.00	49216.0000	0.4636	20.0	185634.000	0.4675
1,2-Dichloropropane	2.00	8544.00000	0.2222	5.00	21695.0000	0.2044	20.0	87105.0000	0.2194
Chloroform	2.00	20215.0000	0.5257	5.00	54415.0000	0.5126	20.0	201843.000	0.5084
Ethylbenzene	2.00	13539.0000	0.4600	5.00	39686.0000	0.4932	20.0	148146.000	0.4711
Toluene	2.00	37048.0000	1.259	5.00	105421.000	1.310	20.0	394709.000	1.255
Vinyl Chloride	2.00	15532.0000	0.4039	5.00	35611.0000	0.3354	20.0	150308.000	0.3786
1,1,2,2-Tetrachloroethane	2.00	5799.00000	0.3254	5.00	15132.0000	0.3140	20.0	63512.0000	0.3294
1,1-Dichloroethane	2.00	19602.0000	0.5098	5.00	51796.0000	0.4879	20.0	199489.000	0.5024
Bromoform	2.00	3529.00000	0.1199	5.00	11238.0000	0.1397	20.0	53475.0000	0.1701
Chlorobenzene	2.00	26280.0000	0.8929	5.00	73549.0000	0.9140	20.0	274593.000	0.8733
Chloromethane	2.00	17536.0000	0.4560	5.00	42845.0000	0.4036	20.0	165846.000	0.4177
1,1,1,2-Tetrachloroethane	2.00	9248.00000	0.3142	5.00	25394.0000	0.3156	20.0	104462.000	0.3322
1,1,1-Trichloroethane	2.00	18603.0000	0.4838	5.00	51869.0000	0.4886	20.0	197807.000	0.4982
1,1,2-Trichloroethane	2.00	5770.00000	0.1960	5.00	15899.0000	0.1976	20.0	61076.0000	0.1942
1,1-Dichloropropene	2.00	13398.0000	0.3484	5.00	37809.0000	0.3561	20.0	143530.000	0.3615
1,2,3-Trichlorobenzene	2.00	12151.0000	0.6819	5.00	35552.0000	0.7377	20.0	133586.000	0.6929
1,2,3-Trichloropropane	2.00	1869.00000	0.1049	5.00	5191.00000	0.1077	20.0	22655.0000	0.1175
1,2,4-Trichlorobenzene	2.00	14265.0000	0.8005	5.00	42299.0000	0.8777	20.0	160353.000	0.8318
1,2,4-Trimethylbenzene	2.00	42134.0000	2.365	5.00	119946.000	2.489	20.0	459013.000	2.381
1,2-Dibromo-3-Chloropropane	2.00	691.000000	0.03880	5.00	2536.00000	0.05260	20.0	12800.0000	0.06640
1,2-Dibromoethane	2.00	5565.00000	0.1891	5.00	15496.0000	0.1926	20.0	64288.0000	0.2044
1,2-Dichlorobenzene	2.00	20386.0000	1.144	5.00	57371.0000	1.190	20.0	226230.000	1.174
1,2-Dichloroethane	2.00	13273.0000	0.3452	5.00	35453.0000	0.3340	20.0	139524.000	0.3514
1,3,5-Trimethylbenzene	2.00	37382.0000	2.098	5.00	114141.000	2.368	20.0	432627.000	2.244
1,3-Dichlorobenzene	2.00	23688.0000	1.329	5.00	66695.0000	1.384	20.0	258779.000	1.342
1,3-Dichloropropane	2.00	10036.0000	0.3410	5.00	27347.0000	0.3398	20.0	111656.000	0.3551
1,4-Dichlorobenzene	2.00	24078.0000	1.351	5.00	68505.0000	1.421	20.0	262146.000	1.360
2,2-Dichloropropane	2.00	16979.0000	0.4416	5.00	47901.0000	0.4512	20.0	189401.000	0.4770
2-Butanone	NA	NA	NA	5.00	4475.00000	0.04220	20.0	20462.0000	0.05150
2-Chloroethyl Vinyl Ether	2.00	2725.00000	0.07090	5.00	8099.00000	0.07630	20.0	35465.0000	0.08930
2-Chlorotoluene	2.00	36429.0000	2.044	5.00	104190.000	2.162	20.0	383958.000	1.992
2-Hexanone	NA	NA	NA	5.00	5873.00000	0.07300	20.0	30233.0000	0.09610
4-Chlorotoluene	2.00	33580.0000	1.885	5.00	93562.0000	1.941	20.0	359613.000	1.865
4-Methyl-2-Pentanone	NA	NA	NA	5.00	3213.00000	0.03030	20.0	15695.0000	0.03950
Acetone	NA	NA	NA	5.00	3646.00000	0.03430	20.0	15422.0000	0.03880
Benzene	2.00	35854.0000	0.9324	5.00	95924.0000	0.9036	20.0	363286.000	0.9150
Bromobenzene	2.00	11127.0000	0.6244	5.00	30722.0000	0.6375	20.0	121381.000	0.6296
Bromochloromethane	2.00	5557.00000	0.1445	5.00	15424.0000	0.1453	20.0	62683.0000	0.1579
Bromodichloromethane	2.00	13213.0000	0.3436	5.00	34625.0000	0.3262	20.0	138473.000	0.3488
Bromomethane	2.00	5362.00000	0.1394	5.00	17955.0000	0.1691	20.0	63512.0000	0.1600
Carbon Disulfide	2.00	30735.0000	0.7993	5.00	83134.0000	0.7831	20.0	319368.000	0.8044
Carbon Tetrachloride	2.00	17069.0000	0.4439	5.00	46853.0000	0.4413	20.0	184780.000	0.4654

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INITIAL CALIBRATION DATA

00102558

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-08			WG265645-09			WG265645-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	497125.000	0.4648	100	1071083.00	0.4566	200	2287579.00	0.4671
1,2-Dichloropropane	50.0	231517.000	0.2165	100	516656.000	0.2202	200	1107660.00	0.2262
Chloroform	50.0	548682.000	0.5130	100	1219441.00	0.5198	200	2659639.00	0.5430
Ethylbenzene	50.0	410293.000	0.4899	100	914918.000	0.4819	200	2138737.00	0.5192
Toluene	50.0	1058274.00	1.264	100	2290968.00	1.207	200	4871242.00	1.183
Vinyl Chloride	50.0	358771.000	0.3355	100	687346.000	0.2930	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	176013.000	0.3356	100	405777.000	0.3466	200	855263.000	0.3561
1,1-Dichloroethane	50.0	535778.000	0.5010	100	1174876.00	0.5008	200	2544366.00	0.5195
Bromoform	50.0	152544.000	0.1821	100	364480.000	0.1920	200	800190.000	0.1943
Chlorobenzene	50.0	741321.000	0.8852	100	1666776.00	0.8779	200	3749166.00	0.9102
Chloromethane	50.0	392589.000	0.3671	100	802920.000	0.3423	200	1826071.00	0.3728
1,1,1,2-Tetrachloroethane	50.0	292061.000	0.3487	100	679578.000	0.3580	200	1574815.00	0.3823
1,1,1-Trichloroethane	50.0	531947.000	0.4974	100	1176715.00	0.5016	200	2639702.00	0.5390
1,1,2-Trichloroethane	50.0	162723.000	0.1943	100	373912.000	0.1970	200	820241.000	0.1991
1,1-Dichloropropene	50.0	387429.000	0.3623	100	851640.000	0.3631	200	1850001.00	0.3777
1,2,3-Trichlorobenzene	50.0	351898.000	0.6710	100	812474.000	0.6940	200	1702338.00	0.7087
1,2,3-Trichloropropane	50.0	60770.0000	0.1159	100	136711.000	0.1168	200	299290.000	0.1246
1,2,4-Trichlorobenzene	50.0	440626.000	0.8402	100	1011834.00	0.8643	200	2159161.00	0.8989
1,2,4-Trimethylbenzene	50.0	1242523.00	2.369	100	2707380.00	2.313	200	5850452.00	2.436
1,2-Dibromo-3-Chloropropane	50.0	34452.0000	0.06570	100	80909.0000	0.06910	200	168964.000	0.07030
1,2-Dibromoethane	50.0	171046.000	0.2042	100	395820.000	0.2085	200	874069.000	0.2122
1,2-Dichlorobenzene	50.0	612066.000	1.167	100	1357705.00	1.160	200	2864478.00	1.193
1,2-Dichloroethane	50.0	358188.000	0.3349	100	790654.000	0.3371	200	1664453.00	0.3398
1,3,5-Trimethylbenzene	50.0	1193900.00	2.277	100	2629745.00	2.246	200	5736993.00	2.388
1,3-Dichlorobenzene	50.0	708815.000	1.352	100	1545233.00	1.320	200	3318406.00	1.382
1,3-Dichloropropane	50.0	295842.000	0.3533	100	673899.000	0.3550	200	1478587.00	0.3590
1,4-Dichlorobenzene	50.0	707755.000	1.350	100	1559503.00	1.332	200	3317538.00	1.381
2,2-Dichloropropane	50.0	523567.000	0.4896	100	1143863.00	0.4876	200	2521831.00	0.5149
2-Butanone	50.0	53918.0000	0.05040	100	135064.000	0.05760	200	286860.000	0.05860
2-Chloroethyl Vinyl Ether	50.0	98131.0000	0.09180	100	232842.000	0.09930	200	500470.000	0.1022
2-Chlorotoluene	50.0	985774.000	1.880	100	2122388.00	1.813	200	4976640.00	2.072
2-Hexanone	50.0	82105.0000	0.09800	100	199432.000	0.1050	200	422100.000	0.1025
4-Chlorotoluene	50.0	1026331.00	1.957	100	2255698.00	1.927	200	4679809.00	1.948
4-Methyl-2-Pentanone	50.0	45185.0000	0.04230	100	109653.000	0.04670	200	234673.000	0.04790
Acetone	50.0	41367.0000	0.03870	100	97380.0000	0.04150	200	201840.000	0.04120
Benzene	50.0	960493.000	0.8981	100	2084163.00	0.8885	200	4371346.00	0.8925
Bromobenzene	50.0	331804.000	0.6327	100	747769.000	0.6387	200	1628235.00	0.6778
Bromochloromethane	50.0	164660.000	0.1540	100	365362.000	0.1558	200	767885.000	0.1568
Bromodichloromethane	50.0	375918.000	0.3515	100	860389.000	0.3668	200	1901141.00	0.3882
Bromomethane	50.0	211665.000	0.1979	100	515947.000	0.2199	200	1183663.00	0.2417
Carbon Disulfide	50.0	867958.000	0.8116	100	1884335.00	0.8033	200	3976950.00	0.8120
Carbon Tetrachloride	50.0	500167.000	0.4677	100	1093700.00	0.4662	200	2346675.00	0.4791

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INITIAL CALIBRATION DATA

00102559

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1,2-Tetrachloroethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-Chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA
2-Butanone	300	432050.000	0.05370
2-Chloroethyl Vinyl Ether	NA	NA	NA
2-Chlorotoluene	NA	NA	NA
2-Hexanone	300	659321.000	0.1063
4-Chlorotoluene	NA	NA	NA
4-Methyl-2-Pentanone	300	350109.000	0.04350
Acetone	300	286077.000	0.03550
Benzene	NA	NA	NA
Bromobenzene	NA	NA	NA
Bromochloromethane	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA

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INITIAL CALIBRATION DATA

00102560

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-02			WG265645-03			WG265645-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	3299.00000	0.1715
Dibromochloromethane	NA	NA	NA	0.400	1810.00000	0.3215	1.00	4328.00000	0.2900
Dibromomethane	NA	NA	NA	0.400	724.000000	0.09940	1.00	2445.00000	0.1271
Dichlorodifluoromethane	NA	NA	NA	0.400	4325.00000	0.5938	1.00	7202.00000	0.3744
Hexachlorobutadiene	NA	NA	NA	0.400	1529.00000	0.4518	1.00	4367.00000	0.4772
Isopropylbenzene	NA	NA	NA	0.400	8487.00000	1.507	1.00	22171.0000	1.486
Methylene Chloride	NA	NA	NA	0.400	4103.00000	0.5633	1.00	6741.00000	0.3505
Naphthalene	NA	NA	NA	0.400	4997.00000	1.477	1.00	12111.0000	1.323
Styrene	NA	NA	NA	0.400	5610.00000	0.9964	1.00	14296.0000	0.9579
Tetrachloroethene	NA	NA	NA	0.400	2100.00000	0.3730	1.00	5342.00000	0.3580
Trichloroethene	NA	NA	NA	0.400	1815.00000	0.2492	1.00	5400.00000	0.2807
Trichlorofluoromethane	NA	NA	NA	0.400	4745.00000	0.6515	1.00	8814.00000	0.4582
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	1813.00000	0.2489	1.00	5153.00000	0.2679
cis-1,3-Dichloropropene	NA	NA	NA	0.400	2714.00000	0.3726	1.00	6059.00000	0.3150
m-,p-Xylene	NA	NA	NA	0.800	8066.00000	0.7163	2.00	18662.0000	0.6253
n-Butylbenzene	NA	NA	NA	0.400	7803.00000	2.306	1.00	20471.0000	2.237
n-Propylbenzene	NA	NA	NA	0.400	10435.0000	3.084	1.00	27752.0000	3.032
o-Xylene	NA	NA	NA	0.400	3555.00000	0.6314	1.00	8924.00000	0.5980
p-Isopropyltoluene	NA	NA	NA	0.400	7943.00000	2.347	1.00	22028.0000	2.407
sec-Butylbenzene	NA	NA	NA	0.400	9016.00000	2.664	1.00	25195.0000	2.753
tert-Butylbenzene	NA	NA	NA	0.400	1284.00000	0.3794	1.00	4340.00000	0.4742
trans-1,2-Dichloroethene	NA	NA	NA	0.400	1777.00000	0.2440	1.00	5097.00000	0.2650
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	5941.00000	0.3981

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INITIAL CALIBRATION DATA

00102561

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-05			WG265645-06			WG265645-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	2.00	7789.00000	0.2026	5.00	22642.0000	0.2133	20.0	91610.0000	0.2307
Dibromochloromethane	2.00	7445.00000	0.2530	5.00	21763.0000	0.2704	20.0	92006.0000	0.2926
Dibromomethane	2.00	4694.00000	0.1221	5.00	12425.0000	0.1170	20.0	49657.0000	0.1251
Dichlorodifluoromethane	2.00	21004.0000	0.5462	5.00	56212.0000	0.5295	20.0	219381.000	0.5525
Hexachlorobutadiene	2.00	8075.00000	0.4532	5.00	24415.0000	0.5066	20.0	89412.0000	0.4638
Isopropylbenzene	2.00	43233.0000	1.469	5.00	122545.000	1.523	20.0	479768.000	1.526
Methylene Chloride	2.00	10542.0000	0.2742	5.00	26678.0000	0.2513	20.0	98113.0000	0.2471
Naphthalene	2.00	19332.0000	1.085	5.00	60058.0000	1.246	20.0	247413.000	1.283
Styrene	2.00	26081.0000	0.8862	5.00	75679.0000	0.9404	20.0	304623.000	0.9688
Tetrachloroethene	2.00	10974.0000	0.3729	5.00	29853.0000	0.3710	20.0	112274.000	0.3571
Trichloroethene	2.00	10215.0000	0.2656	5.00	27749.0000	0.2614	20.0	104837.000	0.2640
Trichlorofluoromethane	2.00	27247.0000	0.7086	5.00	69781.0000	0.6573	20.0	277361.000	0.6986
Vinyl Acetate	NA	NA	NA	5.00	23364.0000	0.2201	20.0	102097.000	0.2571
cis-1,2-Dichloroethene	2.00	9892.00000	0.2572	5.00	28186.0000	0.2655	20.0	109828.000	0.2766
cis-1,3-Dichloropropene	2.00	12286.0000	0.3195	5.00	35558.0000	0.3349	20.0	147407.000	0.3713
m-,p-Xylene	4.00	36334.0000	0.6173	10.0	100239.000	0.6228	40.0	384460.000	0.6113
n-Butylbenzene	2.00	39489.0000	2.216	5.00	119333.000	2.476	20.0	458107.000	2.376
n-Propylbenzene	2.00	54063.0000	3.034	5.00	157968.000	3.278	20.0	608623.000	3.157
o-Xylene	2.00	16557.0000	0.5626	5.00	46128.0000	0.5732	20.0	183219.000	0.5827
p-Isopropyltoluene	2.00	42408.0000	2.380	5.00	124627.000	2.586	20.0	491048.000	2.547
sec-Butylbenzene	2.00	48661.0000	2.731	5.00	141188.000	2.930	20.0	546766.000	2.836
tert-Butylbenzene	2.00	8385.00000	0.4706	5.00	24405.0000	0.5064	20.0	91382.0000	0.4740
trans-1,2-Dichloroethene	2.00	10372.0000	0.2697	5.00	27990.0000	0.2637	20.0	107510.000	0.2708
trans-1,3-Dichloropropene	2.00	11823.0000	0.4017	5.00	30727.0000	0.3818	20.0	132422.000	0.4211

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INITIAL CALIBRATION DATA

00102562

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-08			WG265645-09			WG265645-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	50.0	240579.000	0.2250	100	527865.000	0.2250	200	1122394.00	0.2292
Dibromochloromethane	50.0	254860.000	0.3043	100	601517.000	0.3168	200	1336042.00	0.3244
Dibromomethane	50.0	129741.000	0.1213	100	295601.000	0.1260	200	632045.000	0.1291
Dichlorodifluoromethane	50.0	542701.000	0.5075	100	1133606.00	0.4833	200	2453204.00	0.5009
Hexachlorobutadiene	50.0	251673.000	0.4799	100	580603.000	0.4960	200	1294533.00	0.5389
Isopropylbenzene	50.0	1319267.00	1.575	100	2918625.00	1.537	200	6433552.00	1.562
Methylene Chloride	50.0	259872.000	0.2430	100	582192.000	0.2482	200	1275977.00	0.2605
Naphthalene	50.0	650008.000	1.239	100	1508691.00	1.289	200	3084342.00	1.284
Styrene	50.0	836376.000	0.9987	100	1865365.00	0.9825	200	4198676.00	1.019
Tetrachloroethene	50.0	305565.000	0.3649	100	676196.000	0.3562	200	1460492.00	0.3546
Trichloroethene	50.0	287224.000	0.2686	100	647236.000	0.2759	200	1438622.00	0.2937
Trichlorofluoromethane	50.0	713375.000	0.6670	100	1531225.00	0.6528	200	3327067.00	0.6793
Vinyl Acetate	50.0	282599.000	0.2642	100	629224.000	0.2682	200	1272480.00	0.2598
cis-1,2-Dichloroethene	50.0	293965.000	0.2749	100	650595.000	0.2773	200	1406107.00	0.2871
cis-1,3-Dichloropropene	50.0	396320.000	0.3706	100	904621.000	0.3856	200	1969577.00	0.4022
m-, p-Xylene	100	1039051.00	0.6203	200	2334548.00	0.6148	400	5381520.00	0.6532
n-Butylbenzene	50.0	1253900.00	2.391	100	2731310.00	2.333	200	5828322.00	2.426
n-Propylbenzene	50.0	1654899.00	3.156	100	3558820.00	3.040	200	7673598.00	3.195
o-Xylene	50.0	504335.000	0.6022	100	1123368.00	0.5917	200	2529529.00	0.6141
p-Isopropyltoluene	50.0	1355096.00	2.584	100	2981446.00	2.547	200	6414192.00	2.670
sec-Butylbenzene	50.0	1520147.00	2.899	100	3281669.00	2.803	200	7080671.00	2.948
tert-Butylbenzene	50.0	251006.000	0.4786	100	556240.000	0.4751	200	1228553.00	0.5115
trans-1,2-Dichloroethene	50.0	293145.000	0.2741	100	644502.000	0.2747	200	1405585.00	0.2870
trans-1,3-Dichloropropene	50.0	355994.000	0.4251	100	814024.000	0.4288	200	1774773.00	0.4309

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INITIAL CALIBRATION DATA

00102563

Login Number: L08030315

Instrument ID: HPMS6

Analytical Method: 8260B

Initial Calibration Date: 17-MAR-08 16:10

Column ID: F

Analyte	WG265645-11		
	CONC	RESP	RF
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Dibromomethane	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Isopropylbenzene	NA	NA	NA
Methylene Chloride	NA	NA	NA
Naphthalene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
n-Butylbenzene	NA	NA	NA
n-Propylbenzene	NA	NA	NA
o-Xylene	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA
sec-Butylbenzene	NA	NA	NA
tert-Butylbenzene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA

INT_CAL - Modified 03/06/2008

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Login Number: L08030315 Run Date: 03/17/2008 Sample ID: WG265645-12
Instrument ID: HPMS6 Run Time: 16:49 Method: 8260B
File ID: 6M73528 Analyst: CMS QC Key: STD
Ical Workgroup: WG265645 Cal ID: HPMS6 - 17-MAR-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	20.0	19.0	ug/L	0.505	5.00	30	
1,1-Dichloroethene	CCC	20.0	19.8	ug/L	0.443	1.00	30	
1,2-Dichloropropane	CCC	20.0	18.7	ug/L	0.210	6.30	30	
Ethylbenzene	CCC	20.0	19.8	ug/L	0.489	0.800	30	
Toluene	CCC	20.0	20.0	ug/L	1.28	0	30	
Vinyl Chloride	CCC	20.0	17.1	ug/L	0.314	14.5	30	
Bromoform	SPCC	20.0	17.7	ug/L	0.158	11.3	30	
Chlorobenzene	SPCC	20.0	18.8	ug/L	0.897	6.10	30	
Chloromethane	SPCC	20.0	18.0	ug/L	0.358	10.2	30	
1,1-Dichloroethane	SPCC	20.0	19.0	ug/L	0.487	5.00	30	
1,1,2,2-Tetrachloroethane	SPCC	20.0	19.2	ug/L	0.335	4.00	30	
Acetone		20.0	22.1	ug/L	0.0424	10.5	30	
Benzene		20.0	19.4	ug/L	0.900	2.80	30	
Bromobenzene		20.0	19.5	ug/L	0.649	2.50	30	
Bromochloromethane		20.0	19.1	ug/L	0.146	4.30	30	
Bromodichloromethane		20.0	19.3	ug/L	0.348	3.70	30	
Bromomethane		20.0	20.7	ug/L	0.194	3.60	30	
2-Butanone		20.0	20.6	ug/L	0.0539	3.10	30	
n-Butylbenzene		20.0	21.2	ug/L	2.49	6.00	30	
sec-Butylbenzene		20.0	21.2	ug/L	2.98	5.80	30	
tert-Butylbenzene		20.0	20.7	ug/L	0.489	3.70	30	
Carbon Disulfide		20.0	19.5	ug/L	0.767	2.40	30	
Carbon Tetrachloride		20.0	20.1	ug/L	0.443	0.600	30	
Dibromochloromethane		20.0	19.5	ug/L	0.289	2.60	30	
Chloroethane		20.0	21.1	ug/L	0.226	5.40	30	
2-Chloroethyl Vinyl Ether		20.0	19.2	ug/L	0.0849	3.80	30	
2-Chlorotoluene		20.0	18.7	ug/L	1.97	6.40	30	
4-Chlorotoluene		20.0	19.8	ug/L	2.00	1.00	30	
1,2-Dibromo-3-Chloropropane		20.0	19.1	ug/L	0.0616	4.50	30	
1,2-Dibromoethane		20.0	19.1	ug/L	0.196	4.40	30	
Dibromomethane		20.0	19.4	ug/L	0.117	3.10	30	
1,2-Dichlorobenzene		20.0	19.3	ug/L	1.18	3.40	30	
1,3-Dichlorobenzene		20.0	18.8	ug/L	1.35	5.80	30	
1,4-Dichlorobenzene		20.0	20.3	ug/L	1.35	1.50	30	
Dichlorodifluoromethane		20.0	19.8	ug/L	0.507	0.800	30	
1,2-Dichloroethane		20.0	17.7	ug/L	0.315	11.5	30	
cis-1,2-Dichloroethene		20.0	20.6	ug/L	0.278	3.00	30	
trans-1,2-Dichloroethene		20.0	19.4	ug/L	0.260	3.10	30	
1,3-Dichloropropane		20.0	19.1	ug/L	0.352	4.70	30	
2,2-Dichloropropane		20.0	19.5	ug/L	0.458	2.30	30	
cis-1,3-Dichloropropene		20.0	18.9	ug/L	0.339	5.70	30	
trans-1,3-Dichloropropene		20.0	18.0	ug/L	0.372	9.80	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1046998
Report generated 03/24/2008 16:32



Login Number: L08030315 Run Date: 03/17/2008 Sample ID: WG265645-12
Instrument ID: HPMS6 Run Time: 16:49 Method: 8260B
File ID: 6M73528 Analyst: CMS QC Key: STD
Ical Workgroup: WG265645 Cal ID: HPMS6 - 17-MAR-08

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene	20.0	19.8	ug/L	0.350	1.00	30	
2-Hexanone	20.0	18.6	ug/L	0.0900	7.00	30	
Hexachlorobutadiene	20.0	20.4	ug/L	0.492	1.80	30	
Isopropylbenzene	20.0	18.9	ug/L	1.44	5.40	30	
p-Isopropyltoluene	20.0	20.4	ug/L	2.56	2.00	30	
4-Methyl-2-Pentanone	20.0	19.7	ug/L	0.0378	1.40	30	
Methylene Chloride	20.0	20.3	ug/L	0.246	1.50	30	
Naphthalene	20.0	19.5	ug/L	1.24	2.70	30	
n-Propylbenzene	20.0	20.7	ug/L	3.24	3.70	30	
Styrene	20.0	20.7	ug/L	1.00	3.40	30	
1,1,1,2-Tetrachloroethane	20.0	18.6	ug/L	0.334	7.00	30	
Tetrachloroethene	20.0	20.3	ug/L	0.368	1.30	30	
1,2,3-Trichlorobenzene	20.0	19.2	ug/L	0.681	3.80	30	
1,2,4-Trichlorobenzene	20.0	19.4	ug/L	0.854	2.90	30	
1,1,1-Trichloroethane	20.0	19.4	ug/L	0.478	2.80	30	
1,1,2-Trichloroethane	20.0	19.2	ug/L	0.199	3.80	30	
Trichloroethene	20.0	19.7	ug/L	0.265	1.70	30	
Trichlorofluoromethane	20.0	16.6	ug/L	0.536	17.1	30	
1,2,3-Trichloropropane	20.0	19.8	ug/L	0.115	0.800	30	
1,2,4-Trimethylbenzene	20.0	20.0	ug/L	2.47	0.200	30	
1,3,5-Trimethylbenzene	20.0	20.6	ug/L	2.35	2.90	30	
Vinyl Acetate	20.0	23.3	ug/L	0.296	16.5	40	
o-Xylene	20.0	20.4	ug/L	0.606	2.00	30	
m-,p-Xylene	40.0	39.8	ug/L	0.632	0.500	30	

* Exceeds %D Limit

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

00102566

Login Number: L08030315 Run Date: 03/21/2008 Sample ID: WG266110-02
Instrument ID: HPMS6 Run Time: 09:43 Method: 8260B
File ID: 6M73622 Analyst: CMS/ASP QC Key: STD
Workgroup (AAB#): WG266112 Cal ID: HPMS6 - 17-MAR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	51.1	ug/L	0.543	2.13	20	
1,1-Dichloroethene	CCC	50.0	58.3	ug/L	0.521	16.6	20	
1,2-Dichloropropane	CCC	50.0	48.4	ug/L	0.217	3.24	20	
Ethylbenzene	CCC	50.0	49.9	ug/L	0.492	0.247	20	
Toluene	CCC	50.0	49.0	ug/L	1.25	2.01	20	
Vinyl Chloride	CCC	50.0	51.2	ug/L	0.346	2.49	20	
Bromoform	SPCC	50.0	49.1	ug/L	0.182	1.90	40	
Chlorobenzene	SPCC	50.0	46.0	ug/L	0.879	8.04	40	
Chloromethane	SPCC	50.0	42.6	ug/L	0.340	14.8	40	
1,1-Dichloroethane	SPCC	50.0	52.4	ug/L	0.537	4.77	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	43.4	ug/L	0.303	13.1	40	
Acetone		50.0	51.6	ug/L	0.0396	3.17	40	
Benzene		50.0	50.0	ug/L	0.925	0.0872	40	
Bromobenzene		50.0	46.1	ug/L	0.614	7.84	40	
Bromochloromethane		50.0	50.5	ug/L	0.154	1.04	40	
Bromodichloromethane		50.0	50.1	ug/L	0.362	0.179	40	
Bromomethane		50.0	54.4	ug/L	0.222	8.81	40	
2-Butanone		50.0	48.0	ug/L	0.0502	4.02	40	
n-Butylbenzene		50.0	52.6	ug/L	2.47	5.20	40	
sec-Butylbenzene		50.0	52.4	ug/L	2.96	4.80	40	
tert-Butylbenzene		50.0	51.6	ug/L	0.486	3.20	40	
Carbon Disulfide		50.0	52.9	ug/L	0.832	5.78	40	
Carbon Tetrachloride		50.0	58.6	ug/L	0.516	17.2	40	
Dibromochloromethane		50.0	51.6	ug/L	0.306	3.16	40	
Chloroethane		50.0	55.0	ug/L	0.235	9.94	40	
2-Chloroethyl Vinyl Ether		50.0	48.6	ug/L	0.0857	2.89	40	
2-Chlorotoluene		50.0	47.8	ug/L	2.01	4.49	40	
4-Chlorotoluene		50.0	46.5	ug/L	1.88	7.03	40	
1,2-Dibromo-3-Chloropropane		50.0	46.5	ug/L	0.0624	6.98	40	
1,2-Dibromoethane		50.0	47.4	ug/L	0.195	5.15	40	
Dibromomethane		50.0	49.8	ug/L	0.120	0.365	40	
1,2-Dichlorobenzene		50.0	47.8	ug/L	1.16	4.35	40	
1,3-Dichlorobenzene		50.0	47.1	ug/L	1.35	5.84	40	
1,4-Dichlorobenzene		50.0	51.0	ug/L	1.36	2.08	40	
Dichlorodifluoromethane		50.0	47.4	ug/L	0.484	5.21	40	
1,2-Dichloroethane		50.0	49.4	ug/L	0.351	1.24	40	
cis-1,2-Dichloroethene		50.0	53.5	ug/L	0.288	6.93	40	
trans-1,2-Dichloroethene		50.0	53.9	ug/L	0.289	7.75	40	
1,3-Dichloropropane		50.0	45.8	ug/L	0.339	8.32	40	
2,2-Dichloropropane		50.0	56.4	ug/L	0.529	12.7	40	
cis-1,3-Dichloropropene		50.0	50.8	ug/L	0.365	1.64	40	
trans-1,3-Dichloropropene		50.0	50.9	ug/L	0.420	1.86	40	

CCV - Modified 03/05/2008
PDF File ID: 1047000
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00102567

Login Number: L08030315 Run Date: 03/21/2008 Sample ID: WG266110-02
Instrument ID: HPMS6 Run Time: 09:43 Method: 8260B
File ID: 6M73622 Analyst: CMS/ASP QC Key: STD
Workgroup (AAB#): WG266112 Cal ID: HPMS6 - 17-MAR-08

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	53.7	ug/L	0.380	7.37	40	
2-Hexanone	50.0	44.4	ug/L	0.0859	11.3	40	
Hexachlorobutadiene	50.0	53.1	ug/L	0.514	6.22	40	
Isopropylbenzene	50.0	53.9	ug/L	1.64	7.82	40	
p-Isopropyltoluene	50.0	53.5	ug/L	2.68	6.99	40	
4-Methyl-2-Pentanone	50.0	38.9	ug/L	0.0353	22.2	40	
Methylene Chloride	50.0	51.3	ug/L	0.249	2.50	40	
Naphthalene	50.0	46.1	ug/L	1.18	7.86	40	
n-Propylbenzene	50.0	50.4	ug/L	3.15	0.817	40	
Styrene	50.0	52.1	ug/L	1.01	4.14	40	
1,1,1,2-Tetrachloroethane	50.0	49.7	ug/L	0.357	0.586	40	
Tetrachloroethene	50.0	50.6	ug/L	0.368	1.16	40	
1,2,3-Trichlorobenzene	50.0	45.9	ug/L	0.649	8.25	40	
1,2,4-Trichlorobenzene	50.0	47.1	ug/L	0.827	5.90	40	
1,1,1-Trichloroethane	50.0	54.7	ug/L	0.538	9.32	40	
1,1,2-Trichloroethane	50.0	45.7	ug/L	0.189	8.64	40	
Trichloroethene	50.0	52.5	ug/L	0.283	4.98	40	
Trichlorofluoromethane	50.0	55.2	ug/L	0.714	10.4	40	
1,2,3-Trichloropropane	50.0	46.9	ug/L	0.109	6.16	40	
1,2,4-Trimethylbenzene	50.0	49.4	ug/L	2.43	1.17	40	
1,3,5-Trimethylbenzene	50.0	50.8	ug/L	2.32	1.68	40	
Vinyl Acetate	50.0	39.4	ug/L	0.200	21.2	40	
o-Xylene	50.0	51.9	ug/L	0.617	3.71	40	
m-, p-Xylene	100	101	ug/L	0.644	1.38	40	
1,2-Dichloroethene	100	107	ug/L	0.289	7.34	40	
Xylenes	150	153	ug/L	0.630	2.16	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1047000
Report generated 03/24/2008 16:33



00102568

Login Number: L08030315 Run Date: 03/22/2008 Sample ID: WG266197-02
Instrument ID: HPMS6 Run Time: 12:15 Method: 8260B
File ID: 6M73659 Analyst: CMS QC Key: STD
Workgroup (AAB#): WG266199 Cal ID: HPMS6 - 17-MAR-08

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	51.1	ug/L	0.544	2.29	20	
1,1-Dichloroethene	CCC	50.0	54.0	ug/L	0.483	7.98	20	
1,2-Dichloropropane	CCC	50.0	47.1	ug/L	0.212	5.75	20	
Ethylbenzene	CCC	50.0	48.8	ug/L	0.481	2.47	20	
Toluene	CCC	50.0	48.0	ug/L	1.23	4.02	20	
Vinyl Chloride	CCC	50.0	46.6	ug/L	0.318	6.82	20	
Bromoform	SPCC	50.0	51.2	ug/L	0.191	2.47	40	
Chlorobenzene	SPCC	50.0	45.7	ug/L	0.873	8.63	40	
Chloromethane	SPCC	50.0	43.4	ug/L	0.346	13.1	40	
1,1-Dichloroethane	SPCC	50.0	50.1	ug/L	0.514	0.256	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	45.3	ug/L	0.316	9.32	40	
Acetone		50.0	50.9	ug/L	0.0390	1.71	40	
Benzene		50.0	48.0	ug/L	0.888	4.06	40	
Bromobenzene		50.0	47.1	ug/L	0.627	5.80	40	
Bromochloromethane		50.0	52.2	ug/L	0.159	4.36	40	
Bromodichloromethane		50.0	51.3	ug/L	0.370	2.52	40	
Bromomethane		50.0	55.5	ug/L	0.226	11.1	40	
2-Butanone		50.0	46.7	ug/L	0.0488	6.69	40	
n-Butylbenzene		50.0	49.7	ug/L	2.33	0.643	40	
sec-Butylbenzene		50.0	49.8	ug/L	2.81	0.478	40	
tert-Butylbenzene		50.0	50.1	ug/L	0.472	0.184	40	
Carbon Disulfide		50.0	46.4	ug/L	0.730	7.15	40	
Carbon Tetrachloride		50.0	57.9	ug/L	0.509	15.7	40	
Dibromochloromethane		50.0	53.3	ug/L	0.316	6.66	40	
Chloroethane		50.0	48.0	ug/L	0.205	4.09	40	
2-Chloroethyl Vinyl Ether		50.0	50.6	ug/L	0.0894	1.28	40	
2-Chlorotoluene		50.0	45.8	ug/L	1.93	8.34	40	
4-Chlorotoluene		50.0	45.4	ug/L	1.84	9.13	40	
1,2-Dibromo-3-Chloropropane		50.0	49.9	ug/L	0.0671	0.189	40	
1,2-Dibromoethane		50.0	50.4	ug/L	0.207	0.836	40	
Dibromomethane		50.0	52.7	ug/L	0.128	5.48	40	
1,2-Dichlorobenzene		50.0	47.2	ug/L	1.15	5.62	40	
1,3-Dichlorobenzene		50.0	45.6	ug/L	1.31	8.84	40	
1,4-Dichlorobenzene		50.0	49.8	ug/L	1.32	0.398	40	
Dichlorodifluoromethane		50.0	49.1	ug/L	0.502	1.71	40	
1,2-Dichloroethane		50.0	49.8	ug/L	0.354	0.383	40	
cis-1,2-Dichloroethene		50.0	51.4	ug/L	0.277	2.88	40	
trans-1,2-Dichloroethene		50.0	51.6	ug/L	0.277	3.10	40	
1,3-Dichloropropane		50.0	46.5	ug/L	0.344	6.96	40	
2,2-Dichloropropane		50.0	56.2	ug/L	0.528	12.5	40	
cis-1,3-Dichloropropene		50.0	52.1	ug/L	0.374	4.15	40	
trans-1,3-Dichloropropene		50.0	51.9	ug/L	0.428	3.71	40	

CCV - Modified 03/05/2008
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00102569

Login Number: L08030315 Run Date: 03/22/2008 Sample ID: WG266197-02
Instrument ID: HPMS6 Run Time: 12:15 Method: 8260B
File ID: 6M73659 Analyst: CMS QC Key: STD
Workgroup (AAB#): WG266199 Cal ID: HPMS6 - 17-MAR-08

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	53.1	ug/L	0.376	6.28	40	
2-Hexanone	50.0	47.1	ug/L	0.0913	5.72	40	
Hexachlorobutadiene	50.0	51.1	ug/L	0.494	2.15	40	
Isopropylbenzene	50.0	51.2	ug/L	1.56	2.32	40	
p-Isopropyltoluene	50.0	51.0	ug/L	2.56	1.97	40	
4-Methyl-2-Pentanone	50.0	41.8	ug/L	0.0384	16.3	40	
Methylene Chloride	50.0	48.4	ug/L	0.235	3.14	40	
Naphthalene	50.0	48.0	ug/L	1.23	4.10	40	
n-Propylbenzene	50.0	48.5	ug/L	3.03	2.97	40	
Styrene	50.0	49.9	ug/L	0.967	0.219	40	
1,1,1,2-Tetrachloroethane	50.0	49.8	ug/L	0.358	0.376	40	
Tetrachloroethene	50.0	50.6	ug/L	0.368	1.25	40	
1,2,3-Trichlorobenzene	50.0	47.2	ug/L	0.668	5.57	40	
1,2,4-Trichlorobenzene	50.0	48.5	ug/L	0.852	3.03	40	
1,1,1-Trichloroethane	50.0	55.0	ug/L	0.541	10.0	40	
1,1,2-Trichloroethane	50.0	46.3	ug/L	0.192	7.31	40	
Trichloroethene	50.0	52.0	ug/L	0.281	4.05	40	
Trichlorofluoromethane	50.0	52.9	ug/L	0.684	5.82	40	
1,2,3-Trichloropropane	50.0	49.8	ug/L	0.115	0.471	40	
1,2,4-Trimethylbenzene	50.0	47.1	ug/L	2.32	5.86	40	
1,3,5-Trimethylbenzene	50.0	48.8	ug/L	2.23	2.36	40	
Vinyl Acetate	50.0	36.8	ug/L	0.187	26.5	40	
o-Xylene	50.0	49.2	ug/L	0.585	1.52	40	
m-, p-Xylene	100	95.5	ug/L	0.607	4.50	40	
1,2-Dichloroethene	100	103	ug/L	0.277	2.99	40	
Xylenes	150	145	ug/L	0.596	3.51	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1047000
Report generated 03/24/2008 16:33



Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266112

CCV Number: WG266110-02
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG266110-02	NA	NA	225233	346135	441961
Upper Limit	NA	NA	450466	692270	883922
Lower Limit	NA	NA	112617	173068	220981
L08030315-01	1.00	01	125363	209027	269799
L08030315-02	25.0	DL01	117005	195173	252771
L08030315-04	1.00	01	153864	259750	329470
WG266112-01	1.00	01	164121	276691	358746
WG266112-02	1.00	01	206647	316123	398031
WG266112-03	1.00	01	208603	328364	406397

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266199

CCV Number: WG266197-02
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG266197-02	NA	NA	261653	412659	516785
Upper Limit	NA	NA	523306	825318	1033570
Lower Limit	NA	NA	130827	206330	258393
L08030315-03	1.00	01	166879	263168	327896
WG266199-01	1.00	01	211555	352733	450654
WG266199-02	1.00	01	227257	355212	434605
WG266199-03	1.00	01	221674	359383	442155

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

00102572

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266112

ICAL CCV Number: WG265645-08
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG265645-08	NA	NA	262228	418739	534733
Upper Limit	NA	NA	524456	837478	1069466
Lower Limit	NA	NA	131114	209370	267367
L08030315-01	1.00	01	<u>125363</u>	<u>209027</u>	<u>269799</u>
L08030315-02	25.0	DL01	<u>117005</u>	<u>195173</u>	<u>252771</u>
L08030315-04	1.00	01	153864	259750	329470
WG266112-01	1.00	01	164121	276691	358746
WG266112-02	1.00	01	206647	316123	398031
WG266112-03	1.00	01	208603	328364	406397

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

00102573

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266199

ICAL CCV Number: WG265645-08
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG265645-08	NA	NA	262228	418739	534733
Upper Limit	NA	NA	524456	837478	1069466
Lower Limit	NA	NA	131114	209370	267367
L08030315-03	1.00	01	166879	263168	327896
WG266199-01	1.00	01	211555	352733	450654
WG266199-02	1.00	01	227257	355212	434605
WG266199-03	1.00	01	221674	359383	442155

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

00102574

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266112

CCV Number: WG266110-02
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG266110-02	NA	NA	18.86	15.31	10.83
Upper Limit	NA	NA	19.36	15.81	11.33
Lower Limit	NA	NA	18.36	14.81	10.33
L08030315-01	1.00	01	18.86	15.3	10.83
L08030315-02	25.0	DL01	18.86	15.3	10.83
L08030315-04	1.00	01	18.86	15.3	10.82
WG266112-01	1.00	01	18.86	15.31	10.83
WG266112-02	1.00	01	18.86	15.3	10.83
WG266112-03	1.00	01	18.86	15.3	10.82

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

00102575

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266199

CCV Number: WG266197-02
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG266197-02	NA	NA	18.86	15.3	10.83
Upper Limit	NA	NA	19.36	15.8	11.33
Lower Limit	NA	NA	18.36	14.8	10.33
L08030315-03	1.00	01	18.86	15.31	10.82
WG266199-01	1.00	01	18.86	15.31	10.83
WG266199-02	1.00	01	18.86	15.31	10.82
WG266199-03	1.00	01	18.86	15.3	10.83

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

KEMRON Environmental Services, Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

00102576

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266112

ICAL CCV Number: WG265645-08
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG265645-08	NA	NA	18.86	15.31	10.82
Upper Limit	NA	NA	19.36	15.81	11.32
Lower Limit	NA	NA	18.36	14.81	10.32
L08030315-01	1.00	01	18.86	15.3	10.83
L08030315-02	25.0	DL01	18.86	15.3	10.83
L08030315-04	1.00	01	18.86	15.3	10.82
WG266112-01	1.00	01	18.86	15.31	10.83
WG266112-02	1.00	01	18.86	15.3	10.83
WG266112-03	1.00	01	18.86	15.3	10.82

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

KEMRON Environmental Services, Inc.
INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

00102577

Login Number: L08030315
Instrument ID: HPMS6
Workgroup (AAB#): WG266199

ICAL CCV Number: WG265645-08
CAL ID: HPMS6 - 17-MAR-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG265645-08	NA	NA	18.86	15.31	10.82
Upper Limit	NA	NA	19.36	15.81	11.32
Lower Limit	NA	NA	18.36	14.81	10.32
<u>L08030315-03</u>	<u>1.00</u>	<u>01</u>	<u>18.86</u>	<u>15.31</u>	<u>10.82</u>
WG266199-01	1.00	01	18.86	15.31	10.83
WG266199-02	1.00	01	18.86	15.31	10.82
WG266199-03	1.00	01	18.86	15.3	10.83

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

3.0 Attachments

Kemron Environmental Services
Analyst Listing
March 25, 2008

AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN	AML - ANTHONY M. LONG
ASP - AARON S. PETRIE	BRG - BRENDA R. GREGORY	CAA - CASSIE A. AUGENSTEIN
CAF - CHERYL A. FLOWERS	CAH - CHARLES A. HALL	CEB - CHAD E. BARNES
CLC - CHRYS L. CRAWFORD	CLW - CHARISSA L. WINTERS	CMS - CRYSTAL M. STEPHENS
CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL	DDE - DEBRA D. ELLIOTT
DEL - DON E. LIGHTFRITZ	DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER
DIH - DEANNA I. HESSON	DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE
DLR - DIANNA L. RAUCH	DR - DEANNA ROBERTS	DSF - DEBRA S. FREDERICK
ECL - ERIC C. LAWSON	ED - EMILY E. DECKER	ERE - ERIN R. ELDER
FJB - FRANCES J. BOLDEN	HAV - HEMA VILASAGAR	HJR - HOLLY J. REED
JAB - JUANITA A. BECKER	JBK - JEREMY B. KINNEY	JDH - JUSTIN D. HESSON
JKP - JACQUELINE K. PARSONS	JKT - JANE K. THOMPSON	JLK - JUSTEN L. KNOPP
JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES	JYH - JI Y. HU
KEB - KATHRYN E. BARNES	KHR - KIM H. RHODES	KJW - KATIE J. WIEFERICH
KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA
MDA - MIKE D. ALBERTSON	MDC - MICHAEL D. COCHRAN	MES - MARY E. SCHILLING
MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON
NJB - NATALIE J. BOOTH	NPM - NATHANIEL P. MILLER	RAH - ROY A. HALSTEAD
RB - ROBERT BUCHANAN	REK - ROBERT E. KYER	RLF - RACHEL L. FRYE
RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	SMH - SHAUNA M. HYDE	TDH - TRICIA D. HUCK
TMB - TIFFANY M. BAILEY	TMM - TAMMY M. MORRIS	VC - VICKI COLLIER

Qualkey: STD

<u>Qualifier</u>	<u>Description</u>
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
C	Confirmed by GC/MS
CG	Confluent growth
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
FL	Free Liquid
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit
ND,L	Not detected; sample reporting limit (RL) elevated due to interference
ND,S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Undetected; the concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

*****Special Notes for Organic Analytes**

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.

00102581

NO. 10249



Shaw® Shaw Environmental & Infrastructure, Inc.

3010 Briarpark Drive, Suite 400

Houston, TX 77042

(713) 996-4400

Chain of Custody

Laboratory Name: Kemron		Address: 156 STARITE DR. MARIETTA, OH		Contact: STEPHANIE MOSSBURG													
Project Name: LHAAP		Project Location: LARNACK, TX		Analysis and Method Desired (Indicate separate containers)													
Project No.: 117591.00098810		Project Contact: Allen Willmore		Project Telephone No.: 713-996-4586													
Point of Contact: Allen Willmore		Project Manager/Supervisor: PRAVEEN SRIVASTAV		Telephone No.: 713-996-4586													
Item No.	Sample Telephone Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOA								
1	47WW33-031408	3/14/08	9:50		✓	W	GROUNDWATER, SITE 47	2	2								
2	47WW34-031408	3/14/08	12:00		✓	W	GROUNDWATER, SITE 47	2	2								
3	17WW17-031408	3/14/08	3:10		✓	W	GROUNDWATER, SITE 17	2	2								
4	TRIP BLANK							2	2								
5																	
6																	
7																	
8																	
9																	
10																	
Transfers Relinquished By (signature): Scott Belsign		Date/Time: 3/14/08 16:00		Transfers Accepted By (signature): Eun Elder		Date/Time: 3-15-08 10:00		Special Instructions: 7 DAY TAT									
								FedEx Airbill No.:									
						Laboratory		Sampler's Signature: Scott Belsign									
TAT: ☐ Standard ☐ Rush Date ☐ Seals Intact? ☐ Y ☐ N Received Good Condition ☐ Y ☐ N ☐ Cold																	

White - Lab Copy Canary - Field Copy Pink - File Copy

Form Number: 433_1

Rev. 03-19-07

Client: <u>Shaw Longhorn</u>			
Workorder Number: <u>B 9190</u>			
Date Received: <u>3-15-08</u>			
Delivered by:	☐ Fedx	☒ UPS	☐ Client ☐ Courier Time: <u>1010</u>
Opened by: <u>EE</u>			
IR Temp Gun:	☐ D	☒ G	
Logged by: <u>EE/JKT/sm</u>		<u>L08030315</u>	

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
393	1	126607254492754749		7 DIAT

Inspection Checklist

	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?	☒	☐	☐	
Were custody seals intact?	☒	☐	☐	
Were cooler temperatures in range of 0 - 6?	☒	☐	☐	
Was ice present?	☒	☐	☐	
Were COC's received/ information complete/signed and dated?	☒	☐	☐	
Were sample containers and labels intact and match COC?	☒	☐	☐	
Were the correct containers and volumes received?	☒	☐	☐	
Were correct preservatives used? (water only)	☒	☐	☐	
Were pH ranges acceptable? (voa's excluded)	☒	☐	☒	
Were VOA samples free of headspace (< 6mm)?	☒	☐	☐	
Were samples received within EPA hold times?	☒	☐	☐	

Discrepancy/Comments/Other Problems

<u>Stored in walkin cooler over weekend</u>

Distribution

Name of KEMRON representative
Client/Company:
Person Contacted:
Date contacted:

Resolution/other comments:

Internal Chain of Custody Report

00102583

Login: L08030315

Account: 2773

Project: 2773.025

Samples: 4

Due Date: 24-MAR-2008

Samplenum **Container ID** **Products**
L08030315-01 435830 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:37	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:37	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Samplenum **Container ID** **Products**
L08030315-04 435833 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Samplenum **Container ID** **Products**
L08030315-03 435832 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Login: L08030315**Account:** 2773**Project:** 2773.025**Samples:** 4**Due Date:** 24-MAR-2008

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L08030315-02	435831	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	17-MAR-2008 13:38	ERE	
2	ANALYZ	V1	ORG4	18-MAR-2008 09:41	KJW	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Quick Facts



Look closer. Go further. Do more.

Corporate Information:

Microbac Laboratories, Inc.

Franklin Corporate Center

2000 Corporate Drive, Suite 350

Wexford, PA 15090

Phone: (724) 934-5030

FAX: (724) 934-5088

www.microbac.com

President & CEO: J. Trevor Boyce

Federal Tax ID#: 25-1199-642

DUNS#: 048192892

Incorporated in the State of PA -- May 1, 1969

Employees Corporate-Wide: 467

Facilities Corporate -Wide: 18 Divisions, 28 locations across 15 states



Microbac Laboratories Inc.
Ohio Valley Division
158 Starlite Drive
Marietta, OH 45750

Phone: 800-373-4071
Fax: 740-373-4835
Email: OVL@microbac.com



Please note these administrative changes for our Ohio Valley Division laboratory in Marietta, OH (formerly KEMRON Environmental Services, Inc.), in particular the address, which is a revised routing of remittances on our invoices. All invoices dated April 1, 2008 or later will reflect this change, and will be highlighted with an attention-getting sticker during our transition. Please adjust your records to ensure proper routing of payments.



158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

Laboratory Report Number: L08100416

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

Kathy Albertson	<i>Team Chemist/Data Specialist</i>	kalbertson@microbac.com
Stephanie Mossburg	<i>Team Chemist/Data Specialist</i>	smossburg@microbac.com
Tony Long	<i>Team Chemist/Data Specialist</i>	tlong@microbac.com
Brenda Gregory	<i>Client Services Specialist</i>	bgregory@microbac.com
Amanda Fickiesen	<i>Client Services Specialist</i>	afickiesen@microbac.com
Annie Brown	<i>Client Services Specialist</i>	abrown@microbac.com
Jacqueline Parsons	<i>Team Assistant</i>	jparsons@microbac.com

This report was reviewed on October 29, 2008.

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on October 29, 2008.

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac (OVD) LQAP

This report contains a total of 244 pages.

Look closer. Go further. Do more.



Microbac REPORT L08100416
PREPARED FOR Shaw E I, Inc.
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L08100416

CHAIN OF CUSTODY: The chain of custody number was 5423.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 0 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 20-OCT-08
<i>Stephanie Mossburg</i>

Laboratory Data Package Cover Page

00102590

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

- ✓R1 Field chain-of-custody documentation;
- ✓R2 sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs)
- ✓R4 Surrogate recovery data including:
 - a) Calculated recovery (%R) for each analyte, and
 - b) The laboratory's surrogate QC limits.
- ✓R5 Test reports/summary forms for blank samples;
- ✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amount,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %R and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ✓R10 Other problems or anomalies.
- ✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MIKE D. ALBERTSON



Volatiles Lab Supervisor

October 29, 2008

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L08100416
Project Name: 798-LONGHORN
Method: 8260B
Prep Batch Number(s): 285612, 285680
Reviewer Name: MIKE D. ALBERTSON
LRC Date: October 29, 2008

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?	✓				
Were surrogate percent recoveries in all samples within the laboratory QC limits?		✓			1
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?		✓			2
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		✓			3
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?		✓			3
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?		✓			5
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?	✓				
Were ion abundance data within the method-required QC limits?	✓				
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?	✓				
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00102592

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

EXCEPTIONS REPORT

ER# - Description

#1: Dibromofluoromethane was below the lower control limit in the analysis of sample 08. Toluene-d8 was below the lower control limit in the analysis of sample 06.

#2: Chloromethane was detected in the method blanks analyzed 10/22/08 (WG285612, WG285680) on HPMS-11 at a concentration greater than the reporting limit.

#3: The % recoveries for chloromethane and dichlorodifluoromethane and the RPD for chloromethane exceeded the upper advisory limits in the LCS/LCSD's analyzed 10/22/08 (WG285612, WG285680) on HPMS-11.

#4: Trichlorofluoromethane was below the lower control limit in the CCV analyzed 10/22/08 on HPMS-11.

#5: Vinyl chloride exceeded the upper control limit.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms FOR laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MAREN M. BEERY



Metals Supervisor

October 17, 2008

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L08100416
Project Name: 798-LONGHORN
Method: 6020
Prep Batch Number(s): WG285126
Reviewer Name: MAREN M. BEERY
LRC Date: October 17, 2008

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				ER1
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <RL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?			✓		
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?			✓		
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <RL?	✓				
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?	✓				
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

00102597

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L08100416
Project Name:	798-LONGHORN
Method:	6020
Prep Batch Number(s):	WG285126
Reviewer Name:	MAREN M. BEERY
LRC Date:	October 17, 2008

EXCEPTIONS REPORT

ER# 1- Client sample 07 required dilution analysis in order to obtain results for manganese and nickel within the linear range.

Footnotes:

- (1) NA = Not applicable to method or project**
- (2) NR = Not reviewed**
- (3) ER# = Exception report number**

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms FOR laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

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MAREN M. BEERY



Metals Supervisor

October 22, 2008

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L08100416
Project Name: 798-LONGHORN
Method: 6010
Prep Batch Number(s): WG284943
Reviewer Name: MAREN M. BEERY
LRC Date: October 17, 2008

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?			✓		ER1
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <RL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?			✓		
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				ER2
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?			✓		
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <RL?	✓				
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?	✓				
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00102601

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L08100416
Project Name:	798-LONGHORN
Method:	6010
Prep Batch Number(s):	WG284943
Reviewer Name:	MAREN M. BEERY
LRC Date:	October 17, 2008

EXCEPTIONS REPORT

ER1 - Dilution analysis was performed on sample 07 in order to obtain a result for sodium within the linear range.

ER2 - Due to a noncompliant result on the negative side, vanadium for sample 07 was reported from a dilution analysis.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms FOR laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

SHERI L. PFALZGRAF



Chemist II

October 22, 2008

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L08100416
Project Name: 798-LONGHORN
Method: 7471
Prep Batch Number(s): WG284950
Reviewer Name: SHERI L. PFALZGRAF
LRC Date: October 17, 2008

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <RL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?			✓		
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?			✓		
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <RL?	✓				
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L08100416
Project Name:	798-LONGHORN
Method:	7471
Prep Batch Number(s):	WG284950
Reviewer Name:	SHERI L. PFALZGRAF
LRC Date:	October 17, 2008

EXCEPTIONS REPORT

ER# - Description

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L08100416

00102612

10/29/08 16:41

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Larry Duty

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
17WW18-100808	L08100416-01	8260B	1	14-OCT-08
47WW36-100908	L08100416-02	8260B	1	14-OCT-08
47WW35-100908	L08100416-03	8260B	1	14-OCT-08
42WW35-100908-QA	L08100416-04	8260B	1	14-OCT-08
46WW05-100908	L08100416-05	8260B	1	14-OCT-08
46WW06-100908	L08100416-06	8260B	1	14-OCT-08
TRIP BLANK	L08100416-08	8260B	1	14-OCT-08



Sample Number: **L08100416-01**
 Client ID: **17WW18-100808**
 Matrix: **Water**
 Workgroup Number: **WG285612**
 Collect Date: **10/08/2008 14:15**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 10:09**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 10:09**
 File ID: **11M54623**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0	1.14		1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	1.33	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102614

Sample Number: **L08100416-01**
 Client ID: **17WW18-100808**
 Matrix: **Water**
 Workgroup Number: **WG285612**
 Collect Date: **10/08/2008 14:15**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 10:09**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 10:09**
 File ID: **11M54623**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	90.5	86	118		
1,2-Dichloroethane-d4	84.8	80	120		
Toluene-d8	95.7	88	110		
4-Bromofluorobenzene	90.3	86	115		

U Not detected at or above adjusted sample detection limit

B Analyte present in method blank

Sample Number: L08100416-02
 Client ID: 47WW36-100908
 Matrix: Water
 Workgroup Number: WG285612
 Collect Date: 10/09/2008 08:20
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: WTD
 Dilution: 1
 Units: ug/L

Instrument: HPMS11
 Prep Date: 10/22/2008 10:40
 Cal Date: 10/21/2008 21:12
 Run Date: 10/22/2008 10:40
 File ID: 11M54624

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	12.5		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3	0.983	J	1.00	0.125
Chloromethane	74-87-3	1.63	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3	1.03		1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102616

Sample Number: **L08100416-02**
 Client ID: **47WW36-100908**
 Matrix: **Water**
 Workgroup Number: **WG285612**
 Collect Date: **10/09/2008 08:20**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 10:40**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 10:40**
 File ID: **11M54624**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	89.9	86	118		
1,2-Dichloroethane-d4	87.3	80	120		
Toluene-d8	96.2	88	110		
4-Bromofluorobenzene	90.8	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

B Analyte present in method blank

Sample Number: L08100416-03
 Client ID: 47WW35-100908
 Matrix: Water
 Workgroup Number: WG285612
 Collect Date: 10/09/2008 11:55
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: WTD
 Dilution: 1
 Units: ug/L

Instrument: HPMS11
 Prep Date: 10/22/2008 11:11
 Cal Date: 10/21/2008 21:12
 Run Date: 10/22/2008 11:11
 File ID: 11M54625

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	5.39	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4	0.254	J	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3	1.49		1.00	0.125
Chloromethane	74-87-3	1.74	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102618

Sample Number: **L08100416-03**
 Client ID: **47WW35-100908**
 Matrix: **Water**
 Workgroup Number: **WG285612**
 Collect Date: **10/09/2008 11:55**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 11:11**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 11:11**
 File ID: **11M54625**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	89.8	86	118		
1,2-Dichloroethane-d4	87.2	80	120		
Toluene-d8	97.8	88	110		
4-Bromofluorobenzene	93.3	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

B Analyte present in method blank

Report Number: **L08100416**Report Date : **October 29, 2008**

00102619

Sample Number: **L08100416-04**
 Client ID: **42WW35-100908-QA**
 Matrix: **Water**
 Workgroup Number: **WG285680**
 Collect Date: **10/09/2008 11:55**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 15:30**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 15:30**
 File ID: **11M54633A**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0	0.573	J	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3	1.61		1.00	0.125
Chloromethane	74-87-3	2.03	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

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Report Number: **L08100416**Report Date : **October 29, 2008**

00102620

Sample Number: **L08100416-04**
 Client ID: **42WW35-100908-QA**
 Matrix: **Water**
 Workgroup Number: **WG285680**
 Collect Date: **10/09/2008 11:55**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 15:30**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 15:30**
 File ID: **11M54633A**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	90.7	86	118		
1,2-Dichloroethane-d4	88.9	80	120		
Toluene-d8	88.6	88	110		
4-Bromofluorobenzene	93.4	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

B Analyte present in method blank

Sample Number: L08100416-05
 Client ID: 46WW05-100908
 Matrix: Water
 Workgroup Number: WG285680
 Collect Date: 10/09/2008 14:05
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: WTD
 Dilution: 1
 Units: ug/L

Instrument: HPMS11
 Prep Date: 10/22/2008 16:01
 Cal Date: 10/21/2008 21:12
 Run Date: 10/22/2008 16:01
 File ID: 11M54634A

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	14.1		10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3	1.75	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2	1.72		1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	5.90		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102622

Sample Number: **L08100416-05**
 Client ID: **46WW05-100908**
 Matrix: **Water**
 Workgroup Number: **WG285680**
 Collect Date: **10/09/2008 14:05**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 16:01**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 16:01**
 File ID: **11M54634A**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	91.1	86	118		
1,2-Dichloroethane-d4	86.8	80	120		
Toluene-d8	89.1	88	110		
4-Bromofluorobenzene	91.8	86	115		

U Not detected at or above adjusted sample detection limit

B Analyte present in method blank

Sample Number: **L08100416-06**
 Client ID: **46WW06-100908**
 Matrix: **Water**
 Workgroup Number: **WG285680**
 Collect Date: **10/09/2008 17:20**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 16:32**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 16:32**
 File ID: **11M54635A**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1	6.74	J	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3	0.558	J	1.00	0.125
Chloromethane	74-87-3	1.77	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102624

Sample Number: **L08100416-06**
 Client ID: **46WW06-100908**
 Matrix: **Water**
 Workgroup Number: **WG285680**
 Collect Date: **10/09/2008 17:20**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 16:32**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 16:32**
 File ID: **11M54635A**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	88.6	86	118		
1,2-Dichloroethane-d4	86.3	80	120		
Toluene-d8	87.2	88	110	*	
4-Bromofluorobenzene	90.2	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

* Surrogate or spike compound out of range

B Analyte present in method blank

Sample Number: L08100416-08
 Client ID: TRIP BLANK
 Matrix: Water
 Workgroup Number: WG285612
 Collect Date: 10/09/2008 00:01
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: WTD
 Dilution: 1
 Units: ug/L

Instrument: HPMS11
 Prep Date: 10/22/2008 05:59
 Cal Date: 10/21/2008 21:12
 Run Date: 10/22/2008 05:59
 File ID: 11M54615

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3	0.343	J	1.00	0.125
Chloromethane	74-87-3	2.52	B	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L08100416**Report Date : **October 29, 2008**

00102626

Sample Number: **L08100416-08**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG285612**
 Collect Date: **10/09/2008 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **10/22/2008 05:59**
 Cal Date: **10/21/2008 21:12**
 Run Date: **10/22/2008 05:59**
 File ID: **11M54615**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	85.8	86	118	*	
1,2-Dichloroethane-d4	82.8	80	120		
Toluene-d8	97.5	88	110		
4-Bromofluorobenzene	88.7	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

* Surrogate or spike compound out of range

B Analyte present in method blank

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100

RF = Calculated Response Factor **1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

$$Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Vs = Purge volume of sample (mL)	10
Vn = Nominal purge volume of sample (mL) (10.0 mL)	10
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

$$Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Ws = Weight of sample purged (g)	5
Wn = Nominal purge weight (g) (5.0 g)	5
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	254.4856

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

$$y = 86550/593147 = 0.1459$$

Step 3: Solve for x

$$x = (y - b)/m = [(0.1459 - (-0.00642))/0.213] = 0.7152$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.7152) = 17.88$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.213
Intercept from curve, b:	-0.00642
Area of analyte, Ax:	86550
Area of Internal Standard, Ais:	593147
Concentration of IS, Cis	25.00
Response Ratio:	0.145917
Amount Ratio:	0.715195
Concentration:	17.87988
Units of Internal Standard:	ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	-0.00629
Value of B from plot:	0.511
Value of C from plot:	-0.0276
Area of unknown from quantitation report:	293821
Area of IS from quantitation report:	784848
Response ratio, y:	0.374367
C - y:	-0.40197
Root 1 - Computed amount ratio, X1:	80.44567
Root 2 - Computed amount ratio, X2:	0.794396 use this solution
Concentration of IS, Cis:	25.00
Concentration of analyte, Cx:	19.86 ug/L

Microbac Laboratories Inc.
Instrument Run Log

00102630

Instrument: HPMS11 Dataset: 102108
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 26371

Internal Standard: NA Surrogate Standard: NA
 CCV: NA LCS: NA MS/MSD: NA
 Column 1 ID: _____ Column 2 ID: NA
 Workgroups: WG285582, WG285612

Comments: REANALYSIS REQUIRED. SEE NOTES

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M54582	VOCARB 3000 1 CHECK	NA	1	1		10/21/08 10:40
2	11M54583	VOCARB 3000 20 CHECK	NA	1	1		10/21/08 11:26
3	11M54584	VOCARB 3000 100 CHECK	NA	1	1		10/21/08 11:58
4	11M54585	VOCARB 3000 1 CHECK	NA	1	1		10/21/08 13:04
5	11M54586	WG285582-01 TUNE 50ng BFB	NA	1	1	STD29166	10/21/08 14:50
6	11M54587	WG285582-02 0.3 STD 8260	NA	1	1	STD29369	10/21/08 15:20
7	11M54588	WG285582-03 0.4 STD 8260	NA	1	1	STD29369	10/21/08 15:53
8	11M54589	WG285582-04 1 STD 8260	NA	1	1	STD29369	10/21/08 16:35
9	11M54590	WG285582-02 0.3 STD 8260	NA	1	1	STD29369	10/21/08 17:06
10	11M54591	WG285582-04 0.4 STD 8260	NA	1	1	STD29369	10/21/08 17:37
11	11M54592	WG285582-05 2 STD 8260	NA	1	1	STD29369	10/21/08 18:08
12	11M54593	WG285582-06 5 STD 8260	NA	1	1	STD29369	10/21/08 18:38
13	11M54594	WG285582-07 20 STD 8260	NA	1	1	STD29369	10/21/08 19:09
14	11M54595	WG285582-08 50 STD 8260	NA	1	1	STD29369	10/21/08 19:40
15	11M54596	WG285582-09 100 STD 8260	NA	1	1	STD29369	10/21/08 20:11
16	11M54597	WG285582-10 200 STD 8260	NA	1	1	STD29369	10/21/08 20:42
17	11M54598	WG285582-11 300 STD 8260	NA	1	1	STD29369	10/21/08 21:12
18	11M54599	SYSTEM BLANK	NA	1	1		10/21/08 21:43
19	11M54600	SYSTEM BLANK	NA	1	1		10/21/08 22:14
20	11M54601	WG285582-12 ICV 20ug/L	NA	1	1	STD29406	10/21/08 22:45
21	11M54602	SYSTEM BLANK	NA	1	1	STD29406	10/21/08 23:16
22	11M54603	WG285611-01 50ng BFB TUNE	NA	1	1	STD29166	10/21/08 23:45
23	11M54604	WG285611-01 50ng BFB TUNE	NA	1	1	STD29166	10/22/08 00:19
24	11M54605	WG285611-02 50ug/L CCV	NA	1	1	STD29369	10/22/08 00:47
25	11M54606	SYSTEM BLANK	NA	1	1		10/22/08 01:18
26	11M54607	WG285582-12 20ug/L ALT SOURCE	NA	1	1	STD29406	10/22/08 01:50
27	11M54608	WG285612-01 VBLK1021 BLANK 8260	NA	1	1		10/22/08 02:21
28	11M54609	WG285612-01 VBLK1021 BLANK 8260	NA	1	1		10/22/08 02:52
29	11M54610	WG285612-02 20ug/L LCS 8260	NA	1	1	STD29406	10/22/08 03:23
30	11M54611	WG285612-03 20ug/L LCSDUP 8260	NA	1	1	STD29406	10/22/08 03:54
31	11M54612	L08100255-03 A 10X 826-TC	NA	17	10		10/22/08 04:26
32	11M54613	L08100298-05 A 826-SPE1	<2	1	1		10/22/08 04:57
33	11M54614	L08100371-01 A 826-SPE	<2	1	1		10/22/08 05:28
34	11M54615	L08100416-08 A 826-SPE	<2	1	1		10/22/08 05:59

Approved:



Microbac Laboratories Inc.
Instrument Run Log

00102631

Instrument: HPMS11 Dataset: 102108
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 26371

Internal Standard: NA Surrogate Standard: NA
 CCV: NA LCS: NA MS/MSD: NA
 Column 1 ID: _____ Column 2 ID: NA
 Workgroups: WG285582, WG285612

Comments: REANALYSIS REQUIRED. SEE NOTES

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	11M54616	L08100298-01 A 826-SPE1	<2	1	1		10/22/08 06:30
36	11M54617	L08100298-02 A 826-SPE1	<2	1	1		10/22/08 07:01
37	11M54618	L08100298-03 A 826-SPE1	<2	1	1		10/22/08 07:32
38	11M54619	L08100298-04 A 826-SPE1	<2	1	1		10/22/08 08:02
39	11M54620	L08100371-02 B 826-SPE	<2	1	1		10/22/08 08:33
40	11M54621	L08100371-03 B 826-SPE	<2	1	1		10/22/08 09:08
41	11M54622	L08100255-04 A 10X 826-TC	NA	17	10		10/22/08 09:38
42	11M54623	L08100416-01 A 826-SPE	<2	1	1		10/22/08 10:09
43	11M54624	L08100416-02 B 826-SPE	<2	1	1		10/22/08 10:40
44	11M54625	L08100416-03 B 826-SPE	<2	1	1		10/22/08 11:11

Comments

Seq.	Rerun	Dil.	Reason	Analytes
32	X		Check Standard Failure	
File ID: 11M54613				
35	X		Check Standard Failure	
File ID: 11M54616				
36	X		Check Standard Failure	
File ID: 11M54617				
37	X		Check Standard Failure	
File ID: 11M54618				
38	X		Check Standard Failure	
File ID: 11M54619				

Approved:



Microbac Laboratories Inc.
Instrument Run Log

00102632

Instrument: HPMS11 Dataset: 102208
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 26376

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29369 LCS: STD29369 MS/MSD: NA
 Column 1 ID: _____ Column 2 ID: NA
 Workgroups: WG285680

Comments: NO REANALYSIS REQUIRED.

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M54626A	WG285678-01 TUNE 50ng BFB	NA	1	1	STD29166	10/22/08 11:46
2	11M54627A	WG285678-02 50ug/L CCV	NA	1	1	STD29369	10/22/08 12:15
3	11M54628A	WG285680-01 BLANK 8260	NA	1	1		10/22/08 12:55
4	11M54629A	WG285680-01 BLANK 8260	NA	1	1		10/22/08 13:26
5	11M54630A	WG285680-02 LCS 20ug/L 8260	NA	1	1		10/22/08 13:57
6	11M54631A	WG285680-06 LCSD 20ug/L 8260	NA	1	1		10/22/08 14:28
7	11M54632A	SYSTEM BLANK	NA	1	1		10/22/08 14:59
8	11M54633A	L08100416-04 A 826-SPE	<2	1	1		10/22/08 15:30
9	11M54634A	L08100416-05 A 826-SPE	<2	1	1		10/22/08 16:01
10	11M54635A	L08100416-06 A 826-SPE	<2	1	1		10/22/08 16:32
11	11M54636A	L08100272-07 A 10X 826-SPLP	NA	18	10		10/22/08 17:03
12	11M54637A	L08100272-13 A 10X 826-SPLP	NA	18	10		10/22/08 17:34
13	11M54638A	L08100272-15 A 10X 826-SPLP	NA	18	10		10/22/08 18:05
14	11M54639A	L08100272-17 A 826-SPLP	NA	18	1		10/22/08 18:36
15	11M54640A	L08100272-19 A 826-SPLP	NA	18	1		10/22/08 19:07
16	11M54641A	L08100229-07 A 826-SPLP	NA	18	1		10/22/08 19:38
17	11M54642A	L08100229-09 A 826-SPLP	NA	18	1		10/22/08 20:09
18	11M54643A	L08100360-19 A 826-SPLP	NA	18	1		10/22/08 20:40
19	11M54644A	L08100360-21 A 826-SPLP	NA	18	1		10/22/08 21:11
20	11M54645A	L08100272-07 REF A 826-SPLP	NA	18	1		10/22/08 21:42
21	11M54646A	L08100272-09 MS A 826-SPLP	NA	18	1		10/22/08 22:13
22	11M54647A	L08100272-11 MSD A 826-SPLP	NA	18	1		10/22/08 22:43
23	11M54648A	SYSTEM BLANK	NA	1	1		10/22/08 23:14

Approved:

Page: 1



Microbac Laboratories Inc.

00102633

Data Checklist

Date: 21-OCT-2008

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

Curve Workgroup: NA

Runlog ID: 24897

Analytical Workgroups: WT285612, WG285582

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	
Reruns	
Manual Integrations	
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	
Check for compliance with method and project specific requirements	
Check the completeness of reported information	
Check the information for the report narrative	
Check the reasonableness of the results	

Primary Reviewer:
29-OCT-2008

Secondary Reviewer:



Microbac Laboratories Inc.

00102634

Data Checklist

Date: 29-OCT-2008

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

Curve Workgroup: NA

Runlog ID: 24894

Analytical Workgroups: WG285680

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	
Reruns	
Manual Integrations	
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	
Check for compliance with method and project specific requirements	
Check the completeness of reported information	
Check the information for the report narrative	
Check the reasonableness of the results	

Primary Reviewer:
29-OCT-2008

Secondary Reviewer:



Analytical Method: 8260B
Login Number: L08100416

AAB#: WG285612

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW35-100908	10/09/08	10/14/08	10/22/08	14	13.0	10/22/08	14	13.0	
17WW18-100808	10/08/08	10/14/08	10/22/08	14	13.8	10/22/08	14	13.8	
47WW36-100908	10/09/08	10/14/08	10/22/08	14	13.1	10/22/08	14	13.1	
TRIP BLANK	10/09/08	10/14/08	10/22/08	14	13.2	10/22/08	14	13.2	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

Analytical Method: 8260B

AAB#: WG285680

Login Number: L08100416

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
46WW05-100908	10/09/08	10/14/08	10/22/08	14	13.1	10/22/08	14	13.1	
46WW06-100908	10/09/08	10/14/08	10/22/08	14	13.0	10/22/08	14	13.0	
42WW35-100908-QA	10/09/08	10/14/08	10/22/08	14	13.1	10/22/08	14	13.1	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Login Number: L08100416
Instrument Id: HPMS11
Workgroup (AAB#): WG285612

Method: 8260
CAL ID: HPMS11 - 21-OCT-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08100416-01	1.00	01	84.8	90.5	90.3	95.7
L08100416-02	1.00	01	87.3	89.9	90.8	96.2
L08100416-03	1.00	01	87.2	89.8	93.3	97.8
L08100416-08	1.00	01	82.8	85.8	88.7	97.5
WG285612-01	1.00	01	85.0	91.9	92.6	89.7
WG285612-02	1.00	01	87.6	89.4	87.4	91.7
WG285612-03	1.00	01	86.0	91.5	88.3	92.7

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Login Number: L08100416
Instrument Id: HPMS11
Workgroup (AAB#): WG285680

Method: 8260
CAL ID: HPMS11 - 21-OCT-08
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L08100416-04	1.00	01	88.9	90.7	93.4	88.6
L08100416-05	1.00	01	86.8	91.1	91.8	89.1
L08100416-06	1.00	01	86.3	88.6	90.2	<u>87.2</u>
WG285680-01	1.00	01	87.0	90.7	92.2	90.3
WG285680-02	1.00	01	90.6	91.3	87.8	92.3
WG285680-06	1.00	01	87.9	88.3	87.8	91.2

Surrogates	Surrogate Limits
1 - 1,2-Dichloroethane-d4	80 - 120
2 - Dibromofluoromethane	86 - 118
3 - 4-Bromofluorobenzene	86 - 115
4 - Toluene-d8	88 - 110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

00102639

Login Number: L08100416
 Blank File ID: 11M54609
 Prep Date: 10/22/08 02:52
 Analyzed Date: 10/22/08 02:52
 Analyst: WTD

Work Group: WG285612
 Blank Sample ID: WG285612-01
 Instrument ID: HPMS11
 Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG285612-02	11M54610	10/22/08 03:23	01
LCS2	WG285612-03	11M54611	10/22/08 03:54	01
TRIP BLANK	L08100416-08	11M54615	10/22/08 05:59	01
17WW18-100808	L08100416-01	11M54623	10/22/08 10:09	01
47WW36-100908	L08100416-02	11M54624	10/22/08 10:40	01
47WW35-100908	L08100416-03	11M54625	10/22/08 11:11	01

Report Name: BLANK_SUMMARY
 PDF File ID: 1233847
 Report generated 10/29/2008 14:02



METHOD BLANK SUMMARY

00102640

Login Number: <u>L08100416</u>	Work Group: <u>WG285680</u>
Blank File ID: <u>11M54629A</u>	Blank Sample ID: <u>WG285680-01</u>
Prep Date: <u>10/22/08 13:26</u>	Instrument ID: <u>HPMS11</u>
Analyzed Date: <u>10/22/08 13:26</u>	Method: <u>8260B</u>
Analyst: <u>WTD</u>	

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG285680-02	11M54630A	10/22/08 13:57	01
LCS2	WG285680-06	11M54631A	10/22/08 14:28	01
42WW35-100908-QA	L08100416-04	11M54633A	10/22/08 15:30	01
46WW05-100908	L08100416-05	11M54634A	10/22/08 16:01	01
46WW06-100908	L08100416-06	11M54635A	10/22/08 16:32	01

Report Name: BLANK_SUMMARY
PDF File ID: 1233847
Report generated 10/29/2008 14:02



Login Number: L08100416 Prep Date: 10/22/08 02:52 Sample ID: WG285612-01
 Instrument ID: HPMS11 Run Date: 10/22/08 02:52 Prep Method: 5030B
 File ID: 11M54609 Analyst: WTD Method: 8260B
 Workgroup (AAB#): WG285612 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 21-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	2.47	1	*
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1233854

29-OCT-2008 14:02



Login Number: L08100416 Prep Date: 10/22/08 02:52 Sample ID: WG285612-01
 Instrument ID: HPMS11 Run Date: 10/22/08 02:52 Prep Method: 5030B
 File ID: 11M54609 Analyst: WTD Method: 8260B
 Workgroup (AAB#): WG285612 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 21-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	91.9	86 - 118	PASS
1,2-Dichloroethane-d4	85.0	80 - 120	PASS
Toluene-d8	89.7	88 - 110	PASS
4-Bromofluorobenzene	92.6	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1233854

29-OCT-2008 14:02



Login Number: L08100416	Prep Date: 10/22/08 13:26	Sample ID: WG285680-01
Instrument ID: HPMS11	Run Date: 10/22/08 13:26	Prep Method: 5030B
File ID: 11M54629A	Analyst: WTD	Method: 8260B
Workgroup (AAB#): WG285680	Matrix: Water	Units: ug/L
Contract #: DACA56-94-D-0020	Cal ID: HPMS11-21-OCT-08	

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	2.24	1	*
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1233854

29-OCT-2008 14:02



Login Number: L08100416 Prep Date: 10/22/08 13:26 Sample ID: WG285680-01
 Instrument ID: HPMS11 Run Date: 10/22/08 13:26 Prep Method: 5030B
 File ID: 11M54629A Analyst: WTD Method: 8260B
 Workgroup (AAB#): WG285680 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 21-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	90.7	86 - 118	PASS
1,2-Dichloroethane-d4	87.0	80 - 120	PASS
Toluene-d8	90.3	88 - 110	PASS
4-Bromofluorobenzene	92.2	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1233854

29-OCT-2008 14:02



Login Number: L08100416 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG285612 Units: ug/L
QC Key: STD Lot #: STD29406

Sample ID: WG285612-02 LCS File ID: 11M54610 Run Date: 10/22/2008 03:23
Sample ID: WG285612-03 LCS2 File ID: 11M54611 Run Date: 10/22/2008 03:54

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	20.9	105	20.0	22.1	111	5.43	40 - 142	20	
Benzene	20.0	21.5	108	20.0	21.5	107	0.306	80 - 121	20	
Bromobenzene	20.0	18.8	93.9	20.0	19.8	99.1	5.31	80 - 120	20	
Bromochloromethane	20.0	19.4	97.2	20.0	20.9	105	7.35	65 - 130	20	
Bromodichloromethane	20.0	21.6	108	20.0	22.0	110	1.68	80 - 131	20	
Bromoform	20.0	19.1	95.7	20.0	19.7	98.4	2.77	70 - 130	20	
Bromomethane	20.0	16.1	80.3	20.0	17.1	85.3	6.05	30 - 145	20	
2-Butanone	20.0	16.8	84.2	20.0	19.4	96.9	14.0	30 - 150	20	
n-Butylbenzene	20.0	18.7	93.7	20.0	19.3	96.4	2.80	80 - 131	20	
sec-Butylbenzene	20.0	18.7	93.5	20.0	19.3	96.4	2.99	80 - 127	20	
tert-Butylbenzene	20.0	18.7	93.6	20.0	19.3	96.7	3.31	80 - 126	20	
Carbon disulfide	20.0	16.6	82.8	20.0	15.6	78.1	5.85	58 - 138	20	
Carbon tetrachloride	20.0	20.9	105	20.0	20.5	102	2.27	65 - 140	20	
Chlorobenzene	20.0	20.0	100	20.0	20.9	104	4.10	80 - 120	20	
Chlorodibromomethane	20.0	19.1	95.5	20.0	19.7	98.5	3.02	60 - 135	20	
Chloroethane	20.0	22.1	110	20.0	21.6	108	2.12	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	18.0	90.1	20.0	18.3	91.6	1.58	58 - 151	20	
Chloroform	20.0	19.4	96.8	20.0	20.1	100	3.56	80 - 125	20	
Chloromethane	20.0	16.5	82.3	20.0	26.5	133	47.0	40 - 125	20	*#
2-Chlorotoluene	20.0	18.0	89.9	20.0	18.3	91.4	1.66	80 - 127	20	
4-Chlorotoluene	20.0	18.4	91.9	20.0	19.0	95.1	3.38	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.9	94.5	20.0	19.1	95.6	1.21	50 - 130	20	
1,2-Dibromoethane	20.0	18.4	91.8	20.0	18.7	93.3	1.63	80 - 125	20	
Dibromomethane	20.0	20.8	104	20.0	21.2	106	1.92	75 - 125	20	
1,2-Dichlorobenzene	20.0	21.4	107	20.0	21.7	109	1.78	80 - 125	20	
1,3-Dichlorobenzene	20.0	21.3	107	20.0	21.8	109	2.08	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.3	96.4	20.0	19.7	98.6	2.27	80 - 120	20	
Dichlorodifluoromethane	20.0	25.2	126	20.0	27.1	136	7.34	50 - 133	20	*
1,1-Dichloroethane	20.0	19.5	97.4	20.0	19.7	98.6	1.23	80 - 125	20	
1,2-Dichloroethane	20.0	20.7	104	20.0	20.8	104	0.334	80 - 129	20	
1,1-Dichloroethene	20.0	20.6	103	20.0	20.9	104	1.38	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.3	96.3	20.0	20.2	101	4.72	70 - 125	20	
trans-1,2-Dichloroethene	20.0	19.7	98.4	20.0	22.3	112	12.5	80 - 127	20	
1,2-Dichloropropane	20.0	20.9	105	20.0	20.7	103	1.17	80 - 120	20	
1,3-Dichloropropane	20.0	19.1	95.7	20.0	19.8	99.0	3.42	80 - 120	20	
2,2-Dichloropropane	20.0	18.4	92.0	20.0	19.0	95.0	3.22	80 - 133	20	
cis-1,3-Dichloropropene	20.0	19.1	95.6	20.0	18.7	93.3	2.39	70 - 130	20	
trans-1,3-Dichloropropene	20.0	16.1	80.7	20.0	17.0	84.9	5.05	80 - 130	20	
1,1-Dichloropropene	20.0	18.5	92.7	20.0	19.3	96.5	4.02	75 - 130	20	
Ethylbenzene	20.0	19.2	96.2	20.0	19.7	98.5	2.37	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1233855
Report generated: 10/29/2008 14:02



Login Number: L08100416 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG285612 Units: ug/L
QC Key: STD Lot #: STD29406

Sample ID: WG285612-02 LCS File ID: 11M54610 Run Date: 10/22/2008 03:23
Sample ID: WG285612-03 LCS2 File ID: 11M54611 Run Date: 10/22/2008 03:54

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	19.0	94.8	20.0	18.9	94.7	0.0861	55 - 130	20	
Hexachlorobutadiene	20.0	19.2	95.8	20.0	19.7	98.4	2.73	72 - 132	20	
Isopropylbenzene	20.0	17.4	86.8	20.0	17.7	88.4	1.87	80 - 122	20	
p-Isopropyltoluene	20.0	18.0	90.2	20.0	18.7	93.4	3.53	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.9	99.7	20.0	19.9	99.5	0.254	64 - 140	20	
Methylene chloride	20.0	23.4	117	20.0	23.3	117	0.540	80 - 123	20	
Naphthalene	20.0	18.6	93.0	20.0	19.5	97.3	4.54	59 - 149	20	
n-Propylbenzene	20.0	18.0	89.9	20.0	18.7	93.5	3.95	80 - 129	20	
Styrene	20.0	20.2	101	20.0	20.8	104	2.78	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	20.4	102	20.0	21.4	107	4.80	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.3	102	20.0	20.6	103	1.24	79 - 125	20	
Tetrachloroethene	20.0	18.6	93.0	20.0	19.3	96.3	3.46	80 - 124	20	
Toluene	20.0	19.4	96.9	20.0	19.7	98.3	1.42	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	18.6	93.0	20.0	19.7	98.6	5.80	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	18.2	91.1	20.0	19.2	96.1	5.29	65 - 135	20	
1,1,1-Trichloroethane	20.0	20.4	102	20.0	20.6	103	1.10	80 - 134	20	
1,1,2-Trichloroethane	20.0	20.1	100	20.0	21.0	105	4.34	80 - 125	20	
Trichloroethene	20.0	17.9	89.7	20.0	19.3	96.6	7.33	80 - 122	20	
Trichlorofluoromethane	20.0	22.4	112	20.0	22.0	110	2.03	62 - 151	20	
1,2,3-Trichloropropane	20.0	19.0	95.1	20.0	19.5	97.3	2.20	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	19.1	95.7	20.0	19.7	98.3	2.76	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	18.4	92.2	20.0	19.2	96.0	4.07	80 - 127	20	
Vinyl acetate	20.0	11.6	58.2	20.0	12.6	62.9	7.76	10 - 150	20	
Vinyl chloride	20.0	26.4	132	20.0	26.4	132	0.199	65 - 140	20	
o-Xylene	20.0	19.4	97.1	20.0	20.1	101	3.43	80 - 122	20	
m-, p-Xylene	40.0	38.5	96.2	40.0	39.4	98.4	2.22	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	87.6	86.0	80 - 120	PASS
Dibromofluoromethane	89.4	91.5	86 - 118	PASS
4-Bromofluorobenzene	87.4	88.3	86 - 115	PASS
Toluene-d8	91.7	92.7	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1233855
Report generated: 10/29/2008 14:02



Login Number: L08100416 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG285680 Units: ug/L
QC Key: STD Lot #: STD29406

Sample ID: WG285680-02 LCS File ID: 11M54630A Run Date: 10/22/2008 13:57
Sample ID: WG285680-06 LCS2 File ID: 11M54631A Run Date: 10/22/2008 14:28

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	23.8	119	20.0	23.2	116	2.34	40 - 142	20	
Benzene	20.0	22.0	110	20.0	22.1	111	0.414	80 - 121	20	
Bromobenzene	20.0	19.3	96.7	20.0	19.7	98.3	1.60	80 - 120	20	
Bromochloromethane	20.0	19.9	99.3	20.0	20.2	101	1.66	65 - 130	20	
Bromodichloromethane	20.0	22.1	111	20.0	21.9	110	0.901	80 - 131	20	
Bromoform	20.0	20.1	100	20.0	19.2	96.2	4.16	70 - 130	20	
Bromomethane	20.0	19.1	95.4	20.0	23.3	116	19.7	30 - 145	20	
2-Butanone	20.0	20.9	104	20.0	20.9	104	0.0064	30 - 150	20	
n-Butylbenzene	20.0	18.9	94.7	20.0	19.4	97.1	2.54	80 - 131	20	
sec-Butylbenzene	20.0	18.7	93.6	20.0	19.4	97.2	3.73	80 - 127	20	
tert-Butylbenzene	20.0	19.0	94.9	20.0	19.5	97.7	2.86	80 - 126	20	
Carbon disulfide	20.0	16.0	80.0	20.0	16.6	83.1	3.75	58 - 138	20	
Carbon tetrachloride	20.0	20.9	104	20.0	21.0	105	0.592	65 - 140	20	
Chlorobenzene	20.0	20.6	103	20.0	20.8	104	1.18	80 - 120	20	
Chlorodibromomethane	20.0	19.2	96.1	20.0	19.2	95.9	0.219	60 - 135	20	
Chloroethane	20.0	23.8	119	20.0	25.7	128	7.69	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	18.5	92.6	20.0	18.3	91.6	1.02	58 - 151	20	
Chloroform	20.0	19.9	99.3	20.0	19.9	99.4	0.171	80 - 125	20	
Chloromethane	20.0	17.9	89.7	20.0	29.5	147	48.7	40 - 125	20	*#
2-Chlorotoluene	20.0	18.5	92.6	20.0	19.1	95.5	3.10	80 - 127	20	
4-Chlorotoluene	20.0	18.5	92.5	20.0	18.6	93.1	0.686	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	19.9	99.4	20.0	19.3	96.7	2.80	50 - 130	20	
1,2-Dibromoethane	20.0	18.8	93.8	20.0	18.9	94.6	0.821	80 - 125	20	
Dibromomethane	20.0	22.3	111	20.0	21.2	106	4.96	75 - 125	20	
1,2-Dichlorobenzene	20.0	22.2	111	20.0	21.7	108	2.39	80 - 125	20	
1,3-Dichlorobenzene	20.0	21.6	108	20.0	21.7	109	0.434	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.7	98.5	20.0	19.7	98.5	0.0441	80 - 120	20	
Dichlorodifluoromethane	20.0	25.1	126	20.0	26.9	134	6.87	50 - 133	20	*
1,1-Dichloroethane	20.0	19.3	96.5	20.0	20.1	100	3.94	80 - 125	20	
1,2-Dichloroethane	20.0	21.3	106	20.0	20.9	105	1.66	80 - 129	20	
1,1-Dichloroethene	20.0	20.7	104	20.0	21.2	106	2.40	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.8	98.8	20.0	19.9	99.3	0.531	70 - 125	20	
trans-1,2-Dichloroethene	20.0	19.9	99.3	20.0	20.0	99.9	0.661	80 - 127	20	
1,2-Dichloropropane	20.0	21.3	107	20.0	21.4	107	0.148	80 - 120	20	
1,3-Dichloropropane	20.0	20.0	99.9	20.0	20.1	101	0.877	80 - 120	20	
2,2-Dichloropropane	20.0	19.4	96.9	20.0	19.5	97.4	0.482	80 - 133	20	
cis-1,3-Dichloropropene	20.0	19.5	97.5	20.0	19.3	96.3	1.18	70 - 130	20	
trans-1,3-Dichloropropene	20.0	16.8	84.2	20.0	17.0	84.9	0.844	80 - 130	20	
1,1-Dichloropropene	20.0	18.6	93.0	20.0	19.3	96.4	3.52	75 - 130	20	
Ethylbenzene	20.0	19.6	98.1	20.0	20.0	99.8	1.64	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1233855
Report generated: 10/29/2008 14:02



Login Number: L08100416 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG285680 Units: ug/L
QC Key: STD Lot #: STD29406

Sample ID: WG285680-02 LCS File ID: 11M54630A Run Date: 10/22/2008 13:57
Sample ID: WG285680-06 LCS2 File ID: 11M54631A Run Date: 10/22/2008 14:28

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	20.5	103	20.0	19.1	95.4	7.28	55 - 130	20	
Hexachlorobutadiene	20.0	19.6	97.9	20.0	19.5	97.4	0.493	72 - 132	20	
Isopropylbenzene	20.0	17.5	87.5	20.0	17.7	88.4	1.10	80 - 122	20	
p-Isopropyltoluene	20.0	18.2	91.2	20.0	18.7	93.7	2.63	80 - 122	20	
4-Methyl-2-pentanone	20.0	20.4	102	20.0	20.3	102	0.462	64 - 140	20	
Methylene chloride	20.0	23.7	119	20.0	23.9	119	0.551	80 - 123	20	
Naphthalene	20.0	19.4	97.1	20.0	18.8	94.0	3.23	59 - 149	20	
n-Propylbenzene	20.0	18.2	90.9	20.0	18.9	94.6	3.94	80 - 129	20	
Styrene	20.0	20.6	103	20.0	20.5	103	0.378	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.2	106	20.0	20.9	105	1.01	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	21.7	109	20.0	21.0	105	3.43	79 - 125	20	
Tetrachloroethene	20.0	18.7	93.5	20.0	19.1	95.5	2.11	80 - 124	20	
Toluene	20.0	18.7	93.6	20.0	19.0	94.9	1.41	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	19.1	95.5	20.0	18.5	92.6	3.05	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.0	95.0	20.0	18.5	92.6	2.58	65 - 135	20	
1,1,1-Trichloroethane	20.0	21.1	105	20.0	21.1	106	0.0879	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.2	106	20.0	21.1	105	0.768	80 - 125	20	
Trichloroethene	20.0	18.2	91.2	20.0	18.6	92.8	1.75	80 - 122	20	
Trichlorofluoromethane	20.0	22.1	111	20.0	22.3	111	0.676	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.4	102	20.0	20.3	101	0.602	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	19.2	95.9	20.0	19.6	97.9	2.09	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	18.9	94.6	20.0	19.4	97.1	2.57	80 - 127	20	
Vinyl acetate	20.0	12.9	64.4	20.0	13.2	66.2	2.78	10 - 150	20	
Vinyl chloride	20.0	24.2	121	20.0	25.2	126	4.08	65 - 140	20	
o-Xylene	20.0	19.8	98.9	20.0	20.0	100	1.08	80 - 122	20	
m-, p-Xylene	40.0	39.5	98.7	40.0	39.6	98.9	0.239	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	90.6	87.9	80 - 120	PASS
Dibromofluoromethane	91.3	88.3	86 - 118	PASS
4-Bromofluorobenzene	87.8	87.8	86 - 115	PASS
Toluene-d8	92.3	91.2	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1233855
Report generated: 10/29/2008 14:02



BFB

Login Number: L08100416
Instrument: HPMS11
Analyst: WTD
Workgroup: WG285582

Tune ID: WG285582-01
Run Date: 10/21/2008
Run Time: 14:50
File ID: 11M54586

Cal ID: HPMS11-21-OCT-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	18.7	6276	PASS
75.0	95.0	30.0	60.0	49.2	16559	PASS
95.0	95.0	100	100	100	33624	PASS
96.0	95.0	5.00	9.00	6.70	2253	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	72.2	24276	PASS
175	174	5.00	9.00	7.46	1810	PASS
176	174	95.0	101	95.5	23194	PASS
177	176	5.00	9.00	7.00	1624	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG285582-02	STD	01	10/21/2008 15:20	
WG285582-03	STD	01	10/21/2008 15:53	
WG285582-04	STD	01	10/21/2008 16:35	
WG285582-02	STD	02	10/21/2008 17:06	
WG285582-04	STD	02	10/21/2008 17:37	
WG285582-05	STD	01	10/21/2008 18:08	
WG285582-06	STD	01	10/21/2008 18:38	
WG285582-07	STD	01	10/21/2008 19:09	
WG285582-08	STD-CCV	01	10/21/2008 19:40	
WG285582-09	STD	01	10/21/2008 20:11	
WG285582-10	STD	01	10/21/2008 20:42	
WG285582-11	STD	01	10/21/2008 21:12	

* Sample past 12 hour tune limit

BFB

Login Number: L08100416
Instrument: HPMS11
Analyst: WTD
Workgroup: WG285611

Tune ID: WG285611-01
Run Date: 10/22/2008
Run Time: 00:19
File ID: 11M54604

Cal ID: HPMS11-

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	17.2	4461	PASS
75.0	95.0	30.0	60.0	50.5	13111	PASS
95.0	95.0	100	100	100	25955	PASS
96.0	95.0	5.00	9.00	6.61	1715	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.0	19476	PASS
175	174	5.00	9.00	7.53	1466	PASS
176	174	95.0	101	97.6	19015	PASS
177	176	5.00	9.00	6.70	1274	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG285611-02	CCV	01	10/22/2008 00:47	
WG285582-12	SSCV	01	10/22/2008 01:50	
WG285612-01	BLANK	01	10/22/2008 02:52	
WG285612-02	LCS	01	10/22/2008 03:23	
WG285612-03	LCS2	01	10/22/2008 03:54	
L08100416-08	TRIP BLANK	01	10/22/2008 05:59	
L08100416-01	17WW18-100808	01	10/22/2008 10:09	
L08100416-02	47WW36-100908	01	10/22/2008 10:40	
L08100416-03	47WW35-100908	01	10/22/2008 11:11	

* Sample past 12 hour tune limit

BFB

Login Number: L08100416
Instrument: HPMS11
Analyst: WTD
Workgroup: WG285678

Tune ID: WG285678-01
Run Date: 10/22/2008
Run Time: 11:46
File ID: 11M54626A

Cal ID: HPMS11-21-OCT-08

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	19.6	2292	PASS
75.0	95.0	30.0	60.0	51.9	6062	PASS
95.0	95.0	100	100	100	11689	PASS
96.0	95.0	5.00	9.00	6.73	787	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	71.2	8327	PASS
175	174	5.00	9.00	6.74	561	PASS
176	174	95.0	101	95.7	7971	PASS
177	176	5.00	9.00	6.80	542	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG285678-02	CCV	01	10/22/2008 12:15	
WG285680-01	BLANK	01	10/22/2008 13:26	
WG285680-02	LCS	01	10/22/2008 13:57	
WG285680-06	LCS2	01	10/22/2008 14:28	
L08100416-04	42WW35-100908-QA	01	10/22/2008 15:30	
L08100416-05	46WW05-100908	01	10/22/2008 16:01	
L08100416-06	46WW06-100908	01	10/22/2008 16:32	
WG285680-03	REF	DL01	10/22/2008 17:03	
WG285680-03	REF	01	10/22/2008 21:42	
WG285680-04	MS	01	10/22/2008 22:13	
WG285680-05	MSD	01	10/22/2008 22:43	

* Sample past 12 hour tune limit

Calibration Table Report

Method: 8260WTR.M

Title: Method 8260B/624 Water Analysis 10/20/08 HPMS 11

Last Calibration: Tue Oct 21 08:57:22 2008

Calibration Files

Compound	0.3	0.4	1	2	5	20	50	100	200	300	Avg	SRSD
	11M64564.D	11M64564.D	11M64565.D	11M64567.D	11M64568.D	11M64569.D	11M64570.D	11M64571.D	11M64572.D	11M64573.D		
ISTD												
Fluorobenzene			0.095	0.080	0.113	0.208	0.234	0.247	0.263		0.177	44.155
Dichlorodifluoromethane			0.133	0.075	0.076	0.085	0.180	0.261	0.286		0.157	56.432
Chloromethane			0.150	0.141	0.161	0.175	0.150	0.140			0.157	10.243
Vinyl Chloride	0.181			0.183	0.177	0.152	0.008	0.112	0.003		0.106	77.280
1,3-Butadiene			0.008	0.008	0.013	0.015	0.035	0.088	0.142		0.044	117.188
Bromomethane			0.040	0.030	0.027	0.031	0.031	0.025	0.066		0.036	39.357
Chloroethane			0.452	0.405	0.461	0.473	0.379	0.319	0.258		0.395	18.863
Trichlorofluoromethane	0.414			0.159	0.160	0.158	0.160	0.157		0.158	0.158	0.952
Diethyl ether			0.295	0.307	0.284	0.295	0.293	0.288	0.289		0.293	2.471
Isoprene			0.295	0.016	0.014	0.012	0.010	0.012	0.013		0.013	13.068
Acrolein			0.227	0.208	0.226	0.241	0.232	0.222	0.220		0.225	4.671
1,1,2-Trichloro-1,2,2-Trifluoroel					0.053	0.044	0.039	0.040	0.044		0.043	13.486
Acetone					0.430	0.382	0.361	0.349	0.332		0.386	9.468
1,1-Dichloroethene	0.422		0.392	0.419	0.430	0.382	0.361	0.349	0.332		0.386	9.468
Tert-Butyl Alcohol			0.020	0.012	0.010	0.012	0.011	0.011			0.013	28.467
Dimethyl Sulfide			0.219	0.245	0.239	0.262	0.250	0.249	0.254		0.245	5.458
Iodomethane				0.037	0.015	0.066	0.190	0.262	0.308		0.146	84.792
Methyl acetate				0.068	0.065	0.082	0.106	0.133	0.151		0.101	34.923
Methylene Chloride	0.317		0.216	0.181	0.162	0.148	0.148	0.148	0.159		0.185	31.469
Carbon Disulfide			0.796	0.648	0.580	0.555	0.563	0.589	0.625		0.622	13.437
Acrylonitrile				0.039	0.047	0.044	0.045	0.045	0.051		0.045	8.906
Methyl Tert Butyl Ether			0.483	0.536	0.539	0.570	0.532	0.545	0.540		0.535	4.882
trans-1,2-Dichloroethene			0.188	0.212	0.235	0.223	0.221	0.222	0.223		0.218	6.710
n-Hexane			0.238	0.250	0.225	0.246	0.239	0.231	0.230		0.237	3.784
Diisopropyl ether			0.560	0.577	0.574	0.586	0.586	0.584			0.578	1.553
Vinyl Acetate			0.322	0.376	0.410	0.395	0.353	0.386	0.326		0.266	0.151
1,1-Dichloroethane	0.375			0.122	0.115	0.100	0.157	0.148	0.148		0.151	39.517
Ethyl-Tert-Butyl ether			0.316	0.422	0.496	0.603	0.601	0.621	0.326		0.368	8.603
2-Butanone				0.496	0.603	0.601	0.621	0.621	0.326		0.610	524.22.454
Propionitrile			0.011	0.015	0.014	0.016	0.015	0.015	0.052		0.053	0.052
2,2-Dichloropropane			0.124	0.303	0.345	0.363	0.274	0.343	0.318		0.018	0.015
cis-1,2-Dichloroethene	0.074		0.233	0.197	0.221	0.240	0.232	0.228	0.234		0.268	40.554
Chloroform	0.624		0.468	0.382	0.415	0.454	0.439	0.425	0.428		0.228	5.966
Bromochloromethane	0.100		0.108	0.130	0.144	0.125	0.102	0.104	0.423		0.451	15.367
Tetrahydrofuran			0.031	0.030	0.030	0.032	0.030	0.030	0.108		0.115	13.993
Dibromofluoromethane				0.199	0.235	0.251	0.233	0.243	0.032		0.031	2.904
1,1,1-Trichloroethane	0.266		0.272	0.394	0.438	0.431	0.412	0.411	0.245		0.234	7.973
Cyclohexane			0.259	0.272	0.261	0.288	0.288	0.284	0.390		0.377	18.171
1,1-Dichloropropene	0.247		0.252	0.292	0.321	0.314	0.313	0.310	0.280		0.276	4.362
Carbon Tetrachloride	0.080		0.144	0.292	0.356	0.366	0.341	0.342	0.300		0.294	9.762
Tert-Amyl-Methyl ether											0.274	41.797
1,2-Dichloroethane-d4			0.278	0.382	0.438	0.523	0.522	0.535	0.265		0.535	0.459
1,2-Dichloroethane	0.297		0.302	0.319	0.342	0.335	0.317	0.311	0.3		0.28574	6.05085
Benzene	1.061		0.799	0.807	0.837	0.815	0.803	0.825	0.807		0.31554	5.21905
Trichloroethene	0.221		0.2	0.221	0.246	0.238	0.233	0.234	0.227		0.84426	10.4741
Methylcyclohexane				0.31	0.288	0.301	0.278	0.272	0.325		0.22733	6.18501
1,2-Dichloropropene	0.162		0.149	0.179	0.197	0.195	0.192	0.196	0.325		0.32433	4.09107
1,4-Dioxane			0.001	0.001	0.001	0.001	0.001	0.001	0.197		0.18334	10.0045
Bromodichloromethane	0.209		0.207	0.295	0.316	0.325	0.315	0.318	0.001		0.001	0.0092
Dibromomethane	0.107		0.093	0.114	0.123	0.124	0.118	0.12	0.321		0.28842	17.4153
2-Chloroethyl Vinyl Ether				0.082	0.095	0.093	0.095	0.095	0.123		0.11528	9.31671
4-Methyl-2-Pentanone			0.06	0.07	0.082	0.049	0.048	0.047	0.099		0.103	0.08709
cis-1,3-Dichloropropene				0.039	0.049	0.048	0.048	0.047	0.052		0.056	0.04834
Dimethyl Disulfide	0.124		0.167	0.275	0.314	0.34	0.326	0.339	0.343		0.27842	30.7735
Chlorobenzene-d5				0.104	0.113	0.168	0.181	0.189	0.196		0.15835	25.3209
ISTD												
Toluene-d8				1.082	1.055	1.075	1.047	1.088	1.019		1.06102	2.45073
Toluene	1.254		1.058	1.132	1.235	1.191	1.162	1.217	1.133		1.17261	5.52116
Ethyl Methacrylate			0.184	0.206	0.234	0.278	0.281	0.283	0.283		0.24992	16.6499

trans-1,3-dichloropropene	0.106	0.153	0.293	0.383	0.423	0.401	0.434	0.395	0.32353 39.4948
1,1,2-Trichloroethane	0.146	0.171	0.204	0.223	0.213	0.207	0.21	0.196	0.19623 12.9197
2-Hexanone				0.088	0.106	0.106	0.102	0.099	0.102 0.10048 6.60784
1,3-Dichloropropane	0.348	0.311	0.368	0.393	0.389	0.371	0.377	0.348	0.36326 7.35593
Tetrachloroethene	0.202	0.204	0.238	0.252	0.245	0.24	0.244	0.22	0.23057 8.34356
Dibromochloromethane	0.026	0.092	0.178	0.25	0.292	0.292	0.305	0.284	0.21588 49.3089
1,2-Dibromethane	0.161	0.175	0.204	0.221	0.227	0.213	0.219	0.206	0.20309 11.5637
1-Chlorohexane	0.251	0.331	0.351	0.357	0.4	0.397	0.399	0.384	0.35876 14.0705
Chlorobenzene	1.002	0.749	0.791	0.849	0.799	0.786	0.789	0.755	0.81507 10.0066
1,1,1,2-Tetrachloroethane	0.026	0.075	0.148	0.217	0.265	0.279	0.281	0.255	0.1932 51.2902
Ethylbenzene	0.429	0.344	0.407	0.438	0.431	0.423	0.43	0.41	0.414 7.33697
m-,p-Xylene	0.554	0.427	0.51	0.551	0.529	0.521	0.527	0.497	0.51445 7.80201
o-Xylene	0.538	0.379	0.466	0.518	0.515	0.513	0.509	0.496	0.49168 10.1506
Styrene	0.903	0.663	0.763	0.88	0.889	0.911	0.891	0.868	0.84612 10.31
Bromoform		0.019	0.065	0.097	0.15	0.171	0.181	0.18	0.12329 51.7328
Isopropylbenzene	1.17	1.083	1.247	1.415	1.39	1.396	1.377	1.315	1.29917 9.36899
ISTD									
1,4-Dichlorobenzene-d4	0.242	0.278	0.381	0.411	0.43	0.413	0.438	0.428	0.37771 19.933
1,1,2,2-Tetrachloroethane			0.901	0.786	0.858	0.799	0.845	0.838	0.83761 4.94708
p-Bromofluorobenzene		0.169	0.159	0.16	0.157	0.146	0.152	0.145	0.15519 5.53337
1,2,3-Trichloropropane				0.055	0.058	0.055	0.057	0.055	0.05614 2.63816
trans-1,4-Dichloro-2-Butene									
n-Propylbenzene	2.896	2.675	2.807	3.121	3.088	2.908	3.126	3.071	2.96158 5.617
Bromobenzene	0.858	0.644	0.612	0.605	0.668	0.641	0.607	0.631	0.621
1,3,5-Trimethylbenzene	2.107	1.859	1.991	2.203	2.198	2.072	2.175	2.136	2.09266 5.64601
2-Chlorotoluene	2.128	1.81	1.93	2.163	2.083	1.959	2.019	1.821	1.98908 6.69107
4-Chlorotoluene	2.042	1.663	1.785	1.94	1.867	1.808	1.895	1.896	1.86179 6.0736
a-Methylstyrene			1.081	1.096	1.202	1.161	1.17	1.177	1.14795 4.21068
tert-Butylbenzene	0.334	0.362	0.412	0.461	0.441	0.419	0.431	0.422	0.41029 10.1636
1,2,4-Trimethylbenzene	2.311	1.939	2.094	2.344	2.296	2.172	2.232	2.175	2.19541 6.0541
sec-Butylbenzene	2.18	2.212	2.436	2.734	2.675	2.563	2.676	2.633	2.51351 8.59167
p-Isopropyltoluene	2.036	1.942	2.201	2.449	2.432	2.327	2.386	2.334	2.26338 8.28431
1,3-Dichlorobenzene	1.335	1.068	1.208	1.287	1.233	1.206	1.209	1.177	1.21549 6.45299
1,4-Dichlorobenzene	1.928	1.446	1.161	1.217	1.319	1.281	1.236	1.199	1.33604 17.7182
n-Butylbenzene	1.927	1.81	2.019	2.196	2.222	2.178	2.2	2.159	2.08896 7.30661
1,2-Dichlorobenzene	1.621	1.216	1.01	1.109	1.174	1.178	1.127	1.071	1.18086 14.9066
1,2-Dibromo-3-Chloropropane			0.058	0.053	0.079	0.098	0.092	0.089	0.07984 22.1723
1,2,4-Trichlorobenzene	0.912	0.809	0.904	0.942	0.956	0.878	0.897	0.854	0.89404 5.27121
Hexachlorobutadiene	0.227	0.292	0.361	0.38	0.388	0.375	0.379	0.364	0.3458 16.3807
Naphthalene	1.789	1.529	1.731	1.815	1.885	1.695	1.739	1.657	1.72994 6.24988
1,2,3-Trichlorobenzene	1.164	0.873	0.753	0.803	0.855	0.864	0.782	0.762	0.85028 14.783

Tue Oct 21 08:58:11 2008

Login Number: L08100416 Run Date: 10/22/2008 Sample ID: WG285582-12
Instrument ID: HPMS11 Run Time: 01:50 Method: 8260B
File ID: 11M54607 Analyst: WTD QC Key: STD
Ical Workgroup: WG285582 Cal ID: HPMS11 - 21-OCT-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	20.0	20.3	ug/L	0.501	1.50	30	
1,1-Dichloroethene	CCC	20.0	20.2	ug/L	0.341	1.20	30	
1,2-Dichloropropane	CCC	20.0	20.5	ug/L	0.184	2.70	30	
Ethylbenzene	CCC	20.0	19.5	ug/L	0.446	2.60	30	
Toluene	CCC	20.0	19.8	ug/L	1.25	0.800	30	
Vinyl Chloride	CCC	20.0	26.1	ug/L	0.388	30.3	30	*
Bromoform	SPCC	20.0	20.1	ug/L	0.216	0.600	30	
Chlorobenzene	SPCC	20.0	20.5	ug/L	0.838	2.70	30	
Chloromethane	SPCC	20.0	17.5	ug/L	0.131	12.4	30	
1,1-Dichloroethane	SPCC	20.0	20.4	ug/L	0.453	2.10	30	
1,1,2,2-Tetrachloroethane	SPCC	20.0	20.4	ug/L	0.391	2.20	30	
Acetone		20.0	20.2	ug/L	0.0455	1.00	30	
Benzene		20.0	21.5	ug/L	0.816	7.60	30	
Bromobenzene		20.0	19.4	ug/L	0.578	3.20	30	
Bromochloromethane		20.0	21.1	ug/L	0.148	5.30	30	
Bromodichloromethane		20.0	21.7	ug/L	0.379	8.40	30	
Bromomethane		20.0	16.0	ug/L	0.136	20.0	30	
2-Butanone		20.0	20.4	ug/L	0.0559	2.00	30	
n-Butylbenzene		20.0	19.5	ug/L	2.24	2.60	30	
sec-Butylbenzene		20.0	19.4	ug/L	2.62	3.20	30	
tert-Butylbenzene		20.0	19.8	ug/L	0.426	1.20	30	
Carbon Disulfide		20.0	16.8	ug/L	0.635	15.9	30	
Carbon Tetrachloride		20.0	19.6	ug/L	0.458	2.20	30	
Dibromochloromethane		20.0	19.9	ug/L	0.341	0.600	30	
Chloroethane		20.0	21.7	ug/L	0.120	8.40	30	
2-Chloroethyl Vinyl Ether		20.0	18.3	ug/L	0.0819	8.40	30	
2-Chlorotoluene		20.0	18.6	ug/L	2.11	6.90	30	
4-Chlorotoluene		20.0	19.1	ug/L	1.84	4.40	30	
1,2-Dibromo-3-Chloropropane		20.0	17.8	ug/L	0.0852	10.9	30	
1,2-Dibromoethane		20.0	19.6	ug/L	0.217	2.10	30	
Dibromomethane		20.0	20.9	ug/L	0.132	4.40	30	
1,2-Dichlorobenzene		20.0	21.1	ug/L	1.08	5.70	30	
1,3-Dichlorobenzene		20.0	21.9	ug/L	1.21	9.60	30	
1,4-Dichlorobenzene		20.0	19.4	ug/L	1.22	3.20	30	
Dichlorodifluoromethane		20.0	25.0	ug/L	0.503	25.1	30	
1,2-Dichloroethane		20.0	20.4	ug/L	0.404	2.00	30	
cis-1,2-Dichloroethene		20.0	20.4	ug/L	0.243	2.20	30	
trans-1,2-Dichloroethene		20.0	23.0	ug/L	0.245	15.0	30	
1,3-Dichloropropane		20.0	19.9	ug/L	0.389	0.300	30	
2,2-Dichloropropane		20.0	19.5	ug/L	0.429	2.30	30	
cis-1,3-Dichloropropene		20.0	18.7	ug/L	0.322	6.30	30	
trans-1,3-Dichloropropene		20.0	16.9	ug/L	0.432	15.5	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1233857
Report generated 10/29/2008 15:27



Login Number: L08100416 Run Date: 10/22/2008 Sample ID: WG285582-12
Instrument ID: HPMS11 Run Time: 01:50 Method: 8260B
File ID: 11M54607 Analyst: WTD QC Key: STD
ICal Workgroup: WG285582 Cal ID: HPMS11 - 21-OCT-08

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene	20.0	19.2	ug/L	0.311	3.80	30	
2-Hexanone	20.0	20.3	ug/L	0.104	1.30	30	
Hexachlorobutadiene	20.0	19.5	ug/L	0.345	2.50	30	
Isopropylbenzene	20.0	18.0	ug/L	1.32	10.2	30	
p-Isopropyltoluene	20.0	18.9	ug/L	2.30	5.70	30	
4-Methyl-2-Pentanone	20.0	20.7	ug/L	0.0457	3.50	30	
Methylene Chloride	20.0	23.8	ug/L	0.239	19.2	30	
Naphthalene	20.0	18.1	ug/L	1.52	9.40	30	
n-Propylbenzene	20.0	18.6	ug/L	2.89	7.20	30	
Styrene	20.0	20.7	ug/L	0.960	3.40	30	
1,1,1,2-Tetrachloroethane	20.0	21.2	ug/L	0.355	5.90	30	
Tetrachloroethene	20.0	18.9	ug/L	0.229	5.40	30	
1,2,3-Trichlorobenzene	20.0	18.4	ug/L	0.710	7.90	30	
1,2,4-Trichlorobenzene	20.0	17.7	ug/L	0.740	11.5	30	
1,1,1-Trichloroethane	20.0	20.6	ug/L	0.496	3.10	30	
1,1,2-Trichloroethane	20.0	20.8	ug/L	0.235	3.80	30	
Trichloroethene	20.0	19.6	ug/L	0.224	2.00	30	
Trichlorofluoromethane	20.0	21.7	ug/L	0.418	8.70	30	
1,2,3-Trichloropropane	20.0	19.9	ug/L	0.155	0.600	30	
1,2,4-Trimethylbenzene	20.0	19.9	ug/L	2.35	0.500	30	
1,3,5-Trimethylbenzene	20.0	19.0	ug/L	2.08	4.90	30	
Vinyl Acetate	20.0	13.4	ug/L	0.181	32.8	40	
o-Xylene	20.0	20.1	ug/L	0.531	0.500	30	
m-,p-Xylene	40.0	39.6	ug/L	0.569	1.00	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Login Number: L08100416	Run Date: 10/22/2008	Sample ID: WG285611-02
Instrument ID: HPMS11	Run Time: 00:47	Method: 8260B
File ID: 11M54605	Analyst: WTD	QC Key: STD
Workgroup (AAB#): WG285612	Cal ID: HPMS11 - 21-OCT-08	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	50.3	ug/L	0.497	0.605	20	
1,1-Dichloroethene	CCC	50.0	52.2	ug/L	0.352	4.36	20	
1,2-Dichloropropane	CCC	50.0	51.8	ug/L	0.186	3.53	20	
Ethylbenzene	CCC	50.0	47.7	ug/L	0.437	4.52	20	
Toluene	CCC	50.0	48.5	ug/L	1.18	3.04	20	
Vinyl Chloride	CCC	50.0	52.2	ug/L	0.311	4.43	20	
Bromoform	SPCC	50.0	49.2	ug/L	0.206	1.55	40	
Chlorobenzene	SPCC	50.0	49.7	ug/L	0.812	0.533	40	
Chloromethane	SPCC	50.0	44.1	ug/L	0.159	11.7	40	
1,1-Dichloroethane	SPCC	50.0	50.3	ug/L	0.447	0.641	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	46.5	ug/L	0.355	7.05	40	
Acetone		50.0	49.2	ug/L	0.0443	1.64	40	
Benzene		50.0	52.5	ug/L	0.795	4.91	40	
Bromobenzene		50.0	49.6	ug/L	0.580	0.785	40	
Bromochloromethane		50.0	50.2	ug/L	0.141	0.461	40	
Bromodichloromethane		50.0	51.6	ug/L	0.361	3.24	40	
Bromomethane		50.0	55.7	ug/L	0.153	11.4	40	
2-Butanone		50.0	42.9	ug/L	0.0470	14.2	40	
n-Butylbenzene		50.0	48.7	ug/L	2.23	2.64	40	
sec-Butylbenzene		50.0	48.2	ug/L	2.61	3.67	40	
tert-Butylbenzene		50.0	48.3	ug/L	0.415	3.38	40	
Carbon Disulfide		50.0	49.6	ug/L	0.749	0.875	40	
Carbon Tetrachloride		50.0	51.0	ug/L	0.477	2.04	40	
Dibromochloromethane		50.0	47.3	ug/L	0.322	5.36	40	
Chloroethane		50.0	55.4	ug/L	0.108	10.8	40	
2-Chloroethyl Vinyl Ether		50.0	44.2	ug/L	0.0892	11.5	40	
2-Chlorotoluene		50.0	44.7	ug/L	2.02	10.6	40	
4-Chlorotoluene		50.0	47.0	ug/L	1.89	6.09	40	
1,2-Dibromo-3-Chloropropane		50.0	44.3	ug/L	0.0847	11.4	40	
1,2-Dibromoethane		50.0	45.0	ug/L	0.203	10.1	40	
Dibromomethane		50.0	49.8	ug/L	0.126	0.441	40	
1,2-Dichlorobenzene		50.0	52.0	ug/L	1.07	4.03	40	
1,3-Dichlorobenzene		50.0	54.0	ug/L	1.19	7.96	40	
1,4-Dichlorobenzene		50.0	48.4	ug/L	1.22	3.12	40	
Dichlorodifluoromethane		50.0	51.1	ug/L	0.411	2.12	40	
1,2-Dichloroethane		50.0	49.9	ug/L	0.396	0.118	40	
cis-1,2-Dichloroethene		50.0	48.2	ug/L	0.238	3.60	40	
trans-1,2-Dichloroethene		50.0	55.2	ug/L	0.236	10.4	40	
1,3-Dichloropropane		50.0	46.0	ug/L	0.361	7.93	40	
2,2-Dichloropropane		50.0	50.9	ug/L	0.447	1.71	40	
cis-1,3-Dichloropropene		50.0	46.1	ug/L	0.342	7.88	40	
trans-1,3-Dichloropropene		50.0	46.9	ug/L	0.468	6.13	40	

CCV - Modified 03/05/2008

PDF File ID: 1233859

Report generated 10/29/2008 14:02



00102657

Login Number: L08100416 Run Date: 10/22/2008 Sample ID: WG285611-02
Instrument ID: HPMS11 Run Time: 00:47 Method: 8260B
File ID: 11M54605 Analyst: WTD QC Key: STD
Workgroup (AAB#): WG285612 Cal ID: HPMS11 - 21-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	48.3	ug/L	0.324	3.48	40	
2-Hexanone	50.0	45.8	ug/L	0.0933	8.35	40	
Hexachlorobutadiene	50.0	48.3	ug/L	0.341	3.38	40	
Isopropylbenzene	50.0	51.1	ug/L	1.50	2.17	40	
p-Isopropyltoluene	50.0	49.0	ug/L	2.39	1.92	40	
4-Methyl-2-Pentanone	50.0	45.8	ug/L	0.0431	8.48	40	
Methylene Chloride	50.0	58.3	ug/L	0.217	16.6	40	
Naphthalene	50.0	42.3	ug/L	1.47	15.3	40	
n-Propylbenzene	50.0	48.1	ug/L	2.93	3.73	40	
Styrene	50.0	50.7	ug/L	0.956	1.45	40	
1,1,1,2-Tetrachloroethane	50.0	50.7	ug/L	0.340	1.44	40	
Tetrachloroethene	50.0	48.1	ug/L	0.227	3.82	40	
1,2,3-Trichlorobenzene	50.0	44.8	ug/L	0.697	10.5	40	
1,2,4-Trichlorobenzene	50.0	45.4	ug/L	0.780	9.21	40	
1,1,1-Trichloroethane	50.0	52.1	ug/L	0.501	4.11	40	
1,1,2-Trichloroethane	50.0	47.2	ug/L	0.210	5.64	40	
Trichloroethene	50.0	46.9	ug/L	0.220	6.14	40	
Trichlorofluoromethane	50.0	54.2	ug/L	0.417	8.39	40	
1,2,3-Trichloropropane	50.0	46.0	ug/L	0.139	8.02	40	
1,2,4-Trimethylbenzene	50.0	49.5	ug/L	2.30	0.942	40	
1,3,5-Trimethylbenzene	50.0	49.8	ug/L	2.12	0.422	40	
Vinyl Acetate	50.0	43.4	ug/L	0.233	13.3	40	
o-Xylene	50.0	50.0	ug/L	0.538	0.0366	40	
m-,p-Xylene	100	96.8	ug/L	0.558	3.17	40	
1,2-Dichloroethene	100	103	ug/L	0.237	3.43	40	
Xylenes	150	147	ug/L	0.548	2.12	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

CCV - Modified 03/05/2008

PDF File ID: 1233859

Report generated 10/29/2008 14:02



Login Number: L08100416	Run Date: 10/22/2008	Sample ID: WG285678-02
Instrument ID: HPMS11	Run Time: 12:15	Method: 8260B
File ID: 11M54627A	Analyst: WTD	QC Key: STD
Workgroup (AAB#): WG285680	Cal ID: HPMS11 - 21-OCT-08	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	48.9	ug/L	0.483	2.11	20	
1,1-Dichloroethene	CCC	50.0	48.5	ug/L	0.328	2.91	20	
1,2-Dichloropropane	CCC	50.0	51.2	ug/L	0.184	2.31	20	
Ethylbenzene	CCC	50.0	47.8	ug/L	0.437	4.49	20	
Toluene	CCC	50.0	48.4	ug/L	1.18	3.19	20	
Vinyl Chloride	CCC	50.0	47.7	ug/L	0.284	4.62	20	
Bromoform	SPCC	50.0	47.6	ug/L	0.200	4.73	40	
Chlorobenzene	SPCC	50.0	49.0	ug/L	0.800	2.01	40	
Chloromethane	SPCC	50.0	44.9	ug/L	0.163	10.2	40	
1,1-Dichloroethane	SPCC	50.0	46.8	ug/L	0.416	6.43	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	48.1	ug/L	0.368	3.81	40	
Acetone		50.0	46.8	ug/L	0.0421	6.47	40	
Benzene		50.0	52.4	ug/L	0.795	4.87	40	
Bromobenzene		50.0	47.6	ug/L	0.557	4.79	40	
Bromochloromethane		50.0	47.6	ug/L	0.134	4.80	40	
Bromodichloromethane		50.0	50.2	ug/L	0.351	0.409	40	
Bromomethane		50.0	61.3	ug/L	0.167	22.5	40	
2-Butanone		50.0	41.8	ug/L	0.0457	16.5	40	
n-Butylbenzene		50.0	47.9	ug/L	2.20	4.19	40	
sec-Butylbenzene		50.0	47.0	ug/L	2.55	5.93	40	
tert-Butylbenzene		50.0	46.5	ug/L	0.400	6.92	40	
Carbon Disulfide		50.0	44.6	ug/L	0.673	10.9	40	
Carbon Tetrachloride		50.0	48.8	ug/L	0.456	2.47	40	
Dibromochloromethane		50.0	46.1	ug/L	0.314	7.72	40	
Chloroethane		50.0	58.2	ug/L	0.113	16.4	40	
2-Chloroethyl Vinyl Ether		50.0	44.7	ug/L	0.0902	10.6	40	
2-Chlorotoluene		50.0	42.9	ug/L	1.94	14.1	40	
4-Chlorotoluene		50.0	46.4	ug/L	1.87	7.27	40	
1,2-Dibromo-3-Chloropropane		50.0	44.1	ug/L	0.0844	11.7	40	
1,2-Dibromoethane		50.0	44.9	ug/L	0.203	10.2	40	
Dibromomethane		50.0	48.8	ug/L	0.123	2.49	40	
1,2-Dichlorobenzene		50.0	51.4	ug/L	1.06	2.79	40	
1,3-Dichlorobenzene		50.0	52.6	ug/L	1.16	5.23	40	
1,4-Dichlorobenzene		50.0	47.4	ug/L	1.19	5.11	40	
Dichlorodifluoromethane		50.0	52.2	ug/L	0.420	4.45	40	
1,2-Dichloroethane		50.0	48.5	ug/L	0.384	3.08	40	
cis-1,2-Dichloroethene		50.0	45.6	ug/L	0.225	8.82	40	
trans-1,2-Dichloroethene		50.0	49.5	ug/L	0.211	0.930	40	
1,3-Dichloropropane		50.0	46.4	ug/L	0.363	7.23	40	
2,2-Dichloropropane		50.0	50.0	ug/L	0.440	0.0936	40	
cis-1,3-Dichloropropene		50.0	45.9	ug/L	0.341	8.18	40	
trans-1,3-Dichloropropene		50.0	47.2	ug/L	0.470	5.66	40	

CCV - Modified 03/05/2008

PDF File ID: 1233859

Report generated 10/29/2008 14:02



00102659

Login Number: L08100416 Run Date: 10/22/2008 Sample ID: WG285678-02
Instrument ID: HPMS11 Run Time: 12:15 Method: 8260B
File ID: 11M54627A Analyst: WTD QC Key: STD
Workgroup (AAB#): WG285680 Cal ID: HPMS11 - 21-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	47.1	ug/L	0.316	5.74	40	
2-Hexanone	50.0	48.5	ug/L	0.0988	2.91	40	
Hexachlorobutadiene	50.0	47.4	ug/L	0.335	5.30	40	
Isopropylbenzene	50.0	50.0	ug/L	1.47	0.0686	40	
p-Isopropyltoluene	50.0	47.7	ug/L	2.32	4.65	40	
4-Methyl-2-Pentanone	50.0	46.2	ug/L	0.0435	7.60	40	
Methylene Chloride	50.0	54.0	ug/L	0.202	8.07	40	
Naphthalene	50.0	40.8	ug/L	1.41	18.4	40	
n-Propylbenzene	50.0	47.5	ug/L	2.89	5.07	40	
Styrene	50.0	49.9	ug/L	0.940	0.201	40	
1,1,1,2-Tetrachloroethane	50.0	49.1	ug/L	0.329	1.88	40	
Tetrachloroethene	50.0	47.7	ug/L	0.225	4.56	40	
1,2,3-Trichlorobenzene	50.0	42.4	ug/L	0.660	15.1	40	
1,2,4-Trichlorobenzene	50.0	44.3	ug/L	0.761	11.5	40	
1,1,1-Trichloroethane	50.0	49.9	ug/L	0.480	0.182	40	
1,1,2-Trichloroethane	50.0	46.7	ug/L	0.208	6.59	40	
Trichloroethene	50.0	45.2	ug/L	0.212	9.66	40	
Trichlorofluoromethane	50.0	14.1	ug/L	0.108	71.8	40	*
1,2,3-Trichloropropane	50.0	46.2	ug/L	0.140	7.51	40	
1,2,4-Trimethylbenzene	50.0	47.8	ug/L	2.22	4.39	40	
1,3,5-Trimethylbenzene	50.0	48.6	ug/L	2.07	2.87	40	
Vinyl Acetate	50.0	48.7	ug/L	0.262	2.52	40	
o-Xylene	50.0	49.2	ug/L	0.530	1.59	40	
m-,p-Xylene	100	96.4	ug/L	0.556	3.58	40	
1,2-Dichloroethene	100	95.1	ug/L	0.218	4.87	40	
Xylenes	150	146	ug/L	0.543	2.92	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds



Login Number: L08100416
Instrument ID: HPMS11
Workgroup (AAB#): WG285612

CCV Number: WG285611-02
CAL ID: HPMS11 - 21-OCT-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG285611-02	NA	NA	210743	323118	403021
Upper Limit	NA	NA	421486	646236	806042
Lower Limit	NA	NA	105372	161559	201511
<u>L08100416-01</u>	<u>1.00</u>	<u>01</u>	<u>149745</u>	<u>258188</u>	<u>388369</u>
L08100416-02	1.00	01	147641	258172	385835
L08100416-03	1.00	01	137655	266931	391368
L08100416-08	1.00	01	146592	267228	395774
WG285612-01	1.00	01	146649	262267	369886
WG285612-02	1.00	01	207765	311922	381707
WG285612-03	1.00	01	199716	304401	403548

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L08100416
Instrument ID: HPMS11
Workgroup (AAB#): WG285680

CCV Number: WG285678-02
CAL ID: HPMS11 - 21-OCT-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG285678-02	NA	NA	244282	376541	469725
Upper Limit	NA	NA	488564	753082	939450
Lower Limit	NA	NA	122141	188271	234863
<u>L08100416-04</u>	<u>1.00</u>	<u>01</u>	<u>142364</u>	<u>262964</u>	<u>346429</u>
L08100416-05	1.00	01	150347	265527	346427
L08100416-06	1.00	01	142705	254827	338492
WG285680-01	1.00	01	145405	264108	357126
WG285680-02	1.00	01	217039	327814	399043
WG285680-03	1.00	01	146808	261444	338827
WG285680-04	1.00	01	210159	334711	397315
WG285680-05	1.00	01	212988	346427	414594
WG285680-06	1.00	01	225319	351623	435264

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L08100416
Instrument ID: HPMS11
Workgroup (AAB#): WG285612

CCV Number: WG285611-02
CAL ID: HPMS11 - 21-OCT-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG285611-02	NA	NA	16.52	13.72	10.11
Upper Limit	NA	NA	17.02	14.22	10.61
Lower Limit	NA	NA	16.02	13.22	9.61
L08100416-01	1.00	01	16.523	13.721	10.102
L08100416-02	1.00	01	16.523	13.721	10.102
L08100416-03	1.00	01	16.523	13.721	10.102
L08100416-08	1.00	01	16.523	13.721	10.102
WG285612-01	1.00	01	16.523	13.721	10.102
WG285612-02	1.00	01	16.523	13.721	10.102
WG285612-03	1.00	01	16.523	13.721	10.112

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L08100416
Instrument ID: HPMS11
Workgroup (AAB#): WG285680

CCV Number: WG285678-02
CAL ID: HPMS11 - 21-OCT-08
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG285678-02	NA	NA	16.52	13.73	10.12
Upper Limit	NA	NA	17.02	14.23	10.62
Lower Limit	NA	NA	16.02	13.23	9.62
L08100416-04	1.00	01	16.523	13.721	10.102
L08100416-05	1.00	01	16.523	13.721	10.112
L08100416-06	1.00	01	16.523	13.721	10.102
WG285680-01	1.00	01	16.523	13.721	10.112
WG285680-02	1.00	01	16.523	13.721	10.102
WG285680-03	1.00	01	16.523	13.721	10.112
WG285680-04	1.00	01	16.523	13.721	10.112
WG285680-05	1.00	01	16.523	13.721	10.102
WG285680-06	1.00	01	16.523	13.721	10.102

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

2.2 Metals Data

2.2.1 Metals I C P Data

2.2.1.1 Summary Data

LABORATORY REPORT

L08100416

00102667

10/29/08 16:41

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Larry Duty

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
49WW03-100808	L08100416-07	6010B	20	14-OCT-08
49WW03-100808	L08100416-07	6010B	5	14-OCT-08
49WW03-100808	L08100416-07	6010B	1	14-OCT-08



Report Number: **L08100416**Report Date : **October 29, 2008**

00102668

Sample Number: **L08100416-07**
Client ID: **49W03-100808**
Matrix: **Water**
Workgroup Number: **WG284990**
Collect Date: **10/08/2008 12:45**
Sample Tag: **DL02**

PrePrep Method: **NONE**
Prep Method: **3005A**
Analytical Method: **6010B**
Analyst: **JYH**
Dilution: **20**
Units: **mg/L**

Instrument: **PE-ICP2**
Prep Date: **10/15/2008 07:38**
Cal Date: **10/21/2008 09:53**
Run Date: **10/21/2008 12:25**
File ID: **P2.102108.122506**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Vanadium, Total	7440-62-2		U	0.200	0.100

U Not detected at or above adjusted sample detection limit

Report Number: **L08100416**Report Date : **October 29, 2008**

00102669

Sample Number: **L08100416-07**
Client ID: **49W03-100808**
Matrix: **Water**
Workgroup Number: **WG284990**
Collect Date: **10/08/2008 12:45**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3005A**
Analytical Method: **6010B**
Analyst: **JYH**
Dilution: **5**
Units: **mg/L**

Instrument: **PE-ICP2**
Prep Date: **10/15/2008 07:38**
Cal Date: **10/17/2008 09:23**
Run Date: **10/17/2008 18:20**
File ID: **P2.101708.182030**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Sodium, Total	7440-23-5	554		2.50	1.25

Report Number: **L08100416**Report Date : **October 29, 2008**

00102670

Sample Number: **L08100416-07**
 Client ID: **49WW03-100808**
 Matrix: **Water**
 Workgroup Number: **WG284990**
 Collect Date: **10/08/2008 12:45**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **3005A**
 Analytical Method: **6010B**
 Analyst: **JYH**
 Dilution: **1**
 Units: **mg/L**

Instrument: **PE-ICP2**
 Prep Date: **10/15/2008 07:38**
 Cal Date: **10/16/2008 14:35**
 Run Date: **10/16/2008 22:57**
 File ID: **P2.101608.225705**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Aluminum, Total	7429-90-5	0.0774	J	0.100	0.0500
Beryllium, Total	7440-41-7		U	0.00200	0.000500
Calcium, Total	7440-70-2	422		0.200	0.100
Cobalt, Total	7440-48-4	0.0155		0.00500	0.00250
Iron, Total	7439-89-6	1.24		0.100	0.0250
Magnesium, Total	7439-95-4	314		0.500	0.250
Potassium, Total	7440-09-7	7.32		1.00	0.250
Zinc, Total	7440-66-6	0.0205		0.0200	0.00500

J The analyte was positively identified, but the quantitation was below the RL

U Not detected at or above adjusted sample detection limit

2.2.1.2 QC Summary Data

Example 6010 Calculations
Perkin Elmer Optima 4300 DV

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific IRIS Advantage

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system in ug/mL (ppm)

Vf = Final volume (mL)

Vi = Initial volume (mL)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/mL (mg/L)

Example:

0.1

50

50

1

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (mg/L) (ppm)

Vf = Final volume (mL)

Vi = Initial weight (g)

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in ug/g (mg/kg)

Example:

0.1

50

1

1

5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (mg/kg)

Example:

5

80

6.25

Workgroup: WG284943

Analyst: REK

Method: 3005A

Run Date: 10/15/2008 07:38

Hotblock Start Temp: 95 @ 05:50

Hotblock End Temp: 95.1 @ 09:50

SOP: ME401 Revision 13

Spike Solution: STD27613

Spike Witness: SDL

HN03 Lot #: COA13347

hcl Lot #: COA13324

Digest tubes Lot #: COA13407

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG284943-02	BLANK	1	50 mL	50 mL		
2	WG284699-01	FBLK	18	50 mL	50 mL		
3	WG284943-03	LCS	1	50 mL	50 mL	5 mL	
4	L08100272-03	SAMP	18	50 mL	50 mL		10/20/08
5	L08100272-05	SAMP	18	50 mL	50 mL		10/20/08
6	WG284943-01	REF	18	50 mL	50 mL		
7	L08100272-07	RS02	18	50 mL	50 mL		10/20/08
8	WG284943-04	MS	18	50 mL	50 mL	5 mL	
9	L08100272-09	MS02	18	50 mL	50 mL	5 mL	10/20/08
10	WG284943-05	MSD	18	50 mL	50 mL	5 mL	
11	L08100272-11	SD02	18	50 mL	50 mL	5 mL	10/20/08
12	L08100272-13	SAMP	18	50 mL	50 mL		10/20/08
13	L08100272-15	SAMP	18	50 mL	50 mL		10/20/08
14	L08100272-17	SAMP	18	50 mL	50 mL		10/20/08
15	L08100272-19	SAMP	18	50 mL	50 mL		10/20/08
16	L08100408-01	SAMP	1	50 mL	50 mL		10/22/08
17	L08100408-02	SAMP	1	50 mL	50 mL		10/22/08
18	L08100408-03	SAMP	1	50 mL	50 mL		10/22/08
19	L08100408-04	SAMP	1	50 mL	50 mL		10/22/08
20	L08100408-05	SAMP	1	50 mL	50 mL		10/22/08
21	L08100409-01	SAMP	1	50 mL	50 mL		10/21/08
22	L08100410-01	SAMP	1	50 mL	50 mL		10/21/08
23	L08100416-07	SAMP	1	50 mL	50 mL		10/21/08
24	L08100419-04	SAMP	1	50 mL	50 mL		10/28/08

Analyst: REK

Reviewer: Veeha Collier

Microbac Laboratories Inc.
Instrument Run Log

00102676

Instrument: PE-ICP2 Dataset: 101608HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26222

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044
 Workgroups: 284976,284956,285149,284990,284877

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.101608.141027	WG285233-01	Calibration Point		1		10/16/08 14:10
2	P2.101608.141647	WG285233-02	Calibration Point		1		10/16/08 14:16
3	P2.101608.142258	WG285233-03	Calibration Point		1		10/16/08 14:22
4	P2.101608.142911	WG285233-04	Calibration Point		1		10/16/08 14:29
5	P2.101608.143527	WG285233-05	Calibration Point		1		10/16/08 14:35
6	P2.101608.144047	WG285233-06	Initial Calibration Verification		1		10/16/08 14:40
7	P2.101608.144701	WG285233-07	Initial Calib Blank		1		10/16/08 14:47
8	P2.101608.145312	WG285233-08	Interference Check		1		10/16/08 14:53
9	P2.101608.145827	WG285233-09	Interference Check		1		10/16/08 14:58
10	P2.101608.150343	WG285233-10	CCV		1		10/16/08 15:03
11	P2.101608.150957	WG285233-11	CCB		1		10/16/08 15:09
12	P2.101608.152649	WG284942-02	Method/Prep Blank	50/50	1		10/16/08 15:26
13	P2.101608.153302	WG284942-03	Laboratory Control S	50/50	1		10/16/08 15:33
14	P2.101608.153916	L08100389-01	0810-150-001	50/50	1		10/16/08 15:39
15	P2.101608.154528	L08100389-02	0810-150-002	50/50	1		10/16/08 15:45
16	P2.101608.155142	L08100390-01	0810-181-001	50/50	1		10/16/08 15:51
17	P2.101608.155803	L08100390-02	0810-164-002	50/50	1		10/16/08 15:58
18	P2.101608.160417	L08100390-03	0810-163-002	50/50	1		10/16/08 16:04
19	P2.101608.161035	L08100390-04	0810-162-001	50/50	1		10/16/08 16:10
20	P2.101608.161652	L08100390-05	0810-158-002	50/50	1		10/16/08 16:16
21	P2.101608.162309	L08100394-01	001 TANK 8 START	50/50	1	WG285117-04	10/16/08 16:23
22	P2.101608.162927	WG285233-12	CCV		1		10/16/08 16:29
23	P2.101608.163540	WG285233-13	CCB		1		10/16/08 16:35
24	P2.101608.164151	WG284942-01	Reference Sample		1	L08100395-01	10/16/08 16:41
25	P2.101608.164808	WG284976-01	Post Digestion Spike		1	L08100395-01	10/16/08 16:48
26	P2.101608.165423	WG284976-02	Serial Dilution		5	L08100395-01	10/16/08 16:54
27	P2.101608.170037	WG284942-04	Matrix Spike	50/50	1	L08100395-01	10/16/08 17:00
28	P2.101608.170651	WG284942-05	Matrix Spike Duplica	50/50	1	L08100395-01	10/16/08 17:06
29	P2.101608.171305	L08100399-01	C-004	50/50	1		10/16/08 17:13
30	P2.101608.171922	WG284932-02	Method/Prep Blank	50/50	1		10/16/08 17:19
31	P2.101608.172535	WG284932-03	Laboratory Control S	50/50	1		10/16/08 17:25
32	P2.101608.173149	WG284898-01	Fluid Blank		1		10/16/08 17:31
33	P2.101608.173806	WG284932-01	Reference Sample		1	L08100383-01	10/16/08 17:38
34	P2.101608.174423	WG285233-14	CCV		1		10/16/08 17:44
35	P2.101608.175036	WG285233-15	CCB		1		10/16/08 17:50
36	P2.101608.175647	WG284956-01	Post Digestion Spike		1	L08100383-01	10/16/08 17:56
37	P2.101608.180302	WG284956-02	Serial Dilution		5	L08100383-01	10/16/08 18:03

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Microbac Laboratories Inc.
Instrument Run Log

00102677

Instrument: PE-ICP2 Dataset: 101608HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26222

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044
 Workgroups: 284976,284956,285149,284990,284877

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
38	P2.101608.180919	WG284932-04	Matrix Spike	5/50	1	L08100383-01	10/16/08 18:09
39	P2.101608.181535	WG284932-05	Matrix Spike Duplica	5/50	1	L08100383-01	10/16/08 18:15
40	P2.101608.182151	L08100386-01	COMPOSITE	5/50	1		10/16/08 18:21
41	P2.101608.182821	WG285103-02	Method/Prep Blank	50/50	1		10/16/08 18:28
42	P2.101608.183446	WG285103-03	Laboratory Control S	50/50	1		10/16/08 18:34
43	P2.101608.184107	WG285014-01	Fluid Blank		1		10/16/08 18:41
44	P2.101608.184720	L08100229-19	AV-NCB-AS-ZNC-RR20-4-6-	50/50	1		10/16/08 18:47
45	P2.101608.185333	L08100360-03	AV-NCB-AS-SAN-RR02-21-2	50/50	1		10/16/08 18:53
46	P2.101608.185950	WG285233-16	CCV		1		10/16/08 18:59
47	P2.101608.190604	WG285233-17	CCB		1		10/16/08 19:06
48	P2.101608.191215	L08100360-05	AV-NCB-AS-SEW-RR11-17.5	50/50	1	WG285145-01	10/16/08 19:12
49	P2.101608.191832	L08100360-13	AV-NCB-AS-SEW-RR11-19.5	50/50	1		10/16/08 19:18
50	P2.101608.192445	WG285103-01	Reference Sample		1	L08100360-15	10/16/08 19:24
51	P2.101608.193102	WG285149-01	Post Digestion Spike		1	L08100360-15	10/16/08 19:31
52	P2.101608.193716	WG285149-02	Serial Dilution		5	L08100360-15	10/16/08 19:37
53	P2.101608.194330	WG285103-04	Matrix Spike	50/50	1	L08100360-15	10/16/08 19:43
54	P2.101608.194946	WG285103-05	Matrix Spike Duplica	50/50	1	L08100360-15	10/16/08 19:49
55	P2.101608.195600	L08100360-19	AV-NCB-AS-VIS-RR09-18-19	50/50	1		10/16/08 19:56
56	P2.101608.200217	L08100360-21	AV-NCB-AS-AC1-RR07-16.3	50/50	1		10/16/08 20:02
57	P2.101608.200831	WG284943-02	Method/Prep Blank	50/50	1		10/16/08 20:08
58	P2.101608.201444	WG285233-18	CCV		1		10/16/08 20:14
59	P2.101608.202058	WG285233-19	CCB		1		10/16/08 20:20
60	P2.101608.202709	WG284943-03	Laboratory Control S	50/50	1		10/16/08 20:27
61	P2.101608.203323	WG284699-01	Fluid Blank		1		10/16/08 20:33
62	P2.101608.203936	L08100272-03	AV-NCB-AS-STO-RR12-17.5	50/50	1		10/16/08 20:39
63	P2.101608.204550	L08100272-05	AV-NCB-AS-STO-RR12-19.5	50/50	1		10/16/08 20:45
64	P2.101608.205204	WG284943-01	Reference Sample		1	L08100272-07	10/16/08 20:52
65	P2.101608.205818	WG284990-01	Post Digestion Spike		1	L08100272-07	10/16/08 20:58
66	P2.101608.210433	WG284990-02	Serial Dilution		5	L08100272-07	10/16/08 21:04
67	P2.101608.211047	WG284943-04	Matrix Spike	50/50	1	L08100272-07	10/16/08 21:10
68	P2.101608.211702	WG284943-05	Matrix Spike Duplica	50/50	1	L08100272-07	10/16/08 21:17
69	P2.101608.212317	L08100272-13	AV-NCB-AS-VIS-RR10-18.5-	50/50	1		10/16/08 21:23
70	P2.101608.212931	WG285233-20	CCV		1		10/16/08 21:29
71	P2.101608.213545	WG285233-21	CCB		1		10/16/08 21:35
72	P2.101608.214156	L08100272-15	AV-NCB-AS-VIS-RR10-25-D	50/50	1		10/16/08 21:41
73	P2.101608.214810	L08100272-17	AV-NCB-AS-AC1-RR08-17-1	50/50	1		10/16/08 21:48
74	P2.101608.215424	L08100272-19	AV-NCB-AS-AC1-RR08-19-1	50/50	1		10/16/08 21:54

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Microbac Laboratories Inc.
Instrument Run Log

00102678

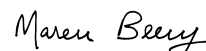
Instrument: PE-ICP2 Dataset: 101608HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26222

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044
 Workgroups: 284976,284956,285149,284990,284877

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
75	P2.101608.220038	L08100408-01	0810-160-1	50/50	1		10/16/08 22:00
76	P2.101608.220652	L08100408-02	0810-164-1	50/50	1		10/16/08 22:06
77	P2.101608.221312	L08100408-03	0810-164-2	50/50	1		10/16/08 22:13
78	P2.101608.221931	L08100408-04	0810-164-3	50/50	1		10/16/08 22:19
79	P2.101608.222551	L08100408-05	0810-164-4	50/50	1		10/16/08 22:25
80	P2.101608.223210	L08100409-01	SE-3026P	50/50	1	WG284920-01	10/16/08 22:32
81	P2.101608.223825	L08100410-01	SE-3005P	50/50	1		10/16/08 22:38
82	P2.101608.224440	WG285233-22	CCV		1		10/16/08 22:44
83	P2.101608.225054	WG285233-23	CCB		1		10/16/08 22:50
84	P2.101608.225705	L08100416-07	49WW03-100808	50/50	1	WG284950-01	10/16/08 22:57
85	P2.101608.230324	L08100419-04	FB001 (101308)	50/50	1		10/16/08 23:03
86	P2.101608.230938	WG284797-01	Method/Prep Blank	50/50	1		10/16/08 23:09
87	P2.101608.231552	WG284797-02	Laboratory Control S	50/50	1		10/16/08 23:15
88	P2.101608.232208	WG284797-03	Laboratory Control S	50/50	1		10/16/08 23:22
89	P2.101608.232824	L08100352-01	A1	50/50	5		10/16/08 23:28
90	P2.101608.233443	WG284877-01	Post Digestion Spike		5	L08100352-01	10/16/08 23:34
91	P2.101608.234103	WG284877-02	Serial Dilution		25	L08100352-01	10/16/08 23:41
92	P2.101608.234721	L08100352-02	A2	50/50	5		10/16/08 23:47
93	P2.101608.235340	L08100352-03	A3	50/50	5		10/16/08 23:53
94	P2.101608.235959	WG285233-24	CCV		1		10/16/08 23:59
95	P2.101708.000613	WG285233-25	CCB		1		10/17/08 00:06
96	P2.101708.001224	L08100352-04	A4	50/50	5		10/17/08 00:12
97	P2.101708.001843	L08100352-05	A5	50/50	5		10/17/08 00:18
98	P2.101708.002503	L08100352-06	A6	50/50	5		10/17/08 00:25
99	P2.101708.003123	L08100352-07	10/7 A	50/50	5		10/17/08 00:31
100	P2.101708.003743	L08100352-08	10/7 B	50/50	5		10/17/08 00:37
101	P2.101708.004403	L08100352-09	10/7 C	50/50	5		10/17/08 00:44
102	P2.101708.005023	L08100352-10	10/7 D	50/50	5		10/17/08 00:50
103	P2.101708.005643	L08100352-11	10/7 E	50/50	5		10/17/08 00:56
104	P2.101708.010303	L08100352-12	10/7 F	50/50	5		10/17/08 01:03
105	P2.101708.010922	L08100352-13	10/7 G	50/50	5		10/17/08 01:09
106	P2.101708.011541	WG285233-26	CCV		1		10/17/08 01:15
107	P2.101708.012154	WG285233-27	CCB		1		10/17/08 01:21
108	P2.101708.012805	L08100352-14	10/7 H	50/50	5		10/17/08 01:28
109	P2.101708.013425	L08100352-15	10/7 K	50/50	5		10/17/08 01:34
110	P2.101708.014045	L08100352-16	10/8 A	50/50	10		10/17/08 01:40
111	P2.101708.014704	L08100352-17	10/8 B	50/50	10		10/17/08 01:47

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Instrument Run Log

00102679

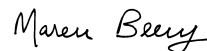
Instrument: PE-ICP2 Dataset: 101608HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26222

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044
 Workgroups: 284976,284956,285149,284990,284877

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
112	P2.101708.015323	L08100352-18	10/8 C	50/50	10		10/17/08 01:53
113	P2.101708.015942	L08100352-19	10/8 D	50/50	10		10/17/08 01:59
114	P2.101708.020602	L08100352-20	10/8 E	50/50	5		10/17/08 02:06
115	P2.101708.021222	WG285233-28	CCV		1		10/17/08 02:12
116	P2.101708.021835	WG285233-29	CCB		1		10/17/08 02:18

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Microbac Laboratories Inc.

Instrument Run Log

00102680

Instrument: PE-ICP2 Dataset: 101708HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26237

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044

Workgroups: 284874,284956,285257,285258,284990,285260,284987,285125

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.101708.085827	WG285322-01	Calibration Point		1		10/17/08 08:58
2	P2.101708.090439	WG285322-02	Calibration Point		1		10/17/08 09:04
3	P2.101708.091055	WG285322-03	Calibration Point		1		10/17/08 09:10
4	P2.101708.091710	WG285322-04	Calibration Point		1		10/17/08 09:17
5	P2.101708.092326	WG285322-05	Calibration Point		1		10/17/08 09:23
6	P2.101708.092855	WG285322-06	Initial Calibration Verification		1		10/17/08 09:28
7	P2.101708.093513	WG285322-07	Initial Calib Blank		1		10/17/08 09:35
8	P2.101708.094129	WG285322-08	Interference Check		1		10/17/08 09:41
9	P2.101708.094651	WG285322-09	Interference Check		1		10/17/08 09:46
10	P2.101708.095213	WG285322-10	CCV		1		10/17/08 09:52
11	P2.101708.095833	WG285322-11	CCB		1		10/17/08 09:58
12	P2.101708.101300	WG284796-02	Method/Prep Blank	50/50	1		10/17/08 10:13
13	P2.101708.101913	WG284796-03	Laboratory Control S	50/50	1		10/17/08 10:19
14	P2.101708.102529	WG284796-01	Reference Sample		1	L08100363-01	10/17/08 10:25
15	P2.101708.103150	WG284874-01	Post Digestion Spike		1	L08100363-01	10/17/08 10:31
16	P2.101708.103804	WG284874-02	Serial Dilution		5	L08100363-01	10/17/08 10:38
17	P2.101708.104424	WG284796-04	Matrix Spike	50/50	1	L08100363-01	10/17/08 10:44
18	P2.101708.105044	WG284796-05	Matrix Spike Duplica	50/50	1	L08100363-01	10/17/08 10:50
19	P2.101708.105658	L08100362-01	MW301AB-NF	50/50	2		10/17/08 10:56
20	P2.101708.110323	L08100362-02	MW322B2-NF	50/50	5		10/17/08 11:03
21	P2.101708.110946	L08100362-03	MW437B-NF	50/50	5		10/17/08 11:09
22	P2.101708.111607	WG285322-12	CCV		1		10/17/08 11:16
23	P2.101708.112227	WG285322-13	CCB		1		10/17/08 11:22
24	P2.101708.112844	L08100362-04	MW322B1-NF	50/50	5		10/17/08 11:28
25	P2.101708.113347	L08100362-05	MW321B1-DF	50/50	5		10/17/08 11:33
26	P2.101708.114011	L08100362-06	MW321B1-NF	50/50	5		10/17/08 11:40
27	P2.101708.114732	L08100362-07	MW321B2-NF	50/50	5		10/17/08 11:47
28	P2.101708.115358	WG284932-02	Method/Prep Blank		1		10/17/08 11:53
29	P2.101708.120019	WG284932-03	Laboratory Control S		1		10/17/08 12:00
30	P2.101708.120640	WG284898-01	Fluid Blank		1		10/17/08 12:06
31	P2.101708.121257	WG284932-01	Reference Sample		1	L08100383-01	10/17/08 12:12
32	P2.101708.121921	WG284932-04	Matrix Spike		1	L08100383-01	10/17/08 12:19
33	P2.101708.122543	WG284932-05	Matrix Spike Duplica		1	L08100383-01	10/17/08 12:25
34	P2.101708.123201	WG285322-14	CCV		1		10/17/08 12:32
35	P2.101708.123827	WG285322-15	CCB		1		10/17/08 12:38
36	P2.101708.124445	L08100386-01	COMPOSITE		1		10/17/08 12:44
37	P2.101708.125103	WG284956-03	L0810038601PS WG284956		1		10/17/08 12:51

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Microbac Laboratories Inc.
Instrument Run Log

00102681

Instrument: PE-ICP2 Dataset: 101708HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26237

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044

Workgroups: 284874,284956,285257,285258,284990,285260,284987,285125

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
38	P2.101708.125727	WG284956-04	L0810038601DL WG284956-		5		10/17/08 12:57
39	P2.101708.130351	L08100386-01	COMPOSITE		2		10/17/08 13:03
40	P2.101708.131009	WG284956-03	L0810038601PS WG284956-		2		10/17/08 13:10
41	P2.101708.131628	WG284956-04	L0810038601DL WG284956-		10		10/17/08 13:16
42	P2.101708.132248	WG285201-02	Method/Prep Blank	50/50	1		10/17/08 13:22
43	P2.101708.132901	WG285201-03	Laboratory Control S	50/50	1		10/17/08 13:29
44	P2.101708.133523	L08100427-01	CLARIFIER/COMP/EFF.	50/50	1		10/17/08 13:35
45	P2.101708.134146	L08100434-01	012	50/50	1		10/17/08 13:41
46	P2.101708.134812	WG285322-16	CCV		1		10/17/08 13:48
47	P2.101708.135429	WG285322-17	CCB		1		10/17/08 13:54
48	P2.101708.140045	L08100434-02	016	50/50	1		10/17/08 14:00
49	P2.101708.140707	WG285201-01	Reference Sample		1	L08100460-01	10/17/08 14:07
50	P2.101708.141237	WG285257-01	Post Digestion Spike		1	L08100460-01	10/17/08 14:12
51	P2.101708.141801	WG285257-02	Serial Dilution		5	L08100460-01	10/17/08 14:18
52	P2.101708.142318	WG285201-04	Matrix Spike	50/50	1	L08100460-01	10/17/08 14:23
53	P2.101708.142844	WG285201-05	Matrix Spike Duplica	50/50	1	L08100460-01	10/17/08 14:28
54	P2.101708.143410	L08100478-02	OUTFALL 001/COMP	50/50	1		10/17/08 14:34
55	P2.101708.144024	L08100478-04	OUTFALL 002/COMP	50/50	1		10/17/08 14:40
56	P2.101708.144645	L08100479-02	OUTFALL 102 / COMP	50/50	1		10/17/08 14:46
57	P2.101708.145305	L08100484-01	001/COMP.	50/50	1		10/17/08 14:53
58	P2.101708.145931	WG285322-18	CCV		1		10/17/08 14:59
59	P2.101708.150549	WG285322-19	CCB		1		10/17/08 15:05
60	P2.101708.151101	L08100500-04	OUTFALL 003/COMP	50/50	1	WG285235-04	10/17/08 15:11
61	P2.101708.151726	L08100500-06	OUTFALL 800/COMP	50/50	1		10/17/08 15:17
62	P2.101708.152351	L08100503-01	OUTFALL 002/COMP	50/50	1	WG285267-02	10/17/08 15:23
63	P2.101708.153015	L08100505-01	0810-168-001		1		10/17/08 15:30
64	P2.101708.153632	L08100505-02	0810-168-002		1		10/17/08 15:36
65	P2.101708.154256	L08100505-03	0810-168-003		1		10/17/08 15:42
66	P2.101708.154920	WG285202-02	Method/Prep Blank	50/50	1		10/17/08 15:49
67	P2.101708.155533	WG285202-03	Laboratory Control S	50/50	1		10/17/08 15:55
68	P2.101708.160155	L08100483-01	MW-9	50/50	1		10/17/08 16:01
69	P2.101708.160816	WG285322-20	CCV		1		10/17/08 16:08
70	P2.101708.161435	WG285322-21	CCB		1		10/17/08 16:14
71	P2.101708.162050	L08100483-02	MW-3	50/50	1		10/17/08 16:20
72	P2.101708.162711	L08100483-03	MW-4	50/50	1		10/17/08 16:27
73	P2.101708.163327	L08100483-04	MW-5	50/50	1		10/17/08 16:33
74	P2.101708.163944	L08100483-05	MW-6	50/50	1		10/17/08 16:39

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Microbac Laboratories Inc.
Instrument Run Log

00102682

Instrument: PE-ICP2 Dataset: 101708HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26237

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044

Workgroups: 284874,284956,285257,285258,284990,285260,284987,285125

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
75	P2.101708.164604	L08100483-06	MW-1	50/50	1		10/17/08 16:46
76	P2.101708.165239	WG285202-01	Reference Sample		1	L08100489-01	10/17/08 16:52
77	P2.101708.165904	WG285258-01	Post Digestion Spike		1	L08100489-01	10/17/08 16:59
78	P2.101708.170528	WG285258-02	Serial Dilution		5	L08100489-01	10/17/08 17:05
79	P2.101708.171150	WG285202-04	Matrix Spike	50/50	1	L08100489-01	10/17/08 17:11
80	P2.101708.171805	WG285202-05	Matrix Spike Duplica	50/50	1	L08100489-01	10/17/08 17:18
81	P2.101708.172427	WG285322-22	CCV		1		10/17/08 17:24
82	P2.101708.173045	WG285322-23	CCB		1		10/17/08 17:30
83	P2.101708.173701	L08100489-04	MW07-101508	50/50	1		10/17/08 17:37
84	P2.101708.174326	L08100489-05	MW05I-101508	50/50	1		10/17/08 17:43
85	P2.101708.174945	L08100489-06	MW06-101508	50/50	1		10/17/08 17:49
86	P2.101708.175607	L08100489-07	MW08-101508	50/50	1		10/17/08 17:56
87	P2.101708.180132	L08100490-01	C-34SW008 (101508)	50/50	1		10/17/08 18:01
88	P2.101708.180747	L08100490-06	FB003 (101508)	50/50	1		10/17/08 18:07
89	P2.101708.181408	L08100492-01	EQT 821	50/50	1		10/17/08 18:14
90	P2.101708.182030	L08100416-07	49WW03-100808	50/50	5		10/17/08 18:20
91	P2.101708.182655	WG285220-02	Method/Prep Blank	50/50	1		10/17/08 18:26
92	P2.101708.183310	WG285220-03	Laboratory Control S	50/50	1		10/17/08 18:33
93	P2.101708.183931	WG285322-24	CCV		1		10/17/08 18:39
94	P2.101708.184552	WG285322-25	CCB		1		10/17/08 18:45
95	P2.101708.185208	WG285167-01	Fluid Blank		1		10/17/08 18:52
96	P2.101708.185831	WG285220-01	Reference Sample		1	L08100444-01	10/17/08 18:58
97	P2.101708.190449	WG285260-01	Post Digestion Spike		1	L08100444-01	10/17/08 19:04
98	P2.101708.191116	WG285260-02	Serial Dilution		5	L08100444-01	10/17/08 19:11
99	P2.101708.191739	WG285220-04	Matrix Spike	5/50	1	L08100444-01	10/17/08 19:17
100	P2.101708.192405	WG285220-05	Matrix Spike Duplica	5/50	1	L08100444-01	10/17/08 19:24
101	P2.101708.193023	L08100444-02	101308-20-27	5/50	1		10/17/08 19:30
102	P2.101708.193647	L08100444-03	101308-20-21	5/50	1		10/17/08 19:36
103	P2.101708.194312	L08100444-04	101508-PPP	5/50	1		10/17/08 19:43
104	P2.101708.194936	L08100446-01	GC081475	5/50	1		10/17/08 19:49
105	P2.101708.195600	WG285322-26	CCV		1		10/17/08 19:56
106	P2.101708.200219	WG285322-27	CCB		1		10/17/08 20:02
107	P2.101708.200834	L08100446-02	GC081476	5/50	1		10/17/08 20:08
108	P2.101708.201458	L08100446-03	GC081477	5/50	1		10/17/08 20:14
109	P2.101708.202122	L08100446-04	GC081478	5/50	1		10/17/08 20:21
110	P2.101708.202742	WG284949-01	Method/Prep Blank	50/50	1		10/17/08 20:27
111	P2.101708.203402	WG284949-02	Laboratory Control S	50/50	1		10/17/08 20:34

Page: 3 Approved: October 20, 2008

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102683

Instrument: PE-ICP2 Dataset: 101708HR.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26237

Calibration Std: STD29127 ICV/CCV Std: STD29146 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29044

Workgroups: 284874,284956,285257,285258,284990,285260,284987,285125

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
112	P2.101708.204024	WG284949-03	Laboratory Control S	50/50	1		10/17/08 20:40
113	P2.101708.204641	L08100352-21	10/8 F	50/50	5		10/17/08 20:46
114	P2.101708.205309	L08100352-22	10/8 G	50/50	5		10/17/08 20:53
115	P2.101708.205935	L08100352-23	10/8 H	50/50	5		10/17/08 20:59
116	P2.101708.210556	L08100352-24	10/8 I	50/50	5		10/17/08 21:05
117	P2.101708.211221	WG285322-28	CCV		1		10/17/08 21:12
118	P2.101708.211842	WG285322-29	CCB		1		10/17/08 21:18
119	P2.101708.212500	L08100352-25	10/8 J	50/50	5		10/17/08 21:25
120	P2.101708.213125	L08100352-26	10/8 K	50/50	5		10/17/08 21:31
121	P2.101708.213751	L08100352-27	10/8 L	50/50	5		10/17/08 21:37
122	P2.101708.214412	L08100399-02	C-004	50/50	1		10/17/08 21:44
123	P2.101708.215037	WG284987-01	Post Digestion Spike		1	L08100399-02	10/17/08 21:50
124	P2.101708.215702	WG284987-02	Serial Dilution		5	L08100399-02	10/17/08 21:57
125	P2.101708.220318	L08100414-01	AF10-13MBBRIF	50/50	5		10/17/08 22:03
126	P2.101708.220943	L08100414-02	AF10-13MBBREF	50/50	5		10/17/08 22:09
127	P2.101708.221609	WG285089-02	Method/Prep Blank	50/50	1		10/17/08 22:16
128	P2.101708.222225	WG285089-03	Laboratory Control S	50/50	1		10/17/08 22:22
129	P2.101708.222851	WG285322-30	CCV		1		10/17/08 22:28
130	P2.101708.223512	WG285322-31	CCB		1		10/17/08 22:35
131	P2.101708.224123	WG285022-01	Fluid Blank		1		10/17/08 22:41
132	P2.101708.224746	L08100385-01	2010 SLUDGE	5/50	1		10/17/08 22:47
133	P2.101708.225405	WG285089-01	Reference Sample		1	L08100424-01	10/17/08 22:54
134	P2.101708.230028	WG285125-01	Post Digestion Spike		1	L08100424-01	10/17/08 23:00
135	P2.101708.230648	WG285125-02	Serial Dilution		5	L08100424-01	10/17/08 23:06
136	P2.101708.231307	WG285089-04	Matrix Spike	5/50	1	L08100424-01	10/17/08 23:13
137	P2.101708.231927	WG285089-05	Matrix Spike Duplica	5/50	1	L08100424-01	10/17/08 23:19
138	P2.101708.232549	L08100425-01	DRUM COMPOSITE	5/50	1		10/17/08 23:25
139	P2.101708.233208	WG285322-32	CCV		1		10/17/08 23:32
140	P2.101708.233821	WG285322-33	CCB		1		10/17/08 23:38

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102684

Instrument: PE-ICP2 Dataset: 102108H2R.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26271

Calibration Std: STD29127 ICV/CCV Std: STD29409 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29411

Workgroups: 284874,284990,285547,285259,284988,285262,285258,285136

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	P2.102108.092807	WG285578-01	Calibration Point		1		10/21/08 09:28
2	P2.102108.093417	WG285578-02	Calibration Point		1		10/21/08 09:34
3	P2.102108.094035	WG285578-03	Calibration Point		1		10/21/08 09:40
4	P2.102108.094652	WG285578-04	Calibration Point		1		10/21/08 09:46
5	P2.102108.095308	WG285578-05	Calibration Point		1		10/21/08 09:53
6	P2.102108.095840	WG285578-06	Initial Calibration Verification		1		10/21/08 09:58
7	P2.102108.100500	WG285578-07	Initial Calib Blank		1		10/21/08 10:05
8	P2.102108.101117	WG285578-08	Interference Check		1		10/21/08 10:11
9	P2.102108.101637	WG285578-09	Interference Check		1		10/21/08 10:16
10	P2.102108.102157	WG285578-10	CCV		1		10/21/08 10:21
11	P2.102108.102815	WG285578-11	CCB		1		10/21/08 10:28
12	P2.102108.103712	WG284874-03	Louisville Chem Requ		1		10/21/08 10:37
13	P2.102108.104335	WG284796-02	Method/Prep Blank	50/50	1		10/21/08 10:43
14	P2.102108.104956	WG284796-03	Laboratory Control S	50/50	1		10/21/08 10:49
15	P2.102108.105615	L08100362-01	MW301AB-NF	50/50	2		10/21/08 10:56
16	P2.102108.110232	WG284874-04	Post Digestion Spike		2	L08100362-01	10/21/08 11:02
17	P2.102108.110854	WG284874-05	Serial Dilution		10	L08100362-01	10/21/08 11:08
18	P2.102108.111513	L08100362-02	MW322B2-NF	50/50	5		10/21/08 11:15
19	P2.102108.112130	L08100362-03	MW437B-NF	50/50	5		10/21/08 11:21
20	P2.102108.112751	L08100362-04	MW322B1-NF	50/50	5		10/21/08 11:27
21	P2.102108.113414	L08100362-05	MW321B1-DF	50/50	5		10/21/08 11:34
22	P2.102108.114036	WG285578-12	CCV		1		10/21/08 11:40
23	P2.102108.114656	WG285578-13	CCB		1		10/21/08 11:46
24	P2.102108.115312	L08100362-06	MW321B1-NF	50/50	5		10/21/08 11:53
25	P2.102108.115957	L08100362-07	MW321B2-NF	50/50	5		10/21/08 11:59
26	P2.102108.120613	WG284796-01	Reference Sample		1	L08100363-01	10/21/08 12:06
27	P2.102108.121230	WG284796-04	Matrix Spike	50/50	1	L08100363-01	10/21/08 12:12
28	P2.102108.121851	WG284796-05	Matrix Spike Duplica	50/50	1	L08100363-01	10/21/08 12:18
29	P2.102108.122506	L08100416-07	49WW03-100808	50/50	20		10/21/08 12:25
30	P2.102108.123227	WG285578-14	CCV		1		10/21/08 12:32
31	P2.102108.123848	WG285578-15	CCB		1		10/21/08 12:38
32	P2.102108.124315	WG285509-02	Method/Prep Blank	50/50	1		10/21/08 12:43
33	P2.102108.124928	WG285509-03	Laboratory Control S	50/50	1		10/21/08 12:49
34	P2.102108.125550	WG285454-01	Fluid Blank		1		10/21/08 12:55
35	P2.102108.130212	WG285509-01	Reference Sample		1	L08100508-01	10/21/08 13:02
36	P2.102108.130829	WG285547-01	Post Digestion Spike		1	L08100508-01	10/21/08 13:08
37	P2.102108.131451	WG285547-02	Serial Dilution		5	L08100508-01	10/21/08 13:14

Page: 1 Approved: October 22, 2008

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

00102685

Instrument: PE-ICP2 Dataset: 102108H2R.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26271

Calibration Std: STD29127 ICV/CCV Std: STD29409 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29411

Workgroups: 284874,284990,285547,285259,284988,285262,285258,285136

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
38	P2.102108.132115	WG285509-04	Matrix Spike	5/50	1	L08100508-01	10/21/08 13:21
39	P2.102108.132730	WG285509-05	Matrix Spike Duplica	5/50	1	L08100508-01	10/21/08 13:27
40	P2.102108.133353	L08100508-02	1080 TANK	5/50	1		10/21/08 13:33
41	P2.102108.134017	L08100513-01	AM1-1-01	5/50	1		10/21/08 13:40
42	P2.102108.134642	WG285578-16	CCV		1		10/21/08 13:46
43	P2.102108.135300	WG285578-17	CCB		1		10/21/08 13:53
44	P2.102108.135918	L08100532-01	0810311-01	5/50	1		10/21/08 13:59
45	P2.102108.140531	L08100555-13	WS-001-S	5/50	1		10/21/08 14:05
46	P2.102108.141151	L08100555-15	WS-002-C	5/50	1		10/21/08 14:11
47	P2.102108.141816	WG285578-18	CCV		1		10/21/08 14:18
48	P2.102108.142434	WG285578-19	CCB		1		10/21/08 14:24
49	P2.102108.143152	L08100454-01	10/9 A	50/50	10		10/21/08 14:31
50	P2.102108.143810	WG285259-01	Post Digestion Spike		10	L08100454-01	10/21/08 14:38
51	P2.102108.144500	WG285259-02	Serial Dilution		50	L08100454-01	10/21/08 14:45
52	P2.102108.145124	L08100454-02	10/9 B	50/50	10		10/21/08 14:51
53	P2.102108.145553	L08100454-06	10/9 F	50/50	1		10/21/08 14:55
54	P2.102108.150212	L08100454-07	10/9 G	50/50	1		10/21/08 15:02
55	P2.102108.150839	L08100454-08	10/9 H	50/50	1		10/21/08 15:08
56	P2.102108.151505	L08100454-12	10/9 L	50/50	1		10/21/08 15:15
57	P2.102108.152125	L08100454-18	10/10 F	50/50	1		10/21/08 15:21
58	P2.102108.152750	L08100356-01	8002	50/50	2		10/21/08 15:27
59	P2.102108.153409	WG285578-20	CCV		1		10/21/08 15:34
60	P2.102108.154027	WG285578-21	CCB		1		10/21/08 15:40
61	P2.102108.154643	L08100356-02	8911U	50/50	2		10/21/08 15:46
62	P2.102108.155330	L08100356-05	8714P	50/50	5		10/21/08 15:53
63	P2.102108.155947	L08100356-06	8716P	50/50	5		10/21/08 15:59
64	P2.102108.160612	L08100356-07	8902U	50/50	1		10/21/08 16:06
65	P2.102108.161233	L08100356-08	8902L	50/50	1		10/21/08 16:12
66	P2.102108.161847	L08100356-09	8905U	50/50	2		10/21/08 16:18
67	P2.102108.162514	L08100356-10	8905L	50/50	5		10/21/08 16:25
68	P2.102108.163138	L08100356-11	8906L	50/50	1		10/21/08 16:31
69	P2.102108.163752	L08100356-12	8907U	50/50	1		10/21/08 16:37
70	P2.102108.164406	L08100356-13	8908L	50/50	5		10/21/08 16:44
71	P2.102108.165020	WG285578-22	CCV		1		10/21/08 16:50
72	P2.102108.165634	WG285578-23	CCB		1		10/21/08 16:56
73	P2.102108.170245	L08100356-14	8004 DUPLICATE	50/50	1		10/21/08 17:02
74	P2.102108.170859	L08100356-15	8910P-R	50/50	1		10/21/08 17:08

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

00102686

Instrument: PE-ICP2 Dataset: 102108H2R.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26271

Calibration Std: STD29127 ICV/CCV Std: STD29409 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29411

Workgroups: 284874,284990,285547,285259,284988,285262,285258,285136

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
75	P2.102108.171513	L08100356-16	8912U	50/50	5		10/21/08 17:15
76	P2.102108.172134	L08100356-17	8912L	50/50	1		10/21/08 17:21
77	P2.102108.172749	L08100356-18	RIVER W#2	50/50	1		10/21/08 17:27
78	P2.102108.173403	L08100356-19	RIVER W#4	50/50	1		10/21/08 17:34
79	P2.102108.174020	L08100356-20	RIVER W#5	50/50	1		10/21/08 17:40
80	P2.102108.174641	L08100454-24	10/10 L	50/50	10		10/21/08 17:46
81	P2.102108.175259	L08100454-25	10/13 A	50/50	10		10/21/08 17:52
82	P2.102108.175917	L08100454-28	10/13 D	50/50	10		10/21/08 17:59
83	P2.102108.180535	WG285578-24	CCV		1		10/21/08 18:05
84	P2.102108.181149	WG285578-25	CCB		1		10/21/08 18:11
85	P2.102108.181804	L08100489-07	MW08-101508	50/50	5		10/21/08 18:18
86	P2.102108.182421	WG285073-02	Method/Prep Blank	50/50	1		10/21/08 18:24
87	P2.102108.183035	WG285073-03	Laboratory Control S	50/50	1		10/21/08 18:30
88	P2.102108.183650	L08100435-16	AV-NCB-AS-EQB	50/50	1		10/21/08 18:36
89	P2.102108.184305	L08100440-01	CRP 3051	50/50	1		10/21/08 18:43
90	P2.102108.184825	L08100440-02	CRP 3043	50/50	1		10/21/08 18:48
91	P2.102108.185355	L08100440-03	CRP 3037	50/50	1		10/21/08 18:53
92	P2.102108.185921	L08100440-04	CRP 3039	50/50	1		10/21/08 18:59
93	P2.102108.190440	WG285073-01	Reference Sample		1	L08100440-05	10/21/08 19:04
94	P2.102108.191059	WG285136-01	Post Digestion Spike		1	L08100440-05	10/21/08 19:10
95	P2.102108.191723	WG285578-26	CCV		1		10/21/08 19:17
96	P2.102108.192336	WG285578-27	CCB		1		10/21/08 19:23
97	P2.102108.192947	WG285136-02	Serial Dilution		5	L08100440-05	10/21/08 19:29
98	P2.102108.193604	WG285073-04	Matrix Spike	50/50	1	L08100440-05	10/21/08 19:36
99	P2.102108.194223	WG285073-05	Matrix Spike Duplica	50/50	1	L08100440-05	10/21/08 19:42
100	P2.102108.194743	L08100440-08	CRP 3042	50/50	1		10/21/08 19:47
101	P2.102108.195307	L08100440-09	CRP 3046	50/50	1		10/21/08 19:53
102	P2.102108.195831	L08100440-10	CRP 3049	50/50	1		10/21/08 19:58
103	P2.102108.200450	L08100440-11	CRP 3038	50/50	1		10/21/08 20:04
104	P2.102108.201011	L08100440-12	CRP 3052	50/50	1		10/21/08 20:10
105	P2.102108.201630	L08100440-13	CRP 3045	50/50	1		10/21/08 20:16
106	P2.102108.202156	L08100440-14	CRP 3044	50/50	1		10/21/08 20:21
107	P2.102108.202729	WG285578-28	CCV		1		10/21/08 20:27
108	P2.102108.203342	WG285578-29	CCB		1		10/21/08 20:33
109	P2.102108.203953	L08100440-15	CRP 3047	50/50	1		10/21/08 20:39
110	P2.102108.204513	L08100440-16	CRP 3048	50/50	1		10/21/08 20:45
111	P2.102108.205034	L08100440-17	CRP 3041	50/50	1		10/21/08 20:50

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

00102687

Instrument: PE-ICP2 Dataset: 102108H2R.CSV
 Analyst1: JYH Analyst2: ED
 Method: 6010B SOP: ME600E Rev: 8
 Maintenance Log ID: 26271

Calibration Std: STD29127 ICV/CCV Std: STD29409 Post Spike: STD27612
 ICSA: STD29188 ICSAB: STD29411

Workgroups: 284874,284990,285547,285259,284988,285262,285258,285136

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
112	P2.102108.205654	L08100457-13	FB002 (101408)	50/50	1		10/21/08 20:56
113	P2.102108.210309	WG285578-30	CCV		1		10/21/08 21:03
114	P2.102108.210926	WG285578-31	CCB		1		10/21/08 21:09

Page: 4 Approved: October 22, 2008

Shari L. Bahgat



Microbac Laboratories Inc.

00102688

Data Checklist

Date: 16-OCT-2008

Analyst: JYH

Analyst: ED

Method: 6010B

Instrument: PE-ICP2

Curve Workgroup: WG285233

Runlog ID: 24746

Analytical Workgroups: 284976,284956,285149,284990,284877

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	389,390,395,399,386,229,360,272
	408,409,410,416,419,352
Client Forms	X
Level X	
Level 3	416
Level 4	229,360,272,419,352
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ED
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
17-OCT-2008

Emily Decker

Secondary Reviewer:
17-OCT-2008

Maren Berry



Microbac Laboratories Inc.

00102689

Data Checklist

Date: 17-OCT-2008

Analyst: JYH

Analyst: ED

Method: 6010B

Instrument: PE-ICP2

Curve Workgroup: WG258322

Runlog ID: 24768

Analytical Workgroups: 284874,285257,285258,254990,285260,284987,285125

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	362,363,427,500,505,483,489,490 492,416,446,352,399,414
Client Forms	X
Level X	
Level 3	362,489,416
Level 4	483,490,352,414
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ED
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
20-OCT-2008

Emily Decker

Secondary Reviewer:
20-OCT-2008

Maren Berry



Microbac Laboratories Inc.

00102690

Data Checklist

Date: 21-OCT-2008

Analyst: JYH

Analyst: ED

Method: 6010B

Instrument: PE-ICP2

Curve Workgroup: WG285578

Runlog ID: 24817

Analytical Workgroups: 284874,284990,285547,285259,284988,285262,285258,285136

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	362,416,532,555,454,356,489,435
	440,457
Client Forms	X
Level X	
Level 3	362,416
Level 4	555,454,435,440,457
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ED
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
21-OCT-2008

Emily Decker

Secondary Reviewer:
22-OCT-2008

Shari L. Bahgat



Analytical Method: 6010B

AAB#: WG284990

Login Number: L08100416

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
49WW03-100808	10/08/08	10/14/08	10/15/08	180	6.79	10/21/08	180	6.20	
49WW03-100808	10/08/08	10/14/08	10/15/08	180	6.79	10/17/08	180	2.45	
49WW03-100808	10/08/08	10/14/08	10/15/08	180	6.79	10/16/08	180	1.64	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00102692

Login Number: L08100416
Blank File ID: P2.101608.200831
Prep Date: 10/15/08 07:38
Analyzed Date: 10/16/08 20:08
Analyst: JYH

Work Group: WG284990
Blank Sample ID: WG284943-02
Instrument ID: PE-ICP2
Method: 6010B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG284943-03	P2.101608.202709	10/16/08 20:27	01
49WW03-100808	L08100416-07	P2.101608.225705	10/16/08 22:57	01
49WW03-100808	L08100416-07	P2.101708.182030	10/17/08 18:20	DL01
49WW03-100808	L08100416-07	P2.102108.122506	10/21/08 12:25	DL02

Report Name: BLANK_SUMMARY
PDF File ID: 1224418
Report generated 10/21/2008 14:13



Login Number: L08100416 Prep Date: 10/15/08 07:38 Sample ID: WG284943-02
 Instrument ID: PE-ICP2 Run Date: 10/16/08 20:08 Prep Method: 3005A
 File ID: P2.101608.200831 Analyst: JYH Method: 6010B
 Workgroup (AAB#): WG284990 Matrix: Water Units: mg/L
 Contract #: DACA56-94-D-0020 Cal ID: PE-ICP - 16-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Aluminum, Total	0.0500	0.100	0.0500	1	U
Beryllium, Total	0.000500	0.00200	0.000500	1	U
Calcium, Total	0.100	0.200	0.100	1	U
Cobalt, Total	0.00250	0.00500	0.00250	1	U
Iron, Total	0.0250	0.100	0.0250	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Potassium, Total	0.250	1.00	0.250	1	U
Sodium, Total	0.250	0.500	0.250	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U
Zinc, Total	0.00500	0.0200	0.00500	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1224419

21-OCT-2008 16:38



Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG284943-03
Instrument ID: PE-ICP2 Run Time: 20:27 Prep Method: 3005A
File ID: P2.101608.202709 Analyst: JYH Method: 6010B
Workgroup (AAB#): WG284990 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD27613 Cal ID: PE-ICP - 16-OCT-08

Analytes	Expected	Found	% Rec	LCS Limits			Q
Aluminum, Total	5.00	5.12	102	85	-	115	
Beryllium, Total	0.0250	0.0258	103	85	-	115	
Calcium, Total	5.00	5.24	105	85	-	115	
Cobalt, Total	0.100	0.105	105	85	-	115	
Iron, Total	2.00	2.08	104	85	-	115	
Magnesium, Total	5.00	5.02	100	85	-	115	
Potassium, Total	25.0	25.8	103	85	-	115	
Sodium, Total	25.0	26.0	104	85	-	115	
Vanadium, Total	0.500	0.519	104	85	-	115	
Zinc, Total	0.500	0.528	106	85	-	115	

Loginnum: L08100416

Cal ID: PE-ICP2 -

Worknum: WG284990

Instrument ID: PE-ICP2

Contract #: DACA56-94-D-0020

Method: 6010B

Parent ID: WG284943-01

File ID: P2.101608.205204

Dil: 1

Matrix: WATER

Sample ID: WG284943-04 MS

File ID: P2.101608.211047

Dil: 1

Units: mg/L

Sample ID: WG284943-05 MSD

File ID: P2.101608.211702

Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Aluminum	4.97	5.00	9.36	87.8	5.00	21.1	323	77.2	80 - 120	20	*#
Beryllium	ND	0.0250	0.0258	103	0.0250	0.0270	108	4.43	80 - 120	20	
Calcium	5.48	5.00	10.1	92.8	5.00	12.5	141	21.1	80 - 120	20	*#
Cobalt	ND	0.100	0.107	107	0.100	0.109	109	2.00	80 - 120	20	
Iron	2.69	2.00	3.89	59.9	2.00	9.87	359	86.9	80 - 120	20	*#
Magnesium	0.441	5.00	5.64	104	5.00	5.92	110	4.98	80 - 120	20	
Potassium	0.604	25.0	26.6	104	25.0	27.5	108	3.31	80 - 120	20	
Sodium	31.5	25.0	63.0	126	25.0	82.3	203	26.6	80 - 120	20	*#
Vanadium	ND	0.500	0.529	106	0.500	0.559	112	5.57	80 - 120	20	
Zinc	0.00804	0.500	0.548	108	0.500	0.553	109	1.04	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Login: L08100416 Worknum: WG284990
Instrument: PE-ICP2 Method: 6010B
Serial Dil: WG284990-02 File ID: P2.101608.210433 Dil: 5 Units: mg/L
Sample: L08100272-07 File ID: P2.101608.205204 Dil: 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Aluminum	4.97		5.2		4.63	
Beryllium	ND	U	ND	U		
Calcium	5.48		5.55		1.28	
Cobalt	ND	U	ND	U		
Iron	2.69		2.825		5.02	
Magnesium	.441	F	ND	U		
Potassium	.604	F	ND	U		
Sodium	31.5		32.9		4.44	
Vanadium	ND	U	ND	U		
Zinc	.00804	F	ND	U		

U = Result is below MDL.

F = Result is greater than or equal to MDL and less than the RL.

X = Result is greater than or equal to RL and less than 50 times the MDL.

E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008

PDF File ID: 1224415

10/17/2008 09:09



Sample Login ID: L08100416
Instrument ID: PE-ICP2
Post Spike ID: WG284990-01
Sample ID: L08100272-07

Worknum: WG284990
Method: 6010B
Units: mg/L
Matrix: Water
File ID: P2.101608.205818 Dil: 1
File ID: P2.101608.205204 Dil: 1

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ALUMINUM	9.65		4.97		5	103.4	75 - 125	
BERYLLIUM	0.0254		0	U	.025	101.7	75 - 125	
CALCIUM	10.3		5.48		5	106.4	75 - 125	
COBALT	0.106		0	U	.1	105.6	75 - 125	
IRON	4.48		2.69		2	102.8	75 - 125	
MAGNESIUM	5.40		0.441	F	5	100.0	75 - 125	
POTASSIUM	26.5		0.604	F	25	104.0	75 - 125	
SODIUM	54.4		31.5		25	104.3	75 - 125	
VANADIUM	0.520		0	U	.5	104.1	75 - 125	
ZINC	0.531		0.00804	F	.5	104.7	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

Microbac Laboratories Inc.
Initial Calibration Summary

00102698

Login:	<u>L08100416</u>	Workgroup (AAB#):	<u>WG284990</u>
Analytical Method:	<u>6010B</u>	Instrument ID:	<u>PE-ICP2</u>
ICAL Worknum:	<u>WG285233</u>	Initial Calibration Date:	<u>16-OCT-2008 14:35</u>

	WG285233-01		WG285233-02		WG285233-03		WG285233-04		WG285233-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ALUMINUM	0	-50.4	.1	733	.2	1380	10	62800	20	127000	.999991	
BERYLLIUM	0	-858	.0005	186	.001	371	.05	17900	.1	35100	.999946	
CALCIUM	0	-65.7	.1	2.86	.2	17.3	10	1050	20	2120	.999989	
COBALT	0	-48.6	.002	44.1	.004	88.8	.1	4010	.4	7900	.999974	
IRON	0	-1.19	.04	37.9	.08	69.4	4	3400	8	6860	.999991	
MAGNESIUM	0	26.6	.1	52.9	.2	98.8	10	4740	20	9650	.999958	
POTASSIUM	0	-550	.5	1220	1	2440	50	117000	100	235000	1	
SODIUM	0	94.6	.5	1080	1	2120	50	98600	100	197000	1	
VANADIUM	0	4930	.01	841	.02	1620	1	76700	2	151000	.999962	
ZINC	0	-0.776	.01	85.4	.02	158	1	7680	2	15000	.999932	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

00102699

Login:	<u>L08100416</u>	Workgroup (AAB#):	<u>WG284990</u>
Analytical Method:	<u>6010B</u>	Instrument ID:	<u>PE-ICP2</u>
ICAL Worknum:	<u>WG285322</u>	Initial Calibration Date:	<u>17-OCT-2008 09:23</u>

	WG285322-01		WG285322-02		WG285322-03		WG285322-04		WG285322-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ALUMINUM	0	-58.2	.1	782	.2	1420	10	63100	20	126000	.999999	
BERYLLIUM	0	-888	.0005	204	.001	418	.05	17600	.1	35900	.999959	
CALCIUM	0	-71.1	.1	11.0	.2	16.6	10	1040	20	2160	.999873	
COBALT	0	-49.8	.002	41.7	.004	86.0	.1	3950	.4	8040	.999964	
IRON	0	-0.790	.04	32.8	.08	61.7	4	3130	8	6200	.999985	
MAGNESIUM	0	18.4	.1	47.4	.2	90.2	10	4380	20	8710	.999995	
POTASSIUM	0	-539	.5	1280	1	2510	50	118000	100	238000	1	
SODIUM	0	119	.5	1120	1	2170	50	99500	100	197000	1	
VANADIUM	0	4800	.01	798	.02	1550	1	74700	2	154000	.999905	
ZINC	0	-1.02	.01	80.7	.02	159	1	7440	2	15300	.999923	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

00102700

Login:	<u>L08100416</u>	Workgroup (AAB#):	<u>WG284990</u>
Analytical Method:	<u>6010B</u>	Instrument ID:	<u>PE-ICP2</u>
ICAL Worknum:	<u>WG285578</u>	Initial Calibration Date:	<u>21-OCT-2008 09:53</u>

	WG285578-01		WG285578-02		WG285578-03		WG285578-04		WG285578-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ALUMINUM	0	43.7	.1	623	.2	1270	10	58600	20	118000	.999993	
BERYLLIUM	0	-857	.0005	150	.001	339	.05	15600	.1	32200	.999895	
CALCIUM	0	-64.7	.1	9.52	.2	18.2	10	916	20	1890	.999875	
COBALT	0	-42.6	.002	33.1	.004	68.2	.1	3400	.4	6950	.999945	
IRON	0	3.78	.04	36.6	.08	71.2	4	3460	8	7150	.999881	
MAGNESIUM	0	14.1	.1	57.9	.2	108	10	5090	20	10500	.999903	
POTASSIUM	0	-340	.5	1110	1	2130	50	103000	100	207000	1	
SODIUM	0	300	.5	984	1	1900	50	88700	100	177000	1	
VANADIUM	0	4550	.01	710	.02	1280	1	65800	2	136000	.999866	
ZINC	0	17.1	.01	70.1	.02	128	1	6280	2	12800	.999961	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-07
Instrument ID: PE-ICP2 Run Time: 14:47 Method: 6010
File ID: P2.101608.144701 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP2 - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.05	.1	.05	U
BERYLLIUM	.0005	.002	.0005	U
CALCIUM	.1	.2	.1	U
COBALT	.0025	.005	.0025	U
IRON	.025	.1	.025	U
MAGNESIUM	.25	.5	.25	U
POTASSIUM	.25	1	.25	U
SODIUM	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.005	.02	.005	U

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-07
Instrument ID: PE-ICP2 Run Time: 09:35 Method: 6010
File ID: P2.101708.093513 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP2 - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.05	.1	.05	U
BERYLLIUM	.0005	.002	.0005	U
CALCIUM	.1	.2	.1	U
COBALT	.0025	.005	.0025	U
IRON	.025	.1	.025	U
MAGNESIUM	.25	.5	.25	U
POTASSIUM	.25	1	.25	U
SODIUM	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.005	.02	.005	U

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-07
Instrument ID: PE-ICP2 Run Time: 10:05 Method: 6010
File ID: P2.102108.100500 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP2 - 21-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.05	.1	.05	U
BERYLLIUM	.0005	.002	.0005	U
CALCIUM	.1	.2	.1	U
COBALT	.0025	.005	.0025	U
IRON	.025	.1	.025	U
MAGNESIUM	.25	.5	.25	U
POTASSIUM	.25	1	.25	U
SODIUM	.25	.5	.25	U
VANADIUM	.005	.01	.005	U
ZINC	.005	.02	.005	U

00102704

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-11
Instrument ID: PE-ICP2 Run Time: 15:09 Method: 6010B
File ID: P2.101608.150957 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102705

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-17
Instrument ID: PE-ICP2 Run Time: 19:06 Method: 6010B
File ID: P2.101608.190604 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102706

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-19
Instrument ID: PE-ICP2 Run Time: 20:20 Method: 6010B
File ID: P2.101608.202058 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102707

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-21
Instrument ID: PE-ICP2 Run Time: 21:35 Method: 6010B
File ID: P2.101608.213545 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102708

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-23
Instrument ID: PE-ICP2 Run Time: 22:50 Method: 6010B
File ID: P2.101608.225054 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102709

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285233-25
Instrument ID: PE-ICP2 Run Time: 00:06 Method: 6010B
File ID: P2.101708.000613 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102710

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-11
Instrument ID: PE-ICP2 Run Time: 09:58 Method: 6010B
File ID: P2.101708.095833 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102711

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-23
Instrument ID: PE-ICP2 Run Time: 17:30 Method: 6010B
File ID: P2.101708.173045 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102712

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-25
Instrument ID: PE-ICP2 Run Time: 18:45 Method: 6010B
File ID: P2.101708.184552 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.106	F
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102713

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-11
Instrument ID: PE-ICP2 Run Time: 10:28 Method: 6010B
File ID: P2.102108.102815 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00556	F
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102714

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-13
Instrument ID: PE-ICP2 Run Time: 11:46 Method: 6010B
File ID: P2.102108.114656 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00500	U
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102715

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-15
Instrument ID: PE-ICP2 Run Time: 12:38 Method: 6010B
File ID: P2.102108.123848 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0500	0.100	0.0500	U
Beryllium	0.000500	0.00200	0.000500	U
Calcium	0.100	0.200	0.100	U
Cobalt	0.00250	0.00500	0.00250	U
Iron	0.0250	0.100	0.0250	U
Magnesium	0.250	0.500	0.250	U
Potassium	0.250	1.00	0.250	U
Sodium	0.250	0.500	0.250	U
Vanadium	0.00500	0.0100	0.00715	F
Zinc	0.00500	0.0200	0.00500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



Login Number: <u>L08100416</u>	Run Date: <u>10/16/2008</u>	Sample ID: <u>WG285233-06</u>
Instrument ID: <u>PE-ICP2</u>	Run Time: <u>14:40</u>	Method: <u>6010B</u>
File ID: <u>P2.101608.144047</u>	Analyst: <u>JYH</u>	Units: <u>mg/L</u>
Workgroup (AAB#): <u>WG284990</u>	Cal ID: <u>PE-ICP - 16-OCT-08</u>	
QC Key: <u>STD</u>		

Analyte	Expected	Found	%REC	LIMITS	Q
Aluminum	10	9.96	99.6	90 - 110	
Beryllium	.05	0.0508	102	90 - 110	
Calcium	10	10.6	106	90 - 110	
Cobalt	.2	0.203	102	90 - 110	
Iron	4	4.01	100	90 - 110	
Magnesium	10	10.1	101	90 - 110	
Potassium	50	50.7	101	90 - 110	
Sodium	50	51.0	102	90 - 110	
Vanadium	1	1.00	100	90 - 110	
Zinc	1	1.01	101	90 - 110	

* Exceeds LIMITS Limit

Login Number: <u>L08100416</u>	Run Date: <u>10/17/2008</u>	Sample ID: <u>WG285322-06</u>
Instrument ID: <u>PE-ICP2</u>	Run Time: <u>09:28</u>	Method: <u>6010B</u>
File ID: <u>P2.101708.092855</u>	Analyst: <u>JYH</u>	Units: <u>mg/L</u>
Workgroup (AAB#): <u>WG284990</u>	Cal ID: <u>PE-ICP - 17-OCT-08</u>	
QC Key: <u>STD</u>		

Analyte	Expected	Found	%REC	LIMITS	Q
Aluminum	10	10.1	101	90 - 110	
Beryllium	.05	0.0514	103	90 - 110	
Calcium	10	10.7	107	90 - 110	
Cobalt	.2	0.205	103	90 - 110	
Iron	4	4.11	103	90 - 110	
Magnesium	10	10.3	103	90 - 110	
Potassium	50	51.4	103	90 - 110	
Sodium	50	51.5	103	90 - 110	
Vanadium	1	1.01	101	90 - 110	
Zinc	1	1.02	102	90 - 110	

* Exceeds LIMITS Limit

Login Number: <u>L08100416</u>	Run Date: <u>10/21/2008</u>	Sample ID: <u>WG285578-06</u>
Instrument ID: <u>PE-ICP2</u>	Run Time: <u>09:58</u>	Method: <u>6010B</u>
File ID: <u>P2.102108.095840</u>	Analyst: <u>JYH</u>	Units: <u>mg/L</u>
Workgroup (AAB#): <u>WG284990</u>	Cal ID: <u>PE-ICP - 21-OCT-08</u>	
QC Key: <u>STD</u>		

Analyte	Expected	Found	%REC	LIMITS	Q
Aluminum	10	10.2	102	90 - 110	
Beryllium	.05	0.0519	104	90 - 110	
Calcium	10	10.7	107	90 - 110	
Cobalt	.2	0.210	105	90 - 110	
Iron	4	4.11	103	90 - 110	
Magnesium	10	10.4	104	90 - 110	
Potassium	50	51.7	103	90 - 110	
Sodium	50	51.9	104	90 - 110	
Vanadium	1	1.03	103	90 - 110	
Zinc	1	1.05	105	90 - 110	

* Exceeds LIMITS Limit

00102719

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-10
Instrument ID: PE-ICP2 Run Time: 15:03 Method: 6010B
File ID: P2.101608.150343 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.84	mg/L	98.4	90 - 110	
Beryllium	0.0500	0.0504	mg/L	101	90 - 110	
Calcium	10.0	10.4	mg/L	104	90 - 110	
Cobalt	0.200	0.203	mg/L	101	90 - 110	
Iron	4.00	3.95	mg/L	98.9	90 - 110	
Magnesium	10.0	9.96	mg/L	99.6	90 - 110	
Potassium	50.0	49.9	mg/L	99.8	90 - 110	
Sodium	50.0	50.4	mg/L	101	90 - 110	
Vanadium	1.00	0.993	mg/L	99.3	90 - 110	
Zinc	1.00	1.01	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria



00102720

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-16
Instrument ID: PE-ICP2 Run Time: 18:59 Method: 6010B
File ID: P2.101608.185950 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Beryllium	0.0500	0.0513	mg/L	103	90 - 110	
Calcium	10.0	10.6	mg/L	106	90 - 110	
Cobalt	0.200	0.207	mg/L	103	90 - 110	
Iron	4.00	4.01	mg/L	100	90 - 110	
Magnesium	10.0	10.0	mg/L	100	90 - 110	
Potassium	50.0	51.6	mg/L	103	90 - 110	
Sodium	50.0	51.8	mg/L	104	90 - 110	
Vanadium	1.00	1.02	mg/L	102	90 - 110	
Zinc	1.00	1.03	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria



00102721

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-18
Instrument ID: PE-ICP2 Run Time: 20:14 Method: 6010B
File ID: P2.101608.201444 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Beryllium	0.0500	0.0518	mg/L	104	90 - 110	
Calcium	10.0	10.6	mg/L	106	90 - 110	
Cobalt	0.200	0.210	mg/L	105	90 - 110	
Iron	4.00	4.02	mg/L	101	90 - 110	
Magnesium	10.0	10.0	mg/L	100	90 - 110	
Potassium	50.0	51.7	mg/L	103	90 - 110	
Sodium	50.0	51.6	mg/L	103	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	1.06	mg/L	106	90 - 110	

* Exceeds LIMITS Criteria



00102722

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-20
Instrument ID: PE-ICP2 Run Time: 21:29 Method: 6010B
File ID: P2.101608.212931 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Beryllium	0.0500	0.0520	mg/L	104	90 - 110	
Calcium	10.0	10.7	mg/L	107	90 - 110	
Cobalt	0.200	0.211	mg/L	106	90 - 110	
Iron	4.00	4.08	mg/L	102	90 - 110	
Magnesium	10.0	10.2	mg/L	102	90 - 110	
Potassium	50.0	51.9	mg/L	104	90 - 110	
Sodium	50.0	51.7	mg/L	103	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	1.05	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

00102723

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-22
Instrument ID: PE-ICP2 Run Time: 22:44 Method: 6010B
File ID: P2.101608.224440 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.2	mg/L	102	90 - 110	
Beryllium	0.0500	0.0519	mg/L	104	90 - 110	
Calcium	10.0	10.6	mg/L	106	90 - 110	
Cobalt	0.200	0.211	mg/L	106	90 - 110	
Iron	4.00	4.06	mg/L	101	90 - 110	
Magnesium	10.0	10.1	mg/L	101	90 - 110	
Potassium	50.0	52.1	mg/L	104	90 - 110	
Sodium	50.0	51.8	mg/L	104	90 - 110	
Vanadium	1.00	1.05	mg/L	105	90 - 110	
Zinc	1.00	1.05	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria



00102724

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285233-24
Instrument ID: PE-ICP2 Run Time: 23:59 Method: 6010B
File ID: P2.101608.235959 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Beryllium	0.0500	0.0519	mg/L	104	90 - 110	
Calcium	10.0	10.7	mg/L	107	90 - 110	
Cobalt	0.200	0.209	mg/L	105	90 - 110	
Iron	4.00	4.04	mg/L	101	90 - 110	
Magnesium	10.0	10.0	mg/L	100	90 - 110	
Potassium	50.0	51.9	mg/L	104	90 - 110	
Sodium	50.0	51.4	mg/L	103	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	1.05	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria



00102725

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-10
Instrument ID: PE-ICP2 Run Time: 09:52 Method: 6010B
File ID: P2.101708.095213 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.91	mg/L	99.1	90 - 110	
Beryllium	0.0500	0.0511	mg/L	102	90 - 110	
Calcium	10.0	10.5	mg/L	105	90 - 110	
Cobalt	0.200	0.206	mg/L	103	90 - 110	
Iron	4.00	4.02	mg/L	100	90 - 110	
Magnesium	10.0	10.1	mg/L	101	90 - 110	
Potassium	50.0	50.3	mg/L	101	90 - 110	
Sodium	50.0	50.1	mg/L	100	90 - 110	
Vanadium	1.00	1.01	mg/L	101	90 - 110	
Zinc	1.00	1.03	mg/L	103	90 - 110	

* Exceeds LIMITS Criteria

00102726

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-22
Instrument ID: PE-ICP2 Run Time: 17:24 Method: 6010B
File ID: P2.101708.172427 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	9.91	mg/L	99.1	90 - 110	
Beryllium	0.0500	0.0500	mg/L	100	90 - 110	
Calcium	10.0	10.4	mg/L	104	90 - 110	
Cobalt	0.200	0.203	mg/L	102	90 - 110	
Iron	4.00	3.94	mg/L	98.4	90 - 110	
Magnesium	10.0	9.87	mg/L	98.7	90 - 110	
Potassium	50.0	50.0	mg/L	100	90 - 110	
Sodium	50.0	50.5	mg/L	101	90 - 110	
Vanadium	1.00	0.988	mg/L	98.8	90 - 110	
Zinc	1.00	1.02	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria



00102727

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285322-24
Instrument ID: PE-ICP2 Run Time: 18:39 Method: 6010B
File ID: P2.101708.183931 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 17-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.1	mg/L	101	90 - 110	
Beryllium	0.0500	0.0524	mg/L	105	90 - 110	
Calcium	10.0	10.7	mg/L	107	90 - 110	
Cobalt	0.200	0.210	mg/L	105	90 - 110	
Iron	4.00	3.98	mg/L	99.5	90 - 110	
Magnesium	10.0	9.94	mg/L	99.4	90 - 110	
Potassium	50.0	50.8	mg/L	102	90 - 110	
Sodium	50.0	51.2	mg/L	102	90 - 110	
Vanadium	1.00	1.03	mg/L	103	90 - 110	
Zinc	1.00	1.05	mg/L	105	90 - 110	

* Exceeds LIMITS Criteria

00102728

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-10
Instrument ID: PE-ICP2 Run Time: 10:21 Method: 6010B
File ID: P2.102108.102157 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.2	mg/L	102	90 - 110		
Beryllium		0.0500	0.0518	mg/L	104	90 - 110		
Calcium		10.0	10.7	mg/L	107	90 - 110		
Cobalt		0.200	0.209	mg/L	105	90 - 110		
Iron		4.00	4.11	mg/L	103	90 - 110		
Magnesium		10.0	10.4	mg/L	104	90 - 110		
Potassium		50.0	51.6	mg/L	103	90 - 110		
Sodium		50.0	51.6	mg/L	103	90 - 110		
Vanadium		1.00	1.03	mg/L	103	90 - 110		
Zinc		1.00	1.05	mg/L	105	90 - 110		

* Exceeds LIMITS Criteria



00102729

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-12
Instrument ID: PE-ICP2 Run Time: 11:40 Method: 6010B
File ID: P2.102108.114036 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.0	mg/L	100	90 - 110	
Beryllium	0.0500	0.0501	mg/L	100	90 - 110	
Calcium	10.0	10.4	mg/L	104	90 - 110	
Cobalt	0.200	0.202	mg/L	101	90 - 110	
Iron	4.00	4.01	mg/L	100	90 - 110	
Magnesium	10.0	10.1	mg/L	101	90 - 110	
Potassium	50.0	50.9	mg/L	102	90 - 110	
Sodium	50.0	50.7	mg/L	101	90 - 110	
Vanadium	1.00	0.991	mg/L	99.1	90 - 110	
Zinc	1.00	1.01	mg/L	101	90 - 110	

* Exceeds LIMITS Criteria

00102730

Login Number: L08100416 Run Date: 10/21/2008 Sample ID: WG285578-14
Instrument ID: PE-ICP2 Run Time: 12:32 Method: 6010B
File ID: P2.102108.123227 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG284990 Cal ID: PE-ICP - 21-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Aluminum	10.0	10.0	mg/L	100	90 - 110	
Beryllium	0.0500	0.0502	mg/L	100	90 - 110	
Calcium	10.0	10.4	mg/L	104	90 - 110	
Cobalt	0.200	0.202	mg/L	101	90 - 110	
Iron	4.00	4.04	mg/L	101	90 - 110	
Magnesium	10.0	10.2	mg/L	102	90 - 110	
Potassium	50.0	50.9	mg/L	102	90 - 110	
Sodium	50.0	50.8	mg/L	102	90 - 110	
Vanadium	1.00	0.995	mg/L	99.5	90 - 110	
Zinc	1.00	1.02	mg/L	102	90 - 110	

* Exceeds LIMITS Criteria



Login number: L08100416
Instrument ID: PE-ICP2
Sol. A : WG285233-08
Sol. AB : WG285233-09

File ID: P2.101608.145312
File ID: P2.101608.145827

Workgroup (AAB#): WG284990
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	235	94.0	250	251	100	
Beryllium	NS	0.0000100	NS	0.250	0.259	104	
Calcium	250	258	103	250	280	112	
Cobalt	NS	-0.000870	NS	0.250	0.243	97.2	
Iron	100	91.7	91.7	100	97.2	97.2	
Magnesium	250	235	94.0	250	249	99.6	
Potassium	NS	-0.0121	NS	5.00	5.14	103	
Sodium	NS	-0.0200	NS	5.00	5.26	105	
Vanadium	NS	-0.000140	NS	0.250	0.267	107	
Zinc	NS	-0.000270	NS	0.500	0.467	93.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

Login number: L08100416
Instrument ID: PE-ICP2
Sol. A : WG285322-08
Sol. AB : WG285322-09

File ID: P2.101708.094129
File ID: P2.101708.094651

Workgroup (AAB#): WG284990
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	234	93.6	250	253	101	
Beryllium	NS	-0.0000300	NS	0.250	0.252	101	
Calcium	250	252	101	250	267	107	
Cobalt	NS	0.000340	NS	0.250	0.238	95.2	
Iron	100	90.7	90.7	100	98.1	98.1	
Magnesium	250	234	93.6	250	253	101	
Potassium	NS	-0.0341	NS	5.00	5.10	102	
Sodium	NS	-0.0396	NS	5.00	5.11	102	
Vanadium	NS	0.00666	NS	0.250	0.265	106	
Zinc	NS	0.00517	NS	0.500	0.462	92.4	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

Login number: L08100416
Instrument ID: PE-ICP2
Sol. A : WG285578-08
Sol. AB : WG285578-09

File ID: P2.102108.101117
File ID: P2.102108.101637

Workgroup (AAB#): WG284990
Method: 6010B
Units: mg/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Aluminum	250	233	93.2	250	247	98.8	
Beryllium	NS	-0.000490	NS	0.250	0.258	103	
Calcium	250	254	102	250	281	112	
Cobalt	NS	0.000420	NS	0.250	0.243	97.2	
Iron	100	89.7	89.7	100	97.8	97.8	
Magnesium	250	232	92.8	250	252	101	
Potassium	NS	-0.0173	NS	5.00	5.15	103	
Sodium	NS	-0.0314	NS	5.00	5.24	105	
Vanadium	NS	-0.00250	NS	0.250	0.265	106	
Zinc	NS	0.00510	NS	0.500	0.481	96.2	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

Login Number: L08100416
Instrument ID: PE-ICP2

Date: 01/16/2008
Method: 6010B

Analyte	Wave Length	AG	AL	AS	B	BA
ALUMINUM	396.15	0	0	0.206	0	0
ANTIMONY	206.84	0	0	-0.740	0	0
ARSENIC	188.98	0	0.0499	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	0	0	0	0
CADMIUM	228.80	0	-0.000200	0.0000100	0	0
CALCIUM	227.55	0	-0.370	0.0414	0	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	-0.0647
COPPER	327.39	0	0	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	0	-0.104	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0	0	0	0
MANGANESE	257.61	-0.185	0	-0.231	-0.0949	-0.230
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0.0669	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0.200	0	-0.190
ZINC	206.20	0	0	0	0	0

Login Number: L08100416

Date: 01/16/2008

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Wave Length	BE	CA	CD	CO	CR
ALUMINUM	396.15	0	0.274	0	0	0
ANTIMONY	206.84	0	0	0	0	19.8
ARSENIC	188.98	0	-0.00673	-0.0875	0	-3.78
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	-0.0105
BORON	249.68	0	0.0238	50.1	3.51	1.50
CADMIUM	228.80	0	0	0	-8.00	0
CALCIUM	227.55	0	0	0	174	-21.8
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	0.436
COPPER	327.39	0	-0.0137	0	0.380	-0.0467
IRON	239.56	0	0.0227	0	1.91	0.331
LEAD	220.35	0	-0.0188	0	0.666	-0.0700
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0.638	0	0	0
MANGANESE	257.61	-1.04	-0.00790	-0.755	-0.0418	-0.110
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	1.20	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0.117	0	-0.382	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	-0.0100	0	6.00	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	-0.0233	0	0	0.297
VANADIUM	290.88	0	0.00100	0	0	0
ZINC	206.20	0	0.000000100	0	0	-5.00

Login Number: L08100416
Instrument ID: PE-ICP2

Date: 01/16/2008
Method: 6010B

Analyte	Wave Length	CU	FE	K	LI	MG
ALUMINUM	396.15	0	0.108	0	0	0
ANTIMONY	206.84	0	0	0	0	0
ARSENIC	188.98	0	-0.130	0	0	0
BARIUM	233.53	0	0.0211	0	0	0
BERYLLIUM	234.86	0	0.163	0	0	0
BORON	249.68	0	-4.02	0	0	0
CADMIUM	228.80	0	-0.00172	0	0	0
CALCIUM	227.55	-2.44	-8.15	0	0	0.104
CHROMIUM	267.72	0	-0.0180	0	0	0
COBALT	228.62	0	0	0	0	0
COPPER	327.39	0	-0.0128	0	0	0
IRON	239.56	0	0	0	0	0.0276
LEAD	220.35	0.341	0.0593	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	0.174	0	0	0
MANGANESE	257.61	-0.0457	-0.0659	-0.0181	-0.794	0.0147
MOLYBDENUM	202.03	0	-0.0342	0	11.9	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	3.00	0	0	0
SELENIUM	196.03	0	-0.700	0	0	-0.0113
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0.0717	-0.0248	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0.00120	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	-0.100	0	0	-0.0400
ZINC	206.20	-0.200	0.117	0	0	0

Login Number: L08100416
Instrument ID: PE-ICP2

Date: 01/16/2008
Method: 6010B

Analyte	Wave Length	MN	MO	NA	NI	PB
ALUMINUM	396.15	0	51.0	0	0	0
ANTIMONY	206.84	0	-17.4	0	0	0
ARSENIC	188.98	0	3.15	0	0	0
BARIUM	233.53	0	-0.740	0	0	0
BERYLLIUM	234.86	-0.131	-0.545	0	-0.00974	0
BORON	249.68	0	-2.08	0	0	0
CADMIUM	228.80	0	0	0	-0.0990	0
CALCIUM	227.55	0	-25.0	0	-1100	0
CHROMIUM	267.72	0.800	-0.00100	0	0	0
COBALT	228.62	0	-0.668	0	0.129	0
COPPER	327.39	0	-0.519	0	-0.0905	-0.0630
IRON	239.56	-1.38	0	0	0	0
LEAD	220.35	0.260	-2.35	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-5.58	0	0	0.0252
MANGANESE	257.61	0	-0.0482	-0.00916	-0.0340	-0.0413
MOLYBDENUM	202.03	-0.209	0	0	0.134	0
NICKEL	231.60	0	0	0	0	0
POTASSIUM	766.49	0	0	1.00	0	0
SELENIUM	196.03	1.11	0.199	0	-0.202	0
SILICON	251.61	0	12.9	0	0	0
SILVER	328.07	0.130	0.0781	0	0	0
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	-0.00100	1.20	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0.578	0	0	0
ZINC	206.20	0	3.00	0	-0.200	-0.100

Login Number: L08100416
Instrument ID: PE-ICP2

Date: 01/16/2008
Method: 6010B

Analyte	Wave Length	SB	SE	SI	SN	SR
ALUMINUM	396.15	0	0	0	0	0
ANTIMONY	206.84	0	0	0	-7.64	0
ARSENIC	188.98	0	0	0	0	0
BARIUM	233.53	0	0	0	0	0
BERYLLIUM	234.86	0	0	0	0	0
BORON	249.68	0	0	0	0	0
CADMIUM	228.80	0	0	0	0	0
CALCIUM	227.55	0	0	2.79	0	0
CHROMIUM	267.72	0	0	0	0	0
COBALT	228.62	0	0	0	0	0
COPPER	327.39	0	0	0	0	0
IRON	239.56	0	0	0	0	0
LEAD	220.35	-0.0100	0	0	0	0
LITHIUM	670.78	0	0	0	0	0
MAGNESIUM	279.08	0	-0.0924	0	0	0
MANGANESE	257.61	-0.0505	-0.0281	-0.185	-0.0445	-0.625
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	-0.0500	-0.0100	0	0	0
POTASSIUM	766.49	0	0	0	0	0
SELENIUM	196.03	0	0	0	0	0
SILICON	251.61	0	0	0	0	0
SILVER	328.07	0	0	0	0	0.200
SODIUM	589.59	0	0	0	0	0
STRONTIUM	407.77	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.93	0	0	0	0	0
TITANIUM	334.94	0	0	0	0	0
VANADIUM	290.88	0	0	0	0	0
ZINC	206.20	-0.300	0	0	0	0

Login Number: L08100416
Instrument ID: PE-ICP2

Date: 01/16/2008
Method: 6010B

Analyte	Wave Length	TI	TL	V	ZN
ALUMINUM	396.15	0	0	0	0
ANTIMONY	206.84	0	0	-3.59	0
ARSENIC	188.98	0	0	0.0930	0
BARIUM	233.53	0	0	-2.27	0
BERYLLIUM	234.86	0	0	0	0
BORON	249.68	0	0	0	0
CADMIUM	228.80	0	0	0.0940	0
CALCIUM	227.55	0	0	11.3	0
CHROMIUM	267.72	0	0	-0.300	-0.0400
COBALT	228.62	2.07	0	0	0
COPPER	327.39	-1.79	0	-0.842	-0.0613
IRON	239.56	0	0	0	0
LEAD	220.35	-0.750	0	-0.150	0
LITHIUM	670.78	0	0	0	0
MAGNESIUM	279.08	0	0	-0.0280	0
MANGANESE	257.61	-0.227	-0.0414	-0.0601	-0.0553
MOLYBDENUM	202.03	0	0	-0.288	0
NICKEL	231.60	0	0.150	0	0
POTASSIUM	766.49	0	0	0	0
SELENIUM	196.03	0	0	0.593	0
SILICON	251.61	0	0	0	0
SILVER	328.07	0	0	-6.38	0
SODIUM	589.59	0	0	0	0
STRONTIUM	407.77	0	0	0	0
THALLIUM	190.80	-4.00	0	0	0
TIN	189.93	0	0	0	0
TITANIUM	334.94	0	0	0	0
VANADIUM	290.88	0	0	0	0
ZINC	206.20	0	0	-0.100	0

Login Number: L08100416

Date: 09/11/2008

Instrument ID: PE-ICP2

Method: 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	450.0
Antimony	10.00	36.0
Arsenic	10.00	9.0
Barium	10.00	9.0
Beryllium	10.00	1.8
Boron	10.00	18.0
Cadmium	10.00	2.7
Calcium	10.00	450.0
Chromium	10.00	45.0
Cobalt	10.00	45.0
Copper	10.00	45.0
Iron	10.00	450.0
Lead	10.00	90.0
Lithium	10.00	1.6
Magnesium	10.00	450.0
Manganese	10.00	27.0
Molybdenum	10.00	45.0
Nickel	10.00	45.0
Potassium	10.00	72.0
Selenium	10.00	45.0
Silicon	10.00	9.0
Silver	10.00	9.0
Sodium	10.00	180.0
Strontium	10.00	4.5
Thallium	10.00	45.0
Tin	10.00	45.0
Titanium	10.00	45.0
Vanadium	10.00	45.0
Zinc	10.00	45.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

2.2.2 Metals ICP-MS Data

2.2.2.1 Summary Data

LABORATORY REPORT

L08100416

00102743

10/29/08 16:41

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Larry Duty

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836 (GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
49WW03-100808	L08100416-07	6020	20	14-OCT-08
49WW03-100808	L08100416-07	6020	1	14-OCT-08



Report Number: **L08100416**Report Date : **October 29, 2008**

00102744

Sample Number: **L08100416-07**
Client ID: **49WW03-100808**
Matrix: **Water**
Workgroup Number: **WG285146**
Collect Date: **10/08/2008 12:45**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **3015**
Analytical Method: **6020**
Analyst: **JYH**
Dilution: **20**
Units: **mg/L**

Instrument: **ELAN-ICP**
Prep Date: **10/16/2008 11:23**
Cal Date: **10/20/2008 11:50**
Run Date: **10/20/2008 16:17**
File ID: **EL.102008.161736**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Manganese, Total	7439-96-5	2.62		0.0400	0.0100
Nickel, Total	7440-02-0	0.964	B	0.0800	0.0200

B Analyte present in method blank

Report Number: **L08100416**Report Date : **October 29, 2008**

00102745

Sample Number: **L08100416-07**
 Client ID: **49WW03-100808**
 Matrix: **Water**
 Workgroup Number: **WG285146**
 Collect Date: **10/08/2008 12:45**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **3015**
 Analytical Method: **6020**
 Analyst: **JYH**
 Dilution: **1**
 Units: **mg/L**

Instrument: **ELAN-ICP**
 Prep Date: **10/16/2008 11:23**
 Cal Date: **10/16/2008 11:18**
 Run Date: **10/16/2008 17:24**
 File ID: **EL.101608.172443**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Silver, Total	7440-22-4		U	0.00100	0.000250
Arsenic, Total	7440-38-2	0.00823		0.00100	0.000250
Barium, Total	7440-39-3	0.0709		0.00300	0.000500
Cadmium, Total	7440-43-9	0.00100		0.000500	0.000125
Chromium, Total	7440-47-3	0.207		0.00200	0.000500
Copper, Total	7440-50-8	0.00814		0.00200	0.000500
Lead, Total	7439-92-1	0.000295	J	0.000500	0.000250
Antimony, Total	7440-36-0		U	0.00100	0.000250
Selenium, Total	7782-49-2	0.0348		0.00100	0.000500
Thallium, Total	7440-28-0	0.000223		0.000200	0.0000500

J The analyte was positively identified, but the quantitation was below the RL

U Not detected at or above adjusted sample detection limit

2.2.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer ELAN 6100

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/L)

Example:

0.1

100

40

1

0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Final volume

Vi = Initial volume

D = Dilution factor as a multiplier (10X = 10)

Cx = Concentration of element in (ug/kg)

Example:

0.1

200

0.5

1

40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:

Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

$Cdry$ = Concentration calculated as dry weight (ug/kg)

Example:

40

80

50

50 ug/kg = 0.050 mg/kg

STANDARDS KEY

QC Std 1 - ICV

QC Std 2 - ICB

QC Std 3 - CRI - Soil

QC Std 4 - CRI - Water

QC Std 5 - ICSA

QC Std 6 - ICSAB

QC Std 7 - CCV

QC Std 8 - CCB

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.0004	0.05	0.1
Sb	10	0	0.0004	0.05	0.1
As	10	0	0.0004	0.05	0.1
Ba	10	0	0.0004	0.05	0.1
Be	10	0	0.0004	0.05	0.1
Ca	1000	0	0.04	5	10
Cd	10	0	0.0004	0.05	0.1
Cr	10	0	0.0004	0.05	0.1
Co	10	0	0.0004	0.05	0.1
Cu	10	0	0.0004	0.05	0.1
Fe	1000	0	0.04	5	10
Pb	10	0	0.0004	0.05	0.1
Mg	1000	0	0.04	5	10
Mn	10	0	0.0004	0.05	0.1
Ni	10	0	0.0004	0.05	0.1
K	1000	0	0.04	5	10
Se	10	0	0.0004	0.05	0.1
Ag	10	0	0.0004	0.05	0.1
Na	1000	0	0.04	5	10
Tl	10	0	0.0004	0.05	0.1
V	10	0	0.0004	0.05	0.1
Zn	10	0	0.0004	0.05	0.1

Workgroup: WG285126

Analyst: VC

Run Date: 10/16/2008 11:23

Method: 3015

SOP: ME407 Revision 10

Spike Solution: STD27101

Spike Witness: SDL

HN03 Lot #: COA13347

Digest tubes Lot #: COA13407

SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
WG285126-02	BLANK	1	40 mL	100 mL	206.061 g	206.06 g		
WG285014-01	FBLK	18	40 mL	100 mL	206.735 g	206.726 g		
WG285126-03	LCS	1	40 mL	100 mL	209.028 g	209.022 g	.25 mL	
L08100229-19	SAMP	18	40 mL	100 mL	206.939 g	206.935 g		10/17/08
L08100360-03	SAMP	18	40 mL	100 mL	206.362 g	206.335 g		10/24/08
L08100360-05	RS02	18	40 mL	100 mL	206.567 g	206.566 g		10/24/08
L08100360-13	SAMP	18	40 mL	100 mL	205.011 g	205.009 g		10/24/08
WG285126-01	REF	18	40 mL	100 mL	206.215 g	206.215 g		
L08100360-15	RS03	18	40 mL	100 mL	206.215 g	206.215 g		10/24/08
WG285126-04	MS	18	40 mL	100 mL	207.296 g	207.305 g	.25 mL	
L08100360-16	MS03	18	40 mL	100 mL	207.296 g	207.305 g	.25 mL	10/24/08
WG285126-05	MSD	18	40 mL	100 mL	205.999 g	206.004 g	.25 mL	
L08100360-17	SD03	18	40 mL	100 mL	205.999 g	206.004 g	.25 mL	10/24/08
L08100360-19	SAMP	18	40 mL	100 mL	205.544 g	205.54 g		10/24/08
L08100360-21	SAMP	18	40 mL	100 mL	206.025 g	206.024 g		10/24/08
L08100416-07	SAMP	1	40 mL	100 mL	206.181 g	206.171 g		10/21/08
L08100419-04	SAMP	1	40 mL	100 mL	206.288 g	206.28 g		10/28/08
L08100435-16	SAMP	1	40 mL	100 mL	205.786 g	205.781 g		10/24/08
L08100439-01	SAMP	1	40 mL	100 mL	206.192 g	206.188 g		10/29/08
L08100439-02	SAMP	1	40 mL	100 mL	207.279 g	207.285 g		10/29/08
L08100439-03	SAMP	1	40 mL	100 mL	206.475 g	206.463 g		10/29/08
L08100439-04	SAMP	1	40 mL	100 mL	204.896 g	204.897 g		10/29/08
L08100439-05	SAMP	1	40 mL	100 mL	206.642 g	206.63 g		10/29/08
L08100439-06	SAMP	1	40 mL	100 mL	207.003 g	207.001 g		10/29/08
L08100457-13	SAMP	1	40 mL	100 mL	205.865 g	205.79 g		10/29/08

Analyst: Vicki Collier

Reviewer: Shelly Dent

Microbac Laboratories Inc.
Instrument Run Log

00102750

Instrument: ELAN-ICP Dataset: 101608B.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD28972 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 284895,285031,285146,285034,285032

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	EL.101608.105531	Blank	Blank		1		10/16/08 10:55
2	EL.101608.110111	WG285219-01	Calibration Point		1		10/16/08 11:01
3	EL.101608.110651	WG285219-02	Calibration Point		1		10/16/08 11:06
4	EL.101608.111232	WG285219-03	Calibration Point		1		10/16/08 11:12
5	EL.101608.111814	WG285219-04	Calibration Point		1		10/16/08 11:18
6	EL.101608.112356	WG285219-05	Initial Calibration Verification		1		10/16/08 11:23
7	EL.101608.112937	WG285219-06	Initial Calib Blank		1		10/16/08 11:29
8	EL.101608.113520	WG285219-07	CRQL Check Solid		1		10/16/08 11:35
9	EL.101608.114106	WG285219-08	CRQL Check Water		1		10/16/08 11:41
10	EL.101608.114651	WG285219-09	Interference Check		1		10/16/08 11:46
11	EL.101608.115235	WG285219-10	Interference Check		1		10/16/08 11:52
12	EL.101608.115818	WG285219-11	CCV		1		10/16/08 11:58
13	EL.101608.120400	WG285219-12	CCB		1		10/16/08 12:04
14	EL.101608.120920	WG283922-02	Method/Prep Blank	.5/200	1		10/16/08 12:09
15	EL.101608.121441	WG283922-03	Laboratory Control S	.5/200	1		10/16/08 12:14
16	EL.101608.122003	WG283922-01	Reference Sample		1	L08100059-07	10/16/08 12:20
17	EL.101608.122525	WG283922-04	Matrix Spike	.5/200	1	L08100059-07	10/16/08 12:25
18	EL.101608.123047	WG283922-05	Matrix Spike Duplica	.5/200	1	L08100059-07	10/16/08 12:30
19	EL.101608.123610	L08100059-08	B13SB1415-093008	.518/200	1		10/16/08 12:36
20	EL.101608.124133	WG284895-01	Post Digestion Spike		1	L08100059-08	10/16/08 12:41
21	EL.101608.124656	WG284895-02	Serial Dilution		1	L08100059-08	10/16/08 12:46
22	EL.101608.125220	L08100059-10	B05SB0002-093008	.505/200	1		10/16/08 12:52
23	EL.101608.125744	L08100059-11	B05SB1213-093008	.5/200	1		10/16/08 12:57
24	EL.101608.130327	WG285219-13	CCV		1		10/16/08 13:03
25	EL.101608.130909	WG285219-14	CCB		1		10/16/08 13:09
26	EL.101608.131431	L08100059-12	B03SB0002-093008	.501/200	1		10/16/08 13:14
27	EL.101608.131955	L08100059-13	FD02-093008	.5/200	1		10/16/08 13:19
28	EL.101608.132516	L08100059-14	B03SB0404-093008	.502/200	1	WG283796-01	10/16/08 13:25
29	EL.101608.133038	WG283922-01	Reference Sample		20	L08100059-07	10/16/08 13:30
30	EL.101608.133601	WG283922-04	Matrix Spike	.5/200	20	L08100059-07	10/16/08 13:36
31	EL.101608.134124	WG283922-05	Matrix Spike Duplica	.5/200	20	L08100059-07	10/16/08 13:41
32	EL.101608.134647	L08100059-08	B13SB1415-093008	.518/200	20		10/16/08 13:46
33	EL.101608.135210	WG284895-01	Post Digestion Spike		20	L08100059-08	10/16/08 13:52
34	EL.101608.135734	WG284895-02	Serial Dilution		100	L08100059-08	10/16/08 13:57
35	EL.101608.140258	L08100059-10	B05SB0002-093008	.505/200	20		10/16/08 14:02
36	EL.101608.140842	WG285219-15	CCV		1		10/16/08 14:08
37	EL.101608.141423	WG285219-16	CCB		1		10/16/08 14:14

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102751

Instrument: ELAN-ICP Dataset: 101608B.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD28972 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 284895,285031,285146,285034,285032

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
38	EL.101608.141945	L08100059-11	B05SB1213-093008	.5/200	20		10/16/08 14:19
39	EL.101608.142509	L08100059-12	B03SB0002-093008	.501/200	20		10/16/08 14:25
40	EL.101608.143034	L08100059-13	FD02-093008	.5/200	20		10/16/08 14:30
41	EL.101608.143557	L08100059-14	B03SB0404-093008	.502/200	20	WG283796-01	10/16/08 14:35
42	EL.101608.144120	WG284937-02	Method/Prep Blank	.5/200	1		10/16/08 14:41
43	EL.101608.144643	WG284937-03	Laboratory Control S	.5/200	1		10/16/08 14:46
44	EL.101608.145206	L08100412-01	SMWU1-SP-01	.524/200	5	WG284958-03	10/16/08 14:52
45	EL.101608.145730	WG285031-01	Post Digestion Spike		5	L08100412-01	10/16/08 14:57
46	EL.101608.150254	WG285031-02	Serial Dilution		25	L08100412-01	10/16/08 15:02
47	EL.101608.150818	WG284937-01	Reference Sample		5	L08100419-01	10/16/08 15:08
48	EL.101608.151402	WG285219-17	CCV		1		10/16/08 15:14
49	EL.101608.151944	WG285219-18	CCB		1		10/16/08 15:19
50	EL.101608.152506	WG284937-04	Matrix Spike	.51/200	5	L08100419-01	10/16/08 15:25
51	EL.101608.153031	WG284937-05	Matrix Spike Duplica	.51/200	5	L08100419-01	10/16/08 15:30
52	EL.101608.153555	L08100419-02	P-52SD005 (0.0-0.5)	.5/200	5		10/16/08 15:35
53	EL.101608.154117	L08100419-03	E-GPBSD0026 (0.0-0.5)	.505/200	5		10/16/08 15:41
54	EL.101608.154700	WG285219-19	CCV		1		10/16/08 15:47
55	EL.101608.155244	WG285219-20	CCB		1		10/16/08 15:52
56	EL.101608.155804	WG285126-02	Method/Prep Blank	40/100	1		10/16/08 15:58
57	EL.101608.160326	WG285014-01	Fluid Blank		1		10/16/08 16:03
58	EL.101608.160847	WG285126-03	Laboratory Control S	40/100	1		10/16/08 16:08
59	EL.101608.161409	L08100229-19	AV-NCB-AS-ZNC-RR20-4-6-	40/100	1		10/16/08 16:14
60	EL.101608.161931	L08100360-03	AV-NCB-AS-SAN-RR02-21-2	40/100	1		10/16/08 16:19
61	EL.101608.162454	WG285146-01	Post Digestion Spike		1	L08100360-03	10/16/08 16:24
62	EL.101608.163017	WG285146-02	Serial Dilution		5	L08100360-03	10/16/08 16:30
63	EL.101608.163540	L08100360-05	AV-NCB-AS-SEW-RR11-17-5	40/100	1	WG285145-01	10/16/08 16:35
64	EL.101608.164104	L08100360-13	AV-NCB-AS-SEW-RR11-19-5	40/100	1		10/16/08 16:41
65	EL.101608.164628	WG285146-01	Post Digestion Spike		1	L08100360-03	10/16/08 16:46
66	EL.101608.165211	WG285219-21	CCV		1		10/16/08 16:52
67	EL.101608.165753	WG285219-22	CCB		1		10/16/08 16:57
68	EL.101608.170315	WG285126-04	Matrix Spike	40/100	1	L08100360-15	10/16/08 17:03
69	EL.101608.170838	WG285126-05	Matrix Spike Duplica	40/100	1	L08100360-15	10/16/08 17:08
70	EL.101608.171359	L08100360-19	AV-NCB-AS-VIS-RR09-18-19	40/100	1		10/16/08 17:13
71	EL.101608.171921	L08100360-21	AV-NCB-AS-AC1-RR07-16-3	40/100	1		10/16/08 17:19
72	EL.101608.172443	L08100416-07	49WW03-100808	40/100	1	WG284950-01	10/16/08 17:24
73	EL.101608.173005	L08100419-04	FB001 (101308)	40/100	1		10/16/08 17:30
74	EL.101608.173528	L08100435-16	AV-NCB-AS-EQB	40/100	1		10/16/08 17:35

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102752

Instrument: ELAN-ICP Dataset: 101608B.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD28972 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 284895,285031,285146,285034,285032

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
75	EL.101608.174051	L08100439-01	OW-103	40/100	1		10/16/08 17:40
76	EL.101608.174614	L08100439-02	OW-122	40/100	5		10/16/08 17:46
77	EL.101608.175138	L08100439-03	OW-121	40/100	1		10/16/08 17:51
78	EL.101608.175721	WG285219-23	CCV		1		10/16/08 17:57
79	EL.101608.180303	WG285219-24	CCB		1		10/16/08 18:03
80	EL.101608.180824	L08100439-04	OW-101	40/100	1		10/16/08 18:08
81	EL.101608.181349	L08100439-05	OW-104	40/100	1		10/16/08 18:13
82	EL.101608.181914	L08100439-06	DUP	40/100	1		10/16/08 18:19
83	EL.101608.182437	L08100457-13	FB002 (101408)	40/100	1		10/16/08 18:24
84	EL.101608.182959	L08100059-08	B13SB1415-093008	.518/200	100		10/16/08 18:29
85	EL.101608.183522	WG284895-01	Post Digestion Spike		100	L08100059-08	10/16/08 18:35
86	EL.101608.184045	WG284895-02	Serial Dilution		100	L08100059-08	10/16/08 18:40
87	EL.101608.184608	L08100419-03	E-GPBSD0026 (0.0-0.5)	.505/200	50		10/16/08 18:46
88	EL.101608.185131	WG284846-02	Method/Prep Blank	40/100	1		10/16/08 18:51
89	EL.101608.185654	WG284699-01	Fluid Blank		1		10/16/08 18:56
90	EL.101608.190237	WG285219-25	CCV		1		10/16/08 19:02
91	EL.101608.190818	WG285219-26	CCB		1		10/16/08 19:08
92	EL.101608.191340	WG284846-03	Laboratory Control S	40/100	1		10/16/08 19:13
93	EL.101608.191903	WG284846-01	Reference Sample		1	L08100272-07	10/16/08 19:19
94	EL.101608.192427	WG284846-04	Matrix Spike	40/100	1	L08100272-07	10/16/08 19:24
95	EL.101608.192951	WG284846-05	Matrix Spike Duplica	40/100	1	L08100272-07	10/16/08 19:29
96	EL.101608.193516	L08100272-03	AV-NCB-AS-STO-RR12-17.5	40/100	1		10/16/08 19:35
97	EL.101608.194041	WG285034-01	Post Digestion Spike		1	L08100272-03	10/16/08 19:40
98	EL.101608.194606	WG285034-02	Serial Dilution		5	L08100272-03	10/16/08 19:46
99	EL.101608.195132	L08100272-05	AV-NCB-AS-STO-RR12-19.5	40/100	1		10/16/08 19:51
100	EL.101608.195657	L08100272-13	AV-NCB-AS-VIS-RR10-18.5	40/100	1		10/16/08 19:56
101	EL.101608.200220	L08100272-15	AV-NCB-AS-VIS-RR10-25-D	40/100	1		10/16/08 20:02
102	EL.101608.200803	WG285219-27	CCV		1		10/16/08 20:08
103	EL.101608.201345	WG285219-28	CCB		1		10/16/08 20:13
104	EL.101608.201906	L08100272-17	AV-NCB-AS-AC1-RR08-17-1	40/100	1		10/16/08 20:19
105	EL.101608.202430	L08100272-19	AV-NCB-AS-AC1-RR08-19-1	40/100	1		10/16/08 20:24
106	EL.101608.202954	L08100356-02	8911U	40/100	1		10/16/08 20:29
107	EL.101608.203518	L08100360-22	AV-NCB-AS-AC1-EQB	40/100	1		10/16/08 20:35
108	EL.101608.204043	WG284685-04	Method/Prep Blank	40/100	1		10/16/08 20:40
109	EL.101608.204608	WG284685-05	Laboratory Control S	40/100	1		10/16/08 20:46
110	EL.101608.205133	L08100306-02	LTL-G-MWL11-DIS	40/100	1		10/16/08 20:51
111	EL.101608.205659	WG284685-06	Matrix Spike	40/100	1	L08100306-02	10/16/08 20:56

Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102753

Instrument: ELAN-ICP Dataset: 101608B.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD28972 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 284895,285031,285146,285034,285032

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
112	EL.101608.210225	WG284685-07	Matrix Spike Duplica	40/100	1	L08100306-02	10/16/08 21:02
113	EL.101608.210751	L08100306-08	LTL-G-MWL4-DIS	40/100	1		10/16/08 21:07
114	EL.101608.211336	WG285219-29	CCV		1		10/16/08 21:13
115	EL.101608.211917	WG285219-30	CCB		1		10/16/08 21:19
116	EL.101608.212439	L08100306-10	LTL-G-MWL5B-DIS	40/100	1		10/16/08 21:24
117	EL.101608.213002	L08100306-12	LTL-G-MWL5B-DUP-DIS	40/100	1	WG284685-02	10/16/08 21:30
118	EL.101608.213526	WG284685-08	Duplicate	40/100	1	L08100306-12	10/16/08 21:35
119	EL.101608.214050	L08100306-18	LTL-K-EQBLK-3-DIS	40/100	1		10/16/08 21:40
120	EL.101608.214614	L08100307-01	WG-B760-MW10-035	40/100	1		10/16/08 21:46
121	EL.101608.215139	WG285032-01	Post Digestion Spike		1	L08100307-01	10/16/08 21:51
122	EL.101608.215703	WG285032-02	Serial Dilution		5	L08100307-01	10/16/08 21:57
123	EL.101608.220229	L08100307-02	WG-B760-MW13-030	40/100	1		10/16/08 22:02
124	EL.101608.220754	L08100307-03	WG-B760-MW06R-30	40/100	1		10/16/08 22:07
125	EL.101608.221320	L08100307-04	WG-B760-MW07R-30	40/100	1		10/16/08 22:13
126	EL.101608.221905	WG285219-31	CCV		1		10/16/08 22:19
127	EL.101608.222447	WG285219-32	CCB		1		10/16/08 22:24
128	EL.101608.223010	L08100307-05	WG-B760-MW07R-30	40/100	1		10/16/08 22:30
129	EL.101608.223537	L08100307-06	WG-B760-MW12-030	40/100	1		10/16/08 22:35
130	EL.101608.224102	L08100307-07	WG-B760-MW12-031	40/100	1		10/16/08 22:41
131	EL.101608.224625	WG284685-03	Reference Sample		1	L08100307-08	10/16/08 22:46
132	EL.101608.225149	WG284685-09	Matrix Spike	40/100	1	L08100307-08	10/16/08 22:51
133	EL.101608.225713	WG284685-10	Matrix Spike Duplica	40/100	1	L08100307-08	10/16/08 22:57
134	EL.101608.230238	L08100307-11	WG-B760-MW11-030	40/100	1		10/16/08 23:02
135	EL.101608.230803	L08100307-12	WG-B760-MW10-030	40/100	1		10/16/08 23:08
136	EL.101608.231328	L08100307-13	WG-B760-MW09-030	40/100	1		10/16/08 23:13
137	EL.101608.231912	WG285219-33	CCV		1		10/16/08 23:19
138	EL.101608.232454	WG285219-34	CCB		1		10/16/08 23:24

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Maren Beery



Microbac Laboratories Inc.
Instrument Run Log

00102754

Instrument: ELAN-ICP Dataset: 102008A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD29323 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 285421,285480,285146,285242,285241,285465,285488

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	EL.102008.112809	Blank	Blank		1		10/20/08 11:28
2	EL.102008.113349	WG285517-01	Calibration Point		1		10/20/08 11:33
3	EL.102008.113929	WG285517-02	Calibration Point		1		10/20/08 11:39
4	EL.102008.114510	WG285517-03	Calibration Point		1		10/20/08 11:45
5	EL.102008.115052	WG285517-04	Calibration Point		1		10/20/08 11:50
6	EL.102008.115635	WG285517-05	Initial Calibration Verification		1		10/20/08 11:56
7	EL.102008.120216	WG285517-06	Initial Calib Blank		1		10/20/08 12:02
8	EL.102008.121045	WG285517-07	CRQL Check Solid		1		10/20/08 12:10
9	EL.102008.121631	WG285517-08	CRQL Check Water		1		10/20/08 12:16
10	EL.102008.122216	WG285517-09	Interference Check		1		10/20/08 12:22
11	EL.102008.122759	WG285517-10	Interference Check		1		10/20/08 12:27
12	EL.102008.123343	WG285517-11	CCV		1		10/20/08 12:33
13	EL.102008.123925	WG285517-12	CCB		1		10/20/08 12:39
14	EL.102008.124808	WG285274-02	Method/Prep Blank	40/100	1		10/20/08 12:48
15	EL.102008.125328	WG285274-03	Laboratory Control S	40/100	1		10/20/08 12:53
16	EL.102008.125848	WG285274-04	Laboratory Control S	40/100	1		10/20/08 12:58
17	EL.102008.130409	L08100349-09	SHELLY/ JI 1	40/100	1		10/20/08 13:04
18	EL.102008.130930	L08100349-10	SHELLY/ JI 2	40/100	1		10/20/08 13:09
19	EL.102008.131451	L08100349-11	SHELLY/ JI 3	40/100	1		10/20/08 13:14
20	EL.102008.132013	L08100349-12	SHELLY/ JI 4	40/100	1		10/20/08 13:20
21	EL.102008.132535	L08100005-01	MDL-1	40/100	1		10/20/08 13:25
22	EL.102008.133058	L08100006-01	MDL-1	40/100	1		10/20/08 13:30
23	EL.102008.133641	WG285517-13	CCV		1		10/20/08 13:36
24	EL.102008.134222	WG285517-14	CCB		1		10/20/08 13:42
25	EL.102008.135831	L08100462-01	MW16I-101408	40/100	1		10/20/08 13:58
26	EL.102008.140355	WG285274-01	Reference Sample		1	L08100462-02	10/20/08 14:03
27	EL.102008.140918	WG285274-05	Matrix Spike	40/100	1	L08100462-02	10/20/08 14:09
28	EL.102008.141440	WG285274-06	Matrix Spike Duplica	40/100	1	L08100462-02	10/20/08 14:14
29	EL.102008.142001	L08100462-03	MW16S-101408	40/100	1		10/20/08 14:20
30	EL.102008.142522	WG285421-01	Post Digestion Spike		1	L08100462-03	10/20/08 14:25
31	EL.102008.143043	WG285421-02	Serial Dilution		5	L08100462-03	10/20/08 14:30
32	EL.102008.143625	WG285517-15	CCV		1		10/20/08 14:36
33	EL.102008.144207	WG285517-16	CCB		1		10/20/08 14:42
34	EL.102008.144728	L08100462-04	MW17-101408	40/100	1		10/20/08 14:47
35	EL.102008.145719	WG285477-01	Method/Prep Blank	.5/200	1		10/20/08 14:57
36	EL.102008.150239	WG285477-02	Laboratory Control S	.5/200	1		10/20/08 15:02
37	EL.102008.150800	WG285477-03	Laboratory Control S	.5/200	1		10/20/08 15:08

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Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

00102755

Instrument: ELAN-ICP Dataset: 102008A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD29323 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 285421,285480,285146,285242,285241,285465,285488

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
38	EL.102008.151320	L08100349-37	SHELLY/ JI 1	.5/200	1		10/20/08 15:13
39	EL.102008.151841	L08100349-38	SHELLY/ JI 2	.5/200	1		10/20/08 15:18
40	EL.102008.152403	L08100349-39	SHELLY/ JI 3	.5/200	1		10/20/08 15:24
41	EL.102008.152925	L08100349-40	SHELLY/ JI 4	.5/200	1		10/20/08 15:29
42	EL.102008.153447	L08100003-01	MDL-1	.5/200	1		10/20/08 15:34
43	EL.102008.154025	L08100004-01	MDL-1	.5/200	1		10/20/08 15:40
44	EL.102008.154607	WG285517-17	CCV		1		10/20/08 15:46
45	EL.102008.155149	WG285517-18	CCB		1		10/20/08 15:51
46	EL.102008.155808	L08100462-05	MW18-101408	40/100	1		10/20/08 15:58
47	EL.102008.160505	L08100510-19	SPE-K-FBLK-1	40/100	1		10/20/08 16:05
48	EL.102008.161028	L08100510-20	SPE-K-FBLK-2	40/100	1		10/20/08 16:10
49	EL.102008.161736	L08100416-07	49WW03-100808	40/100	20		10/20/08 16:17
50	EL.102008.162259	L08100341-05	MIE-5	.527/200	10		10/20/08 16:22
51	EL.102008.162934	L08100457-02	D-SDBS024 (0-0.5)	.5/200	10		10/20/08 16:29
52	EL.102008.163458	L08100457-03	D-DUP001 (0-0.5)	.519/200	10		10/20/08 16:34
53	EL.102008.164022	L08100457-04	D-SDBS023 (0-0.5)	.501/200	10		10/20/08 16:40
54	EL.102008.164545	WG285060-01	Reference Sample		10	L08100457-08	10/20/08 16:45
55	EL.102008.165106	WG285060-04	Matrix Spike	.5/200	10	L08100457-08	10/20/08 16:51
56	EL.102008.165647	WG285517-19	CCV		1		10/20/08 16:56
57	EL.102008.170229	WG285517-20	CCB		1		10/20/08 17:02
58	EL.102008.170749	WG285060-05	Matrix Spike Duplica	.5/200	10	L08100457-08	10/20/08 17:07
59	EL.102008.171311	WG285391-02	Method/Prep Blank	40/100	1		10/20/08 17:13
60	EL.102008.171833	WG285160-01	Fluid Blank		1		10/20/08 17:18
61	EL.102008.172355	WG285391-03	Laboratory Control S	40/100	1		10/20/08 17:23
62	EL.102008.172918	WG285391-01	Reference Sample		1	L08100435-07	10/20/08 17:29
63	EL.102008.173441	WG285391-04	Matrix Spike	40/100	1	L08100435-07	10/20/08 17:34
64	EL.102008.174004	WG285391-05	Matrix Spike Duplica	40/100	1	L08100435-07	10/20/08 17:40
65	EL.102008.174528	L08100435-03	AV-NCB-AS-NCA-RR13-11-1	40/100	1		10/20/08 17:45
66	EL.102008.175052	WG285465-01	Post Digestion Spike		1	L08100435-03	10/20/08 17:50
67	EL.102008.175616	WG285465-02	Serial Dilution		5	L08100435-03	10/20/08 17:56
68	EL.102008.180200	WG285517-21	CCV		1		10/20/08 18:02
69	EL.102008.180741	WG285517-22	CCB		1		10/20/08 18:07
70	EL.102008.181301	L08100435-13	AV-NCB-AS-MIS-RR15-5-7	40/100	1		10/20/08 18:13
71	EL.102008.181823	L08100435-15	AV-NCB-AS-MIS-RR15-7-9	40/100	1		10/20/08 18:18
72	EL.102008.182344	L08100435-18	AV-NCB-AS-MIS-RR17-2-4-0	40/100	1		10/20/08 18:23
73	EL.102008.182906	L08100435-20	AV-NCB-AS-ZNC-RR19-2-4-0	40/100	1		10/20/08 18:29
74	EL.102008.183429	L08100435-22	AV-NCB-AS-ZNC-RR19-4-6-0	40/100	1		10/20/08 18:34

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Microbac Laboratories Inc.
Instrument Run Log

00102756

Instrument: ELAN-ICP Dataset: 102008A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD29323 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 285421,285480,285146,285242,285241,285465,285488

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
75	EL.102008.183951	L08100435-24	AV-NCB-AS-MIS-RR16-6-5-8	40/100	1		10/20/08 18:39
76	EL.102008.184514	L08100435-26	AV-NCB-AS-MIS-RR16-8-5-1	40/100	1		10/20/08 18:45
77	EL.102008.185038	L08100435-28	AV-NCB-AS-MIS-RR18-2-4-0	40/100	1		10/20/08 18:50
78	EL.102008.185601	L08100435-30	AV-NCB-AS-MIS-RR18-4-6-0	40/100	1		10/20/08 18:56
79	EL.102008.190125	L08100530-01	LH18/24-SP650-6112-GRAB	40/100	1		10/20/08 19:01
80	EL.102008.190709	WG285517-23	CCV		1		10/20/08 19:07
81	EL.102008.191250	WG285517-24	CCB		1		10/20/08 19:12
82	EL.102008.191812	L08100530-02	LH18/24-SP650-6112-GRAB	40/100	1		10/20/08 19:18
83	EL.102008.192337	L08100530-03	LH18/24-SP650-6112-COMP	40/100	1		10/20/08 19:23
84	EL.102008.192900	L08100530-04	LH18/24-SP650-6112-COMP	40/100	1		10/20/08 19:29
85	EL.102008.193422	L08100435-05	AV-NCB-AS-NCA-RR13-5-D	40/100	1		10/20/08 19:34
86	EL.102008.193944	WG285458-02	Method/Prep Blank	40/100	1		10/20/08 19:39
87	EL.102008.194506	WG285458-03	Laboratory Control S	40/100	1		10/20/08 19:45
88	EL.102008.195029	L08100546-01	AS01-1GW05-CM15	40/100	1		10/20/08 19:50
89	EL.102008.195552	WG285488-01	Post Digestion Spike		1	L08100546-01	10/20/08 19:55
90	EL.102008.200115	WG285488-02	Serial Dilution		5	L08100546-01	10/20/08 20:01
91	EL.102008.200639	L08100546-02	AS01-1GW38-CM15	40/100	1		10/20/08 20:06
92	EL.102008.201222	WG285517-25	CCV		1		10/20/08 20:12
93	EL.102008.201804	WG285517-26	CCB		1		10/20/08 20:18
94	EL.102008.202325	L08100546-03	AS01-1GW37-CM15	40/100	1		10/20/08 20:23
95	EL.102008.202850	L08100546-04	AS01-1GW37P-CM15	40/100	1		10/20/08 20:28
96	EL.102008.203415	L08100546-05	AS01-1GW04-CM15	40/100	1		10/20/08 20:34
97	EL.102008.203940	WG285458-01	Reference Sample		1	L08100546-06	10/20/08 20:39
98	EL.102008.204503	WG285458-04	Matrix Spike	40/100	1	L08100546-06	10/20/08 20:45
99	EL.102008.205026	WG285458-05	Matrix Spike Duplica	40/100	1	L08100546-06	10/20/08 20:50
100	EL.102008.205548	L08100546-09	AS01-1GW36-CM15	40/100	1		10/20/08 20:55
101	EL.102008.210111	L08100546-10	AS01-1GW34-CM15	40/100	1		10/20/08 21:01
102	EL.102008.210634	L08100546-11	AS01-1GW02-CM15	40/100	1		10/20/08 21:06
103	EL.102008.211158	L08100546-12	AS01-1GW34-CM15	40/100	1		10/20/08 21:11
104	EL.102008.211741	WG285517-27	CCV		1		10/20/08 21:17
105	EL.102008.212323	WG285517-28	CCB		1		10/20/08 21:23
106	EL.102008.212844	L08100546-13	AS01-1GW04-CM15	40/100	1		10/20/08 21:28
107	EL.102008.213409	L08100546-14	AS01-EB10162008-CM15	40/100	1		10/20/08 21:34
108	EL.102008.213934	L08100546-15	AS01-FB10162008-CM15	40/100	1		10/20/08 21:39
109	EL.102008.214459	L08100557-01	MW01-101708	40/100	1		10/20/08 21:44
110	EL.102008.215025	L08100557-02	DUP-GW-101708	40/100	1		10/20/08 21:50
111	EL.102008.215551	L08100557-03	MW13-101708	40/100	1		10/20/08 21:55

Shari L. Bahgat



Microbac Laboratories Inc.
Instrument Run Log

00102757

Instrument: ELAN-ICP Dataset: 102008A.REP
 Analyst1: JYH Analyst2: N/A
 Method: 6020 SOP: ME700 Rev: 4
 Maintenance Log ID: 25989

Calibration Std: STD28270 ICV/CCV Std: STD29323 Post Spike: STD27580
 ICSA: STD28930 ICSAB: STD29300

Workgroups: 285421,285480,285146,285242,285241,285465,285488

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
112	EL.102008.220115	L08100557-04	MW14-101708	40/100	1	WG285430-04	10/20/08 22:01
113	EL.102008.220658	WG285517-29	CCV		1		10/20/08 22:06
114	EL.102008.221240	WG285517-30	CCB		1		10/20/08 22:12

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Microbac Laboratories Inc.

00102758

Data Checklist

Date: 16-OCT-2008

Analyst: JYH

Analyst: NA

Method: 6020

Instrument: ELAN

Curve Workgroup: 285219

Runlog ID: 24747

Analytical Workgroups: 284895,285031,285146,285034,285032

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	
Case Narrative	059,419,413,416,229,360,435,439,457
	272,356,306,307
Client Forms	X
Level X	
Level 3	059,413,416
Level 4	419,229,360,435,439,457,272,307
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
17-OCT-2008

Secondary Reviewer:
17-OCT-2008



Microbac Laboratories Inc.

00102759

Data Checklist

Date: 20-OCT-2008

Analyst: JYH

Analyst: NA

Method: 6020

Instrument: ELAN

Curve Workgroup: 285517

Runlog ID: 24801

Analytical Workgroups: 285421,285480,285146,285524,285241,285465,285488

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	X
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	
Case Narrative	005,006,349,462,510,003,004,416 341,457,435,530,546,557
Client Forms	X
Level X	
Level 3	462,416,530,557
Level 4	457,435,546
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
21-OCT-2008

Secondary Reviewer:
21-OCT-2008



Analytical Method: 6020
Login Number: L08100416

AAB#: WG285146

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
49WW03-100808	10/08/08	10/14/08	10/16/08	180	7.94	10/20/08	180	4.20	
49WW03-100808	10/08/08	10/14/08	10/16/08	180	7.94	10/16/08	180	0.251	

* EXT = SEE PROJECT QAPP REQUIREMENTS
* ANAL = SEE PROJECT QAPP REQUIREMENTS



METHOD BLANK SUMMARY

00102761

Login Number: L08100416
Blank File ID: EL.101608.155804
Prep Date: 10/16/08 11:23
Analyzed Date: 10/16/08 15:58
Analyst: JYH

Work Group: WG285146
Blank Sample ID: WG285126-02
Instrument ID: ELAN-ICP
Method: 6020

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG285126-03	EL.101608.160847	10/16/08 16:08	01
49WW03-100808	L08100416-07	EL.101608.172443	10/16/08 17:24	01
49WW03-100808	L08100416-07	EL.102008.161736	10/20/08 16:17	DL01



Login Number: L08100416 Prep Date: 10/16/08 11:23 Sample ID: WG285126-02
 Instrument ID: ELAN-ICP Run Date: 10/16/08 15:58 Prep Method: 3015
 File ID: EL.101608.155804 Analyst: JYH Method: 6020
 Workgroup (AAB#): WG285146 Matrix: Water Units: mg/L
 Contract #: DACA56-94-D-0020 Cal ID: ELAN-I - 16-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Silver, Total	0.000250	0.00100	0.000250	1	U
Arsenic, Total	0.000250	0.00100	0.000250	1	U
Barium, Total	0.000500	0.00300	0.000500	1	U
Cadmium, Total	0.000125	0.000500	0.000125	1	U
Chromium, Total	0.000500	0.00200	0.000500	1	U
Copper, Total	0.000500	0.00200	0.000500	1	U
Lead, Total	0.000250	0.000500	0.000250	1	U
Manganese, Total	0.000500	0.00200	0.000500	1	U
Nickel, Total	0.00100	0.00400	0.00545	1	*
Antimony, Total	0.000250	0.00100	-0.000261	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U
Thallium, Total	0.0000500	0.000200	0.0000500	1	U

SDL Method Detection Limit
 PQL Reporting/Practical Quantitation Limit
 ND Analyte Not detected at or above reporting limit
 * |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1224658

21-OCT-2008 09:20



Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285126-03
Instrument ID: ELAN-ICP Run Time: 16:08 Prep Method: 3015
File ID: EL.101608.160847 Analyst: JYH Method: 6020
Workgroup (AAB#): WG285146 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD27101 Cal ID: ELAN-I - 16-OCT-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Silver, Total	0.0625	0.0620	99.2	80 - 120	
Arsenic, Total	0.0625	0.0604	96.7	80 - 120	
Barium, Total	0.0625	0.0613	98.1	80 - 120	
Cadmium, Total	0.0625	0.0618	98.9	80 - 120	
Chromium, Total	0.0625	0.0613	98.1	80 - 120	
Copper, Total	0.0625	0.0626	100	80 - 120	
Lead, Total	0.0625	0.0610	97.6	80 - 120	
Manganese, Total	0.0625	0.0634	101	80 - 120	
Nickel, Total	0.0625	0.0607	97.2	80 - 120	
Antimony, Total	0.0625	0.0601	96.1	80 - 120	
Selenium, Total	0.0625	0.0634	101	80 - 120	
Thallium, Total	0.0625	0.0608	97.3	80 - 120	

Loginnum: L08100416Cal ID: ELAN-ICP -Worknum: WG285146Instrument ID: ELAN-ICPContract #: DACA56-94-D-0020Method: 6020Parent ID: WG285126-01File ID: EL.101608.164628Dil: 1Matrix: WATERSample ID: WG285126-04 MSFile ID: EL.101608.170315Dil: 1Units: mg/LSample ID: WG285126-05 MSDFile ID: EL.101608.170838Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Antimony	ND	0.0625	0.0575	92.0	0.0625	0.0584	93.5	1.56	75 - 125	20	
Arsenic	0.000310	0.0625	0.0552	87.8	0.0625	0.0565	89.9	2.35	75 - 125	20	
Barium	0.00282	0.0625	0.0689	106	0.0625	0.0711	109	3.27	75 - 125	20	
Cadmium	ND	0.0625	0.0577	92.3	0.0625	0.0574	91.8	0.513	75 - 125	20	
Chromium	0.00315	0.0625	0.0669	102	0.0625	0.0699	107	4.45	75 - 125	20	
Copper	0.000665	0.0625	0.0657	104	0.0625	0.0670	106	1.91	75 - 125	20	
Lead	ND	0.0625	0.0616	98.5	0.0625	0.0629	101	2.18	75 - 125	20	
Manganese	0.00389	0.0625	0.0880	135	0.0625	0.0912	140	3.61	75 - 125	20	*
Nickel	ND	0.0625	0.0643	103	0.0625	0.0658	105	2.36	75 - 125	20	
Selenium	ND	0.0625	0.0520	83.2	0.0625	0.0526	84.2	1.15	75 - 125	20	
Silver	ND	0.0625	0.0624	99.9	0.0625	0.0633	101	1.42	75 - 125	20	
Thallium	ND	0.0625	0.0616	98.6	0.0625	0.0631	101	2.33	75 - 125	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Login: L08100416 **Worknum:** WG285146
Instrument: ELAN-ICP **Method:** 6020
Serial Dil: WG285146-02 **File ID:** EL.101608.163017 **Dil:** 5 **Units:** ug/L
Sample: L08100360-03 **File ID:** EL.101608.161931 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Antimony	ND	U	ND	U		
Arsenic	.196	F	.535	F	173.00	
Barium	2.11	X	2.16	F	2.37	
Cadmium	ND	U	ND	U		
Chromium	1.15	X	ND	U		
Copper	.412	F	1.185	F	188.00	
Lead	.106	F	ND	U		
Manganese	.315	F	ND	U		
Nickel	.772	F	ND	U		
Selenium	.226	F	ND	U		
Silver	ND	U	ND	U		
Thallium	ND	U	ND	U		

U = Result is below MDL.
 F = Result is greater than or equal to MDL and less than the RL.
 X = Result is greater than or equal to RL and less than 100 times the MDL.
 E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

Sample Login ID: L08100416
Instrument ID: ELAN-ICP
Post Spike ID: WG285146-01
Sample ID: L08100360-03

Worknum: WG285146
Method: 6020
Units: ug/L
Matrix: Water
File ID: EL.101608.162454 Dil: 1
File ID: EL.101608.161931 Dil: 1

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ANTIMONY	48.0		0	U	50	96.0	75 - 125	
ARSENIC	45.5		0.196	F	50	90.6	75 - 125	
BARIUM	51.5		2.11		50	98.7	75 - 125	
CADMIUM	47.4		0	U	50	94.8	75 - 125	
CHROMIUM	53.2		1.15		50	104.1	75 - 125	
COPPER	52.9		0.412	F	50	105.0	75 - 125	
LEAD	51.3		0.106	F	50	102.4	75 - 125	
MANGANESE	54.0		0.315	F	50	107.4	75 - 125	
NICKEL	51.7		0.772	F	50	101.9	75 - 125	
SELENIUM	42.3		0.226	F	50	84.1	75 - 125	
SILVER	51.7		0	U	50	103.4	75 - 125	
THALLIUM	51.1		0	U	50	102.3	75 - 125	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

Microbac Laboratories Inc.
Initial Calibration Summary

00102768

Login:	<u>L08100416</u>	Workgroup (AAB#):	<u>WG285146</u>
Analytical Method:	<u>6020</u>	Instrument ID:	<u>ELAN-ICP</u>
ICAL Worknum:	<u>WG285219</u>	Initial Calibration Date:	<u>16-OCT-2008 11:18</u>

	WG285219-01		WG285219-02		WG285219-03		WG285219-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	703	.4	4230	50	360000	100	705000	.999978	
ARSENIC	0	-285	.4	544	50	112000	100	218000	1	
BARIUM	0	24.3	.4	1250	50	145000	100	284000	1	
CADMIUM	0	7.10	.4	968	50	115000	100	224000	.999989	
CHROMIUM	0	19000	.4	25200	50	718000	100	1360000	.999965	
COPPER	0	312	.4	2090	50	204000	100	391000	.999979	
LEAD	0	271	.4	11000	50	1270000	100	2480000	.999999	
MANGANESE	0	584	.4	9410	50	1050000	100	1900000	.999339	
NICKEL	0	52.7	.4	1610	50	181000	100	351000	.999999	
SELENIUM	0	1.57	.4	65.1	50	9900	100	19000	.999977	
SILVER	0	429	.4	5060	50	541000	100	1030000	.999969	
THALLIUM	0	35.7	.4	3230	50	383000	100	746000	1	

INT = Instrument intensity
 R = Coefficient of correlation
 Q = Data Qualifier
 * = Out of Compliance; R < 0.995



Microbac Laboratories Inc.
Initial Calibration Summary

00102769

Login:	<u>L08100416</u>	Workgroup (AAB#):	<u>WG285146</u>
Analytical Method:	<u>6020</u>	Instrument ID:	<u>ELAN-ICP</u>
ICAL Worknum:	<u>WG285517</u>	Initial Calibration Date:	<u>20-OCT-2008 11:50</u>

	WG285517-01		WG285517-02		WG285517-03		WG285517-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ANTIMONY	0	64.8	.4	3380	50	300000	100	587000	.999986	
ARSENIC	0	-290	.4	585	50	106000	100	202000	.999987	
BARIUM	0	25.7	.4	1080	50	126000	100	247000	.999931	
CADMIUM	0	5.82	.4	853	50	101000	100	193000	.999973	
CHROMIUM	0	17000	.4	21500	50	538000	100	984000	.999816	
COPPER	0	225	.4	1690	50	173000	100	324000	.999888	
LEAD	0	6740	.4	18000	50	1430000	100	2790000	1	
MANGANESE	0	641	.4	7370	50	762000	100	1420000	.999836	
NICKEL	0	61.0	.4	1360	50	146000	100	277000	.999964	
SELENIUM	0	11.7	.4	81.3	50	9850	100	18400	.999886	
SILVER	0	575	.4	4950	50	529000	100	1000000	.999927	
THALLIUM	0	26.3	.4	3630	50	435000	100	857000	.999994	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-06
Instrument ID: ELAN-ICP Run Time: 11:29 Method: 6020
File ID: EL.101608.112937 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-ICP - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.1	.4	.1	U
ARSENIC	.1	.4	.1	U
BARIUM	.2	1.2	.2	U
CADMIUM	.05	.2	.05	U
CHROMIUM	.2	.8	.2	U
COPPER	.2	.8	.2	U
MANGANESE	.2	.8	.2	U
NICKEL	.4	1.6	.4	U
LEAD	.1	.2	.1	U
ANTIMONY	.1	.4	.1	U
SELENIUM	.2	.4	.2	U
THALLIUM	.02	.08	.02	U

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-06
Instrument ID: ELAN-ICP Run Time: 12:02 Method: 6020
File ID: EL.102008.120216 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-ICP - 20-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
SILVER	.1	.4	.1	U
ARSENIC	.1	.4	.1	U
BARIUM	.2	1.2	.2	U
CADMIUM	.05	.2	.05	U
CHROMIUM	.2	.8	.2	U
COPPER	.2	.8	.2	U
MANGANESE	.2	.8	.2	U
NICKEL	.4	1.6	.4	U
LEAD	.1	.2	.1	U
ANTIMONY	.1	.4	.1	U
SELENIUM	.2	.4	.2	U
THALLIUM	.02	.08	.02	U

00102772

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-12
Instrument ID: ELAN-ICP Run Time: 12:04 Method: 6020
File ID: EL.101608.120400 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.100	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102773

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-20
Instrument ID: ELAN-ICP Run Time: 15:52 Method: 6020
File ID: EL.101608.155244 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.312	F
Lead	0.100	0.200	0.100	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102774

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-22
Instrument ID: ELAN-ICP Run Time: 16:57 Method: 6020
File ID: EL.101608.165753 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.100	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102775

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-24
Instrument ID: ELAN-ICP Run Time: 18:03 Method: 6020
File ID: EL.101608.180303 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.100	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102776

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-12
Instrument ID: ELAN-ICP Run Time: 12:39 Method: 6020
File ID: EL.102008.123925 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.100	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102777

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-18
Instrument ID: ELAN-ICP Run Time: 15:51 Method: 6020
File ID: EL.102008.155149 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.174	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

00102778

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-20
Instrument ID: ELAN-ICP Run Time: 17:02 Method: 6020
File ID: EL.102008.170229 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Silver	0.100	0.400	0.100	U
Arsenic	0.100	0.400	0.100	U
Barium	0.200	1.20	0.200	U
Cadmium	0.0500	0.200	0.0500	U
Chromium	0.200	0.800	0.200	U
Copper	0.200	0.800	0.200	U
Lead	0.100	0.200	0.179	U
Manganese	0.200	0.800	0.200	U
Nickel	0.400	1.60	0.400	U
Antimony	0.100	0.400	0.100	U
Selenium	0.200	0.400	0.200	U
Thallium	0.0200	0.0800	0.0200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



Login Number: <u>L08100416</u>	Run Date: <u>10/16/2008</u>	Sample ID: <u>WG285219-05</u>
Instrument ID: <u>ELAN-ICP</u>	Run Time: <u>11:23</u>	Method: <u>6020</u>
File ID: <u>EL.101608.112356</u>	Analyst: <u>JYH</u>	Units: <u>ug/L</u>
Workgroup (AAB#): <u>WG285146</u>	Cal ID: <u>ELAN-I - 16-OCT-08</u>	
QC Key: <u>STD</u>		

Analyte	Expected	Found	%REC	LIMITS	Q
Silver	50	49.6	99.1	90 - 110	
Arsenic	50	49.2	98.5	90 - 110	
Barium	50	49.8	99.7	90 - 110	
Cadmium	50	50.5	101	90 - 110	
Chromium	50	49.6	99.3	90 - 110	
Copper	50	50.9	102	90 - 110	
Lead	50	49.8	99.6	90 - 110	
Manganese	50	51.8	104	90 - 110	
Nickel	50	49.3	98.6	90 - 110	
Antimony	50	49.9	99.8	90 - 110	
Selenium	50	50.3	101	90 - 110	
Thallium	50	50.1	100	90 - 110	

* Exceeds LIMITS Limit

Login Number: <u>L08100416</u>	Run Date: <u>10/20/2008</u>	Sample ID: <u>WG285517-05</u>
Instrument ID: <u>ELAN-ICP</u>	Run Time: <u>11:56</u>	Method: <u>6020</u>
File ID: <u>EL.102008.115635</u>	Analyst: <u>JYH</u>	Units: <u>ug/L</u>
Workgroup (AAB#): <u>WG285146</u>	Cal ID: <u>ELAN-I - 20-OCT-08</u>	
QC Key: <u>STD</u>		

Analyte	Expected	Found	%REC	LIMITS	Q
Silver	50	49.6	99.3	90 - 110	
Arsenic	50	49.1	98.2	90 - 110	
Barium	50	49.0	98.0	90 - 110	
Cadmium	50	49.7	99.3	90 - 110	
Chromium	50	48.3	96.6	90 - 110	
Copper	50	50.0	100	90 - 110	
Lead	50	49.4	98.8	90 - 110	
Manganese	50	49.8	99.6	90 - 110	
Nickel	50	48.6	97.2	90 - 110	
Antimony	50	49.4	98.8	90 - 110	
Selenium	50	51.4	103	90 - 110	
Thallium	50	49.8	99.6	90 - 110	

* Exceeds LIMITS Limit

00102781

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-11
Instrument ID: ELAN-ICP Run Time: 11:58 Method: 6020
File ID: EL.101608.115818 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	50.3	ug/L	101	90 - 110	
Arsenic	50.0	49.4	ug/L	98.8	90 - 110	
Barium	50.0	49.7	ug/L	99.5	90 - 110	
Cadmium	50.0	50.0	ug/L	100	90 - 110	
Chromium	50.0	49.2	ug/L	98.5	90 - 110	
Copper	50.0	50.8	ug/L	102	90 - 110	
Lead	50.0	50.2	ug/L	100	90 - 110	
Manganese	50.0	51.5	ug/L	103	90 - 110	
Nickel	50.0	49.5	ug/L	98.9	90 - 110	
Antimony	50.0	50.1	ug/L	100	90 - 110	
Selenium	50.0	51.0	ug/L	102	90 - 110	
Thallium	50.0	50.3	ug/L	101	90 - 110	

* Exceeds LIMITS Criteria



00102782

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-19
Instrument ID: ELAN-ICP Run Time: 15:47 Method: 6020
File ID: EL.101608.154700 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	49.8	ug/L	99.5	90 - 110	
Arsenic	50.0	50.4	ug/L	101	90 - 110	
Barium	50.0	49.9	ug/L	99.9	90 - 110	
Cadmium	50.0	49.8	ug/L	99.7	90 - 110	
Chromium	50.0	49.8	ug/L	99.6	90 - 110	
Copper	50.0	53.1	ug/L	106	90 - 110	
Lead	50.0	49.9	ug/L	99.8	90 - 110	
Manganese	50.0	51.1	ug/L	102	90 - 110	
Nickel	50.0	48.4	ug/L	96.7	90 - 110	
Antimony	50.0	49.6	ug/L	99.2	90 - 110	
Selenium	50.0	52.3	ug/L	105	90 - 110	
Thallium	50.0	50.2	ug/L	100	90 - 110	

* Exceeds LIMITS Criteria

00102783

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-21
Instrument ID: ELAN-ICP Run Time: 16:52 Method: 6020
File ID: EL.101608.165211 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	50.2	ug/L	100	90 - 110	
Arsenic	50.0	49.6	ug/L	99.2	90 - 110	
Barium	50.0	49.9	ug/L	99.8	90 - 110	
Cadmium	50.0	49.8	ug/L	99.6	90 - 110	
Chromium	50.0	49.7	ug/L	99.4	90 - 110	
Copper	50.0	51.2	ug/L	102	90 - 110	
Lead	50.0	50.8	ug/L	102	90 - 110	
Manganese	50.0	51.9	ug/L	104	90 - 110	
Nickel	50.0	49.6	ug/L	99.1	90 - 110	
Antimony	50.0	49.7	ug/L	99.4	90 - 110	
Selenium	50.0	50.8	ug/L	102	90 - 110	
Thallium	50.0	50.9	ug/L	102	90 - 110	

* Exceeds LIMITS Criteria



00102784

Login Number: L08100416 Run Date: 10/16/2008 Sample ID: WG285219-23
Instrument ID: ELAN-ICP Run Time: 17:57 Method: 6020
File ID: EL.101608.175721 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 16-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	50.1	ug/L	100	90 - 110	
Arsenic	50.0	49.2	ug/L	98.5	90 - 110	
Barium	50.0	49.6	ug/L	99.1	90 - 110	
Cadmium	50.0	50.0	ug/L	99.9	90 - 110	
Chromium	50.0	50.9	ug/L	102	90 - 110	
Copper	50.0	51.5	ug/L	103	90 - 110	
Lead	50.0	50.5	ug/L	101	90 - 110	
Manganese	50.0	53.8	ug/L	108	90 - 110	
Nickel	50.0	50.2	ug/L	100	90 - 110	
Antimony	50.0	49.1	ug/L	98.3	90 - 110	
Selenium	50.0	50.3	ug/L	101	90 - 110	
Thallium	50.0	50.6	ug/L	101	90 - 110	

* Exceeds LIMITS Criteria



00102785

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-11
Instrument ID: ELAN-ICP Run Time: 12:33 Method: 6020
File ID: EL.102008.123343 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	50.7	ug/L	101	90 - 110	
Arsenic	50.0	49.2	ug/L	98.4	90 - 110	
Barium	50.0	50.5	ug/L	101	90 - 110	
Cadmium	50.0	50.3	ug/L	101	90 - 110	
Chromium	50.0	50.6	ug/L	101	90 - 110	
Copper	50.0	51.1	ug/L	102	90 - 110	
Lead	50.0	50.3	ug/L	101	90 - 110	
Manganese	50.0	52.6	ug/L	105	90 - 110	
Nickel	50.0	50.0	ug/L	100	90 - 110	
Antimony	50.0	50.3	ug/L	101	90 - 110	
Selenium	50.0	50.5	ug/L	101	90 - 110	
Thallium	50.0	50.2	ug/L	100	90 - 110	

* Exceeds LIMITS Criteria

00102786

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-17
Instrument ID: ELAN-ICP Run Time: 15:46 Method: 6020
File ID: EL.102008.154607 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	50.7	ug/L	101	90 - 110	
Arsenic	50.0	49.9	ug/L	99.8	90 - 110	
Barium	50.0	50.0	ug/L	99.9	90 - 110	
Cadmium	50.0	51.0	ug/L	102	90 - 110	
Chromium	50.0	49.1	ug/L	98.2	90 - 110	
Copper	50.0	50.8	ug/L	102	90 - 110	
Lead	50.0	50.8	ug/L	102	90 - 110	
Manganese	50.0	49.6	ug/L	99.2	90 - 110	
Nickel	50.0	48.9	ug/L	97.9	90 - 110	
Antimony	50.0	50.2	ug/L	100	90 - 110	
Selenium	50.0	51.6	ug/L	103	90 - 110	
Thallium	50.0	50.9	ug/L	102	90 - 110	

* Exceeds LIMITS Criteria



00102787

Login Number: L08100416 Run Date: 10/20/2008 Sample ID: WG285517-19
Instrument ID: ELAN-ICP Run Time: 16:56 Method: 6020
File ID: EL.102008.165647 Analyst: JYH QC Key: STD
Workgroup (AAB#): WG285146 Cal ID: ELAN-I - 20-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Silver	50.0	49.8	ug/L	99.7	90 - 110	
Arsenic	50.0	51.3	ug/L	103	90 - 110	
Barium	50.0	50.9	ug/L	102	90 - 110	
Cadmium	50.0	50.9	ug/L	102	90 - 110	
Chromium	50.0	50.7	ug/L	101	90 - 110	
Copper	50.0	51.0	ug/L	102	90 - 110	
Lead	50.0	51.0	ug/L	102	90 - 110	
Manganese	50.0	51.0	ug/L	102	90 - 110	
Nickel	50.0	50.7	ug/L	101	90 - 110	
Antimony	50.0	50.2	ug/L	100	90 - 110	
Selenium	50.0	52.1	ug/L	104	90 - 110	
Thallium	50.0	51.2	ug/L	102	90 - 110	

* Exceeds LIMITS Criteria



Login number: L08100416
Instrument ID: ELAN-ICP
Sol. A : WG285219-09
Sol. AB : WG285219-10

File ID: EL.101608.114651
File ID: EL.101608.115235

Workgroup (AAB#): WG285146
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Antimony	NS	-0.120	NS	100	109	109	
Arsenic	NS	0.0382	NS	100	106	106	
Barium	NS	0.0534	NS	100	108	108	
Cadmium	NS	0.115	NS	100	108	108	
Chromium	NS	-0.113	NS	100	105	105	
Copper	NS	0.121	NS	100	105	105	
Lead	NS	-0.0131	NS	100	109	109	
Manganese	NS	0.260	NS	100	95.5	95.5	
Nickel	NS	0.779	NS	100	104	104	
Selenium	NS	0.0969	NS	100	106	106	
Silver	NS	-0.0443	NS	100	100	100	
Thallium	NS	-0.00560	NS	100	109	109	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

Login number: L08100416
Instrument ID: ELAN-ICP
Sol. A : WG285517-09
Sol. AB : WG285517-10

File ID: EL.102008.122216
File ID: EL.102008.122759

Workgroup (AAB#): WG285146
Method: 6020
Units: ug/L
Matrix: Water

ANALYTE	Sol. A			Sol. AB			Q
	True	Found	%Recovery	True	Found	%Recovery	
Antimony	NS	-0.0968	NS	100	104	104	
Arsenic	NS	-0.00950	NS	100	100	100	
Barium	NS	0.132	NS	100	105	105	
Cadmium	NS	0.0752	NS	100	103	103	
Chromium	NS	-0.137	NS	100	103	103	
Copper	NS	0.306	NS	100	99.9	99.9	
Lead	NS	0.00440	NS	100	104	104	
Manganese	NS	0.237	NS	100	107	107	
Nickel	NS	0.798	NS	100	101	101	
Selenium	NS	-0.0304	NS	100	99.3	99.3	
Silver	NS	-0.0464	NS	100	83.5	83.5	
Thallium	NS	-0.00580	NS	100	103	103	

NS = Not spiked

* = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.

= Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).

Login: L08100416 Analytical Method: 6020
 Analytical Workgroup: WG285146 Matrix: 1
 Instrument: ELAN-ICP Analyst: JYH
 ICAL Date: 16-OCT-2008 11:01

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L08100416-07	SAMP	16-OCT-2008 17:24	70.118	74.492	72.412	76.508
WG285014-01	FBLK	16-OCT-2008 16:03	96.409	94.072	96.971	97.851
WG285126-01	REF	16-OCT-2008 16:46	95.684	96.814	93.911	94.883
WG285126-02	BLANK	16-OCT-2008 15:58	95.712	94.196	97.741	98.752
WG285126-03	LCS	16-OCT-2008 16:08	97.316	94.406	96.991	97.686
WG285126-04	MS	16-OCT-2008 17:03	95.423	97.04	93.601	93.523
WG285126-05	MSD	16-OCT-2008 17:08	93.038	95.978	92.591	92.253
WG285146-01	PSPK	16-OCT-2008 16:24	96.007	96.633	93.47	95.428
WG285146-02	SERIAL	16-OCT-2008 16:30	96.867	95.578	94.811	94.645
WG285219-05	ICV	16-OCT-2008 11:23	98.92	97.264	97.634	99.484
WG285219-06	ICB	16-OCT-2008 11:29	101.571	98.794	101.012	101.634
WG285219-11	CCV	16-OCT-2008 11:58	97.438	99.111	97.715	98.378
WG285219-12	CCB	16-OCT-2008 12:04	108.339	104.863	105.555	106.266
WG285219-19	CCV	16-OCT-2008 15:47	94.753	93.927	96.458	97.291
WG285219-20	CCB	16-OCT-2008 15:52	95.379	93.537	97.086	97.948
WG285219-21	CCV	16-OCT-2008 16:52	92.035	94.804	93.964	94.477
WG285219-22	CCB	16-OCT-2008 16:57	94.145	94.089	95.233	95.23
WG285219-23	CCV	16-OCT-2008 17:57	90.185	94.439	91.534	91.228
WG285219-24	CCB	16-OCT-2008 18:03	90.963	94.343	92.069	92.167

Acceptance criteria: 30% - 120%
 Underlined recoveries are out of range

INT_STD_ICPMS - Modified 03/05/2008
 PDF File ID: 1224663
 Report generated: 10/21/2008 09:20



Login: L08100416 Analytical Method: 6020
Analytical Workgroup: WG285146 Matrix: 18
Instrument: ELAN-ICP Analyst: JYH
ICAL Date: 16-OCT-2008 11:01

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L08100360-03	SAMP	16-OCT-2008 16:19	94.799	95.48	93.397	94.85

Acceptance criteria: 30% - 120%
Underlined recoveries are out of range

INT_STD_ICPMS - Modified 03/05/2008
PDF File ID: 1224663
Report generated: 10/21/2008 09:20



Login: L08100416 Analytical Method: 6020
 Analytical Workgroup: WG285146 Matrix: 1
 Instrument: ELAN-ICP Analyst: JYH
 ICAL Date: 20-OCT-2008 11:33

Sample	Type	Run Date	BISMUTH	GERMANIUM	INDIUM	TERBIUM
			% Rec	% Rec	% Rec	% Rec
L08100416-07	SAMP	20-OCT-2008 16:17	91.922	87.843	90.573	92.881
WG285517-05	ICV	20-OCT-2008 11:56	95.68	93.171	94.466	95.424
WG285517-06	ICB	20-OCT-2008 12:02	96.75	93.97	94.558	95.735
WG285517-11	CCV	20-OCT-2008 12:33	94.073	97.857	94.631	93.57
WG285517-12	CCB	20-OCT-2008 12:39	93.957	96.769	94.108	93.115
WG285517-17	CCV	20-OCT-2008 15:46	92.619	87.034	89.103	92.222
WG285517-18	CCB	20-OCT-2008 15:51	95.092	86.994	90.068	92.961
WG285517-19	CCV	20-OCT-2008 16:56	92.837	87.206	91.3	93.974
WG285517-20	CCB	20-OCT-2008 17:02	94.898	89.065	92.18	95.895

Acceptance criteria: 30% - 120%
 Underlined recoveries are out of range

INT_STD_ICPMS - Modified 03/05/2008
 PDF File ID: 1224663
 Report generated: 10/21/2008 09:20



Login Number: L08100416

Date: 09/11/2008

Instrument ID: ELAN-ICP

Method: 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:

All analytes passed acceptance criteria at the specified concentration.

2.2.3 Metals CVAA Data (Mercury)

2.2.3.1 Summary Data

LABORATORY REPORT

L08100416

00102796

10/29/08 16:41

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Larry Duty

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
49WW03-100808	L08100416-07	7470A	1	14-OCT-08



Report Number: **L08100416**Report Date : **October 29, 2008**

00102797

Sample Number: **L08100416-07**
Client ID: **49WW03-100808**
Matrix: **Water**
Workgroup Number: **WG285142**
Collect Date: **10/08/2008 12:45**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **METHOD**
Analytical Method: **7470A**
Analyst: **SLP**
Dilution: **1**
Units: **mg/L**

Instrument: **HYDRA**
Prep Date: **10/15/2008 08:02**
Cal Date: **10/17/2008 10:42**
Run Date: **10/17/2008 11:06**
File ID: **HY.101708.110659**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Mercury	7439-97-6		U	0.000200	0.000100

U Not detected at or above adjusted sample detection limit

2.2.3.2 QC Summary Data

Example Cold Vapor Mercury Calculations
Hydra AA Mercury Analyzer

1.0 Initial Calibration (ICAL) Parameters

The system performs linear regression from data consisting of a blank and five standards.

2.0 Calculating the concentration (C) of an element in water using data from run log and quantitation report
(note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Diluted to Volume (mL)

Vi = Aliquot Volume (mL)

D = Manual dilution factor, if required (10X = 10)

Example:

0.1

40

40

1

Cx = Concentration of element in ppb (ug/L)

0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log and quantitation report
(note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Ws} \times D$$

Where:

Cs = Concentration computed by the data system (ug/L)

Vf = Diluted to volume (mL)

Ws = Aliquot weight (g)

D = Manual dilution factor

Example:

0.1

40

0.6

1

Cx = Concentration of element in ug/kg

6.67

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

1 Cx = Concentration calculated as received (wet basis)

Px = Percent solids of sample (%wt)

6.67

80

$Cdry$ = Concentration calculated as dry weight (ug/kg)

8.33

8.33 ug/kg = 0.00833 mg/kg

Workgroup: WG284950

Analyst: REK

Method: METHOD

Run Date: 10/15/2008 08:02

Hotblock Start Temp: 95.7 @ 07:05

Hotblock End Temp: 95 @ 09:05

SOP: ME404 Revision 11

Spike Solution: STD29262

Spike Witness: VC

HN03 Lot #: COA13347

H2S04 Lot #: COA13254

KMn04 1:1 Lot #: RGT13170

K2S208 1:1 Lot #: RGT13197

Digest tubes Lot #: COA13407

Mercury Water ICV Lot #: STD29264

HG H2O STDS 10PPM Lot #: STD29270

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Spike Amount	Due Date
1	WG284950-02	BLANK	1	40 mL	40 mL		
2	WG284898-01	FBLK	17	4 mL	40 mL		
3	WG284950-03	LCS	1	40 mL	40 mL	4 mL	
4	L08100383-01	SAMP	17	4 mL	40 mL		10/17/08
5	L08100386-01	SAMP	17	4 mL	40 mL		10/20/08
6	L08100408-02	SAMP	1	40 mL	40 mL		10/22/08
7	L08100408-03	SAMP	1	40 mL	40 mL		10/22/08
8	L08100408-04	SAMP	1	40 mL	40 mL		10/22/08
9	L08100408-05	SAMP	1	40 mL	40 mL		10/22/08
10	WG284950-01	REF	1	40 mL	40 mL		
11	L08100416-07	SAMP	1	40 mL	40 mL		10/21/08
12	L08100419-04	SAMP	1	40 mL	40 mL		10/28/08
13	WG284950-04	MS	1	36 mL	40 mL	4 mL	
14	WG284950-05	MSD	1	36 mL	40 mL	4 mL	

Analyst: REK

Reviewer: Shelly dent

Microbac Laboratories Inc.
Instrument Run Log

00102801

Instrument: HYDRA Dataset: 101708A.PRN
 Analyst1: KHR Analyst2: ADC
 Method: 7470A SOP: 404 Rev: 11
 Maintenance Log ID: 26233

Calibration Std: STD29270 ICV/CCV Std: STD29264 Post Spike: STD29270
 ICSA: N/A ICSAB: N/A

Workgroups: 285142

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	HY.101708.103507	WG285316-01	Calibration Point		1		10/17/08 10:35
2	HY.101708.103648	WG285316-02	Calibration Point		1		10/17/08 10:36
3	HY.101708.103830	WG285316-03	Calibration Point		1		10/17/08 10:38
4	HY.101708.104033	WG285316-04	Calibration Point		1		10/17/08 10:40
5	HY.101708.104258	WG285316-05	Calibration Point		1		10/17/08 10:42
6	HY.101708.104443	WG285316-06	Calibration Point		1		10/17/08 10:44
7	HY.101708.104701	WG285316-07	Initial Calibration Verification		1		10/17/08 10:47
8	HY.101708.104852	WG285316-08	Initial Calib Blank		1		10/17/08 10:48
9	HY.101708.105047	WG285316-09	CCV		1		10/17/08 10:50
10	HY.101708.105251	WG285316-10	CCB		1		10/17/08 10:52
11	HY.101708.105650	WG284950-02	Method/Prep Blank	40/40	1		10/17/08 10:56
12	HY.101708.105902	WG284898-01	Fluid Blank		1		10/17/08 10:59
13	HY.101708.110107	WG284950-03	Laboratory Control S	40/40	1		10/17/08 11:01
14	HY.101708.110311	L08100383-01	TRENCH DIRT	4/40	1	WG284932-01	10/17/08 11:03
15	HY.101708.110455	WG285142-01	Post Digestion Spike		1	L08100383-01	10/17/08 11:04
16	HY.101708.110659	L08100416-07	49WW03-100808	40/40	1	WG284950-01	10/17/08 11:06
17	HY.101708.110852	WG284950-04	Matrix Spike	36/40	1	L08100416-07	10/17/08 11:08
18	HY.101708.111045	WG284950-05	Matrix Spike Duplica	36/40	1	L08100416-07	10/17/08 11:10
19	HY.101708.111243	WG285316-11	CCV		1		10/17/08 11:12
20	HY.101708.111426	WG285316-12	CCB		1		10/17/08 11:14
21	HY.101708.111608	L08100386-01	COMPOSITE	4/40	1		10/17/08 11:16
22	HY.101708.111750	L08100408-02	0810-164-1	40/40	1		10/17/08 11:17
23	HY.101708.111933	WG285142-02	Post Digestion Spike		1	L08100408-02	10/17/08 11:19
24	HY.101708.112144	L08100408-03	0810-164-2	40/40	1		10/17/08 11:21
25	HY.101708.112326	L08100408-04	0810-164-3	40/40	1		10/17/08 11:23
26	HY.101708.112523	L08100408-05	0810-164-4	40/40	1		10/17/08 11:25
27	HY.101708.112705	L08100419-04	FB001 (101308)	40/40	1		10/17/08 11:27
28	HY.101708.112910	WG285316-13	CCV		1		10/17/08 11:29
29	HY.101708.113104	WG285316-14	CCB		1		10/17/08 11:31

Shari L. Bahgat



Microbac Laboratories Inc.

00102802

Data Checklist

Date: 17-OCT-2008

Analyst: KHR

Analyst: ADC

Method: 7470A

Instrument: HYDRA

Curve Workgroup: 285316

Runlog ID: 24759

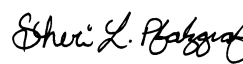
Analytical Workgroups: 285142

Calibration/Linearity	X
ICV/CCV	X
ICB/CCB	X
ICSA/ICSAB	
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	416, 419
Client Forms	X
Level X	
Level 3	416
Level 4	419
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	ADC
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
17-OCT-2008



Secondary Reviewer:
17-OCT-2008



Analytical Method: 7470A

AAB#: WG285142

Login Number: L08100416

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
49WW03-100808	10/08/08	10/14/08	10/15/08	28	6.80	10/17/08	28	2.13	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00102804

Login Number:	<u>L08100416</u>	Work Group:	<u>WG285142</u>
Blank File ID:	<u>HY.101708.105650</u>	Blank Sample ID:	<u>WG284950-02</u>
Prep Date:	<u>10/15/08 08:02</u>	Instrument ID:	<u>HYDRA</u>
Analyzed Date:	<u>10/17/08 10:56</u>	Method:	<u>7470A</u>
Analyst:	<u>SLP</u>		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG284950-03	HY.101708.110107	10/17/08 11:01	01
49WW03-100808	L08100416-07	HY.101708.110659	10/17/08 11:06	01

Report Name: BLANK_SUMMARY
PDF File ID: 1225614
Report generated 10/17/2008 15:29



Login Number: L08100416 Prep Date: 10/15/08 08:02 Sample ID: WG284950-02
Instrument ID: HYDRA Run Date: 10/17/08 10:56 Prep Method: METHOD
File ID: HY.101708.105650 Analyst: SLP Method: 7470A
Workgroup (AAB#): WG285142 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: HYDRA - 17-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Mercury	0.000100	0.000200	0.000100	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1225616

17-OCT-2008 15:29



Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG284950-03
Instrument ID: HYDRA Run Time: 11:01 Prep Method: METHOD
File ID: HY.101708.110107 Analyst: SLP Method: 7470A
Workgroup (AAB#): WG285142 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD29262 Cal ID: HYDRA - 17-OCT-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Mercury	0.00400	0.00457	114	85 - 115	

Loginnum: L08100416Cal ID: HYDRA -Worknum: WG285142Instrument ID: HYDRAContract #: DACA56-94-D-0020Method: 7470AParent ID: WG284950-01File ID: HY.101708.110659Dil: 1Matrix: WATERSample ID: WG284950-04 MSFile ID: HY.101708.110852Dil: 1Units: mg/LSample ID: WG284950-05 MSDFile ID: HY.101708.111045Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Mercury	ND	0.00444	0.00517	116	0.00444	0.00512	115	0.864	85 - 115	20	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Sample Login ID: L08100416

Worknum: WG285142

Instrument ID: HYDRA

Method: 7470A

Post Spike ID: WG285142-02

File ID: HY.101708.111933

Dil: 1

Units: ug/L

Sample ID: L08100408-02

File ID: HY.101708.111750

Dil: 1

Matrix: Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
MERCURY	1.14		0	U	1	114.0	85 - 115	

N = % Recovery exceeds control limits

F = Result is between MDL and RL

U = Sample result is below MDL. A value of zero is used in the calculation

00102809

Login Number: L08100416
Analytical Method: 7470A
ICAL Worknum: WG285316

Workgroup (AAB#): WG285142
Instrument ID: HYDRA
Initial Calibration Date: 10/17/2008 10:44

Analyte	WG285316-01		WG285316-02		WG285316-03		WG285316-04		WG285316-05		WG285316-06	
	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT	STD	INT
Mercury	0	1126	0.200	14479	1.00	72244	2.00	148950	5.00	363285	10.0	715494

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; R < 0.995



00102810

Login Number: L08100416
Analytical Method: 7470A
ICAL Worknum: WG285316

Workgroup (AAB#): WG285142
Instrument ID: HYDRA
Initial Calibration Date: 10/17/2008 10:44

Analyte	R	Q
Mercury	1.000	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
* = Out of Compliance; $R < 0.995$

INT_CAL_HG_FU - Modified 03/06/2008
PDF File ID: 1225620
Report generated 10/17/2008 15:29



Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-08
Instrument ID: HYDRA Run Time: 10:48 Method: 7471
File ID: HY.101708.104852 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
MERCURY	.1	.2	.1	U

00102812

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-10
Instrument ID: HYDRA Run Time: 10:52 Method: 7470A
File ID: HY.101708.105251 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102813

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-12
Instrument ID: HYDRA Run Time: 11:14 Method: 7470A
File ID: HY.101708.111426 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00102814

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-14
Instrument ID: HYDRA Run Time: 11:31 Method: 7470A
File ID: HY.101708.113104 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Mercury	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



Microbac Laboratories Inc.
INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

00102815

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-07
Instrument ID: HYDRA Run Time: 10:47 Method: 7470A
File ID: HY.101708.104701 Analyst: SLP Units: ug/L
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
QC Key: STD

Analyte	Expected	Found	%REC	LIMITS	Q
Mercury	2	2.13	107	90 - 110	

* Exceeds LIMITS Limit



00102816

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-09
Instrument ID: HYDRA Run Time: 10:50 Method: 7470A
File ID: HY.101708.105047 Analyst: SLP QC Key: STD
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00213	mg/L	107	80 - 120	

* Exceeds LIMITS Criteria



00102817

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-11
 Instrument ID: HYDRA Run Time: 11:12 Method: 7470A
 File ID: HY.101708.111243 Analyst: SLP QC Key: STD
 Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
 Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00209	mg/L	105	80 - 120	

* Exceeds LIMITS Criteria



00102818

Login Number: L08100416 Run Date: 10/17/2008 Sample ID: WG285316-13
Instrument ID: HYDRA Run Time: 11:29 Method: 7470A
File ID: HY.101708.112910 Analyst: SLP QC Key: STD
Workgroup (AAB#): WG285142 Cal ID: HYDRA - 17-OCT-08
Matrix: WATER

Analyte	Expected	Found	UNITS	%REC	LIMITS	Q
Mercury, Total	0.00200	0.00218	mg/L	109	80 - 120	

* Exceeds LIMITS Criteria



3.0 Attachments

Microbac Laboratories Inc.
Analyst Listing
October 29, 2008

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
AM - ALISON J. MILLER	AML - ANTHONY M. LONG	BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN	CAF - CHERYL A. FLOWERS	CAH - CHARLES A. HALL
CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD	CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEPHENS	CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
CTB - CHRIS T. BUCINA	DDE - DEBRA D. ELLIOTT	DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DR - DEANNA ROBERTS	DSF - DEBRA S. FREDERICK	EAB - EDDIE A. BYERS
ECL - ERIC C. LAWSON	ED - EMILY E. DECKER	EDA - ERIN D. AGEE
EDH - ETHAN D. MORRIS	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JBK - JEREMY B. KINNEY
JC - JOHN L. CONLEY	JDH - JUSTIN D. HESSON	JKP - JACQUELINE K. PARSONS
JKT - JANE K. THOMPSON	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATHRYN E. BARNES	KHR - KIM H. RHODES
KJW - KATIE J. WIEFERICH	KRA - KATHY R. ALBERTSON	LKN - LINDA K. NEDEFF
LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON	MDC - MICHAEL D. COCHRAN
MES - MARY E. SCHILLING	MMB - MAREN M. BEERY	MRT - MICHELLE R. TAYLOR
MSW - MATT S. WILSON	NPM - NATHANIEL P. MILLER	PDM - PIERCE D. MORRIS
RAH - ROY A. HALSTEAD	RB - ROBERT BUCHANAN	REK - ROBERT E. KYER
RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL	SAV - SARAH A. VANDENBERG
SDH - SHANA D. HINYARD	SDL - SHELLY D. LENT	SLM - STEPHANIE L. MOSSBURG
SLP - SHERI L. PFALZGRAF	SMH - SHAUNA M. HYDE	TDH - TRICIA D. HUCK
TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY	TMM - TAMMY M. MORRIS
VC - VICKI COLLIER	WTD - WADE T. DELONG	

Qualkey: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
E1	Concentration estimated. Analyte exceeded calibration range. Insufficient sample for reanalysis.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to matrix.
E3	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration is disproportionate to the spike level.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
Q1	Sample integrity was not maintained. See report narrative.
QNS	Quantity of sample not sufficient to perform analysis
R1	Duplicate RPD/RSD exceeded the method acceptance limit.
R2	Duplicate RPD/RSD exceeded the laboratory acceptance limit.
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Undetected; the concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
V2	CCV recovery was above method acceptance limits. Insufficient volume for sample reanalysis.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



Qualkey: STD

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.





Shaw® Shaw Environmental & Infrastructure, Inc.
3010 Briarpark Drive, Suite 400
Houston, TX 77042
(713) 996-4400

Chain of Custody

00102823
NO. 5423

Laboratory Name: Microbac Labs				Address: 158 Starlite Drive Marietta, Ohio 45750				Contact: Stephanie Mossburg (740) 373-4071						
Project Name: Longhorn Army Ammun.				Project Location: Karnack, Texas				Analysis and Method Desired (Indicate separate containers)				Remarks		
Project No.: 117591.63500000				Project Contact: Jennifer Hoang		Project Telephone No.: (713) 996-4408		Number of Containers	TAL METALS	VOCs 8260	NA - No Analysis X - Analyze Trip Blank Included.			
Point of Contact: Allen Willmore				Project Manager/Supervisor: Praveen Srivastava										
Telephone No.: (713) 996-4586 / (713) 247-9292														
Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location							
1	17WW18-100808	10/8/08	14:15		✓	W	17WW18, Site 17	3	NA	X				
2	47WW36-100908	10/9/08	08:20		✓	W	47WW36, Site 47	3	NA	X				
3	47WW35-100908	10/9/08	11:55		✓	W	47WW35, Site 47	3	NA	X				
4	47WW35-100908-08	10/9/08	11:55		✓	W	47WW35, Site 47	3	NA	X				Field Duplicate
5	46WW05-100908	10/9/08	14:05		✓	W	46WW05, Site 46	3	NA	X				
6	46WW06-100908	10/9/08	17:20		✓	W	46WW06, Site 46	3	NA	X				
7	49WW03-100808	10/8/08	12:45		✓	W	49WW03, Site 49	1	X	NA				
8														
9														
10														
Transfers Relinquished By (signature)				Date/Time		Transfers Accepted By (signature)				Date/Time		Special Instructions		
<i>M. Miller</i>				10/13/08 15:45		<i>Praveen Srivastava</i>				10/14/08 9:15		* 7-day TAT		
												FedEx Airbill No.:		
						Laboratory: <i>Microbac Labs</i>				Sampler's Signature: <i>M. Miller</i>				
TAT: _____ Standard _____ Rush Date _____				Seals Intact? ☒ Y ☐ N		Received Good Condition ☒ Y ☐ N Cold								

White - Lab Copy Green - Field Copy Pink - File Copy

Form Number: 433_2
Rev. 10-19-07

Client:	Shaw - Houston, TX		
Workorder Number:	B		
Date Received:	10-14-08		
Delivered by:	() Fedx	(X) UPS	() Client () Courier Time: 9:15
Opened by:	RLK		
IR Temp Gun:	(X) D	() G	
Logged by:	RLK L 08100416		

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
314	0	J204 77184 8	5423	water (7-day QT)

Inspection Checklist

	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?	✓			
Were custody seals intact?	✓			
Were cooler temperatures in range of 0 - 6?	✓			
Was ice present?	✓			
Were COC's received/ information complete/signed and dated?	✓			
Were sample containers and labels intact and match COC?		✓		①
Were the correct containers and volumes received?	✓			
Were correct preservatives used? (water only)	✓			
Were pH ranges acceptable? (voa's excluded)	✓			
Were VOA samples free of headspace (< 6mm)?	✓			
Were samples received within EPA hold times?	✓			

Discrepancy/Comments/Other Problems

① Rec'd 2 VOA's with no labels and not on COC.
TRIP Blank per right side of Chain.

Distribution

Name of Microbac representative:
Client/Company:
Person Contacted:
Date contacted:

Resolution/other comments:

Login: L08100416**Account:** 2773**Project:** 2773.025**Samples:** 8**Due Date:** 21-OCT-2008**Samplenum** **Container ID** **Products****L08100416-02** 511964

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:33	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:33	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Samplenum **Container ID** **Products****L08100416-04** 511966

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login



Login: L08100416**Account:** 2773**Project:** 2773.025**Samples:** 8**Due Date:** 21-OCT-2008**Samplenum Container ID Products****L08100416-05** 511967

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Samplenum Container ID Products**L08100416-07** 511969 AG-MS AL AS-MS BA-MS BE-AX CA CD-MS CO-AX CR-M

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	14-OCT-2008 15:00	RLK	
2	PREP	W1	DIG	15-OCT-2008 05:12	REK	JKT
3	EXTRACT	DIG	METALS	15-OCT-2008 07:37		REK
4	STORE	DIG	A1	16-OCT-2008 14:21	ERE	REK

Samplenum Container ID Products**L08100416-08** 511970

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login



Login: L08100416**Account:** 2773**Project:** 2773.025**Samples:** 8**Due Date:** 21-OCT-2008**Samplenum Container ID Products****L08100416-01** 511963

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:33	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:33	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:33	MRT	JKT

Samplenum Container ID Products**L08100416-03** 511965

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login



Login: L08100416
Account: 2773
Project: 2773.025
Samples: 8
Due Date: 21-OCT-2008

Samplenum **Container ID** **Products**
L08100416-06 511968

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	14-OCT-2008 15:00	RLK	
2	ANALYZ	V1	ORG4	15-OCT-2008 10:34	MRT	JKT

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login





158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

Laboratory Report Number: L09020346

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

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Jacqueline Parsons	<i>Team Assistant</i>	jparsons@microbac.com

This report was reviewed on February 25, 2009.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on February 25, 2009.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac (OVD) LQAP

This report contains a total of 262 pages.

Look closer. Go further. Do more.



Microbac REPORT L09020346
PREPARED FOR Shaw E I, Inc.
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L09020346

CHAIN OF CUSTODY: The chain of custody number was 5774.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 2 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 19-FEB-09

<i>Stephanie Mossburg</i>

Laboratory Data Package Cover Page

00102833

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

✓ R5 Test reports/summary forms for blank samples;

✓ R6 Test reports/summary forms for laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

DEANNA I. HESSON



Conventional Lab Supervisor

February 20, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020346
Project Name: 798-LONGHORN
Method: TOC
Prep Batch Number(s): WG295247
Reviewer Name: DEANNA I. HESSON
LRC Date: February 20, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?	✓				
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?	✓				
Were MS/MSD analyzed at the appropriate frequency?	✓				
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?	✓				
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?	✓				
Were analytical duplicates analyzed at the appropriate frequency?	✓				
Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?	✓				
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L09020346
Project Name:	798-LONGHORN
Method:	TOC
Prep Batch Number(s):	WG295247
Reviewer Name:	DEANNA I. HESSON
LRC Date:	February 20, 2009

EXCEPTIONS REPORT

ER# - Description

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

- ✓R1 Field chain-of-custody documentation;
- ✓R2 sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs)
- ✓R4 Surrogate recovery data including:
 - a) Calculated recovery (%R) for each analyte, and
 - b) The laboratory's surrogate QC limits.
- ✓R5 Test reports/summary forms for blank samples;
- ✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amount,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %R and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ✓R10 Other problems or anomalies.
- ✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MIKE D. ALBERTSON



Volatiles Lab Supervisor

February 19, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020346
Project Name: 798-LONGHORN
Method: RSK175
Prep Batch Number(s): 295202
Reviewer Name: MIKE D. ALBERTSON
LRC Date: February 19, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?			✓		
Were % moisture (or solids) reported for all soil and sediment samples?			✓		
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratorys capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00102840

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

EXCEPTIONS REPORT

ER# - Description

There were no exceptions.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms FOR laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MICHAEL D. COCHRAN



Semivolatiles Lab Supervisor

February 20, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020346
Project Name: 798-LONGHORN
Method: 300
Prep Batch Number(s): WG295233
Reviewer Name: MICHAEL D. COCHRAN
LRC Date: February 20, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?					
Were % moisture (or solids) reported for all soil and sediment samples?					
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?	✓				
Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?			✓		
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?	✓				
Were MS/MSD analyzed at the appropriate frequency?	✓				
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		✓			1

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?	✓				

00102844

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
 Laboratory Log Number: L09020346
 Project Name: 798-LONGHORN
 Method: 300
 Prep Batch Number(s): WG295233
 Reviewer Name: MICHAEL D. COCHRAN
 LRC Date: February 20, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?	✓				
Were analytical duplicates analyzed at the appropriate frequency?	✓				
Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?			✓		
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
 Laboratory Log Number: L09020346
 Project Name: 798-LONGHORN
 Method: 300
 Prep Batch Number(s): WG295233
 Reviewer Name: MICHAEL D. COCHRAN
 LRC Date: February 20, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L09020346
Project Name:	798-LONGHORN
Method:	300
Prep Batch Number(s):	WG295233
Reviewer Name:	MICHAEL D. COCHRAN
LRC Date:	February 20, 2009

EXCEPTIONS REPORT

ER# - Description

1. The MS/MSD of sample 01 yielded low recoveries for chloride.

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

- ✓R1 Field chain-of-custody documentation;
- ✓R2 sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs)
- ✓R4 Surrogate recovery data including:
 - a) Calculated recovery (%R) for each analyte, and
 - b) The laboratory's surrogate QC limits.
- ✓R5 Test reports/summary forms for blank samples;
- ✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amount,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %R and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ✓R10 Other problems or anomalies.
- ✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MIKE D. ALBERTSON



Volatiles Lab Supervisor

February 24, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020346
Project Name: 798-LONGHORN
Method: RSK175
Prep Batch Number(s): 295254, 295371, 295390
Reviewer Name: MIKE D. ALBERTSON
LRC Date: February 24, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?			✓		
Were % moisture (or solids) reported for all soil and sediment samples?			✓		
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		✓			1
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?		✓			2
Was the ICAL curve verified for each analyte?		✓			3
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

EXCEPTIONS REPORT

ER# - Description

#1: Surrogate 1,2-dichloroethane-d4 was below the lower control limit in the LCS/LCSDs analyzed 02/19/09 on HPMS-8 and 02/20/09 on HPMS-11 and the method blank analyzed 02/19/09 on HPMS-8.

#2: Vinyl acetate exceeded the upper control limit in the CCV analyzed 02/20/09 on HPMS-11.

#3: Vinyl acetate was below the lower control limit in the alternate source analyzed 02/06/09 on HPMS-11.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L09020346

00102855

02/25/09 08:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW13-021709	L09020346-01	8260B	10	18-FEB-09
47WW13-021709	L09020346-01	8260B	1	18-FEB-09
47WW13-021709-FD	L09020346-02	8260B	10	18-FEB-09
47WW13-021709-FD	L09020346-02	8260B	1	18-FEB-09
LHSMW50-021709	L09020346-03	8260B	1	18-FEB-09
TRIP BLANK	L09020346-04	8260B	1	18-FEB-09



Sample Number: **L09020346-01**
Client ID: **47WW13-021709**
Matrix: **Water**
Workgroup Number: **WG295390**
Collect Date: **02/17/2009 10:06**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **WTD**
Dilution: **10**
Units: **ug/L**

Instrument: **HPMS11**
Prep Date: **02/20/2009 12:21**
Cal Date: **02/06/2009 14:52**
Run Date: **02/20/2009 12:21**
File ID: **11M57238**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2		U	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3	1.77	J	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4		U	10.0	5.00
cis-1,2-Dichloroethene	156-59-2	1010		10.0	2.50
trans-1,2-Dichloroethene	156-60-5	11.3		10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2		U	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	1.25
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3		U	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	470		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

Report Number: **L09020346**Report Date : **February 25, 2009**

00102857

Sample Number: **L09020346-01**
 Client ID: **47WW13-021709**
 Matrix: **Water**
 Workgroup Number: **WG295390**
 Collect Date: **02/17/2009 10:06**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **10**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/20/2009 12:21**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/20/2009 12:21**
 File ID: **11M57238**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4	103		10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	136777-61-2		U	10.0	5.00
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	97.4	86	118		
1,2-Dichloroethane-d4	82.7	80	120		
Toluene-d8	96.6	88	110		
4-Bromofluorobenzene	97.2	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number: **L09020346-01**
Client ID: **47WW13-021709**
Matrix: **Water**
Workgroup Number: **WG295254**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **FJB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS11**
Prep Date: **02/19/2009 02:18**
Cal Date: **02/06/2009 14:52**
Run Date: **02/19/2009 02:18**
File ID: **11M57195**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2	0.352	J	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3	2.20		1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4	3.64		1.00	0.500
cis-1,2-Dichloroethene	156-59-2	1030	I	1.00	0.250
trans-1,2-Dichloroethene	156-60-5	13.2		1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.369	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	543	I	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020346**Report Date : **February 25, 2009**

00102859

Sample Number: **L09020346-01**
 Client ID: **47WW13-021709**
 Matrix: **Water**
 Workgroup Number: **WG295254**
 Collect Date: **02/17/2009 10:06**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/19/2009 02:18**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/19/2009 02:18**
 File ID: **11M57195**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4	120	I	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	99.9	86	118		
1,2-Dichloroethane-d4	82.4	80	120		
Toluene-d8	95.6	88	110		
4-Bromofluorobenzene	96.4	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

I Semiquantitative result (out of instrument calibration range)

Sample Number: **L09020346-02**
Client ID: **47WW13-021709-FD**
Matrix: **Water**
Workgroup Number: **WG295390**
Collect Date: **02/17/2009 10:06**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **WTD**
Dilution: **10**
Units: **ug/L**

Instrument: **HPMS11**
Prep Date: **02/20/2009 12:52**
Cal Date: **02/06/2009 14:52**
Run Date: **02/20/2009 12:52**
File ID: **11M57239**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	100	25.0
Benzene	71-43-2		U	10.0	1.25
Bromobenzene	108-86-1		U	10.0	1.25
Bromochloromethane	74-97-5		U	10.0	2.00
Bromodichloromethane	75-27-4		U	10.0	2.50
Bromoform	75-25-2		U	10.0	5.00
Bromomethane	74-83-9		U	10.0	5.00
2-Butanone	78-93-3		U	100	25.0
n-Butylbenzene	104-51-8		U	10.0	2.50
sec-Butylbenzene	135-98-8		U	10.0	2.50
tert-Butylbenzene	98-06-6		U	10.0	2.50
Carbon disulfide	75-15-0		U	10.0	5.00
Carbon tetrachloride	56-23-5		U	10.0	2.50
Chlorobenzene	108-90-7		U	10.0	1.25
Chlorodibromomethane	124-48-1		U	10.0	2.50
Chloroethane	75-00-3		U	10.0	5.00
2-Chloroethyl vinyl ether	110-75-8		U	100	20.0
Chloroform	67-66-3		U	10.0	1.25
Chloromethane	74-87-3		U	10.0	2.50
2-Chlorotoluene	95-49-8		U	10.0	1.25
4-Chlorotoluene	106-43-4		U	10.0	2.50
1,2-Dibromo-3-chloropropane	96-12-8		U	50.0	10.0
1,2-Dibromoethane	106-93-4		U	10.0	2.50
Dibromomethane	74-95-3		U	10.0	2.50
1,2-Dichlorobenzene	95-50-1		U	10.0	1.25
1,3-Dichlorobenzene	541-73-1		U	10.0	2.50
1,4-Dichlorobenzene	106-46-7		U	10.0	1.25
Dichlorodifluoromethane	75-71-8		U	10.0	2.50
1,1-Dichloroethane	75-34-3	1.56	J	10.0	1.25
1,2-Dichloroethane	107-06-2		U	10.0	2.50
1,1-Dichloroethene	75-35-4		U	10.0	5.00
cis-1,2-Dichloroethene	156-59-2	1010		10.0	2.50
trans-1,2-Dichloroethene	156-60-5	10.6		10.0	2.50
1,2-Dichloropropane	78-87-5		U	10.0	2.00
1,3-Dichloropropane	142-28-9		U	10.0	2.00
2,2-Dichloropropane	594-20-7		U	10.0	2.50
cis-1,3-Dichloropropene	10061-01-5		U	10.0	2.50
trans-1,3-Dichloropropene	10061-02-6		U	10.0	5.00
1,1-Dichloropropene	563-58-6		U	10.0	2.50
Ethylbenzene	100-41-4		U	10.0	2.50
2-Hexanone	591-78-6		U	100	25.0
Hexachlorobutadiene	87-68-3		U	10.0	2.50
Isopropylbenzene	98-82-8		U	10.0	2.50
p-Isopropyltoluene	99-87-6		U	10.0	2.50
4-Methyl-2-pentanone	108-10-1		U	100	25.0
Methylene chloride	75-09-2		U	50.0	2.50
Naphthalene	91-20-3		U	10.0	2.00
n-Propylbenzene	103-65-1		U	10.0	1.25
Styrene	100-42-5		U	10.0	1.25
1,1,1,2-Tetrachloroethane	630-20-6		U	10.0	2.50
1,1,2,2-Tetrachloroethane	79-34-5		U	10.0	1.25
Tetrachloroethene	127-18-4		U	10.0	2.50
Toluene	108-88-3		U	10.0	2.50
1,2,3-Trichlorobenzene	87-61-6		U	10.0	1.50
1,2,4-Trichlorobenzene	120-82-1		U	10.0	2.00
1,1,1-Trichloroethane	71-55-6		U	10.0	2.50
1,1,2-Trichloroethane	79-00-5		U	10.0	2.50
Trichloroethene	79-01-6	473		10.0	2.50
Trichlorofluoromethane	75-69-4		U	10.0	2.50

Report Number: **L09020346**Report Date : **February 25, 2009**

00102861

Sample Number: **L09020346-02**
 Client ID: **47WW13-021709-FD**
 Matrix: **Water**
 Workgroup Number: **WG295390**
 Collect Date: **02/17/2009 10:06**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **WTD**
 Dilution: **10**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/20/2009 12:52**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/20/2009 12:52**
 File ID: **11M57239**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	10.0	5.00
1,2,4-Trimethylbenzene	95-63-6		U	10.0	2.50
1,3,5-Trimethylbenzene	108-67-8		U	10.0	2.50
Vinyl acetate	108-05-4		U	100	25.0
Vinyl chloride	75-01-4	105		10.0	2.50
o-Xylene	95-47-6		U	10.0	2.50
m-,p-Xylene	136777-61-2		U	10.0	5.00
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	97.9	86	118		
1,2-Dichloroethane-d4	82.1	80	120		
Toluene-d8	95.4	88	110		
4-Bromofluorobenzene	94.9	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number: L09020346-02
 Client ID: 47WW13-021709-FD
 Matrix: Water
 Workgroup Number: WG295254
 Collect Date: 02/17/2009 10:06
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: FJB
 Dilution: 1
 Units: ug/L

Instrument: HPMS11
 Prep Date: 02/19/2009 02:49
 Cal Date: 02/06/2009 14:52
 Run Date: 02/19/2009 02:49
 File ID: 11M57196

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2	0.313	J	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3	2.43		1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4	3.87		1.00	0.500
cis-1,2-Dichloroethene	156-59-2	1070	I	1.00	0.250
trans-1,2-Dichloroethene	156-60-5	13.4		1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3	0.287	J	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	567	I	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020346**Report Date : **February 25, 2009**

00102863

Sample Number: **L09020346-02**
 Client ID: **47WW13-021709-FD**
 Matrix: **Water**
 Workgroup Number: **WG295254**
 Collect Date: **02/17/2009 10:06**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/19/2009 02:49**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/19/2009 02:49**
 File ID: **11M57196**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4	128	I	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	99.2	86	118		
1,2-Dichloroethane-d4	81.9	80	120		
Toluene-d8	96.5	88	110		
4-Bromofluorobenzene	96.0	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

I Semiquantitative result (out of instrument calibration range)

Sample Number: L09020346-03
 Client ID: LHSMW50-021709
 Matrix: Water
 Workgroup Number: WG295371
 Collect Date: 02/17/2009 13:34
 Sample Tag: 01

PrePrep Method: NONE
 Prep Method: 5030B
 Analytical Method: 8260B
 Analyst: MES
 Dilution: 1
 Units: ug/L

Instrument: HPMS8
 Prep Date: 02/19/2009 20:52
 Cal Date: 02/19/2009 14:17
 Run Date: 02/19/2009 20:52
 File ID: 8M351808

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020346**Report Date : **February 25, 2009**

00102865

Sample Number: **L09020346-03**
 Client ID: **LHSMW50-021709**
 Matrix: **Water**
 Workgroup Number: **WG295371**
 Collect Date: **02/17/2009 13:34**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **MES**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS8**
 Prep Date: **02/19/2009 20:52**
 Cal Date: **02/19/2009 14:17**
 Run Date: **02/19/2009 20:52**
 File ID: **8M351808**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	93.5	86	118		
1,2-Dichloroethane-d4	80.5	80	120		
Toluene-d8	99.8	88	110		
4-Bromofluorobenzene	99.5	86	115		

U Not detected at or above adjusted sample detection limit

Sample Number: **L09020346-04**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG295254**
 Collect Date: **02/17/2009 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/18/2009 22:11**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/18/2009 22:11**
 File ID: **11M57187**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020346**Report Date : **February 25, 2009**

00102867

Sample Number: **L09020346-04**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG295254**
 Collect Date: **02/17/2009 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS11**
 Prep Date: **02/18/2009 22:11**
 Cal Date: **02/06/2009 14:52**
 Run Date: **02/18/2009 22:11**
 File ID: **11M57187**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	95.8	86	118		
1,2-Dichloroethane-d4	82.8	80	120		
Toluene-d8	97.4	88	110		
4-Bromofluorobenzene	99.0	86	115		

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100

RF = Calculated Response Factor **1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

$$Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Vs = Purge volume of sample (mL)	10
Vn = Nominal purge volume of sample (mL) (10.0 mL)	10
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

$$Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Ws = Weight of sample purged (g)	5
Wn = Nominal purge weight (g) (5.0 g)	5
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	254.4856

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

$$y = 86550/593147 = 0.1459$$

Step 3: Solve for x

$$x = (y - b)/m = [(0.1459 - (-0.00642))/0.213] = 0.7152$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.7152) = 17.88$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.213
Intercept from curve, b:	-0.00642
Area of analyte, Ax:	86550
Area of Internal Standard, Ais:	593147
Concentration of IS, Cis	25.00
Response Ratio:	0.145917
Amount Ratio:	0.715195
Concentration:	17.87988
Units of Internal Standard:	ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	-0.00629
Value of B from plot:	0.511
Value of C from plot:	-0.0276
Area of unknown from quantitation report:	293821
Area of IS from quantitation report:	784848
Response ratio, y:	0.374367
C - y:	-0.40197
Root 1 - Computed amount ratio, X1:	80.44567
Root 2 - Computed amount ratio, X2:	0.794396 use this solution
Concentration of IS, Cis:	25.00
Concentration of analyte, Cx:	19.86 ug/L

Microbac Laboratories Inc.
Instrument Run Log

00102871

Instrument: HPMS11 Dataset: 020609
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27562

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31193 LCS: STD31090 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG294332

Comments: First calibration after installation of 0.6mm id draw out plate.

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M56945	WG294332-01 50ng BFB STD 8260	NA	1	1	STD30703	02/06/09 09:21
2	11M56946	SYSTEM BLANK	NA	1	1		02/06/09 09:49
3	11M56947	WG294332-02 0.3ug/L STD 8260	NA	1	1	STD31193	02/06/09 10:22
4	11M56948	WG294332-03 0.4ug/L STD 8260	NA	1	1	STD31193	02/06/09 10:52
5	11M56949	WG294332-04 1.0ug/L STD 8260	NA	1	1	STD31193	02/06/09 11:22
6	11M56950	WG294332-05 2.0ug/L STD 8260	NA	1	1	STD31193	02/06/09 11:52
7	11M56951	WG294332-06 5.0ug/L STD 8260	NA	1	1	STD31193	02/06/09 12:22
8	11M56952	WG294332-07 20ug/L STD 8260	NA	1	1	STD31193	02/06/09 12:52
9	11M56953	WG294332-08 50ug/L STD 8260	NA	1	1	STD31193	02/06/09 13:22
10	11M56954	WG294332-09 100ug/L STD 8260	NA	1	1	STD31193	02/06/09 13:52
11	11M56955	WG294332-10 200ug/L STD 8260	NA	1	1	STD31193	02/06/09 14:22
12	11M56956	WG294332-11 300ug/L STD 8260	NA	1	1	STD31193	02/06/09 14:52
13	11M56957	SYSTEM BLANK	NA	1	1		02/06/09 15:22
14	11M56958	SYSTEM BLANK	NA	1	1		02/06/09 15:53
15	11M56959	SYSTEM BLANK	NA	1	1		02/06/09 16:24
16	11M56960	WG294332-12 20ug/L ALT SRC	NA	1	1	STD31090	02/06/09 16:54
17	11M56961	SYSTEM BLANK	NA	1	1		02/06/09 17:25
18	11M56962	SYSTEM BLANK	NA	1	1		02/06/09 17:56

Comments

Seq.	Rerun	Dil.	Reason	Analytes
16				
File ID: 11M56960				
Oxygenates spiked at 50ug/L. ALT Source OXY's reran on 10-FEB-2009.				

Approved: February 12, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102872

Instrument: HPMS11 Dataset: 021009
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27593

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31246 LCS: STD31203 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 294549

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M56989	WG294548-01 50ng BFB STD 8260	NA	1	1	STD31210	02/10/09 10:29
2	11M56990	WG294332-12 OXY ALT SOURCE	NA	1	1	STD31098	02/10/09 10:53
3	11M56991	WG294548-02 50ug/L STD 8260	NA	1	1	STD31193	02/10/09 11:23
4	11M56992	WG294549-01 BLANK 8260	NA	1	1		02/10/09 11:57
5	11M56993	WG294549-01 BLANK 8260	NA	1	1		02/10/09 12:27
6	11M56994	WG294549-02 20ug/L LCS 8260	NA	1	1	STD31090	02/10/09 12:57
7	11M56995	WG294549-03 20ug/L LCSD 8260	NA	1	1	STD31090	02/10/09 13:27
8	11M56996	SYSTEM BLANK	NA	1	1		02/10/09 13:57
9	11M56997	L09020114-08 A 826-SPE	<2	1	1		02/10/09 14:27
10	11M56998	L09020114-10 A 826-SPE	<2	1	1		02/10/09 14:57
11	11M56999	L09020114-11 A 826-SPE	<2	1	1		02/10/09 15:28
12	11M57000	L09020114-12 A 826-SPE	<2	1	1		02/10/09 15:58
13	11M57001	L09020114-13 A 826-SPE	<2	1	1		02/10/09 16:28
14	11M57002	L09020136-01 A 826-SPE	<2	1	1		02/10/09 16:58
15	11M57003	L09020136-02 A 826-SPE	<2	1	1		02/10/09 17:29
16	11M57004	L09020136-04 A 826-SPE	<2	1	1		02/10/09 17:59
17	11M57005	L09020136-05 A 826-SPE	<2	1	1		02/10/09 18:29
18	11M57006	L09020136-06 A 826-SPE	<2	1	1		02/10/09 18:59
19	11M57007	L09020136-03 A 2X 826-SPE	<2	1	2		02/10/09 19:29
20	11M57008	L09020123-01 A 100X 826-SPE	<2	1	100		02/10/09 19:59
21	11M57009	L09020123-02 A 100X 826-SPE	<2	1	100		02/10/09 20:29
22	11M57010	SYSTEM BLANK	NA	1	1		02/10/09 20:59
23	11M57011	SYSTEM BLANK	NA	1	1		02/10/09 21:29

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4	X		Carry-over contamination	
File ID: 11M56992				
DNR				
20	X	1	Analyzed too dilute	
File ID: 11M57008				
21	X	1	Analyzed too dilute	

Approved: February 12, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102873

Instrument: HPMS11 Dataset: 021009
Analyst1: WTD Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 12
Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27593

Internal Standard: STD31017 Surrogate Standard: STD31019
CCV: STD31246 LCS: STD31203 MS/MSD: NA
Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: 294549

Comments: Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 11M57009				

Approved: February 12, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102874

Instrument: HPMS11 Dataset: 021809
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27660

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31362 LCS: STD31203 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 295148,295254

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M57160	WG295147-01 50ng BFB STD 8260	NA	1	1	STD31210	02/18/09 08:32
2	11M57161	WG295147-02 50ug/L STD 8260	NA	1	1	STD31328	02/18/09 08:56
3	11M57162	WG295148-01 BLANK 8260	NA	1	1		02/18/09 09:27
4	11M57163	WG295148-01 BLANK 8260	NA	1	1		02/18/09 09:58
5	11M57164	WG295148-02 LCS 20ug/L 8260	NA	1	1	STD31203	02/18/09 10:29
6	11M57165	L09020242-02 B MS 826-BETX	<2	1	1	STD31203	02/18/09 11:00
7	11M57166	L09020242-03 B MSD 826-BETX	<2	1	1	STD31203	02/18/09 11:31
8	11M57167	SYSTEM BLANK	NA	1	1		02/18/09 12:01
9	11M57168	L09020312-10 B 826-SPE	<2	1	1		02/18/09 12:32
10	11M57169	L09020242-06 A 826-BETX	<2	1	1		02/18/09 13:03
11	11M57170	L09020240-19 A 826-SPE	<2	1	1		02/18/09 13:34
12	11M57171	L09020305-01 A 826-SPE1	<2	1	1		02/18/09 14:06
13	11M57172	L09020233-01 B 826-BETX	<2	1	1		02/18/09 14:36
14	11M57173	L09020233-02 B 826-BETX	<2	1	1		02/18/09 15:07
15	11M57174	L09020240-03 B 2.5X 826-SPE	<2	1	2.5		02/18/09 15:38
16	11M57175	L09020268-01 A 826-SPE2	<2	1	1		02/18/09 16:09
17	11M57176	L09020268-02 A 826-SPE2	<2	1	1		02/18/09 16:40
18	11M57177	L09020242-01 B 826-BETX	<2	1	1		02/18/09 17:10
19	11M57178	WG295253-01 BFB 50ng STD 8260	NA	1	1	STD31210	02/18/09 17:39
20	11M57179	WG295253-02 50ug/L STD 8260	NA	1	1	STD31362	02/18/09 18:03
21	11M57180	WG295254-01 VBLK0218 BLANK 8260	NA	1	1		02/18/09 18:36
22	11M57181	WG295254-01 VBLK0218 BLANK 8260	NA	1	1		02/18/09 19:07
23	11M57182	WG295254-02 20ug/L LCS STD 8260	NA	1	1	STD31203	02/18/09 19:37
24	11M57183	L09020244-02 10X MS B 826-SPE	<2	1	10	STD31203	02/18/09 20:08
25	11M57184	L09020244-03 10X MSD B 826-SPE	<2	1	10	STD31203	02/18/09 20:39
26	11M57185	SYSTEM BLANK	NA	1	1		02/18/09 21:10
27	11M57186	L09020244-01 B 10X 826-SPE	<2	1	10		02/18/09 21:40
28	11M57187	L09020346-04 A 826-LOW	<2	1	1		02/18/09 22:11
29	11M57188	L09020268-03 A 826-SPE2	<2	1	1		02/18/09 22:42
30	11M57189	L09020251-09 B 826-BETX	<2	1	1		02/18/09 23:13
31	11M57190	L09020296-01 5X A 826-BETX	<2	1	5		02/18/09 23:44
32	11M57191	L09020296-02 A 826-BETX	<2	1	1		02/19/09 00:15
33	11M57192	L09020296-03 A 826-BETX	<2	1	1		02/19/09 00:46
34	11M57193	L09020379-01 A 826-SPE	7	1	1		02/19/09 01:17

Approved: February 19, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102875

Instrument: HPMS11 Dataset: 021809
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27660

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31362 LCS: STD31203 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 295148,295254

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	11M57194	L09020379-02 A 826-SPE	7	1	1		02/19/09 01:47
36	11M57195	L09020346-01 A 826-LOW	<2	1	1		02/19/09 02:18
37	11M57196	L09020346-02 A 826-LOW	<2	1	1		02/19/09 02:49
38	11M57197	L09020346-03 A 826-LOW	<2	1	1		02/19/09 03:20
39	11M57198	L09020244-08 A 826-SPE	<2	1	1		02/19/09 03:51
40	11M57199	L09020244-09 A 826-SPE	<2	1	1		02/19/09 04:22
41	11M57200	L09020244-10 A 826-SPE	<2	1	1		02/19/09 04:53
42	11M57201	SYSTEM BLANK	NA	1	1		02/19/09 05:24
43	11M57202	SYSTEM BLANK	NA	1	1		02/19/09 05:55
44	11M57203	SYSTEM BLANK	NA	1	1		02/19/09 07:26
45	11M57204	SYSTEM BLANK	NA	1	1		02/19/09 08:41

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X		Carry-over contamination	
File ID: 11M57162				
			dnr	
7				
File ID: 11M57166				
Used L09020242-01 C vial due to only one vial recieved for MSD.				
21	X		Carry-over contamination	
File ID: 11M57180				
			dnr	
31	X	25	Over Calibration Range	benzene, toluene
File ID: 11M57190				
32	X	10	Over Calibration Range	benzene, ethylbenzene, toluene, m,p+o-xylene
File ID: 11M57191				
33	X	5	Over Calibration Range	m+p-xylene
File ID: 11M57192				
34	X	5	Over Calibration Range	methylene chloride
File ID: 11M57193				

Approved: February 19, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102876

Instrument: HPMS11 Dataset: 021809
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27660

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31362 LCS: STD31203 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 295148,295254

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
36	X	10	Over Calibration Range	vinyl chloride, cis-1,2-dichloroethene, trichloroethene
File ID: 11M57195				
37	X	10	Over Calibration Range	vinyl chloride, cis-1,2-dichloroethene, trichloroethene
File ID: 11M57196				
38	X	1	Carry-over contamination	
File ID: 11M57197				
dnr				
39	X	10	Over Calibration Range	vinyl chloride, cis-1,2-dichloroethene
File ID: 11M57198				
40	X	25	Over Calibration Range	vinyl chloride, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trichloroethene
File ID: 11M57199				
41	X	25	Over Calibration Range	vinyl chloride, trans-1,2-dichloroethene, cis-1,2-dichloroethene, trichloroethene
File ID: 11M57200				

Approved: February 19, 2009

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WTD



Microbac Laboratories Inc.
Instrument Run Log

00102877

Instrument: HPMS8 Dataset: 021909
 Analyst1: MES Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27679

Internal Standard: STD31335 Surrogate Standard: STD31410
 CCV: STD31425 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295276; WG295371

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	8M351783	BLANK	NA	1	1		02/19/09 07:23
2	8M351784	BLANK	NA	1	1		02/19/09 07:55
3	8M351785	WG295276-01 50NG BFB STD 8260	NA	1	1	STD30703	02/19/09 08:25
4	8M351786	WG295276-02 0.3ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 08:50
5	8M351787	WG295276-03 0.4ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 09:23
6	8M351788	WG295276-04 1ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 09:55
7	8M351789	WG295276-05 2ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 10:31
8	8M351790	WG295276-06 5ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 11:03
9	8M351791	WG295276-07 20ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 11:37
10	8M351792	WG295276-08 50ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 12:09
11	8M351793	WG295276-09 100ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 12:41
12	8M351794	WG295276-10 200ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 13:13
13	8M351795	WG295276-11 300ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 13:45
14	8M351796	WG295276-09 100ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 14:17
15	8M351797	SYSTEM BLANK	NA	1	1		02/19/09 14:49
16	8M351798	SYSTEM BLANK	NA	1	1		02/19/09 15:21
17	8M351799	WG295276-12 20ug/L ALT SOURCE	NA	1	1	STD31431	02/19/09 16:12
18	8M351800	WG295276-12 100ug/L OXY ALT SOURCE	NA	1	1	STD31431	02/19/09 16:44
19	8M351801	WG295370-01 50NG BFB STD 8260	NA	1	1	STD30703	02/19/09 17:13
20	8M351802	WG295370-02 50ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 17:39
21	8M351803	WG295370-02 50ug/L WATER STD 8260	NA	1	1	STD31425	02/19/09 18:12
22	8M351804	WG295371-01 VBLK0219 BLANK 8260	NA	1	1		02/19/09 18:44
23	8M351805	WG295371-02 20ug/L LCS 8260	NA	1	1	STD31431	02/19/09 19:16
24	8M351806	WG295371-03 20ug/L LCSDUP 8260	NA	1	1	STD31431	02/19/09 19:48
25	8M351807	L09020270-08 A 826-SPE	<2	1	1		02/19/09 20:20
26	8M351808	L09020346-03 B 826-LOW	<2	1	1		02/19/09 20:52
27	8M351809	L09020270-05 A 826-SPE	<2	1	1		02/19/09 21:24
28	8M351810	L09020270-07 A 826-SPE	<2	1	1		02/19/09 21:56
29	8M351811	L09020270-01 A 5X 826-SPE	4	1	5		02/19/09 22:29
30	8M351812	L09020270-02 A 10X 826-SPE	<2	1	10		02/19/09 23:01
31	8M351813	L09020270-03 A 5X 826-SPE	<2	1	5		02/19/09 23:33
32	8M351814	L09020270-04 A 10X 826-SPE	<2	1	10		02/20/09 00:05
33	8M351815	L09020270-06 A 10X 826-SPE	<2	1	10		02/20/09 00:37
34	8M351816	L09020271-01 A 10X 826-SPE	<2	1	10		02/20/09 01:09

Approved: February 20, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102878

Instrument: HPMS8 Dataset: 021909
 Analyst1: MES Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27679

Internal Standard: STD31335 Surrogate Standard: STD31410
 CCV: STD31425 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295276; WG295371

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	8M351817	L09020271-02 A 5X 826-SPE	<2	1	5		02/20/09 01:41
36	8M351818	L09020271-03 A 2.5X 826-SPE	<2	1	5		02/20/09 02:13
37	8M351819	L09020271-04 A 2.5X 826-SPE	<2	1	5		02/20/09 02:45
38	8M351820	L09020271-05 A 5X 826-SPE	<2	1	5		02/20/09 03:17
39	8M351821	L09020271-06 A 5X 826-SPE	<2	1	5		02/20/09 03:49
40	8M351822	L09020271-07 A 5X 826-SPE	<2	1	5		02/20/09 04:21
41	8M351823	L09020408-01 A 826-LOW	4	1	1		02/20/09 04:53
42	8M351824	SYSTEM BLANK	NA	1	1		02/20/09 05:25
43	8M351825	SYSTEM BLANK	NA	1	1		02/20/09 05:57
44	8M351826	SYSTEM BLANK	NA	1	1		02/20/09 06:29

Comments

Seq.	Rerun	Dil.	Reason	Analytes
11	X	100		
File ID: 8M351793				
DNR.				
20	X			
File ID: 8M351802				
DNR.				
32	X	5	Analyzed too dilute	
File ID: 8M351814				
33	X	5	Analyzed too dilute	
File ID: 8M351815				
34	X	5	Analyzed too dilute	
File ID: 8M351816				
35	X	2.5	Analyzed too dilute	
File ID: 8M351817				
37	X	1	Analyzed too dilute	
File ID: 8M351819				
38	X	1	Analyzed too dilute	

Approved: February 20, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102879

Instrument: HPMS8 Dataset: 021909
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 12
Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27679

Internal Standard: STD31335 Surrogate Standard: STD31410
CCV: STD31425 LCS: STD31431 MS/MSD: NA
Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG295276; WG295371

Comments: Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 8M351820				
40	X	2.5	Analyzed too dilute	
File ID: 8M351822				
41	X	10	Over Calibration Range	NAPH
File ID: 8M351823				

Approved: February 20, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102880

Instrument: HPMS11 Dataset: 022009
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27700

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31425 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 295390, 295491

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	11M57229	WG295289-01 50ng BFB STD 8260	NA	1	1	STD31210	02/20/09 07:48
2	11M57230	WG295389-02 50ug/L STD 8260	NA	1	1	STD31425	02/20/09 08:14
3	11M57231	WG295390-01 BLANK 8260	NA	1	1		02/20/09 08:45
4	11M57232	WG295390-01 BLANK 8260	NA	1	1		02/20/09 09:16
5	11M57233	WG295390-02 LCS 20ug/L 8260	NA	1	1	STD31431	02/20/09 09:47
6	11M57234	WG295390-03 LCSD 20ug/L 8260	NA	1	1	STD31431	02/20/09 10:17
7	11M57235	WG295390-04 624 BLANK	NA	1	1		02/20/09 10:48
8	11M57236	L09020386-01 A 624-SPE	7	2	1		02/20/09 11:19
9	11M57237	L09020386-02 A 624-SPE	7	2	1		02/20/09 11:50
10	11M57238	L09020346-01 B 10X 826-LOW	<2	1	10		02/20/09 12:21
11	11M57239	L09020346-02 B 10X 826-LOW	<2	1	10		02/20/09 12:52
12	11M57240	L09020244-08 B 10X 826-LOW	<2	1	10		02/20/09 13:23
13	11M57241	L09020244-09 B 25X 826-LOW	<2	1	25		02/20/09 13:54
14	11M57242	L09020244-10 B 25X 826-LOW	<2	1	25		02/20/09 14:24
15	11M57243	L09020296-02 C 25X 826-LOW	<2	1	25		02/20/09 14:55
16	11M57244	L09020244-09 B 100X 826-LOW	<2	1	100		02/20/09 15:26
17	11M57245	L09020244-10 B 100X 826-LOW	<2	1	100		02/20/09 15:57
18	11M57246	WG295490-01 50ng BFB STD 8260	NA	1	1	STD31210	02/20/09 17:18
19	11M57247	WG295490-02 50ug/L STD 8260	NA	1	1	STD31425	02/20/09 17:43
20	11M57248	WG295491-01 BLANK 8260	NA	1	1		02/20/09 18:14
21	11M57249	WG295491-01 BLANK 8260	NA	1	1		02/20/09 18:44
22	11M57250	WG295491-02 LCS 20ug/L 8260	NA	1	1	STD31431	02/20/09 19:15
23	11M57251	L09020271-17 A MS 20X 826-SPE	<2	1	20	STD31431	02/20/09 19:46
24	11M57252	L09020271-18 A MSD 20X 826-SPE	<2	1	20	STD31431	02/20/09 20:17
25	11M57253	SYSTEM BLANK	NA	1	1		02/20/09 20:48
26	11M57254	L09020244-13 B 826-SPE	<2	1	1		02/20/09 21:18
27	11M57255	L09020244-12 A 826-SPE	<2	1	1		02/20/09 21:49
28	11M57256	L09020271-14 A 20X 826-SPE	<2	1	20		02/20/09 22:20
29	11M57257	L09020244-05 A 1000X 826-SPE	<2	1	1000		02/20/09 22:51
30	11M57258	L09020244-06 A 2500X 826-SPE	<2	1	2500		02/20/09 23:22
31	11M57259	L09020244-07 A 1000X 826-SPE	<2	1	1000		02/20/09 23:53
32	11M57260	L09020244-11 A 25X 826-SPE	<2	1	25		02/21/09 00:24
33	11M57261	L09020271-09 A 5X 826-SPE	<2	1	5		02/21/09 00:55
34	11M57262	L09020271-10 A 10X 826-SPE	<2	1	10		02/21/09 01:26

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102881

Instrument: HPMS11 Dataset: 022009
 Analyst1: WTD Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 5030B/5035 SOP: PAT01 Rev: 11

Maintenance Log ID: 27700

Internal Standard: STD31017 Surrogate Standard: STD31019
 CCV: STD31425 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: 295390, 295491

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
35	11M57263	L09020271-11 A 5X 826-SPE	<2	1	5		02/21/09 01:57
36	11M57264	L09020271-12 A 10X 826-SPE	<2	1	10		02/21/09 02:28
37	11M57265	L09020271-15 A 5X 826-SPE	<2	1	5		02/21/09 02:59
38	11M57266	L09020271-19 A 20X 826-SPE	<2	1	20		02/21/09 03:29
39	11M57267	L09020271-16 A 10X 826-SPE	<2	1	10		02/21/09 04:00
40	11M57268	SYSTEM BLANK	NA	1	1		02/21/09 04:31
41	11M57269	SYSTEM BLANK	NA	1	5		02/21/09 05:02

Comments

Seq.	Rerun	Dil.	Reason	Analytes
3	X		Carry-over contamination	
File ID: 11M57231				
DNR				
20	X		Carry-over contamination	
File ID: 11M57248				
DNR				
29	X	10	Analyzed too dilute	
File ID: 11M57257				
DNR				
30	X	500	Analyzed too dilute	
File ID: 11M57258				
DNR				
31	X	10	Analyzed too dilute	
File ID: 11M57259				
DNR				
32	X	1	Analyzed too dilute	
File ID: 11M57260				
DNR				

Approved: February 23, 2009

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Microbac Laboratories Inc.

00102882

Data Checklist

Date: 06-FEB-2009

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

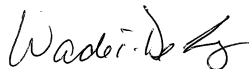
Curve Workgroup: NA

Runlog ID: 26468

Analytical Workgroups: 294332

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	
Reruns	
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
10-FEB-2009



Secondary Reviewer:
12-FEB-2009




Microbac Laboratories Inc.

00102883

Data Checklist

Date: 10-FEB-2009

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

Curve Workgroup: NA

Runlog ID: 26501

Analytical Workgroups: 294549

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
12-FEB-2009

Secondary Reviewer:
12-FEB-2009



Microbac Laboratories Inc.

00102884

Data Checklist

Date: 18-FEB-2009

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

Curve Workgroup: NA

Runlog ID: 26589

Analytical Workgroups: 295148, 295254

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
19-FEB-2009

Secondary Reviewer:
19-FEB-2009



Microbac Laboratories Inc.

00102885

Data Checklist

Date: 19-FEB-2009

Analyst: MES

Analyst: NA

Method: 8260

Instrument: HPMS8

Curve Workgroup: NA

Runlog ID: 26615

Analytical Workgroups: WG295371; WG295276

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
20-FEB-2009



Secondary Reviewer:
20-FEB-2009




Microbac Laboratories Inc.

00102886

Data Checklist

Date: 20-FEB-2009

Analyst: WTD

Analyst: NA

Method: 8260

Instrument: HPMS11

Curve Workgroup: NA

Runlog ID: 26637

Analytical Workgroups: 295390, 295491

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	WTD
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
23-FEB-2009

Secondary Reviewer:
23-FEB-2009



Analytical Method: 8260B

AAB#: WG295254

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW13-021709	02/17/09	02/18/09	02/19/09	14	1.68	02/19/09	14	1.68	
47WW13-021709-FD	02/17/09	02/18/09	02/19/09	14	1.70	02/19/09	14	1.70	
TRIP BLANK	02/17/09	02/18/09	02/18/09	14	1.92	02/18/09	14	1.92	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

Analytical Method: 8260B

AAB#: WG295371

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
LHSMW50-021709	02/17/09	02/18/09	02/19/09	14	2.30	02/19/09	14	2.30	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Analytical Method: 8260B

AAB#: WG295390

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW13-021709-FD	02/17/09	02/18/09	02/20/09	14	3.12	02/20/09	14	3.12	
47WW13-021709	02/17/09	02/18/09	02/20/09	14	3.09	02/20/09	14	3.09	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Login Number: L09020346
Instrument Id: HPMS11
Workgroup (AAB#): WG295254

Method: 8260
CAL ID: HPMS11 - 06-FEB-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09020346-01	1.00	01	82.4	99.9	96.4	95.6
L09020346-02	1.00	01	81.9	99.2	96.0	96.5
L09020346-04	1.00	01	82.8	95.8	99.0	97.4
WG295254-01	1.00	01	84.8	95.2	99.1	99.3
WG295254-02	1.00	01	84.0	97.9	94.8	97.6

Surrogates	Surrogate Limits
1 - 1,2-Dichloroethane-d4	80 - 120
2 - Dibromofluoromethane	86 - 118
3 - 4-Bromofluorobenzene	86 - 115
4 - Toluene-d8	88 - 110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Login Number: L09020346
Instrument Id: HPMS8
Workgroup (AAB#): WG295371

Method: 8260
CAL ID: HPMS8 - 19-FEB-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09020346-03	1.00	01	80.5	93.5	99.5	99.8
WG295371-01	1.00	01	<u>77.4</u>	93.4	99.1	100
WG295371-02	1.00	01	<u>79.1</u>	95.2	99.0	101
WG295371-03	1.00	01	<u>75.4</u>	92.8	98.3	99.6

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Login Number: L09020346
Instrument Id: HPMS11
Workgroup (AAB#): WG295390

Method: 8260
CAL ID: HPMS11 - 06-FEB-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09020346-01	10.0	DL01	82.7	97.4	97.2	96.6
L09020346-02	10.0	DL01	82.1	97.9	94.9	95.4
WG295390-01	1.00	01	80.7	97.4	96.1	96.3
WG295390-02	1.00	01	80.2	96.4	93.9	94.2
WG295390-03	1.00	01	79.8	98.5	94.5	94.6
WG295390-04	1.00	01	80.6	97.3	96.5	94.9

Surrogates	Surrogate Limits
1 - 1,2-Dichloroethane-d4	80 - 120
2 - Dibromofluoromethane	86 - 118
3 - 4-Bromofluorobenzene	86 - 115
4 - Toluene-d8	88 - 110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

00102893

Login Number:	<u>L09020346</u>	Work Group:	<u>WG295254</u>
Blank File ID:	<u>11M57181</u>	Blank Sample ID:	<u>WG295254-01</u>
Prep Date:	<u>02/18/09 19:07</u>	Instrument ID:	<u>HPMS11</u>
Analyzed Date:	<u>02/18/09 19:07</u>	Method:	<u>8260B</u>
Analyst:	<u>FJB</u>		

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295254-02	11M57182	02/18/09 19:37	01
TRIP BLANK	L09020346-04	11M57187	02/18/09 22:11	01
47WW13-021709	L09020346-01	11M57195	02/19/09 02:18	01
47WW13-021709-FD	L09020346-02	11M57196	02/19/09 02:49	01

Report Name: BLANK_SUMMARY
PDF File ID: 1323423
Report generated 02/24/2009 13:28



METHOD BLANK SUMMARY

00102894

Login Number: <u>L09020346</u>	Work Group: <u>WG295390</u>
Blank File ID: <u>11M57232</u>	Blank Sample ID: <u>WG295390-01</u>
Prep Date: <u>02/20/09 09:16</u>	Instrument ID: <u>HPMS11</u>
Analyzed Date: <u>02/20/09 09:16</u>	Method: <u>8260B</u>
Analyst: <u>WTD</u>	

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295390-02	11M57233	02/20/09 09:47	01
LCS2	WG295390-03	11M57234	02/20/09 10:17	01
47WW13-021709	L09020346-01	11M57238	02/20/09 12:21	DL01
47WW13-021709-FD	L09020346-02	11M57239	02/20/09 12:52	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 1323423
Report generated 02/24/2009 13:28



METHOD BLANK SUMMARY

00102895

Login Number: L09020346
Blank File ID: 8M351804
Prep Date: 02/19/09 18:44
Analyzed Date: 02/19/09 18:44
Analyst: MES

Work Group: WG295371
Blank Sample ID: WG295371-01
Instrument ID: HPMS8
Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295371-02	8M351805	02/19/09 19:16	01
LCS2	WG295371-03	8M351806	02/19/09 19:48	01
LHSMW50-021709	L09020346-03	8M351808	02/19/09 20:52	01

Report Name: BLANK_SUMMARY
PDF File ID: 1323423
Report generated 02/24/2009 13:28



Login Number: L09020346	Prep Date: 02/18/09 19:07	Sample ID: WG295254-01
Instrument ID: HPMS11	Run Date: 02/18/09 19:07	Prep Method: 5030B
File ID: 11M57181	Analyst: FJB	Method: 8260B
Workgroup (AAB#): WG295254	Matrix: Water	Units: ug/L
Contract #: DACA56-94-D-0020	Cal ID: HPMS11 - 06-FEB-09	

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1324573

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Login Number: L09020346 Prep Date: 02/18/09 19:07 Sample ID: WG295254-01
 Instrument ID: HPMS11 Run Date: 02/18/09 19:07 Prep Method: 5030B
 File ID: 11M57181 Analyst: FJB Method: 8260B
 Workgroup (AAB#): WG295254 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 06-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	95.2	86 - 118	PASS
1,2-Dichloroethane-d4	84.8	80 - 120	PASS
Toluene-d8	99.3	88 - 110	PASS
4-Bromofluorobenzene	99.1	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1324573

24-FEB-2009 13:28



Login Number: L09020346 Prep Date: 02/20/09 09:16 Sample ID: WG295390-01
 Instrument ID: HPMS11 Run Date: 02/20/09 09:16 Prep Method: 5030B
 File ID: 11M57232 Analyst: WTD Method: 8260B
 Workgroup (AAB#): WG295390 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 06-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1324573

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Login Number: L09020346 Prep Date: 02/20/09 09:16 Sample ID: WG295390-01
 Instrument ID: HPMS11 Run Date: 02/20/09 09:16 Prep Method: 5030B
 File ID: 11M57232 Analyst: WTD Method: 8260B
 Workgroup (AAB#): WG295390 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS11 - 06-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	97.4	86 - 118	PASS
1,2-Dichloroethane-d4	80.7	80 - 120	PASS
Toluene-d8	96.3	88 - 110	PASS
4-Bromofluorobenzene	96.1	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1324573

24-FEB-2009 13:28



Login Number: L09020346 Prep Date: 02/19/09 18:44 Sample ID: WG295371-01
 Instrument ID: HPMS8 Run Date: 02/19/09 18:44 Prep Method: 5030B
 File ID: 8M351804 Analyst: MES Method: 8260B
 Workgroup (AAB#): WG295371 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS8 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.402	1	J

Report Name: BLANK

PDF ID: 1324573

24-FEB-2009 13:28



Login Number: L09020346 Prep Date: 02/19/09 18:44 Sample ID: WG295371-01
 Instrument ID: HPMS8 Run Date: 02/19/09 18:44 Prep Method: 5030B
 File ID: 8M351804 Analyst: MES Method: 8260B
 Workgroup (AAB#): WG295371 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS8 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.393	1	J
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.417	1	J
1,2,4-Trichlorobenzene	0.200	1.00	0.366	1	J
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	93.4	86 - 118	PASS
1,2-Dichloroethane-d4	77.4	80 - 120	FAIL
Toluene-d8	100	88 - 110	PASS
4-Bromofluorobenzene	99.1	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1324573

24-FEB-2009 13:28



Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295254-02
Instrument ID: HPMS11 Run Time: 19:37 Prep Method: 5030B
File ID: 11M57182 Analyst: FJB Method: 8260B
Workgroup (AAB#): WG295254 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD31203 Cal ID: HPMS11 - 06-FEB-09

Analytes	Expected	Found	% Rec	LCS Limits			Q
Acetone	20.0	23.2	116	40	-	142	
Benzene	20.0	18.9	94.7	80	-	121	
Bromobenzene	20.0	19.5	97.7	80	-	120	
Bromochloromethane	20.0	20.8	104	65	-	130	
Bromodichloromethane	20.0	19.3	96.7	80	-	131	
Bromoform	20.0	18.6	92.9	70	-	130	
Bromomethane	20.0	23.6	118	30	-	145	
2-Butanone	20.0	27.4	137	30	-	150	
n-Butylbenzene	20.0	18.9	94.4	80	-	131	
sec-Butylbenzene	20.0	19.3	96.3	80	-	127	
tert-Butylbenzene	20.0	19.7	98.7	80	-	126	
Carbon disulfide	20.0	17.9	89.4	58	-	138	
Carbon tetrachloride	20.0	19.3	96.3	65	-	140	
Chlorobenzene	20.0	18.8	94.2	80	-	120	
Chlorodibromomethane	20.0	20.1	101	60	-	135	
Chloroethane	20.0	21.0	105	60	-	135	
2-Chloroethyl vinyl ether	20.0	18.7	93.6	58	-	151	
Chloroform	20.0	18.6	92.9	80	-	125	
Chloromethane	20.0	15.9	79.6	40	-	125	
2-Chlorotoluene	20.0	18.0	89.9	80	-	127	
4-Chlorotoluene	20.0	18.5	92.4	80	-	126	
1,2-Dibromo-3-chloropropane	20.0	16.7	83.3	50	-	130	
1,2-Dibromoethane	20.0	20.0	100	80	-	125	
Dibromomethane	20.0	20.2	101	75	-	125	
1,2-Dichlorobenzene	20.0	19.6	98.1	80	-	125	
1,3-Dichlorobenzene	20.0	18.8	94.2	80	-	120	
1,4-Dichlorobenzene	20.0	18.5	92.3	80	-	120	
Dichlorodifluoromethane	20.0	17.9	89.3	50	-	133	
1,1-Dichloroethane	20.0	19.5	97.6	80	-	125	
1,2-Dichloroethane	20.0	18.0	89.9	80	-	129	
1,1-Dichloroethene	20.0	19.1	95.3	80	-	132	
cis-1,2-Dichloroethene	20.0	20.0	100	70	-	125	
trans-1,2-Dichloroethene	20.0	18.6	93.0	80	-	127	
1,2-Dichloropropane	20.0	20.5	102	80	-	120	
1,3-Dichloropropane	20.0	19.4	97.2	80	-	120	
2,2-Dichloropropane	20.0	18.7	93.6	80	-	133	
cis-1,3-Dichloropropene	20.0	18.6	92.9	70	-	130	
trans-1,3-Dichloropropene	20.0	16.9	84.5	80	-	130	
1,1-Dichloropropene	20.0	19.1	95.4	75	-	130	
Ethylbenzene	20.0	19.7	98.7	80	-	122	
2-Hexanone	20.0	19.1	95.3	55	-	130	

LCS - Modified 03/06/2008
PDF File ID: 1322799
Report generated: 02/24/2009 14:29



Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295254-02
Instrument ID: HPMS11 Run Time: 19:37 Prep Method: 5030B
File ID: 11M57182 Analyst: FJB Method: 8260B
Workgroup (AAB#): WG295254 Matrix: Water Units: ug/L
QC Key: STD Lot#: STD31203 Cal ID: HPMS11 - 06-FEB-09

Analytes	Expected	Found	% Rec	LCS Limits	Q
Hexachlorobutadiene	20.0	19.3	96.5	72 - 132	
Isopropylbenzene	20.0	17.2	85.8	80 - 122	
p-Isopropyltoluene	20.0	18.6	92.9	80 - 122	
4-Methyl-2-pentanone	20.0	19.2	96.2	64 - 140	
Methylene chloride	20.0	19.3	96.4	80 - 123	
Naphthalene	20.0	20.3	101	59 - 149	
n-Propylbenzene	20.0	19.3	96.3	80 - 129	
Styrene	20.0	19.6	97.9	80 - 123	
1,1,1,2-Tetrachloroethane	20.0	19.2	96.2	80 - 130	
1,1,2,2-Tetrachloroethane	20.0	19.2	95.8	79 - 125	
Tetrachloroethene	20.0	19.5	97.3	80 - 124	
Toluene	20.0	19.5	97.6	80 - 124	
1,2,3-Trichlorobenzene	20.0	19.7	98.3	55 - 140	
1,2,4-Trichlorobenzene	20.0	19.4	97.2	65 - 135	
1,1,1-Trichloroethane	20.0	18.3	91.5	80 - 134	
1,1,2-Trichloroethane	20.0	20.1	101	80 - 125	
Trichloroethene	20.0	18.1	90.3	80 - 122	
Trichlorofluoromethane	20.0	18.1	90.5	62 - 151	
1,2,3-Trichloropropane	20.0	19.6	98.1	75 - 125	
1,2,4-Trimethylbenzene	20.0	18.9	94.3	80 - 125	
1,3,5-Trimethylbenzene	20.0	19.2	95.8	80 - 127	
Vinyl acetate	20.0	23.7	118	10 - 150	
Vinyl chloride	20.0	16.9	84.4	65 - 140	
o-Xylene	20.0	19.8	99.1	80 - 122	
m-,p-Xylene	40.0	38.8	97.0	80 - 122	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	97.9	86 - 118	PASS
1,2-Dichloroethane-d4	84.0	80 - 120	PASS
Toluene-d8	97.6	88 - 110	PASS
4-Bromofluorobenzene	94.8	86 - 115	PASS

* FAILS %REC LIMIT

Login Number: L09020346 Analyst: MES Prep Method: 5030B
Instrument ID: HPMS8 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295371 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295371-02 LCS File ID: 8M351805 Run Date: 02/19/2009 19:16
Sample ID: WG295371-03 LCS2 File ID: 8M351806 Run Date: 02/19/2009 19:48

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	21.3	107	20.0	19.8	99.2	7.21	40 - 142	20	
Benzene	20.0	21.2	106	20.0	20.4	102	3.69	80 - 121	20	
Bromobenzene	20.0	21.4	107	20.0	20.6	103	3.65	80 - 120	20	
Bromochloromethane	20.0	21.6	108	20.0	20.7	103	4.19	65 - 130	20	
Bromodichloromethane	20.0	19.1	95.5	20.0	18.0	89.9	6.09	80 - 131	20	
Bromoform	20.0	18.2	90.9	20.0	17.3	86.4	5.08	70 - 130	20	
Bromomethane	20.0	22.7	114	20.0	21.3	106	6.59	30 - 145	20	
2-Butanone	20.0	25.9	130	20.0	24.2	121	6.88	30 - 150	20	
n-Butylbenzene	20.0	21.7	108	20.0	21.0	105	3.31	80 - 131	20	
sec-Butylbenzene	20.0	21.9	109	20.0	21.1	106	3.46	80 - 127	20	
tert-Butylbenzene	20.0	21.9	110	20.0	21.7	108	1.20	80 - 126	20	
Carbon disulfide	20.0	18.3	91.3	20.0	16.7	83.4	9.09	58 - 138	20	
Carbon tetrachloride	20.0	18.3	91.5	20.0	17.1	85.4	6.87	65 - 140	20	
Chlorobenzene	20.0	20.8	104	20.0	20.0	100	3.94	80 - 120	20	
Chlorodibromomethane	20.0	19.8	99.2	20.0	18.9	94.6	4.72	60 - 135	20	
Chloroethane	20.0	23.1	115	20.0	22.0	110	4.98	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	22.0	110	20.0	20.4	102	7.77	58 - 151	20	
Chloroform	20.0	18.5	92.7	20.0	17.9	89.3	3.75	80 - 125	20	
Chloromethane	20.0	18.7	93.3	20.0	17.7	88.7	5.13	40 - 125	20	
2-Chlorotoluene	20.0	21.5	108	20.0	21.6	108	0.565	80 - 127	20	
4-Chlorotoluene	20.0	20.3	101	20.0	19.1	95.5	6.02	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.7	93.6	20.0	17.3	86.5	7.83	50 - 130	20	
1,2-Dibromoethane	20.0	20.5	103	20.0	19.9	99.3	3.33	80 - 125	20	
Dibromomethane	20.0	19.6	98.1	20.0	18.6	93.1	5.31	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.3	101	20.0	19.9	99.4	2.07	80 - 125	20	
1,3-Dichlorobenzene	20.0	20.8	104	20.0	20.1	101	3.21	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.5	97.7	20.0	19.2	95.8	1.94	80 - 120	20	
Dichlorodifluoromethane	20.0	20.0	100	20.0	18.5	92.7	7.69	50 - 133	20	
1,1-Dichloroethane	20.0	20.3	102	20.0	19.7	98.7	2.83	80 - 125	20	
1,2-Dichloroethane	20.0	17.3	86.6	20.0	16.4	82.2	5.15	80 - 129	20	
1,1-Dichloroethene	20.0	19.9	99.6	20.0	18.4	92.2	7.72	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.9	110	20.0	21.0	105	4.43	70 - 125	20	
trans-1,2-Dichloroethene	20.0	20.3	102	20.0	19.3	96.3	5.46	80 - 127	20	
1,2-Dichloropropane	20.0	21.3	107	20.0	20.7	104	2.88	80 - 120	20	
1,3-Dichloropropane	20.0	21.0	105	20.0	20.3	101	3.38	80 - 120	20	
2,2-Dichloropropane	20.0	18.5	92.6	20.0	17.4	86.9	6.41	80 - 133	20	
cis-1,3-Dichloropropene	20.0	20.6	103	20.0	19.8	98.9	4.09	70 - 130	20	
trans-1,3-Dichloropropene	20.0	18.1	90.4	20.0	17.1	85.7	5.31	80 - 130	20	
1,1-Dichloropropene	20.0	21.3	107	20.0	19.9	99.4	7.12	75 - 130	20	
Ethylbenzene	20.0	21.7	108	20.0	20.8	104	4.24	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1324528
Report generated: 02/24/2009 13:28



Login Number: L09020346 Analyst: MES Prep Method: 5030B
Instrument ID: HPMS8 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295371 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295371-02 LCS File ID: 8M351805 Run Date: 02/19/2009 19:16
Sample ID: WG295371-03 LCS2 File ID: 8M351806 Run Date: 02/19/2009 19:48

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	19.7	98.5	20.0	17.6	88.2	11.0	55 - 130	20	
Hexachlorobutadiene	20.0	19.9	99.6	20.0	19.2	95.8	3.85	72 - 132	20	
Isopropylbenzene	20.0	19.9	99.5	20.0	18.9	94.3	5.32	80 - 122	20	
p-Isopropyltoluene	20.0	21.6	108	20.0	20.8	104	3.91	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.2	95.8	20.0	17.9	89.3	7.12	64 - 140	20	
Methylene chloride	20.0	21.8	109	20.0	19.4	97.2	11.3	80 - 123	20	
Naphthalene	20.0	21.7	108	20.0	20.6	103	5.08	59 - 149	20	
n-Propylbenzene	20.0	22.4	112	20.0	21.5	107	4.15	80 - 129	20	
Styrene	20.0	22.2	111	20.0	21.2	106	4.77	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	20.0	100	20.0	19.1	95.3	4.91	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	20.4	102	20.0	19.6	97.8	3.99	79 - 125	20	
Tetrachloroethene	20.0	20.7	104	20.0	19.8	98.8	4.85	80 - 124	20	
Toluene	20.0	21.6	108	20.0	20.7	103	4.27	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	19.9	99.7	20.0	19.4	97.2	2.58	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	20.9	105	20.0	20.2	101	3.64	65 - 135	20	
1,1,1-Trichloroethane	20.0	18.3	91.6	20.0	17.2	85.8	6.53	80 - 134	20	
1,1,2-Trichloroethane	20.0	21.2	106	20.0	20.0	100	5.57	80 - 125	20	
Trichloroethene	20.0	21.9	109	20.0	20.5	102	6.40	80 - 122	20	
Trichlorofluoromethane	20.0	19.3	96.3	20.0	17.1	85.4	12.0	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.3	101	20.0	19.4	96.8	4.55	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.7	108	20.0	21.2	106	2.33	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	22.6	113	20.0	21.9	109	3.47	80 - 127	20	
Vinyl acetate	20.0	15.2	76.0	20.0	14.7	73.3	3.66	10 - 150	20	
Vinyl chloride	20.0	19.2	96.2	20.0	17.9	89.7	6.98	65 - 140	20	
o-Xylene	20.0	22.7	114	20.0	21.9	109	3.78	80 - 122	20	
m-, p-Xylene	40.0	43.6	109	40.0	41.4	103	5.16	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	79.1	75.4	80 - 120	FAIL
Dibromofluoromethane	95.2	92.8	86 - 118	PASS
4-Bromofluorobenzene	99.0	98.3	86 - 115	PASS
Toluene-d8	101	99.6	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1324528
Report generated: 02/24/2009 13:28



Login Number: L09020346 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295390 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295390-02 LCS File ID: 11M57233 Run Date: 02/20/2009 09:47
Sample ID: WG295390-03 LCS2 File ID: 11M57234 Run Date: 02/20/2009 10:17

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	20.5	103	20.0	21.1	105	2.69	40 - 142	20	
Benzene	20.0	19.1	95.5	20.0	18.9	94.6	0.867	80 - 121	20	
Bromobenzene	20.0	20.7	104	20.0	20.7	104	0.0722	80 - 120	20	
Bromochloromethane	20.0	22.5	112	20.0	22.2	111	1.17	65 - 130	20	
Bromodichloromethane	20.0	19.5	97.6	20.0	19.3	96.7	0.925	80 - 131	20	
Bromoform	20.0	19.5	97.6	20.0	19.4	96.8	0.773	70 - 130	20	
Bromomethane	20.0	25.2	126	20.0	25.1	126	0.498	30 - 145	20	
2-Butanone	20.0	25.4	127	20.0	25.4	127	0.177	30 - 150	20	
n-Butylbenzene	20.0	18.8	94.0	20.0	18.3	91.7	2.43	80 - 131	20	
sec-Butylbenzene	20.0	19.8	99.1	20.0	19.5	97.3	1.78	80 - 127	20	
tert-Butylbenzene	20.0	20.6	103	20.0	20.5	102	0.729	80 - 126	20	
Carbon disulfide	20.0	18.2	91.1	20.0	18.0	90.2	0.980	58 - 138	20	
Carbon tetrachloride	20.0	19.8	98.8	20.0	19.7	98.3	0.485	65 - 140	20	
Chlorobenzene	20.0	19.4	96.9	20.0	19.3	96.4	0.514	80 - 120	20	
Chlorodibromomethane	20.0	20.8	104	20.0	20.8	104	0.100	60 - 135	20	
Chloroethane	20.0	21.1	105	20.0	20.9	105	0.648	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	18.7	93.4	20.0	18.7	93.5	0.185	58 - 151	20	
Chloroform	20.0	18.7	93.6	20.0	18.5	92.5	1.15	80 - 125	20	
Chloromethane	20.0	14.5	72.5	20.0	14.5	72.4	0.0428	40 - 125	20	
2-Chlorotoluene	20.0	18.7	93.6	20.0	18.6	93.2	0.420	80 - 127	20	
4-Chlorotoluene	20.0	18.1	90.5	20.0	17.6	88.1	2.64	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	16.9	84.6	20.0	16.3	81.5	3.76	50 - 130	20	
1,2-Dibromoethane	20.0	20.9	105	20.0	21.2	106	1.46	80 - 125	20	
Dibromomethane	20.0	20.3	102	20.0	20.4	102	0.0874	75 - 125	20	
1,2-Dichlorobenzene	20.0	20.0	100	20.0	20.2	101	0.750	80 - 125	20	
1,3-Dichlorobenzene	20.0	19.7	98.4	20.0	19.5	97.7	0.778	80 - 120	20	
1,4-Dichlorobenzene	20.0	19.0	95.2	20.0	18.9	94.3	0.879	80 - 120	20	
Dichlorodifluoromethane	20.0	23.4	117	20.0	23.5	117	0.0390	50 - 133	20	
1,1-Dichloroethane	20.0	19.2	96.0	20.0	18.7	93.5	2.59	80 - 125	20	
1,2-Dichloroethane	20.0	17.7	88.3	20.0	17.5	87.7	0.609	80 - 129	20	
1,1-Dichloroethene	20.0	18.7	93.5	20.0	18.3	91.4	2.33	80 - 132	20	
cis-1,2-Dichloroethene	20.0	20.6	103	20.0	20.5	103	0.388	70 - 125	20	
trans-1,2-Dichloroethene	20.0	19.5	97.6	20.0	19.3	96.7	0.861	80 - 127	20	
1,2-Dichloropropane	20.0	19.7	98.3	20.0	19.8	98.9	0.569	80 - 120	20	
1,3-Dichloropropane	20.0	18.8	94.0	20.0	18.9	94.3	0.314	80 - 120	20	
2,2-Dichloropropane	20.0	19.2	96.2	20.0	18.8	93.8	2.55	80 - 133	20	
cis-1,3-Dichloropropene	20.0	18.9	94.6	20.0	18.7	93.6	1.09	70 - 130	20	
trans-1,3-Dichloropropene	20.0	16.6	83.2	20.0	16.5	82.7	0.619	80 - 130	20	
1,1-Dichloropropene	20.0	19.0	95.1	20.0	18.8	93.9	1.30	75 - 130	20	
Ethylbenzene	20.0	20.1	100	20.0	20.1	101	0.358	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1324528
Report generated: 02/24/2009 13:28



Login Number: L09020346 Analyst: WTD Prep Method: 5030B
Instrument ID: HPMS11 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295390 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295390-02 LCS File ID: 11M57233 Run Date: 02/20/2009 09:47
Sample ID: WG295390-03 LCS2 File ID: 11M57234 Run Date: 02/20/2009 10:17

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	18.0	89.8	20.0	18.1	90.4	0.609	55 - 130	20	
Hexachlorobutadiene	20.0	20.7	103	20.0	20.7	103	0.229	72 - 132	20	
Isopropylbenzene	20.0	17.6	87.9	20.0	17.5	87.4	0.507	80 - 122	20	
p-Isopropyltoluene	20.0	19.2	96.0	20.0	18.9	94.4	1.72	80 - 122	20	
4-Methyl-2-pentanone	20.0	19.9	99.6	20.0	19.6	98.0	1.54	64 - 140	20	
Methylene chloride	20.0	19.6	98.0	20.0	19.2	95.9	2.20	80 - 123	20	
Naphthalene	20.0	20.8	104	20.0	20.8	104	0.221	59 - 149	20	
n-Propylbenzene	20.0	19.7	98.3	20.0	19.2	95.9	2.43	80 - 129	20	
Styrene	20.0	19.9	99.6	20.0	19.9	99.5	0.0884	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	19.9	99.5	20.0	19.8	99.2	0.284	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	19.0	95.2	20.0	19.0	94.9	0.354	79 - 125	20	
Tetrachloroethene	20.0	20.7	103	20.0	20.5	102	1.11	80 - 124	20	
Toluene	20.0	19.4	96.8	20.0	19.2	95.8	1.11	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	20.5	103	20.0	20.5	102	0.208	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	20.6	103	20.0	20.6	103	0.0157	65 - 135	20	
1,1,1-Trichloroethane	20.0	18.9	94.7	20.0	18.8	94.2	0.629	80 - 134	20	
1,1,2-Trichloroethane	20.0	20.3	101	20.0	20.5	103	1.33	80 - 125	20	
Trichloroethene	20.0	19.5	97.6	20.0	19.3	96.4	1.33	80 - 122	20	
Trichlorofluoromethane	20.0	19.5	97.3	20.0	19.3	96.5	0.796	62 - 151	20	
1,2,3-Trichloropropane	20.0	20.6	103	20.0	20.4	102	1.11	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	19.3	96.4	20.0	18.8	94.2	2.27	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	19.7	98.3	20.0	19.3	96.4	1.96	80 - 127	20	
Vinyl acetate	20.0	24.0	120	20.0	22.6	113	5.76	10 - 150	20	
Vinyl chloride	20.0	16.6	83.1	20.0	16.6	82.9	0.227	65 - 140	20	
o-Xylene	20.0	20.2	101	20.0	20.1	101	0.360	80 - 122	20	
m-, p-Xylene	40.0	39.5	98.7	40.0	39.3	98.2	0.555	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	80.2	79.8	80 - 120	FAIL
Dibromofluoromethane	96.4	98.5	86 - 118	PASS
4-Bromofluorobenzene	93.9	94.5	86 - 115	PASS
Toluene-d8	94.2	94.6	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

BFB

Login Number: L09020346

Instrument: HPMS11

Analyst: wtd

Workgroup: WG294332

Tune ID: WG294332-01

Run Date: 02/06/2009

Run Time: 09:21

File ID: 11M56945

Cal ID: HPMS11-06-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	28.2	10611	PASS
75.0	95.0	30.0	60.0	49.5	18606	PASS
95.0	95.0	100	100	100	37578	PASS
96.0	95.0	5.00	9.00	6.87	2581	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.5	28357	PASS
175	174	5.00	9.00	7.36	2087	PASS
176	174	95.0	101	98.1	27807	PASS
177	176	5.00	9.00	6.43	1788	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG294332-02	STD	01	02/06/2009 10:22	
WG294332-03	STD	01	02/06/2009 10:52	
WG294332-04	STD	01	02/06/2009 11:22	
WG294332-05	STD	01	02/06/2009 11:52	
WG294332-06	STD	01	02/06/2009 12:22	
WG294332-07	STD	01	02/06/2009 12:52	
WG294332-08	STD-CCV	01	02/06/2009 13:22	
WG294332-09	STD	01	02/06/2009 13:52	
WG294332-10	STD	01	02/06/2009 14:22	
WG294332-11	STD	01	02/06/2009 14:52	
WG294332-12	SSCV	01	02/06/2009 16:54	

* Sample past 12 hour tune limit

BFB

Login Number: L09020346
Instrument: HPMS11
Analyst: FJB
Workgroup: WG295253

Tune ID: WG295253-01
Run Date: 02/18/2009
Run Time: 17:39
File ID: 11M57178

Cal ID: HPMS11-06-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	29.7	2966	PASS
75.0	95.0	30.0	60.0	48.9	4878	PASS
95.0	95.0	100	100	100	9976	PASS
96.0	95.0	5.00	9.00	5.89	588	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	91.0	9074	PASS
175	174	5.00	9.00	7.21	654	PASS
176	174	95.0	101	95.8	8691	PASS
177	176	5.00	9.00	7.28	633	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295253-02	CCV	01	02/18/2009 18:03	
WG295254-01	BLANK	01	02/18/2009 19:07	
WG295254-02	LCS	01	02/18/2009 19:37	
WG295254-04	MS	DL01	02/18/2009 20:08	
WG295254-05	MSD	DL01	02/18/2009 20:39	
WG295254-03	REF	DL01	02/18/2009 21:40	
L09020346-04	TRIP BLANK	01	02/18/2009 22:11	
L09020346-01	47WW13-021709	01	02/19/2009 02:18	
L09020346-02	47WW13-021709-FD	01	02/19/2009 02:49	
WG295254-06	REF	01	02/19/2009 04:22	

* Sample past 12 hour tune limit

BFB

Login Number: L09020346
Instrument: HPMS11
Analyst: WTD
Workgroup: WG295289

Tune ID: WG295289-01
Run Date: 02/20/2009
Run Time: 07:48
File ID: 11M57229

Cal ID: HPMS11-06-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	26.1	3218	PASS
75.0	95.0	30.0	60.0	45.7	5639	PASS
95.0	95.0	100	100	100	12332	PASS
96.0	95.0	5.00	9.00	5.97	736	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	91.7	11312	PASS
175	174	5.00	9.00	6.42	726	PASS
176	174	95.0	101	97.9	11070	PASS
177	176	5.00	9.00	6.30	697	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295389-02	CCV	01	02/20/2009 08:14	
WG295390-01	BLANK	01	02/20/2009 09:16	
WG295390-02	LCS	01	02/20/2009 09:47	
WG295390-03	LCS2	01	02/20/2009 10:17	
WG295390-04	BLANK2	01	02/20/2009 10:48	
L09020346-01	47WW13-021709	DL01	02/20/2009 12:21	
L09020346-02	47WW13-021709-FD	DL01	02/20/2009 12:52	
WG295390-05	REF	DL01	02/20/2009 13:54	
WG295390-05	REF	DL02	02/20/2009 15:26	

* Sample past 12 hour tune limit

BFB

Login Number: L09020346
Instrument: HPMS8
Analyst: MES
Workgroup: WG295276

Tune ID: WG295276-01
Run Date: 02/19/2009
Run Time: 08:25
File ID: 8M351785

Cal ID: HPMS8 -

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	28.7	28645	PASS
75.0	95.0	30.0	60.0	55.5	55453	PASS
95.0	95.0	100	100	100	99829	PASS
96.0	95.0	5.00	9.00	6.73	6717	PASS
173	174	0	2.00	0.293	213	PASS
174	95.0	50.0	100	72.8	72637	PASS
175	174	5.00	9.00	7.92	5753	PASS
176	174	95.0	101	99.9	72544	PASS
177	176	5.00	9.00	6.55	4752	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295276-02	STD	01	02/19/2009 08:50	
WG295276-03	STD	01	02/19/2009 09:23	
WG295276-04	STD	01	02/19/2009 09:55	
WG295276-05	STD	01	02/19/2009 10:31	
WG295276-06	STD	01	02/19/2009 11:03	
WG295276-07	STD	01	02/19/2009 11:37	
WG295276-08	STD-CCV	01	02/19/2009 12:09	
WG295276-10	STD	01	02/19/2009 13:13	
WG295276-11	STD	01	02/19/2009 13:45	
WG295276-09	STD	01	02/19/2009 14:17	
WG295276-12	SSCV	01	02/19/2009 16:12	
WG295276-12	SSCV	02	02/19/2009 16:44	

* Sample past 12 hour tune limit

BFB

Login Number: L09020346
Instrument: HPMS8
Analyst: MES
Workgroup: WG295370

Tune ID: WG295370-01
Run Date: 02/19/2009
Run Time: 17:13
File ID: 8M351801

Cal ID: HPMS8-19-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	24.2	27994	PASS
75.0	95.0	30.0	60.0	48.5	56064	PASS
95.0	95.0	100	100	100	115600	PASS
96.0	95.0	5.00	9.00	6.60	7632	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.9	87733	PASS
175	174	5.00	9.00	7.19	6306	PASS
176	174	95.0	101	98.1	86093	PASS
177	176	5.00	9.00	6.30	5421	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295370-02	CCV	01	02/19/2009 18:12	
WG295371-01	BLANK	01	02/19/2009 18:44	
WG295371-02	LCS	01	02/19/2009 19:16	
WG295371-03	LCS2	01	02/19/2009 19:48	
L09020346-03	LHSMW50-021709	01	02/19/2009 20:52	

* Sample past 12 hour tune limit

Login Number: L09020346
Analytical Method: 8260B
ICAL Workgroup: WG294332

Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
1,1-Dichloroethene	CCC	0.4455	6.21		
1,2-Dichloropropane	CCC	0.2846	4.90		
Chloroform	CCC	0.4109	4.09		
Ethylbenzene	CCC	0.4506	8.60		
Toluene	CCC	1.226	5.85		
Vinyl Chloride	CCC	0.2472	14.2		
1,1,2,2-Tetrachloroethane	SPCC	0.3687	3.36		
1,1-Dichloroethane	SPCC	0.5234	4.27		
Bromoform	SPCC	0.1634	15.6		0.99900
Chlorobenzene	SPCC	0.8457	5.39		
Chloromethane	SPCC	0.5168	11.4		
1,1,1,2-Tetrachloroethane		0.2863	7.94		
1,1,1-Trichloroethane		0.3545	5.95		
1,1,2-Trichloroethane		0.1839	8.54		
1,1-Dichloropropene		0.3262	6.84		
1,2,3-Trichlorobenzene		0.6031	7.52		
1,2,3-Trichloropropane		0.1053	11.8		
1,2,4-Trichlorobenzene		0.6985	7.64		
1,2,4-Trimethylbenzene		2.027	5.85		
1,2-Dibromo-3-Chloropropane		0.07360	4.54		
1,2-Dibromoethane		0.1887	13.8		
1,2-Dichlorobenzene		1.000	4.77		
1,2-Dichloroethane		0.3542	7.55		
1,3,5-Trimethylbenzene		1.938	5.31		
1,3-Dichlorobenzene		1.119	5.68		
1,3-Dichloropropane		0.3677	5.00		
1,4-Dichlorobenzene		1.169	6.66		
2,2-Dichloropropane		0.3552	6.77		
2-Butanone		0.09892	3.26		
2-Chloroethyl Vinyl Ether		0.1283	6.84		
2-Chlorotoluene		1.782	5.91		
2-Hexanone		0.1891	7.59		
4-Chlorotoluene		1.667	6.17		
4-Methyl-2-Pentanone		0.07762	6.49		
Acetone		0.07110	13.6		
Benzene		0.9540	6.77		
Bromobenzene		0.5799	4.58		
Bromochloromethane		0.1225	14.2		
Bromodichloromethane		0.3012	7.00		
Bromomethane		0.1338	7.42		
Carbon Disulfide		0.7471	8.01		
Carbon Tetrachloride		0.3146	11.0		
Chloroethane		0.1963	9.22		
Dibromochloromethane		0.2386	12.3		
Dibromomethane		0.1064	12.9		

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Login Number: L09020346
Analytical Method: 8260B
ICAL Workgroup: WG294332

Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
Dichlorodifluoromethane	0.2647	8.80		
Hexachlorobutadiene	0.3027	5.33		
Isopropylbenzene	1.376	7.51		
Methylene Chloride	0.3087	43.7		0.99900
Naphthalene	1.135	12.2		
Styrene	0.9276	11.1		
Tetrachloroethene	0.2468	5.64		
Trichloroethene	0.2465	8.53		
Trichlorofluoromethane	0.3702	7.35		
Vinyl Acetate	0.2825	11.7		
cis-1,2-Dichloroethene	0.2357	5.02		
cis-1,3-Dichloropropene	0.3677	8.00		
m-,p-Xylene	0.5692	6.80		
n-Butylbenzene	1.803	6.52		
n-Propylbenzene	2.680	6.68		
o-Xylene	0.5392	8.08		
p-Isopropyltoluene	1.976	6.62		
sec-Butylbenzene	2.360	7.32		
tert-Butylbenzene	0.3938	8.67		
trans-1,2-Dichloroethene	0.2239	6.88		
trans-1,3-Dichloropropene	0.3997	10.3		

R = Correlation coefficient; 0.995 minimum
R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

Login Number: L09020346
Analytical Method: 8260B
ICAL Workgroup: WG295276

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
1,1-Dichloroethene	CCC	0.4551	5.74		
1,2-Dichloropropane	CCC	0.2286	2.31		
Chloroform	CCC	0.5415	10.1		
Ethylbenzene	CCC	0.4606	6.36		
Toluene	CCC	1.234	7.01		
Vinyl Chloride	CCC	0.3255	28.2		0.99100
1,1,2,2-Tetrachloroethane	SPCC	0.4396	7.97		
1,1-Dichloroethane	SPCC	0.4863	3.66		
Bromoform	SPCC	0.2153	7.44		
Chlorobenzene	SPCC	0.8737	6.73		
Chloromethane	SPCC	0.4759	19.2		1.00000
1,1,1,2-Tetrachloroethane		0.3650	9.95		
1,1,1-Trichloroethane		0.5417	11.2		
1,1,2-Trichloroethane		0.2285	7.93		
1,1-Dichloropropene		0.3390	10.6		
1,2,3-Trichlorobenzene		0.9570	10.7		
1,2,3-Trichloropropane		0.1572	13.8		
1,2,4-Trichlorobenzene		1.038	9.03		
1,2,4-Trimethylbenzene		2.511	9.89		
1,2-Dibromo-3-Chloropropane		0.1212	7.91		
1,2-Dibromoethane		0.2346	8.21		
1,2-Dichlorobenzene		1.269	6.30		
1,2-Dichloroethane		0.4997	13.5		
1,3,5-Trimethylbenzene		2.304	13.5		
1,3-Dichlorobenzene		1.349	6.36		
1,3-Dichloropropane		0.4103	7.29		
1,4-Dichlorobenzene		1.441	8.39		
2,2-Dichloropropane		0.5148	8.84		
2-Butanone		0.07805	1.57		
2-Chloroethyl Vinyl Ether		0.1073	14.3		
2-Chlorotoluene		2.197	11.3		
2-Hexanone		0.06718	12.7		
4-Chlorotoluene		2.276	8.51		
4-Methyl-2-Pentanone		0.05713	7.23		
Acetone		0.06597	15.5		0.99700
Benzene		0.8578	4.75		
Bromobenzene		0.6478	5.31		
Bromochloromethane		0.1396	7.97		
Bromodichloromethane		0.4142	9.17		
Bromomethane		0.1840	8.31		
Carbon Disulfide		0.7580	6.04		
Carbon Tetrachloride		0.4670	13.1		
Chloroethane		0.1829	7.64		
Dibromochloromethane		0.3370	6.87		
Dibromomethane		0.1403	10.6		

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Login Number: L09020346
Analytical Method: 8260B
ICAL Workgroup: WG295276

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
Dichlorodifluoromethane	0.4593	15.3		1.00000
Hexachlorobutadiene	0.5521	11.4		
Isopropylbenzene	1.473	10.5		
Methylene Chloride	0.2847	26.2		1.00000
Naphthalene	1.817	9.41		
Styrene	0.9151	9.55		
Tetrachloroethene	0.2728	6.43		
Trichloroethene	0.2385	4.34		
Trichlorofluoromethane	0.5772	12.8		
Vinyl Acetate	0.4150	7.06		
cis-1,2-Dichloroethene	0.2422	6.47		
cis-1,3-Dichloropropene	0.3800	8.55		
m-,p-Xylene	0.5696	6.55		
n-Butylbenzene	2.552	11.2		
n-Propylbenzene	3.219	11.3		
o-Xylene	0.5367	10.3		
p-Isopropyltoluene	2.541	9.85		
sec-Butylbenzene	2.877	9.47		
tert-Butylbenzene	0.4735	7.15		
trans-1,2-Dichloroethene	0.3987	5.94		
trans-1,3-Dichloropropene	0.5203	10.2		

R = Correlation coefficient; 0.995 minimum
R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte	WG294332-02			WG294332-03			WG294332-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	6259.00000	0.4627	1.00	13231.00000	0.3975
1,2-Dichloropropane	0.300	2886.00000	0.2771	0.400	3911.00000	0.2891	1.00	8518.00000	0.2559
Chloroform	0.300	4337.00000	0.4164	0.400	5399.00000	0.3991	1.00	12531.00000	0.3765
Ethylbenzene	0.300	3522.00000	0.4415	0.400	4225.00000	0.3992	1.00	10472.00000	0.4024
Toluene	0.300	10806.00000	1.355	0.400	12995.00000	1.228	1.00	28945.00000	1.112
Vinyl Chloride	NA	NA	NA	0.400	3991.00000	0.2950	1.00	9273.00000	0.2786
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	2210.00000	0.3709	1.00	5142.00000	0.3500
1,1-Dichloroethane	0.300	5417.00000	0.5201	0.400	6761.00000	0.4998	1.00	16498.00000	0.4956
Bromoform	NA	NA	NA	NA	NA	NA	1.00	3263.00000	0.1254
Chlorobenzene	0.300	7258.00000	0.9098	0.400	8892.00000	0.8403	1.00	20478.00000	0.7869
Chloromethane	NA	NA	NA	0.400	8453.00000	0.6249	1.00	17629.00000	0.5296
1,1,1,2-Tetrachloroethane	0.300	2174.00000	0.2725	0.400	2869.00000	0.2711	1.00	6647.00000	0.2554
1,1,1-Trichloroethane	0.300	3639.00000	0.3494	0.400	4371.00000	0.3231	1.00	10999.00000	0.3304
1,1,2-Trichloroethane	0.300	1264.00000	0.1584	0.400	1836.00000	0.1735	1.00	4179.00000	0.1606
1,1-Dichloropropene	0.300	3187.00000	0.3060	0.400	4420.00000	0.3268	1.00	9641.00000	0.2896
1,2,3-Trichlorobenzene	0.300	2410.00000	0.5437	0.400	3513.00000	0.5896	1.00	8149.00000	0.5547
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	1.00	1185.00000	0.08070
1,2,4-Trichlorobenzene	0.300	2923.00000	0.6595	0.400	3984.00000	0.6687	1.00	9377.00000	0.6383
1,2,4-Trimethylbenzene	0.300	9750.00000	2.200	0.400	11789.00000	1.979	1.00	27300.00000	1.858
1,2-Dibromo-3-Chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	0.300	1030.00000	0.1291	0.400	1944.00000	0.1837	1.00	4411.00000	0.1695
1,2-Dichlorobenzene	0.300	4295.00000	0.9690	0.400	6018.00000	1.010	1.00	13393.00000	0.9117
1,2-Dichloroethane	0.300	3599.00000	0.3455	0.400	4425.00000	0.3271	1.00	10218.00000	0.3070
1,3,5-Trimethylbenzene	0.300	8994.00000	2.029	0.400	11291.00000	1.895	1.00	25812.00000	1.757
1,3-Dichlorobenzene	0.300	5354.00000	1.208	0.400	6494.00000	1.090	1.00	15171.00000	1.033
1,3-Dichloropropane	NA	NA	NA	0.400	3709.00000	0.3505	1.00	8678.00000	0.3335
1,4-Dichlorobenzene	0.300	5763.00000	1.300	0.400	7275.00000	1.221	1.00	15621.00000	1.063
2,2-Dichloropropane	NA	NA	NA	0.400	4410.00000	0.3260	1.00	10512.00000	0.3158
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	0.300	8964.00000	2.022	0.400	10681.00000	1.793	1.00	25178.00000	1.714
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	0.300	8244.00000	1.860	0.400	10437.00000	1.752	1.00	22227.00000	1.513
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.300	11231.00000	1.078	0.400	13354.00000	0.9872	1.00	28914.00000	0.8687
Bromobenzene	0.300	2676.00000	0.6038	0.400	3628.00000	0.6089	1.00	7795.00000	0.5306
Bromochloromethane	NA	NA	NA	0.400	1184.00000	0.08750	1.00	3740.00000	0.1124
Bromodichloromethane	0.300	3049.00000	0.2927	0.400	3833.00000	0.2834	1.00	8713.00000	0.2618
Bromomethane	NA	NA	NA	0.400	1661.00000	0.1228	1.00	4550.00000	0.1367
Carbon Disulfide	NA	NA	NA	0.400	10401.00000	0.7689	1.00	20171.00000	0.6060
Carbon Tetrachloride	0.300	3078.00000	0.2955	0.400	3656.00000	0.2703	1.00	8892.00000	0.2671

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Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte	WG294332-05			WG294332-06			WG294332-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	27343.0000	0.4092	5.00	77998.0000	0.4779	20.0	300224.000	0.4473
1,2-Dichloropropane	2.00	18189.0000	0.2722	5.00	47482.0000	0.2909	20.0	193319.000	0.2880
Chloroform	2.00	26462.0000	0.3960	5.00	69446.0000	0.4255	20.0	278771.000	0.4153
Ethylbenzene	2.00	21932.0000	0.4221	5.00	58874.0000	0.4672	20.0	241422.000	0.4526
Toluene	2.00	59100.0000	1.137	5.00	160878.000	1.277	20.0	644741.000	1.209
Vinyl Chloride	2.00	14891.0000	0.2228	5.00	44908.0000	0.2752	20.0	157075.000	0.2340
1,1,2,2-Tetrachloroethane	2.00	11152.0000	0.3732	5.00	28629.0000	0.3910	20.0	116249.000	0.3688
1,1-Dichloroethane	2.00	32924.0000	0.4927	5.00	88718.0000	0.5436	20.0	353385.000	0.5265
Bromoform	2.00	6876.00000	0.1323	5.00	21073.0000	0.1672	20.0	87630.0000	0.1643
Chlorobenzene	2.00	40479.0000	0.7790	5.00	109597.000	0.8696	20.0	438050.000	0.8212
Chloromethane	2.00	29532.0000	0.4419	5.00	76919.0000	0.4713	20.0	308241.000	0.4592
1,1,1,2-Tetrachloroethane	2.00	13572.0000	0.2612	5.00	38120.0000	0.3025	20.0	152616.000	0.2861
1,1,1-Trichloroethane	2.00	22236.0000	0.3327	5.00	61755.0000	0.3784	20.0	246575.000	0.3674
1,1,2-Trichloroethane	2.00	9748.00000	0.1876	5.00	24885.0000	0.1975	20.0	101467.000	0.1902
1,1-Dichloropropene	2.00	20066.0000	0.3003	5.00	58025.0000	0.3555	20.0	228679.000	0.3407
1,2,3-Trichlorobenzene	2.00	16760.0000	0.5608	5.00	47993.0000	0.6555	20.0	190849.000	0.6054
1,2,3-Trichloropropane	2.00	2925.00000	0.09790	5.00	8629.00000	0.1179	20.0	35245.0000	0.1118
1,2,4-Trichlorobenzene	2.00	19020.0000	0.6364	5.00	52416.0000	0.7159	20.0	224072.000	0.7108
1,2,4-Trimethylbenzene	2.00	55754.0000	1.866	5.00	153475.000	2.096	20.0	637302.000	2.022
1,2-Dibromo-3-Chloropropane	2.00	2015.00000	0.06740	5.00	5517.00000	0.07540	20.0	23919.0000	0.07590
1,2-Dibromoethane	2.00	9842.00000	0.1894	5.00	26741.0000	0.2122	20.0	105991.000	0.1987
1,2-Dichlorobenzene	2.00	29254.0000	0.9789	5.00	74344.0000	1.016	20.0	310085.000	0.9836
1,2-Dichloroethane	2.00	22380.0000	0.3349	5.00	62905.0000	0.3854	20.0	245207.000	0.3653
1,3,5-Trimethylbenzene	2.00	53969.0000	1.806	5.00	149512.000	2.042	20.0	621928.000	1.973
1,3-Dichlorobenzene	2.00	30767.0000	1.030	5.00	83474.0000	1.140	20.0	346444.000	1.099
1,3-Dichloropropane	2.00	18651.0000	0.3589	5.00	48268.0000	0.3830	20.0	199189.000	0.3734
1,4-Dichlorobenzene	2.00	31989.0000	1.070	5.00	84905.0000	1.160	20.0	352988.000	1.120
2,2-Dichloropropane	2.00	22891.0000	0.3425	5.00	62006.0000	0.3799	20.0	244254.000	0.3639
2-Butanone	NA	NA	NA	5.00	15846.0000	0.09710	20.0	63637.0000	0.09480
2-Chloroethyl Vinyl Ether	2.00	7331.00000	0.1097	5.00	20829.0000	0.1276	20.0	85389.0000	0.1272
2-Chlorotoluene	2.00	51259.0000	1.715	5.00	134857.000	1.842	20.0	561188.000	1.780
2-Hexanone	NA	NA	NA	5.00	20715.0000	0.1644	20.0	95436.0000	0.1789
4-Chlorotoluene	2.00	46695.0000	1.563	5.00	125906.000	1.720	20.0	511542.000	1.623
4-Methyl-2-Pentanone	NA	NA	NA	5.00	11266.0000	0.06900	20.0	49786.0000	0.07420
Acetone	NA	NA	NA	5.00	14117.0000	0.08650	20.0	51259.0000	0.07640
Benzene	2.00	57505.0000	0.8605	5.00	155443.000	0.9524	20.0	629606.000	0.9380
Bromobenzene	2.00	16548.0000	0.5537	5.00	43837.0000	0.5988	20.0	184109.000	0.5840
Bromochloromethane	2.00	7473.00000	0.1118	5.00	21622.0000	0.1325	20.0	86786.0000	0.1293
Bromodichloromethane	2.00	19102.0000	0.2858	5.00	51895.0000	0.3180	20.0	208649.000	0.3109
Bromomethane	2.00	8187.00000	0.1225	5.00	23974.0000	0.1469	20.0	86660.0000	0.1291
Carbon Disulfide	2.00	49544.0000	0.7414	5.00	127308.000	0.7800	20.0	497125.000	0.7406
Carbon Tetrachloride	2.00	19109.0000	0.2860	5.00	57826.0000	0.3543	20.0	225780.000	0.3364

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Analytical Method: 8260B

Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte	WG294332-08			WG294332-09			WG294332-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	766575.000	0.4596	100	1394316.00	0.4518	200	2971163.00	0.4578
1,2-Dichloropropane	50.0	488836.000	0.2931	100	905811.000	0.2935	200	1959453.00	0.3019
Chloroform	50.0	706043.000	0.4233	100	1300584.00	0.4214	200	2755047.00	0.4245
Ethylbenzene	50.0	625055.000	0.4750	100	1195313.00	0.4773	200	2745930.00	0.5182
Toluene	50.0	1650330.00	1.254	100	3105824.00	1.240	200	6486412.00	1.224
Vinyl Chloride	50.0	367787.000	0.2205	100	629652.000	0.2040	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	306374.000	0.3741	100	603516.000	0.3558	200	1302999.00	0.3655
1,1-Dichloroethane	50.0	910009.000	0.5456	100	1666717.00	0.5401	200	3545393.00	0.5463
Bromoform	50.0	233873.000	0.1777	100	461186.000	0.1842	200	1020872.00	0.1926
Chlorobenzene	50.0	1117019.00	0.8488	100	2133232.00	0.8519	200	4789023.00	0.9037
Chloromethane	50.0	863887.000	0.5179	100	1665813.00	0.5398	200	3570536.00	0.5501
1,1,1,2-Tetrachloroethane	50.0	398137.000	0.3025	100	758143.000	0.3028	200	1710895.00	0.3229
1,1,1-Trichloroethane	50.0	627541.000	0.3762	100	1129250.00	0.3659	200	2382778.00	0.3671
1,1,2-Trichloroethane	50.0	259938.000	0.1975	100	484193.000	0.1934	200	1042008.00	0.1966
1,1-Dichloropropene	50.0	566953.000	0.3399	100	1042969.00	0.3380	200	2200746.00	0.3391
1,2,3-Trichlorobenzene	50.0	502003.000	0.6129	100	1070567.00	0.6312	200	2402374.00	0.6738
1,2,3-Trichloropropane	50.0	91783.0000	0.1121	100	184886.000	0.1090	200	385164.000	0.1080
1,2,4-Trichlorobenzene	50.0	583791.000	0.7128	100	1263740.00	0.7451	200	2848176.00	0.7989
1,2,4-Trimethylbenzene	50.0	1742125.00	2.127	100	3594229.00	2.119	200	7042338.00	1.975
1,2-Dibromo-3-Chloropropane	50.0	62606.0000	0.07640	100	125446.000	0.07400	200	258411.000	0.07250
1,2-Dibromoethane	50.0	273457.000	0.2078	100	505739.000	0.2020	200	1090585.00	0.2058
1,2-Dichlorobenzene	50.0	831029.000	1.015	100	1753899.00	1.034	200	3864868.00	1.084
1,2-Dichloroethane	50.0	630473.000	0.3780	100	1144088.00	0.3707	200	2425189.00	0.3737
1,3,5-Trimethylbenzene	50.0	1664720.00	2.033	100	3376470.00	1.991	200	6817853.00	1.912
1,3-Dichlorobenzene	50.0	925202.000	1.130	100	1946012.00	1.147	200	4274129.00	1.199
1,3-Dichloropropane	50.0	503268.000	0.3824	100	942028.000	0.3762	200	2034465.00	0.3839
1,4-Dichlorobenzene	50.0	952642.000	1.163	100	2011853.00	1.186	200	4417818.00	1.239
2,2-Dichloropropane	50.0	625513.000	0.3750	100	1132131.00	0.3668	200	2412609.00	0.3717
2-Butanone	50.0	170436.000	0.1022	100	315270.000	0.1022	200	654892.000	0.1009
2-Chloroethyl Vinyl Ether	50.0	222441.000	0.1334	100	406256.000	0.1316	200	862548.000	0.1329
2-Chlorotoluene	50.0	1469319.00	1.794	100	2884183.00	1.701	200	5973661.00	1.676
2-Hexanone	50.0	259688.000	0.1973	100	502298.000	0.2006	200	1040518.00	0.1964
4-Chlorotoluene	50.0	1359749.00	1.660	100	2833230.00	1.671	200	5842330.00	1.639
4-Methyl-2-Pentanone	50.0	132761.000	0.07960	100	253158.000	0.08200	200	528437.000	0.08140
Acetone	50.0	119123.000	0.07140	100	215438.000	0.06980	200	411692.000	0.06340
Benzene	50.0	1604847.00	0.9622	100	2976517.00	0.9645	200	6324928.00	0.9745
Bromobenzene	50.0	477255.000	0.5827	100	948682.000	0.5593	200	2131096.00	0.5977
Bromochloromethane	50.0	224902.000	0.1348	100	413419.000	0.1340	200	895656.000	0.1380
Bromodichloromethane	50.0	530111.000	0.3178	100	978356.000	0.3170	200	2096143.00	0.3230
Bromomethane	50.0	248244.000	0.1488	100	411727.000	0.1334	200	844739.000	0.1302
Carbon Disulfide	50.0	1308587.00	0.7845	100	2366687.00	0.7669	200	5118605.00	0.7886
Carbon Tetrachloride	50.0	571266.000	0.3425	100	1044737.00	0.3385	200	2212967.00	0.3410

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Column ID: F

Analyte	WG294332-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1,2-Tetrachloroethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-Chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA
2-Butanone	300	922665.000	0.09630
2-Chloroethyl Vinyl Ether	300	1300859.00	0.1358
2-Chlorotoluene	NA	NA	NA
2-Hexanone	300	1480720.00	0.1970
4-Chlorotoluene	NA	NA	NA
4-Methyl-2-Pentanone	300	761464.000	0.07950
Acetone	300	566341.000	0.05910
Benzene	NA	NA	NA
Bromobenzene	NA	NA	NA
Bromochloromethane	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA

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Column ID: F

Analyte	WG294332-02			WG294332-03			WG294332-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	6020.00000	0.1809
Dibromochloromethane	0.300	1578.00000	0.1978	0.400	2087.00000	0.1972	1.00	5703.00000	0.2191
Dibromomethane	NA	NA	NA	0.400	1067.00000	0.07890	1.00	3150.00000	0.09460
Dichlorodifluoromethane	NA	NA	NA	0.400	3627.00000	0.2681	1.00	8445.00000	0.2537
Hexachlorobutadiene	0.300	1364.00000	0.3077	0.400	1727.00000	0.2899	1.00	4085.00000	0.2781
Isopropylbenzene	0.300	11847.00000	1.485	0.400	13799.00000	1.304	1.00	31303.00000	1.203
Methylene Chloride	NA	NA	NA	0.400	8384.00000	0.6198	1.00	12347.00000	0.3709
Naphthalene	NA	NA	NA	0.400	5537.00000	0.9293	1.00	13961.00000	0.9504
Styrene	0.300	7396.00000	0.9271	0.400	8714.00000	0.8234	1.00	20417.00000	0.7845
Tetrachloroethene	0.300	2107.00000	0.2641	0.400	2607.00000	0.2463	1.00	5831.00000	0.2241
Trichloroethene	NA	NA	NA	0.400	4005.00000	0.2961	1.00	8009.00000	0.2406
Trichlorofluoromethane	NA	NA	NA	0.400	4805.00000	0.3552	1.00	11606.00000	0.3487
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	0.300	2323.00000	0.2230	0.400	3260.00000	0.2410	1.00	7208.00000	0.2165
cis-1,3-Dichloropropene	NA	NA	NA	0.400	4407.00000	0.3258	1.00	10853.00000	0.3261
m-,p-Xylene	0.600	9236.00000	0.5789	0.800	11330.00000	0.5353	2.00	27275.00000	0.5240
n-Butylbenzene	0.300	8727.00000	1.969	0.400	10580.00000	1.776	1.00	23493.00000	1.599
n-Propylbenzene	0.300	12647.00000	2.853	0.400	16192.00000	2.718	1.00	37036.00000	2.521
o-Xylene	0.300	4039.00000	0.5063	0.400	5430.00000	0.5131	1.00	12508.00000	0.4806
p-Isopropyltoluene	0.300	9503.00000	2.144	0.400	11116.00000	1.866	1.00	25942.00000	1.766
sec-Butylbenzene	0.300	11948.00000	2.696	0.400	13334.00000	2.238	1.00	31517.00000	2.146
tert-Butylbenzene	0.300	1841.00000	0.4154	0.400	1919.00000	0.3221	1.00	5327.00000	0.3626
trans-1,2-Dichloroethene	0.300	2589.00000	0.2486	0.400	2806.00000	0.2074	1.00	7083.00000	0.2128
trans-1,3-Dichloropropene	NA	NA	NA	0.400	3555.00000	0.3359	1.00	9098.00000	0.3496

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Analyte	WG294332-05			WG294332-06			WG294332-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	2.00	10943.0000	0.1638	5.00	33805.0000	0.2071	20.0	135298.000	0.2016
Dibromochloromethane	2.00	11645.0000	0.2241	5.00	32723.0000	0.2597	20.0	134921.000	0.2529
Dibromomethane	2.00	6783.00000	0.1015	5.00	18959.0000	0.1162	20.0	75354.0000	0.1123
Dichlorodifluoromethane	2.00	14724.0000	0.2203	5.00	48173.0000	0.2952	20.0	181835.000	0.2709
Hexachlorobutadiene	2.00	8506.00000	0.2846	5.00	23258.0000	0.3177	20.0	95552.0000	0.3031
Isopropylbenzene	2.00	64969.0000	1.250	5.00	178016.000	1.413	20.0	729773.000	1.368
Methylene Chloride	2.00	19588.0000	0.2931	5.00	43390.0000	0.2659	20.0	153964.000	0.2294
Naphthalene	2.00	31534.0000	1.055	5.00	86213.0000	1.178	20.0	377071.000	1.196
Styrene	2.00	42577.0000	0.8194	5.00	118700.000	0.9419	20.0	494866.000	0.9277
Tetrachloroethene	2.00	11836.0000	0.2278	5.00	32883.0000	0.2609	20.0	128820.000	0.2415
Trichloroethene	2.00	15144.0000	0.2266	5.00	40544.0000	0.2484	20.0	159095.000	0.2370
Trichlorofluoromethane	2.00	21607.0000	0.3233	5.00	66247.0000	0.4059	20.0	254864.000	0.3797
Vinyl Acetate	NA	NA	NA	5.00	38279.0000	0.2345	20.0	177158.000	0.2639
cis-1,2-Dichloroethene	2.00	14819.0000	0.2218	5.00	40413.0000	0.2476	20.0	160543.000	0.2392
cis-1,3-Dichloropropene	2.00	23428.0000	0.3506	5.00	62640.0000	0.3838	20.0	253155.000	0.3772
m-,p-Xylene	4.00	53707.0000	0.5168	10.0	145122.000	0.5758	40.0	594808.000	0.5575
n-Butylbenzene	2.00	49178.0000	1.646	5.00	135595.000	1.852	20.0	572263.000	1.815
n-Propylbenzene	2.00	77249.0000	2.585	5.00	210949.000	2.881	20.0	871792.000	2.766
o-Xylene	2.00	25978.0000	0.5000	5.00	70669.0000	0.5607	20.0	285466.000	0.5352
p-Isopropyltoluene	2.00	54371.0000	1.819	5.00	150017.000	2.049	20.0	626615.000	1.988
sec-Butylbenzene	2.00	65603.0000	2.195	5.00	181258.000	2.476	20.0	749187.000	2.377
tert-Butylbenzene	2.00	11291.0000	0.3778	5.00	31058.0000	0.4242	20.0	126458.000	0.4011
trans-1,2-Dichloroethene	2.00	13358.0000	0.1999	5.00	39098.0000	0.2396	20.0	148662.000	0.2215
trans-1,3-Dichloropropene	2.00	19267.0000	0.3708	5.00	53172.0000	0.4219	20.0	222961.000	0.4180

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Instrument ID: HPMS11
Initial Calibration Date: 06-FEB-09 14:52
Column ID: F

Analyte	WG294332-08			WG294332-09			WG294332-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	50.0	359984.000	0.2158	100	642599.000	0.2082	200	1277346.00	0.1968
Dibromochloromethane	50.0	350096.000	0.2660	100	650658.000	0.2598	200	1435564.00	0.2709
Dibromomethane	50.0	192406.000	0.1154	100	355699.000	0.1153	200	759859.000	0.1171
Dichlorodifluoromethane	50.0	480270.000	0.2879	100	832634.000	0.2698	200	1635405.00	0.2520
Hexachlorobutadiene	50.0	250365.000	0.3057	100	524031.000	0.3090	200	1172567.00	0.3289
Isopropylbenzene	50.0	1909398.00	1.451	100	3737320.00	1.493	200	7532161.00	1.421
Methylene Chloride	50.0	387954.000	0.2326	100	702068.000	0.2275	200	1494366.00	0.2302
Naphthalene	50.0	1018518.00	1.244	100	2128249.00	1.255	200	4537987.00	1.273
Styrene	50.0	1313842.00	0.9983	100	2626299.00	1.049	200	5706947.00	1.077
Tetrachloroethene	50.0	331383.000	0.2518	100	618965.000	0.2472	200	1365424.00	0.2577
Trichloroethene	50.0	398219.000	0.2387	100	739042.000	0.2395	200	1589710.00	0.2449
Trichlorofluoromethane	50.0	665958.000	0.3993	100	1172234.00	0.3798	200	2400643.00	0.3699
Vinyl Acetate	50.0	526333.000	0.3156	100	934522.000	0.3028	200	2039174.00	0.3142
cis-1,2-Dichloroethene	50.0	408392.000	0.2448	100	747892.000	0.2423	200	1589844.00	0.2450
cis-1,3-Dichloropropene	50.0	651841.000	0.3908	100	1201049.00	0.3892	200	2583825.00	0.3981
m-,p-Xylene	100	1568382.00	0.5959	200	3104042.00	0.6198	400	6561610.00	0.6191
n-Butylbenzene	50.0	1529513.00	1.867	100	3222303.00	1.900	200	6420950.00	1.801
n-Propylbenzene	50.0	2304799.00	2.814	100	4509235.00	2.659	200	8297217.00	2.327
o-Xylene	50.0	743309.000	0.5648	100	1442386.00	0.5760	200	3266372.00	0.6164
p-Isopropyltoluene	50.0	1694614.00	2.069	100	3547606.00	2.092	200	7086831.00	1.988
sec-Butylbenzene	50.0	2008769.00	2.453	100	4099194.00	2.417	200	8013735.00	2.248
tert-Butylbenzene	50.0	336101.000	0.4104	100	682590.000	0.4025	200	1525197.00	0.4278
trans-1,2-Dichloroethene	50.0	381839.000	0.2289	100	699209.000	0.2266	200	1491033.00	0.2297
trans-1,3-Dichloropropene	50.0	573678.000	0.4359	100	1072109.00	0.4281	200	2316901.00	0.4372

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Instrument ID: HPMS11
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Analyte	WG294332-11		
	CONC	RESP	RF
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Dibromomethane	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Isopropylbenzene	NA	NA	NA
Methylene Chloride	NA	NA	NA
Naphthalene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA
Vinyl Acetate	300	2529460.00	0.2640
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-, p-Xylene	NA	NA	NA
n-Butylbenzene	NA	NA	NA
n-Propylbenzene	NA	NA	NA
o-Xylene	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA
sec-Butylbenzene	NA	NA	NA
tert-Butylbenzene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA

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Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-02			WG295276-03			WG295276-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	4715.00000	0.4497	1.00	11962.0000	0.4587
1,2-Dichloropropane	NA	NA	NA	0.400	2428.00000	0.2316	1.00	5855.00000	0.2245
Chloroform	0.300	4831.00000	0.6005	0.400	6197.00000	0.5910	1.00	14671.0000	0.5626
Ethylbenzene	NA	NA	NA	0.400	3272.00000	0.4312	1.00	8536.00000	0.4415
Toluene	NA	NA	NA	0.400	9312.00000	1.227	1.00	23265.0000	1.203
Vinyl Chloride	NA	NA	NA	NA	NA	NA	1.00	11136.0000	0.4270
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	1594.00000	0.3711	1.00	4706.00000	0.4205
1,1-Dichloroethane	NA	NA	NA	0.400	4999.00000	0.4768	1.00	12681.0000	0.4863
Bromoform	NA	NA	NA	NA	NA	NA	1.00	3720.00000	0.1924
Chlorobenzene	NA	NA	NA	0.400	7220.00000	0.9515	1.00	17229.0000	0.8911
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	15514.0000	0.5949
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.400	2618.00000	0.3450	1.00	7575.00000	0.3918
1,1,1-Trichloroethane	NA	NA	NA	0.400	6029.00000	0.5750	1.00	15415.0000	0.5911
1,1,2-Trichloroethane	NA	NA	NA	0.400	1493.00000	0.1967	1.00	4483.00000	0.2319
1,1-Dichloropropene	NA	NA	NA	0.400	2759.00000	0.2631	1.00	8704.00000	0.3338
1,2,3-Trichlorobenzene	0.300	2975.00000	0.9172	0.400	4872.00000	1.134	1.00	10218.0000	0.9131
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	1.00	1343.00000	0.1200
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	4081.00000	0.9501	1.00	12128.0000	1.084
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	1.00	27052.0000	2.418
1,2-Dibromo-3-Chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	0.400	1659.00000	0.2186	1.00	4146.00000	0.2144
1,2-Dichlorobenzene	0.300	4212.00000	1.299	0.400	5688.00000	1.324	1.00	14351.0000	1.283
1,2-Dichloroethane	NA	NA	NA	0.400	5804.00000	0.5536	1.00	14617.0000	0.5605
1,3,5-Trimethylbenzene	NA	NA	NA	0.400	7435.00000	1.731	1.00	24412.0000	2.182
1,3-Dichlorobenzene	NA	NA	NA	0.400	5873.00000	1.367	1.00	14927.0000	1.334
1,3-Dichloropropane	NA	NA	NA	0.400	2946.00000	0.3882	1.00	7353.00000	0.3803
1,4-Dichlorobenzene	0.300	5066.00000	1.562	0.400	6772.00000	1.577	1.00	16796.0000	1.501
2,2-Dichloropropane	NA	NA	NA	0.400	5865.00000	0.5594	1.00	13879.0000	0.5322
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	NA	NA	NA	NA	NA	NA	1.00	2241.00000	0.08590
2-Chlorotoluene	NA	NA	NA	0.400	9119.00000	2.123	1.00	24753.0000	2.212
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	NA	NA	NA	0.400	9254.00000	2.155	1.00	26033.0000	2.326
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	8893.00000	0.8482	1.00	23299.0000	0.8935
Bromobenzene	0.300	1942.00000	0.5987	0.400	2810.00000	0.6542	1.00	6914.00000	0.6179
Bromochloromethane	NA	NA	NA	0.400	1319.00000	0.1258	1.00	3153.00000	0.1209
Bromodichloromethane	NA	NA	NA	0.400	4613.00000	0.4400	1.00	11285.0000	0.4328
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	4276.00000	0.1640
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	20158.0000	0.7730
Carbon Tetrachloride	NA	NA	NA	0.400	4702.00000	0.4485	1.00	13588.0000	0.5211

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Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-05			WG295276-06			WG295276-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	24977.0000	0.4565	5.00	66542.0000	0.4682	20.0	299021.000	0.4891
1,2-Dichloropropane	2.00	12106.0000	0.2213	5.00	32017.0000	0.2253	20.0	142555.000	0.2332
Chloroform	2.00	30421.0000	0.5560	5.00	81408.0000	0.5728	20.0	337776.000	0.5525
Ethylbenzene	2.00	18858.0000	0.4668	5.00	51855.0000	0.4935	20.0	228925.000	0.4971
Toluene	2.00	50529.0000	1.251	5.00	138558.000	1.319	20.0	608585.000	1.322
Vinyl Chloride	2.00	24270.0000	0.4436	5.00	48049.0000	0.3381	20.0	206986.000	0.3386
1,1,2,2-Tetrachloroethane	2.00	9862.00000	0.4207	5.00	27916.0000	0.4561	20.0	127819.000	0.4751
1,1-Dichloroethane	2.00	27428.0000	0.5013	5.00	72521.0000	0.5103	20.0	300531.000	0.4916
Bromoform	2.00	8241.00000	0.2040	5.00	23921.0000	0.2277	20.0	107337.000	0.2331
Chlorobenzene	2.00	35575.0000	0.8805	5.00	95144.0000	0.9055	20.0	409519.000	0.8893
Chloromethane	2.00	30572.0000	0.5587	5.00	67826.0000	0.4773	20.0	283311.000	0.4634
1,1,1,2-Tetrachloroethane	2.00	15797.0000	0.3910	5.00	41179.0000	0.3919	20.0	181908.000	0.3950
1,1,1-Trichloroethane	2.00	31305.0000	0.5721	5.00	81187.0000	0.5713	20.0	352889.000	0.5772
1,1,2-Trichloroethane	2.00	9032.00000	0.2236	5.00	26254.0000	0.2499	20.0	113244.000	0.2459
1,1-Dichloropropene	2.00	18734.0000	0.3424	5.00	50538.0000	0.3556	20.0	230193.000	0.3765
1,2,3-Trichlorobenzene	2.00	23558.0000	1.005	5.00	61722.0000	1.008	20.0	271940.000	1.011
1,2,3-Trichloropropane	2.00	3355.00000	0.1431	5.00	10850.0000	0.1773	20.0	48286.0000	0.1795
1,2,4-Trichlorobenzene	2.00	24052.0000	1.026	5.00	69620.0000	1.137	20.0	307564.000	1.143
1,2,4-Trimethylbenzene	2.00	61187.0000	2.610	5.00	167374.000	2.735	20.0	742484.000	2.760
1,2-Dibromo-3-Chloropropane	2.00	2748.00000	0.1172	5.00	7517.00000	0.1228	20.0	35958.0000	0.1336
1,2-Dibromoethane	2.00	8647.00000	0.2140	5.00	26470.0000	0.2519	20.0	119385.000	0.2593
1,2-Dichlorobenzene	2.00	29891.0000	1.275	5.00	81941.0000	1.339	20.0	355807.000	1.322
1,2-Dichloroethane	2.00	28780.0000	0.5260	5.00	78021.0000	0.5490	20.0	318520.000	0.5210
1,3,5-Trimethylbenzene	2.00	56419.0000	2.407	5.00	158209.000	2.585	20.0	707856.000	2.631
1,3-Dichlorobenzene	2.00	31748.0000	1.354	5.00	88410.0000	1.444	20.0	388257.000	1.443
1,3-Dichloropropane	2.00	15868.0000	0.3928	5.00	46408.0000	0.4417	20.0	208713.000	0.4532
1,4-Dichlorobenzene	2.00	33783.0000	1.441	5.00	90288.0000	1.475	20.0	398403.000	1.481
2,2-Dichloropropane	2.00	29935.0000	0.5471	5.00	74198.0000	0.5221	20.0	330123.000	0.5400
2-Butanone	NA	NA	NA	5.00	11072.0000	0.07790	20.0	48246.0000	0.07890
2-Chloroethyl Vinyl Ether	2.00	4642.00000	0.08480	5.00	13917.0000	0.09790	20.0	72167.0000	0.1180
2-Chlorotoluene	2.00	53524.0000	2.283	5.00	145580.000	2.379	20.0	687416.000	2.555
2-Hexanone	NA	NA	NA	5.00	5410.00000	0.05150	20.0	29124.0000	0.06320
4-Chlorotoluene	2.00	56717.0000	2.420	5.00	152172.000	2.486	20.0	635371.000	2.361
4-Methyl-2-Pentanone	NA	NA	NA	5.00	6997.00000	0.04920	20.0	34429.0000	0.05630
Acetone	NA	NA	NA	5.00	11829.0000	0.08320	20.0	43564.0000	0.07130
Benzene	2.00	48442.0000	0.8853	5.00	123258.000	0.8673	20.0	537755.000	0.8796
Bromobenzene	2.00	15720.0000	0.6706	5.00	41701.0000	0.6813	20.0	184874.000	0.6871
Bromochloromethane	2.00	8056.00000	0.1472	5.00	21187.0000	0.1491	20.0	91279.0000	0.1493
Bromodichloromethane	2.00	23036.0000	0.4210	5.00	63009.0000	0.4434	20.0	271291.000	0.4437
Bromomethane	2.00	9657.00000	0.1765	5.00	23484.0000	0.1652	20.0	117645.000	0.1924
Carbon Disulfide	2.00	45447.0000	0.8306	5.00	106128.000	0.7468	20.0	475305.000	0.7774
Carbon Tetrachloride	2.00	28356.0000	0.5182	5.00	72207.0000	0.5081	20.0	310012.000	0.5071

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Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-08			WG295276-09			WG295276-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	791944.000	0.4814	100	1789244.00	0.4234	200	3422383.00	0.4138
1,2-Dichloropropane	50.0	388809.000	0.2363	100	979356.000	0.2318	200	1860359.00	0.2249
Chloroform	50.0	881651.000	0.5359	100	1932275.00	0.4573	200	3682931.00	0.4453
Ethylbenzene	50.0	597920.000	0.4861	100	1427701.00	0.4461	200	2710061.00	0.4223
Toluene	50.0	1608152.00	1.307	100	3777626.00	1.180	200	6844711.00	1.067
Vinyl Chloride	50.0	504282.000	0.3065	100	915240.000	0.2166	200	1720547.00	0.2080
1,1,2,2-Tetrachloroethane	50.0	344493.000	0.4758	100	845895.000	0.4579	200	1602576.00	0.4395
1,1-Dichloroethane	50.0	820761.000	0.4989	100	1958004.00	0.4634	200	3818131.00	0.4617
Bromoform	50.0	286415.000	0.2329	100	674865.000	0.2109	200	1320958.00	0.2059
Chlorobenzene	50.0	1097585.00	0.8923	100	2629626.00	0.8217	200	4861367.00	0.7576
Chloromethane	50.0	682926.000	0.4151	100	1462473.00	0.3461	NA	NA	NA
1,1,1,2-Tetrachloroethane	50.0	465365.000	0.3783	100	1042812.00	0.3259	200	1931054.00	0.3009
1,1,1-Trichloroethane	50.0	917718.000	0.5579	100	1900472.00	0.4498	200	3632463.00	0.4392
1,1,2-Trichloroethane	50.0	300576.000	0.2444	100	707539.000	0.2211	200	1377842.00	0.2147
1,1-Dichloropropene	50.0	618660.000	0.3761	100	1432180.00	0.3389	200	2694008.00	0.3257
1,2,3-Trichlorobenzene	50.0	711972.000	0.9834	100	1586095.00	0.8585	200	2852568.00	0.7823
1,2,3-Trichloropropane	50.0	126057.000	0.1741	100	285939.000	0.1548	200	551655.000	0.1513
1,2,4-Trichlorobenzene	50.0	798623.000	1.103	100	1803007.00	0.9759	200	3237810.00	0.8880
1,2,4-Trimethylbenzene	50.0	1923418.00	2.657	100	4263761.00	2.308	200	7621339.00	2.090
1,2-Dibromo-3-Chloropropane	50.0	94730.0000	0.1308	100	206703.000	0.1119	200	404256.000	0.1109
1,2-Dibromoethane	50.0	317368.000	0.2580	100	746940.000	0.2334	200	1456950.00	0.2271
1,2-Dichlorobenzene	50.0	944834.000	1.305	100	2189642.00	1.185	200	3985248.00	1.093
1,2-Dichloroethane	50.0	817627.000	0.4970	100	1676905.00	0.3968	200	3254542.00	0.3935
1,3,5-Trimethylbenzene	50.0	1866457.00	2.578	100	4168404.00	2.256	200	7515790.00	2.061
1,3-Dichlorobenzene	50.0	1004557.00	1.388	100	2358692.00	1.277	200	4326857.00	1.187
1,3-Dichloropropane	50.0	542911.000	0.4414	100	1282397.00	0.4007	200	2464862.00	0.3841
1,4-Dichlorobenzene	50.0	1035359.00	1.430	100	2407614.00	1.303	200	4372642.00	1.199
2,2-Dichloropropane	50.0	871707.000	0.5299	100	1909697.00	0.4519	200	3600786.00	0.4354
2-Butanone	50.0	128340.000	0.07800	100	331669.000	0.07850	200	654883.000	0.07920
2-Chloroethyl Vinyl Ether	50.0	197703.000	0.1202	100	500667.000	0.1185	200	979727.000	0.1185
2-Chlorotoluene	50.0	1657321.00	2.289	100	3680512.00	1.992	200	6361910.00	1.745
2-Hexanone	50.0	87874.0000	0.07140	100	234939.000	0.07340	200	456696.000	0.07120
4-Chlorotoluene	50.0	1756915.00	2.427	100	3888121.00	2.105	200	7030088.00	1.928
4-Methyl-2-Pentanone	50.0	97882.0000	0.05950	100	253233.000	0.05990	200	496445.000	0.06000
Acetone	50.0	108866.000	0.06620	100	245941.000	0.05820	200	511899.000	0.06190
Benzene	50.0	1458337.00	0.8865	100	3506633.00	0.8299	200	6387335.00	0.7723
Bromobenzene	50.0	492011.000	0.6796	100	1171429.00	0.6341	200	2210922.00	0.6064
Bromochloromethane	50.0	243459.000	0.1480	100	592717.000	0.1403	200	1125187.00	0.1360
Bromodichloromethane	50.0	697912.000	0.4242	100	1512936.00	0.3580	200	2898790.00	0.3505
Bromomethane	50.0	331908.000	0.2018	100	827352.000	0.1958	200	1589097.00	0.1921
Carbon Disulfide	50.0	1267167.00	0.7703	100	3042783.00	0.7201	200	5686051.00	0.6875
Carbon Tetrachloride	50.0	792280.000	0.4816	100	1584178.00	0.3749	200	3115474.00	0.3767

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Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1,2-Tetrachloroethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-Chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA
2-Butanone	300	955364.000	0.07580
2-Chloroethyl Vinyl Ether	300	1448636.00	0.1149
2-Chlorotoluene	NA	NA	NA
2-Hexanone	300	674051.000	0.07240
4-Chlorotoluene	NA	NA	NA
4-Methyl-2-Pentanone	300	729600.000	0.05790
Acetone	300	693920.000	0.05500
Benzene	NA	NA	NA
Bromobenzene	NA	NA	NA
Bromochloromethane	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA

INT_CAL - Modified 03/06/2008
PDF File ID: 1326681
Report generated 02/24/2009 13:28



Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-02			WG295276-03			WG295276-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	4144.00000	0.1589
Dibromochloromethane	NA	NA	NA	0.400	2478.00000	0.3266	1.00	5973.00000	0.3089
Dibromomethane	NA	NA	NA	0.400	1210.00000	0.1154	1.00	4048.00000	0.1552
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	1.00	12417.00000	0.4762
Hexachlorobutadiene	NA	NA	NA	0.400	2006.00000	0.4670	1.00	6411.00000	0.5729
Isopropylbenzene	NA	NA	NA	0.400	9993.00000	1.317	1.00	25889.00000	1.339
Methylene Chloride	NA	NA	NA	0.400	4723.00000	0.4505	1.00	8424.00000	0.3230
Naphthalene	NA	NA	NA	0.400	7114.00000	1.656	1.00	20409.00000	1.824
Styrene	NA	NA	NA	0.400	6198.00000	0.8168	1.00	15154.00000	0.7838
Tetrachloroethene	NA	NA	NA	0.400	2014.00000	0.2654	1.00	5339.00000	0.2761
Trichloroethene	NA	NA	NA	0.400	2525.00000	0.2408	1.00	5839.00000	0.2239
Trichlorofluoromethane	NA	NA	NA	0.400	5149.00000	0.4911	1.00	16661.00000	0.6389
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	2228.00000	0.2125	1.00	5923.00000	0.2271
cis-1,3-Dichloropropene	NA	NA	NA	0.400	3611.00000	0.3444	1.00	8624.00000	0.3307
m-,p-Xylene	NA	NA	NA	0.800	8452.00000	0.5569	2.00	21515.00000	0.5564
n-Butylbenzene	NA	NA	NA	0.400	9473.00000	2.206	1.00	28070.00000	2.508
n-Propylbenzene	NA	NA	NA	0.400	12020.00000	2.799	1.00	34364.00000	3.071
o-Xylene	NA	NA	NA	0.400	3363.00000	0.4432	1.00	9172.00000	0.4744
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	1.00	24989.00000	2.233
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	29116.00000	2.602
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	4826.00000	0.4313
trans-1,2-Dichloroethene	NA	NA	NA	0.400	3781.00000	0.3606	1.00	11005.00000	0.4220
trans-1,3-Dichloropropene	NA	NA	NA	0.400	3325.00000	0.4382	1.00	9592.00000	0.4961

Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-05			WG295276-06			WG295276-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	2.00	10733.0000	0.1962	5.00	25720.0000	0.1810	20.0	121075.000	0.1980
Dibromochloromethane	2.00	13485.0000	0.3338	5.00	36990.0000	0.3520	20.0	170428.000	0.3701
Dibromomethane	2.00	7965.00000	0.1456	5.00	22138.0000	0.1558	20.0	90393.0000	0.1479
Dichlorodifluoromethane	2.00	30362.0000	0.5549	5.00	67312.0000	0.4736	20.0	292152.000	0.4779
Hexachlorobutadiene	2.00	14425.0000	0.6154	5.00	35753.0000	0.5841	20.0	164944.000	0.6130
Isopropylbenzene	2.00	61070.0000	1.512	5.00	165527.000	1.575	20.0	778252.000	1.690
Methylene Chloride	2.00	15781.0000	0.2884	5.00	38138.0000	0.2684	20.0	152020.000	0.2487
Naphthalene	2.00	41358.0000	1.764	5.00	119547.000	1.953	20.0	551069.000	2.048
Styrene	2.00	36458.0000	0.9024	5.00	103251.000	0.9826	20.0	469122.000	1.019
Tetrachloroethene	2.00	11172.0000	0.2765	5.00	29433.0000	0.2801	20.0	137533.000	0.2987
Trichloroethene	2.00	12992.0000	0.2374	5.00	33203.0000	0.2336	20.0	155468.000	0.2543
Trichlorofluoromethane	2.00	35435.0000	0.6476	5.00	87268.0000	0.6141	20.0	391875.000	0.6410
Vinyl Acetate	NA	NA	NA	5.00	61513.0000	0.4328	20.0	263943.000	0.4317
cis-1,2-Dichloroethene	2.00	13572.0000	0.2480	5.00	35524.0000	0.2500	20.0	157633.000	0.2578
cis-1,3-Dichloropropene	2.00	20241.0000	0.3699	5.00	56455.0000	0.3973	20.0	258299.000	0.4225
m-,p-Xylene	4.00	47150.0000	0.5835	10.0	126578.000	0.6023	40.0	558148.000	0.6060
n-Butylbenzene	2.00	61789.0000	2.636	5.00	167883.000	2.743	20.0	789569.000	2.935
n-Propylbenzene	2.00	78704.0000	3.358	5.00	214839.000	3.510	20.0	995567.000	3.700
o-Xylene	2.00	21677.0000	0.5365	5.00	59433.0000	0.5656	20.0	274235.000	0.5955
p-Isopropyltoluene	2.00	59076.0000	2.520	5.00	164372.000	2.686	20.0	763725.000	2.839
sec-Butylbenzene	2.00	68634.0000	2.928	5.00	184509.000	3.015	20.0	866560.000	3.221
tert-Butylbenzene	2.00	10102.0000	0.4310	5.00	29241.0000	0.4777	20.0	139028.000	0.5167
trans-1,2-Dichloroethene	2.00	23223.0000	0.4244	5.00	57486.0000	0.4045	20.0	249604.000	0.4083
trans-1,3-Dichloropropene	2.00	20971.0000	0.5191	5.00	60077.0000	0.5717	20.0	271409.000	0.5894

Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-08			WG295276-09			WG295276-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	50.0	314475.000	0.1912	100	772287.000	0.1828	200	1423001.00	0.1721
Dibromochloromethane	50.0	450327.000	0.3661	100	1033082.00	0.3228	200	2023338.00	0.3153
Dibromomethane	50.0	241494.000	0.1468	100	542934.000	0.1285	200	1048753.00	0.1268
Dichlorodifluoromethane	50.0	711830.000	0.4327	100	1438984.00	0.3405	NA	NA	NA
Hexachlorobutadiene	50.0	430955.000	0.5952	100	925253.000	0.5008	200	1708268.00	0.4685
Isopropylbenzene	50.0	2014116.00	1.638	100	4579616.00	1.431	200	8233983.00	1.283
Methylene Chloride	50.0	404344.000	0.2458	100	968905.000	0.2293	200	1846660.00	0.2233
Naphthalene	50.0	1447329.00	1.999	100	3193907.00	1.729	200	5707754.00	1.565
Styrene	50.0	1241570.00	1.009	100	2990640.00	0.9345	200	5598533.00	0.8725
Tetrachloroethene	50.0	351309.000	0.2856	100	828091.000	0.2588	200	1548493.00	0.2413
Trichloroethene	50.0	413043.000	0.2511	100	1008821.00	0.2387	200	1889944.00	0.2285
Trichlorofluoromethane	50.0	999652.000	0.6077	100	2037010.00	0.4821	200	4091463.00	0.4947
Vinyl Acetate	50.0	733905.000	0.4461	100	1751664.00	0.4145	200	3307293.00	0.3999
cis-1,2-Dichloroethene	50.0	424531.000	0.2581	100	1036329.00	0.2453	200	1976162.00	0.2389
cis-1,3-Dichloropropene	50.0	686342.000	0.4172	100	1631134.00	0.3860	200	3074105.00	0.3717
m-,p-Xylene	100	1488806.00	0.6052	200	3511729.00	0.5487	400	6392416.00	0.4981
n-Butylbenzene	50.0	2047844.00	2.829	100	4467064.00	2.418	200	7814064.00	2.143
n-Propylbenzene	50.0	2564367.00	3.542	100	5664306.00	3.066	200	9879817.00	2.710
o-Xylene	50.0	738900.000	0.6007	100	1765836.00	0.5518	200	3373997.00	0.5258
p-Isopropyltoluene	50.0	2027341.00	2.800	100	4587899.00	2.483	200	8109927.00	2.224
sec-Butylbenzene	50.0	2264843.00	3.128	100	5103029.00	2.762	200	9058770.00	2.485
tert-Butylbenzene	50.0	368529.000	0.5090	100	891104.000	0.4823	200	1700715.00	0.4664
trans-1,2-Dichloroethene	50.0	680511.000	0.4137	100	1617417.00	0.3828	200	3083792.00	0.3729
trans-1,3-Dichloropropene	50.0	703843.000	0.5722	100	1595318.00	0.4985	200	3064106.00	0.4775

Login Number: L09020346
Analytical Method: 8260B

Instrument ID: HPMS8
Initial Calibration Date: 19-FEB-09 14:17
Column ID: F

Analyte	WG295276-11		
	CONC	RESP	RF
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Dibromomethane	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Isopropylbenzene	NA	NA	NA
Methylene Chloride	NA	NA	NA
Naphthalene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA
Vinyl Acetate	300	4602674.00	0.3650
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-,p-Xylene	NA	NA	NA
n-Butylbenzene	NA	NA	NA
n-Propylbenzene	NA	NA	NA
o-Xylene	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA
sec-Butylbenzene	NA	NA	NA
tert-Butylbenzene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA

Login Number: L09020346 Run Date: 02/06/2009 Sample ID: WG294332-12
Instrument ID: HPMS11 Run Time: 16:54 Method: 8260B
File ID: 11M56960 Analyst: wtd QC Key: STD
ICal Workgroup: WG294332 Cal ID: HPMS11 - 06-FEB-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	20.0	20.1	ug/L	0.413	0.400	30	
1,1-Dichloroethene	CCC	20.0	20.5	ug/L	0.456	2.40	30	
1,2-Dichloropropane	CCC	20.0	19.8	ug/L	0.282	0.800	30	
Ethylbenzene	CCC	20.0	20.7	ug/L	0.467	3.50	30	
Toluene	CCC	20.0	20.4	ug/L	1.25	1.80	30	
Vinyl Chloride	CCC	20.0	18.5	ug/L	0.229	7.50	30	
Bromoform	SPCC	20.0	17.1	ug/L	0.147	14.4	30	
Chlorobenzene	SPCC	20.0	19.5	ug/L	0.826	2.30	30	
Chloromethane	SPCC	20.0	19.5	ug/L	0.504	2.50	30	
1,1-Dichloroethane	SPCC	20.0	20.3	ug/L	0.531	1.50	30	
1,1,2,2-Tetrachloroethane	SPCC	20.0	17.8	ug/L	0.329	10.8	30	
Acetone		20.0	20.2	ug/L	0.0718	1.00	30	
Benzene		20.0	19.6	ug/L	0.935	2.00	30	
Bromobenzene		20.0	20.1	ug/L	0.583	0.600	30	
Bromochloromethane		20.0	20.3	ug/L	0.125	1.70	30	
Bromodichloromethane		20.0	19.9	ug/L	0.300	0.400	30	
Bromomethane		20.0	23.6	ug/L	0.158	17.9	30	
2-Butanone		20.0	20.3	ug/L	0.101	1.60	30	
n-Butylbenzene		20.0	20.3	ug/L	1.83	1.50	30	
sec-Butylbenzene		20.0	20.6	ug/L	2.43	2.90	30	
tert-Butylbenzene		20.0	21.4	ug/L	0.421	6.90	30	
Carbon Disulfide		20.0	18.1	ug/L	0.676	9.60	30	
Carbon Tetrachloride		20.0	21.0	ug/L	0.330	5.00	30	
Dibromochloromethane		20.0	19.5	ug/L	0.233	2.60	30	
Chloroethane		20.0	21.7	ug/L	0.213	8.60	30	
2-Chloroethyl Vinyl Ether		20.0	17.3	ug/L	0.111	13.4	30	
2-Chlorotoluene		20.0	20.4	ug/L	1.81	1.80	30	
4-Chlorotoluene		20.0	19.7	ug/L	1.64	1.50	30	
1,2-Dibromo-3-Chloropropane		20.0	17.6	ug/L	0.0647	12.1	30	
1,2-Dibromoethane		20.0	19.0	ug/L	0.179	5.10	30	
Dibromomethane		20.0	19.5	ug/L	0.104	2.70	30	
1,2-Dichlorobenzene		20.0	19.4	ug/L	0.972	2.90	30	
1,3-Dichlorobenzene		20.0	19.5	ug/L	1.09	2.60	30	
1,4-Dichlorobenzene		20.0	18.9	ug/L	1.11	5.30	30	
Dichlorodifluoromethane		20.0	24.5	ug/L	0.324	22.5	30	
1,2-Dichloroethane		20.0	18.7	ug/L	0.331	6.50	30	
cis-1,2-Dichloroethene		20.0	20.4	ug/L	0.241	2.10	30	
trans-1,2-Dichloroethene		20.0	19.7	ug/L	0.221	1.40	30	
1,3-Dichloropropane		20.0	18.9	ug/L	0.348	5.30	30	
2,2-Dichloropropane		20.0	18.8	ug/L	0.334	6.00	30	
cis-1,3-Dichloropropene		20.0	18.8	ug/L	0.345	6.20	30	
trans-1,3-Dichloropropene		20.0	17.1	ug/L	0.341	14.7	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1326682
Report generated 02/24/2009 13:28



Login Number: L09020346 Run Date: 02/06/2009 Sample ID: WG294332-12
Instrument ID: HPMS11 Run Time: 16:54 Method: 8260B
File ID: 11M56960 Analyst: wtd QC Key: STD
ICal Workgroup: WG294332 Cal ID: HPMS11 - 06-FEB-09

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene	20.0	20.4	ug/L	0.332	1.80	30	
2-Hexanone	20.0	17.2	ug/L	0.163	13.9	30	
Hexachlorobutadiene	20.0	20.3	ug/L	0.307	1.30	30	
Isopropylbenzene	20.0	18.2	ug/L	1.25	9.20	30	
p-Isopropyltoluene	20.0	20.1	ug/L	1.98	0.400	30	
4-Methyl-2-Pentanone	20.0	16.9	ug/L	0.0657	15.3	30	
Methylene Chloride	20.0	19.5	ug/L	0.227	2.60	30	
Naphthalene	20.0	19.0	ug/L	1.08	5.00	30	
n-Propylbenzene	20.0	20.9	ug/L	2.80	4.60	30	
Styrene	20.0	20.0	ug/L	0.927	0	30	
1,1,1,2-Tetrachloroethane	20.0	20.6	ug/L	0.295	2.80	30	
Tetrachloroethene	20.0	20.3	ug/L	0.251	1.50	30	
1,2,3-Trichlorobenzene	20.0	19.5	ug/L	0.588	2.40	30	
1,2,4-Trichlorobenzene	20.0	20.3	ug/L	0.708	1.40	30	
1,1,1-Trichloroethane	20.0	20.6	ug/L	0.366	3.20	30	
1,1,2-Trichloroethane	20.0	19.3	ug/L	0.177	3.70	30	
Trichloroethene	20.0	19.4	ug/L	0.240	2.80	30	
Trichlorofluoromethane	20.0	21.0	ug/L	0.389	5.00	30	
1,2,3-Trichloropropane	20.0	19.1	ug/L	0.100	4.70	30	
1,2,4-Trimethylbenzene	20.0	21.0	ug/L	2.13	5.10	30	
1,3,5-Trimethylbenzene	20.0	20.8	ug/L	2.02	4.20	30	
Vinyl Acetate	20.0	8.63	ug/L	0.122	56.8	40	*
o-Xylene	20.0	20.2	ug/L	0.546	1.20	30	
m-,p-Xylene	40.0	40.2	ug/L	0.572	0.400	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Login Number: L09020346 Run Date: 02/19/2009 Sample ID: WG295276-12
Instrument ID: HPMS8 Run Time: 16:12 Method: 8260B
File ID: 8M351799 Analyst: MES QC Key: STD
Ical Workgroup: WG295276 Cal ID: HPMS8 - 19-FEB-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	20.0	18.9	ug/L	0.513	5.40	30	
1,1-Dichloroethene	CCC	20.0	20.5	ug/L	0.467	2.50	30	
1,2-Dichloropropane	CCC	20.0	21.0	ug/L	0.241	5.20	30	
Ethylbenzene	CCC	20.0	21.4	ug/L	0.493	7.00	30	
Toluene	CCC	20.0	21.4	ug/L	1.32	7.00	30	
Vinyl Chloride	CCC	20.0	20.4	ug/L	0.298	2.00	30	
Bromoform	SPCC	20.0	18.0	ug/L	0.194	9.90	30	
Chlorobenzene	SPCC	20.0	20.7	ug/L	0.905	3.50	30	
Chloromethane	SPCC	20.0	19.5	ug/L	0.448	2.70	30	
1,1-Dichloroethane	SPCC	20.0	20.6	ug/L	0.500	2.80	30	
1,1,2,2-Tetrachloroethane	SPCC	20.0	20.3	ug/L	0.445	1.30	30	
Acetone		20.0	20.5	ug/L	0.0684	2.60	30	
Benzene		20.0	20.9	ug/L	0.898	4.70	30	
Bromobenzene		20.0	21.2	ug/L	0.687	6.10	30	
Bromochloromethane		20.0	21.5	ug/L	0.150	7.40	30	
Bromodichloromethane		20.0	19.0	ug/L	0.393	5.10	30	
Bromomethane		20.0	23.1	ug/L	0.213	15.7	30	
2-Butanone		20.0	18.3	ug/L	0.0714	8.50	30	
n-Butylbenzene		20.0	22.1	ug/L	2.82	10.5	30	
sec-Butylbenzene		20.0	22.1	ug/L	3.18	10.7	30	
tert-Butylbenzene		20.0	21.7	ug/L	0.513	8.30	30	
Carbon Disulfide		20.0	18.0	ug/L	0.684	9.80	30	
Carbon Tetrachloride		20.0	18.8	ug/L	0.440	5.80	30	
Dibromochloromethane		20.0	19.3	ug/L	0.325	3.60	30	
Chloroethane		20.0	23.3	ug/L	0.213	16.4	30	
2-Chloroethyl Vinyl Ether		20.0	21.3	ug/L	0.114	6.30	30	
2-Chlorotoluene		20.0	20.9	ug/L	2.30	4.60	30	
4-Chlorotoluene		20.0	21.3	ug/L	2.42	6.50	30	
1,2-Dibromo-3-Chloropropane		20.0	17.8	ug/L	0.108	11.1	30	
1,2-Dibromoethane		20.0	20.7	ug/L	0.243	3.40	30	
Dibromomethane		20.0	19.1	ug/L	0.134	4.30	30	
1,2-Dichlorobenzene		20.0	20.6	ug/L	1.31	3.10	30	
1,3-Dichlorobenzene		20.0	20.8	ug/L	1.40	4.00	30	
1,4-Dichlorobenzene		20.0	19.8	ug/L	1.42	1.20	30	
Dichlorodifluoromethane		20.0	20.8	ug/L	0.500	3.80	30	
1,2-Dichloroethane		20.0	17.6	ug/L	0.440	12.0	30	
cis-1,2-Dichloroethene		20.0	22.1	ug/L	0.267	10.3	30	
trans-1,2-Dichloroethene		20.0	20.8	ug/L	0.414	3.90	30	
1,3-Dichloropropane		20.0	20.7	ug/L	0.425	3.50	30	
2,2-Dichloropropane		20.0	19.1	ug/L	0.493	4.30	30	
cis-1,3-Dichloropropene		20.0	20.5	ug/L	0.390	2.70	30	
trans-1,3-Dichloropropene		20.0	18.0	ug/L	0.468	10.1	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1326682
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Login Number: L09020346 Run Date: 02/19/2009 Sample ID: WG295276-12
Instrument ID: HPMS8 Run Time: 16:12 Method: 8260B
File ID: 8M351799 Analyst: MES QC Key: STD
ICal Workgroup: WG295276 Cal ID: HPMS8 - 19-FEB-09

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene	20.0	21.5	ug/L	0.365	7.60	30	
2-Hexanone	20.0	18.3	ug/L	0.0615	8.50	30	
Hexachlorobutadiene	20.0	20.7	ug/L	0.571	3.50	30	
Isopropylbenzene	20.0	19.7	ug/L	1.45	1.50	30	
p-Isopropyltoluene	20.0	21.7	ug/L	2.75	8.30	30	
4-Methyl-2-Pentanone	20.0	17.9	ug/L	0.0511	10.6	30	
Methylene Chloride	20.0	21.1	ug/L	0.259	5.70	30	
Naphthalene	20.0	21.7	ug/L	1.97	8.50	30	
n-Propylbenzene	20.0	22.4	ug/L	3.61	12.1	30	
Styrene	20.0	21.8	ug/L	0.996	8.90	30	
1,1,1,2-Tetrachloroethane	20.0	19.6	ug/L	0.358	1.80	30	
Tetrachloroethene	20.0	21.2	ug/L	0.289	6.10	30	
1,2,3-Trichlorobenzene	20.0	20.2	ug/L	0.965	0.800	30	
1,2,4-Trichlorobenzene	20.0	21.1	ug/L	1.10	5.60	30	
1,1,1-Trichloroethane	20.0	18.8	ug/L	0.509	6.00	30	
1,1,2-Trichloroethane	20.0	20.6	ug/L	0.235	3.00	30	
Trichloroethene	20.0	21.0	ug/L	0.251	5.10	30	
Trichlorofluoromethane	20.0	19.7	ug/L	0.567	1.70	30	
1,2,3-Trichloropropane	20.0	20.5	ug/L	0.161	2.50	30	
1,2,4-Trimethylbenzene	20.0	22.0	ug/L	2.76	9.80	30	
1,3,5-Trimethylbenzene	20.0	22.7	ug/L	2.62	13.6	30	
Vinyl Acetate	20.0	15.8	ug/L	0.328	21.0	40	
o-Xylene	20.0	22.5	ug/L	0.603	12.3	30	
m-,p-Xylene	40.0	42.6	ug/L	0.607	6.60	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Login Number: L09020346	Run Date: 02/18/2009	Sample ID: WG295253-02
Instrument ID: HPMS11	Run Time: 18:03	Method: 8260B
File ID: 11M57179	Analyst: FJB	QC Key: STD
Workgroup (AAB#): WG295254	Cal ID: HPMS11 - 06-FEB-09	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	48.2	ug/L	0.396	3.66	20	
1,1-Dichloroethene	CCC	50.0	49.6	ug/L	0.442	0.788	20	
1,2-Dichloropropane	CCC	50.0	52.9	ug/L	0.301	5.85	20	
Ethylbenzene	CCC	50.0	51.2	ug/L	0.461	2.36	20	
Toluene	CCC	50.0	48.9	ug/L	1.20	2.10	20	
Vinyl Chloride	CCC	50.0	45.7	ug/L	0.226	8.63	20	
Bromoform	SPCC	50.0	45.3	ug/L	0.161	9.32	40	
Chlorobenzene	SPCC	50.0	49.0	ug/L	0.828	2.09	40	
Chloromethane	SPCC	50.0	44.2	ug/L	0.457	11.6	40	
1,1-Dichloroethane	SPCC	50.0	50.5	ug/L	0.529	0.983	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	47.3	ug/L	0.349	5.36	40	
Acetone		50.0	41.4	ug/L	0.0589	17.2	40	
Benzene		50.0	49.8	ug/L	0.950	0.388	40	
Bromobenzene		50.0	48.9	ug/L	0.568	2.11	40	
Bromochloromethane		50.0	53.2	ug/L	0.130	6.44	40	
Bromodichloromethane		50.0	48.8	ug/L	0.294	2.41	40	
Bromomethane		50.0	54.0	ug/L	0.145	8.07	40	
2-Butanone		50.0	46.6	ug/L	0.0923	6.72	40	
n-Butylbenzene		50.0	50.2	ug/L	1.81	0.387	40	
sec-Butylbenzene		50.0	50.9	ug/L	2.40	1.86	40	
tert-Butylbenzene		50.0	52.2	ug/L	0.411	4.43	40	
Carbon Disulfide		50.0	49.7	ug/L	0.742	0.627	40	
Carbon Tetrachloride		50.0	50.8	ug/L	0.320	1.60	40	
Dibromochloromethane		50.0	50.1	ug/L	0.239	0.212	40	
Chloroethane		50.0	54.2	ug/L	0.213	8.48	40	
2-Chloroethyl Vinyl Ether		50.0	48.0	ug/L	0.123	4.02	40	
2-Chlorotoluene		50.0	45.2	ug/L	1.61	9.66	40	
4-Chlorotoluene		50.0	49.3	ug/L	1.64	1.40	40	
1,2-Dibromo-3-Chloropropane		50.0	42.1	ug/L	0.0620	15.7	40	
1,2-Dibromoethane		50.0	49.9	ug/L	0.188	0.224	40	
Dibromomethane		50.0	50.4	ug/L	0.107	0.827	40	
1,2-Dichlorobenzene		50.0	49.2	ug/L	0.985	1.56	40	
1,3-Dichlorobenzene		50.0	49.6	ug/L	1.11	0.881	40	
1,4-Dichlorobenzene		50.0	48.4	ug/L	1.13	3.19	40	
Dichlorodifluoromethane		50.0	51.3	ug/L	0.272	2.59	40	
1,2-Dichloroethane		50.0	46.7	ug/L	0.331	6.69	40	
cis-1,2-Dichloroethene		50.0	50.0	ug/L	0.236	0.0538	40	
trans-1,2-Dichloroethene		50.0	49.0	ug/L	0.220	1.97	40	
1,3-Dichloropropane		50.0	47.8	ug/L	0.351	4.44	40	
2,2-Dichloropropane		50.0	49.9	ug/L	0.354	0.257	40	
cis-1,3-Dichloropropene		50.0	49.6	ug/L	0.365	0.869	40	
trans-1,3-Dichloropropene		50.0	48.4	ug/L	0.387	3.17	40	

CCV - Modified 03/05/2008
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Login Number: L09020346	Run Date: 02/18/2009	Sample ID: WG295253-02
Instrument ID: HPMS11	Run Time: 18:03	Method: 8260B
File ID: 11M57179	Analyst: FJB	QC Key: STD
Workgroup (AAB#): WG295254	Cal ID: HPMS11 - 06-FEB-09	
Matrix: WATER		

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	50.2	ug/L	0.327	0.369	40	
2-Hexanone	50.0	46.1	ug/L	0.174	7.85	40	
Hexachlorobutadiene	50.0	51.1	ug/L	0.309	2.12	40	
Isopropylbenzene	50.0	51.0	ug/L	1.41	2.10	40	
p-Isopropyltoluene	50.0	50.9	ug/L	2.01	1.77	40	
4-Methyl-2-Pentanone	50.0	48.0	ug/L	0.0746	3.94	40	
Methylene Chloride	50.0	48.2	ug/L	0.221	3.54	40	
Naphthalene	50.0	50.1	ug/L	1.14	0.263	40	
n-Propylbenzene	50.0	50.9	ug/L	2.73	1.80	40	
Styrene	50.0	51.5	ug/L	0.956	3.02	40	
1,1,1,2-Tetrachloroethane	50.0	49.4	ug/L	0.283	1.13	40	
Tetrachloroethene	50.0	50.9	ug/L	0.251	1.83	40	
1,2,3-Trichlorobenzene	50.0	49.6	ug/L	0.598	0.890	40	
1,2,4-Trichlorobenzene	50.0	50.0	ug/L	0.699	0.0830	40	
1,1,1-Trichloroethane	50.0	47.7	ug/L	0.338	4.61	40	
1,1,2-Trichloroethane	50.0	49.1	ug/L	0.181	1.78	40	
Trichloroethene	50.0	47.1	ug/L	0.232	5.84	40	
Trichlorofluoromethane	50.0	49.3	ug/L	0.365	1.31	40	
1,2,3-Trichloropropane	50.0	46.1	ug/L	0.0972	7.72	40	
1,2,4-Trimethylbenzene	50.0	48.8	ug/L	1.98	2.48	40	
1,3,5-Trimethylbenzene	50.0	49.8	ug/L	1.93	0.339	40	
Vinyl Acetate	50.0	89.1	ug/L	0.504	78.2	40	*
o-Xylene	50.0	51.0	ug/L	0.550	1.91	40	
m-,p-Xylene	100	102	ug/L	0.583	2.33	40	
1,2-Dichloroethene	100	99.0	ug/L	0.228	0.959	40	
Xylenes	150	153	ug/L	0.566	2.19	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

CCV - Modified 03/05/2008

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Login Number: L09020346	Run Date: 02/19/2009	Sample ID: WG295370-02
Instrument ID: HPMS8	Run Time: 18:12	Method: 8260B
File ID: 8M351803	Analyst: MES	QC Key: STD
Workgroup (AAB#): WG295371	Cal ID: HPMS8 - 19-FEB-09	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	44.3	ug/L	0.479	11.5	20	
1,1-Dichloroethene	CCC	50.0	47.9	ug/L	0.436	4.17	20	
1,2-Dichloropropane	CCC	50.0	52.3	ug/L	0.239	4.50	20	
Ethylbenzene	CCC	50.0	51.4	ug/L	0.474	2.81	20	
Toluene	CCC	50.0	51.3	ug/L	1.27	2.61	20	
Vinyl Chloride	CCC	50.0	49.0	ug/L	0.255	1.92	20	
Bromoform	SPCC	50.0	47.2	ug/L	0.203	5.69	40	
Chlorobenzene	SPCC	50.0	49.6	ug/L	0.867	0.823	40	
Chloromethane	SPCC	50.0	45.4	ug/L	0.383	9.19	40	
1,1-Dichloroethane	SPCC	50.0	48.5	ug/L	0.472	3.02	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	50.8	ug/L	0.447	1.63	40	
Acetone		50.0	42.7	ug/L	0.0562	14.5	40	
Benzene		50.0	50.8	ug/L	0.872	1.65	40	
Bromobenzene		50.0	51.1	ug/L	0.662	2.22	40	
Bromochloromethane		50.0	51.5	ug/L	0.144	2.96	40	
Bromodichloromethane		50.0	45.0	ug/L	0.373	10.1	40	
Bromomethane		50.0	55.3	ug/L	0.204	10.7	40	
2-Butanone		50.0	46.4	ug/L	0.0724	7.25	40	
n-Butylbenzene		50.0	52.2	ug/L	2.66	4.36	40	
sec-Butylbenzene		50.0	52.2	ug/L	3.00	4.40	40	
tert-Butylbenzene		50.0	52.9	ug/L	0.501	5.81	40	
Carbon Disulfide		50.0	49.3	ug/L	0.747	1.48	40	
Carbon Tetrachloride		50.0	43.3	ug/L	0.405	13.3	40	
Dibromochloromethane		50.0	48.3	ug/L	0.325	3.47	40	
Chloroethane		50.0	53.4	ug/L	0.195	6.87	40	
2-Chloroethyl Vinyl Ether		50.0	52.8	ug/L	0.113	5.52	40	
2-Chlorotoluene		50.0	50.8	ug/L	2.23	1.55	40	
4-Chlorotoluene		50.0	49.0	ug/L	2.23	2.08	40	
1,2-Dibromo-3-Chloropropane		50.0	47.5	ug/L	0.115	4.94	40	
1,2-Dibromoethane		50.0	50.9	ug/L	0.239	1.78	40	
Dibromomethane		50.0	46.1	ug/L	0.129	7.78	40	
1,2-Dichlorobenzene		50.0	49.2	ug/L	1.25	1.58	40	
1,3-Dichlorobenzene		50.0	50.4	ug/L	1.36	0.718	40	
1,4-Dichlorobenzene		50.0	48.0	ug/L	1.38	4.01	40	
Dichlorodifluoromethane		50.0	45.1	ug/L	0.397	9.70	40	
1,2-Dichloroethane		50.0	41.7	ug/L	0.416	16.7	40	
cis-1,2-Dichloroethene		50.0	52.0	ug/L	0.252	4.04	40	
trans-1,2-Dichloroethene		50.0	49.0	ug/L	0.391	2.01	40	
1,3-Dichloropropane		50.0	50.5	ug/L	0.414	0.957	40	
2,2-Dichloropropane		50.0	45.9	ug/L	0.472	8.30	40	
cis-1,3-Dichloropropene		50.0	52.1	ug/L	0.396	4.26	40	
trans-1,3-Dichloropropene		50.0	49.9	ug/L	0.519	0.171	40	

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Login Number: L09020346	Run Date: 02/19/2009	Sample ID: WG295370-02
Instrument ID: HPMS8	Run Time: 18:12	Method: 8260B
File ID: 8M351803	Analyst: MES	QC Key: STD
Workgroup (AAB#): WG295371	Cal ID: HPMS8 - 19-FEB-09	
Matrix: WATER		

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	52.1	ug/L	0.353	4.22	40	
2-Hexanone	50.0	50.1	ug/L	0.0673	0.126	40	
Hexachlorobutadiene	50.0	48.8	ug/L	0.539	2.36	40	
Isopropylbenzene	50.0	52.5	ug/L	1.55	5.09	40	
p-Isopropyltoluene	50.0	53.2	ug/L	2.70	6.32	40	
4-Methyl-2-Pentanone	50.0	47.3	ug/L	0.0540	5.47	40	
Methylene Chloride	50.0	50.2	ug/L	0.239	0.312	40	
Naphthalene	50.0	50.5	ug/L	1.84	0.981	40	
n-Propylbenzene	50.0	52.7	ug/L	3.39	5.45	40	
Styrene	50.0	53.5	ug/L	0.978	6.92	40	
1,1,1,2-Tetrachloroethane	50.0	47.3	ug/L	0.345	5.48	40	
Tetrachloroethene	50.0	50.4	ug/L	0.275	0.853	40	
1,2,3-Trichlorobenzene	50.0	48.0	ug/L	0.918	4.08	40	
1,2,4-Trichlorobenzene	50.0	49.9	ug/L	1.04	0.118	40	
1,1,1-Trichloroethane	50.0	43.7	ug/L	0.474	12.5	40	
1,1,2-Trichloroethane	50.0	49.9	ug/L	0.228	0.231	40	
Trichloroethene	50.0	52.0	ug/L	0.248	3.95	40	
Trichlorofluoromethane	50.0	46.0	ug/L	0.531	7.96	40	
1,2,3-Trichloropropane	50.0	49.1	ug/L	0.154	1.82	40	
1,2,4-Trimethylbenzene	50.0	50.6	ug/L	2.54	1.20	40	
1,3,5-Trimethylbenzene	50.0	53.7	ug/L	2.47	7.41	40	
Vinyl Acetate	50.0	47.3	ug/L	0.393	5.42	40	
o-Xylene	50.0	54.0	ug/L	0.580	8.04	40	
m-,p-Xylene	100	103	ug/L	0.586	2.81	40	
1,2-Dichloroethene	100	101	ug/L	0.321	1.02	40	
Xylenes	150	157	ug/L	0.583	4.56	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

CCV - Modified 03/05/2008

PDF File ID: 1326684

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Login Number: L09020346	Run Date: 02/20/2009	Sample ID: WG295389-02
Instrument ID: HPMS11	Run Time: 08:14	Method: 8260B
File ID: 11M57230	Analyst: WTD	QC Key: STD
Workgroup (AAB#): WG295390	Cal ID: HPMS11 - 06-FEB-09	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	46.1	ug/L	0.379	7.84	20	
1,1-Dichloroethene	CCC	50.0	45.2	ug/L	0.402	9.66	20	
1,2-Dichloropropane	CCC	50.0	47.9	ug/L	0.273	4.14	20	
Ethylbenzene	CCC	50.0	49.8	ug/L	0.448	0.499	20	
Toluene	CCC	50.0	47.8	ug/L	1.17	4.38	20	
Vinyl Chloride	CCC	50.0	40.9	ug/L	0.202	18.2	20	
Bromoform	SPCC	50.0	45.2	ug/L	0.161	9.50	40	
Chlorobenzene	SPCC	50.0	48.6	ug/L	0.822	2.84	40	
Chloromethane	SPCC	50.0	36.3	ug/L	0.375	27.5	40	
1,1-Dichloroethane	SPCC	50.0	45.9	ug/L	0.481	8.18	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	44.0	ug/L	0.324	12.1	40	
Acetone		50.0	53.7	ug/L	0.0764	7.41	40	
Benzene		50.0	47.4	ug/L	0.904	5.24	40	
Bromobenzene		50.0	49.7	ug/L	0.576	0.699	40	
Bromochloromethane		50.0	53.8	ug/L	0.132	7.66	40	
Bromodichloromethane		50.0	45.9	ug/L	0.276	8.25	40	
Bromomethane		50.0	51.6	ug/L	0.138	3.29	40	
2-Butanone		50.0	38.7	ug/L	0.0766	22.6	40	
n-Butylbenzene		50.0	47.7	ug/L	1.72	4.54	40	
sec-Butylbenzene		50.0	49.8	ug/L	2.35	0.497	40	
tert-Butylbenzene		50.0	52.4	ug/L	0.413	4.86	40	
Carbon Disulfide		50.0	50.9	ug/L	0.761	1.80	40	
Carbon Tetrachloride		50.0	48.7	ug/L	0.306	2.62	40	
Dibromochloromethane		50.0	49.6	ug/L	0.237	0.721	40	
Chloroethane		50.0	52.2	ug/L	0.205	4.33	40	
2-Chloroethyl Vinyl Ether		50.0	40.9	ug/L	0.105	18.1	40	
2-Chlorotoluene		50.0	45.3	ug/L	1.62	9.36	40	
4-Chlorotoluene		50.0	46.4	ug/L	1.55	7.14	40	
1,2-Dibromo-3-Chloropropane		50.0	37.5	ug/L	0.0552	25.0	40	
1,2-Dibromoethane		50.0	49.0	ug/L	0.185	2.00	40	
Dibromomethane		50.0	47.6	ug/L	0.101	4.75	40	
1,2-Dichlorobenzene		50.0	48.3	ug/L	0.967	3.32	40	
1,3-Dichlorobenzene		50.0	49.6	ug/L	1.11	0.880	40	
1,4-Dichlorobenzene		50.0	48.3	ug/L	1.13	3.44	40	
Dichlorodifluoromethane		50.0	53.4	ug/L	0.283	6.88	40	
1,2-Dichloroethane		50.0	41.1	ug/L	0.291	17.8	40	
cis-1,2-Dichloroethene		50.0	51.0	ug/L	0.240	1.91	40	
trans-1,2-Dichloroethene		50.0	49.1	ug/L	0.220	1.79	40	
1,3-Dichloropropane		50.0	43.5	ug/L	0.320	12.9	40	
2,2-Dichloropropane		50.0	47.6	ug/L	0.338	4.80	40	
cis-1,3-Dichloropropene		50.0	46.7	ug/L	0.343	6.66	40	
trans-1,3-Dichloropropene		50.0	44.9	ug/L	0.359	10.1	40	

CCV - Modified 03/05/2008
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Login Number: L09020346	Run Date: 02/20/2009	Sample ID: WG295389-02
Instrument ID: HPMS11	Run Time: 08:14	Method: 8260B
File ID: 11M57230	Analyst: WTD	QC Key: STD
Workgroup (AAB#): WG295390	Cal ID: HPMS11 - 06-FEB-09	
Matrix: WATER		

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	47.5	ug/L	0.310	5.09	40	
2-Hexanone	50.0	38.6	ug/L	0.146	22.7	40	
Hexachlorobutadiene	50.0	52.4	ug/L	0.317	4.79	40	
Isopropylbenzene	50.0	50.2	ug/L	1.38	0.331	40	
p-Isopropyltoluene	50.0	50.8	ug/L	2.01	1.60	40	
4-Methyl-2-Pentanone	50.0	42.4	ug/L	0.0658	15.2	40	
Methylene Chloride	50.0	47.6	ug/L	0.218	4.79	40	
Naphthalene	50.0	47.6	ug/L	1.08	4.82	40	
n-Propylbenzene	50.0	49.3	ug/L	2.64	1.33	40	
Styrene	50.0	50.5	ug/L	0.938	1.08	40	
1,1,1,2-Tetrachloroethane	50.0	49.1	ug/L	0.281	1.88	40	
Tetrachloroethene	50.0	51.8	ug/L	0.256	3.60	40	
1,2,3-Trichlorobenzene	50.0	48.3	ug/L	0.583	3.42	40	
1,2,4-Trichlorobenzene	50.0	49.5	ug/L	0.691	1.05	40	
1,1,1-Trichloroethane	50.0	46.7	ug/L	0.332	6.51	40	
1,1,2-Trichloroethane	50.0	46.8	ug/L	0.172	6.48	40	
Trichloroethene	50.0	48.6	ug/L	0.240	2.85	40	
Trichlorofluoromethane	50.0	50.5	ug/L	0.374	0.925	40	
1,2,3-Trichloropropane	50.0	45.2	ug/L	0.0953	9.54	40	
1,2,4-Trimethylbenzene	50.0	48.3	ug/L	1.96	3.49	40	
1,3,5-Trimethylbenzene	50.0	49.5	ug/L	1.92	0.919	40	
Vinyl Acetate	50.0	76.6	ug/L	0.433	53.2	40	*
o-Xylene	50.0	50.5	ug/L	0.545	1.01	40	
m-,p-Xylene	100	99.6	ug/L	0.567	0.407	40	
1,2-Dichloroethene	100	100	ug/L	0.230	0.0593	40	
Xylenes	150	150	ug/L	0.556	0.0641	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

CCV - Modified 03/05/2008

PDF File ID: 1326684

Report generated 02/24/2009 13:28



Login Number: L09020346
Instrument ID: HPMS11
Workgroup (AAB#): WG295254

CCV Number: WG295253-02
CAL ID: HPMS11 - 06-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295253-02	NA	NA	347100	557664	684321
Upper Limit	NA	NA	694200	1115328	1368642
Lower Limit	NA	NA	173550	278832	342161
<u>L09020346-01</u>	<u>1.00</u>	<u>01</u>	<u>344498</u>	<u>592582</u>	<u>740852</u>
L09020346-02	1.00	01	338605	584685	726783
L09020346-04	1.00	01	294979	519026	661640
WG295254-01	1.00	01	291124	508055	653919
WG295254-02	1.00	01	336441	554015	698753
WG295254-03	10.0	DL01	299467	523950	673552
WG295254-04	10.0	DL01	328682	550964	693108
WG295254-05	10.0	DL01	330519	561226	700877
WG295254-06	1.00	01	361661	610520	753216

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020346
Instrument ID: HPMS8
Workgroup (AAB#): WG295371

CCV Number: WG295370-02
CAL ID: HPMS8 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295370-02	NA	NA	398559	696573	930371
Upper Limit	NA	NA	797118	1393146	1860742
Lower Limit	NA	NA	199280	348287	465186
<u>L09020346-03</u>	<u>1.00</u>	<u>01</u>	<u>363591</u>	<u>658617</u>	<u>900251</u>
WG295371-01	1.00	01	377880	685087	931639
WG295371-02	1.00	01	387531	673607	903157
WG295371-03	1.00	01	389374	687233	928431

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020346
Instrument ID: HPMS11
Workgroup (AAB#): WG295390

CCV Number: WG295389-02
CAL ID: HPMS11 - 06-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295389-02	NA	NA	393575	642591	799931
Upper Limit	NA	NA	787150	1285182	1599862
Lower Limit	NA	NA	196788	321296	399966
<u>L09020346-01</u>	<u>10.0</u>	<u>DL01</u>	<u>313357</u>	<u>537167</u>	<u>668462</u>
L09020346-02	10.0	DL01	314569	539263	665873
WG295390-01	1.00	01	329575	561454	700173
WG295390-02	1.00	01	367978	609729	746576
WG295390-03	1.00	01	368891	606648	743974
WG295390-04	1.00	01	329209	562474	696317
WG295390-05	25.0	DL01	306624	527521	663881
WG295390-05	100	DL02	291941	498567	623507

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020346
Instrument ID: HPMS11
Workgroup (AAB#): WG295254

CCV Number: WG295253-02
CAL ID: HPMS11 - 06-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295253-02	NA	NA	16.48	13.69	10.07
Upper Limit	NA	NA	16.98	14.19	10.57
Lower Limit	NA	NA	15.98	13.19	9.57
L09020346-01	1.00	01	16.481	13.69	10.071
L09020346-02	1.00	01	16.482	13.69	10.071
L09020346-04	1.00	01	16.481	13.69	10.071
WG295254-01	1.00	01	16.481	13.69	10.071
WG295254-02	1.00	01	16.481	13.69	10.071
WG295254-03	10.0	DL01	16.481	13.69	10.071
WG295254-04	10.0	DL01	16.481	13.69	10.071
WG295254-05	10.0	DL01	16.481	13.69	10.071
WG295254-06	1.00	01	16.482	13.69	10.071

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020346
Instrument ID: HPMS8
Workgroup (AAB#): WG295371

CCV Number: WG295370-02
CAL ID: HPMS8 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295370-02	NA	NA	17.68	14.66	10.79
Upper Limit	NA	NA	18.18	15.16	11.29
Lower Limit	NA	NA	17.18	14.16	10.29
L09020346-03	1.00	01	17.68	14.66	10.8
WG295371-01	1.00	01	17.68	14.66	10.79
WG295371-02	1.00	01	17.68	14.66	10.79
WG295371-03	1.00	01	17.68	14.66	10.79

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020346
Instrument ID: HPMS11
Workgroup (AAB#): WG295390

CCV Number: WG295389-02
CAL ID: HPMS11 - 06-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295389-02	NA	NA	16.48	13.69	10.07
Upper Limit	NA	NA	16.98	14.19	10.57
Lower Limit	NA	NA	15.98	13.19	9.57
L09020346-01	10.0	DL01	16.481	13.679	10.071
L09020346-02	10.0	DL01	16.482	13.68	10.071
WG295390-01	1.00	01	16.481	13.679	10.071
WG295390-02	1.00	01	16.482	13.68	10.071
WG295390-03	1.00	01	16.481	13.679	10.061
WG295390-04	1.00	01	16.481	13.679	10.071
WG295390-05	25.0	DL01	16.482	13.68	10.071
WG295390-05	100	DL02	16.481	13.679	10.071

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

2.1.2 RSK 175

2.1.2.1 Summary Data

LABORATORY REPORT

L09020346

00102951

02/25/09 08:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836 (GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW13-021709	L09020346-01	RSK175	1	18-FEB-09
47WW13-021709-FD	L09020346-02	RSK175	1	18-FEB-09
LHSMW50-021709	L09020346-03	RSK175	1	18-FEB-09



Sample Number: **L09020346-01**
Client ID: **47WW13-021709**
Matrix: **Water**
Workgroup Number: **WG295202**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5021**
Analytical Method: **RSK175**
Analyst: **EAB**
Dilution: **1**
Units: **ug/L**

Instrument: **HP16**
Prep Date: **02/18/2009 14:59**
Cal Date: **11/07/2008 09:27**
Run Date: **02/18/2009 14:59**
File ID: **16617949**

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	31.5		5.00	1.00
ethene	74-85-1	2.06	J	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number: **L09020346-02**
Client ID: **47WW13-021709-FD**
Matrix: **Water**
Workgroup Number: **WG295202**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5021**
Analytical Method: **RSK175**
Analyst: **EAB**
Dilution: **1**
Units: **ug/L**

Instrument: **HP16**
Prep Date: **02/18/2009 15:10**
Cal Date: **11/07/2008 09:27**
Run Date: **02/18/2009 15:10**
File ID: **16617950**

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	31.8		5.00	1.00
ethene	74-85-1	2.13	J	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L09020346**Report Date : **February 25, 2009**

00102954

Sample Number: **L09020346-03**
Client ID: **LHSMW50-021709**
Matrix: **Water**
Workgroup Number: **WG295202**
Collect Date: **02/17/2009 13:34**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5021**
Analytical Method: **RSK175**
Analyst: **EAB**
Dilution: **1**
Units: **ug/L**

Instrument: **HP16**
Prep Date: **02/18/2009 15:22**
Cal Date: **11/07/2008 09:27**
Run Date: **02/18/2009 15:22**
File ID: **16617951**

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8		U	5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

2.1.2.2 QC Summary Data

Microbac Laboratories Inc.

00102956

Data Checklist

Date: 07-NOV-2008

Analyst: EAB

Analyst: NA

Method: RSK175

Instrument: HP16

Curve Workgroup: NA

Runlog ID: 25146

Analytical Workgroups: WG287221, WG287258

System Performance Check	NA
BFB	NA
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	EAB
Secondary Reviewer	LSB
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
07-NOV-2008

EAB

Secondary Reviewer:
17-NOV-2008

Leslie Bucina



Microbac Laboratories Inc.

00102957

Data Checklist

Date: 18-FEB-2009

Analyst: EAB

Analyst: NA

Method: RSK175

Instrument: HP16

Curve Workgroup: NA

Runlog ID: 26581

Analytical Workgroups: WG295151, WG295202

System Performance Check	NA
BFB	NA
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	EAB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
18-FEB-2009



Secondary Reviewer:
19-FEB-2009




RSK-175 - Example Calculation for Methane**1.0 Linear Calibration Models****Option A - Average RF Method**

ICAL_x	ICAL_r	RF
1.67	19901	11917
6.67	69174	10371
16.7	176923	10594
66.7	685135	10272
133	1324853	9961
300	2845104	9484
Average RF:		10433

Where:

ICAL_x = the ICAL concentration

ICAL_r = the ICAL response (area)

RF = calibration factor = ICAL_r / ICAL_x

Option B - Agilent Linear Regression Constant

ICAL_x	ICAL_r	[ICAL_r]^2	[ICAL-x][ICAL-r]
1.67	19901	396049801	33235
6.67	69174	4785042276	461391
16.7	176923	31301747929	2954614
66.7	685135	4.6941E+11	45698505
133	1324853	1.75524E+12	176205449
300	2845104	8.09462E+12	853531200
Summation:		1.03557E+13	1078884393

Agilent Linear Regression Constant : **9598.567853**
 (1.03557E+13)/1078884393)

2.0 Calculate the concentration in extract, Cx

Where:

y = area response of methane from quant report

a = average RF (or Agilent regression constant)

Cx = y/a

1157414
10433.00
110.9377935

3.0 Calculate the concentration in sample**Cs = Cx (MW/Tf) (HS/S) (DF)**

Where:

Cx = Concentration in extract

MW = molecular weight of analyte

TF = temperature factor = (22.4)(313/273)

HS = headspace volume

S = sample volume remaining after headspace removal

DF = dilution factor

Cs = calculated sample concentration

110.9377935 umol/mol
16.04 ug/umol
25.68 L/mol
0.015 L
0.00547 L
2
380.034301 ug/L

RSK-175 - Example Calculation for Carbon DioxideICAL Plot - Quadratic Regression ($y = Ax^2 + Bx + C$)

$$Ax^2 + Bx + (C - y) = 0$$

Step 1 - Calculate the concentration in extract, CxData from quadratic regression plot:

Value of A from plot:	0.916
Value of B from plot:	1540
Value of C from plot:	0
Response for methane from quantitation report (y):	8763828
Value of C - y	-8763828

Solving for Cx using the quadratic formula:

Root 1 - Computed Cx1:	2364.716284 umol/mol
Root 2 - Computed Cx2:	-4045.938991

Step 2 - Calculate the concentration in sample $C_s = C_x (MW/Tf) (HS/S) (DF)$

Where:

Cx = Concentration in extract :	2364.716284 umol/mol
MW = molecular weight of analyte:	44.0 ug/umol
TF = temperature factor = $(22.4)(313/273)$:	25.68 L/mol
HS = initial headspace volume (extraction log):	0.015 L
S = final volume (extraction log):	0.00547 L
DF = dilution factor:	10
Cs = calculated sample concentration:	111106.798 ug/L

Other Notes:

Temperature of headspace = 40 C = 313 K

Analyte	MW (g/mol)
Methane	16.04
Ethane	30.07
Ethene	28.05
Propane	44.1
Carbon Dioxide	44.0

Microbac Laboratories Inc.
Instrument Run Log

00102960

Instrument: HP16 Dataset: 110708
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 26530

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: STD29606
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG287221, WG287258

Comments: CURVE; THEN NO REANALYSIS REQUIRED

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	16G16513	warm up blank	NA	1	1		11/07/08 08:10
2	16G16514	WG287221-01 1.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:24
3	16G16515	WG287221-02 6.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:36
4	16G16516	WG287221-03 16.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:48
5	16G16517	WG287221-04 66.67umol/mol STD	NA	1	1	STD29606	11/07/08 09:01
6	16G16518	WG287221-05 133.33umol/mol STD-CCV	NA	1	1	STD29606	11/07/08 09:13
7	16G16519	WG287221-06 300umol/mol STD-CCV	NA	1	1	STD29606	11/07/08 09:27
8	16G16520	BLANK	NA	1	1		11/07/08 10:38
9	16G16521	WG287221-07 67umol/mol ALT SRCE STD	NA	1	1	STD29606	11/07/08 10:50
10	16G16522	WG287254-01 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 11:03
11	16G16523	WG287258-01 BLANK	NA	1	1		11/07/08 11:15
12	16G16524	WG287258-02 67umol/mol LCS STD	NA	1	1	STD29606	11/07/08 11:27
13	16G16525	WG287258-02 67umol/mol LCS STD	NA	1	1	STD29606	11/07/08 11:39
14	16G16526	L08110122-01 A REF	7	1	1		11/07/08 11:53
15	16G16527	L08110122-02 A MS	7	1	1	STD29606	11/07/08 12:05
16	16G16528	L08110122-03 A MSD	7	1	1	STD29606	11/07/08 12:17
17	16G16529	L08110122-04 A	7	1	1		11/07/08 12:29
18	16G16530	L08110122-05 A	7	1	1		11/07/08 12:40
19	16G16531	L08110124-01 A	7	1	1		11/07/08 12:52
20	16G16532	L08110124-02 A	7	1	1		11/07/08 13:04
21	16G16533	WG287254-02 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 13:16
22	16G16534	L08110124-03 A	<2	1	1		11/07/08 13:28
23	16G16535	L08110124-04 A	7	1	1		11/07/08 13:39
24	16G16536	WG287254-03 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 13:51

Comments

Seq.	Rerun	Dil.	Reason	Analytes
12	X			
File ID: 16G16524				
ACETYLENE HIGH				

Approved: November 17, 2008

Page: 1




Microbac Laboratories Inc.
Instrument Run Log

00102961

Instrument: HP16 Dataset: 021809
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 27655

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: NA
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG295151, WG295202

Comments: 300'S: REPORTING METHANE ONLY
 301'S: REPORTING METHANE ONLY
 311-01,02,03,04: REPORTING ETHENE,ETHANE ONLY
 323'S: RR DUE TO CCV FAILURE
 324'S: RR DUE TO CCV FAILURE

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	16G17917	WG295146-01 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 08:15
2	16G17918	WG295151-01 BLANK	NA	1	1		02/18/09 08:27
3	16G17919	WG295151-02 67umol/mol LCS	NA	1	1	STD29606	02/18/09 08:42
4	16G17920	WG295151-03 67umol/mol LCS DUP	NA	1	1	STD29606	02/18/09 08:54
5	16G17921	L09020300-06 B 50X	7	1	50		02/18/09 09:06
6	16G17922	L09020300-07 B 10X	7	1	10		02/18/09 09:18
7	16G17923	L09020300-08 B 5X	7	1	5		02/18/09 09:30
8	16G17924	L09020301-04 B 5X	7	1	5		02/18/09 09:41
9	16G17925	L09020301-05 B 10X	7	1	10		02/18/09 09:53
10	16G17926	L09020301-09 B 5X	7	1	5		02/18/09 10:05
11	16G17927	WG295146-02 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 10:17
12	16G17928	L09020311-01 A	7	1	1		02/18/09 10:29
13	16G17929	L09020311-02 A	7	1	1		02/18/09 10:41
14	16G17930	L09020311-03 A	7	1	1		02/18/09 10:53
15	16G17931	L09020311-04 A	7	1	1		02/18/09 11:05
16	16G17932	L09020311-05 A	7	1	1		02/18/09 11:16
17	16G17933	L09020311-06 A	7	1	1		02/18/09 11:28
18	16G17934	L09020311-07 A	7	1	1		02/18/09 11:40
19	16G17935	L09020311-09 A	7	1	1		02/18/09 11:52
20	16G17936	WG295146-03 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 12:04
21	16G17937	WG295202-01 BLANK	NA	1	1		02/18/09 12:17
22	16G17938	WG295202-02 67umol/mol LCS	NA	1	1	STD29606	02/18/09 12:29
23	16G17939	WG295202-03 67umol/mol LCS DUP	NA	1	1	STD29606	02/18/09 12:42
24	16G17940	L09020323-04 A	7	1	1		02/18/09 12:53
25	16G17941	L09020323-05 A	7	1	1		02/18/09 13:05
26	16G17942	L09020323-06 A	7	1	1		02/18/09 13:17
27	16G17943	L09020324-01 A	7	1	1		02/18/09 13:29
28	16G17944	L09020324-02 A	7	1	1		02/18/09 13:41
29	16G17945	L09020324-03 A	7	1	1		02/18/09 13:52
30	16G17946	L09020324-04 A	12	1	1		02/18/09 14:04
31	16G17947	WG295146-04 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 14:20

Approved: February 19, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102962

Instrument: HP16 Dataset: 021809
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 27655

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: NA
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG295151, WG295202

Comments: 300'S: REPORTING METHANE ONLY
 301'S: REPORTING METHANE ONLY
 311-01,02,03,04: REPORTING ETHENE,ETHANE ONLY
 323'S: RR DUE TO CCV FAILURE
 324'S: RR DUE TO CCV FAILURE

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
32	16G17948	WG295146-04 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 14:40
33	16G17949	L09020346-01 A	7	1	1		02/18/09 14:59
34	16G17950	L09020346-02 A	7	1	1		02/18/09 15:10
35	16G17951	L09020346-03 A	7	1	1		02/18/09 15:22
36	16G17952	WG295146-05 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 15:34
37	16G17953	L09020366-01 A	7	1	1		02/18/09 15:54
38	16G17954	L09020366-02 A	7	1	1		02/18/09 16:05
39	16G17955	L09020366-03 A	7	1	1		02/18/09 16:17
40	16G17956	L09020366-04 A	7	1	1		02/18/09 16:29
41	16G17957	L09020366-05 A	7	1	1		02/18/09 16:41
42	16G17958	L09020368-01 A	7	1	1		02/18/09 16:53
43	16G17959	L09020368-02 A	7	1	1		02/18/09 17:05
44	16G17960	L09020368-03 A	7	1	1		02/18/09 17:16
45	16G17961	L09020368-04 A	7	1	1		02/18/09 17:28
46	16G17962	WG295146-06 133umol/mol CCV STD	NA	1	1	STD29606	02/18/09 17:40

Comments

Seq.	Rerun	Dil.	Reason	Analytes
24	X		Check Standard Failure	
File ID: 16G17940				
25	X		Check Standard Failure	
File ID: 16G17941				
26	X		Check Standard Failure	
File ID: 16G17942				
27	X		Check Standard Failure	
File ID: 16G17943				
28	X		Check Standard Failure	

Approved: February 19, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00102963

Instrument: HP16 Dataset: 021809
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 27655

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: NA
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG295151, WG295202

Comments: 300'S: REPORTING METHANE ONLY
 301'S: REPORTING METHANE ONLY
 311-01,02,03,04: REPORTING ETHENE,ETHANE ONLY
 323'S: RR DUE TO CCV FAILURE
 324'S: RR DUE TO CCV FAILURE

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 16G17944				
29	X		Check Standard Failure	
File ID: 16G17945				
30	X		Check Standard Failure	
File ID: 16G17946				

Approved: February 19, 2009

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Analytical Method: RSK175

AAB#: WG295202

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW13-021709	02/17/09	02/18/09	02/18/09	14	1.20	02/18/09	14	1.20	
LHSMW50-021709	02/17/09	02/18/09	02/18/09	14	1.08	02/18/09	14	1.08	
47WW13-021709-FD	02/17/09	02/18/09	02/18/09	14	1.21	02/18/09	14	1.21	

* EXT = SEE PROJECT QAPP REQUIREMENTS

*ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00102965

Login Number: L09020346
Blank File ID: 16G17937
Prep Date: 02/18/09 12:17
Analyzed Date: 02/18/09 12:17
Analyst: EAB

Work Group: WG295202
Blank Sample ID: WG295202-01
Instrument ID: HP16
Method: RSK175

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295202-02	16G17938	02/18/09 12:29	01
LCS2	WG295202-03	16G17939	02/18/09 12:42	01
47WW13-021709	L09020346-01	16G17949	02/18/09 14:59	01
47WW13-021709-FD	L09020346-02	16G17950	02/18/09 15:10	01
LHSMW50-021709	L09020346-03	16G17951	02/18/09 15:22	01



Login Number: L09020346 Prep Date: 02/18/09 12:17 Sample ID: WG295202-01
Instrument ID: HP16 Run Date: 02/18/09 12:17 Prep Method: 5021
File ID: 16G17937 Analyst: EAB Method: RSK175
Workgroup (AAB#): WG295202 Matrix: Water Units: ug/L
Contract #: DACA56-94-D-0020 Cal ID: HP16 - 07-NOV-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
methane	1.00	5.00	1.00	1	U
ethene	1.00	5.00	1.00	1	U
ethane	1.00	5.00	1.00	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1322775

19-FEB-2009 11:58



Login Number: L09020346 Analyst: EAB Prep Method: 5021
Instrument ID: HP16 Matrix: Water Method: RSK175
Workgroup (AAB#): WG295202 Units: ug/L
QC Key: STD Lot #: STD29606
Sample ID: WG295202-02 LCS File ID: 16G17938 Run Date: 02/18/2009 12:29
Sample ID: WG295202-03 LCS2 File ID: 16G17939 Run Date: 02/18/2009 12:42

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
methane	114	132	116	114	99.1	86.7	28.6	56 - 140	40	
ethene	200	242	121	200	181	90.9	28.6	56 - 140	40	
ethane	214	253	118	214	190	88.8	28.6	56 - 137	40	

00102968

Login Number: L09020346
 Analytical Method: RSK175
 ICAL Workgroup: WG287221

Instrument ID: HP16
 Initial Calibration Date: 07-NOV-08 09:27
 Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
ethane		18600	4.55		
ethene		16990	4.97		
methane		10430	7.92		

R = Correlation coefficient; 0.995 minimum
 R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.



00102969

Login Number: L09020346
Analytical Method: RSK175

Instrument ID: HP16
Initial Calibration Date: 07-NOV-08 09:27
Column ID: F

Analyte	WG287221-01			WG287221-02			WG287221-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
ethane	1.67	33015.0000	19770	6.67	122720.000	18400	16.7	320105.000	19200
ethene	1.67	30227.0000	18100	6.67	112610.000	16880	16.7	295286.000	17710
methane	1.67	19901.0000	11920	6.67	69174.0000	10370	16.7	176923.000	10610

INT_CAL - Modified 03/06/2008
PDF File ID: 1323177
Report generated 02/19/2009 11:58



00102970

Login Number: L09020346
Analytical Method: RSK175

Instrument ID: HP16
Initial Calibration Date: 07-NOV-08 09:27
Column ID: F

Analyte	WG287221-04			WG287221-05			WG287221-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
ethane	66.7	1250432.00	18760	133	2421985.00	18170	300	5200075.00	17330
ethene	66.7	1134818.00	17020	133	2195806.00	16470	300	4727255.00	15760
methane	66.7	685135.000	10280	133	1324853.00	9937	300	2845104.00	9484

INT_CAL - Modified 03/06/2008
PDF File ID: 1323177
Report generated 02/19/2009 11:58



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00102971

Login Number: L09020346 Run Date: 11/07/2008 Sample ID: WG287221-07
Instrument ID: HP16 Run Time: 10:50 Method: RSK175
File ID: 16G16521 Analyst: EAB QC Key: STD
ICal Workgroup: WG287221 Cal ID: HP16 - 07-NOV-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
methane		114	105	ug/L	9640	7.60	30	
ethene		200	191	ug/L	16300	4.30	30	
ethane		214	203	ug/L	17700	5.00	30	

* Exceeds %D Limit

00102972

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295146-03
Instrument ID: HP16 Run Time: 12:04 Method: RSK175
File ID: 16G17936 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295202 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	205	ug/L	9380	10.1	25	
ethene		399	375	ug/L	16000	6.02	25	
ethane		428	393	ug/L	17100	8.19	25	

* Exceeds %D Criteria



00102973

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295146-04
Instrument ID: HP16 Run Time: 14:40 Method: RSK175
File ID: 16G17948 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295202 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
methane	228	190	ug/L	8670	16.9	25	
ethene	399	347	ug/L	14800	13.1	25	
ethane	428	364	ug/L	15800	15.0	25	

* Exceeds %D Criteria



00102974

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295146-05
Instrument ID: HP16 Run Time: 15:34 Method: RSK175
File ID: 16G17952 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295202 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	221	ug/L	10100	3.33	25	
ethene		399	400	ug/L	17000	0.254	25	
ethane		428	424	ug/L	18400	0.920	25	

* Exceeds %D Criteria



2.2 General Chemistry Data

2.2.1 Method 9056

2.2.1.1 Summary Data

Microbac Login No: L09020346

METHOD

Analysis: SW-846 9056/EPA 300

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

All acceptance criteria were met.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spike: The MS/MSD yielded low spike recoveries for chloride.

SAMPLES

Sample 0346-03 was analyzed at a dilution due to its high pre-run screen result for chloride, which was greater than 200 ppm. Any sample that has a single anion load greater than 200 ppm will be diluted in order to prevent damage to the analytical column and/or suppressor membranes of the IC.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Analyst: ADC

Approved: 20-FEB-09



LABORATORY REPORT

L09020346

00102979

02/25/09 08:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836 (GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW13-021709	L09020346-01	300.0	1	18-FEB-09
47WW13-021709-FD	L09020346-02	300.0	1	18-FEB-09
LHSMW50-021709	L09020346-03	300.0	4	18-FEB-09
LHSMW50-021709	L09020346-03	300.0	20	18-FEB-09



Report Number: **L09020346**Report Date : **February 25, 2009****00102980**

Sample Number: **L09020346-01**
 Client ID: **47WW13-021709**
 Matrix: **Water**
 Workgroup Number: **WG295233**
 Collect Date: **02/17/2009 10:06**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **300.0**
 Analytical Method: **300.0**
 Analyst: **ADC**
 Dilution: **1**
 Units: **mg/L**

Instrument: **IC1**
 Prep Date: **02/18/2009 14:37**
 Cal Date: **10/29/2008 18:09**
 Run Date: **02/18/2009 18:03**
 File ID: **I10218091803.07**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	12.2		0.200	0.100
Fluoride	16984-48-8	0.345		0.200	0.100
Nitrate	14797-55-8	0.159	J	0.600	0.100
Nitrite	14797-65-0		U	0.400	0.100
Sulfate	14808-79-8	26.9		1.00	0.500

J The analyte was positively identified, but the quantitation was below the RL

U Not detected at or above adjusted sample detection limit

1 of 4



Report Number: **L09020346**Report Date : **February 25, 2009**

00102981

Sample Number: **L09020346-02**
Client ID: **47WW13-021709-FD**
Matrix: **Water**
Workgroup Number: **WG295233**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **ADC**
Dilution: **1**
Units: **mg/L**

Instrument: **IC1**
Prep Date: **02/18/2009 14:37**
Cal Date: **10/29/2008 18:09**
Run Date: **02/18/2009 19:12**
File ID: **I10218091912.11**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	10.7		0.200	0.100
Fluoride	16984-48-8	0.454		0.200	0.100
Nitrate	14797-55-8	0.142	J	0.600	0.100
Nitrite	14797-65-0		U	0.400	0.100
Sulfate	14808-79-8	26.8		1.00	0.500

J The analyte was positively identified, but the quantitation was below the RL

U Not detected at or above adjusted sample detection limit

Report Number: **L09020346**Report Date : **February 25, 2009**

00102982

Sample Number: **L09020346-03**
Client ID: **LHSMW50-021709**
Matrix: **Water**
Workgroup Number: **WG295233**
Collect Date: **02/17/2009 13:34**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **ADC**
Dilution: **4**
Units: **mg/L**

Instrument: **IC1**
Prep Date: **02/18/2009 14:37**
Cal Date: **10/29/2008 18:09**
Run Date: **02/18/2009 19:30**
File ID: **I10218091930.12**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	551	I	0.800	0.400
Fluoride	16984-48-8	1.00		0.800	0.400
Nitrate	14797-55-8		U	2.40	0.400
Nitrite	14797-65-0		U	1.60	0.400
Sulfate	14808-79-8	397		4.00	2.00

U Not detected at or above adjusted sample detection limit

I Semiquantitative result (out of instrument calibration range)

Report Number: **L09020346**Report Date : **February 25, 2009**

00102983

Sample Number: **L09020346-03**
Client ID: **LHSMW50-021709**
Matrix: **Water**
Workgroup Number: **WG295233**
Collect Date: **02/17/2009 13:34**
Sample Tag: **DL02**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **ADC**
Dilution: **20**
Units: **mg/L**

Instrument: **IC1**
Prep Date: **02/18/2009 14:37**
Cal Date: **10/29/2008 18:09**
Run Date: **02/18/2009 19:47**
File ID: **I10218091947.13**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	655		4.00	2.00
Fluoride	16984-48-8		U	4.00	2.00
Nitrate	14797-55-8		U	12.0	2.00
Nitrite	14797-65-0		U	8.00	2.00
Sulfate	14808-79-8	375		20.0	10.0

U Not detected at or above adjusted sample detection limit

2.2.1.2 QC Summary Data

The concentrations (ppm) of the calibration standards and the resulting area counts are used to determine the equation of a linear or quadratic plot.

The slope and y-intercept of that line are used to calculate the quantity of the analyzed unknown samples.

$\text{Amount(ppm)} = [(\text{slope})(\text{area count of unknown}) + \text{y-intercept}](\text{dilution})$

(The slope is the amt/area also identified as the CF or calibration factor)

Microbac Laboratories Inc.
Instrument Run Log

00102986

Instrument: IC1 Dataset: 102908 HICAL 9056 IC1.SE
 Analyst1: JWR Analyst2: NA
 Method: 9056/300 SOP: IC1 Rev: 8

Maintenance Log ID: 26433

Column 1 ID: AS14A-4MM Column 2 ID: NA
 Workgroups: WG286427 (ICAL) WG286638
 Internal STD: NA Surrogate STD: NA Calibration STD: STD29498

Comments: Samples 0005-01 (MDL-Q) and 0006-01 (MDL-Q) were analyzed at two different levels of concentration each. One level is equal to the RL's for F, Cl, Br, SO₄, whereas the other level is nearest to the RL's for NO₂-N, NO₃-N, PO₄-P.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I11029081624.01	WG286427-01 STD \#1	1	1		10/29/08 16:24
2	I11029081642.02	WG286427-02 STD \#2	1	1		10/29/08 16:42
3	I11029081659.03	WG286427-03 STD \#3	1	1		10/29/08 16:59
4	I11029081717.04	WG286427-04 STD \#4	1	1		10/29/08 17:17
5	I11029081734.05	WG286427-05 STD \#5	1	1		10/29/08 17:34
6	I11029081751.06	WG286427-06 STD \#6	1	1		10/29/08 17:51
7	I11029081809.07	WG286427-07 STD \#7	1	1		10/29/08 18:09
8	I11029081826.08	WG286427-08 ALT STD	1	1		10/29/08 18:26
9	I11029081844.09	ELUENT	1	1		10/29/08 18:44
10	I11029081901.10	DI WATER	1	1		10/29/08 19:01
11	I11029081918.11	WG286646-01 ANION CCV	1	1		10/29/08 19:18
12	I11029081936.12	WG286646-02 ANION CCB	1	1		10/29/08 19:36
13	I11029081953.13	WG286638-01 ANION BLANK	1	1		10/29/08 19:53
14	I11029082011.14	WG286638-02 ANION LCS	1	1		10/29/08 20:11
15	I11029082028.15	L08100005-01 MDL (F, Cl, Br, SO ₄)	1	1		10/29/08 20:28
16	I11029082046.16	L08100006-01 MDL (F, Cl, Br, SO ₄)	1	1		10/29/08 20:46
17	I11029082103.17	L08100005-01 MDL (NO ₂ , NO ₃ , PO ₄)	1	1		10/29/08 21:03
18	I11029082120.18	L08100006-01 MDL (NO ₂ , NO ₃ , PO ₄)	1	1		10/29/08 21:20
19	I11029082138.19	Test (Level \#5) CCV	1	1		10/29/08 21:38
20	I11029082155.20	Test (Level \#5) CCV	1	1		10/29/08 21:55
21	I11029082213.21	WG286646-03 ANION CCV	1	1		10/29/08 22:13
22	I11029082230.22	WG286646-04 ANION CCB	1	1		10/29/08 22:30
23	I11029082247.23	END	1	1		10/29/08 22:47

Comments

Seq.	Rerun	Dil.	Reason	Analytes




Microbac Laboratories Inc.
Instrument Run Log

00102987

Instrument: IC1 Dataset: 021809 IC1.SEQ
 Analyst1: ADC Analyst2: NA
 Method: 9056/300 SOP: IC1 Rev: 8

Maintenance Log ID: 27682

Column 1 ID: AS14A-4MM Column 2 ID: NA
 Workgroups: 0346 (02/20)
 Internal STD: NA Surrogate STD: NA Calibration STD: NA

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I10218091618.01	ELUENT	1	1		02/18/09 16:18
2	I10218091636.02	DI WATER	1	1		02/18/09 16:36
3	I10218091653.03	WG295235-01 ANION CCV	1	1		02/18/09 16:53
4	I10218091710.04	WG295235-02 ANION CCB	1	1		02/18/09 17:10
5	I10218091728.05	WG295233-01 ANION BLANK	1	1		02/18/09 17:28
6	I10218091745.06	WG295233-02 ANION LCS	1	1		02/18/09 17:45
7	I10218091803.07	L09020346-01 (F, CL, NO2, NO3, SO4) REF	1	1		02/18/09 18:03
8	I10218091820.08	WG295233-04 346-01 DUP	1	1		02/18/09 18:20
9	I10218091837.09	WG295233-05 346-01 MS	1	1		02/18/09 18:37
10	I10218091855.10	WG295233-06 346-01 MSD	1	1		02/18/09 18:55
11	I10218091912.11	L09020346-02 (F, CL, NO2, NO3, SO4)	1	1		02/18/09 19:12
12	I10218091930.12	L09020346-03 (F, CL, NO2, NO3, SO4) 1/4	1	4		02/18/09 19:30
13	I10218091947.13	L09020346-03 (RR CL) 1/20	1	20		02/18/09 19:47
14	I10218092004.14	WG295235-03 ANION CCV	1	1		02/18/09 20:04
15	I10218092022.15	WG295235-04 ANION CCB	1	1		02/18/09 20:22

Comments

Seq.	Rerun	Dil.	Reason	Analytes
12	X	20	Over Calibration Range	cl




Microbac Laboratories Inc.

00102988

Data Checklist

Date: 29-OCT-2008

Analyst: JWR

Analyst: NA

Method: 300/9056

Instrument: IC1

Curve Workgroup: WG286427

Runlog ID: 25025

Analytical Workgroups: 10-0005 (MDL-Q) 10-0006 (MDL-Q)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	X
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	NA
Project/client specific requirements	NA
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
31-OCT-2008



Secondary Reviewer:
03-NOV-2008



CHECKLIST1 - Modified 03/05/2008

Generated: NOV-03-2008 10:42:04



Microbac Laboratories Inc.

00102989

Data Checklist

Date: 18-FEB-2009

Analyst: ADC

Analyst: NA

Method: 300/9056

Instrument: IC1

Curve Workgroup: NA

Runlog ID: 26620

Analytical Workgroups: 0346 (02/20)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	NA
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	ADC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
20-FEB-2009



Secondary Reviewer:
20-FEB-2009




Analytical Method: 300.0

AAB#: W6295233

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
LHSMW50-021709	02/17/09	02/18/09	02/18/09	28	1.04	02/18/09	28	0.215	
47WW13-021709	02/17/09	02/18/09	02/18/09	28	1.19	02/18/09	28	0.143	
LHSMW50-021709	02/17/09	02/18/09	02/18/09	28	1.04	02/18/09	28	0.203	
47WW13-021709-FD	02/17/09	02/18/09	02/18/09	28	1.19	02/18/09	28	0.191	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

00102992

Login Number: L09020346
 Blank File ID: I10218091728.05
 Prep Date: 02/18/09 14:37
 Analyzed Date: 02/18/09 17:28
 Analyst: ADC

Work Group: WG295233
 Blank Sample ID: WG295233-01
 Instrument ID: IC1
 Method: 300.0

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295233-02	I10218091745.06	02/18/09 17:45	01
47WW13-021709	L09020346-01	I10218091803.07	02/18/09 18:03	01
DUP	WG295233-04	I10218091820.08	02/18/09 18:20	01
47WW13-021709-FD	L09020346-02	I10218091912.11	02/18/09 19:12	01
LHSMW50-021709	L09020346-03	I10218091930.12	02/18/09 19:30	DL01
LHSMW50-021709	L09020346-03	I10218091947.13	02/18/09 19:47	DL02

Report Name: BLANK_SUMMARY
 PDF File ID: 1324544
 Report generated 02/20/2009 12:42



Login Number: L09020346 Prep Date: 02/18/09 14:37 Sample ID: WG295233-01
Instrument ID: IC1 Run Date: 02/18/09 17:28 Prep Method: 300.0
File ID: I10218091728.05 Analyst: ADC Method: 300.0
Workgroup (AAB#): WG295233 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: IC1 - 29-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Chloride	0.100	0.200	0.100	1	U
Fluoride	0.100	0.200	0.100	1	U
Nitrate	0.100	0.600	0.100	1	U
Nitrite	0.100	0.400	0.100	1	U
Sulfate	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 1324545
20-FEB-2009 12:42



Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295233-02
Instrument ID: IC1 Run Time: 17:45 Prep Method: 300.0
File ID: I10218091745.06 Analyst: ADC Method: 300.0
Workgroup (AAB#): WG295233 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD29498 Cal ID: IC1 - 29-OCT-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Chloride	6.00	6.03	101	90 - 110	
Fluoride	6.00	5.82	97.0	90 - 110	
Nitrate	4.07	4.14	102	90 - 110	
Nitrite	3.65	3.63	99.2	90 - 110	
Sulfate	30.0	30.0	99.9	90 - 110	

Loginnum: L09020346 Cal ID: IC1 - Worknum: WG295233
 Instrument ID: IC1 Contract #: DACA56-94-D-0020 Method: 300.0
 Parent ID: WG295233-03 File ID: I10218091803.07 Dil: 1 Matrix: WATER
 Sample ID: WG295233-05 MS File ID: I10218091837.09 Dil: 1 Units: mg/L
 Sample ID: WG295233-06 MSD File ID: I10218091855.10 Dil: 1

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Chloride	12.2	6.00	16.0	64.3	6.00	17.4	87.1	8.17	90 - 110	20	*
Fluoride	0.345	6.00	6.30	99.2	6.00	6.35	100	0.791	90 - 110	20	
Nitrate	0.159	4.07	4.30	102	4.07	4.34	103	0.718	90 - 110	20	
Nitrite	ND	3.65	3.66	100	3.65	3.67	100	0.191	90 - 110	20	
Sulfate	26.9	30.0	56.8	99.8	30.0	56.9	100	0.144	90 - 110	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

NOTE: This is an internal quality control sample.

Login Number: L09020346
Analytical Method: 300.0
ICAL Workgroup: WG286427

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
Chloride		5.859	9.84		
Fluoride		4.335	7.39		
Nitrate		2.470	12.3		
Nitrite		2.877	6.25		
Sulfate		7.510	11.5		

R = Correlation coefficient; 0.995 minimum

R² = Coefficient of determination; 0.99 minimum

This method always uses quadratic calibration model (R²)

00102997

Login Number: L09020346
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-01			WG286427-02			WG286427-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	0.200	0.032000000 0	6.250	2.00	0.322000000	6.211	4.00	0.653000000	6.126
Fluoride	0.200	0.041000000 0	4.878	2.00	0.445000000	4.494	4.00	0.901000000	4.440
Nitrate	0.136	0.048000000 0	2.823	1.36	0.513000000	2.642	2.71	1.05800000	2.562
Nitrite	0.122	0.038000000 0	3.205	1.22	0.418000000	2.913	2.44	0.835000000	2.917
Sulfate	1.00	0.125000000	8.000	10.0	1.22400000	8.170	20.0	2.50300000	7.990

INT_CAL - Modified 03/06/2008
PDF File ID: 1324622
Report generated 02/20/2009 12:42



00102998

Login Number: L09020346
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-04			WG286427-05			WG286427-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	6.00	0.992000000	6.048	8.00	1.35700000	5.895	12.0	2.11200000	5.682
Fluoride	6.00	1.38700000	4.326	8.00	1.88900000	4.235	12.0	2.91600000	4.115
Nitrate	4.07	1.62400000	2.504	5.42	2.21900000	2.443	8.13	3.43500000	2.367
Nitrite	3.65	1.26900000	2.879	4.87	1.71100000	2.847	7.31	2.62600000	2.783
Sulfate	30.0	3.88900000	7.714	40.0	5.32300000	7.515	60.0	8.33300000	7.200

INT_CAL - Modified 03/06/2008
PDF File ID: 1324622
Report generated 02/20/2009 12:42



00102999

Login Number: L09020346
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-07		
	CONC	RESP	RF
Chloride	48.0	9.99200000	4.804
Fluoride	48.0	12.4550000	3.854
Nitrate	32.5	16.6700000	1.951
Nitrite	29.2	11.2520000	2.598
Sulfate	240	40.1170000	5.983

INT_CAL - Modified 03/06/2008
PDF File ID: 1324622
Report generated 02/20/2009 12:42



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00103000

Login Number: L09020346 Run Date: 10/29/2008 Sample ID: WG286427-08
Instrument ID: IC1 Run Time: 18:26 Method: 300.0
File ID: I11029081826.08 Analyst: JWR QC Key: STD
ICal Workgroup: WG286427 Cal ID: IC1 - 29-OCT-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloride		6.00	6.14	mg/L	5.81	2.30	10	
Fluoride		6.00	6.17	mg/L	4.14	2.80	10	
Nitrate		4.07	4.18	mg/L	2.41	2.80	10	
Nitrite		3.65	3.60	mg/L	2.89	1.40	10	
Sulfate		30.0	30.2	mg/L	7.55	0.800	10	

* Exceeds %D Limit

00103001

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295235-02
Instrument ID: IC1 Run Time: 17:10 Method: 300.0
File ID: I10218091710.04 Analyst: ADC Units: mg/L
Workgroup (AAB#): WG295233 Cal ID: IC1 -
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Nitrate	0.100	0.600	0.100	U
Nitrite	0.100	0.400	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00103002

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295235-04
Instrument ID: IC1 Run Time: 20:22 Method: 300.0
File ID: I10218092022.15 Analyst: ADC Units: mg/L
Workgroup (AAB#): WG295233 Cal ID: IC1 -
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Nitrate	0.100	0.600	0.100	U
Nitrite	0.100	0.400	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00103003

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295235-01
Instrument ID: IC1 Run Time: 16:53 Method: 300.0
File ID: I10218091653.03 Analyst: ADC QC Key: STD
Workgroup (AAB#): WG295233 Cal ID: IC1 - 29-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		6.00	5.99	mg/L	5.96	0.167	10	
Fluoride		6.00	5.74	mg/L	4.45	4.28	10	
Nitrate		4.07	4.13	mg/L	2.45	1.45	10	
Nitrite		3.65	3.58	mg/L	2.92	2.12	10	
Sulfate		30.0	29.9	mg/L	7.63	0.323	10	

* Exceeds %D Criteria



00103004

Login Number: L09020346 Run Date: 02/18/2009 Sample ID: WG295235-03
Instrument ID: IC1 Run Time: 20:04 Method: 300.0
File ID: I10218092004.14 Analyst: ADC QC Key: STD
Workgroup (AAB#): WG295233 Cal ID: IC1 - 29-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		6.00	5.97	mg/L	5.98	0.550	10	
Fluoride		6.00	5.87	mg/L	4.35	2.10	10	
Nitrate		4.07	4.09	mg/L	2.47	0.462	10	
Nitrite		3.65	3.63	mg/L	2.87	0.613	10	
Sulfate		30.0	29.8	mg/L	7.66	0.590	10	

* Exceeds %D Criteria



2.2.2 Total Organic Carbon Data

2.2.2.1 Summary Data

LABORATORY REPORT

L09020346

00103007

02/25/09 08:40

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836 (GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
47WW13-021709	L09020346-01	415.1	1	18-FEB-09
47WW13-021709-FD	L09020346-02	415.1	1	18-FEB-09
LHSMW50-021709	L09020346-03	415.1	4	18-FEB-09



Report Number: **L09020346**Report Date : **February 25, 2009**

00103008

Sample Number: **L09020346-01**
Client ID: **47WW13-021709**
Matrix: **Water**
Workgroup Number: **WG295247**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **415.1**
Analytical Method: **415.1**
Analyst: **DIH**
Dilution: **1**
Units: **mg/L**

Instrument: **TOC-VWP**
Prep Date: **02/19/2009 11:45**
Cal Date: **01/13/2009 15:07**
Run Date: **02/19/2009 11:45**
File ID: **TC02192009.007**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		7.96		1.00	0.500

Report Number: **L09020346**Report Date : **February 25, 2009**

00103009

Sample Number: **L09020346-02**
Client ID: **47WW13-021709-FD**
Matrix: **Water**
Workgroup Number: **WG295247**
Collect Date: **02/17/2009 10:06**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **415.1**
Analytical Method: **415.1**
Analyst: **DIH**
Dilution: **1**
Units: **mg/L**

Instrument: **TOC-VWP**
Prep Date: **02/19/2009 11:59**
Cal Date: **01/13/2009 15:07**
Run Date: **02/19/2009 11:59**
File ID: **TC02192009.008**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		7.07		1.00	0.500

Report Number: **L09020346**Report Date : **February 25, 2009**

00103010

Sample Number: **L09020346-03**
Client ID: **LHSMW50-021709**
Matrix: **Water**
Workgroup Number: **WG295247**
Collect Date: **02/17/2009 13:34**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **415.1**
Analytical Method: **415.1**
Analyst: **DIH**
Dilution: **4**
Units: **mg/L**

Instrument: **TOC-VWP**
Prep Date: **02/19/2009 17:14**
Cal Date: **01/13/2009 15:07**
Run Date: **02/19/2009 17:14**
File ID: **TC02192009.030**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		7.50		4.00	2.00

3 of 3



2.2.2.2 QC Summary Data

**Total Organic Carbon Example Calculations
(Direct Readout Parameter)**

$$(\text{Readout})/(\text{dilution}) = \text{mg/L}$$

where:

Readout = direct readout from the instrument

dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

00103013

Data Checklist

Date: 19-FEB-2009

Analyst: DIH

Analyst: NA

Method: TOC

Instrument: TOC

Curve Workgroup: NA

Runlog ID: _____

Analytical Workgroups: WG295247

Calibration/Linearity	1/13/2009
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	
Comments	

Primary Reviewer:
20-FEB-2009

Secondary Reviewer:



Analytical Method: 415.1

AAB#: WG295247

Login Number: L09020346

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
LHSMW50-021709	02/17/09	02/18/09	02/19/09	28	2.15	02/19/09	28	2.15	
47WW13-021709-FD	02/17/09	02/18/09	02/19/09	28	2.08	02/19/09	28	2.08	
47WW13-021709	02/17/09	02/18/09	02/19/09	28	2.07	02/19/09	28	2.07	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00103015

Login Number: L09020346
 Blank File ID: TC02192009.004
 Prep Date: 02/19/09 11:08
 Analyzed Date: 02/19/09 11:08
 Analyst: DIH

Work Group: WG295247
 Blank Sample ID: WG295247-01
 Instrument ID: TOC-VWP
 Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295247-02	TC02192009.005	02/19/09 11:21	01
LCS2	WG295247-03	TC02192009.006	02/19/09 11:33	01
47WW13-021709	L09020346-01	TC02192009.007	02/19/09 11:45	01
47WW13-021709-FD	L09020346-02	TC02192009.008	02/19/09 11:59	01
LHSMW50-021709	L09020346-03	TC02192009.030	02/19/09 17:14	DL01
DUP	WG295247-05	TC02192009.031	02/19/09 17:27	01

Report Name: BLANK_SUMMARY
 PDF File ID: 1324652
 Report generated 02/20/2009 13:22



00103016

Login Number: L09020346 Prep Date: 02/19/09 11:08 Sample ID: WG295247-01
Instrument ID: TOC-VWP Run Date: 02/19/09 11:08 Prep Method: 415.1
File ID: TC02192009.004 Analyst: DIH Method: 415.1
Workgroup (AAB#): WG295247 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: TOC-VW-13-JAN-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 1324653
20-FEB-2009 13:22



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

00103017

Login Number: L09020346 Analyst: DIH Prep Method: 415.1
Instrument ID: TOC-VWP Matrix: Water Method: 415.1
Workgroup (AAB#): WG295247 Units: mg/L
QC Key: STD Lot #: STD30420
Sample ID: WG295247-02 LCS File ID: TC02192009.005 Run Date: 02/19/2009 11:21
Sample ID: WG295247-03 LCS2 File ID: TC02192009.006 Run Date: 02/19/2009 11:33

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	25.4	102	25.0	27.5	110	7.90	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1324654
Report generated: 02/20/2009 13:22



2.2.2.3 Raw Data

TC/TIC curves

00103
wg 292773 19

Total Organic Carbon

MAKE DAILY

CCV (TOC): see below

LCS (TOC): _____

 $\left(\frac{10}{200} (1000) = 50 \text{ mg/L}\right)$ $\left(\frac{2}{200} (1000) = 10 \text{ mg/L}\right)$ $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$

CCV (TIC): _____

MS (TOC): _____

 $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$

Calibration Curve Date: _____



SM5310-C : Matrix 2 WG _____



EPA 415.1/9060A(mod): Matrix 1 WG _____

SOP: K 4151 Rev. 11

WG _____

Instrument: Shimadza TOC-VWP/ASI



drain reservoir filled



ASI water bottle full



dilution water bottle full



DAILY CHECK

3rd bottle full

sufficient gas



sufficient persulfate



sufficient acid

waste container

Position	Sample ID	Dilution
1	TC CURVE	
2	TIC curve	
3	TC ICV(25)	
4	TIC ICV(25)	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16	all curve points and ICV's were injected and analyzed in duplicate	
17		
18		
19		
20		
21		
22		
23		
24		
25		

Position	Sample ID	Dilution
26		
27		
28		
29		
30		
31	curve std	
32	std 30838	
33	TIC 28734	
34		
35		
36	ICV	
37	TC std 30420	
38	TIC std 28733	
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Position	Sample ID	Dilution
51		
52		
53		
54		
55		
56		
57	see SOP for	
58	curve pts	
59		
60		
61		
62	$\frac{5 \text{ ml}}{200} (1000) = 25 \text{ mg/L}$	
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		

Analyst: Deanna RobertsDate/Time: 1/13/09

WG: _____

WG: _____

WG: _____

DCN#78103



Deanna Roberts

Approved: January 19, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
1	TC	TC CURVE		Comple	01/13/2009 03:12:54 PM	0, 1,
2	IC	TIC CURVE		Comple	01/13/2009 04:22:39 PM	0, 6,
3	TC	TC ICV	TC:24.92mg/L	Comple	01/13/2009 04:38:03 PM	11
4	IC	TIC ICV	IC:24.60mg/L	Comple	01/13/2009 04:50:47 PM	12



Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.i32

Instr. Information

System
DetectorTOCVW ASI
Wet Chemical

Cal. Curve

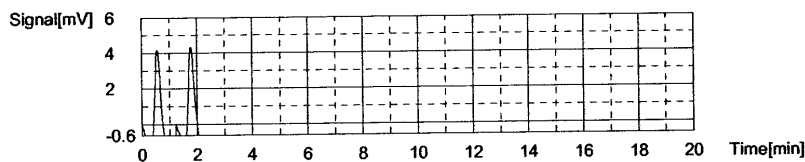
Sample Name: TC CURVE
 Sample ID: TCCURVE
 Cal. Curve: TCCURVE-01-13-2009.2009_01_13_14_10_52.cal
 Status: Completed

Type	Anal.
Standard	TC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.437	500uL	1	*****		01/13/2009 02:14:13 PM
2	8.432	500uL	1	*****		01/13/2009 02:18:55 PM

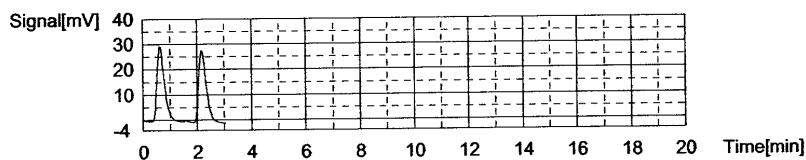
Acid Add. 0.000%
 Mean Area 8.434



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	56.85	500uL	1	*****		01/13/2009 02:24:22 PM
2	54.36	500uL	1	*****		01/13/2009 02:29:25 PM

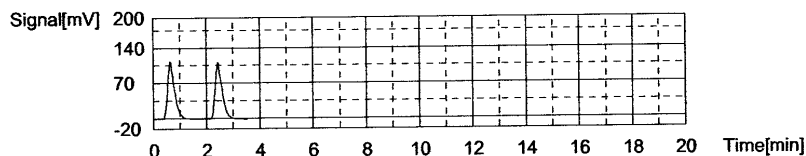
Acid Add. 0.000%
 Mean Area 55.61



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	206.9	500uL	1	*****		01/13/2009 02:35:09 PM
2	202.6	500uL	1	*****		01/13/2009 02:39:10 PM

Acid Add. 0.000%
 Mean Area 204.8



Conc: 10.00mg/L

1/5

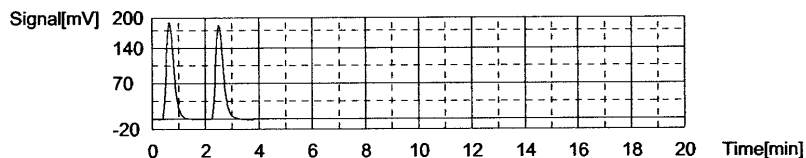
Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.132

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	380.7	500uL	1	*****		01/13/2009 02:44:58 PM
2	379.4	500uL	1	*****		01/13/2009 02:49:11 PM

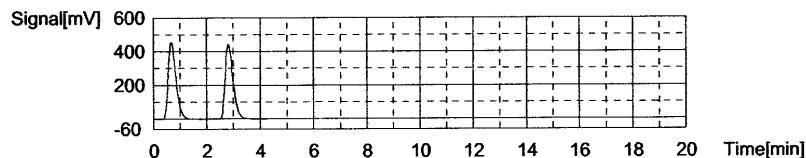
Acid Add. 0.000%
Mean Area 380.1



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	934.8	500uL	1	*****		01/13/2009 02:55:16 PM
2	914.5	500uL	1	*****		01/13/2009 03:00:30 PM

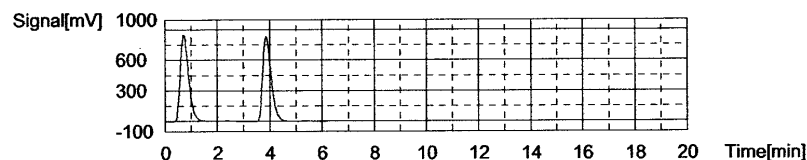
Acid Add. 0.000%
Mean Area 924.7



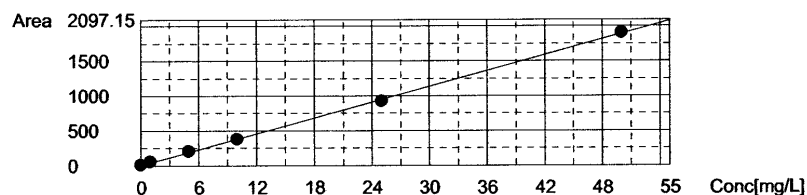
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1922	500uL	1	*****		01/13/2009 03:07:36 PM
2	1891	500uL	1	*****		01/13/2009 03:12:54 PM

Acid Add. 0.000%
Mean Area 1907



Slope: 37.71
Intercept 8.127
 r^2 0.999609
Zero Shift No



Cal. Curve

Sample Name: TIC CURVE
Sample ID: TICCURVE
Cal. Curve: TICCURVE-01-13-2009.2009_01_13_15_12_54.cal
Status: Completed

Type	Anal.
Standard	IC

Conc: 0.000mg/L

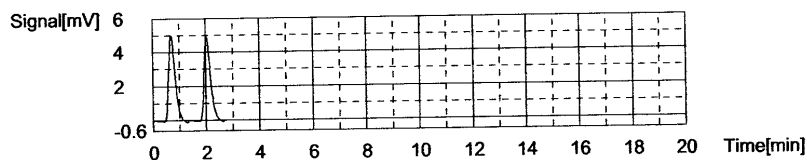
Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.t32

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.658	500uL	1	*****		01/13/2009 03:16:31 PM
2	8.479	500uL	1	*****		01/13/2009 03:20:08 PM

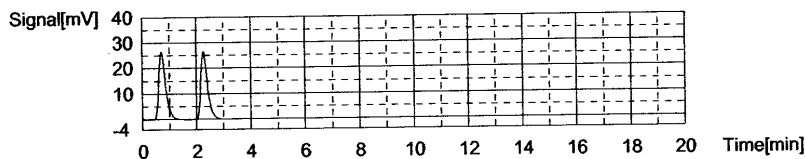
Acid Add. 3.000%
Mean Area 8.569



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.56	500uL	1	*****		01/13/2009 03:27:22 PM
2	46.10	500uL	1	*****		01/13/2009 03:31:26 PM

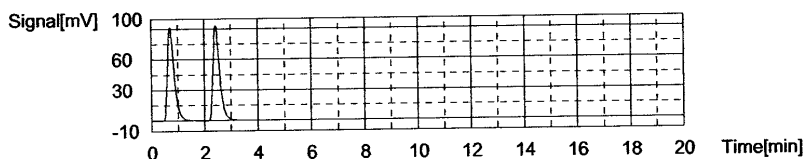
Acid Add. 3.000%
Mean Area 46.33



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	160.8	500uL	1	*****		01/13/2009 03:38:53 PM
2	161.9	500uL	1	*****		01/13/2009 03:43:10 PM

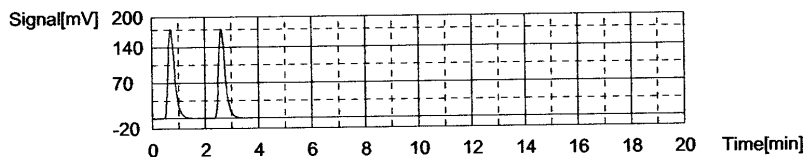
Acid Add. 3.000%
Mean Area 161.4



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	310.0	500uL	1	*****		01/13/2009 03:50:52 PM
2	308.4	500uL	1	*****		01/13/2009 03:55:18 PM

Acid Add. 3.000%
Mean Area 309.2



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	793.7	500uL	1	*****		01/13/2009 04:03:34 PM
2	782.1	500uL	1	*****		01/13/2009 04:08:41 PM

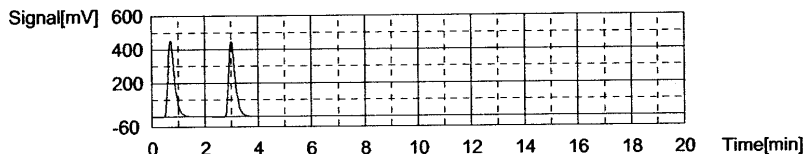
Heanna Roberts

Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.i32

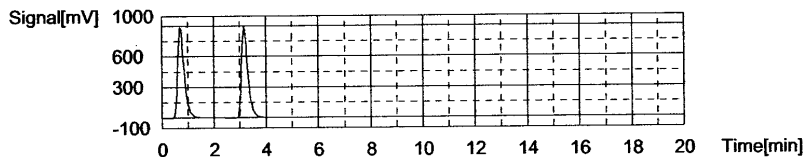
Acid Add. 3.000%
Mean Area 787.9



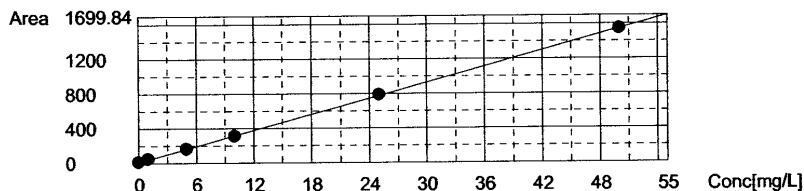
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1547	500uL	1	*****		01/13/2009 04:17:18 PM
2	1537	500uL	1	*****		01/13/2009 04:22:39 PM

Acid Add. 3.000%
Mean Area 1542



Slope: 30.70
Intercept 10.26
 r^2 0.999878
Zero Shift No



Sample

Sample Name: TC ICV
Sample ID: TCCURVE
Origin: TCCURVE-01-13-2009.cal
Status: Completed
Chk. Result

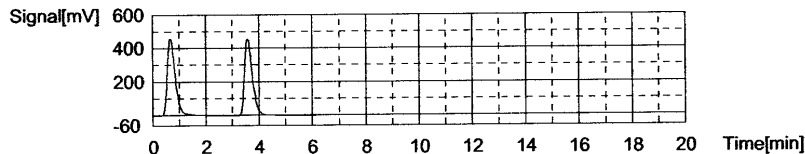
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:24.92mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	951.9	25.03mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	01/13/2009 04:31:14 PM
2	943.7	24.81mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	01/13/2009 04:38:03 PM

Mean Area 947.8
Mean Conc. 24.92mg/L



Heanna Roberts

Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.t32

Sample

Sample Name: TIC ICV
Sample ID: TICCURVE
Origin: TICCURVE-01-13-2009.cal
Status: Completed
Chk. Result

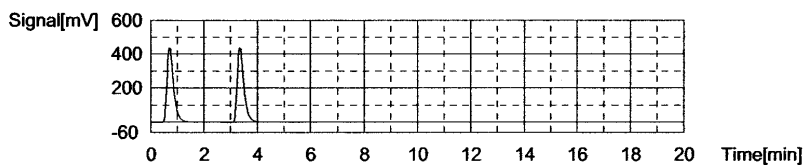
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:24.60mg/L

1. Det

Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	765.5	24.60mg/L	500ul	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	01/13/2009 04:45:09 PM
2	765.4	24.60mg/L	500ul	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	01/13/2009 04:50:47 PM

Mean Area 765.5
Mean Conc. 24.60mg/L

*Heanna Roberts*

Approved: January 19, 2009

WORKGROUP: WG295247

Total Organic Carbon

295251/2

295252

CCV (TOC): 5/d 30838 MAKE DAILY LCS (TOC): 25/d 30420

$(\frac{10}{200}(1000) = 50 \text{ mg/L})$ $(\frac{2}{200}(1000) = 10 \text{ mg/L})$ $(\frac{5}{200}(1000) = 25 \text{ mg/L})$

CCV (TIC): 5/d 28734 MS (TOC): 0.4/40(1000)=10

$(\frac{5}{200}(1000) = 25 \text{ mg/L})$

Calibration Curve Date: 1/13/09

☒ SM5310-C Matrix 2 WG 295251 EPA 415.1/9060A(mod): Matrix 1 WG 295247, 295252 SOP: K 4/51 Rev. 11

WG Instrument: Shimadzu TOC-VWP/ASI

☒ drain reservoir filled
☒ ASI water bottle full
☒ dilution water bottle full

☒ DAILY CHECK
☒ 3rd bottle full
☒ sufficient gas
☒ sufficient persulfate

☒ sufficient acid
☒ waste container

Position	Sample ID	Dilution
1	CCV 50	
2	CCV 10	
3	TIC 25	
4	BIK	
5	LCS 25	
6	LCS DUP	
7	02-346-01	
8	02	
9	03	
10	02-278-05	1/10
11	02-371-01	1/5
12	02	1/5
13	02-294-02	1/10
14	02-300-01	1/2
15	CCV	
16	CCB	
17	02-300-06	1/50
18	07	1/50
19	02-311-09	
20	02-323-04	
21	05	
22	06	
23	02-324-01	
24	02	
25	03	

Position	Sample ID	Dilution
26	02-356-01	1/5
27	CCV	
28	CCB	
29	02-356-02	
30	02-346-03	1/4
31	DUP 346-01	
32	MS	
33	BLK	
34	LCS	
35	LCS DUP	
36	02-258-01	
37	02	
38	02-259-01	
39	CCV	
40	CCB	
41	02-275-01	
42	02-370-09	
43	02-372-01	1/5
44	02-276-01	
45	02	
46	02-364-01	
47	02	
48	DUP 258-01	
49	DUP 258-01	
50	02-294-02	1/25

Position	Sample ID	Dilution
51	CCV	
52	CCB/BIK	
53	LCS	
54	LCS DUP	
55	02-356-01	1/2
56	02	1/2
57	03	1/2
58	04	1/10
59	05	1/10
60	06	1/2
61	07	1/2
62	08	1/2
63	CCV	
64	CCB	
65	02-356-09	1/2
66	10	1/2
67	11	1/2
68	12	1/2
69	13	1/5
70	14	1/5
71	15	1/5
72	17	
73	DUP 15	1/5
74	MS	1/5
75	CCV	

Analyst: Heanna RobertsDate/Time: 2/19/09

DCN#78438



Heanna Roberts

Approved: February 24, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
1	TOC	CCV 50	!!Error!! TOC:54.02mg/L TC:53.81mg/L IC:-0.2127mg	Comple	02/19/2009 10:37:45 AM	1
2	TOC	CCV 10	!!Error!! TOC:11.23mg/L TC:11.05mg/L IC:-0.1807mg	Comple	02/19/2009 10:50:14 AM	2
3	TOC	TIC 25	TOC:2.657mg/L TC:27.42mg/L IC:24.76mg/L	Comple	02/19/2009 11:03:53 AM	3
4	TOC	WG295247-01 BLANK	!!Error!! TOC:0.1459mg/L TC:0.0557mg/L IC:-0.090	Comple	02/19/2009 11:12:59 AM	0
5	TOC	WG295247-02 LCS	!!Error!! TOC:25.41mg/L TC:25.22mg/L IC:-0.1897mg	Comple	02/19/2009 11:25:24 AM	5
6	TOC	WG295247-03 LCSDUP	!!Error!! TOC:27.50mg/L TC:27.31mg/L IC:-0.1887mg	Comple	02/19/2009 11:37:46 AM	6
7	TOC	L09020346-01	TOC:7.960mg/L TC:26.23mg/L IC:18.27mg/L	Comple	02/19/2009 11:51:17 AM	7
8	TOC	L09020346-02	TOC:7.072mg/L TC:24.36mg/L IC:17.28mg/L	Comple	02/19/2009 12:05:00 PM	8
9	TOC	L09020346-03 X	!!Error!! TOC:-0.1708mg/L TC:74.57mg/L IC:74.74mg	Comple	02/19/2009 12:20:51 PM	9
10	TOC	L09020278-05 (10)	TOC:9.361mg/L TC:12.91mg/L IC:3.552mg/L	Comple	02/19/2009 12:33:43 PM	10
11	TOC	L09020371-01 (5)	TOC:1.863mg/L TC:8.043mg/L IC:6.180mg/L	Comple	02/19/2009 12:46:09 PM	11
12	TOC	L09020371-02 (5)	TOC:1.739mg/L TC:8.327mg/L IC:6.587mg/L	Comple	02/19/2009 12:59:19 PM	12
13	TOC	L09020294-02 (10) X	TOC:45.85mg/L TC:69.14mg/L IC:23.28mg/L	Comple	02/19/2009 01:15:14 PM	13
14	TOC	L09020300-01 (2)	TOC:4.618mg/L TC:24.93mg/L IC:20.32mg/L	Comple	02/19/2009 01:28:35 PM	14
15	TOC	CCV	!!Error!! TOC:53.95mg/L TC:53.86mg/L IC:-0.0881m	Comple	02/19/2009 01:41:21 PM	15
16	TOC	CCB	!!Error!! TOC:0.1058mg/L TC:0.01960mg/L IC:-0.086	Comple	02/19/2009 01:50:22 PM	0
17	TOC	L09020300-06 (50) X	TOC:3.415mg/L TC:7.950mg/L IC:4.535mg/L	Comple	02/19/2009 02:03:12 PM	17
18	TOC	L09020300-07 (50) X	TOC:3.052mg/L TC:6.059mg/L IC:3.008mg/L	Comple	02/19/2009 02:15:22 PM	18
19	TOC	L09020311-09	!!Error!! TOC:0.2318mg/L TC:0.1762mg/L IC:-0.0556	Comple	02/19/2009 02:26:45 PM	19
20	TOC	L09020323-04 X	TOC:8.623mg/L TC:57.73mg/L IC:49.11mg/L	Comple	02/19/2009 02:43:10 PM	20
21	TOC	L09020323-05 X	TOC:7.269mg/L TC:58.53mg/L IC:51.26mg/L	Comple	02/19/2009 03:11:58 PM	21
22	TOC	L09020323-06 X	TOC:11.39mg/L TC:59.75mg/L IC:48.36mg/L	Comple	02/19/2009 03:28:20 PM	22
23	TOC	L09020324-01 X	TOC:0.3296mg/L TC:78.23mg/L IC:77.90mg/L	Comple	02/19/2009 03:45:17 PM	23
24	TOC	L09020324-02	TOC:3.871mg/L TC:34.45mg/L IC:30.58mg/L	Comple	02/19/2009 03:59:28 PM	24
25	TOC	L09020324-03	TOC:3.888mg/L TC:27.79mg/L IC:23.90mg/L	Comple	02/19/2009 04:12:59 PM	25
26	TOC	L09020400-01 (5)	TOC:6.337mg/L TC:36.89mg/L IC:30.55mg/L	Comple	02/19/2009 04:28:38 PM	26
27	TOC	CCV	!!Error!! TOC:50.19mg/L TC:50.17mg/L IC:-0.01350m	Comple	02/19/2009 04:41:49 PM	27
28	TOC	CCB	!!Error!! TOC:0.1025mg/L TC:-0.03068mg/L IC:-0.133	Comple	02/19/2009 04:50:49 PM	0
29	TOC	L09020400-02 X	TOC:6.181mg/L TC:72.00mg/L IC:65.82mg/L	Comple	02/19/2009 05:07:23 PM	29
30	TOC	L09020346-03 (4)	TOC:1.875mg/L TC:11.39mg/L IC:9.512mg/L	Comple	02/19/2009 05:20:11 PM	30
31	TOC	WG295247-05 DUP	TOC:6.146mg/L TC:14.93mg/L IC:8.780mg/L	Comple	02/19/2009 05:32:59 PM	31
32	TOC	WG295247-06 MS	TOC:17.98mg/L TC:28.16mg/L IC:10.18mg/L	Comple	02/19/2009 05:48:28 PM	32
33	TOC	WG295251-01 BLANK	!!Error!! TOC:0.1120mg/L TC:-0.02098mg/L IC:-0.133	Comple	02/19/2009 06:05:00 PM	0
34	TOC	WG295251-02 LCS	!!Error!! TOC:27.39mg/L TC:27.27mg/L IC:-0.1133mg	Comple	02/19/2009 06:27:20 PM	34
35	TOC	WG295251-03 LCSDUP	!!Error!! TOC:25.26mg/L TC:25.14mg/L IC:-0.1171mg	Comple	02/19/2009 06:48:58 PM	35
36	TOC	L09020258-01	TOC:6.210mg/L TC:17.23mg/L IC:11.02mg/L	Comple	02/19/2009 07:11:31 PM	36
37	TOC	L09020258-02	TOC:2.795mg/L TC:3.261mg/L IC:0.4664mg/L	Comple	02/19/2009 07:32:45 PM	37
38	TOC	L09020259-01	TOC:8.444mg/L TC:9.689mg/L IC:1.245mg/L	Comple	02/19/2009 07:54:28 PM	38
39	TOC	CCV	!!Error!! TOC:55.87mg/L TC:55.74mg/L IC:-0.1268mg	Comple	02/19/2009 08:16:33 PM	39
40	TOC	CCB	!!Error!! TOC:0.1037mg/L TC:-0.04442mg/L IC:-0.148	Comple	02/19/2009 08:33:04 PM	0
41	TOC	L09020275-01	TOC:24.36mg/L TC:36.21mg/L IC:11.85mg/L	Comple	02/19/2009 08:58:53 PM	41
42	TOC	L09020370-09	TOC:3.178mg/L TC:5.623mg/L IC:2.445mg/L	Comple	02/19/2009 09:20:29 PM	42
43	TOC	L09020372-01 (5)	TOC:6.171mg/L TC:7.155mg/L IC:0.9834mg/L	Comple	02/19/2009 09:42:35 PM	43
44	TOC	L09020276-01	TOC:3.874mg/L TC:5.545mg/L IC:1.671mg/L	Comple	02/19/2009 10:04:12 PM	44
45	TOC	L09020276-02	TOC:2.747mg/L TC:4.638mg/L IC:1.891mg/L	Comple	02/19/2009 10:26:44 PM	45
46	TOC	L09020364-01	TOC:2.450mg/L TC:4.017mg/L IC:1.567mg/L	Comple	02/19/2009 10:47:48 PM	46
47	TOC	L09020364-02	TOC:2.376mg/L TC:4.088mg/L IC:1.711mg/L	Comple	02/19/2009 11:08:33 PM	47
48	TOC	WG295251-05 DUP	TOC:5.144mg/L TC:9.859mg/L IC:4.715mg/L	Comple	02/19/2009 11:30:47 PM	48
49	TOC	WG295251-06 MS	TOC:16.00mg/L TC:23.22mg/L IC:7.226mg/L	Comple	02/19/2009 11:53:51 PM	49
50	TOC	L09020294-02 (25)	TOC:11.02mg/L TC:12.85mg/L IC:1.831mg/L	Comple	02/20/2009 12:15:21 AM	50
51	TOC	CCV	!!Error!! TOC:50.25mg/L TC:50.15mg/L IC:-0.1025mg	Comple	02/20/2009 12:28:03 AM	51
52	TOC	WG295252-01 BLANK	!!Error!! TOC:0.1088mg/L TC:-0.02960mg/L IC:-0.138	Comple	02/20/2009 12:37:05 AM	0
53	TOC	WG295252-02 LCS	!!Error!! TOC:27.32mg/L TC:27.21mg/L IC:-0.1134mg	Comple	02/20/2009 12:49:26 AM	53
54	TOC	WG295252-03 LCSDUP	!!Error!! TOC:26.74mg/L TC:26.62mg/L IC:-0.1145mg	Comple	02/20/2009 01:01:51 AM	54
55	TOC	L09020356-01 (2) X	TOC:3.683mg/L TC:7.176mg/L IC:3.493mg/L	Comple	02/20/2009 01:14:19 AM	55
56	TOC	L09020356-02 (2) X	TOC:3.315mg/L TC:6.834mg/L IC:3.519mg/L	Comple	02/20/2009 01:26:46 AM	56
57	TOC	L09020356-03 (2) X	TOC:2.016mg/L TC:5.900mg/L IC:3.884mg/L	Comple	02/20/2009 01:39:02 AM	57
58	TOC	L09020356-04 (10)	TOC:25.08mg/L TC:34.92mg/L IC:9.841mg/L	Comple	02/20/2009 01:52:25 AM	58
59	TOC	L09020356-05 (10)	TOC:14.43mg/L TC:24.58mg/L IC:10.15mg/L	Comple	02/20/2009 02:05:48 AM	59
60	TOC	L09020356-06 (2)	TOC:14.00mg/L TC:20.29mg/L IC:6.291mg/L	Comple	02/20/2009 02:19:04 AM	60
61	TOC	L09020356-07 (2) X	TOC:2.222mg/L TC:6.940mg/L IC:4.718mg/L	Comple	02/20/2009 02:31:31 AM	61
62	TOC	L09020356-08 (2) X	TOC:4.771mg/L TC:8.873mg/L IC:4.102mg/L	Comple	02/20/2009 02:44:01 AM	62
63	TOC	CCV	!!Error!! TOC:53.29mg/L TC:53.20mg/L IC:-0.09259m	Comple	02/20/2009 02:56:47 AM	63
64	TOC	CCB	!!Error!! TOC:0.1013mg/L TC:-0.02978mg/L IC:-0.131	Comple	02/20/2009 03:05:49 AM	0
65	TOC	L09020356-09 (2)	TOC:17.39mg/L TC:22.05mg/L IC:4.653mg/L	Comple	02/20/2009 03:18:54 AM	65
66	TOC	L09020356-10 (2) X	TOC:5.981mg/L TC:7.123mg/L IC:1.142mg/L	Comple	02/20/2009 03:31:17 AM	66
67	TOC	L09020356-11 (2) X	TOC:1.879mg/L TC:4.991mg/L IC:3.112mg/L	Comple	02/20/2009 03:43:45 AM	67

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	Analysis	Sample Name	Result	Status	Date / Time	Vial
68	TOC	L09020356-12 (2) ~~12~~	TOC:1.426mg/L TC:5.176mg/L IC:3.750mg/L	Comple	02/20/2009 03:56:08 AM	68
69	TOC	L09020356-13 (5) ~~13~~	TOC:5.878mg/L TC:7.595mg/L IC:1.717mg/L	Comple	02/20/2009 04:08:24 AM	4
70	TOC	L09020356-14 (5) ~~14~~	TOC:1.831mg/L TC:3.800mg/L IC:1.968mg/L	Comple	02/20/2009 04:20:36 AM	16
71	TOC	~~WG295252-04 (5) X~~	TOC:1.899mg/L TC:4.399mg/L IC:2.500mg/L	Comple	02/20/2009 04:32:50 AM	28
72	TOC	L09020356-17	!!Error!! TOC:0.2513mg/L TC:0.1449mg/L IC:-0.1064	Comple	02/20/2009 04:44:16 AM	33
73	TOC	WG295252-05 (5) DUP	TOC:2.171mg/L TC:4.304mg/L IC:2.133mg/L	Comple	02/20/2009 04:56:29 AM	40
74	TOC	WG292252-06 (5) MS	TOC:4.572mg/L TC:6.550mg/L IC:1.978mg/L	Comple	02/20/2009 05:08:53 AM	52
75	TOC	CCV	!!Error!! TOC:51.47mg/L TC:51.37mg/L IC:-0.09959m	Comple	02/20/2009 05:21:51 AM	1
76	TOC	CCB	!!Error!! TOC:0.1017mg/L TC:-0.02604mg/L IC:-0.127	Comple	02/20/2009 05:30:51 AM	0

x L09020356-15(5)

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Instr. Information

System
DetectorTOCVW ASI
Wet Chemical

Sample

Sample Name: CCV 50
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

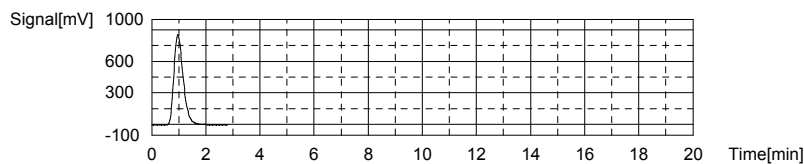
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:54.02mg/L TC:53.81mg/L IC:-0.2127mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2037	53.81mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:33:25 AM

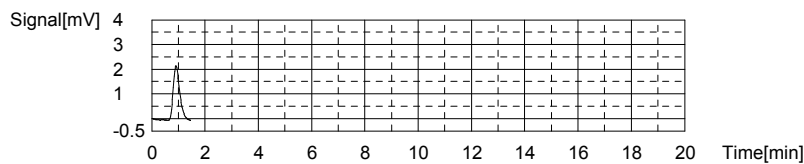
Mean Area 2037
Mean Conc. 53.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.728	-0.2127mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:37:45 AM

Mean Area 3.728
Mean Conc. -0.2127mg/L



Sample

Sample Name: CCV 10
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:11.23mg/L TC:11.05mg/L IC:-0.1807mg/L

1. Det

Anal.: TC

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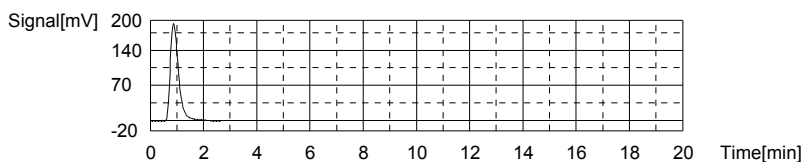
Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	424.7	11.05mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:45:52 AM

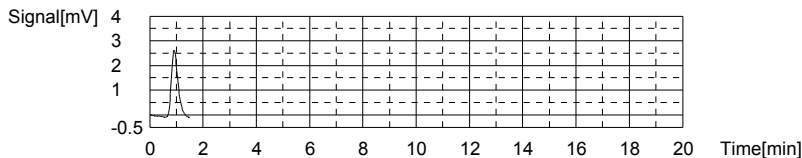
Mean Area 424.7
Mean Conc. 11.05mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.712	-0.1807mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:50:14 AM

Mean Area 4.712
Mean Conc. -0.1807mg/L



Sample

Sample Name: TIC 25
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

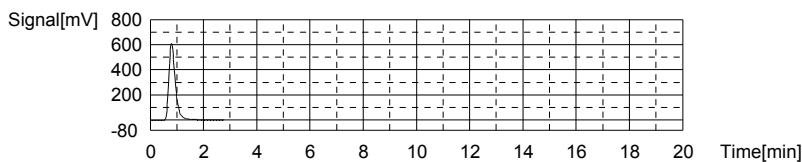
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.657mg/L TC:27.42mg/L IC:24.76mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1042	27.42mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:58:27 AM

Mean Area 1042
Mean Conc. 27.42mg/L



Anal.: IC

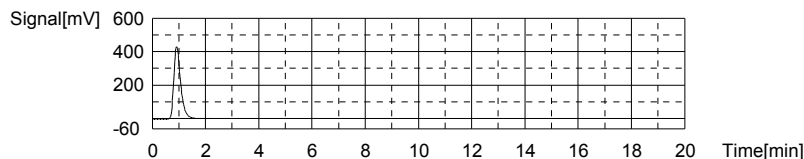
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	770.5	24.76mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:03:53 AM

Approved: February 24, 2009

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02-19-2009-DIH-TOC.i32

Mean Area 770.5
Mean Conc. 24.76mg/L



Sample

Sample Name: WG295247-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

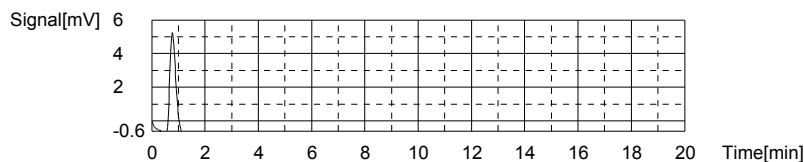
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1459mg/L TC:0.05577mg/L IC:-0.09014mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.23	0.05577mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:08:56 AM

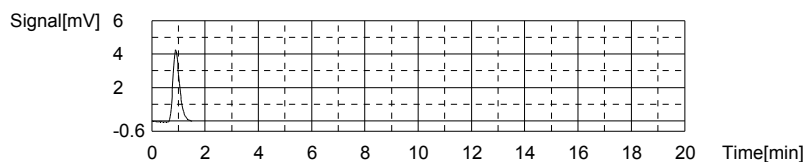
Mean Area 10.23
Mean Conc. 0.05577mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.492	-0.09014mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:12:59 AM

Mean Area 7.492
Mean Conc. -0.09014mg/L



Sample

Sample Name: WG295247-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.41mg/L TC:25.22mg/L IC:-0.1897mg/L

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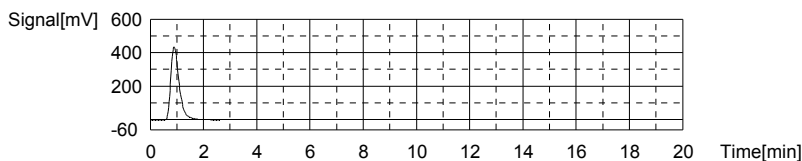
02-19-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	959.1	25.22mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:21:02 AM

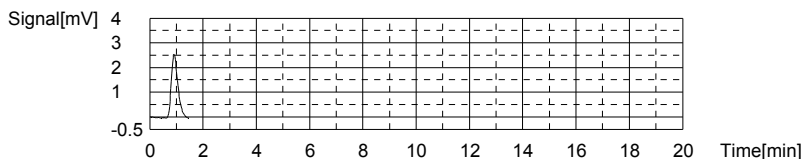
Mean Area 959.1
Mean Conc. 25.22mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.437	-0.1897mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:25:24 AM

Mean Area 4.437
Mean Conc. -0.1897mg/L



Sample

Sample Name: WG295247-03 LCSDUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

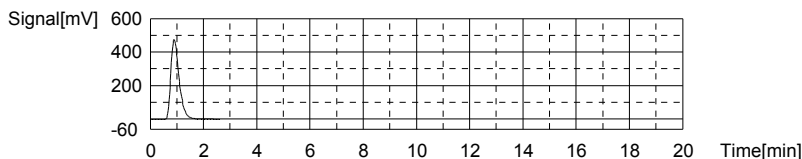
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.50mg/L TC:27.31mg/L IC:-0.1887mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1038	27.31mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:33:26 AM

Mean Area 1038
Mean Conc. 27.31mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.467	-0.1887mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:37:46 AM

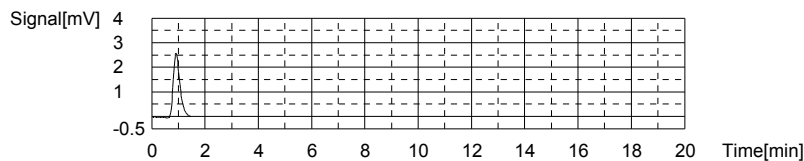
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02-19-2009-DIH-TOC.t32

Mean Area 4.467
Mean Conc. -0.1887mg/L



Sample

Sample Name: L09020346-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

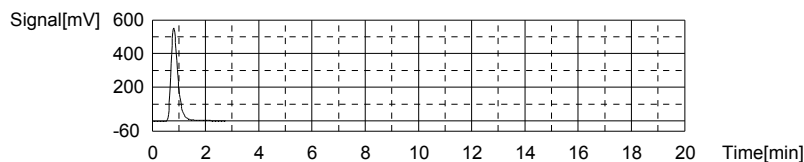
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.960mg/L TC:26.23mg/L IC:18.27mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	997.2	26.23mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:45:58 AM

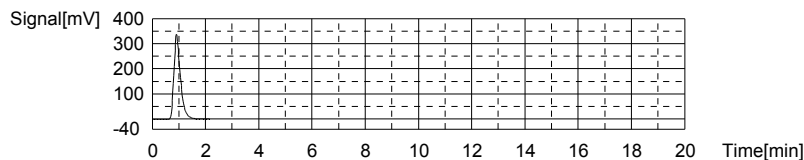
Mean Area 997.2
Mean Conc. 26.23mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	571.2	18.27mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:51:17 AM

Mean Area 571.2
Mean Conc. 18.27mg/L



Sample

Sample Name: L09020346-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.072mg/L TC:24.36mg/L IC:17.28mg/L

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02/20/2009 08:09:29 AM

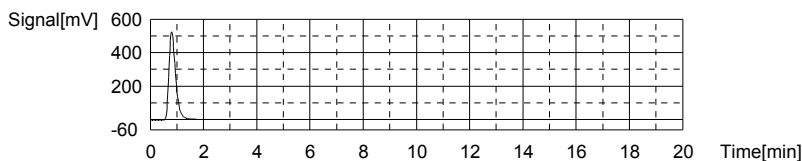
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	926.5	24.36mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:59:35 AM

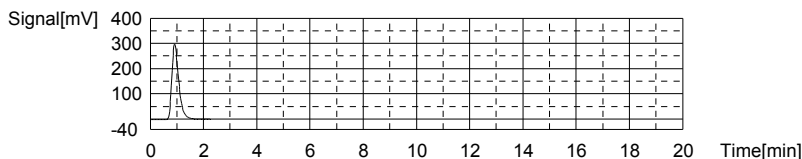
Mean Area 926.5
Mean Conc. 24.36mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	540.9	17.28mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:05:00 PM

Mean Area 540.9
Mean Conc. 17.28mg/L



Sample

Sample Name: L09020346-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

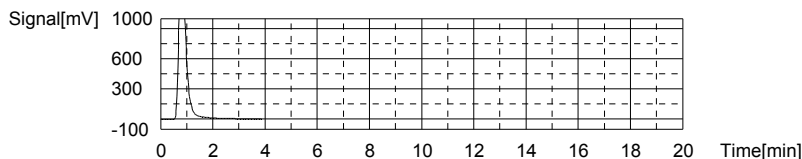
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-0.1708mg/L TC:74.57mg/L IC:74.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2820	74.57mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:14:19 PM

Mean Area 2820
Mean Conc. 74.57mg/L



Anal.: IC

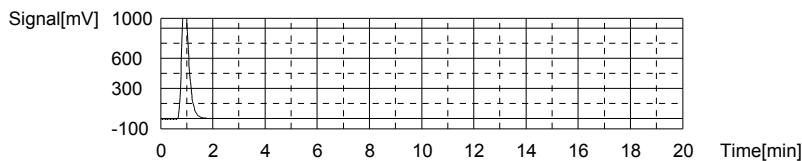
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2305	74.74mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:20:51 PM

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

Mean Area 2305
Mean Conc. 74.74mg/L



Sample

Sample Name: L09020278-05 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

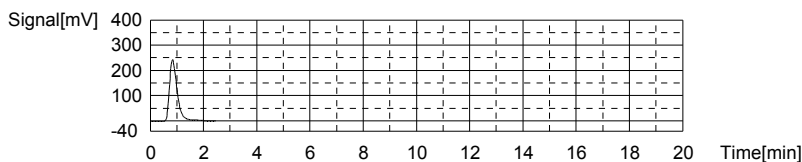
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.361mg/L TC:12.91mg/L IC:3.552mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	495.0	12.91mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/19/2009 12:28:45 PM

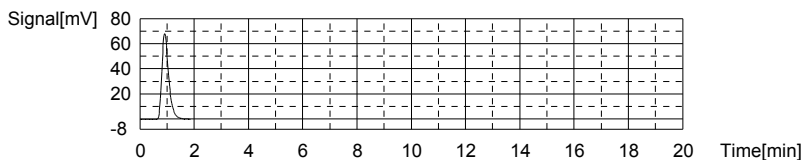
Mean Area 495.0
Mean Conc. 12.91mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	119.3	3.552mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	2/19/2009 12:33:43 PM

Mean Area 119.3
Mean Conc. 3.552mg/L



Sample

Sample Name: L09020371-01 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.863mg/L TC:8.043mg/L IC:6.180mg/L

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02/20/2009 08:09:29 AM

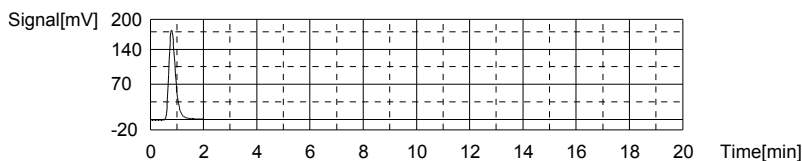
02-19-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	311.4	8.043mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:41:08 PM

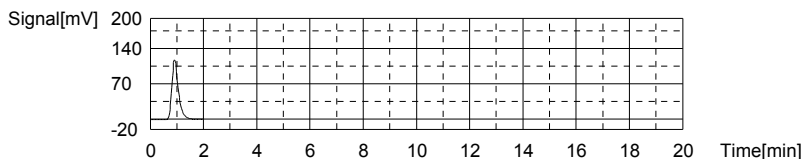
Mean Area 311.4
Mean Conc. 8.043mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.0	6.180mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:46:09 PM

Mean Area 200.0
Mean Conc. 6.180mg/L



Sample

Sample Name: L09020371-02 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

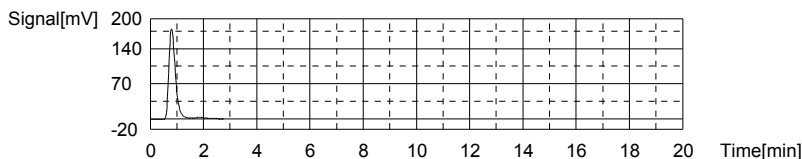
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.739mg/L TC:8.327mg/L IC:6.587mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.1	8.327mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:54:21 PM

Mean Area 322.1
Mean Conc. 8.327mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	212.5	6.587mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:59:19 PM

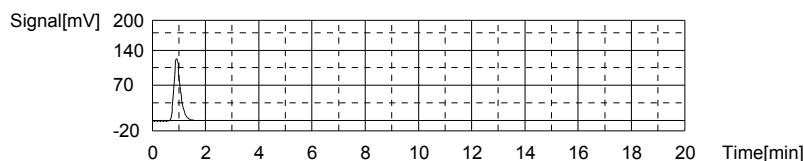
Kearna Roberts

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Mean Area 212.5
Mean Conc. 6.587mg/L



Sample

Sample Name: L09020294-02 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

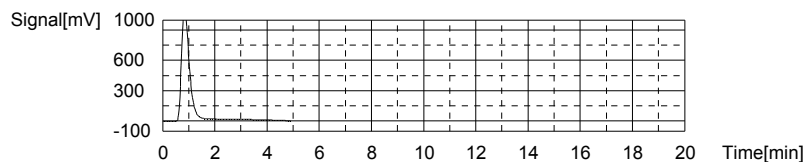
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:45.85mg/L TC:69.14mg/L IC:23.28mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2615	69.14mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 01:09:40 PM

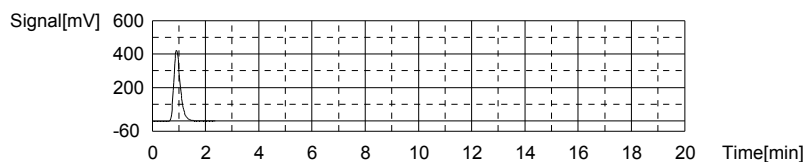
Mean Area 2615
Mean Conc. 69.14mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	725.1	23.28mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 01:15:14 PM

Mean Area 725.1
Mean Conc. 23.28mg/L



Sample

Sample Name: L09020300-01 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.618mg/L TC:24.93mg/L IC:20.32mg/L

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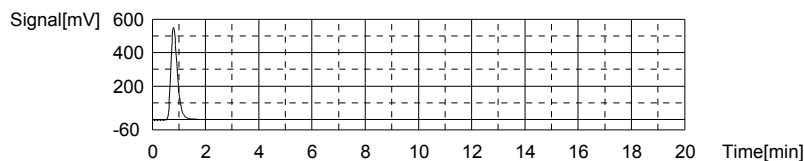
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	948.3	24.93mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 01:23:13 PM

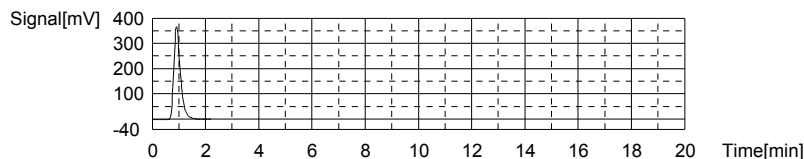
Mean Area 948.3
Mean Conc. 24.93mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	634.0	20.32mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 01:28:35 PM

Mean Area 634.0
Mean Conc. 20.32mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

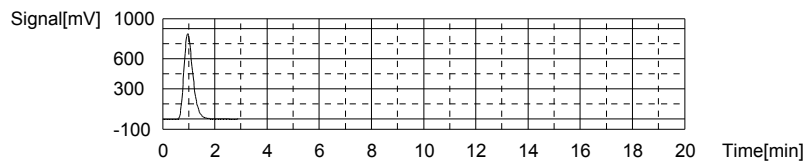
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:53.95mg/L TC:53.86mg/L IC:-0.08813mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2039	53.86mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 01:36:54 PM

Mean Area 2039
Mean Conc. 53.86mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.554	-0.08813mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 01:41:21 PM

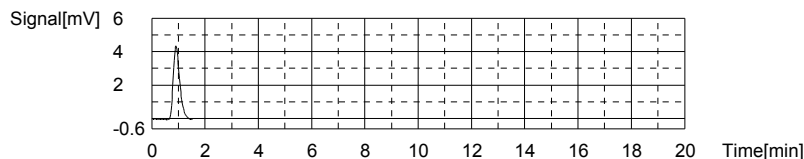
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Mean Area 7.554
Mean Conc. -0.08813mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

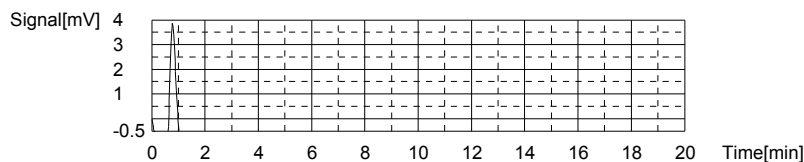
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1058mg/L TC:0.01960mg/L IC:-0.08617mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.866	0.01960mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/19/2009 01:46:23 PM

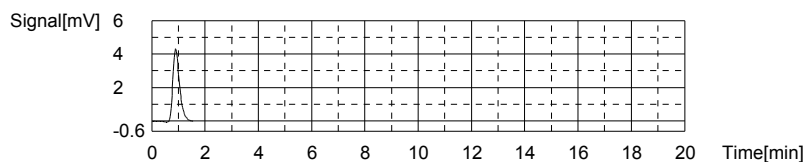
Mean Area 8.866
Mean Conc. 0.01960mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.614	-0.08617mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	2/19/2009 01:50:22 PM

Mean Area 7.614
Mean Conc. -0.08617mg/L



Sample

Sample Name: L09020300-06 (50)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.415mg/L TC:7.950mg/L IC:4.535mg/L

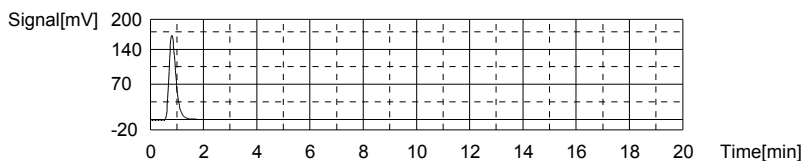
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	307.9	7.950mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 01:58:19 PM

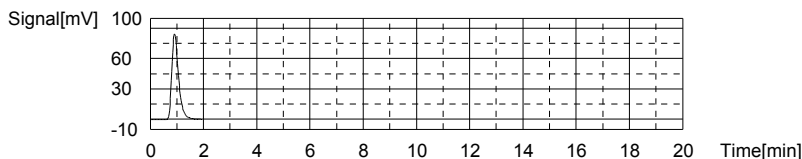
Mean Area 307.9
Mean Conc. 7.950mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	149.5	4.535mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 02:03:12 PM

Mean Area 149.5
Mean Conc. 4.535mg/L



Sample

Sample Name: L09020300-07 (50)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

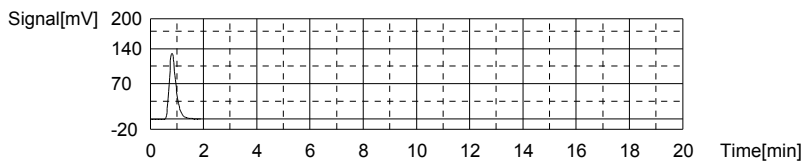
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.052mg/L TC:6.059mg/L IC:3.008mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	236.6	6.059mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 02:10:32 PM

Mean Area 236.6
Mean Conc. 6.059mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	102.6	3.008mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 02:15:22 PM

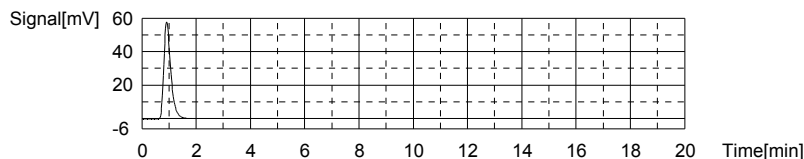
Kearna Roberts

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Mean Area 102.6
Mean Conc. 3.008mg/L



Sample

Sample Name: L09020311-09
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

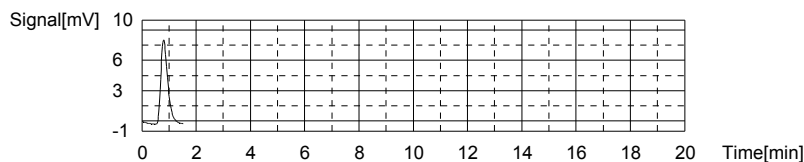
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.2318mg/L TC:0.1762mg/L IC:-0.05562mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.77	0.1762mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 02:22:20 PM

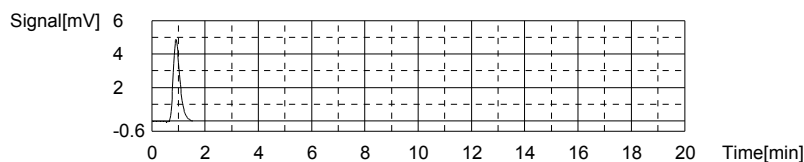
Mean Area 14.77
Mean Conc. 0.1762mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.552	-0.05562mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 02:26:45 PM

Mean Area 8.552
Mean Conc. -0.05562mg/L



Sample

Sample Name: L09020323-04
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.623mg/L TC:57.73mg/L IC:49.11mg/L

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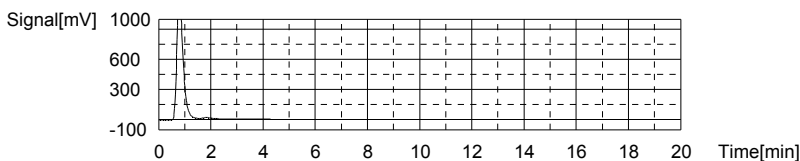
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2185	57.73mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 02:37:05 PM

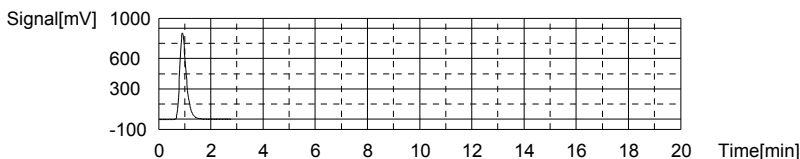
Mean Area 2185
Mean Conc. 57.73mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1518	49.11mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 02:43:10 PM

Mean Area 1518
Mean Conc. 49.11mg/L



Sample

Sample Name: L09020323-05
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

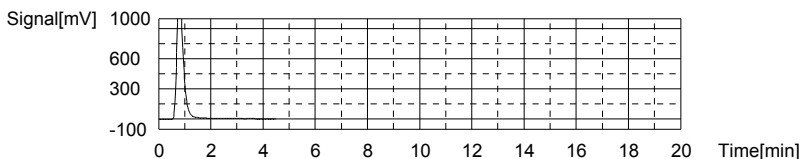
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.269mg/L TC:58.53mg/L IC:51.26mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2215	58.53mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 03:05:48 PM

Mean Area 2215
Mean Conc. 58.53mg/L



Anal.: IC

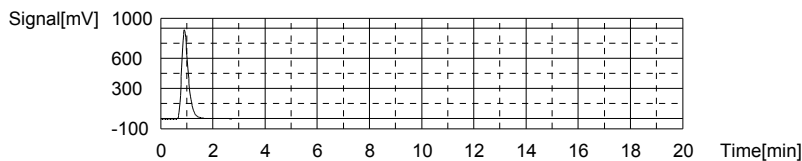
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1584	51.26mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 03:11:58 PM

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Mean Area 1584
Mean Conc. 51.26mg/L



Sample

Sample Name: L09020323-06
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

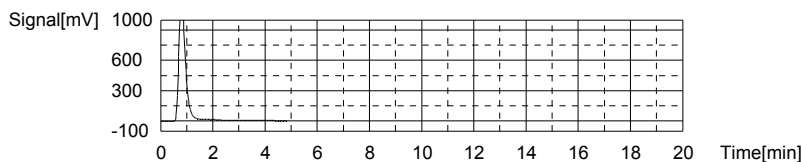
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.39mg/L TC:59.75mg/L IC:48.36mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2261	59.75mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 03:22:15 PM

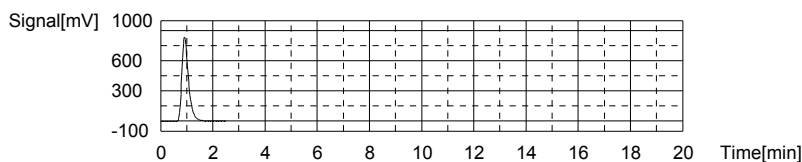
Mean Area 2261
Mean Conc. 59.75mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1495	48.36mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 03:28:20 PM

Mean Area 1495
Mean Conc. 48.36mg/L



Sample

Sample Name: L09020324-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.3296mg/L TC:78.23mg/L IC:77.90mg/L

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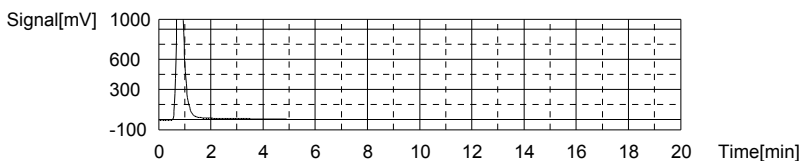
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2958	78.23mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 03:38:40 PM

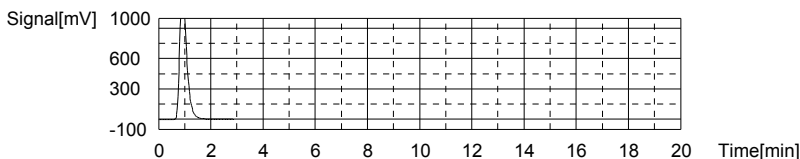
Mean Area 2958
Mean Conc. 78.23mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2402	77.90mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 03:45:17 PM

Mean Area 2402
Mean Conc. 77.90mg/L



Sample

Sample Name: L09020324-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

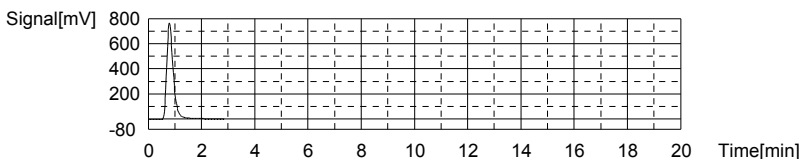
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.871mg/L TC:34.45mg/L IC:30.58mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1307	34.45mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 03:53:35 PM

Mean Area 1307
Mean Conc. 34.45mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	949.0	30.58mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 03:59:28 PM

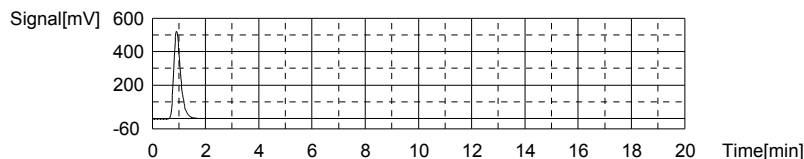
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Mean Area 949.0
Mean Conc. 30.58mg/L



Sample

Sample Name: L09020324-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

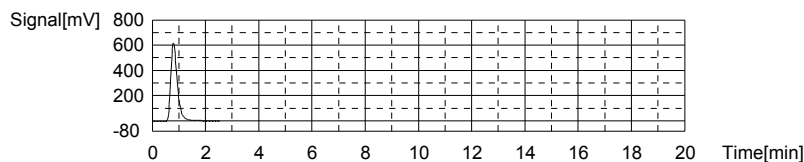
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.888mg/L TC:27.79mg/L IC:23.90mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1056	27.79mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/19/2009 04:07:27 PM

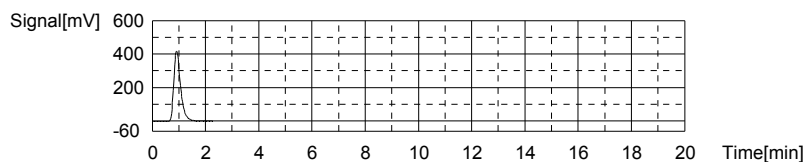
Mean Area 1056
Mean Conc. 27.79mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	744.1	23.90mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	2/19/2009 04:12:59 PM

Mean Area 744.1
Mean Conc. 23.90mg/L



Sample

Sample Name: L09020400-01 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.337mg/L TC:36.89mg/L IC:30.55mg/L

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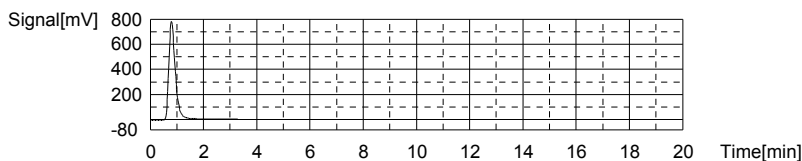
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1399	36.89mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 04:22:55 PM

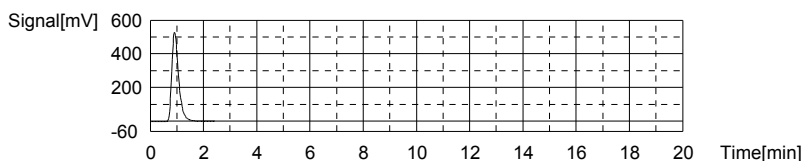
Mean Area 1399
Mean Conc. 36.89mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	948.2	30.55mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 04:28:38 PM

Mean Area 948.2
Mean Conc. 30.55mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

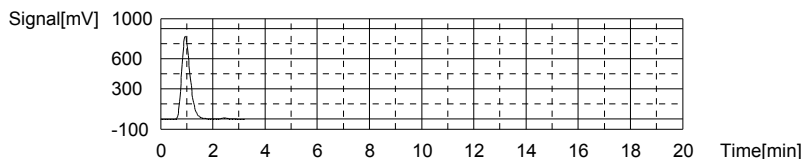
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.19mg/L TC:50.17mg/L IC:-0.01350mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1900	50.17mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 04:37:18 PM

Mean Area 1900
Mean Conc. 50.17mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.845	-0.01350mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 04:41:49 PM

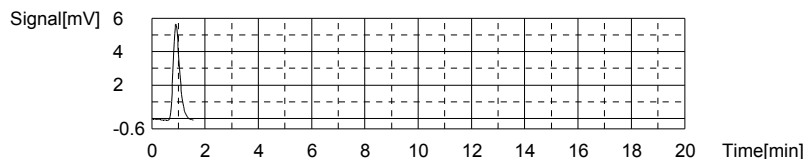
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Mean Area 9.845
Mean Conc. -0.01350mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

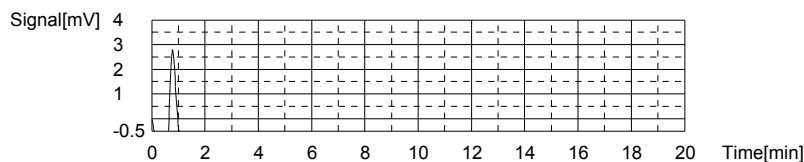
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1025mg/L TC:-0.03068mg/L IC:-0.1332mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.970	-0.03068mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/19/2009 04:46:51 PM

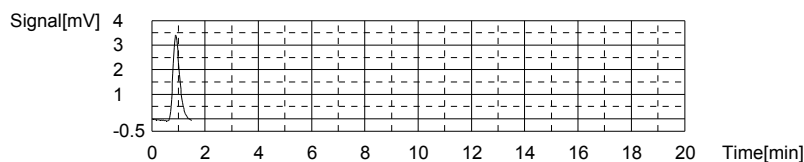
Mean Area 6.970
Mean Conc. -0.03068mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.170	-0.1332mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	2/19/2009 04:50:49 PM

Mean Area 6.170
Mean Conc. -0.1332mg/L



Sample

Sample Name: L09020400-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.181mg/L TC:72.00mg/L IC:65.82mg/L

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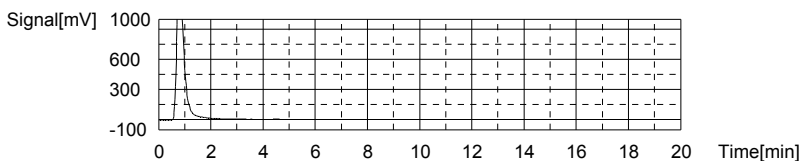
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2723	72.00mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:01:11 PM

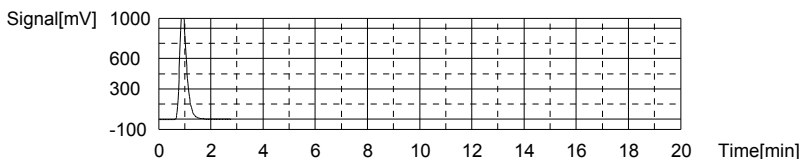
Mean Area 2723
Mean Conc. 72.00mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2031	65.82mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:07:23 PM

Mean Area 2031
Mean Conc. 65.82mg/L



Sample

Sample Name: L09020346-03 (4)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

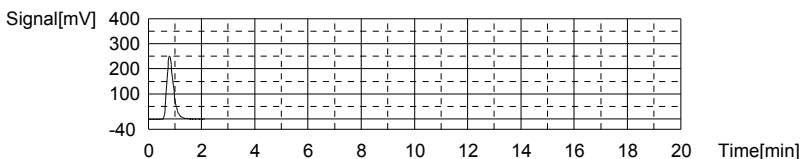
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.875mg/L TC:11.39mg/L IC:9.512mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	437.5	11.39mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:14:58 PM

Mean Area 437.5
Mean Conc. 11.39mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	302.3	9.512mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:20:11 PM

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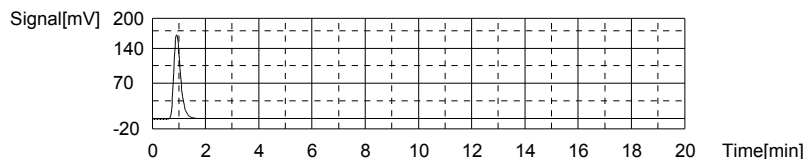
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Mean Area 302.3
Mean Conc. 9.512mg/L



Sample

Sample Name: WG295247-05 DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

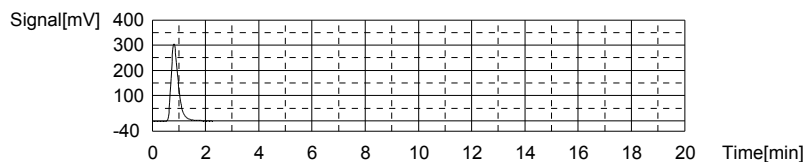
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.146mg/L TC:14.93mg/L IC:8.780mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	570.9	14.93mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/19/2009 05:27:54 PM

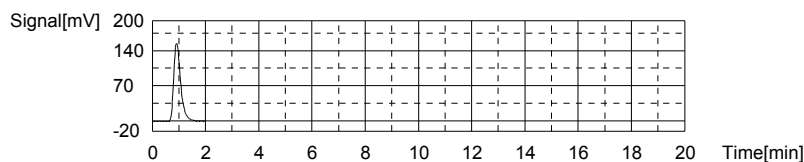
Mean Area 570.9
Mean Conc. 14.93mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	279.8	8.780mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	2/19/2009 05:32:59 PM

Mean Area 279.8
Mean Conc. 8.780mg/L



Sample

Sample Name: WG295247-06 MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:17.98mg/L TC:28.16mg/L IC:10.18mg/L

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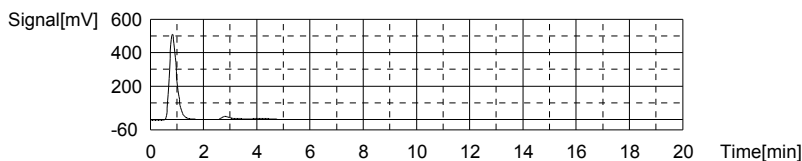
02-19-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1070	28.16mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:43:21 PM

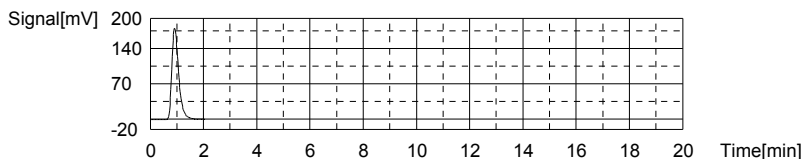
Mean Area 1070
Mean Conc. 28.16mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.8	10.18mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:48:28 PM

Mean Area 322.8
Mean Conc. 10.18mg/L



Sample

Sample Name: WG295251-01 BLANK
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

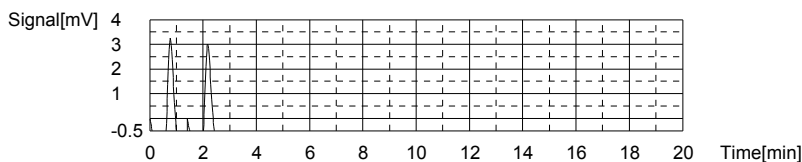
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1120mg/L TC:-0.02098mg/L IC:-0.1330mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.628	-0.01323mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:53:30 PM
2	7.044	-0.02872mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:57:02 PM

Mean Area 7.336
Mean Conc. -0.02098mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.371	-0.1267mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 06:01:02 PM
2	5.982	-0.1393mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 06:05:00 PM

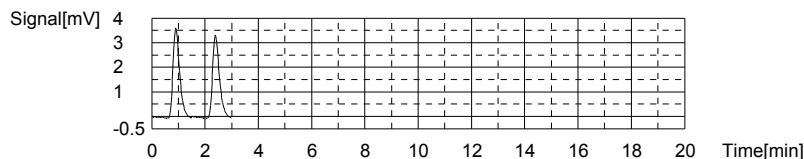
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Mean Area 6.177
Mean Conc. -0.1330mg/L



Sample

Sample Name: WG295251-02 LCS
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

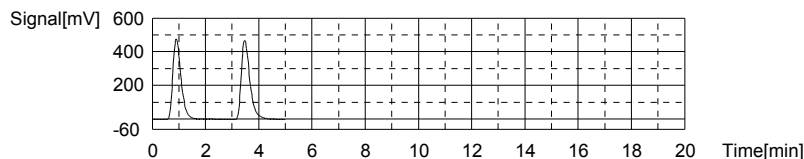
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.39mg/L TC:27.27mg/L IC:-0.1133mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1018	26.78mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:13:02 PM
2	1055	27.76mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:18:43 PM

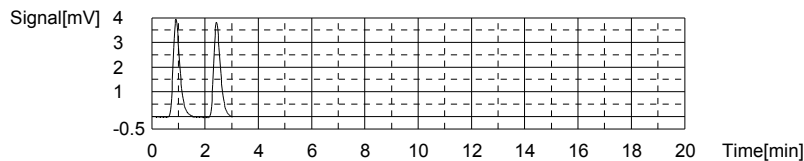
Mean Area 1037
Mean Conc. 27.27mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.841	-0.1113mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:23:08 PM
2	6.720	-0.1153mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:27:20 PM

Mean Area 6.781
Mean Conc. -0.1133mg/L



Sample

Sample Name: WG295251-03 LCSDUP
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

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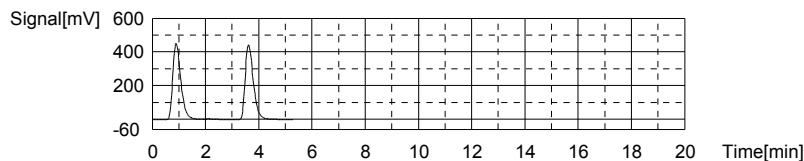
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.26mg/L TC:25.14mg/L IC:-0.1171mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	961.1	25.27mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:35:30 PM
2	951.2	25.01mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:40:21 PM

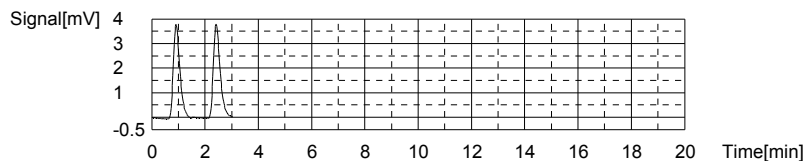
Mean Area 956.2
Mean Conc. 25.14mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.653	-0.1175mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:44:45 PM
2	6.673	-0.1168mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:48:58 PM

Mean Area 6.663
Mean Conc. -0.1171mg/L



Sample

Sample Name: L09020258-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

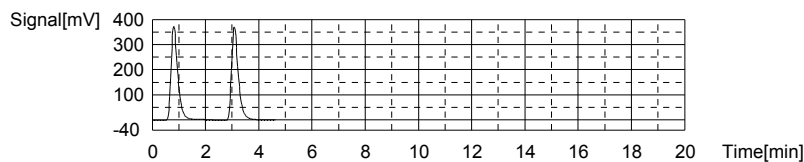
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.210mg/L TC:17.23mg/L IC:11.02mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	654.5	17.14mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:56:41 PM
2	660.8	17.31mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 07:01:27 PM

Mean Area 657.7
Mean Conc. 17.23mg/L



Anal.: IC

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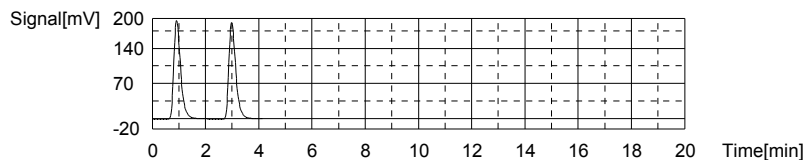
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	349.3	11.04mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:06:36 PM
2	347.6	10.99mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:11:31 PM

Mean Area 348.5
Mean Conc. 11.02mg/L



Sample

Sample Name: L09020258-02
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

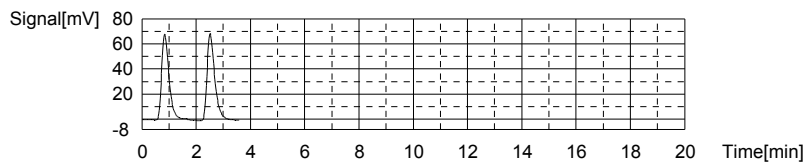
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.795mg/L TC:3.261mg/L IC:0.4664mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.5	3.113mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10	502/19/2009 07:18:39 PM
2	136.7	3.410mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10	502/19/2009 07:23:50 PM

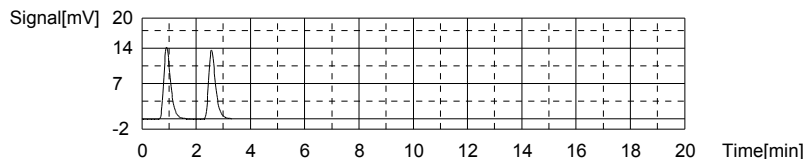
Mean Area 131.1
Mean Conc. 3.261mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.05	0.4818mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:28:24 PM
2	24.11	0.4511mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:32:45 PM

Mean Area 24.58
Mean Conc. 0.4664mg/L



Sample

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Sample Name: L09020259-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result

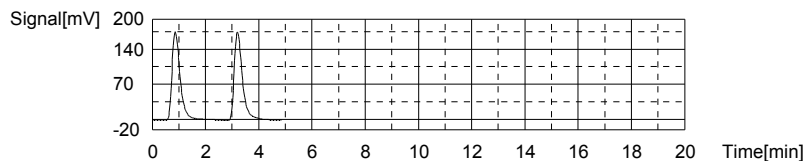
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.444mg/L TC:9.689mg/L IC:1.245mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	369.6	9.587mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 07:40:32 PM
2	377.3	9.791mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 07:45:20 PM

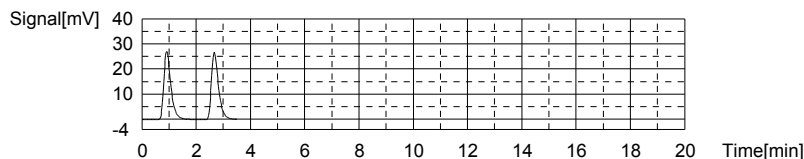
Mean Area 373.5
Mean Conc. 9.689mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.70	1.252mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 07:50:01 PM
2	48.26	1.238mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 07:54:28 PM

Mean Area 48.48
Mean Conc. 1.245mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:55.87mg/L TC:55.74mg/L IC:-0.1268mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2077	54.87mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 08:02:39 PM
2	2143	56.62mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 08:07:59 PM

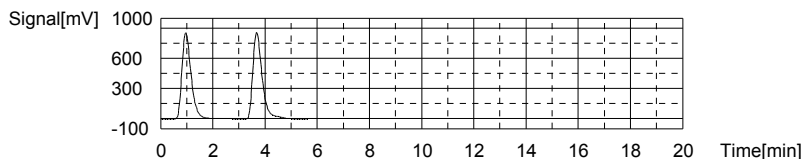
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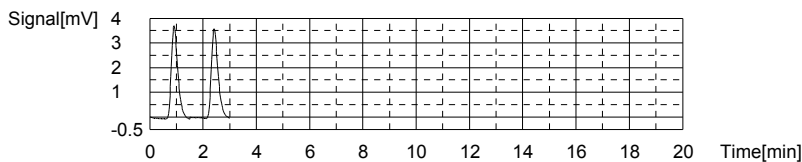
Mean Area 2110
Mean Conc. 55.74mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.449	-0.1241mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:12:21 PM
2	6.286	-0.1294mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:16:33 PM

Mean Area 6.368
Mean Conc. -0.1268mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

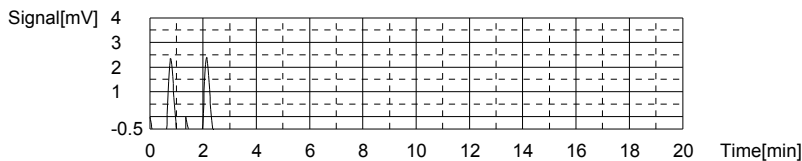
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1037mg/L TC:-0.04442mg/L IC:-0.1482mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.371	-0.04657mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:21:33 PM
2	6.533	-0.04227mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:25:05 PM

Mean Area 6.452
Mean Conc. -0.04442mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.698	-0.1486mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:29:05 PM
2	5.723	-0.1478mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:33:04 PM

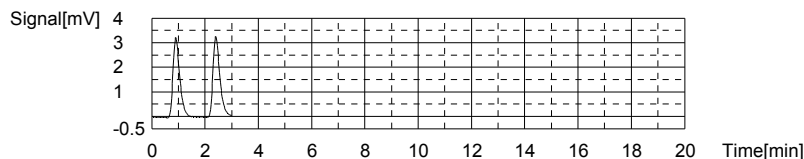
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Mean Area 5.710
Mean Conc. -0.1482mg/L



Sample

Sample Name: L09020275-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

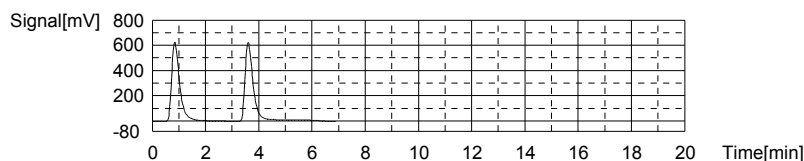
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:24.36mg/L TC:36.21mg/L IC:11.85mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1308	34.47mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:41:17 PM
2	1439	37.95mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:48:47 PM

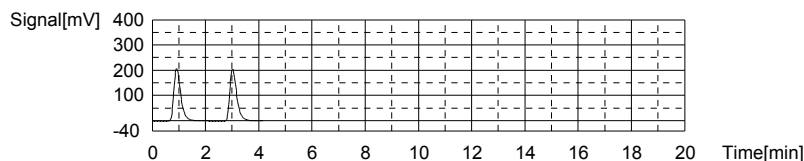
Mean Area 1374
Mean Conc. 36.21mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	375.5	11.90mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:53:59 PM
2	372.8	11.81mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:58:53 PM

Mean Area 374.1
Mean Conc. 11.85mg/L



Sample

Sample Name: L09020370-09
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

Approved: February 24, 2009

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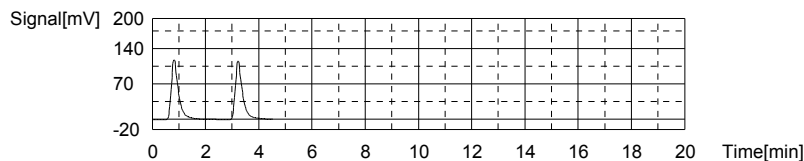
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.178mg/L TC:5.623mg/L IC:2.445mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	223.8	5.720mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:06:45 PM
2	216.5	5.526mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:11:09 PM

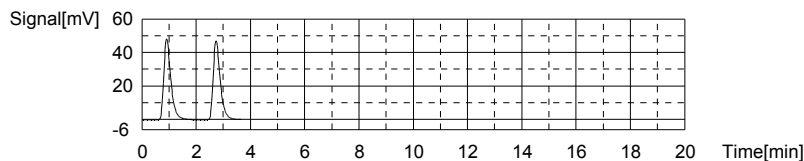
Mean Area 220.2
Mean Conc. 5.623mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.24	2.475mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:15:55 PM
2	84.41	2.415mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:20:29 PM

Mean Area 85.33
Mean Conc. 2.445mg/L



Sample

Sample Name: L09020372-01 (5)
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

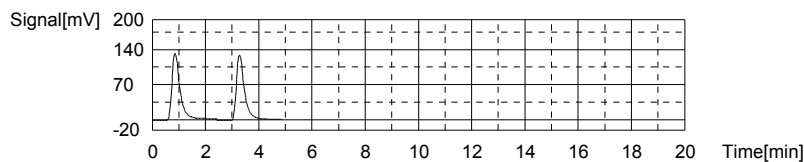
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.171mg/L TC:7.155mg/L IC:0.9834mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	280.8	7.232mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:28:22 PM
2	275.0	7.078mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:33:16 PM

Mean Area 277.9
Mean Conc. 7.155mg/L



Anal.: IC

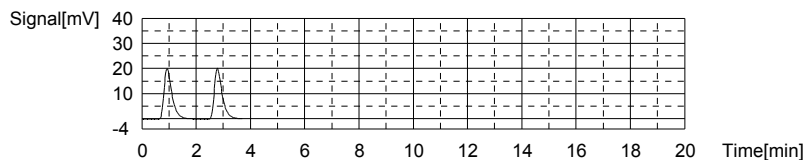
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.62	0.9889mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:38:02 PM
2	40.28	0.9778mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:42:35 PM

Mean Area 40.45
Mean Conc. 0.9834mg/L



Sample

Sample Name: L09020276-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

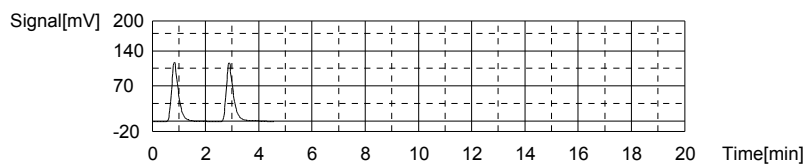
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.874mg/L TC:5.545mg/L IC:1.671mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	211.5	5.394mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:50:06 PM
2	222.9	5.696mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:54:54 PM

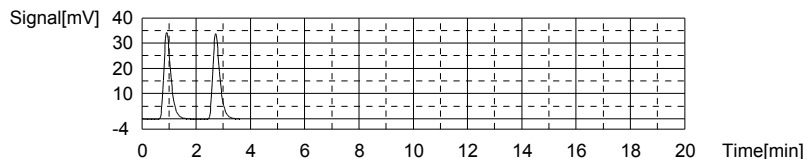
Mean Area 217.2
Mean Conc. 5.545mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.03	1.686mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:59:41 PM
2	61.07	1.655mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:04:12 PM

Mean Area 61.55
Mean Conc. 1.671mg/L



Sample

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02-19-2009-DIH-TOC.i32

Sample Name: L09020276-02
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

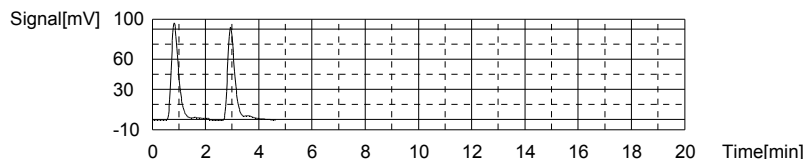
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.747mg/L TC:4.638mg/L IC:1.891mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.2	4.617mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:11:47 PM
2	183.8	4.659mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:17:32 PM

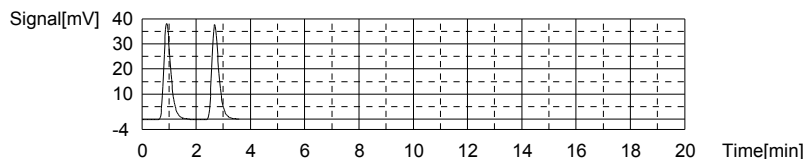
Mean Area 183.0
Mean Conc. 4.638mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.53	1.898mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:22:15 PM
2	68.10	1.884mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:26:44 PM

Mean Area 68.31
Mean Conc. 1.891mg/L



Sample

Sample Name: L09020364-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.450mg/L TC:4.017mg/L IC:1.567mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.9	4.052mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:34:14 PM
2	158.3	3.983mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:38:31 PM

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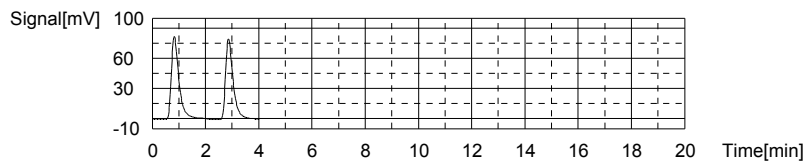
Kearna Roberts

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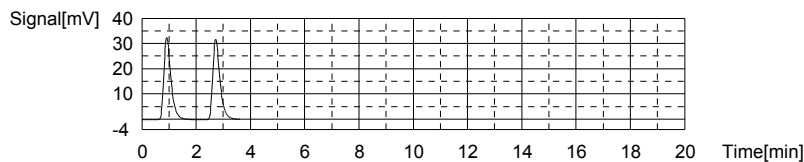
Mean Area 159.6
Mean Conc. 4.017mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.79	1.581mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:43:17 PM
2	57.94	1.553mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:47:48 PM

Mean Area 58.37
Mean Conc. 1.567mg/L



Sample

Sample Name: L09020364-02
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

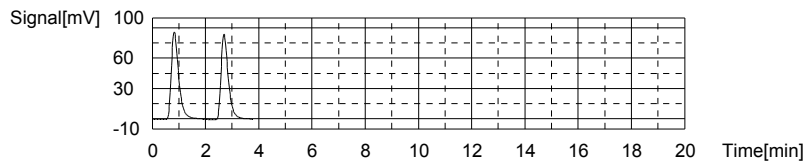
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.376mg/L TC:4.088mg/L IC:1.711mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.9	4.158mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:55:09 PM
2	159.6	4.017mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:59:19 PM

Mean Area 162.3
Mean Conc. 4.088mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.33	1.729mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:04:02 PM
2	62.26	1.694mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:08:33 PM

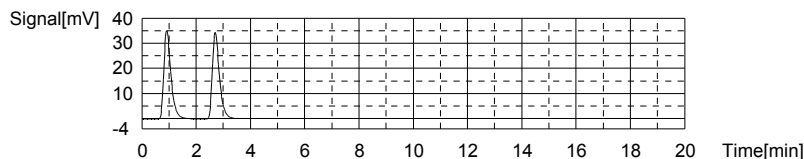
Heanna Roberts

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Mean Area 62.80
Mean Conc. 1.711mg/L



Sample

Sample Name: WG295251-05 DUP
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

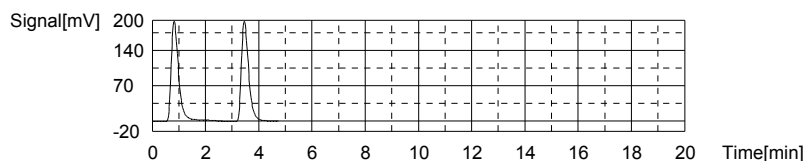
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.144mg/L TC:9.859mg/L IC:4.715mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	385.0	9.995mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:16:39 PM
2	374.7	9.722mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:21:12 PM

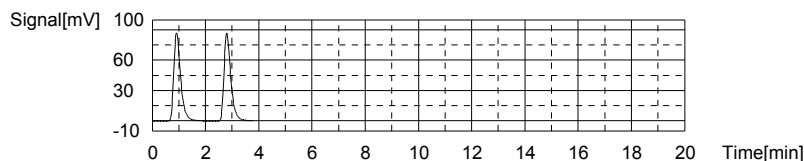
Mean Area 379.9
Mean Conc. 9.859mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	155.4	4.728mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:26:06 PM
2	154.6	4.701mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:30:47 PM

Mean Area 155.0
Mean Conc. 4.715mg/L



Sample

Sample Name: WG295251-06 MS
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

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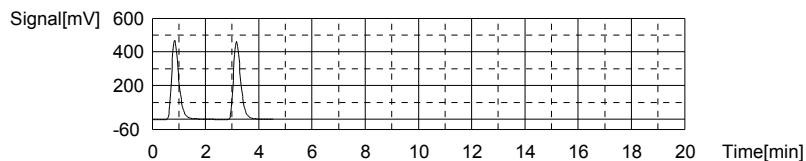
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:16.00mg/L TC:23.22mg/L IC:7.226mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	891.1	23.42mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:38:35 PM
2	876.5	23.03mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:44:03 PM

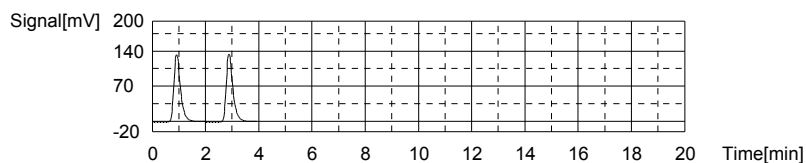
Mean Area 883.8
Mean Conc. 23.22mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	230.9	7.187mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:49:07 PM
2	233.3	7.265mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:53:51 PM

Mean Area 232.1
Mean Conc. 7.226mg/L



Sample

Sample Name: L09020294-02 (25)
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

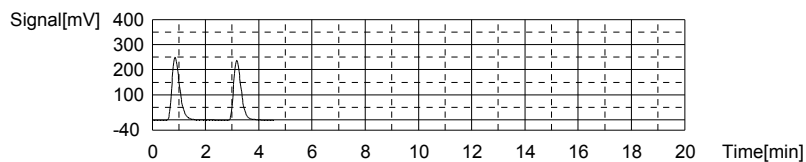
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.02mg/L TC:12.85mg/L IC:1.831mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	511.7	13.36mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:01:38 AM
2	473.9	12.35mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:06:09 AM

Mean Area 492.8
Mean Conc. 12.85mg/L



Anal.: IC

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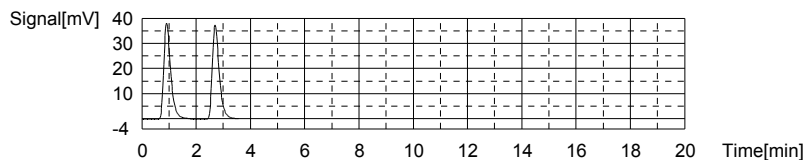
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.86	1.844mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:10:53 AM
2	66.07	1.818mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:15:21 AM

Mean Area 66.47
Mean Conc. 1.831mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

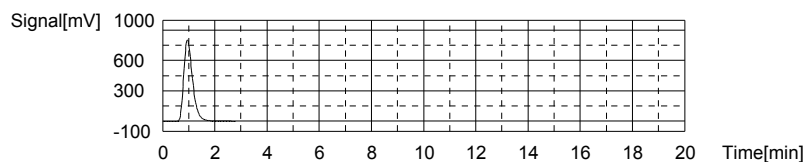
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.25mg/L TC:50.15mg/L IC:-0.1025mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1899	50.15mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:23:36 AM

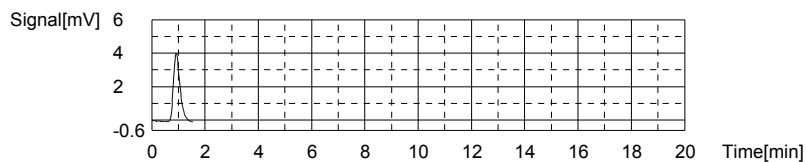
Mean Area 1899
Mean Conc. 50.15mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.113	-0.1025mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:28:03 AM

Mean Area 7.113
Mean Conc. -0.1025mg/L



Sample

Sample Name: WG295252-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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Approved: February 24, 2009

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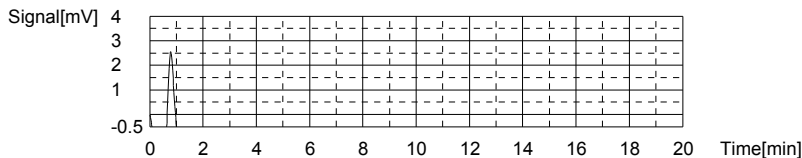
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1088mg/L TC:-0.02960mg/L IC:-0.1384mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.011	-0.02960mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:33:06 AM

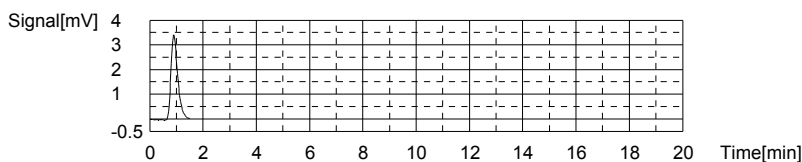
Mean Area 7.011
Mean Conc. -0.02960mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.012	-0.1384mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:37:05 AM

Mean Area 6.012
Mean Conc. -0.1384mg/L



Sample

Sample Name: WG295252-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

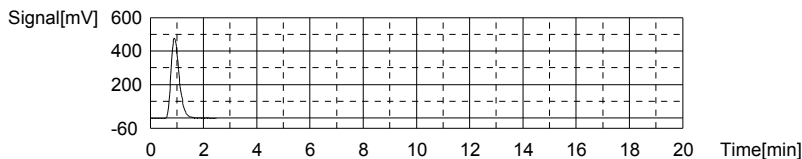
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.32mg/L TC:27.21mg/L IC:-0.1134mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1034	27.21mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:45:02 AM

Mean Area 1034
Mean Conc. 27.21mg/L



Anal.: IC

Kearna Roberts

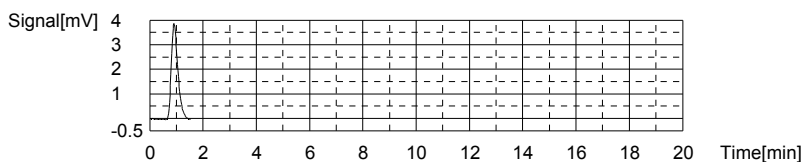
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.778	-0.1134mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:49:26 AM

Mean Area 6.778
Mean Conc. -0.1134mg/L



Sample

Sample Name: WG295252-03 LCSDUP
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

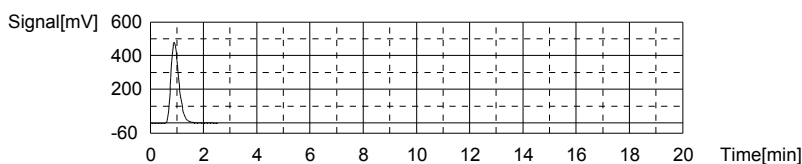
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.74mg/L TC:26.62mg/L IC:-0.1145mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1012	26.62mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:57:26 AM

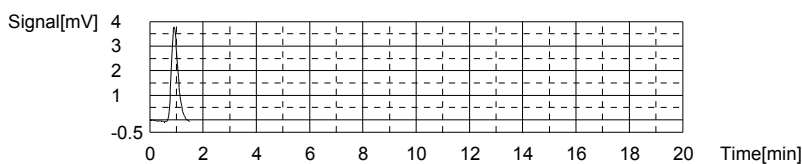
Mean Area 1012
Mean Conc. 26.62mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.744	-0.1145mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:01:51 AM

Mean Area 6.744
Mean Conc. -0.1145mg/L



Sample

Sample Name: L09020356-01 (2)
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

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Approved: February 24, 2009

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02-19-2009-DIH-TOC.i32

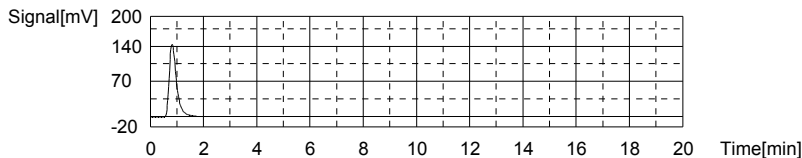
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.683mg/L TC:7.176mg/L IC:3.493mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	278.7	7.176mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:09:29 AM

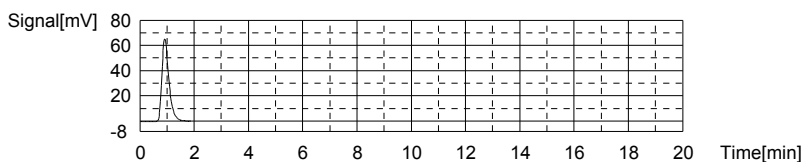
Mean Area 278.7
Mean Conc. 7.176mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.5	3.493mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:14:19 AM

Mean Area 117.5
Mean Conc. 3.493mg/L



Sample

Sample Name: L09020356-02 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

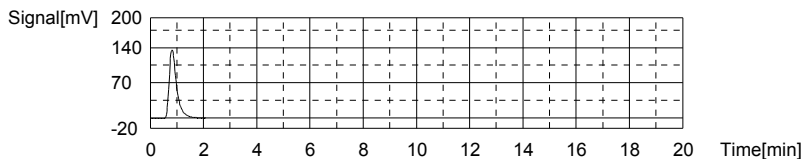
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.315mg/L TC:6.834mg/L IC:3.519mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	265.8	6.834mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:21:53 AM

Mean Area 265.8
Mean Conc. 6.834mg/L



Anal.: IC

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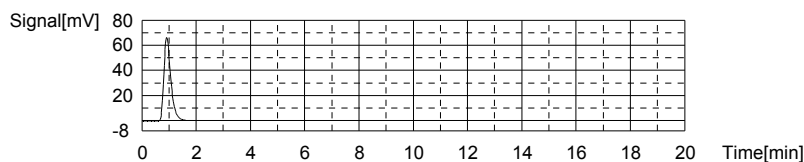
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	118.3	3.519mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:26:46 AM

Mean Area 118.3
Mean Conc. 3.519mg/L



Sample

Sample Name: L09020356-03 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

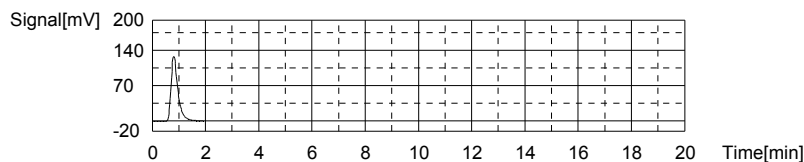
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.016mg/L TC:5.900mg/L IC:3.884mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	230.6	5.900mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:34:09 AM

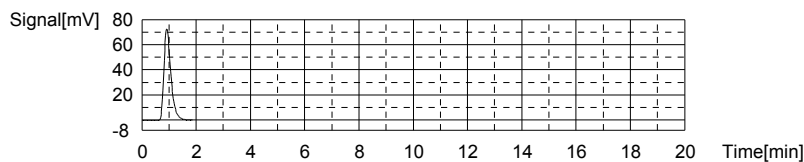
Mean Area 230.6
Mean Conc. 5.900mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	129.5	3.884mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:39:02 AM

Mean Area 129.5
Mean Conc. 3.884mg/L



Sample

Sample Name: L09020356-04 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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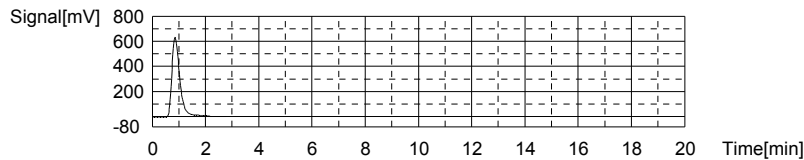
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:25.08mg/L TC:34.92mg/L IC:9.841mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1325	34.92mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:47:16 AM

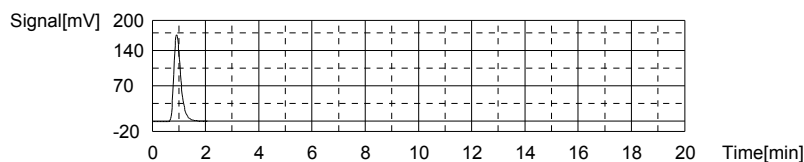
Mean Area 1325
Mean Conc. 34.92mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	312.4	9.841mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:52:25 AM

Mean Area 312.4
Mean Conc. 9.841mg/L



Sample

Sample Name: L09020356-05 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

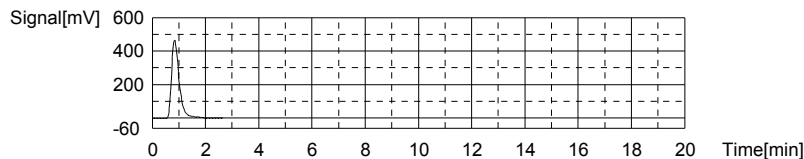
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.43mg/L TC:24.58mg/L IC:10.15mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	935.0	24.58mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:00:33 AM

Mean Area 935.0
Mean Conc. 24.58mg/L



Anal.: IC

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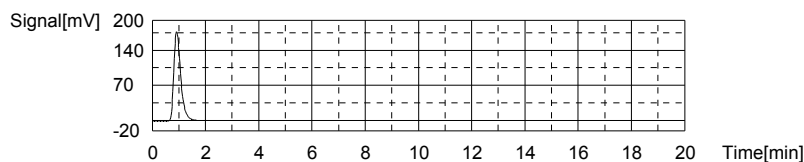
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.0	10.15mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:05:48 AM

Mean Area 322.0
Mean Conc. 10.15mg/L



Sample

Sample Name: L09020356-06 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

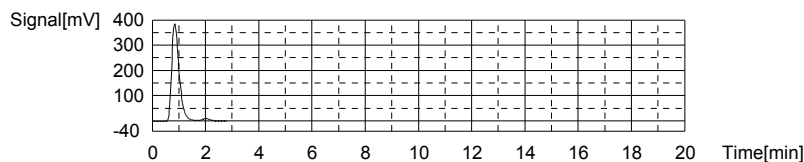
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.00mg/L TC:20.29mg/L IC:6.291mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	773.3	20.29mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:14:03 AM

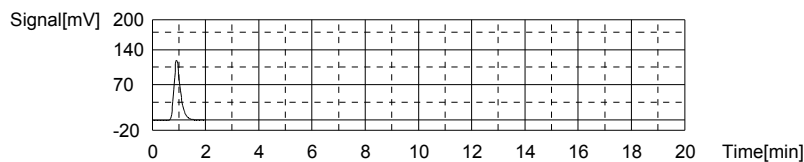
Mean Area 773.3
Mean Conc. 20.29mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	203.4	6.291mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:19:04 AM

Mean Area 203.4
Mean Conc. 6.291mg/L



Sample

Sample Name: L09020356-07 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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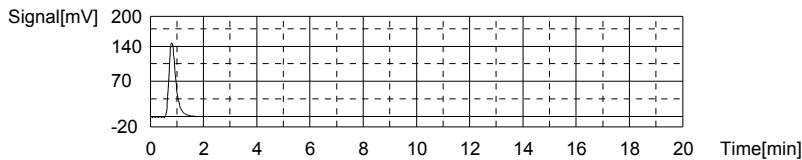
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.222mg/L TC:6.940mg/L IC:4.718mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	269.8	6.940mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:26:34 AM

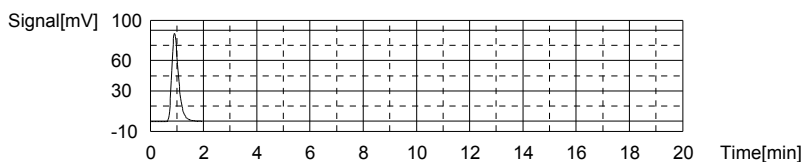
Mean Area 269.8
Mean Conc. 6.940mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	155.1	4.718mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:31:31 AM

Mean Area 155.1
Mean Conc. 4.718mg/L



Sample

Sample Name: L09020356-08 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

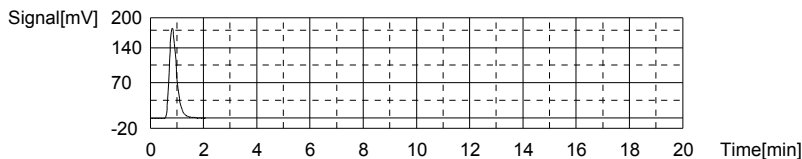
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.771mg/L TC:8.873mg/L IC:4.102mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	342.7	8.873mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:39:05 AM

Mean Area 342.7
Mean Conc. 8.873mg/L



Anal.: IC

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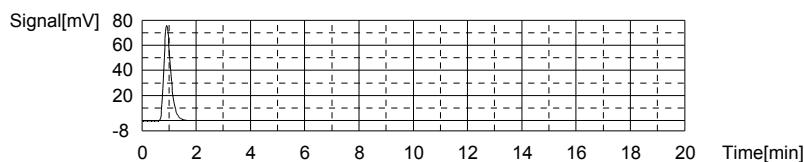
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	136.2	4.102mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:44:01 AM

Mean Area 136.2
Mean Conc. 4.102mg/L



Sample

Sample Name: CCV
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

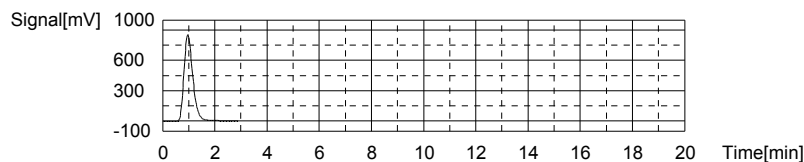
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:53.29mg/L TC:53.20mg/L IC:-0.09259mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2014	53.20mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:52:23 AM

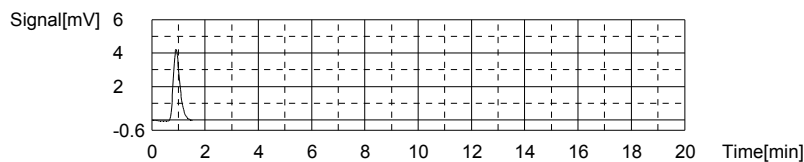
Mean Area 2014
Mean Conc. 53.20mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.417	-0.09259mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:56:47 AM

Mean Area 7.417
Mean Conc. -0.09259mg/L



Sample

Sample Name: CCB
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

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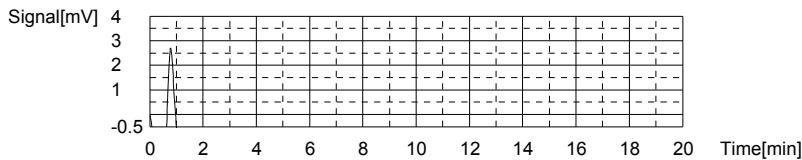
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1013mg/L TC:-0.02978mg/L IC:-0.1311mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.004	-0.02978mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:01:49 AM

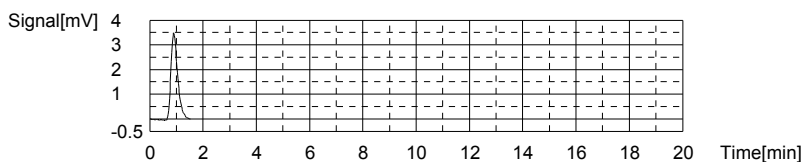
Mean Area 7.004
Mean Conc. -0.02978mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.236	-0.1311mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:05:49 AM

Mean Area 6.236
Mean Conc. -0.1311mg/L



Sample

Sample Name: L09020356-09 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

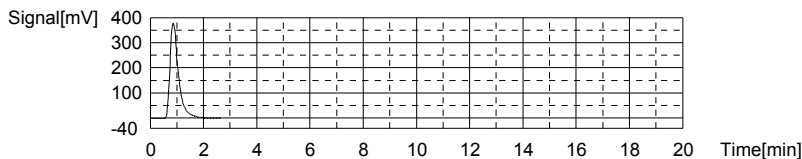
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:17.39mg/L TC:22.05mg/L IC:4.653mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	839.4	22.05mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:13:59 AM

Mean Area 839.4
Mean Conc. 22.05mg/L



Anal.: IC

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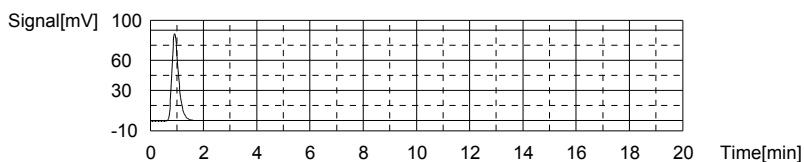
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	153.1	4.653mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:18:54 AM

Mean Area 153.1
Mean Conc. 4.653mg/L



Sample

Sample Name: L09020356-10 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

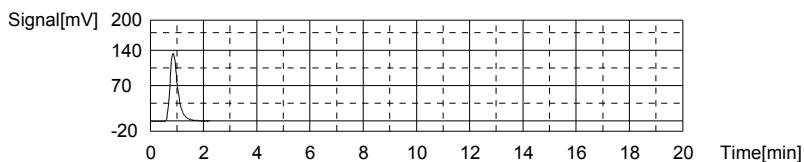
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.981mg/L TC:7.123mg/L IC:1.142mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	276.7	7.123mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:26:36 AM

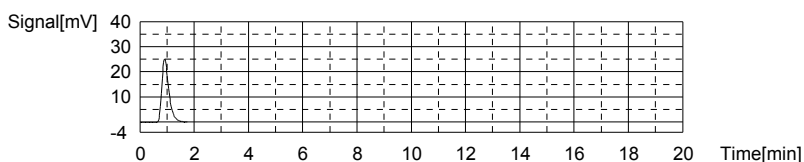
Mean Area 276.7
Mean Conc. 7.123mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.33	1.142mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:31:17 AM

Mean Area 45.33
Mean Conc. 1.142mg/L



Sample

Sample Name: L09020356-11 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Approved: February 24, 2009

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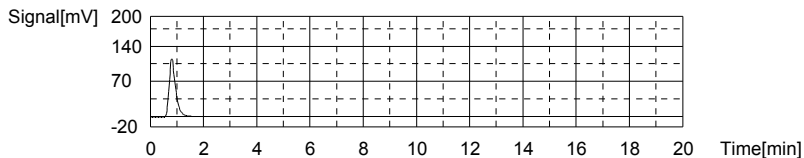
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.879mg/L TC:4.991mg/L IC:3.112mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	196.3	4.991mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:38:54 AM

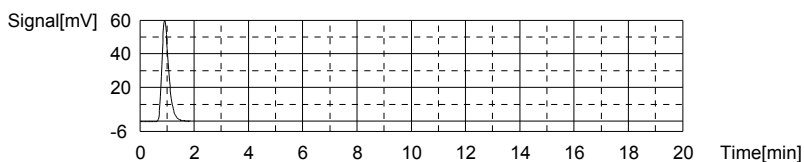
Mean Area 196.3
Mean Conc. 4.991mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.8	3.112mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:43:45 AM

Mean Area 105.8
Mean Conc. 3.112mg/L



Sample

Sample Name: L09020356-12 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

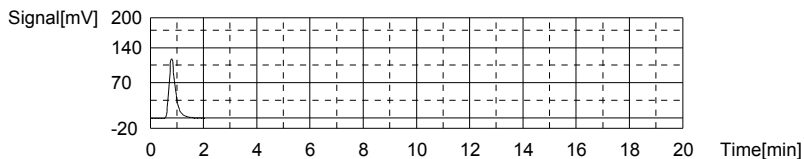
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.426mg/L TC:5.176mg/L IC:3.750mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	203.3	5.176mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:51:16 AM

Mean Area 203.3
Mean Conc. 5.176mg/L



Anal.: IC

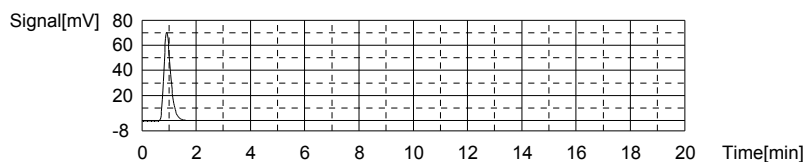
Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.4	3.750mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:56:08 AM

Mean Area 125.4
Mean Conc. 3.750mg/L



Sample

Sample Name: L09020356-13 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

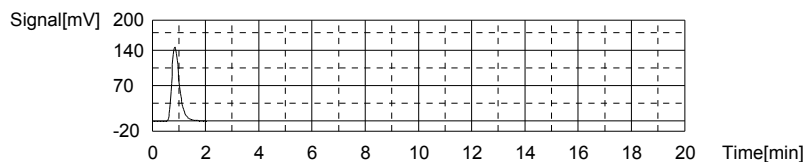
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.878mg/L TC:7.595mg/L IC:1.717mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	294.5	7.595mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:03:40 AM

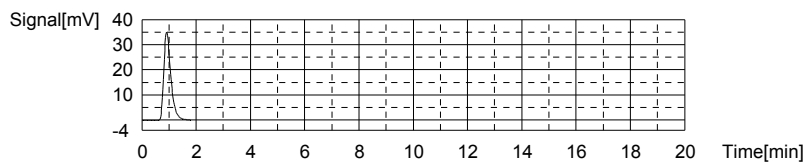
Mean Area 294.5
Mean Conc. 7.595mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.98	1.717mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:08:24 AM

Mean Area 62.98
Mean Conc. 1.717mg/L



Sample

Sample Name: L09020356-14 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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Approved: February 24, 2009

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02-19-2009-DIH-TOC.i32

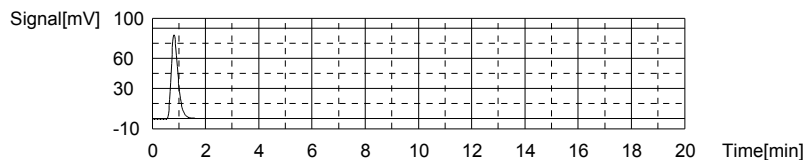
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.831mg/L TC:3.800mg/L IC:1.968mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	151.4	3.800mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:15:50 AM

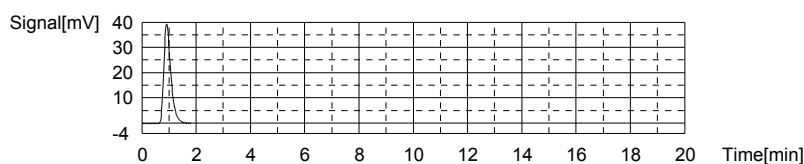
Mean Area 151.4
Mean Conc. 3.800mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.69	1.968mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:20:36 AM

Mean Area 70.69
Mean Conc. 1.968mg/L



Sample

Sample Name: WG295252-04 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

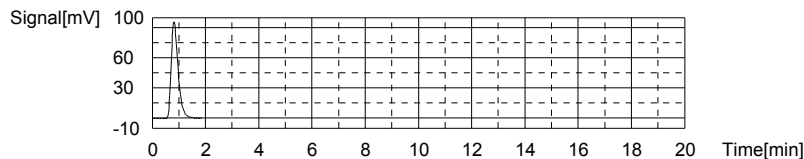
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.899mg/L TC:4.399mg/L IC:2.500mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	174.0	4.399mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:28:00 AM

Mean Area 174.0
Mean Conc. 4.399mg/L



Anal.: IC

Heanna Roberts

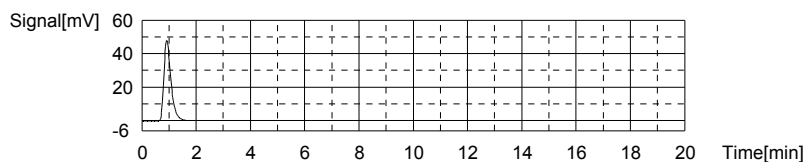
Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.02	2.500mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:32:50 AM

Mean Area 87.02
Mean Conc. 2.500mg/L



Sample

Sample Name: L09020356-17
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

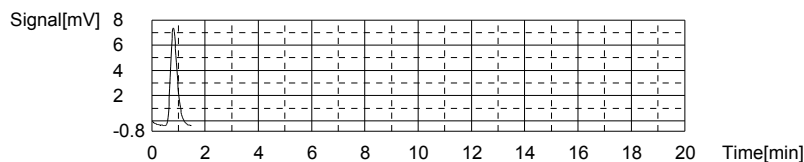
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.2513mg/L TC:0.1449mg/L IC:-0.1064mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.59	0.1449mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:39:49 AM

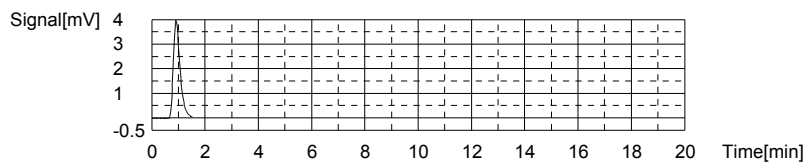
Mean Area 13.59
Mean Conc. 0.1449mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.994	-0.1064mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:44:16 AM

Mean Area 6.994
Mean Conc. -0.1064mg/L



Sample

Sample Name: WG295252-05 (5) DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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Kearna Roberts

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

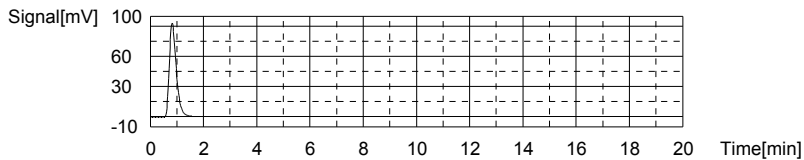
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.171mg/L TC:4.304mg/L IC:2.133mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.4	4.304mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:51:40 AM

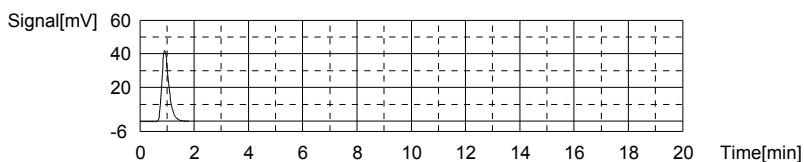
Mean Area 170.4
Mean Conc. 4.304mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.74	2.133mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:56:29 AM

Mean Area 75.74
Mean Conc. 2.133mg/L



Sample

Sample Name: WG292252-06 (5) MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

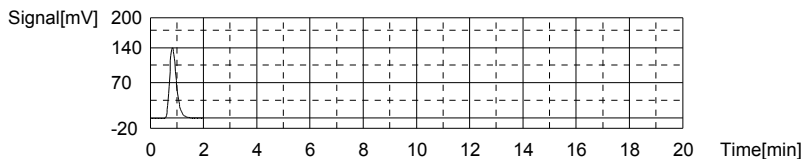
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.572mg/L TC:6.550mg/L IC:1.978mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	255.1	6.550mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:04:06 AM

Mean Area 255.1
Mean Conc. 6.550mg/L



Anal.: IC

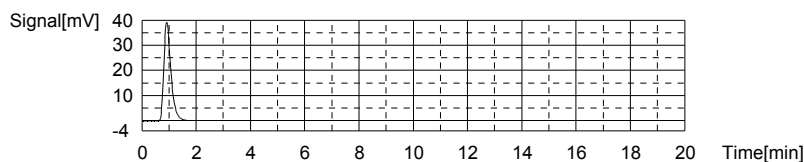
Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.00	1.978mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:08:53 AM

Mean Area 71.00
Mean Conc. 1.978mg/L



Sample

Sample Name: CCV
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

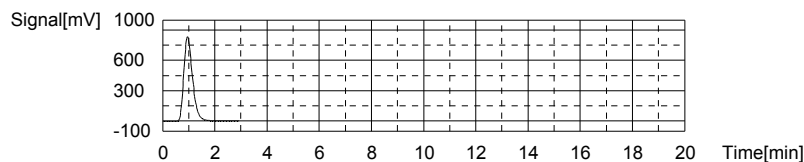
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:51.47mg/L TC:51.37mg/L IC:-0.09959mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1945	51.37mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:17:26 AM

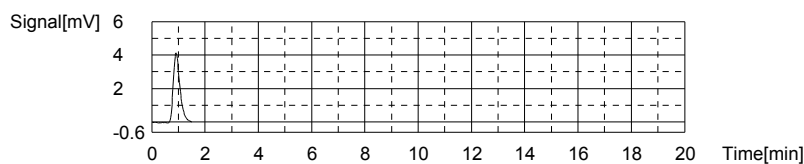
Mean Area 1945
Mean Conc. 51.37mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.202	-0.09959mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:21:51 AM

Mean Area 7.202
Mean Conc. -0.09959mg/L



Sample

Sample Name: CCB
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

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Heanna Roberts

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

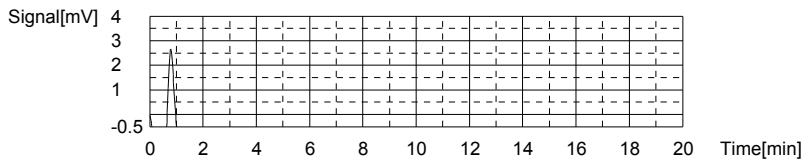
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1017mg/L TC:-0.02604mg/L IC:-0.1277mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.145	-0.02604mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:26:53 AM

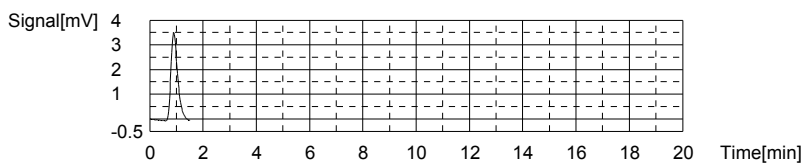
Mean Area 7.145
Mean Conc. -0.02604mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.338	-0.1277mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:30:51 AM

Mean Area 6.338
Mean Conc. -0.1277mg/L

*Heanna Roberts*

Approved: February 24, 2009

3.0 Attachments

Microbac Laboratories Inc.

Analyst Listing

February 25, 2009

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
AM - ALISON J. MILLER	AML - ANTHONY M. LONG	BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN	CAF - CHERYL A. FLOWERS	CAH - CHARLES A. HALL
CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD	CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEPHENS	CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
CTB - CHRIS T. BUCINA	DDE - DEBRA D. ELLIOTT	DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DR - DEANNA ROBERTS	DSF - DEBRA S. FREDERICK	EAB - EDDIE A. BYERS
ECL - ERIC C. LAWSON	ED - EMILY E. DECKER	EDA - ERIN D. AGEES
EDH - ETHAN D. MORRIS	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JBK - JEREMY B. KINNEY
JC - JOHN L. CONLEY	JDH - JUSTIN D. HESSON	JKP - JACQUELINE K. PARSONS
JKT - JANE K. THOMPSON	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATHRYN E. BARNES	KHR - KIM H. RHODES
KJW - KATIE J. WIEFERICH	KRA - KATHY R. ALBERTSON	LHT - LANCE H. THOMPSON
LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON
MDC - MICHAEL D. COCHRAN	MES - MARY E. SCHILLING	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON	NPM - NATHANIEL P. MILLER
PDM - PIERCE D. MORRIS	RAH - ROY A. HALSTEAD	RB - ROBERT BUCHANAN
REK - ROBERT E. KYER	RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL
SAV - SARAH A. VANDENBERG	SDH - SHANA D. HINYARD	SDL - SHELLY D. LENT
SLM - STEPHANIE L. MOSSBURG	SLP - SHERI L. PFALZGRAF	SMH - SHAUNA M. HYDE
TDH - TRICIA D. HUCK	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WTD - WADE T. DELONG

Qualkey: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
E1	Concentration estimated. Analyte exceeded calibration range. Insufficient sample for reanalysis.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to matrix.
E3	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration is disproportionate to the spike level.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
Q1	Sample integrity was not maintained. See report narrative.
QNS	Quantity of sample not sufficient to perform analysis
R1	Duplicate RPD/RSD exceeded the method acceptance limit.
R2	Duplicate RPD/RSD exceeded the laboratory acceptance limit.
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Undetected; the concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
V2	CCV recovery was above method acceptance limits. Insufficient volume for sample reanalysis.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



Qualkey: STD

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



Chain of Custody

00103085
NO. 5774

Laboratory Name: MICROBAC				Address: 158 Starlite Dr. Marietta, OH				Contact: Stephanie Mossburg					
Project Name: LHAAP			Project Location: KARNACK, TX			Analysis and Method Desired (Indicate separate containers)				Remarks			
Project No.: 117591-0009A130			Project Contact: Jen Hoang		Project Telephone No.: 713-996-4408		Number of Containers VOC GASES TOC Anions						
Point of Contact: Scott Beesinger			Project Manager/Supervisor:										
Telephone No.: 903-679-3448			Praveen Srivastav										
Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location						
1	47WW13-021709	2/17/09	10:06		✓	W	Site 47		7	2	3	1	1
2	47WW13-021709-FD	2/17/09	10:06		✓	W	Site 47		7	2	3	1	1
3	45mw50-021709	2/17/09	13:34		✓	W	Site 47		7	2	3	1	1
4	TRIP BLANK	2/17/09				W			2	2			
5													
6													
7													
8													
9													
10													
Transfers Relinquished By (signature)				Date/Time		Transfers Accepted By (signature)				Date/Time		Special Instructions	
<i>[Signature]</i>				2/17/09 3:00		<i>[Signature]</i>				2/18/09 09:30		48 HR. TAT	
												FedEx Airbill No.:	
						Laboratory						Sampler's Signature <i>[Signature]</i>	
TAT: ☐ Standard ☐ Rush Date				Seals Intact? ☐ Y ☐ N		Received Good Condition ☐ Y ☐ N ☐ Cold							

B

Client: <u>SHAW - Longhorn</u>	
Workorder Number: B <u>3051-20744</u>	
Date Received: <u>2/18/09</u>	
Delivered by: ☒ Fedx ☒ UPS ☐ Client ☐ Courier Time: <u>0930</u>	
Opened by: <u>JET</u>	
IR Temp Gun: ☒ H ☐ G	
Logged by: <u>ELP/JLT</u> <u>409020346</u>	

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
2630	2	1266V7250190218180	5774	Anions/ 48hr-TAT

Inspection Checklist

	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?	☒	☐	☐	
Were custody seals intact?	☒	☐	☐	
Were cooler temperatures in range of 0 - 6?	☒	☐	☐	
Was ice present?	☒	☐	☐	
Were COC's received/ information complete/signed and dated?	☒	☐	☐	
Were sample containers and labels intact and match COC?	☒	☐	☐	
Were the correct containers and volumes received?	☒	☐	☐	
Were correct preservatives used? (water only)	☒	☐	☐	
Were pH ranges acceptable? (voa's excluded)	☒	☐	☐	
Were VOA samples free of headspace (< 6mm)?	☒	☐	☐	
Were samples received within EPA hold times?	☒	☐	☐	

Discrepancy/Comments/Other Problems

Distribution

Name of Microbac representative:
Client/Company:
Person Contacted:
Date contacted:

Resolution/other comments:

Internal Chain of Custody Report

00103087

Login: L09020346

Account: 2773

Project: 2773.025

Samples: 4

Due Date: 20-FEB-2009

Samplenum **Container ID** **Products**
L09020346-01 552322 826-L0W

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Samplenum **Container ID** **Products**
L09020346-03 552330 826-L0W

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Samplenum **Container ID** **Products**
L09020346-01 552325 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-FEB-2009 11:42	ERE	
2	ANALYZ	W1	WET	19-FEB-2009 08:16	DIH	ERE
3	STORE	WET	A1	20-FEB-2009 08:47	ERE	DIH

Samplenum **Container ID** **Products**
L09020346-03 552332 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	18-FEB-2009 11:42	ERE	
2	ANALYZ	L1	SEM	18-FEB-2009 11:46	ADC	RLK
3	ANALYZ	A1	SEM	24-FEB-2009 13:48	RLK	ADC

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

00103088

Login: L09020346

Account: 2773

Project: 2773.025

Samples: 4

Due Date: 20-FEB-2009

Samplenum **Container ID** **Products**
L09020346-02 552327 RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-FEB-2009 11:42	ERE	

Samplenum **Container ID** **Products**
L09020346-01 552324 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	18-FEB-2009 11:42	ERE	
2	ANALYZ	L1	SEM	18-FEB-2009 11:45	ADC	RLK
3	ANALYZ	A1	SEM	24-FEB-2009 13:48	RLK	ADC

Samplenum **Container ID** **Products**
L09020346-01 552323 RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Login: L09020346**Account:** 2773**Project:** 2773.025**Samples:** 4**Due Date:** 20-FEB-2009

Samplenum **Container ID** **Products**
L09020346-03 552331 RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG3	18-FEB-2009 14:24	EAB	RLK

Samplenum **Container ID** **Products**
L09020346-02 552326 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Samplenum **Container ID** **Products**
L09020346-04 552334 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	18-FEB-2009 11:42	ERE	
2	ANALYZ	V1	ORG4	18-FEB-2009 18:36	FJB	RLK

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

00103090

Login: L09020346**Account:** 2773**Project:** 2773.025**Samples:** 4**Due Date:** 20-FEB-2009

Samplenum **Container ID** **Products**
L09020346-02 552328 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	18-FEB-2009 11:42	ERE	
2	ANALYZ	L1	SEM	18-FEB-2009 11:45	ADC	RLK
3	ANALYZ	A1	SEM	24-FEB-2009 13:48	RLK	ADC

Samplenum **Container ID** **Products**
L09020346-02 552329 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-FEB-2009 11:42	ERE	
2	ANALYZ	W1	WET	19-FEB-2009 08:16	DIH	ERE
3	STORE	WET	A1	20-FEB-2009 08:47	ERE	DIH

Samplenum **Container ID** **Products**
L09020346-03 552333 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	18-FEB-2009 11:42	ERE	
2	ANALYZ	W1	WET	19-FEB-2009 08:16	DIH	ERE
3	STORE	WET	A1	20-FEB-2009 08:47	ERE	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login





158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

Laboratory Report Number: L09020400

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

Kathy Albertson	<i>Team Chemist/Data Specialist</i>	kalbertson@microbac.com
Stephanie Mossburg	<i>Team Chemist/Data Specialist</i>	smossburg@microbac.com
Tony Long	<i>Team Chemist/Data Specialist</i>	tlong@microbac.com
Brenda Gregory	<i>Client Services Specialist</i>	bgregory@microbac.com
Amanda Fickiesen	<i>Client Services Specialist</i>	afickiesen@microbac.com
Annie Brown	<i>Client Services Specialist</i>	abrown@microbac.com
Jacqueline Parsons	<i>Team Assistant</i>	jparsons@microbac.com

This report was reviewed on February 24, 2009.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories.

This report was certified on February 24, 2009.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac (OVD) LQAP

This report contains a total of 289 pages.

Look closer. Go further. Do more.



Microbac REPORT L09020400
PREPARED FOR Shaw E I, Inc.
WORK ID:

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1.0 Introduction

Microbac Laboratories Inc.
REPORT NARRATIVE

Microbac Login No: L09020400

CHAIN OF CUSTODY: The chain of custody number was 5776.

SHIPMENT CONDITIONS: The chain of custody forms were received sealed in a cooler. The cooler temperature was 0 degrees C.

SAMPLE MANAGEMENT: All samples received were intact.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Approved: 24-FEB-09

<i>Stephanie Mossburg</i>

Laboratory Data Package Cover Page

00103095

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

✓R1 Field chain-of-custody documentation;

✓R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10

b) dilution factors,

c) preparation methods,

d) Cleanup methods, and

e) If required for the project, tentatively identified compounds (TICs)

✓R4 Surrogate recovery data including:

a) Calculated recovery (%R) for each analyte, and

b) The laboratory's surrogate QC limits.

✓R5 Test reports/summary forms for blank samples;

✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:

a) LCS spiking amount,

b) Calculated %R for each analyte, and

c) The laboratory's LCS QC limits.

✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

a) Samples associated with the MS/MSD clearly identified,

b) MS/MSD spiking amounts,

c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,

d) Calculated %R and relative percent differences (RPDs), and

e) The laboratory's MS/MSD QC limits

✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:

a) the amount of analyte measured in the duplicate,

b) the calculated RPD, and

c) the laboratory's QC limits for analytical duplicates.

✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

✓R10 Other problems or anomalies.

✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MIKE D. ALBERTSON



Volatiles Lab Supervisor

February 23, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020400
Project Name: 798-LONGHORN
Method: 8260B
Prep Batch Number(s): WG295503, WG295387
Reviewer Name: MIKE D. ALBERTSON
LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?	✓				
Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		✓			1
Does the detectability data document the laboratorys capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?		✓			2
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				3
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?	✓				
Were ion abundance data within the method-required QC limits?	✓				
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?	✓				
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00103097

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

00103098

EXCEPTIONS REPORT

ER# - Description

- 1) 1,4-Dichlorobenzene and isopropylbenzene were below the lower advisory limits in the LCS/LCSD analyzed 02/21/09.
- 2) Acetone exceeded the upper advisory limit in the LCS/LCSD analyzed 02/21/09.
- 3) Reporting limits elevated for sample 02 due to the presence of target analytes.

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

Laboratory Data Package Cover Page

00103099

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

✓ R5 Test reports/summary forms for blank samples;

✓ R6 Test reports/summary forms for laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

DEANNA I. HESSON



Conventional Lab Supervisor

February 23, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020400
Project Name: 798-LONGHORN
Method: TOC
Prep Batch Number(s): WG295247, WG295406
Reviewer Name: DEANNA I. HESSON
LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?	✓				
Were % moisture (or solids) reported for all soil and sediment samples?	✓				
If required for the project, TICs reported?	✓				
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?	✓				
Were MS/MSD analyzed at the appropriate frequency?	✓				
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?	✓				
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?	✓				
Were analytical duplicates analyzed at the appropriate frequency?	✓				
Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?	✓				
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L09020400
Project Name:	798-LONGHORN
Method:	TOC
Prep Batch Number(s):	WG295247, WG295406
Reviewer Name:	DEANNA I. HESSON
LRC Date:	February 23, 2009

EXCEPTIONS REPORT

ER# - Description

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

R1 Field chain-of-custody documentation;

R2 sample identification cross-reference;

R3 Test reports (analytical data sheets) for each environmental sample that includes:

- a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
- b) dilution factors,
- c) preparation methods,
- d) Cleanup methods, and
- e) If required for the project, tentatively identified compounds (TICs)

R4 Surrogate recovery data including:

- a) Calculated recovery (%R) for each analyte, and
- b) The laboratory's surrogate QC limits.

R5 Test reports/summary forms for blank samples;

R6 Test reports/summary forms FOR laboratory control samples (LCSs) including:

- a) LCS spiking amount,
- b) Calculated %R for each analyte, and
- c) The laboratory's LCS QC limits.

R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:

- a) Samples associated with the MS/MSD clearly identified,
- b) MS/MSD spiking amounts,
- c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
- d) Calculated %R and relative percent differences (RPDs), and
- e) The laboratory's MS/MSD QC limits

R8 Laboratory analytical duplicate (if applicable) recovery and precision:

- a) the amount of analyte measured in the duplicate,
- b) the calculated RPD, and
- c) the laboratory's QC limits for analytical duplicates.

R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;

R10 Other problems or anomalies.

The exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, If applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MICHAEL D. COCHRAN



Semivolatiles Lab Supervisor

February 23, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020400
Project Name: 798-LONGHORN
Method: 300
Prep Batch Number(s): WG295349
Reviewer Name: MICHAEL D. COCHRAN
LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?			✓		
Were % moisture (or solids) reported for all soil and sediment samples?			✓		
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?	✓				
Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		

00103106

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
 Laboratory Log Number: L09020400
 Project Name: 798-LONGHORN
 Method: 300
 Prep Batch Number(s): WG295349
 Reviewer Name: MICHAEL D. COCHRAN
 LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?			✓		
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?			✓		

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
 Laboratory Log Number: L09020400
 Project Name: 798-LONGHORN
 Method: 300
 Prep Batch Number(s): WG295349
 Reviewer Name: MICHAEL D. COCHRAN
 LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name:	Microbac Laboratories Inc.
Laboratory Log Number:	L09020400
Project Name:	798-LONGHORN
Method:	300
Prep Batch Number(s):	WG295349
Reviewer Name:	MICHAEL D. COCHRAN
LRC Date:	February 23, 2009

EXCEPTIONS REPORT

ER# - Description

Footnotes:

- (1) NA = Not applicable to method or project
- (2) NR = Not reviewed
- (3) ER# = Exception report number

Laboratory Data Package Cover Page

00103110

This data Package consists of:

This signature page, the laboratory review checklists, and the following reportable data:

- ✓R1 Field chain-of-custody documentation;
- ✓R2 sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) Cleanup methods, and
 - e) If required for the project, tentatively identified compounds (TICs)
- ✓R4 Surrogate recovery data including:
 - a) Calculated recovery (%R) for each analyte, and
 - b) The laboratory's surrogate QC limits.
- ✓R5 Test reports/summary forms for blank samples;
- ✓R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amount,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ✓R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %R and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ✓R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ✓R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ✓R10 Other problems or anomalies.
- ✓The exception Report for every "No" or "Not Reviewed (NR)" item IN laboratory review checklist.

Release statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exceptions reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: ☐ This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

MIKE D. ALBERTSON



Volatiles Lab Supervisor

February 23, 2009

Name (Printed)

Signature

Official Title (printed)

DATE

Microbac Laboratories Inc.
Laboratory Review Checklist

Laboratory Name: Microbac Laboratories Inc.
Laboratory Log Number: L09020400
Project Name: 798-LONGHORN
Method: RSK175
Prep Batch Number(s): 295327
Reviewer Name: MIKE D. ALBERTSON
LRC Date: February 23, 2009

Description	Yes	No	NA(1)	NR(2)	ER(3)
Chain-Of-Custody (C-O-C)					
Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
Were all departures from standard conditions described in an exception report?	✓				
Sample and quality control (QC) identification					
Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
Test reports					
Were all samples prepared and analyzed within holding times?	✓				
Other than those results <MQL, were all other raw values bracketed by calibration standards?	✓				
Were calculations checked by a peer or supervisor?	✓				
Were all analyte identifications checked by a peer or supervisor?	✓				
Were sample quantitation limits reported for all analytes not detected?	✓				
Were all results for soil and sediment samples reported on a dry weight basis?			✓		
Were % moisture (or solids) reported for all soil and sediment samples?			✓		
If required for the project, TICs reported?			✓		
Surrogate recovery data					
Were surrogates added prior to extraction?			✓		
Were surrogate percent recoveries in all samples within the laboratory QC limits?			✓		
Test reports/summary forms for blank samples					
Were appropriate type(s) of blanks analyzed?	✓				
Were blanks analyzed at the appropriate frequency?	✓				
Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
Were blank concentrations <MQL?	✓				
Laboratory control samples (LCS):					
Were all COCs included in the LCS?	✓				
Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
Were LCSs analyzed at the required frequency?	✓				
Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
Does the detectability data document the laboratorys capability to detect the COCs at the MDL used to calculate the SQLs?	✓				
Was the LCSD RPD within QC limits?	✓				
Matrix spike (MS) and matrix spike duplicate (MSD) data					
Were the project/method specified analytes included in the MS and MSD?			✓		
Were MS/MSD analyzed at the appropriate frequency?			✓		
Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			✓		

Description	Yes	No	NA(1)	NR(2)	ER(3)
Were MS/MSD RPDs within laboratory QC limits?			✓		
Analytical duplicate data					
Were appropriate analytical duplicates analyzed for each matrix?			✓		
Were analytical duplicates analyzed at the appropriate frequency?			✓		
Were RPDs or relative standard deviations within the laboratory QC limits?			✓		
Method quantitation limits (MQLs):					
Are the MQLs for each method analyte included in the laboratory data package?	✓				
Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
Are unadjusted MQLs included in the laboratory data package?	✓				
Other problems/anomalies					
Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
Were all necessary corrective actions performed for the reported data?	✓				
Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	✓				
ICAL					
Were response factors and/or relative response factors for each analyte within QC limits?	✓				
Were percent RSDs or correlation coefficient criteria met?	✓				
Was the number of standards recommended in the method used for all analytes?	✓				
Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
Are ICAL data available for all instruments used?	✓				
Has the initial calibration curve been verified using an appropriate second source standard?	✓				
Initial and continuing calibration verification (ICV and CCV) and continuing calibration blank (CCB):					
Was the CCV analyzed at the method-required frequency?	✓				
Were percent differences for each analyte within the method-required QC limits?	✓				
Was the ICAL curve verified for each analyte?	✓				
Was the absolute value of the analyte concentration in the inorganic CCB <MDL?			✓		
Mass spectral tuning:					
Was the appropriate compound for the method used for tuning?			✓		
Were ion abundance data within the method-required QC limits?			✓		
Internal standards (IS):					
Were IS area counts and retention times within the method-required QC limits?			✓		
Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section 4.12.2)					
Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
Were data associated with manual integrations flagged on the raw data?	✓				
Dual column confirmation					
Did dual column confirmation results meet the method-required QC?			✓		
Tentatively identified compounds (TICs):					
If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			✓		
Interference Check Sample (ICS) results:					
Were percent recoveries within method QC limits?			✓		
Serial dilutions, post digestion spikes, and method of standard additions					
Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			✓		
Method detection limit (MDL) studies					
Was a MDL study performed for each reported analyte?	✓				
Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
Proficiency test reports:					
Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				

00103112

Description	Yes	No	NA(1)	NR(2)	ER(3)
Standards documentation					
Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
Compound/analyte identification procedures					
Are the procedures for compound/analyte identification documented?	✓				
Demonstration of analyst competency (DOC)					
Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	✓				
Is documentation of the analyst's competency up-to-date and on file?	✓				
Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
Laboratory standard operating procedures (SOPs):					
Are laboratory SOPs current and on file for each method performed?	✓				

00103113

EXCEPTIONS REPORT

ER# - Description

There were no exceptions.

Footnotes:

(1) NA = Not applicable to method or project

(2) NR = Not reviewed

(3) ER# = Exception report number

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

LABORATORY REPORT

L09020400

00103117

02/24/09 11:24

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta, OH 45750
(740) 373-4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836 (GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
105-021809	L09020400-01	8260B	1	19-FEB-09
47WW09-021809	L09020400-02	8260B	20	19-FEB-09
TRIP BLANK	L09020400-03	8260B	1	19-FEB-09



Sample Number: **L09020400-01**
Client ID: **105-021809**
Matrix: **Water**
Workgroup Number: **WG295503**
Collect Date: **02/18/2009 09:51**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **FJB**
Dilution: **1**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **02/21/2009 15:18**
Cal Date: **02/19/2009 19:06**
Run Date: **02/21/2009 15:18**
File ID: **6M81688**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2	1.64		1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6	21.9		1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020400**Report Date : **February 24, 2009**

00103119

Sample Number: **L09020400-01**
 Client ID: **105-021809**
 Matrix: **Water**
 Workgroup Number: **WG295503**
 Collect Date: **02/18/2009 09:51**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **02/21/2009 15:18**
 Cal Date: **02/19/2009 19:06**
 Run Date: **02/21/2009 15:18**
 File ID: **6M81688**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	102	86	118		
1,2-Dichloroethane-d4	105	80	120		
Toluene-d8	97.1	88	110		
4-Bromofluorobenzene	98.9	86	115		

U Not detected at or above adjusted sample detection limit

Sample Number: **L09020400-02**
Client ID: **47WW09-021809**
Matrix: **Water**
Workgroup Number: **WG295503**
Collect Date: **02/18/2009 12:16**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **5030B**
Analytical Method: **8260B**
Analyst: **FJB**
Dilution: **20**
Units: **ug/L**

Instrument: **HPMS6**
Prep Date: **02/21/2009 16:23**
Cal Date: **02/19/2009 19:06**
Run Date: **02/21/2009 16:23**
File ID: **6M81690**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	200	50.0
Benzene	71-43-2		U	20.0	2.50
Bromobenzene	108-86-1		U	20.0	2.50
Bromochloromethane	74-97-5		U	20.0	4.00
Bromodichloromethane	75-27-4		U	20.0	5.00
Bromoform	75-25-2		U	20.0	10.0
Bromomethane	74-83-9		U	20.0	10.0
2-Butanone	78-93-3		U	200	50.0
n-Butylbenzene	104-51-8		U	20.0	5.00
sec-Butylbenzene	135-98-8		U	20.0	5.00
tert-Butylbenzene	98-06-6		U	20.0	5.00
Carbon disulfide	75-15-0		U	20.0	10.0
Carbon tetrachloride	56-23-5		U	20.0	5.00
Chlorobenzene	108-90-7		U	20.0	2.50
Chlorodibromomethane	124-48-1		U	20.0	5.00
Chloroethane	75-00-3		U	20.0	10.0
2-Chloroethyl vinyl ether	110-75-8		U	200	40.0
Chloroform	67-66-3		U	20.0	2.50
Chloromethane	74-87-3		U	20.0	5.00
2-Chlorotoluene	95-49-8		U	20.0	2.50
4-Chlorotoluene	106-43-4		U	20.0	5.00
1,2-Dibromo-3-chloropropane	96-12-8		U	100	20.0
1,2-Dibromoethane	106-93-4		U	20.0	5.00
Dibromomethane	74-95-3		U	20.0	5.00
1,2-Dichlorobenzene	95-50-1		U	20.0	2.50
1,3-Dichlorobenzene	541-73-1		U	20.0	5.00
1,4-Dichlorobenzene	106-46-7		U	20.0	2.50
Dichlorodifluoromethane	75-71-8		U	20.0	5.00
1,1-Dichloroethane	75-34-3		U	20.0	2.50
1,2-Dichloroethane	107-06-2		U	20.0	5.00
1,1-Dichloroethene	75-35-4		U	20.0	10.0
cis-1,2-Dichloroethene	156-59-2	127		20.0	5.00
trans-1,2-Dichloroethene	156-60-5		U	20.0	5.00
1,2-Dichloropropane	78-87-5		U	20.0	4.00
1,3-Dichloropropane	142-28-9		U	20.0	4.00
2,2-Dichloropropane	594-20-7		U	20.0	5.00
cis-1,3-Dichloropropene	10061-01-5		U	20.0	5.00
trans-1,3-Dichloropropene	10061-02-6		U	20.0	10.0
1,1-Dichloropropene	563-58-6		U	20.0	5.00
Ethylbenzene	100-41-4		U	20.0	5.00
2-Hexanone	591-78-6		U	200	50.0
Hexachlorobutadiene	87-68-3		U	20.0	5.00
Isopropylbenzene	98-82-8		U	20.0	5.00
p-Isopropyltoluene	99-87-6		U	20.0	5.00
4-Methyl-2-pentanone	108-10-1		U	200	50.0
Methylene chloride	75-09-2		U	100	5.00
Naphthalene	91-20-3		U	20.0	4.00
n-Propylbenzene	103-65-1		U	20.0	2.50
Styrene	100-42-5		U	20.0	2.50
1,1,1,2-Tetrachloroethane	630-20-6		U	20.0	5.00
1,1,2,2-Tetrachloroethane	79-34-5		U	20.0	2.50
Tetrachloroethene	127-18-4	13.0	J	20.0	5.00
Toluene	108-88-3		U	20.0	5.00
1,2,3-Trichlorobenzene	87-61-6		U	20.0	3.00
1,2,4-Trichlorobenzene	120-82-1		U	20.0	4.00
1,1,1-Trichloroethane	71-55-6		U	20.0	5.00
1,1,2-Trichloroethane	79-00-5		U	20.0	5.00
Trichloroethene	79-01-6	2820		20.0	5.00
Trichlorofluoromethane	75-69-4		U	20.0	5.00

Report Number: **L09020400**Report Date : **February 24, 2009**

00103121

Sample Number: **L09020400-02**
 Client ID: **47WW09-021809**
 Matrix: **Water**
 Workgroup Number: **WG295503**
 Collect Date: **02/18/2009 12:16**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **FJB**
 Dilution: **20**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **02/21/2009 16:23**
 Cal Date: **02/19/2009 19:06**
 Run Date: **02/21/2009 16:23**
 File ID: **6M81690**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	20.0	10.0
1,2,4-Trimethylbenzene	95-63-6		U	20.0	5.00
1,3,5-Trimethylbenzene	108-67-8		U	20.0	5.00
Vinyl acetate	108-05-4		U	200	50.0
Vinyl chloride	75-01-4		U	20.0	5.00
o-Xylene	95-47-6		U	20.0	5.00
m-,p-Xylene	136777-61-2		U	20.0	10.0
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	112	86	118		
1,2-Dichloroethane-d4	114	80	120		
Toluene-d8	102	88	110		
4-Bromofluorobenzene	105	86	115		

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number: **L09020400-03**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG295387**
 Collect Date: **02/18/2009 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **MDA**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **02/20/2009 13:13**
 Cal Date: **02/19/2009 19:06**
 Run Date: **02/20/2009 13:13**
 File ID: **6M81646**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Acetone	67-64-1		U	10.0	2.50
Benzene	71-43-2		U	1.00	0.125
Bromobenzene	108-86-1		U	1.00	0.125
Bromochloromethane	74-97-5		U	1.00	0.200
Bromodichloromethane	75-27-4		U	1.00	0.250
Bromoform	75-25-2		U	1.00	0.500
Bromomethane	74-83-9		U	1.00	0.500
2-Butanone	78-93-3		U	10.0	2.50
n-Butylbenzene	104-51-8		U	1.00	0.250
sec-Butylbenzene	135-98-8		U	1.00	0.250
tert-Butylbenzene	98-06-6		U	1.00	0.250
Carbon disulfide	75-15-0		U	1.00	0.500
Carbon tetrachloride	56-23-5		U	1.00	0.250
Chlorobenzene	108-90-7		U	1.00	0.125
Chlorodibromomethane	124-48-1		U	1.00	0.250
Chloroethane	75-00-3		U	1.00	0.500
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Chloroform	67-66-3		U	1.00	0.125
Chloromethane	74-87-3		U	1.00	0.250
2-Chlorotoluene	95-49-8		U	1.00	0.125
4-Chlorotoluene	106-43-4		U	1.00	0.250
1,2-Dibromo-3-chloropropane	96-12-8		U	5.00	1.00
1,2-Dibromoethane	106-93-4		U	1.00	0.250
Dibromomethane	74-95-3		U	1.00	0.250
1,2-Dichlorobenzene	95-50-1		U	1.00	0.125
1,3-Dichlorobenzene	541-73-1		U	1.00	0.250
1,4-Dichlorobenzene	106-46-7		U	1.00	0.125
Dichlorodifluoromethane	75-71-8		U	1.00	0.250
1,1-Dichloroethane	75-34-3		U	1.00	0.125
1,2-Dichloroethane	107-06-2		U	1.00	0.250
1,1-Dichloroethene	75-35-4		U	1.00	0.500
cis-1,2-Dichloroethene	156-59-2		U	1.00	0.250
trans-1,2-Dichloroethene	156-60-5		U	1.00	0.250
1,2-Dichloropropane	78-87-5		U	1.00	0.200
1,3-Dichloropropane	142-28-9		U	1.00	0.200
2,2-Dichloropropane	594-20-7		U	1.00	0.250
cis-1,3-Dichloropropene	10061-01-5		U	1.00	0.250
trans-1,3-Dichloropropene	10061-02-6		U	1.00	0.500
1,1-Dichloropropene	563-58-6		U	1.00	0.250
Ethylbenzene	100-41-4		U	1.00	0.250
2-Hexanone	591-78-6		U	10.0	2.50
Hexachlorobutadiene	87-68-3		U	1.00	0.250
Isopropylbenzene	98-82-8		U	1.00	0.250
p-Isopropyltoluene	99-87-6		U	1.00	0.250
4-Methyl-2-pentanone	108-10-1		U	10.0	2.50
Methylene chloride	75-09-2		U	5.00	0.250
Naphthalene	91-20-3		U	1.00	0.200
n-Propylbenzene	103-65-1		U	1.00	0.125
Styrene	100-42-5		U	1.00	0.125
1,1,1,2-Tetrachloroethane	630-20-6		U	1.00	0.250
1,1,2,2-Tetrachloroethane	79-34-5		U	1.00	0.125
Tetrachloroethene	127-18-4		U	1.00	0.250
Toluene	108-88-3		U	1.00	0.250
1,2,3-Trichlorobenzene	87-61-6		U	1.00	0.150
1,2,4-Trichlorobenzene	120-82-1		U	1.00	0.200
1,1,1-Trichloroethane	71-55-6		U	1.00	0.250
1,1,2-Trichloroethane	79-00-5		U	1.00	0.250
Trichloroethene	79-01-6		U	1.00	0.250
Trichlorofluoromethane	75-69-4		U	1.00	0.250

Report Number: **L09020400**Report Date : **February 24, 2009**

00103123

Sample Number: **L09020400-03**
 Client ID: **TRIP BLANK**
 Matrix: **Water**
 Workgroup Number: **WG295387**
 Collect Date: **02/18/2009 00:01**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5030B**
 Analytical Method: **8260B**
 Analyst: **MDA**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HPMS6**
 Prep Date: **02/20/2009 13:13**
 Cal Date: **02/19/2009 19:06**
 Run Date: **02/20/2009 13:13**
 File ID: **6M81646**

Analyte	CAS. Number	Result	Qual	PQL	SDL
1,2,3-Trichloropropane	96-18-4		U	1.00	0.500
1,2,4-Trimethylbenzene	95-63-6		U	1.00	0.250
1,3,5-Trimethylbenzene	108-67-8		U	1.00	0.250
Vinyl acetate	108-05-4		U	10.0	2.50
Vinyl chloride	75-01-4		U	1.00	0.250
o-Xylene	95-47-6		U	1.00	0.250
m-,p-Xylene	136777-61-2		U	1.00	0.500
Surrogate	% Recovery	Lower	Upper	Qual	
Dibromofluoromethane	99.4	86	118		
1,2-Dichloroethane-d4	93.5	80	120		
Toluene-d8	98.4	88	110		
4-Bromofluorobenzene	104	86	115		

U Not detected at or above adjusted sample detection limit

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

$$RF = [(Ax) (Cis)] / [(Ais) (Cx)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100

RF = Calculated Response Factor **1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

$$Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Vs = Purge volume of sample (mL)	10
Vn = Nominal purge volume of sample (mL) (10.0 mL)	10
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

$$Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]$$

Example

where:

Ax = Area of the characteristic ion for the compound being measured	3122498
Cis = Concentration of the specific internal standard (ug/L)	25
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	611048
RF = Average RF from the ICAL	1.004
Ws = Weight of sample purged (g)	5
Wn = Nominal purge weight (g) (5.0 g)	5
Cx = Concentration of the compound in the sample being measured (ug/L)	127.2428

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	254.4856

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, $y = mx + b$

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

$$y = 86550/593147 = 0.1459$$

Step 3: Solve for x

$$x = (y - b)/m = [(0.1459 - (-0.00642))/0.213] = 0.7152$$

Step 4: Solve for analyte concentration Cx

$$Cx = Cis (x) = (25.0)(0.7152) = 17.88$$

Example Spreadsheet Calculation:

Slope from curve, m:	0.213
Intercept from curve, b:	-0.00642
Area of analyte, Ax:	86550
Area of Internal Standard, Ais:	593147
Concentration of IS, Cis	25.00
Response Ratio:	0.145917
Amount Ratio:	0.715195
Concentration:	17.87988
Units of Internal Standard:	ug/L

5.0 Concentration from Quadratic Regression**Step 1 - Retrieve Curve Data from Plot, $y = Ax^2 + Bx + C$**

Where:

$$Ax^2 + Bx + (C - y) = 0$$

A, B, C = constants from the ICAL quadratic regression

y = Response ratio = Area of analyte/Area of internal standard (IS)

x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

$$y = Ax/Ais$$

Step 3: Solve for x using the quadratic formula

$$Ax^2 + Bx + C - y = 0$$

$$x = \frac{b \pm \sqrt{(b^2 - 4a(c - y))}}{2a} \quad (\text{Two possible solutions})$$

Step 4: Solve for analyte concentration Cx

$$Cx = (Cis)(\text{Amount ratio})$$

Example Spreadsheet Calculation:

Value of A from plot:	-0.00629
Value of B from plot:	0.511
Value of C from plot:	-0.0276
Area of unknown from quantitation report:	293821
Area of IS from quantitation report:	784848
Response ratio, y:	0.374367
C - y:	-0.40197
Root 1 - Computed amount ratio, X1:	80.44567
Root 2 - Computed amount ratio, X2:	0.794396 use this solution
Concentration of IS, Cis:	25.00
Concentration of analyte, Cx:	19.86 ug/L

Microbac Laboratories Inc.
Instrument Run Log

00103127

Instrument: HPMS6 Dataset: 021909
 Analyst1: MES Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27709

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295337, WG295607

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M81600	BFB CHECK-RETUNED	NA	1	1		02/19/09 07:24
2	6M81601	BFB CHECK-RETUNED	NA	1	1		02/19/09 07:39
3	6M81602	BLANK-IS CHECK	NA	1	1		02/19/09 08:21
4	6M81603	BLANK-IS CHECK	NA	1	1		02/19/09 08:53
5	6M81604	TUNE CHECK-INST CHECK	NA	1	1		02/19/09 09:09
6	6M81607	BFB	NA	1	1		02/19/09 11:30
7	6M81608	BFB	NA	1	1		02/19/09 11:43
8	6M81609	BLANK	NA	1	1		02/19/09 12:11
9	6M81610	BLANK	NA	1	1		02/19/09 12:58
10	6M81611	WG295337-01 50NG BFB STD 8260	NA	1	1	STD31210	02/19/09 13:29
11	6M81612	WG295337-01 50NG BFB STD 8260	NA	1	1	STD31210	02/19/09 13:41
12	6M81613	WG295337-01 50NG BFB STD 8260	NA	1	1	STD31210	02/19/09 13:57
13	6M81614	WG295337-02 0.3ug/L WATER STD 826	NA	1	1	STD31435	02/19/09 14:11
14	6M81615	WG295337-03 0.4ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 14:45
15	6M81616	WG295337-04 1 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 15:19
16	6M81617	WG295337-05 2 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 15:51
17	6M81618	WG295337-06 5 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 16:25
18	6M81619	WG295337-07 20 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 16:57
19	6M81620	WG295337-08 50 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 17:29
20	6M81621	WG295337-09 100 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 18:01
21	6M81622	WG295337-10 200 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 18:34
22	6M81623	WG295337-11 300 ug/L WATER STD 8260	NA	1	1	STD31435	02/19/09 19:06
23	6M81624	SYSTEM BLANK	NA	1	1		02/19/09 19:38
24	6M81625	WG295337-12 20ug/L ALT SOURCE	NA	1	1	STD31431	02/19/09 20:10
25	6M81626	WG295337-12 100ug/L OXYGENATE ALT S	NA	1	1	STD31431	02/19/09 20:43
26	6M81627	WG295607-01	NA	1	1		02/19/09 21:15
27	6M81628	L09010006-01 MDL CHEXANE AT .4PPB	NA	1	1	STD31423	02/19/09 21:47
28	6M81629	L09010006-02 MDL	NA	1	1	STD31423	02/19/09 22:19
29	6M81630	L09010006-03 MDL	NA	1	1	STD31423	02/19/09 22:51
30	6M81631	L09010006-04 MDL	NA	1	1	STD31423	02/19/09 23:24
31	6M81632	L09010006-05 MDL	NA	1	1	STD31423	02/19/09 23:56
32	6M81633	L09010006-06 MDL	NA	1	1	STD31423	02/20/09 00:28
33	6M81634	L09010006-07 MDL	NA	1	1	STD31423	02/20/09 01:00

Approved:



Microbac Laboratories Inc.
Instrument Run Log

00103128

Instrument: HPMS6 Dataset: 021909
 Analyst1: MES Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27709

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295337, WG295607

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
10				
File ID: 6M81611				
RR-tuning				
11				
File ID: 6M81612				
RR-tuning				

Approved:

Page: 2



Microbac Laboratories Inc.
Instrument Run Log

00103129

Instrument: HPMS6 Dataset: 022009
 Analyst1: MDA Analyst2: FJB
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27704

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295387, WG295499

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M81636	WG295386-01 50ng BFB	NA	1	1	STD31210	02/20/09 07:25
2	6M81637	WG295386-02 50ug/L CCV 8260	NA	1	1	STD31435	02/20/09 07:57
3	6M81638	WG295387-01 VBLK0220 BLANK 8260	NA	1	1		02/20/09 08:37
4	6M81639	WG295387-01 VBLK0220 BLANK 8260	NA	1	1		02/20/09 09:20
5	6M81640	WG295387-02 20ug/L LCS 8260	NA	1	1	STD31431	02/20/09 09:56
6	6M81641	WG295386-02 50ug/L CCV 8260	NA	1	1	STD31435	02/20/09 10:29
7	6M81642	WG295387-01 VBLK0220 BLANK 8260	NA	1	1		02/20/09 11:02
8	6M81643	WG295387-01 VBLK0220 BLANK 8260	NA	1	1		02/20/09 11:34
9	6M81644	WG295387-02 20ug/L LCS 8260	NA	1	1	STD31431	02/20/09 12:06
10	6M81645	WG295387-03 20ug/L LCSD 8260	NA	1	1	STD31431	02/20/09 12:38
11	6M81646	L09020400-03 A 826-LOW	<2	1	1		02/20/09 13:13
12	6M81647	L09020304-01 A 826-SPE	<2	1	1		02/20/09 13:45
13	6M81648	L09020269-13 A 826-SPE3	<2	1	1		02/20/09 14:17
14	6M81649	L09020304-02 A 826-SPE	<2	1	1		02/20/09 14:49
15	6M81650	L09020238-04 B 20X 826-SPE	<2	1	20		02/20/09 15:21
16	6M81651	L09020238-03 B 2.5X 826-SPE	<2	1	2.5		02/20/09 15:53
17	6M81652	L09020319-01 A 826-BETX	<2	1	1		02/20/09 16:26
18	6M81653	L09020400-01 A 100X 826-LOW	<2	1	100		02/20/09 16:58
19	6M81654	L09020400-02 A 100X 826-LOW	<2	1	100		02/20/09 17:30
44	6M81655	WG295498-01 BFB 50ng STD 8260	NA	1	1	STD31210	02/20/09 18:32
45	6M81656	WG295498-01 BFB 50ng STD 8260	NA	1	1	STD31210	02/20/09 18:47
20	6M81657	WG295498-02 50ug/L STD 8260	NA	1	1	STD31435	02/20/09 19:12
21	6M81658	WG295499-01 VBLK0220 BLANK 8260	NA	1	1		02/20/09 19:44
22	6M81659	WG295499-02 20ug/L LCS STD 8260	NA	1	1	STD31431	02/20/09 20:17
23	6M81660	WG295499-03 20ug/L LCS DUP STD 8260	NA	1	1	STD31431	02/20/09 20:49
24	6M81661	WG295499-04 624 BLANK	NA	1	1		02/20/09 21:21
25	6M81662	L09020288-11 B 826-LOW	<2	1	1		02/20/09 21:53
26	6M81663	L09020288-13 B 826-LOW	<2	1	1		02/20/09 22:25
27	6M81664	L09020288-15 B 826-LOW	<2	1	1		02/20/09 22:57
28	6M81665	L09020288-17 B 826-LOW	<2	1	1		02/20/09 23:30
29	6M81666	L09020288-19 B 826-LOW	<2	1	1		02/21/09 00:02
30	6M81667	L09020288-21 B 826-LOW	<2	1	1		02/21/09 00:34
31	6M81668	L09020288-23 B 826-LOW	<2	1	1		02/21/09 01:06
32	6M81669	L09020294-04 A 826-SPE	<2	1	1		02/21/09 01:38

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00103130

Instrument: HPMS6 Dataset: 022009
 Analyst1: MDA Analyst2: FJB
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27704

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295387, WG295499

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
33	6M81670	L09020294-01 A 826-SPE	<2	1	1		02/21/09 02:10
34	6M81671	L09020294-02 50X A 826-SPE	<2	1	50		02/21/09 02:42
35	6M81672	L09020294-03 50X A 826-SPE	<2	1	50		02/21/09 03:14
36	6M81673	L09020439-01 A 624	7	2	1		02/21/09 03:46
37	6M81674	L09020439-02 5X A 624	7	2	5		02/21/09 04:18
38	6M81675	L09020247-01 10X A 826-TC	NA	17	10		02/21/09 04:50
39	6M81676	L09020247-02 10X A 826-TC	NA	17	10		02/21/09 05:23
40	6M81677	L09020304-01 100X A 826-SPLP	NA	1	10		02/21/09 05:55
41	6M81678	L09020383-01 A 8260	<2	1	1		02/21/09 06:27
42	6M81679	SYSTEM BLANK	NA	1	1		02/21/09 06:59
43	6M81680	SYSTEM BLANK	NA	1	1		02/21/09 07:31

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2				
File ID: 6M81637				
vc is low-rerun.				
3				
File ID: 6M81638				
DNR				
4				
File ID: 6M81639				
DNR				
5				
File ID: 6M81640				
DNR				
18	X	1	Analyzed too dilute	
File ID: 6M81653				
DNR				
19	X	20	Analyzed too dilute	
File ID: 6M81654				
DNR				
44				
File ID: 6M81655				
RR, BFB failed.				

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00103131

Instrument: HPMS6 Dataset: 022009
 Analyst1: MDA Analyst2: FJB
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27704

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295387, WG295499

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
33	X	10	Over Calibration Range	CIS-1,2-DCE and TCE
File ID: 6M81670				
34	X	5	Analyzed too dilute	
File ID: 6M81671				
DNR				
35	X	5	Analyzed too dilute	
File ID: 6M81672				
DNR				
40	X	1	Analyzed too dilute	
File ID: 6M81677				
DNR				
41	X	10	Over Calibration Range	2-butanone
File ID: 6M81678				

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00103132

Instrument: HPMS6 Dataset: 022109
 Analyst1: FJB Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27707

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295503

Comments:

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	6M81682	WG295502-01 BFB 50ng STD 8260	NA	1	1	STD31210	02/21/09 12:07
2	6M81683	WG295502-02 50ug/L STD 8260	NA	1	1	STD31435	02/21/09 12:33
3	6M81684	WG295503-01 VBLK0221 BLANK 8260	NA	1	1		02/21/09 13:06
4	6M81685	WG295503-02 20ug/L LCS STD 8260	NA	1	1	STD31431	02/21/09 13:38
5	6M81686	WG295503-03 20ug/L LCS DUP STD 8260	NA	1	1	STD31431	02/21/09 14:14
6	6M81687	WG295503-04 624 BLANK	NA	1	1		02/21/09 14:46
7	6M81688	L09020400-01 B 826-LOW	<2	1	1		02/21/09 15:18
8	6M81689	L09020304-04 A 826-SPLP	NA	18	1		02/21/09 15:51
9	6M81690	L09020400-02 20X B 826-LOW	<2	1	20		02/21/09 16:23
10	6M81691	L09020383-01 10X B 8260	<2	1	10		02/21/09 16:55
11	6M81692	L09020269-01 A 826-SPE3	<2	1	1		02/21/09 17:27
12	6M81693	L09020269-02 A 826-SPE3	<2	1	1		02/21/09 18:00
13	6M81694	L09020269-03 A 826-SPE3	<2	1	1		02/21/09 18:32
14	6M81695	L09020269-04 A 826-SPE3	<2	1	1		02/21/09 19:04
15	6M81696	L09020269-05 A 826-SPE3	<2	1	1		02/21/09 19:37
16	6M81697	L09020269-06 A 826-SPE3	<2	1	1		02/21/09 20:09
17	6M81698	L09020269-07 A 826-SPE3	<2	1	1		02/21/09 20:42
18	6M81699	L09020269-08 A 826-SPE3	<2	1	1		02/21/09 21:14
19	6M81700	L09020269-09 A 826-SPE3	<2	1	1		02/21/09 21:46
20	6M81701	L09020269-10 A 826-SPE3	5	1	1		02/21/09 22:18
21	6M81702	L09020269-12 A 826-SPE3	<2	1	1		02/21/09 22:50
22	6M81703	L09020441-01 A 624	7	2	1		02/21/09 23:23
23	6M81704	L09020441-02 A 624	7	2	1		02/21/09 23:55
24	6M81705	L09020457-01 A 624-SPE	<2	2	1		02/22/09 00:27
25	6M81706	SYSTEM BLANK	NA	1	1		02/22/09 00:59
26	6M81707	SYSTEM BLANK	NA	1	1		02/22/09 01:31

Comments

Seq.	Rerun	Dil.	Reason	Analytes
8				
File ID: 6M81689				
vial analyzed w/ headspace				
13	X	2.5	Over Calibration Range	1,1-DCE

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00103133

Instrument: HPMS6 Dataset: 022109
 Analyst1: FJB Analyst2: NA
 Method: 8260B SOP: MSV01 Rev: 12
 Method: 624 SOP: MSV10 Rev: 7
 Method: 5030/5035 SOP: PAT01 Rev: 11
 Maintenance Log ID: 27707

Internal Standard: STD31170 Surrogate Standard: STD31171
 CCV: STD31435 LCS: STD31431 MS/MSD: NA
 Column 1 ID: RTX502.2 Column 2 ID: NA
 Workgroups: WG295503

Comments:

Comments

Seq.	Rerun	Dil.	Reason	Analytes
File ID: 6M81694				
14	X	20	Over Calibration Range	TCE
File ID: 6M81695				
15	X	50	Over Calibration Range	TCE
File ID: 6M81696				
16	X	1	Carry-over contamination	
File ID: 6M81697				
DNR				
17	X	1	Carry-over contamination	
File ID: 6M81698				
DNR				
18	X	25	Over Calibration Range	TCE
File ID: 6M81699				
19	X	10	Over Calibration Range	1,1-DCE,TCE
File ID: 6M81700				
20	X	50	Over Calibration Range	1,1-DCE,TCE
File ID: 6M81701				
21	X	1	Carry-over contamination	
File ID: 6M81702				
DNR				
22	X	1	Carry-over contamination	
File ID: 6M81703				
DNR				
23	X	1	Carry-over contamination	
File ID: 6M81704				
DNR				

Approved: February 23, 2009

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Microbac Laboratories Inc.

00103134

Data Checklist

Date: 19-FEB-2009

Analyst: MES

Analyst: NA

Method: 8260

Instrument: HPMS6

Curve Workgroup: NA

Runlog ID: 26652

Analytical Workgroups: WG295337, WG295607

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	NA
Recoveries	NA
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	NA
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	
Check for compliance with method and project specific requirements	
Check the completeness of reported information	
Check the information for the report narrative	
Check the reasonableness of the results	

Primary Reviewer:
23-FEB-2009



Secondary Reviewer:

Microbac Laboratories Inc.

00103135

Data Checklist

Date: 20-FEB-2009

Analyst: MDA

Analyst: FJB

Method: 8260

Instrument: HPMS6

Curve Workgroup: NA

Runlog ID: 26642

Analytical Workgroups: WG295387, WG295499

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	X
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
23-FEB-2009



Secondary Reviewer:
23-FEB-2009




Microbac Laboratories Inc.

00103136

Data Checklist

Date: 21-FEB-2009

Analyst: FJB

Analyst: NA

Method: 8260/624

Instrument: HPMS6

Curve Workgroup: NA

Runlog ID: 26647

Analytical Workgroups: WG275503

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	X
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	X
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	MES
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
23-FEB-2009



Secondary Reviewer:
23-FEB-2009




Analytical Method: 8260B

AAB#: WG295387

Login Number: L09020400

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
TRIP BLANK	02/18/09	02/19/09	02/20/09	14	2.55	02/20/09	14	2.55	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Analytical Method: 8260B

AAB#: WG295503

Login Number: L09020400

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
105-021809	02/18/09	02/19/09	02/21/09	14	3.23	02/21/09	14	3.23	
47WW09-021809	02/18/09	02/19/09	02/21/09	14	3.17	02/21/09	14	3.17	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Login Number: L09020400
Instrument Id: HPMS6
Workgroup (AAB#): WG295503

Method: 8260
CAL ID: HPMS6 - 19-FEB-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09020400-01	1.00	01	105	102	98.9	97.1
L09020400-02	20.0	DL01	114	112	105	102
WG295503-01	1.00	01	106	103	97.9	95.6
WG295503-02	1.00	01	97.2	96.7	94.3	94.4
WG295503-03	1.00	01	99.0	97.2	94.0	94.2
WG295503-04	1.00	01	102	102	96.7	94.5

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

Login Number: L09020400
Instrument Id: HPMS6
Workgroup (AAB#): WG295387

Method: 8260
CAL ID: HPMS6 - 19-FEB-09
Matrix: Water

Sample Number	Dilution	Tag	1	2	3	4
L09020400-03	1.00	01	93.5	99.4	104	98.4
WG295387-01	1.00	01	99.3	103	104	99.4
WG295387-02	1.00	01	89.7	95.5	103	99.6
WG295387-03	1.00	01	86.7	89.9	97.3	93.9

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	80	-	120
2 - Dibromofluoromethane	86	-	118
3 - 4-Bromofluorobenzene	86	-	115
4 - Toluene-d8	88	-	110

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

00103141

Login Number: <u>L09020400</u>	Work Group: <u>WG295387</u>
Blank File ID: <u>6M81643</u>	Blank Sample ID: <u>WG295387-01</u>
Prep Date: <u>02/20/09 11:34</u>	Instrument ID: <u>HPMS6</u>
Analyzed Date: <u>02/20/09 11:34</u>	Method: <u>8260B</u>
Analyst: <u>MDA</u>	

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295387-02	6M81644	02/20/09 12:06	01
LCS2	WG295387-03	6M81645	02/20/09 12:38	01
TRIP BLANK	L09020400-03	6M81646	02/20/09 13:13	01

Report Name: BLANK_SUMMARY
PDF File ID: 1325968
Report generated 02/23/2009 15:50



METHOD BLANK SUMMARY

00103142

Login Number: L09020400
 Blank File ID: 6M81684
 Prep Date: 02/21/09 13:06
 Analyzed Date: 02/21/09 13:06
 Analyst: FJB

Work Group: WG295503
 Blank Sample ID: WG295503-01
 Instrument ID: HPMS6
 Method: 8260B

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295503-02	6M81685	02/21/09 13:38	01
LCS2	WG295503-03	6M81686	02/21/09 14:14	01
105-021809	L09020400-01	6M81688	02/21/09 15:18	01
47WW09-021809	L09020400-02	6M81690	02/21/09 16:23	DL01

Report Name: BLANK_SUMMARY
 PDF File ID: 1325968
 Report generated 02/23/2009 15:50



Login Number: L09020400 Prep Date: 02/20/09 11:34 Sample ID: WG295387-01
 Instrument ID: HPMS6 Run Date: 02/20/09 11:34 Prep Method: 5030B
 File ID: 6M81643 Analyst: MDA Method: 8260B
 Workgroup (AAB#): WG295387 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.250	1	U

Report Name: BLANK

PDF ID: 1325969

23-FEB-2009 15:50



Login Number: L09020400 Prep Date: 02/20/09 11:34 Sample ID: WG295387-01
 Instrument ID: HPMS6 Run Date: 02/20/09 11:34 Prep Method: 5030B
 File ID: 6M81643 Analyst: MDA Method: 8260B
 Workgroup (AAB#): WG295387 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	103	86 - 118	PASS
1,2-Dichloroethane-d4	99.3	80 - 120	PASS
Toluene-d8	99.4	88 - 110	PASS
4-Bromofluorobenzene	104	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1325969

23-FEB-2009 15:50



Login Number: L09020400 Prep Date: 02/21/09 13:06 Sample ID: WG295503-01
 Instrument ID: HPMS6 Run Date: 02/21/09 13:06 Prep Method: 5030B
 File ID: 6M81684 Analyst: FJB Method: 8260B
 Workgroup (AAB#): WG295503 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Acetone	2.50	10.0	2.50	1	U
Benzene	0.125	1.00	0.125	1	U
Bromobenzene	0.125	1.00	0.125	1	U
Bromochloromethane	0.200	1.00	0.200	1	U
Bromodichloromethane	0.250	1.00	0.250	1	U
Bromoform	0.500	1.00	0.500	1	U
Bromomethane	0.500	1.00	0.500	1	U
2-Butanone	2.50	10.0	2.50	1	U
n-Butylbenzene	0.250	1.00	0.250	1	U
sec-Butylbenzene	0.250	1.00	0.250	1	U
tert-Butylbenzene	0.250	1.00	0.250	1	U
Carbon disulfide	0.500	1.00	0.500	1	U
Carbon tetrachloride	0.250	1.00	0.250	1	U
Chlorobenzene	0.125	1.00	0.125	1	U
Chlorodibromomethane	0.250	1.00	0.250	1	U
Chloroethane	0.500	1.00	0.500	1	U
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Chloroform	0.125	1.00	0.125	1	U
Chloromethane	0.250	1.00	0.250	1	U
2-Chlorotoluene	0.125	1.00	0.125	1	U
4-Chlorotoluene	0.250	1.00	0.250	1	U
1,2-Dibromo-3-chloropropane	1.00	5.00	1.00	1	U
1,2-Dibromoethane	0.250	1.00	0.250	1	U
Dibromomethane	0.250	1.00	0.250	1	U
1,2-Dichlorobenzene	0.125	1.00	0.125	1	U
1,3-Dichlorobenzene	0.250	1.00	0.250	1	U
1,4-Dichlorobenzene	0.125	1.00	0.125	1	U
Dichlorodifluoromethane	0.250	1.00	0.250	1	U
1,1-Dichloroethane	0.125	1.00	0.125	1	U
1,2-Dichloroethane	0.250	1.00	0.250	1	U
1,1-Dichloroethene	0.500	1.00	0.500	1	U
cis-1,2-Dichloroethene	0.250	1.00	0.250	1	U
trans-1,2-Dichloroethene	0.250	1.00	0.250	1	U
1,2-Dichloropropane	0.200	1.00	0.200	1	U
1,3-Dichloropropane	0.200	1.00	0.200	1	U
2,2-Dichloropropane	0.250	1.00	0.250	1	U
cis-1,3-Dichloropropene	0.250	1.00	0.250	1	U
trans-1,3-Dichloropropene	0.500	1.00	0.500	1	U
1,1-Dichloropropene	0.250	1.00	0.250	1	U
Ethylbenzene	0.250	1.00	0.250	1	U
2-Hexanone	2.50	10.0	2.50	1	U
Hexachlorobutadiene	0.250	1.00	0.298	1	J

Report Name: BLANK

PDF ID: 1325969

23-FEB-2009 15:50



Login Number: L09020400 Prep Date: 02/21/09 13:06 Sample ID: WG295503-01
 Instrument ID: HPMS6 Run Date: 02/21/09 13:06 Prep Method: 5030B
 File ID: 6M81684 Analyst: FJB Method: 8260B
 Workgroup (AAB#): WG295503 Matrix: Water Units: ug/L
 Contract #: DACA56-94-D-0020 Cal ID: HPMS6 - 19-FEB-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Isopropylbenzene	0.250	1.00	0.250	1	U
p-Isopropyltoluene	0.250	1.00	0.250	1	U
4-Methyl-2-pentanone	2.50	10.0	2.50	1	U
Methylene chloride	0.250	5.00	0.250	1	U
Naphthalene	0.200	1.00	0.200	1	U
n-Propylbenzene	0.125	1.00	0.125	1	U
Styrene	0.125	1.00	0.125	1	U
1,1,1,2-Tetrachloroethane	0.250	1.00	0.250	1	U
1,1,2,2-Tetrachloroethane	0.125	1.00	0.125	1	U
Tetrachloroethene	0.250	1.00	0.250	1	U
Toluene	0.250	1.00	0.250	1	U
1,2,3-Trichlorobenzene	0.150	1.00	0.150	1	U
1,2,4-Trichlorobenzene	0.200	1.00	0.200	1	U
1,1,1-Trichloroethane	0.250	1.00	0.250	1	U
1,1,2-Trichloroethane	0.250	1.00	0.250	1	U
Trichloroethene	0.250	1.00	0.250	1	U
Trichlorofluoromethane	0.250	1.00	0.250	1	U
1,2,3-Trichloropropane	0.500	1.00	0.500	1	U
1,2,4-Trimethylbenzene	0.250	1.00	0.250	1	U
1,3,5-Trimethylbenzene	0.250	1.00	0.250	1	U
Vinyl acetate	2.50	10.0	2.50	1	U
Vinyl chloride	0.250	1.00	0.250	1	U
o-Xylene	0.250	1.00	0.250	1	U
m-,p-Xylene	0.500	1.00	0.500	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Dibromofluoromethane	103	86 - 118	PASS
1,2-Dichloroethane-d4	106	80 - 120	PASS
Toluene-d8	95.6	88 - 110	PASS
4-Bromofluorobenzene	97.9	86 - 115	PASS

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1325969

23-FEB-2009 15:50



Login Number: L09020400 Analyst: FJB Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295503 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295503-02 LCS File ID: 6M81685 Run Date: 02/21/2009 13:38
Sample ID: WG295503-03 LCS2 File ID: 6M81686 Run Date: 02/21/2009 14:14

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	15.3	76.5	20.0	19.6	97.9	24.5	40 - 142	20	#
Benzene	20.0	18.9	94.4	20.0	17.8	88.9	5.98	80 - 121	20	
Bromobenzene	20.0	17.6	88.1	20.0	17.1	85.7	2.75	80 - 120	20	
Bromochloromethane	20.0	18.5	92.7	20.0	18.7	93.7	1.07	65 - 130	20	
Bromodichloromethane	20.0	21.2	106	20.0	20.6	103	2.86	80 - 131	20	
Bromoform	20.0	17.7	88.4	20.0	17.8	88.8	0.467	70 - 130	20	
Bromomethane	20.0	19.5	97.3	20.0	18.3	91.5	6.14	30 - 145	20	
2-Butanone	20.0	21.4	107	20.0	24.4	122	13.1	30 - 150	20	
n-Butylbenzene	20.0	19.0	94.8	20.0	17.8	88.9	6.41	80 - 131	20	
sec-Butylbenzene	20.0	19.1	95.7	20.0	17.9	89.4	6.81	80 - 127	20	
tert-Butylbenzene	20.0	18.2	91.2	20.0	17.2	85.9	5.96	80 - 126	20	
Carbon disulfide	20.0	16.3	81.4	20.0	17.3	86.5	6.02	58 - 138	20	
Carbon tetrachloride	20.0	24.1	120	20.0	21.9	110	9.33	65 - 140	20	
Chlorobenzene	20.0	17.8	88.9	20.0	17.2	85.8	3.50	80 - 120	20	
Chlorodibromomethane	20.0	18.7	93.4	20.0	18.2	91.0	2.53	60 - 135	20	
Chloroethane	20.0	17.2	86.2	20.0	16.9	84.3	2.23	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	17.2	85.8	20.0	18.9	94.7	9.87	58 - 151	20	
Chloroform	20.0	19.9	99.5	20.0	19.1	95.4	4.20	80 - 125	20	
Chloromethane	20.0	17.8	88.8	20.0	16.1	80.3	10.0	40 - 125	20	
2-Chlorotoluene	20.0	18.2	91.1	20.0	17.1	85.6	6.16	80 - 127	20	
4-Chlorotoluene	20.0	18.4	91.9	20.0	17.6	87.8	4.61	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	18.4	91.9	20.0	18.1	90.3	1.80	50 - 130	20	
1,2-Dibromoethane	20.0	18.4	92.1	20.0	18.5	92.4	0.337	80 - 125	20	
Dibromomethane	20.0	19.3	96.3	20.0	19.3	96.5	0.195	75 - 125	20	
1,2-Dichlorobenzene	20.0	16.9	84.5	20.0	16.4	82.0	3.03	80 - 125	20	
1,3-Dichlorobenzene	20.0	17.1	85.3	20.0	16.3	81.7	4.31	80 - 120	20	
1,4-Dichlorobenzene	20.0	16.5	82.4	20.0	15.9	79.6	3.53	80 - 120	20	*
Dichlorodifluoromethane	20.0	16.4	81.9	20.0	14.7	73.7	10.6	50 - 133	20	
1,1-Dichloroethane	20.0	19.3	96.5	20.0	18.2	91.2	5.69	80 - 125	20	
1,2-Dichloroethane	20.0	20.3	101	20.0	19.6	98.2	3.22	80 - 129	20	
1,1-Dichloroethene	20.0	19.6	98.1	20.0	18.1	90.6	7.98	80 - 132	20	
cis-1,2-Dichloroethene	20.0	19.7	98.7	20.0	18.6	92.8	6.21	70 - 125	20	
trans-1,2-Dichloroethene	20.0	19.0	95.2	20.0	17.8	89.2	6.47	80 - 127	20	
1,2-Dichloropropane	20.0	18.4	91.8	20.0	17.5	87.7	4.63	80 - 120	20	
1,3-Dichloropropane	20.0	17.9	89.4	20.0	17.8	88.9	0.500	80 - 120	20	
2,2-Dichloropropane	20.0	21.2	106	20.0	19.7	98.6	7.02	80 - 133	20	
cis-1,3-Dichloropropene	20.0	18.5	92.5	20.0	17.8	89.2	3.60	70 - 130	20	
trans-1,3-Dichloropropene	20.0	17.3	86.5	20.0	16.7	83.4	3.55	80 - 130	20	
1,1-Dichloropropene	20.0	19.4	97.0	20.0	17.8	88.8	8.87	75 - 130	20	
Ethylbenzene	20.0	18.5	92.3	20.0	17.7	88.4	4.39	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1325611
Report generated: 02/23/2009 15:50



Login Number: L09020400 Analyst: FJB Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295503 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295503-02 LCS File ID: 6M81685 Run Date: 02/21/2009 13:38
Sample ID: WG295503-03 LCS2 File ID: 6M81686 Run Date: 02/21/2009 14:14

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	15.0	75.0	20.0	17.6	88.0	16.0	55 - 130	20	
Hexachlorobutadiene	20.0	19.1	95.3	20.0	17.3	86.7	9.40	72 - 132	20	
Isopropylbenzene	20.0	16.8	83.9	20.0	15.9	79.5	5.45	80 - 122	20	*
p-Isopropyltoluene	20.0	18.2	91.2	20.0	17.1	85.6	6.32	80 - 122	20	
4-Methyl-2-pentanone	20.0	15.4	77.2	20.0	17.8	89.1	14.4	64 - 140	20	
Methylene chloride	20.0	18.4	92.1	20.0	18.1	90.5	1.70	80 - 123	20	
Naphthalene	20.0	15.5	77.7	20.0	15.8	79.1	1.74	59 - 149	20	
n-Propylbenzene	20.0	19.0	95.1	20.0	17.8	89.1	6.51	80 - 129	20	
Styrene	20.0	18.1	90.5	20.0	17.5	87.5	3.34	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	20.2	101	20.0	19.2	96.1	4.78	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	16.2	81.0	20.0	16.2	81.0	0.0299	79 - 125	20	
Tetrachloroethene	20.0	19.7	98.5	20.0	18.2	90.8	8.17	80 - 124	20	
Toluene	20.0	19.5	97.6	20.0	18.4	91.9	6.07	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	16.0	80.1	20.0	16.0	80.1	0.0478	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	16.4	82.0	20.0	15.8	79.2	3.40	65 - 135	20	
1,1,1-Trichloroethane	20.0	22.0	110	20.0	20.3	102	7.83	80 - 134	20	
1,1,2-Trichloroethane	20.0	17.6	88.1	20.0	17.5	87.5	0.729	80 - 125	20	
Trichloroethene	20.0	18.9	94.7	20.0	17.8	88.8	6.44	80 - 122	20	
Trichlorofluoromethane	20.0	20.7	103	20.0	19.2	96.0	7.47	62 - 151	20	
1,2,3-Trichloropropane	20.0	17.4	87.0	20.0	17.7	88.4	1.57	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	18.8	94.1	20.0	17.8	89.2	5.38	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	18.4	92.1	20.0	17.5	87.7	4.96	80 - 127	20	
Vinyl acetate	20.0	12.4	62.1	20.0	13.4	67.0	7.56	10 - 150	20	
Vinyl chloride	20.0	19.5	97.5	20.0	17.1	85.4	13.3	65 - 140	20	
o-Xylene	20.0	17.9	89.6	20.0	17.3	86.6	3.41	80 - 122	20	
m-, p-Xylene	40.0	37.1	92.8	40.0	35.3	88.2	5.01	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	97.2	99.0	80 - 120	PASS
Dibromofluoromethane	96.7	97.2	86 - 118	PASS
4-Bromofluorobenzene	94.3	94.0	86 - 115	PASS
Toluene-d8	94.4	94.2	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

Login Number: L09020400 Analyst: MDA Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295387 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295387-02 LCS File ID: 6M81644 Run Date: 02/20/2009 12:06
Sample ID: WG295387-03 LCS2 File ID: 6M81645 Run Date: 02/20/2009 12:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Acetone	20.0	20.5	102	20.0	20.2	101	1.53	40 - 142	20	
Benzene	20.0	20.5	103	20.0	19.3	96.7	5.93	80 - 121	20	
Bromobenzene	20.0	19.7	98.5	20.0	18.3	91.5	7.31	80 - 120	20	
Bromochloromethane	20.0	20.8	104	20.0	19.2	96.0	8.12	65 - 130	20	
Bromodichloromethane	20.0	21.1	106	20.0	20.0	100	5.42	80 - 131	20	
Bromoform	20.0	18.8	93.8	20.0	17.6	87.9	6.52	70 - 130	20	
Bromomethane	20.0	20.3	101	20.0	19.3	96.5	4.84	30 - 145	20	
2-Butanone	20.0	26.4	132	20.0	24.8	124	6.25	30 - 150	20	
n-Butylbenzene	20.0	21.1	106	20.0	19.7	98.3	7.10	80 - 131	20	
sec-Butylbenzene	20.0	21.3	106	20.0	19.8	99.1	7.01	80 - 127	20	
tert-Butylbenzene	20.0	20.6	103	20.0	19.3	96.5	6.51	80 - 126	20	
Carbon disulfide	20.0	18.2	91.0	20.0	16.8	83.8	8.21	58 - 138	20	
Carbon tetrachloride	20.0	22.9	114	20.0	21.2	106	7.79	65 - 140	20	
Chlorobenzene	20.0	20.1	101	20.0	18.5	92.4	8.58	80 - 120	20	
Chlorodibromomethane	20.0	19.4	97.1	20.0	18.5	92.7	4.64	60 - 135	20	
Chloroethane	20.0	20.7	104	20.0	19.5	97.3	6.30	60 - 135	20	
2-Chloroethyl vinyl ether	20.0	19.3	96.4	20.0	17.5	87.7	9.39	58 - 151	20	
Chloroform	20.0	20.5	102	20.0	19.1	95.4	6.99	80 - 125	20	
Chloromethane	20.0	19.1	95.3	20.0	17.3	86.7	9.41	40 - 125	20	
2-Chlorotoluene	20.0	20.6	103	20.0	18.7	93.5	9.50	80 - 127	20	
4-Chlorotoluene	20.0	19.5	97.3	20.0	18.7	93.7	3.76	80 - 126	20	
1,2-Dibromo-3-chloropropane	20.0	20.7	103	20.0	19.6	97.9	5.38	50 - 130	20	
1,2-Dibromoethane	20.0	20.1	100	20.0	19.3	96.6	3.82	80 - 125	20	
Dibromomethane	20.0	20.0	100	20.0	19.0	95.1	5.13	75 - 125	20	
1,2-Dichlorobenzene	20.0	19.1	95.7	20.0	17.9	89.7	6.46	80 - 125	20	
1,3-Dichlorobenzene	20.0	19.2	95.9	20.0	17.9	89.6	6.79	80 - 120	20	
1,4-Dichlorobenzene	20.0	18.5	92.4	20.0	17.4	87.2	5.76	80 - 120	20	
Dichlorodifluoromethane	20.0	18.3	91.3	20.0	15.9	79.7	13.5	50 - 133	20	
1,1-Dichloroethane	20.0	20.7	103	20.0	19.3	96.5	6.75	80 - 125	20	
1,2-Dichloroethane	20.0	20.0	100	20.0	18.8	94.2	6.00	80 - 129	20	
1,1-Dichloroethene	20.0	20.8	104	20.0	19.0	95.2	8.65	80 - 132	20	
cis-1,2-Dichloroethene	20.0	21.2	106	20.0	19.9	99.5	6.19	70 - 125	20	
trans-1,2-Dichloroethene	20.0	20.9	104	20.0	19.2	96.2	8.01	80 - 127	20	
1,2-Dichloropropane	20.0	20.1	101	20.0	19.0	94.9	5.79	80 - 120	20	
1,3-Dichloropropane	20.0	19.6	97.9	20.0	18.3	91.4	6.91	80 - 120	20	
2,2-Dichloropropane	20.0	20.7	103	20.0	19.4	97.1	6.26	80 - 133	20	
cis-1,3-Dichloropropene	20.0	19.5	97.5	20.0	18.3	91.6	6.21	70 - 130	20	
trans-1,3-Dichloropropene	20.0	17.7	88.5	20.0	16.7	83.5	5.80	80 - 130	20	
1,1-Dichloropropene	20.0	20.4	102	20.0	19.0	95.2	6.68	75 - 130	20	
Ethylbenzene	20.0	20.9	105	20.0	19.4	97.0	7.56	80 - 122	20	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1325611
Report generated: 02/23/2009 15:50



Login Number: L09020400 Analyst: MDA Prep Method: 5030B
Instrument ID: HPMS6 Matrix: Water Method: 8260B
Workgroup (AAB#): WG295387 Units: ug/L
QC Key: STD Lot #: STD31431

Sample ID: WG295387-02 LCS File ID: 6M81644 Run Date: 02/20/2009 12:06
Sample ID: WG295387-03 LCS2 File ID: 6M81645 Run Date: 02/20/2009 12:38

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
2-Hexanone	20.0	18.7	93.3	20.0	17.8	88.8	5.02	55 - 130	20	
Hexachlorobutadiene	20.0	20.0	99.9	20.0	18.6	93.1	7.05	72 - 132	20	
Isopropylbenzene	20.0	18.6	93.2	20.0	17.3	86.3	7.59	80 - 122	20	
p-Isopropyltoluene	20.0	20.3	102	20.0	19.1	95.6	6.14	80 - 122	20	
4-Methyl-2-pentanone	20.0	18.4	92.0	20.0	17.5	87.5	5.11	64 - 140	20	
Methylene chloride	20.0	20.5	103	20.0	19.4	97.2	5.46	80 - 123	20	
Naphthalene	20.0	19.0	95.2	20.0	18.2	90.9	4.63	59 - 149	20	
n-Propylbenzene	20.0	21.1	106	20.0	19.6	97.8	7.70	80 - 129	20	
Styrene	20.0	20.7	104	20.0	19.4	96.8	6.75	80 - 123	20	
1,1,1,2-Tetrachloroethane	20.0	21.1	105	20.0	19.6	97.9	7.37	80 - 130	20	
1,1,2,2-Tetrachloroethane	20.0	18.3	91.7	20.0	17.0	85.0	7.63	79 - 125	20	
Tetrachloroethene	20.0	21.2	106	20.0	19.4	97.0	8.69	80 - 124	20	
Toluene	20.0	21.7	108	20.0	19.7	98.5	9.52	80 - 124	20	
1,2,3-Trichlorobenzene	20.0	19.1	95.5	20.0	18.0	89.9	6.05	55 - 140	20	
1,2,4-Trichlorobenzene	20.0	19.0	95.0	20.0	17.8	89.1	6.45	65 - 135	20	
1,1,1-Trichloroethane	20.0	21.3	106	20.0	19.8	98.8	7.34	80 - 134	20	
1,1,2-Trichloroethane	20.0	19.1	95.4	20.0	18.0	90.0	5.82	80 - 125	20	
Trichloroethene	20.0	20.4	102	20.0	19.0	94.8	7.24	80 - 122	20	
Trichlorofluoromethane	20.0	20.7	103	20.0	18.8	94.0	9.56	62 - 151	20	
1,2,3-Trichloropropane	20.0	19.0	94.8	20.0	17.8	89.0	6.33	75 - 125	20	
1,2,4-Trimethylbenzene	20.0	21.0	105	20.0	19.8	99.0	5.87	80 - 125	20	
1,3,5-Trimethylbenzene	20.0	20.9	104	20.0	19.4	97.0	7.26	80 - 127	20	
Vinyl acetate	20.0	14.9	74.6	20.0	13.9	69.6	7.01	10 - 150	20	
Vinyl chloride	20.0	18.9	94.7	20.0	17.4	87.1	8.36	65 - 140	20	
o-Xylene	20.0	20.4	102	20.0	19.1	95.4	6.56	80 - 122	20	
m-, p-Xylene	40.0	41.6	104	40.0	38.6	96.4	7.55	80 - 122	20	

Surogates	LCS	LCS2	Surrogate Limits	Qualifier
	% Recovery	% Recovery		
1,2-Dichloroethane-d4	89.7	86.7	80 - 120	PASS
Dibromofluoromethane	95.5	89.9	86 - 118	PASS
4-Bromofluorobenzene	103	97.3	86 - 115	PASS
Toluene-d8	99.6	93.9	88 - 110	PASS

* FAILS %REC LIMIT
FAILS RPD LIMIT

BFB

Login Number: L09020400
Instrument: HPMS6
Analyst: MES
Workgroup: WG295337

Tune ID: WG295337-01
Run Date: 02/19/2009
Run Time: 13:57
File ID: 6M81613

Cal ID: HPMS6 -

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.3	10840	PASS
75.0	95.0	30.0	60.0	47.9	25597	PASS
95.0	95.0	100	100	100	53440	PASS
96.0	95.0	5.00	9.00	7.68	4102	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.9	40549	PASS
175	174	5.00	9.00	7.51	3045	PASS
176	174	95.0	101	96.8	39232	PASS
177	176	5.00	9.00	6.31	2476	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295337-02	STD	01	02/19/2009 14:11	
WG295337-03	STD	01	02/19/2009 14:45	
WG295337-04	STD	01	02/19/2009 15:19	
WG295337-05	STD	01	02/19/2009 15:51	
WG295337-06	STD	01	02/19/2009 16:25	
WG295337-07	STD	01	02/19/2009 16:57	
WG295337-08	STD-CCV	01	02/19/2009 17:29	
WG295337-09	STD	01	02/19/2009 18:01	
WG295337-10	STD	01	02/19/2009 18:34	
WG295337-11	STD	01	02/19/2009 19:06	
WG295337-12	SSCV	01	02/19/2009 20:10	
WG295337-12	SSCV	02	02/19/2009 20:43	

* Sample past 12 hour tune limit

BFB

Login Number: L09020400
Instrument: HPMS6
Analyst: MDA
Workgroup: WG295386

Tune ID: WG295386-01
Run Date: 02/20/2009
Run Time: 07:25
File ID: 6M81636

Cal ID: HPMS6 - 19-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	19.9	5659	PASS
75.0	95.0	30.0	60.0	48.0	13637	PASS
95.0	95.0	100	100	100	28397	PASS
96.0	95.0	5.00	9.00	6.44	1828	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	75.3	21376	PASS
175	174	5.00	9.00	7.94	1697	PASS
176	174	95.0	101	96.7	20673	PASS
177	176	5.00	9.00	6.62	1369	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295386-02	CCV	01	02/20/2009 10:29	
WG295387-01	BLANK	01	02/20/2009 11:34	
WG295387-02	LCS	01	02/20/2009 12:06	
WG295387-03	LCS2	01	02/20/2009 12:38	
L09020400-03	TRIP BLANK	01	02/20/2009 13:13	

* Sample past 12 hour tune limit

BFB

Login Number: L09020400
Instrument: HPMS6
Analyst: FJB
Workgroup: WG295502

Tune ID: WG295502-01
Run Date: 02/21/2009
Run Time: 12:07
File ID: 6M81682

Cal ID: HPMS6 - 19-FEB-09

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	19.7	9494	PASS
75.0	95.0	30.0	60.0	49.6	23874	PASS
95.0	95.0	100	100	100	48176	PASS
96.0	95.0	5.00	9.00	6.70	3227	PASS
173	174	0	2.00	0.634	244	PASS
174	95.0	50.0	100	79.9	38501	PASS
175	174	5.00	9.00	7.03	2707	PASS
176	174	95.0	101	97.7	37600	PASS
177	176	5.00	9.00	6.40	2406	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG295502-02	CCV	01	02/21/2009 12:33	
WG295503-01	BLANK	01	02/21/2009 13:06	
WG295503-02	LCS	01	02/21/2009 13:38	
WG295503-03	LCS2	01	02/21/2009 14:14	
WG295503-04	BLANK2	01	02/21/2009 14:46	
L09020400-01	105-021809	01	02/21/2009 15:18	
L09020400-02	47WW09-021809	DL01	02/21/2009 16:23	

* Sample past 12 hour tune limit

Login Number: L09020400
Analytical Method: 8260B
ICAL Workgroup: WG295337

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
1,1-Dichloroethene	CCC	0.3638	5.52		
1,2-Dichloropropane	CCC	0.2272	4.51		
Chloroform	CCC	0.4524	4.93		
Ethylbenzene	CCC	0.4727	6.70		
Toluene	CCC	1.215	5.91		
Vinyl Chloride	CCC	0.1948	12.6		
1,1,2,2-Tetrachloroethane	SPCC	0.4006	7.14		
1,1-Dichloroethane	SPCC	0.4410	3.87		
Bromoform	SPCC	0.1297	25.9		1.00000
Chlorobenzene	SPCC	0.8922	9.46		
Chloromethane	SPCC	0.2799	12.7		
1,1,1,2-Tetrachloroethane		0.2647	6.95		
1,1,1-Trichloroethane		0.3799	7.14		
1,1,2-Trichloroethane		0.2075	6.80		
1,1-Dichloropropene		0.3308	6.73		
1,2,3-Trichlorobenzene		0.7353	11.2		
1,2,3-Trichloropropane		0.1255	6.59		
1,2,4-Trichlorobenzene		0.8256	11.0		
1,2,4-Trimethylbenzene		2.252	9.63		
1,2-Dibromo-3-Chloropropane		0.07270	8.35		
1,2-Dibromoethane		0.2079	9.32		
1,2-Dichlorobenzene		1.240	11.2		
1,2-Dichloroethane		0.3270	3.65		
1,3,5-Trimethylbenzene		2.218	8.82		
1,3-Dichlorobenzene		1.358	11.8		
1,3-Dichloropropane		0.3739	4.43		
1,4-Dichlorobenzene		1.447	14.0		
2,2-Dichloropropane		0.3745	7.20		
2-Butanone		0.06755	6.12		
2-Chloroethyl Vinyl Ether		0.1000	6.94		
2-Chlorotoluene		2.243	10.5		
2-Hexanone		0.1166	9.01		
4-Chlorotoluene		1.962	12.4		
4-Methyl-2-Pentanone		0.05390	8.19		
Acetone		0.04615	8.10		
Benzene		0.9553	5.90		
Bromobenzene		0.6422	8.39		
Bromochloromethane		0.1483	4.04		
Bromodichloromethane		0.3074	7.47		
Bromomethane		0.1771	16.1		1.00000
Carbon Disulfide		0.8118	3.81		
Carbon Tetrachloride		0.2970	14.2		
Chloroethane		0.2001	8.04		
Dibromochloromethane		0.2289	15.3		1.00000
Dibromomethane		0.1276	5.30		

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Login Number: L09020400
Analytical Method: 8260B
ICAL Workgroup: WG295337

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
Dichlorodifluoromethane	0.3644	6.60		
Hexachlorobutadiene	0.3158	7.83		
Isopropylbenzene	1.500	9.33		
Methylene Chloride	0.3157	33.2		1.00000
Naphthalene	1.284	6.13		
Styrene	1.024	6.52		
Tetrachloroethene	0.2998	4.98		
Trichloroethene	0.2503	5.44		
Trichlorofluoromethane	0.4319	10.7		
Vinyl Acetate	0.3576	6.32		
cis-1,2-Dichloroethene	0.2554	5.50		
cis-1,3-Dichloropropene	0.3685	6.83		
m-,p-Xylene	0.6124	10.1		
n-Butylbenzene	1.997	7.31		
n-Propylbenzene	2.991	9.98		
o-Xylene	0.6032	7.70		
p-Isopropyltoluene	2.273	8.59		
sec-Butylbenzene	2.553	8.88		
tert-Butylbenzene	0.4671	7.32		
trans-1,2-Dichloroethene	0.2353	5.69		
trans-1,3-Dichloropropene	0.3973	7.34		

R = Correlation coefficient; 0.995 minimum
R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-02			WG295337-03			WG295337-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA	0.400	4933.00000	0.3868	1.00	12195.00000	0.3724
1,2-Dichloropropane	NA	NA	NA	0.400	2852.00000	0.2236	1.00	7355.00000	0.2246
Chloroform	0.300	4948.00000	0.4588	0.400	6322.00000	0.4957	1.00	15152.00000	0.4627
Ethylbenzene	NA	NA	NA	0.400	5529.00000	0.4991	1.00	14840.00000	0.5194
Toluene	NA	NA	NA	0.400	14297.00000	1.291	1.00	36012.00000	1.260
Vinyl Chloride	NA	NA	NA	0.400	2765.00000	0.2168	1.00	7670.00000	0.2342
1,1,2,2-Tetrachloroethane	NA	NA	NA	0.400	2892.00000	0.4221	1.00	7762.00000	0.4416
1,1-Dichloroethane	NA	NA	NA	0.400	5800.00000	0.4548	1.00	14934.00000	0.4560
Bromoform	NA	NA	NA	NA	NA	NA	1.00	2790.00000	0.09760
Chlorobenzene	NA	NA	NA	0.400	11274.00000	1.018	1.00	28733.00000	1.006
Chloromethane	NA	NA	NA	NA	NA	NA	1.00	11631.00000	0.3552
1,1,1,2-Tetrachloroethane	NA	NA	NA	0.400	2808.00000	0.2535	1.00	7834.00000	0.2742
1,1,1-Trichloroethane	NA	NA	NA	0.400	4655.00000	0.3650	1.00	12478.00000	0.3810
1,1,2-Trichloroethane	NA	NA	NA	0.400	2464.00000	0.2224	1.00	6615.00000	0.2315
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	10952.00000	0.3344
1,2,3-Trichlorobenzene	0.300	3964.00000	0.7053	0.400	6176.00000	0.9014	1.00	14761.00000	0.8397
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	1.00	2309.00000	0.1314
1,2,4-Trichlorobenzene	NA	NA	NA	0.400	6998.00000	1.021	1.00	15586.00000	0.8867
1,2,4-Trimethylbenzene	NA	NA	NA	NA	NA	NA	1.00	46218.00000	2.629
1,2-Dibromo-3-Chloropropane	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA	0.400	1842.00000	0.1663	1.00	6311.00000	0.2209
1,2-Dichlorobenzene	0.300	6867.00000	1.222	0.400	10241.00000	1.495	1.00	25118.00000	1.429
1,2-Dichloroethane	NA	NA	NA	0.400	4348.00000	0.3409	1.00	10944.00000	0.3342
1,3,5-Trimethylbenzene	NA	NA	NA	0.400	17055.00000	2.489	1.00	42912.00000	2.441
1,3-Dichlorobenzene	NA	NA	NA	0.400	11153.00000	1.628	1.00	27689.00000	1.575
1,3-Dichloropropane	NA	NA	NA	0.400	4314.00000	0.3894	1.00	11220.00000	0.3927
1,4-Dichlorobenzene	0.300	8751.00000	1.557	0.400	12338.00000	1.801	1.00	30072.00000	1.711
2,2-Dichloropropane	NA	NA	NA	0.400	4458.00000	0.3495	1.00	11967.00000	0.3654
2-Butanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloroethyl Vinyl Ether	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	NA	NA	NA	0.400	17907.00000	2.614	1.00	44860.00000	2.552
2-Hexanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	NA	NA	NA	0.400	16209.00000	2.366	1.00	39590.00000	2.252
4-Methyl-2-Pentanone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	NA	NA	NA	0.400	13349.00000	1.047	1.00	32039.00000	0.9783
Bromobenzene	0.300	3386.00000	0.6024	0.400	5033.00000	0.7346	1.00	12849.00000	0.7310
Bromochloromethane	NA	NA	NA	0.400	1903.00000	0.1492	1.00	4685.00000	0.1431
Bromodichloromethane	NA	NA	NA	0.400	3759.00000	0.2947	1.00	9633.00000	0.2941
Bromomethane	NA	NA	NA	NA	NA	NA	1.00	4944.00000	0.1510
Carbon Disulfide	NA	NA	NA	NA	NA	NA	1.00	26643.00000	0.8135
Carbon Tetrachloride	NA	NA	NA	0.400	3274.00000	0.2567	1.00	8736.00000	0.2668

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Login Number: L09020400
Analytical Method: 8260BInstrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-05			WG295337-06			WG295337-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	2.00	22227.0000	0.3352	5.00	60075.0000	0.3308	20.0	256524.000	0.3675
1,2-Dichloropropane	2.00	14665.0000	0.2212	5.00	37775.0000	0.2080	20.0	159840.000	0.2290
Chloroform	2.00	28826.0000	0.4347	5.00	75647.0000	0.4166	20.0	316897.000	0.4540
Ethylbenzene	2.00	27254.0000	0.4705	5.00	70835.0000	0.4515	20.0	286643.000	0.4801
Toluene	2.00	67205.0000	1.160	5.00	181787.000	1.159	20.0	754578.000	1.264
Vinyl Chloride	2.00	13053.0000	0.1968	5.00	31563.0000	0.1738	20.0	132772.000	0.1902
1,1,2,2-Tetrachloroethane	2.00	14882.0000	0.4192	5.00	34011.0000	0.3559	20.0	133921.000	0.3661
1,1-Dichloroethane	2.00	28170.0000	0.4248	5.00	74323.0000	0.4093	20.0	309934.000	0.4441
Bromoform	2.00	5846.00000	0.1009	5.00	14777.0000	0.09420	20.0	74083.0000	0.1241
Chlorobenzene	2.00	51662.0000	0.8919	5.00	130139.000	0.8296	20.0	530201.000	0.8880
Chloromethane	2.00	19058.0000	0.2874	5.00	47156.0000	0.2597	20.0	191125.000	0.2738
1,1,1,2-Tetrachloroethane	2.00	14340.0000	0.2476	5.00	36640.0000	0.2336	20.0	158158.000	0.2649
1,1,1-Trichloroethane	2.00	23199.0000	0.3498	5.00	61395.0000	0.3381	20.0	271591.000	0.3891
1,1,2-Trichloroethane	2.00	12242.0000	0.2113	5.00	29397.0000	0.1874	20.0	118032.000	0.1977
1,1-Dichloropropene	2.00	20243.0000	0.3053	5.00	53712.0000	0.2958	20.0	237397.000	0.3401
1,2,3-Trichlorobenzene	2.00	26432.0000	0.7446	5.00	63472.0000	0.6642	20.0	252445.000	0.6902
1,2,3-Trichloropropane	2.00	4967.00000	0.1399	5.00	11124.0000	0.1164	20.0	42603.0000	0.1165
1,2,4-Trichlorobenzene	2.00	29222.0000	0.8232	5.00	70770.0000	0.7406	20.0	286159.000	0.7824
1,2,4-Trimethylbenzene	2.00	81653.0000	2.300	5.00	205800.000	2.154	20.0	833032.000	2.278
1,2-Dibromo-3-Chloropropane	2.00	2386.00000	0.06720	5.00	6199.00000	0.06490	20.0	25654.0000	0.07010
1,2-Dibromoethane	2.00	12852.0000	0.2219	5.00	30212.0000	0.1926	20.0	125189.000	0.2097
1,2-Dichlorobenzene	2.00	45702.0000	1.288	5.00	109313.000	1.144	20.0	426815.000	1.167
1,2-Dichloroethane	2.00	21990.0000	0.3316	5.00	56000.0000	0.3084	20.0	232357.000	0.3329
1,3,5-Trimethylbenzene	2.00	78734.0000	2.218	5.00	201762.000	2.111	20.0	817304.000	2.235
1,3-Dichlorobenzene	2.00	48614.0000	1.370	5.00	119459.000	1.250	20.0	472857.000	1.293
1,3-Dichloropropane	2.00	22411.0000	0.3869	5.00	53828.0000	0.3431	20.0	217111.000	0.3636
1,4-Dichlorobenzene	2.00	51356.0000	1.447	5.00	125416.000	1.312	20.0	491953.000	1.345
2,2-Dichloropropane	2.00	22594.0000	0.3407	5.00	63062.0000	0.3473	20.0	270713.000	0.3879
2-Butanone	NA	NA	NA	5.00	12864.0000	0.07080	20.0	41828.0000	0.05990
2-Chloroethyl Vinyl Ether	NA	NA	NA	5.00	15934.0000	0.08770	20.0	67129.0000	0.09620
2-Chlorotoluene	2.00	80961.0000	2.281	5.00	199857.000	2.091	20.0	803211.000	2.196
2-Hexanone	NA	NA	NA	5.00	15447.0000	0.09850	20.0	66239.0000	0.1109
4-Chlorotoluene	2.00	69067.0000	1.946	5.00	176453.000	1.847	20.0	706979.000	1.933
4-Methyl-2-Pentanone	NA	NA	NA	5.00	8466.00000	0.04660	20.0	35112.0000	0.05030
Acetone	NA	NA	NA	5.00	9361.00000	0.05150	20.0	29093.0000	0.04170
Benzene	2.00	60080.0000	0.9060	5.00	160722.000	0.8850	20.0	678351.000	0.9719
Bromobenzene	2.00	23049.0000	0.6493	5.00	57547.0000	0.6022	20.0	225576.000	0.6167
Bromochloromethane	2.00	9405.00000	0.1418	5.00	25426.0000	0.1400	20.0	105408.000	0.1510
Bromodichloromethane	2.00	19871.0000	0.2997	5.00	49160.0000	0.2707	20.0	211187.000	0.3026
Bromomethane	2.00	9851.00000	0.1486	5.00	26540.0000	0.1461	20.0	124263.000	0.1780
Carbon Disulfide	2.00	54011.0000	0.8145	5.00	138185.000	0.7609	20.0	577691.000	0.8277
Carbon Tetrachloride	2.00	16778.0000	0.2530	5.00	47284.0000	0.2604	20.0	217607.000	0.3118

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Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-08			WG295337-09			WG295337-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
1,1-Dichloroethene	50.0	658849.000	0.3771	100	1362861.00	0.3660	200	2799696.00	0.3748
1,2-Dichloropropane	50.0	419438.000	0.2401	100	872597.000	0.2344	200	1768094.00	0.2367
Chloroform	50.0	811392.000	0.4644	100	1637698.00	0.4398	200	3322326.00	0.4448
Ethylbenzene	50.0	728921.000	0.4896	100	1433636.00	0.4531	200	2705481.00	0.4183
Toluene	50.0	1922199.00	1.291	100	3800207.00	1.201	200	7098664.00	1.098
Vinyl Chloride	50.0	331726.000	0.1899	100	604075.000	0.1622	NA	NA	NA
1,1,2,2-Tetrachloroethane	50.0	361617.000	0.3942	100	789864.000	0.4027	200	1586197.00	0.4031
1,1-Dichloroethane	50.0	796095.000	0.4557	100	1615238.00	0.4338	200	3359401.00	0.4498
Bromoform	50.0	229746.000	0.1543	100	526975.000	0.1665	200	1100971.00	0.1702
Chlorobenzene	50.0	1334836.00	0.8966	100	2638725.00	0.8339	200	5006831.00	0.7741
Chloromethane	50.0	483988.000	0.2770	100	941629.000	0.2529	200	1889843.00	0.2530
1,1,1,2-Tetrachloroethane	50.0	424685.000	0.2852	100	898726.000	0.2840	200	1773783.00	0.2742
1,1,1-Trichloroethane	50.0	729193.000	0.4174	100	1483175.00	0.3983	200	2993972.00	0.4008
1,1,2-Trichloroethane	50.0	307097.000	0.2063	100	645656.000	0.2040	200	1289957.00	0.1994
1,1-Dichloropropene	50.0	627537.000	0.3592	100	1263972.00	0.3395	200	2548675.00	0.3412
1,2,3-Trichlorobenzene	50.0	660450.000	0.7199	100	1363711.00	0.6953	200	2586803.00	0.6575
1,2,3-Trichloropropane	50.0	113516.000	0.1237	100	245464.000	0.1252	200	492168.000	0.1251
1,2,4-Trichlorobenzene	50.0	746158.000	0.8134	100	1535055.00	0.7827	200	2969183.00	0.7546
1,2,4-Trimethylbenzene	50.0	2143087.00	2.336	100	4207845.00	2.146	200	7563305.00	1.922
1,2-Dibromo-3-Chloropropane	50.0	71774.0000	0.07820	100	154384.000	0.07870	200	303361.000	0.07710
1,2-Dibromoethane	50.0	327659.000	0.2201	100	691347.000	0.2185	200	1381000.00	0.2135
1,2-Dichlorobenzene	50.0	1100653.00	1.200	100	2224217.00	1.134	200	4268310.00	1.085
1,2-Dichloroethane	50.0	586380.000	0.3356	100	1195578.00	0.3211	200	2326589.00	0.3115
1,3,5-Trimethylbenzene	50.0	2095085.00	2.284	100	4080114.00	2.080	200	7423045.00	1.887
1,3-Dichlorobenzene	50.0	1209954.00	1.319	100	2429294.00	1.239	200	4679044.00	1.189
1,3-Dichloropropane	50.0	563222.000	0.3783	100	1180000.00	0.3729	200	2357227.00	0.3645
1,4-Dichlorobenzene	50.0	1250828.00	1.364	100	2502439.00	1.276	200	4771655.00	1.213
2,2-Dichloropropane	50.0	717233.000	0.4106	100	1472289.00	0.3954	200	2978503.00	0.3988
2-Butanone	50.0	115831.000	0.06630	100	254040.000	0.06820	200	515025.000	0.06900
2-Chloroethyl Vinyl Ether	50.0	178565.000	0.1022	100	383391.000	0.1030	200	785937.000	0.1052
2-Chlorotoluene	50.0	2036565.00	2.220	100	4044057.00	2.062	200	7594190.00	1.930
2-Hexanone	50.0	183481.000	0.1232	100	390289.000	0.1233	200	755459.000	0.1168
4-Chlorotoluene	50.0	1786612.00	1.948	100	3528133.00	1.799	200	6332647.00	1.610
4-Methyl-2-Pentanone	50.0	97356.0000	0.05570	100	212620.000	0.05710	200	422364.000	0.05650
Acetone	50.0	77546.0000	0.04440	100	164857.000	0.04430	200	371945.000	0.04980
Benzene	50.0	1756627.00	1.006	100	3537337.00	0.9500	200	6714909.00	0.8990
Bromobenzene	50.0	581459.000	0.6338	100	1194931.00	0.6093	200	2361216.00	0.6001
Bromochloromethane	50.0	274696.000	0.1572	100	565322.000	0.1518	200	1134637.00	0.1519
Bromodichloromethane	50.0	576722.000	0.3301	100	1228346.00	0.3299	200	2520602.00	0.3375
Bromomethane	50.0	363123.000	0.2079	100	748618.000	0.2011	200	1546911.00	0.2071
Carbon Disulfide	50.0	1506847.00	0.8625	100	3014113.00	0.8095	200	5932790.00	0.7943
Carbon Tetrachloride	50.0	599713.000	0.3433	100	1240185.00	0.3331	200	2621469.00	0.3510

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Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-11		
	CONC	RESP	RF
1,1-Dichloroethene	NA	NA	NA
1,2-Dichloropropane	NA	NA	NA
Chloroform	NA	NA	NA
Ethylbenzene	NA	NA	NA
Toluene	NA	NA	NA
Vinyl Chloride	NA	NA	NA
1,1,2,2-Tetrachloroethane	NA	NA	NA
1,1-Dichloroethane	NA	NA	NA
Bromoform	NA	NA	NA
Chlorobenzene	NA	NA	NA
Chloromethane	NA	NA	NA
1,1,1,2-Tetrachloroethane	NA	NA	NA
1,1,1-Trichloroethane	NA	NA	NA
1,1,2-Trichloroethane	NA	NA	NA
1,1-Dichloropropene	NA	NA	NA
1,2,3-Trichlorobenzene	NA	NA	NA
1,2,3-Trichloropropane	NA	NA	NA
1,2,4-Trichlorobenzene	NA	NA	NA
1,2,4-Trimethylbenzene	NA	NA	NA
1,2-Dibromo-3-Chloropropane	NA	NA	NA
1,2-Dibromoethane	NA	NA	NA
1,2-Dichlorobenzene	NA	NA	NA
1,2-Dichloroethane	NA	NA	NA
1,3,5-Trimethylbenzene	NA	NA	NA
1,3-Dichlorobenzene	NA	NA	NA
1,3-Dichloropropane	NA	NA	NA
1,4-Dichlorobenzene	NA	NA	NA
2,2-Dichloropropane	NA	NA	NA
2-Butanone	300	802118.000	0.07110
2-Chloroethyl Vinyl Ether	300	1195152.00	0.1059
2-Chlorotoluene	NA	NA	NA
2-Hexanone	300	1193848.00	0.1266
4-Chlorotoluene	NA	NA	NA
4-Methyl-2-Pentanone	300	645495.000	0.05720
Acetone	300	510413.000	0.04520
Benzene	NA	NA	NA
Bromobenzene	NA	NA	NA
Bromochloromethane	NA	NA	NA
Bromodichloromethane	NA	NA	NA
Bromomethane	NA	NA	NA
Carbon Disulfide	NA	NA	NA
Carbon Tetrachloride	NA	NA	NA

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Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-02			WG295337-03			WG295337-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	NA	NA	NA	NA	NA	NA	1.00	6722.00000	0.2053
Dibromochloromethane	NA	NA	NA	0.400	2153.00000	0.1943	1.00	6091.00000	0.2132
Dibromomethane	NA	NA	NA	0.400	1527.00000	0.1197	1.00	4508.00000	0.1377
Dichlorodifluoromethane	NA	NA	NA	NA	NA	NA	1.00	12863.00000	0.3928
Hexachlorobutadiene	NA	NA	NA	0.400	2351.00000	0.3431	1.00	6207.00000	0.3531
Isopropylbenzene	NA	NA	NA	0.400	18458.00000	1.666	1.00	48026.00000	1.681
Methylene Chloride	NA	NA	NA	0.400	7119.00000	0.5582	1.00	12003.00000	0.3665
Naphthalene	NA	NA	NA	0.400	9232.00000	1.347	1.00	24559.00000	1.397
Styrene	NA	NA	NA	0.400	11133.00000	1.005	1.00	32313.00000	1.131
Tetrachloroethene	NA	NA	NA	0.400	3258.00000	0.2941	1.00	9016.00000	0.3156
Trichloroethene	NA	NA	NA	0.400	3278.00000	0.2570	1.00	8423.00000	0.2572
Trichlorofluoromethane	NA	NA	NA	0.400	4449.00000	0.3488	1.00	14494.00000	0.4426
Vinyl Acetate	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA	0.400	3288.00000	0.2578	1.00	8938.00000	0.2729
cis-1,3-Dichloropropene	NA	NA	NA	0.400	4690.00000	0.3677	1.00	12264.00000	0.3745
m-,p-Xylene	NA	NA	NA	0.800	15060.00000	0.6797	2.00	39709.00000	0.6949
n-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	38772.00000	2.206
n-Propylbenzene	NA	NA	NA	0.400	22905.00000	3.343	1.00	57946.00000	3.297
o-Xylene	NA	NA	NA	0.400	7324.00000	0.6611	1.00	19153.00000	0.6703
p-Isopropyltoluene	NA	NA	NA	NA	NA	NA	1.00	45505.00000	2.589
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	51219.00000	2.914
tert-Butylbenzene	NA	NA	NA	NA	NA	NA	1.00	9437.00000	0.5369
trans-1,2-Dichloroethene	NA	NA	NA	0.400	2865.00000	0.2246	1.00	8036.00000	0.2454
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	1.00	10822.00000	0.3788

Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-05			WG295337-06			WG295337-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	2.00	11869.0000	0.1790	5.00	31972.0000	0.1761	20.0	141958.000	0.2034
Dibromochloromethane	2.00	11637.0000	0.2009	5.00	30081.0000	0.1918	20.0	133955.000	0.2243
Dibromomethane	2.00	8862.00000	0.1336	5.00	21289.0000	0.1172	20.0	88538.0000	0.1269
Dichlorodifluoromethane	2.00	23596.0000	0.3558	5.00	59595.0000	0.3282	20.0	267998.000	0.3840
Hexachlorobutadiene	2.00	10305.0000	0.2903	5.00	26616.0000	0.2785	20.0	113811.000	0.3112
Isopropylbenzene	2.00	83517.0000	1.442	5.00	220330.000	1.405	20.0	914381.000	1.531
Methylene Chloride	2.00	19691.0000	0.2969	5.00	46805.0000	0.2577	20.0	182940.000	0.2621
Naphthalene	2.00	45672.0000	1.287	5.00	110269.000	1.154	20.0	446842.000	1.222
Styrene	2.00	60616.0000	1.046	5.00	152543.000	0.9724	20.0	623446.000	1.044
Tetrachloroethene	2.00	16497.0000	0.2848	5.00	43704.0000	0.2786	20.0	184948.000	0.3097
Trichloroethene	2.00	15401.0000	0.2323	5.00	41081.0000	0.2262	20.0	176600.000	0.2530
Trichlorofluoromethane	2.00	27441.0000	0.4138	5.00	69742.0000	0.3840	20.0	314503.000	0.4506
Vinyl Acetate	2.00	25503.0000	0.3846	5.00	57950.0000	0.3191	20.0	246311.000	0.3529
cis-1,2-Dichloroethene	2.00	15771.0000	0.2378	5.00	42159.0000	0.2322	20.0	181797.000	0.2605
cis-1,3-Dichloropropene	2.00	22408.0000	0.3379	5.00	59033.0000	0.3251	20.0	257845.000	0.3694
m-,p-Xylene	4.00	71740.0000	0.6192	10.0	185290.000	0.5906	40.0	746077.000	0.6248
n-Butylbenzene	2.00	68528.0000	1.931	5.00	180156.000	1.885	20.0	754099.000	2.062
n-Propylbenzene	2.00	104480.000	2.943	5.00	273945.000	2.867	20.0	1136341.00	3.107
o-Xylene	2.00	34473.0000	0.5951	5.00	90260.0000	0.5754	20.0	362886.000	0.6078
p-Isopropyltoluene	2.00	78521.0000	2.212	5.00	206757.000	2.164	20.0	859044.000	2.349
sec-Butylbenzene	2.00	87717.0000	2.471	5.00	233878.000	2.447	20.0	971695.000	2.657
tert-Butylbenzene	2.00	16094.0000	0.4534	5.00	42018.0000	0.4397	20.0	170432.000	0.4660
trans-1,2-Dichloroethene	2.00	14459.0000	0.2180	5.00	39629.0000	0.2182	20.0	171373.000	0.2455
trans-1,3-Dichloropropene	2.00	22094.0000	0.3814	5.00	54921.0000	0.3501	20.0	237025.000	0.3970

Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-08			WG295337-09			WG295337-10		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloroethane	50.0	380724.000	0.2179	100	783801.000	0.2105	200	1555600.00	0.2083
Dibromochloromethane	50.0	387815.000	0.2605	100	860334.000	0.2719	200	1775438.00	0.2745
Dibromomethane	50.0	229005.000	0.1311	100	473525.000	0.1272	200	950585.000	0.1273
Dichlorodifluoromethane	50.0	671556.000	0.3844	100	1354126.00	0.3637	200	2556344.00	0.3422
Hexachlorobutadiene	50.0	296183.000	0.3229	100	608828.000	0.3104	200	1246818.00	0.3169
Isopropylbenzene	50.0	2338303.00	1.571	100	4547103.00	1.437	200	8192460.00	1.267
Methylene Chloride	50.0	463663.000	0.2654	100	959634.000	0.2577	200	1947248.00	0.2607
Naphthalene	50.0	1222126.00	1.332	100	2553524.00	1.302	200	4835175.00	1.229
Styrene	50.0	1605486.00	1.078	100	3160037.00	0.9987	200	5907042.00	0.9133
Tetrachloroethene	50.0	478091.000	0.3211	100	953655.000	0.3014	200	1893565.00	0.2928
Trichloroethene	50.0	463924.000	0.2656	100	956672.000	0.2569	200	1900970.00	0.2545
Trichlorofluoromethane	50.0	830809.000	0.4756	100	1728454.00	0.4642	200	3553210.00	0.4757
Vinyl Acetate	50.0	649839.000	0.3720	100	1363253.00	0.3661	200	2620569.00	0.3508
cis-1,2-Dichloroethene	50.0	469409.000	0.2687	100	946722.000	0.2543	200	1937167.00	0.2593
cis-1,3-Dichloropropene	50.0	691857.000	0.3960	100	1445492.00	0.3882	200	2908005.00	0.3893
m-,p-Xylene	100	1859932.00	0.6246	200	3568324.00	0.5638	400	6488658.00	0.5016
n-Butylbenzene	50.0	1959573.00	2.136	100	3860410.00	1.968	200	7040078.00	1.789
n-Propylbenzene	50.0	2875662.00	3.135	100	5528271.00	2.819	200	9522742.00	2.420
o-Xylene	50.0	913051.000	0.6133	100	1808596.00	0.5716	200	3431722.00	0.5306
p-Isopropyltoluene	50.0	2216115.00	2.416	100	4313213.00	2.199	200	7815585.00	1.986
sec-Butylbenzene	50.0	2487105.00	2.711	100	4828699.00	2.462	200	8702988.00	2.212
tert-Butylbenzene	50.0	441922.000	0.4817	100	887361.000	0.4525	200	1728339.00	0.4393
trans-1,2-Dichloroethene	50.0	441924.000	0.2530	100	880895.000	0.2366	200	1800640.00	0.2411
trans-1,3-Dichloropropene	50.0	637149.000	0.4280	100	1351315.00	0.4271	200	2708145.00	0.4187

Login Number: L09020400
Analytical Method: 8260B

Instrument ID: HPMS6
Initial Calibration Date: 19-FEB-09 19:06
Column ID: F

Analyte	WG295337-11		
	CONC	RESP	RF
Chloroethane	NA	NA	NA
Dibromochloromethane	NA	NA	NA
Dibromomethane	NA	NA	NA
Dichlorodifluoromethane	NA	NA	NA
Hexachlorobutadiene	NA	NA	NA
Isopropylbenzene	NA	NA	NA
Methylene Chloride	NA	NA	NA
Naphthalene	NA	NA	NA
Styrene	NA	NA	NA
Tetrachloroethene	NA	NA	NA
Trichloroethene	NA	NA	NA
Trichlorofluoromethane	NA	NA	NA
Vinyl Acetate	NA	NA	NA
cis-1,2-Dichloroethene	NA	NA	NA
cis-1,3-Dichloropropene	NA	NA	NA
m-, p-Xylene	NA	NA	NA
n-Butylbenzene	NA	NA	NA
n-Propylbenzene	NA	NA	NA
o-Xylene	NA	NA	NA
p-Isopropyltoluene	NA	NA	NA
sec-Butylbenzene	NA	NA	NA
tert-Butylbenzene	NA	NA	NA
trans-1,2-Dichloroethene	NA	NA	NA
trans-1,3-Dichloropropene	NA	NA	NA

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295337-12
Instrument ID: HPMS6 Run Time: 20:10 Method: 8260B
File ID: 6M81625 Analyst: MES QC Key: STD
ICal Workgroup: WG295337 Cal ID: HPMS6 - 19-FEB-09

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloroform	CCC	20.0	20.6	ug/L	0.466	3.00	30	
1,1-Dichloroethene	CCC	20.0	21.4	ug/L	0.390	7.10	30	
1,2-Dichloropropane	CCC	20.0	20.9	ug/L	0.237	4.50	30	
Ethylbenzene	CCC	20.0	21.0	ug/L	0.496	5.00	30	
Toluene	CCC	20.0	21.4	ug/L	1.30	7.20	30	
Vinyl Chloride	CCC	20.0	20.4	ug/L	0.198	1.80	30	
Bromoform	SPCC	20.0	16.8	ug/L	0.121	16.0	30	
Chlorobenzene	SPCC	20.0	20.1	ug/L	0.898	0.700	30	
Chloromethane	SPCC	20.0	21.3	ug/L	0.299	6.70	30	
1,1-Dichloroethane	SPCC	20.0	21.5	ug/L	0.473	7.30	30	
1,1,2,2-Tetrachloroethane	SPCC	20.0	18.3	ug/L	0.366	8.60	30	
Acetone		20.0	23.2	ug/L	0.0536	16.2	30	
Benzene		20.0	21.0	ug/L	1.00	4.90	30	
Bromobenzene		20.0	19.8	ug/L	0.637	0.800	30	
Bromochloromethane		20.0	21.3	ug/L	0.158	6.60	30	
Bromodichloromethane		20.0	21.0	ug/L	0.324	5.20	30	
Bromomethane		20.0	21.5	ug/L	0.209	7.60	30	
2-Butanone		20.0	20.5	ug/L	0.0694	2.70	30	
n-Butylbenzene		20.0	20.7	ug/L	2.07	3.40	30	
sec-Butylbenzene		20.0	21.2	ug/L	2.71	6.20	30	
tert-Butylbenzene		20.0	20.7	ug/L	0.483	3.40	30	
Carbon Disulfide		20.0	18.8	ug/L	0.765	5.80	30	
Carbon Tetrachloride		20.0	22.1	ug/L	0.328	10.3	30	
Dibromochloromethane		20.0	17.8	ug/L	0.224	11.1	30	
Chloroethane		20.0	22.2	ug/L	0.222	10.8	30	
2-Chloroethyl Vinyl Ether		20.0	20.8	ug/L	0.104	4.00	30	
2-Chlorotoluene		20.0	19.2	ug/L	2.15	4.10	30	
4-Chlorotoluene		20.0	20.8	ug/L	2.04	4.20	30	
1,2-Dibromo-3-Chloropropane		20.0	18.8	ug/L	0.0684	5.90	30	
1,2-Dibromoethane		20.0	19.4	ug/L	0.201	3.20	30	
Dibromomethane		20.0	20.7	ug/L	0.132	3.30	30	
1,2-Dichlorobenzene		20.0	19.2	ug/L	1.19	3.80	30	
1,3-Dichlorobenzene		20.0	19.3	ug/L	1.31	3.50	30	
1,4-Dichlorobenzene		20.0	18.6	ug/L	1.34	7.20	30	
Dichlorodifluoromethane		20.0	23.7	ug/L	0.433	18.7	30	
1,2-Dichloroethane		20.0	19.7	ug/L	0.322	1.60	30	
cis-1,2-Dichloroethene		20.0	22.1	ug/L	0.282	10.5	30	
trans-1,2-Dichloroethene		20.0	21.6	ug/L	0.254	7.90	30	
1,3-Dichloropropane		20.0	19.0	ug/L	0.356	4.80	30	
2,2-Dichloropropane		20.0	20.6	ug/L	0.385	2.80	30	
cis-1,3-Dichloropropene		20.0	19.8	ug/L	0.366	0.800	30	
trans-1,3-Dichloropropene		20.0	17.1	ug/L	0.340	14.4	30	

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 1325976
Report generated 02/23/2009 15:52



Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295337-12
Instrument ID: HPMS6 Run Time: 20:10 Method: 8260B
File ID: 6M81625 Analyst: MES QC Key: STD
Ical Workgroup: WG295337 Cal ID: HPMS6 - 19-FEB-09

Analyte	Expected	Found	Units	RF	%D	UCL	Q
1,1-Dichloropropene	20.0	20.9	ug/L	0.346	4.50	30	
2-Hexanone	20.0	19.5	ug/L	0.114	2.40	30	
Hexachlorobutadiene	20.0	19.9	ug/L	0.315	0.400	30	
Isopropylbenzene	20.0	18.6	ug/L	1.39	7.10	30	
p-Isopropyltoluene	20.0	20.4	ug/L	2.31	1.80	30	
4-Methyl-2-Pentanone	20.0	19.9	ug/L	0.0537	0.300	30	
Methylene Chloride	20.0	21.6	ug/L	0.283	8.10	30	
Naphthalene	20.0	19.2	ug/L	1.23	3.80	30	
n-Propylbenzene	20.0	20.9	ug/L	3.13	4.50	30	
Styrene	20.0	20.9	ug/L	1.07	4.40	30	
1,1,1,2-Tetrachloroethane	20.0	20.1	ug/L	0.266	0.400	30	
Tetrachloroethene	20.0	20.7	ug/L	0.310	3.30	30	
1,2,3-Trichlorobenzene	20.0	19.2	ug/L	0.704	4.20	30	
1,2,4-Trichlorobenzene	20.0	19.1	ug/L	0.787	4.70	30	
1,1,1-Trichloroethane	20.0	21.1	ug/L	0.402	5.70	30	
1,1,2-Trichloroethane	20.0	18.7	ug/L	0.194	6.70	30	
Trichloroethene	20.0	20.8	ug/L	0.260	3.80	30	
Trichlorofluoromethane	20.0	20.8	ug/L	0.449	3.90	30	
1,2,3-Trichloropropane	20.0	18.5	ug/L	0.116	7.30	30	
1,2,4-Trimethylbenzene	20.0	21.0	ug/L	2.36	4.80	30	
1,3,5-Trimethylbenzene	20.0	20.6	ug/L	2.29	3.20	30	
Vinyl Acetate	20.0	15.4	ug/L	0.276	22.9	40	
o-Xylene	20.0	20.4	ug/L	0.615	2.00	30	
m-,p-Xylene	40.0	41.9	ug/L	0.641	4.70	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00103166

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295337-12
Instrument ID: HPMS6 Run Time: 20:43 Method: 8260B
File ID: 6M81626 Analyst: MES QC Key: STD
ICal Workgroup: WG295337 Cal ID: HPMS6 - 19-FEB-09

Analyte	Expected	Found	Units	RF	%D	UCL	Q

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds



Login Number: L09020400	Run Date: 02/20/2009	Sample ID: WG295386-02
Instrument ID: HPMS6	Run Time: 10:29	Method: 8260B
File ID: 6M81641	Analyst: MDA	QC Key: STD
Workgroup (AAB#): WG295387	Cal ID: HPMS6 - 19-FEB-09	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	51.3	ug/L	0.464	2.63	20	
1,1-Dichloroethene	CCC	50.0	50.6	ug/L	0.368	1.12	20	
1,2-Dichloropropane	CCC	50.0	51.7	ug/L	0.235	3.39	20	
Ethylbenzene	CCC	50.0	51.1	ug/L	0.483	2.17	20	
Toluene	CCC	50.0	52.4	ug/L	1.27	4.74	20	
Vinyl Chloride	CCC	50.0	48.3	ug/L	0.188	3.40	20	
Bromoform	SPCC	50.0	50.7	ug/L	0.160	1.41	40	
Chlorobenzene	SPCC	50.0	49.6	ug/L	0.885	0.811	40	
Chloromethane	SPCC	50.0	48.8	ug/L	0.273	2.44	40	
1,1-Dichloroethane	SPCC	50.0	51.2	ug/L	0.451	2.31	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	47.7	ug/L	0.382	4.56	40	
Acetone		50.0	45.3	ug/L	0.0418	9.35	40	
Benzene		50.0	51.7	ug/L	0.987	3.31	40	
Bromobenzene		50.0	48.9	ug/L	0.628	2.28	40	
Bromochloromethane		50.0	52.5	ug/L	0.156	4.95	40	
Bromodichloromethane		50.0	54.7	ug/L	0.337	9.46	40	
Bromomethane		50.0	53.5	ug/L	0.214	6.98	40	
2-Butanone		50.0	45.0	ug/L	0.0608	9.93	40	
n-Butylbenzene		50.0	52.5	ug/L	2.09	4.90	40	
sec-Butylbenzene		50.0	52.3	ug/L	2.67	4.64	40	
tert-Butylbenzene		50.0	50.9	ug/L	0.476	1.81	40	
Carbon Disulfide		50.0	52.3	ug/L	0.850	4.63	40	
Carbon Tetrachloride		50.0	60.5	ug/L	0.359	21.0	40	
Dibromochloromethane		50.0	50.8	ug/L	0.268	1.69	40	
Chloroethane		50.0	54.1	ug/L	0.216	8.18	40	
2-Chloroethyl Vinyl Ether		50.0	49.1	ug/L	0.0983	1.74	40	
2-Chlorotoluene		50.0	49.3	ug/L	2.21	1.41	40	
4-Chlorotoluene		50.0	49.4	ug/L	1.94	1.26	40	
1,2-Dibromo-3-Chloropropane		50.0	53.4	ug/L	0.0777	6.80	40	
1,2-Dibromoethane		50.0	51.7	ug/L	0.215	3.36	40	
Dibromomethane		50.0	51.0	ug/L	0.130	2.08	40	
1,2-Dichlorobenzene		50.0	47.5	ug/L	1.18	4.90	40	
1,3-Dichlorobenzene		50.0	48.2	ug/L	1.31	3.60	40	
1,4-Dichlorobenzene		50.0	46.5	ug/L	1.35	7.06	40	
Dichlorodifluoromethane		50.0	51.6	ug/L	0.376	3.26	40	
1,2-Dichloroethane		50.0	50.5	ug/L	0.330	0.981	40	
cis-1,2-Dichloroethene		50.0	52.0	ug/L	0.266	4.04	40	
trans-1,2-Dichloroethene		50.0	53.1	ug/L	0.250	6.15	40	
1,3-Dichloropropane		50.0	48.7	ug/L	0.364	2.69	40	
2,2-Dichloropropane		50.0	55.9	ug/L	0.419	11.8	40	
cis-1,3-Dichloropropene		50.0	52.8	ug/L	0.389	5.52	40	
trans-1,3-Dichloropropene		50.0	53.0	ug/L	0.421	6.02	40	

CCV - Modified 03/05/2008

PDF File ID: 1325978

Report generated 02/23/2009 15:52



Login Number: L09020400 Run Date: 02/20/2009 Sample ID: WG295386-02
Instrument ID: HPMS6 Run Time: 10:29 Method: 8260B
File ID: 6M81641 Analyst: MDA QC Key: STD
Workgroup (AAB#): WG295387 Cal ID: HPMS6 - 19-FEB-09
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	52.7	ug/L	0.349	5.45	40	
2-Hexanone	50.0	47.7	ug/L	0.111	4.65	40	
Hexachlorobutadiene	50.0	50.1	ug/L	0.316	0.158	40	
Isopropylbenzene	50.0	51.2	ug/L	1.54	2.39	40	
p-Isopropyltoluene	50.0	52.3	ug/L	2.38	4.55	40	
4-Methyl-2-Pentanone	50.0	47.6	ug/L	0.0514	4.73	40	
Methylene Chloride	50.0	50.9	ug/L	0.265	1.76	40	
Naphthalene	50.0	49.3	ug/L	1.27	1.35	40	
n-Propylbenzene	50.0	51.8	ug/L	3.10	3.61	40	
Styrene	50.0	51.3	ug/L	1.05	2.50	40	
1,1,1,2-Tetrachloroethane	50.0	54.9	ug/L	0.291	9.75	40	
Tetrachloroethene	50.0	52.4	ug/L	0.314	4.84	40	
1,2,3-Trichlorobenzene	50.0	47.4	ug/L	0.698	5.12	40	
1,2,4-Trichlorobenzene	50.0	48.4	ug/L	0.799	3.23	40	
1,1,1-Trichloroethane	50.0	55.6	ug/L	0.423	11.2	40	
1,1,2-Trichloroethane	50.0	48.4	ug/L	0.201	3.30	40	
Trichloroethene	50.0	52.9	ug/L	0.265	5.81	40	
Trichlorofluoromethane	50.0	54.4	ug/L	0.470	8.87	40	
1,2,3-Trichloropropane	50.0	47.3	ug/L	0.119	5.33	40	
1,2,4-Trimethylbenzene	50.0	51.4	ug/L	2.32	2.86	40	
1,3,5-Trimethylbenzene	50.0	51.2	ug/L	2.27	2.40	40	
Vinyl Acetate	50.0	51.2	ug/L	0.366	2.42	40	
o-Xylene	50.0	49.8	ug/L	0.601	0.410	40	
m-,p-Xylene	100	99.8	ug/L	0.611	0.174	40	
1,2-Dichloroethene	100	105	ug/L	0.258	5.10	40	
Xylenes	150	150	ug/L	0.606	0.253	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds

SPCC System Performance Check Compounds

CCV - Modified 03/05/2008

PDF File ID: 1325978

Report generated 02/23/2009 15:52



Login Number: L09020400	Run Date: 02/21/2009	Sample ID: WG295502-02
Instrument ID: HPMS6	Run Time: 12:33	Method: 8260B
File ID: 6M81683	Analyst: FJB	QC Key: STD
Workgroup (AAB#): WG295503	Cal ID: HPMS6 - 19-FEB-09	
Matrix: WATER		

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloroform	CCC	50.0	53.9	ug/L	0.488	7.86	20	
1,1-Dichloroethene	CCC	50.0	55.2	ug/L	0.402	10.4	20	
1,2-Dichloropropane	CCC	50.0	49.1	ug/L	0.223	1.80	20	
Ethylbenzene	CCC	50.0	48.8	ug/L	0.462	2.33	20	
Toluene	CCC	50.0	51.2	ug/L	1.24	2.41	20	
Vinyl Chloride	CCC	50.0	50.7	ug/L	0.198	1.40	20	
Bromoform	SPCC	50.0	48.3	ug/L	0.152	3.47	40	
Chlorobenzene	SPCC	50.0	47.1	ug/L	0.841	5.76	40	
Chloromethane	SPCC	50.0	47.7	ug/L	0.267	4.60	40	
1,1-Dichloroethane	SPCC	50.0	52.0	ug/L	0.459	4.02	40	
1,1,2,2-Tetrachloroethane	SPCC	50.0	42.8	ug/L	0.343	14.4	40	
Acetone		50.0	42.7	ug/L	0.0394	14.6	40	
Benzene		50.0	50.2	ug/L	0.960	0.436	40	
Bromobenzene		50.0	46.4	ug/L	0.596	7.25	40	
Bromochloromethane		50.0	50.0	ug/L	0.148	0.00700	40	
Bromodichloromethane		50.0	56.2	ug/L	0.346	12.4	40	
Bromomethane		50.0	52.8	ug/L	0.211	5.66	40	
2-Butanone		50.0	38.6	ug/L	0.0522	22.8	40	
n-Butylbenzene		50.0	51.4	ug/L	2.05	2.82	40	
sec-Butylbenzene		50.0	51.0	ug/L	2.60	1.91	40	
tert-Butylbenzene		50.0	48.6	ug/L	0.454	2.73	40	
Carbon Disulfide		50.0	53.0	ug/L	0.861	5.99	40	
Carbon Tetrachloride		50.0	68.8	ug/L	0.409	37.5	40	
Dibromochloromethane		50.0	49.8	ug/L	0.263	0.369	40	
Chloroethane		50.0	53.1	ug/L	0.213	6.20	40	
2-Chloroethyl Vinyl Ether		50.0	43.9	ug/L	0.0878	12.2	40	
2-Chlorotoluene		50.0	46.7	ug/L	2.09	6.63	40	
4-Chlorotoluene		50.0	49.7	ug/L	1.95	0.679	40	
1,2-Dibromo-3-Chloropropane		50.0	49.2	ug/L	0.0715	1.63	40	
1,2-Dibromoethane		50.0	48.7	ug/L	0.203	2.62	40	
Dibromomethane		50.0	49.9	ug/L	0.127	0.266	40	
1,2-Dichlorobenzene		50.0	44.0	ug/L	1.09	12.0	40	
1,3-Dichlorobenzene		50.0	45.5	ug/L	1.24	8.97	40	
1,4-Dichlorobenzene		50.0	43.8	ug/L	1.27	12.4	40	
Dichlorodifluoromethane		50.0	60.6	ug/L	0.441	21.1	40	
1,2-Dichloroethane		50.0	52.7	ug/L	0.345	5.44	40	
cis-1,2-Dichloroethene		50.0	51.7	ug/L	0.264	3.36	40	
trans-1,2-Dichloroethene		50.0	54.3	ug/L	0.256	8.63	40	
1,3-Dichloropropane		50.0	46.9	ug/L	0.350	6.29	40	
2,2-Dichloropropane		50.0	60.4	ug/L	0.453	20.9	40	
cis-1,3-Dichloropropene		50.0	50.5	ug/L	0.372	0.956	40	
trans-1,3-Dichloropropene		50.0	52.7	ug/L	0.419	5.44	40	

CCV - Modified 03/05/2008
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00103170

Login Number: L09020400 Run Date: 02/21/2009 Sample ID: WG295502-02
Instrument ID: HPMS6 Run Time: 12:33 Method: 8260B
File ID: 6M81683 Analyst: FJB QC Key: STD
Workgroup (AAB#): WG295503 Cal ID: HPMS6 - 19-FEB-09
Matrix: WATER

Analyte	Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloropropene	50.0	54.5	ug/L	0.360	8.97	40	
2-Hexanone	50.0	40.0	ug/L	0.0933	20.0	40	
Hexachlorobutadiene	50.0	50.2	ug/L	0.317	0.343	40	
Isopropylbenzene	50.0	50.0	ug/L	1.50	0.0536	40	
p-Isopropyltoluene	50.0	50.1	ug/L	2.28	0.217	40	
4-Methyl-2-Pentanone	50.0	39.4	ug/L	0.0425	21.2	40	
Methylene Chloride	50.0	49.2	ug/L	0.256	1.54	40	
Naphthalene	50.0	42.0	ug/L	1.08	16.1	40	
n-Propylbenzene	50.0	50.6	ug/L	3.03	1.18	40	
Styrene	50.0	47.9	ug/L	0.981	4.18	40	
1,1,1,2-Tetrachloroethane	50.0	55.2	ug/L	0.292	10.4	40	
Tetrachloroethene	50.0	53.9	ug/L	0.323	7.76	40	
1,2,3-Trichlorobenzene	50.0	42.0	ug/L	0.618	15.9	40	
1,2,4-Trichlorobenzene	50.0	44.1	ug/L	0.728	11.9	40	
1,1,1-Trichloroethane	50.0	61.2	ug/L	0.465	22.5	40	
1,1,2-Trichloroethane	50.0	45.8	ug/L	0.190	8.45	40	
Trichloroethene	50.0	51.4	ug/L	0.257	2.84	40	
Trichlorofluoromethane	50.0	65.0	ug/L	0.561	30.0	40	
1,2,3-Trichloropropane	50.0	44.7	ug/L	0.112	10.7	40	
1,2,4-Trimethylbenzene	50.0	49.4	ug/L	2.22	1.27	40	
1,3,5-Trimethylbenzene	50.0	49.2	ug/L	2.18	1.61	40	
Vinyl Acetate	50.0	44.7	ug/L	0.320	10.5	40	
o-Xylene	50.0	47.3	ug/L	0.570	5.43	40	
m-,p-Xylene	100	95.3	ug/L	0.584	4.67	40	
1,2-Dichloroethene	100	106	ug/L	0.260	5.99	40	
Xylenes	150	143	ug/L	0.577	4.93	40	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 1325978
Report generated 02/23/2009 15:52



Login Number: L09020400
Instrument ID: HPMS6
Workgroup (AAB#): WG295387

CCV Number: WG295386-02
CAL ID: HPMS6 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295386-02	NA	NA	463063	759682	885955
Upper Limit	NA	NA	926126	1519364	1771910
Lower Limit	NA	NA	231532	379841	442978
<u>L09020400-03</u>	<u>1.00</u>	<u>01</u>	<u>424922</u>	<u>715299</u>	<u>811416</u>
WG295387-01	1.00	01	427188	699237	796754
WG295387-02	1.00	01	448810	737277	863049
WG295387-03	1.00	01	468307	766282	891110

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020400
Instrument ID: HPMS6
Workgroup (AAB#): WG295503

CCV Number: WG295502-02
CAL ID: HPMS6 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295502-02	NA	NA	448398	743079	894118
Upper Limit	NA	NA	896796	1486158	1788236
Lower Limit	NA	NA	224199	371540	447059
<u>L09020400-01</u>	<u>1.00</u>	<u>01</u>	<u>384983</u>	<u>638177</u>	<u>735164</u>
L09020400-02	20.0	DL01	347852	575572	661541
WG295503-01	1.00	01	404498	671213	767995
WG295503-02	1.00	01	434796	713347	834972
WG295503-03	1.00	01	446259	724276	845239
WG295503-04	1.00	01	403610	672359	752057

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020400
Instrument ID: HPMS6
Workgroup (AAB#): WG295387

CCV Number: WG295386-02
CAL ID: HPMS6 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295386-02	NA	NA	18.61	15.06	10.59
Upper Limit	NA	NA	19.11	15.56	11.09
Lower Limit	NA	NA	18.11	14.56	10.09
<u>L09020400-03</u>	<u>1.00</u>	<u>01</u>	<u>18.62</u>	<u>15.06</u>	<u>10.59</u>
WG295387-01	1.00	01	18.61	15.06	10.59
WG295387-02	1.00	01	18.61	15.06	10.59
WG295387-03	1.00	01	18.61	15.06	10.59

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

Login Number: L09020400
Instrument ID: HPMS6
Workgroup (AAB#): WG295503

CCV Number: WG295502-02
CAL ID: HPMS6 - 19-FEB-09
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG295502-02	NA	NA	18.62	15.07	10.6
Upper Limit	NA	NA	19.12	15.57	11.1
Lower Limit	NA	NA	18.12	14.57	10.1
L09020400-01	1.00	01	18.61	15.06	10.59
L09020400-02	20.0	DL01	18.61	15.06	10.59
WG295503-01	1.00	01	18.61	15.06	10.6
WG295503-02	1.00	01	18.61	15.06	10.6
WG295503-03	1.00	01	18.61	15.07	10.6
WG295503-04	1.00	01	18.61	15.06	10.59

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

2.1.2 RSK 175

2.1.2.1 Summary Data

LABORATORY REPORT

L09020400

00103177

02/24/09 11:24

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
105-021809	L09020400-01	RSK175	1	19-FEB-09
47WW09-021809	L09020400-02	RSK175	1	19-FEB-09



Sample Number: **L09020400-01**
Client ID: **105-021809**
Matrix: **Water**
Workgroup Number: **WG295327**
Collect Date: **02/18/2009 09:51**
Sample Tag: **01**

PrePrep Method: **NONE**
Prep Method: **5021**
Analytical Method: **RSK175**
Analyst: **EAB**
Dilution: **1**
Units: **ug/L**

Instrument: **HP16**
Prep Date: **02/19/2009 15:48**
Cal Date: **11/07/2008 09:27**
Run Date: **02/19/2009 15:48**
File ID: **16618001**

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	1.19	J	5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit

J The analyte was positively identified, but the quantitation was below the RL

Sample Number: **L09020400-02**
 Client ID: **47WW09-021809**
 Matrix: **Water**
 Workgroup Number: **WG295327**
 Collect Date: **02/18/2009 12:16**
 Sample Tag: **01**

PrePrep Method: **NONE**
 Prep Method: **5021**
 Analytical Method: **RSK175**
 Analyst: **EAB**
 Dilution: **1**
 Units: **ug/L**

Instrument: **HP16**
 Prep Date: **02/19/2009 16:00**
 Cal Date: **11/07/2008 09:27**
 Run Date: **02/19/2009 16:00**
 File ID: **16G18002**

Analyte	CAS. Number	Result	Qual	PQL	SDL
methane	74-82-8	3.55	J	5.00	1.00
ethene	74-85-1		U	5.00	1.00
ethane	74-84-0		U	5.00	1.00

U Not detected at or above adjusted sample detection limit
 J The analyte was positively identified, but the quantitation was below the RL

2.1.2.2 QC Summary Data

Microbac Laboratories Inc.

00103181

Data Checklist

Date: 07-NOV-2008

Analyst: EAB

Analyst: NA

Method: RSK175

Instrument: HP16

Curve Workgroup: NA

Runlog ID: 25146

Analytical Workgroups: WG287221, WG287258

System Performance Check	NA
BFB	NA
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	EAB
Secondary Reviewer	LSB
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
07-NOV-2008

EAB

Secondary Reviewer:
17-NOV-2008

Leslie Bucina



Microbac Laboratories Inc.

00103182

Data Checklist

Date: 19-FEB-2009

Analyst: EAB

Analyst: NA

Method: RSK175

Instrument: HP16

Curve Workgroup: NA

Runlog ID: 26601

Analytical Workgroups: WG295283, WG295327

System Performance Check	NA
BFB	NA
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	NA
Blanks	X
TCL's	X
Surrogates	NA
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	NA
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	NA
Surrogates	NA
Internal Standards Criteria	NA
Calculations & Correct Factors	X
Dilutions Run	X
Reruns	X
Manual Integrations	NA
Excel Spreadsheets	X
Case Narrative	X
Narrative Summary	NA
Results Reporting/Data Qualifiers	X
Client Data Package Assembly	X
Check for Completeness	X
Primary Reviewer	EAB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
19-FEB-2009



Secondary Reviewer:
23-FEB-2009




RSK-175 - Example Calculation for Methane**1.0 Linear Calibration Models****Option A - Average RF Method**

ICAL_x	ICAL_r	RF
1.67	19901	11917
6.67	69174	10371
16.7	176923	10594
66.7	685135	10272
133	1324853	9961
300	2845104	9484
Average RF:		10433

Where:

ICAL_x = the ICAL concentration

ICAL_r = the ICAL response (area)

RF = calibration factor = ICAL_r / ICAL_x

Option B - Agilent Linear Regression Constant

ICAL_x	ICAL_r	[ICAL_r]^2	[ICAL-x][ICAL-r]
1.67	19901	396049801	33235
6.67	69174	4785042276	461391
16.7	176923	31301747929	2954614
66.7	685135	4.6941E+11	45698505
133	1324853	1.75524E+12	176205449
300	2845104	8.09462E+12	853531200
Summation:		1.03557E+13	1078884393

Agilent Linear Regression Constant : 9598.567853
 (1.03557E+13)/1078884393)

2.0 Calculate the concentration in extract, Cx

Where:

y = area response of methane from quant report

a = average RF (or Agilent regression constant)

Cx = y/a

1157414
 10433.00
 110.9377935

3.0 Calculate the concentration in sample**Cs = Cx (MW/Tf) (HS/S) (DF)**

Where:

Cx = Concentration in extract

MW = molecular weight of analyte

TF = temperature factor = (22.4)(313/273)

HS = headspace volume

S = sample volume remaining after headspace removal

DF = dilution factor

Cs = calculated sample concentration

110.9377935 umol/mol
 16.04 ug/umol
 25.68 L/mol
 0.015 L
 0.00547 L
 2
 380.034301 ug/L

RSK-175 - Example Calculation for Carbon DioxideICAL Plot - Quadratic Regression ($y = Ax^2 + Bx + C$)

$$Ax^2 + Bx + (C - y) = 0$$

Step 1 - Calculate the concentration in extract, CxData from quadratic regression plot:

Value of A from plot:	0.916
Value of B from plot:	1540
Value of C from plot:	0
Response for methane from quantitation report (y):	8763828
Value of C - y	-8763828

Solving for Cx using the quadratic formula:

Root 1 - Computed Cx1:	2364.716284 umol/mol
Root 2 - Computed Cx2:	-4045.938991

Step 2 - Calculate the concentration in sample $C_s = C_x (MW/Tf) (HS/S) (DF)$

Where:

Cx = Concentration in extract :	2364.716284 umol/mol
MW = molecular weight of analyte:	44.0 ug/umol
TF = temperature factor = $(22.4)(313/273)$:	25.68 L/mol
HS = initial headspace volume (extraction log):	0.015 L
S = final volume (extraction log):	0.00547 L
DF = dilution factor:	10
Cs = calculated sample concentration:	111106.798 ug/L

Other Notes:

Temperature of headspace = 40 C = 313 K

Analyte	MW (g/mol)
Methane	16.04
Ethane	30.07
Ethene	28.05
Propane	44.1
Carbon Dioxide	44.0

Microbac Laboratories Inc.
Instrument Run Log

00103185

Instrument: HP16 Dataset: 110708
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 26530

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: STD29606
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG287221, WG287258

Comments: CURVE; THEN NO REANALYSIS REQUIRED

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	16G16513	warm up blank	NA	1	1		11/07/08 08:10
2	16G16514	WG287221-01 1.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:24
3	16G16515	WG287221-02 6.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:36
4	16G16516	WG287221-03 16.67umol/mol STD	NA	1	1	STD29606	11/07/08 08:48
5	16G16517	WG287221-04 66.67umol/mol STD	NA	1	1	STD29606	11/07/08 09:01
6	16G16518	WG287221-05 133.33umol/mol STD-CCV	NA	1	1	STD29606	11/07/08 09:13
7	16G16519	WG287221-06 300umol/mol STD-CCV	NA	1	1	STD29606	11/07/08 09:27
8	16G16520	BLANK	NA	1	1		11/07/08 10:38
9	16G16521	WG287221-07 67umol/mol ALT SRCE STD	NA	1	1	STD29606	11/07/08 10:50
10	16G16522	WG287254-01 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 11:03
11	16G16523	WG287258-01 BLANK	NA	1	1		11/07/08 11:15
12	16G16524	WG287258-02 67umol/mol LCS STD	NA	1	1	STD29606	11/07/08 11:27
13	16G16525	WG287258-02 67umol/mol LCS STD	NA	1	1	STD29606	11/07/08 11:39
14	16G16526	L08110122-01 A REF	7	1	1		11/07/08 11:53
15	16G16527	L08110122-02 A MS	7	1	1	STD29606	11/07/08 12:05
16	16G16528	L08110122-03 A MSD	7	1	1	STD29606	11/07/08 12:17
17	16G16529	L08110122-04 A	7	1	1		11/07/08 12:29
18	16G16530	L08110122-05 A	7	1	1		11/07/08 12:40
19	16G16531	L08110124-01 A	7	1	1		11/07/08 12:52
20	16G16532	L08110124-02 A	7	1	1		11/07/08 13:04
21	16G16533	WG287254-02 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 13:16
22	16G16534	L08110124-03 A	<2	1	1		11/07/08 13:28
23	16G16535	L08110124-04 A	7	1	1		11/07/08 13:39
24	16G16536	WG287254-03 133umol/mol CCV STD	NA	1	1	STD29606	11/07/08 13:51

Comments

Seq.	Rerun	Dil.	Reason	Analytes
12	X			
File ID: 16G16524				
ACETYLENE HIGH				

Approved: November 17, 2008

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Microbac Laboratories Inc.
Instrument Run Log

00103186

Instrument: HP16 Dataset: 021909
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 27670

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: NA
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG295283, WG295327

Comments: 311: REPORTING METHANE ONLY
 323: REPORTING ALL TARGET COMPOUNDS
 324: REPORTING ALL TARGET COMPOUNDS
 356-04,05: REPORTING ETHENE, ETHANE ONLY
 400: REPORTING ALL TARGET COMPOUNDS

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
1	16G17963	WG295278-01 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 08:10
2	16G17964	WG295283-01 BLANK	NA	1	1		02/19/09 08:24
3	16G17965	WG295283-02 67umol/mol LCS	NA	1	1	STD29606	02/19/09 08:36
4	16G17966	WG295283-03 67umol/mol LCS DUP	NA	1	1	STD29606	02/19/09 08:48
5	16G17967	L09020311-01 B 20X	7	1	20		02/19/09 09:00
6	16G17968	L09020311-02 B 5X	7	1	5		02/19/09 09:11
7	16G17969	L09020311-03 B 20X	7	1	20		02/19/09 09:23
8	16G17970	L09020311-04 B 50X	7	1	50		02/19/09 09:35
9	16G17971	L09020323-04 B	7	1	1		02/19/09 09:47
10	16G17972	L09020323-05 B	7	1	1		02/19/09 09:59
11	16G17973	L09020323-06 B	7	1	1		02/19/09 10:11
12	16G17974	WG295278-02 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 10:22
13	16G17975	L09020324-01 B	7	1	1		02/19/09 10:36
14	16G17976	L09020324-02 B	7	1	1		02/19/09 10:48
15	16G17977	L09020324-03 B	7	1	1		02/19/09 11:00
16	16G17978	L09020324-04 B	12	1	1		02/19/09 11:12
17	16G17979	WG295278-03 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 11:24
18	16G17980	WG295327-01 BLANK	NA	1	1		02/19/09 11:36
19	16G17981	WG295327-02 67umol/mol LCS	NA	1	1	STD29606	02/19/09 11:48
20	16G17982	WG295327-03 67umol/mol LCS DUP	NA	1	1	STD29606	02/19/09 12:00
21	16G17983	L09020356-01 A	7	1	1		02/19/09 12:14
22	16G17984	L09020356-02 A	7	1	1		02/19/09 12:26
23	16G17985	L09020356-03 A	7	1	1		02/19/09 12:37
24	16G17986	L09020356-04 A	7	1	1		02/19/09 12:49
25	16G17987	L09020356-05 A	7	1	1		02/19/09 13:01
26	16G17988	L09020356-06 A	7	1	1		02/19/09 13:13
27	16G17989	L09020356-07 A	7	1	1		02/19/09 13:25
28	16G17990	WG295278-04 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 13:37
29	16G17991	L09020356-08 A	7	1	1		02/19/09 13:49
30	16G17992	L09020356-09 A	7	1	1		02/19/09 14:01
31	16G17993	L09020356-10 A	7	1	1		02/19/09 14:13

Approved: February 23, 2009

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Microbac Laboratories Inc.
Instrument Run Log

00103187

Instrument: HP16 Dataset: 021909
 Analyst1: EAB Analyst2: NA
 Method: RSK175 SOP: RSK01 Rev: 7
 Method: 5021 SOP: RSK01 Rev: 7

Maintenance Log ID: 27670

Internal Standard: NA Surrogate Standard: NA
 CCV: STD29606 LCS: STD29606 MS/MSD: NA
 Column 1 ID: RTQPLOT Column 2 ID: RTQPLOT
 Workgroups: WG295283, WG295327

Comments: 311: REPORTING METHANE ONLY
 323: REPORTING ALL TARGET COMPOUNDS
 324: REPORTING ALL TARGET COMPOUNDS
 356-04,05: REPORTING ETHENE, ETHANE ONLY
 400: REPORTING ALL TARGET COMPOUNDS

Seq.	File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
32	16G17994	L09020356-11 A	7	1	1		02/19/09 14:25
33	16G17995	L09020356-12 A	7	1	1		02/19/09 14:37
34	16G17996	L09020356-13 A	7	1	1		02/19/09 14:48
35	16G17997	L09020356-14 A	7	1	1		02/19/09 15:00
36	16G17998	L09020356-15 A	7	1	1		02/19/09 15:12
37	16G17999	L09020356-17 A	7	1	1		02/19/09 15:24
38	16G18000	WG295278-05 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 15:36
39	16G18001	L09020400-01 A	7	1	1		02/19/09 15:48
40	16G18002	L09020400-02 A	7	1	1		02/19/09 16:00
41	16G18003	WG295278-06 133umol/mol CCV STD	NA	1	1	STD29606	02/19/09 16:12

Approved: February 23, 2009

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Analytical Method: RSK175

AAB#: WG295327

Login Number: L09020400

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
105-021809	02/18/09	02/19/09	02/19/09	14	1.25	02/19/09	14	1.25	
47WW09-021809	02/18/09	02/19/09	02/19/09	14	1.16	02/19/09	14	1.16	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00103189

Login Number: <u>L09020400</u>	Work Group: <u>WG295327</u>
Blank File ID: <u>16G17980</u>	Blank Sample ID: <u>WG295327-01</u>
Prep Date: <u>02/19/09 11:36</u>	Instrument ID: <u>HP16</u>
Analyzed Date: <u>02/19/09 11:36</u>	Method: <u>RSK175</u>
Analyst: <u>EAB</u>	

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295327-02	16G17981	02/19/09 11:48	01
LCS2	WG295327-03	16G17982	02/19/09 12:00	01
105-021809	L09020400-01	16G18001	02/19/09 15:48	01
47WW09-021809	L09020400-02	16G18002	02/19/09 16:00	01

Report Name: BLANK_SUMMARY
PDF File ID: 1325849
Report generated 02/23/2009 14:03



Login Number: L09020400 Prep Date: 02/19/09 11:36 Sample ID: WG295327-01
Instrument ID: HP16 Run Date: 02/19/09 11:36 Prep Method: 5021
File ID: 16G17980 Analyst: EAB Method: RSK175
Workgroup (AAB#): WG295327 Matrix: Water Units: ug/L
Contract #: DACA56-94-D-0020 Cal ID: HP16 - 07-NOV-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
methane	1.00	5.00	1.00	1	U
ethene	1.00	5.00	1.00	1	U
ethane	1.00	5.00	1.00	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1325850

23-FEB-2009 14:03



00103191

Login Number: L09020400 Analyst: EAB Prep Method: 5021
Instrument ID: HP16 Matrix: Water Method: RSK175
Workgroup (AAB#): WG295327 Units: ug/L
QC Key: STD Lot #: STD29606
Sample ID: WG295327-02 LCS File ID: 16G17981 Run Date: 02/19/2009 11:48
Sample ID: WG295327-03 LCS2 File ID: 16G17982 Run Date: 02/19/2009 12:00

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
methane	114	113	98.6	114	112	98.3	0.286	56 - 140	40	
ethene	200	205	103	200	205	103	0.151	56 - 140	40	
ethane	214	216	101	214	216	101	0.117	56 - 137	40	

Login Number: L09020400
 Analytical Method: RSK175
 ICAL Workgroup: WG287221

Instrument ID: HP16
 Initial Calibration Date: 07-NOV-08 09:27
 Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
ethane		18600	4.55		
ethene		16990	4.97		
methane		10430	7.92		

R = Correlation coefficient; 0.995 minimum
 R² = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

00103193

Login Number: L09020400
Analytical Method: RSK175

Instrument ID: HP16
Initial Calibration Date: 07-NOV-08 09:27
Column ID: F

Analyte	WG287221-01			WG287221-02			WG287221-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
ethane	1.67	33015.0000	19770	6.67	122720.000	18400	16.7	320105.000	19200
ethene	1.67	30227.0000	18100	6.67	112610.000	16880	16.7	295286.000	17710
methane	1.67	19901.0000	11920	6.67	69174.0000	10370	16.7	176923.000	10610

INT_CAL - Modified 03/06/2008
PDF File ID: 1325852
Report generated 02/23/2009 14:03



00103194

Login Number: L09020400
Analytical Method: RSK175

Instrument ID: HP16
Initial Calibration Date: 07-NOV-08 09:27
Column ID: F

Analyte	WG287221-04			WG287221-05			WG287221-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
ethane	66.7	1250432.00	18760	133	2421985.00	18170	300	5200075.00	17330
ethene	66.7	1134818.00	17020	133	2195806.00	16470	300	4727255.00	15760
methane	66.7	685135.000	10280	133	1324853.00	9937	300	2845104.00	9484

INT_CAL - Modified 03/06/2008
PDF File ID: 1325852
Report generated 02/23/2009 14:03



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00103195

Login Number: L09020400 Run Date: 11/07/2008 Sample ID: WG287221-07
Instrument ID: HP16 Run Time: 10:50 Method: RSK175
File ID: 16G16521 Analyst: EAB QC Key: STD
ICal Workgroup: WG287221 Cal ID: HP16 - 07-NOV-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
methane		114	105	ug/L	9640	7.60	30	
ethene		200	191	ug/L	16300	4.30	30	
ethane		214	203	ug/L	17700	5.00	30	

* Exceeds %D Limit

00103196

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295278-03
Instrument ID: HP16 Run Time: 11:24 Method: RSK175
File ID: 16G17979 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295327 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	247	ug/L	11300	8.30	25	
ethene		399	449	ug/L	19100	12.4	25	
ethane		428	472	ug/L	20500	10.4	25	

* Exceeds %D Criteria



00103197

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295278-04
Instrument ID: HP16 Run Time: 13:37 Method: RSK175
File ID: 16G17990 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295327 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	229	ug/L	10500	0.270	25	
ethene		399	408	ug/L	17400	2.12	25	
ethane		428	440	ug/L	19100	2.85	25	

* Exceeds %D Criteria



00103198

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295278-05
Instrument ID: HP16 Run Time: 15:36 Method: RSK175
File ID: 16G18000 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295327 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	192	ug/L	8790	15.7	25	
ethene		399	354	ug/L	15100	11.4	25	
ethane		428	371	ug/L	16100	13.4	25	

* Exceeds %D Criteria



00103199

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295278-06
Instrument ID: HP16 Run Time: 16:12 Method: RSK175
File ID: 16G18003 Analyst: EAB QC Key: STD
Workgroup (AAB#): WG295327 Cal ID: HP16 - 07-NOV-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
methane		228	183	ug/L	8360	19.8	25	
ethene		399	326	ug/L	13900	18.3	25	
ethane		428	351	ug/L	15300	17.9	25	

* Exceeds %D Criteria



2.2 General Chemistry Data

2.2.1 Method 9056

2.2.1.1 Summary Data

LABORATORY REPORT

L09020400

00103203

02/24/09 11:24

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
105-021809	L09020400-01	300.0	20	19-FEB-09
47WW09-021809	L09020400-02	300.0	20	19-FEB-09
47WW09-021809	L09020400-02	300.0	10	19-FEB-09



Sample Number: **L09020400-01**
 Client ID: **105-021809**
 Matrix: **Water**
 Workgroup Number: **WG295349**
 Collect Date: **02/18/2009 09:51**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **300.0**
 Analytical Method: **300.0**
 Analyst: **ADC**
 Dilution: **20**
 Units: **mg/L**

Instrument: **IC1**
 Prep Date: **02/19/2009 14:50**
 Cal Date: **10/29/2008 18:09**
 Run Date: **02/19/2009 17:14**
 File ID: **I10219091714.07**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	811		4.00	2.00
Fluoride	16984-48-8		U	4.00	2.00
Nitrate	14797-55-8		U	12.0	2.00
Nitrite	14797-65-0		U	8.00	2.00
Sulfate	14808-79-8	2210		20.0	10.0

U Not detected at or above adjusted sample detection limit

Sample Number: **L09020400-02**
Client ID: **47WW09-021809**
Matrix: **Water**
Workgroup Number: **WG295349**
Collect Date: **02/18/2009 12:16**
Sample Tag: **DL02**

PrePrep Method: **NONE**
Prep Method: **300.0**
Analytical Method: **300.0**
Analyst: **ADC**
Dilution: **20**
Units: **mg/L**

Instrument: **IC1**
Prep Date: **02/19/2009 14:50**
Cal Date: **10/29/2008 18:09**
Run Date: **02/19/2009 17:49**
File ID: **I10219091749.09**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	513		4.00	2.00
Fluoride	16984-48-8		U	4.00	2.00
Nitrate	14797-55-8		U	12.0	2.00
Nitrite	14797-65-0		U	8.00	2.00
Sulfate	14808-79-8	952		20.0	10.0

U Not detected at or above adjusted sample detection limit

Sample Number: **L09020400-02**
 Client ID: **47WW09-021809**
 Matrix: **Water**
 Workgroup Number: **WG295349**
 Collect Date: **02/18/2009 12:16**
 Sample Tag: **DL01**

PrePrep Method: **NONE**
 Prep Method: **300.0**
 Analytical Method: **300.0**
 Analyst: **ADC**
 Dilution: **10**
 Units: **mg/L**

Instrument: **IC1**
 Prep Date: **02/19/2009 14:50**
 Cal Date: **10/29/2008 18:09**
 Run Date: **02/19/2009 17:31**
 File ID: **I10219091731.08**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Chloride	16887-00-6	502	I	2.00	1.00
Fluoride	16984-48-8		U	2.00	1.00
Nitrate	14797-55-8		U	6.00	1.00
Nitrite	14797-65-0		U	4.00	1.00
Sulfate	14808-79-8	965		10.0	5.00

U Not detected at or above adjusted sample detection limit
 I Semiquantitative result (out of instrument calibration range)

2.2.1.2 QC Summary Data

The concentrations (ppm) of the calibration standards and the resulting area counts are used to determine the equation of a linear or quadratic plot.

The slope and y-intercept of that line are used to calculate the quantity of the analyzed unknown samples.

$\text{Amount(ppm)} = [(\text{slope})(\text{area count of unknown}) + \text{y-intercept}](\text{dilution})$

(The slope is the amt/area also identified as the CF or calibration factor)

Microbac Laboratories Inc.
Instrument Run Log

00103209

Instrument: IC1 Dataset: 102908 HICAL 9056 IC1.SE
 Analyst1: JWR Analyst2: NA
 Method: 9056/300 SOP: IC1 Rev: 8

Maintenance Log ID: 26433

Column 1 ID: AS14A-4MM Column 2 ID: NA
 Workgroups: WG286427 (ICAL) WG286638
 Internal STD: NA Surrogate STD: NA Calibration STD: STD29498

Comments: Samples 0005-01 (MDL-Q) and 0006-01 (MDL-Q) were analyzed at two different levels of concentration each. One level is equal to the RL's for F, Cl, Br, SO4, whereas the other level is nearest to the RL's for NO2-N, NO3-N, PO4-P.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I11029081624.01	WG286427-01 STD \#1	1	1		10/29/08 16:24
2	I11029081642.02	WG286427-02 STD \#2	1	1		10/29/08 16:42
3	I11029081659.03	WG286427-03 STD \#3	1	1		10/29/08 16:59
4	I11029081717.04	WG286427-04 STD \#4	1	1		10/29/08 17:17
5	I11029081734.05	WG286427-05 STD \#5	1	1		10/29/08 17:34
6	I11029081751.06	WG286427-06 STD \#6	1	1		10/29/08 17:51
7	I11029081809.07	WG286427-07 STD \#7	1	1		10/29/08 18:09
8	I11029081826.08	WG286427-08 ALT STD	1	1		10/29/08 18:26
9	I11029081844.09	ELUENT	1	1		10/29/08 18:44
10	I11029081901.10	DI WATER	1	1		10/29/08 19:01
11	I11029081918.11	WG286646-01 ANION CCV	1	1		10/29/08 19:18
12	I11029081936.12	WG286646-02 ANION CCB	1	1		10/29/08 19:36
13	I11029081953.13	WG286638-01 ANION BLANK	1	1		10/29/08 19:53
14	I11029082011.14	WG286638-02 ANION LCS	1	1		10/29/08 20:11
15	I11029082028.15	L08100005-01 MDL (F, Cl, Br, SO4)	1	1		10/29/08 20:28
16	I11029082046.16	L08100006-01 MDL (F, Cl, Br, SO4)	1	1		10/29/08 20:46
17	I11029082103.17	L08100005-01 MDL (NO2, NO3, PO4)	1	1		10/29/08 21:03
18	I11029082120.18	L08100006-01 MDL (NO2, NO3, PO4)	1	1		10/29/08 21:20
19	I11029082138.19	Test (Level \#5) CCV	1	1		10/29/08 21:38
20	I11029082155.20	Test (Level \#5) CCV	1	1		10/29/08 21:55
21	I11029082213.21	WG286646-03 ANION CCV	1	1		10/29/08 22:13
22	I11029082230.22	WG286646-04 ANION CCB	1	1		10/29/08 22:30
23	I11029082247.23	END	1	1		10/29/08 22:47

Comments

Seq.	Rerun	Dil.	Reason	Analytes




Microbac Laboratories Inc.
Instrument Run Log

00103210

Instrument: IC1 Dataset: 021909 IC1.SEQ
 Analyst1: ADC Analyst2: NA
 Method: 9056/300 SOP: IC1 Rev: 8

Maintenance Log ID: 27696

Column 1 ID: AS14A-4MM Column 2 ID: NA
 Workgroups: 0400, 0410
 Internal STD: NA Surrogate STD: NA Calibration STD: NA

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	I10219091529.01	ELUENT	1	1		02/19/09 15:29
2	I10219091547.02	DI WATER	1	1		02/19/09 15:47
3	I10219091604.03	WG295351-01 ANION CCV	1	1		02/19/09 16:04
4	I10219091622.04	WG295351-02 ANION CCB	1	1		02/19/09 16:22
5	I10219091639.05	WG295349-01 ANION BLANK	1	1		02/19/09 16:39
6	I10219091657.06	WG295349-02 ANION LCS	1	1		02/19/09 16:57
7	I10219091714.07	L09020400-01 (F, CL, NO2, NO3, SO4) 1/20	1	20		02/19/09 17:14
8	I10219091731.08	L09020400-02 (F, CL, NO2, NO3, SO4) 1/10	1	10		02/19/09 17:31
9	I10219091749.09	L09020400-02 (RR CL) 1/20	1	20		02/19/09 17:49
10	I10219091806.10	L09020410-01 (CL, NO3, SO4) 1/2	1	2		02/19/09 18:06
11	I10219091824.11	L09020410-01 (RR CL) 1/5	1	5		02/19/09 18:24
12	I10219091841.12	L09020410-02 (CL, NO3, SO4) 1/3	1	3		02/19/09 18:41
13	I10219091858.13	L09020410-03 (CL, NO3, SO4)	1	1		02/19/09 18:58
14	I10219091916.14	L09020410-05 (CL, NO3, SO4)	1	1		02/19/09 19:16
15	I10219091933.15	WG295351-03 ANION CCV	1	1		02/19/09 19:33
16	I10219091951.16	WG295351-04 ANION CCB	1	1		02/19/09 19:51
17	I10219092008.17	L09020410-04 (CL, NO3, SO4) REF	1	1		02/19/09 20:08
18	I10219092025.18	WG295349-04 0410-04 DUP	1	1		02/19/09 20:25
19	I10219092043.19	WG295349-05 0410-04 MS	1	1		02/19/09 20:43
20	I10219092100.20	WG295349-06 0410-04 MSD	1	1		02/19/09 21:00
21	I10219092118.21	L09020410-06 (CL, NO3, SO4) 1/2	1	2		02/19/09 21:18
22	I10219092135.22	L09020410-07 (CL, NO3, SO4) 1/30	1	30		02/19/09 21:35
23	I10219092152.23	L09020410-08 (CL, NO3, SO4)	1	1		02/19/09 21:52
24	I10219092210.24	L09020410-09 (CL, NO3, SO4)	1	1		02/19/09 22:10
25	I10219092227.25	WG295349-08 0410-09 DUP	1	1		02/19/09 22:27
26	I10219092245.26	L09020410-10 (CL, NO3, SO4)	1	1		02/19/09 22:45
27	I10219092302.27	WG295351-05 ANION CCV	1	1		02/19/09 23:02
28	I10219092319.28	WG295351-06 ANION CCB	1	1		02/19/09 23:19
29	I10219092337.29	END	1	1		02/19/09 23:37

Comments

Seq.	Rerun	Dil.	Reason	Analytes




Microbac Laboratories Inc.

00103211

Data Checklist

Date: 29-OCT-2008

Analyst: JWR

Analyst: NA

Method: 300/9056

Instrument: IC1

Curve Workgroup: WG286427

Runlog ID: 25025

Analytical Workgroups: 10-0005 (MDL-Q) 10-0006 (MDL-Q)

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	X
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	NA
Project/client specific requirements	NA
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
31-OCT-2008



Secondary Reviewer:
03-NOV-2008



CHECKLIST1 - Modified 03/05/2008

Generated: NOV-03-2008 10:42:04



Microbac Laboratories Inc.

00103212

Data Checklist

Date: 19-FEB-2009

Analyst: ADC

Analyst: NA

Method: 300/9056

Instrument: IC1

Curve Workgroup: NA

Runlog ID: 26633

Analytical Workgroups: 0400, 0410

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	NA
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	X
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	X
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	NA
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	X
Check for completeness	X
Primary Reviewer	ADC
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
22-FEB-2009



Secondary Reviewer:
23-FEB-2009




Analytical Method: 300.0

AAB#: WG295349

Login Number: L09020400

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW09-021809	02/18/09	02/19/09	02/19/09	28	1.11	02/19/09	28	0.112	
47WW09-021809	02/18/09	02/19/09	02/19/09	28	1.11	02/19/09	28	0.124	
105-021809	02/18/09	02/19/09	02/19/09	28	1.21	02/19/09	28	0.100	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

Underline = Result out of surrogate limits

DL = surrogate diluted out

ND = surrogate not detected

METHOD BLANK SUMMARY

00103215

Login Number: <u>L09020400</u>	Work Group: <u>WG295349</u>
Blank File ID: <u>I10219091639.05</u>	Blank Sample ID: <u>WG295349-01</u>
Prep Date: <u>02/19/09 14:50</u>	Instrument ID: <u>IC1</u>
Analyzed Date: <u>02/19/09 16:39</u>	Method: <u>300.0</u>
Analyst: <u>ADC</u>	

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295349-02	I10219091657.06	02/19/09 16:57	01
105-021809	L09020400-01	I10219091714.07	02/19/09 17:14	DL01
47WW09-021809	L09020400-02	I10219091731.08	02/19/09 17:31	DL01
47WW09-021809	L09020400-02	I10219091749.09	02/19/09 17:49	DL02
DUP	WG295349-04	I10219092025.18	02/19/09 20:25	01
DUP	WG295349-08	I10219092227.25	02/19/09 22:27	01

Report Name: BLANK_SUMMARY
 PDF File ID: 1325068
 Report generated 02/23/2009 11:55



Login Number: L09020400 Prep Date: 02/19/09 14:50 Sample ID: WG295349-01
Instrument ID: IC1 Run Date: 02/19/09 16:39 Prep Method: 300.0
File ID: I10219091639.05 Analyst: ADC Method: 300.0
Workgroup (AAB#): WG295349 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: IC1 - 29-OCT-08

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Chloride	0.100	0.200	0.100	1	U
Fluoride	0.100	0.200	0.100	1	U
Nitrate	0.100	0.600	0.100	1	U
Nitrite	0.100	0.400	0.100	1	U
Sulfate	0.500	1.00	0.500	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1325069

23-FEB-2009 11:55



Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295349-02
Instrument ID: IC1 Run Time: 16:57 Prep Method: 300.0
File ID: I10219091657.06 Analyst: ADC Method: 300.0
Workgroup (AAB#): WG295349 Matrix: Water Units: mg/L
QC Key: STD Lot#: STD29498 Cal ID: IC1 - 29-OCT-08

Analytes	Expected	Found	% Rec	LCS Limits	Q
Chloride	6.00	5.97	99.4	90 - 110	
Fluoride	6.00	5.78	96.3	90 - 110	
Nitrate	4.07	4.07	100	90 - 110	
Nitrite	3.65	3.61	98.8	90 - 110	
Sulfate	30.0	29.7	99.1	90 - 110	

Login Number: L09020400
Analytical Method: 300.0
ICAL Workgroup: WG286427

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R ²)	QUAD(R ²)
Chloride		5.859	9.84		
Fluoride		4.335	7.39		
Nitrate		2.470	12.3		
Nitrite		2.877	6.25		
Sulfate		7.510	11.5		

R = Correlation coefficient; 0.995 minimum

R² = Coefficient of determination; 0.99 minimum

This method always uses quadratic calibration model (R²)

Login Number: L09020400
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-01			WG286427-02			WG286427-03		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	0.200	0.032000000 0	6.250	2.00	0.322000000	6.211	4.00	0.653000000	6.126
Fluoride	0.200	0.041000000 0	4.878	2.00	0.445000000	4.494	4.00	0.901000000	4.440
Nitrate	0.136	0.048000000 0	2.823	1.36	0.513000000	2.642	2.71	1.05800000	2.562
Nitrite	0.122	0.038000000 0	3.205	1.22	0.418000000	2.913	2.44	0.835000000	2.917
Sulfate	1.00	0.125000000	8.000	10.0	1.22400000	8.170	20.0	2.50300000	7.990

INT_CAL - Modified 03/06/2008
PDF File ID: 1325651
Report generated 02/23/2009 11:55



00103220

Login Number: L09020400
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-04			WG286427-05			WG286427-06		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Chloride	6.00	0.992000000	6.048	8.00	1.35700000	5.895	12.0	2.11200000	5.682
Fluoride	6.00	1.38700000	4.326	8.00	1.88900000	4.235	12.0	2.91600000	4.115
Nitrate	4.07	1.62400000	2.504	5.42	2.21900000	2.443	8.13	3.43500000	2.367
Nitrite	3.65	1.26900000	2.879	4.87	1.71100000	2.847	7.31	2.62600000	2.783
Sulfate	30.0	3.88900000	7.714	40.0	5.32300000	7.515	60.0	8.33300000	7.200

INT_CAL - Modified 03/06/2008
PDF File ID: 1325651
Report generated 02/23/2009 11:55



00103221

Login Number: L09020400
Analytical Method: 300.0

Instrument ID: IC1
Initial Calibration Date: 29-OCT-08 18:09
Column ID: F

Analyte	WG286427-07		
	CONC	RESP	RF
Chloride	48.0	9.99200000	4.804
Fluoride	48.0	12.4550000	3.854
Nitrate	32.5	16.6700000	1.951
Nitrite	29.2	11.2520000	2.598
Sulfate	240	40.1170000	5.983

INT_CAL - Modified 03/06/2008
PDF File ID: 1325651
Report generated 02/23/2009 11:55



Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

00103222

Login Number: L09020400 Run Date: 10/29/2008 Sample ID: WG286427-08
Instrument ID: IC1 Run Time: 18:26 Method: 300.0
File ID: I11029081826.08 Analyst: JWR QC Key: STD
ICal Workgroup: WG286427 Cal ID: IC1 - 29-OCT-08

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloride		6.00	6.14	mg/L	5.81	2.30	10	
Fluoride		6.00	6.17	mg/L	4.14	2.80	10	
Nitrate		4.07	4.18	mg/L	2.41	2.80	10	
Nitrite		3.65	3.60	mg/L	2.89	1.40	10	
Sulfate		30.0	30.2	mg/L	7.55	0.800	10	

* Exceeds %D Limit

00103223

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-02
Instrument ID: IC1 Run Time: 16:22 Method: 300.0
File ID: I10219091622.04 Analyst: ADC Units: mg/L
Workgroup (AAB#): WG295349 Cal ID: IC1 -
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Nitrate	0.100	0.600	0.100	U
Nitrite	0.100	0.400	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00103224

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-04
Instrument ID: IC1 Run Time: 19:51 Method: 300.0
File ID: I10219091951.16 Analyst: ADC Units: mg/L
Workgroup (AAB#): WG295349 Cal ID: IC1 -
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Nitrate	0.100	0.600	0.100	U
Nitrite	0.100	0.400	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00103225

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-06
Instrument ID: IC1 Run Time: 23:19 Method: 300.0
File ID: I10219092319.28 Analyst: ADC Units: mg/L
Workgroup (AAB#): WG295349 Cal ID: IC1 -
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
Chloride	0.100	0.200	0.100	U
Fluoride	0.100	0.200	0.100	U
Nitrate	0.100	0.600	0.100	U
Nitrite	0.100	0.400	0.100	U
Sulfate	0.500	1.00	0.500	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.



00103226

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-01
Instrument ID: IC1 Run Time: 16:04 Method: 300.0
File ID: I10219091604.03 Analyst: ADC QC Key: STD
Workgroup (AAB#): WG295349 Cal ID: IC1 - 29-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		6.00	5.95	mg/L	6.01	0.867	10	
Fluoride		6.00	5.75	mg/L	4.45	4.20	10	
Nitrate		4.07	4.09	mg/L	2.47	0.462	10	
Nitrite		3.65	3.59	mg/L	2.91	1.82	10	
Sulfate		30.0	29.7	mg/L	7.68	0.870	10	

* Exceeds %D Criteria



00103227

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-03
Instrument ID: IC1 Run Time: 19:33 Method: 300.0
File ID: I10219091933.15 Analyst: ADC QC Key: STD
Workgroup (AAB#): WG295349 Cal ID: IC1 - 29-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		6.00	5.98	mg/L	5.96	0.267	10	
Fluoride		6.00	5.91	mg/L	4.33	1.53	10	
Nitrate		4.07	4.09	mg/L	2.47	0.536	10	
Nitrite		3.65	3.62	mg/L	2.88	1.02	10	
Sulfate		30.0	29.7	mg/L	7.69	1.01	10	

* Exceeds %D Criteria



00103228

Login Number: L09020400 Run Date: 02/19/2009 Sample ID: WG295351-05
Instrument ID: IC1 Run Time: 23:02 Method: 300.0
File ID: I10219092302.27 Analyst: ADC QC Key: STD
Workgroup (AAB#): WG295349 Cal ID: IC1 - 29-OCT-08
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Chloride		6.00	6.00	mg/L	5.95	0.0167	10	
Fluoride		6.00	6.02	mg/L	4.24	0.300	10	
Nitrate		4.07	4.08	mg/L	2.47	0.290	10	
Nitrite		3.65	3.65	mg/L	2.85	0.0657	10	
Sulfate		30.0	29.8	mg/L	7.66	0.637	10	

* Exceeds %D Criteria



2.2.2 Total Organic Carbon Data

2.2.2.1 Summary Data

LABORATORY REPORT

L09020400

00103231

02/24/09 11:24

Submitted By

Microbac Laboratories Inc.
158 Starlite Drive
Marietta , OH 45750
(740) 373 - 4071

For

Account Name: Shaw E & I, Inc.
ABB Lummus Building
3010 Briarpark Drive Suite 4N
Houston, TX 77042
Attention: Jennifer Hoang

Project Number: 2773.025
Project: Longhorn AAP
Site: LONGHORN AAP KARNACK TX

P.O. Number: 389869/ 390836(GWTP)

Sample Analysis Summary

Client ID	Lab ID	Method	Dilution	Date Received
105-021809	L09020400-01	415.1	5	19-FEB-09
47WW09-021809	L09020400-02	415.1	3	19-FEB-09



Report Number: **L09020400**Report Date : **February 24, 2009**

00103232

Sample Number: **L09020400-01**
Client ID: **105-021809**
Matrix: **Water**
Workgroup Number: **WG295247**
Collect Date: **02/18/2009 09:51**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **415.1**
Analytical Method: **415.1**
Analyst: **DIH**
Dilution: **5**
Units: **mg/L**

Instrument: **TOC-VWP**
Prep Date: **02/19/2009 16:22**
Cal Date: **01/13/2009 15:07**
Run Date: **02/19/2009 16:22**
File ID: **TC02192009.026**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		31.7		5.00	2.50

Report Number: **L09020400**Report Date : **February 24, 2009**

00103233

Sample Number: **L09020400-02**
Client ID: **47WW09-021809**
Matrix: **Water**
Workgroup Number: **WG295406**
Collect Date: **02/18/2009 12:16**
Sample Tag: **DL01**

PrePrep Method: **NONE**
Prep Method: **415.1**
Analytical Method: **415.1**
Analyst: **DIH**
Dilution: **3**
Units: **mg/L**

Instrument: **TOC-VWP**
Prep Date: **02/20/2009 11:07**
Cal Date: **01/13/2009 15:07**
Run Date: **02/20/2009 11:07**
File ID: **TC02202009.007**

Analyte	CAS. Number	Result	Qual	PQL	SDL
Total Organic Carbon		14.3		3.00	1.50

2.2.2.2 QC Summary Data

**Total Organic Carbon Example Calculations
(Direct Readout Parameter)**

$$(\text{Readout})/(\text{dilution}) = \text{mg/L}$$

where:

Readout = direct readout from the instrument

dilution = dilution in decimal form (ex. 1/5 dilution = 0.2)

Microbac Laboratories Inc.

00103236

Data Checklist

Date: 19-FEB-2009

Analyst: DIH

Analyst: NA

Method: TOC

Instrument: TOC

Curve Workgroup: NA

Runlog ID: _____

Analytical Workgroups: WG295247

Calibration/Linearity	1/13/2009
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	X
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	
Comments	

Primary Reviewer:
20-FEB-2009

Secondary Reviewer:



Microbac Laboratories Inc.

00103237

Data Checklist

Date: 20-FEB-2009

Analyst: DIH

Analyst: NA

Method: TOC

Instrument: TOC

Curve Workgroup: NA

Runlog ID: _____

Analytical Workgroups: WG295406 WG295407 WG295409

Calibration/Linearity	1/13/2009
Second Source Check	X
ICV/CCV (std)	X
ICB/CCB	X
Blank	X
LCS/LCS Dup	X
MS/MSD	X
Duplicate	X
Upload Results	X
Client Forms	X
QC Violation Sheet	
Case Narratives	X
Signed Raw Data	X
STD/LCS on benchsheet	X
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	DIH
Secondary Reviewer	
Comments	

Primary Reviewer:
23-FEB-2009

Secondary Reviewer:



Analytical Method: 415.1
Login Number: L09020400

AAB#: WG295247

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
105-021809	02/18/09	02/19/09	02/19/09	28	1.27	02/19/09	28	1.27	

* EXT = SEE PROJECT QAPP REQUIREMENTS
* ANAL = SEE PROJECT QAPP REQUIREMENTS



Analytical Method: 415.1
Login Number: L09020400

AAB#: WG295406

Client ID	Date Collected	Date Received	Date Extracted	Max Hold Time Ext.	Time Held Ext.	Date Analyzed	Max Hold Time Anal	Time Held Anal.	Q
47WW09-021809	02/18/09	02/19/09	02/20/09	28	1.95	02/20/09	28	1.95	

* EXT = SEE PROJECT QAPP REQUIREMENTS

* ANAL = SEE PROJECT QAPP REQUIREMENTS

METHOD BLANK SUMMARY

00103240

Login Number: L09020400
Blank File ID: TC02192009.004
Prep Date: 02/19/09 11:08
Analyzed Date: 02/19/09 11:08
Analyst: DIH

Work Group: WG295247
Blank Sample ID: WG295247-01
Instrument ID: TOC-VWP
Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295247-02	TC02192009.005	02/19/09 11:21	01
LCS2	WG295247-03	TC02192009.006	02/19/09 11:33	01
105-021809	L09020400-01	TC02192009.026	02/19/09 16:22	DL01
DUP	WG295247-05	TC02192009.031	02/19/09 17:27	01



METHOD BLANK SUMMARY

00103241

Login Number: L09020400
Blank File ID: TC02202009.004
Prep Date: 02/20/09 10:30
Analyzed Date: 02/20/09 10:30
Analyst: DIH

Work Group: WG295406
Blank Sample ID: WG295406-01
Instrument ID: TOC-VWP
Method: 415.1

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG295406-02	TC02202009.005	02/20/09 10:41	01
LCS2	WG295406-03	TC02202009.006	02/20/09 10:54	01
47WW09-021809	L09020400-02	TC02202009.007	02/20/09 11:07	DL01
DUP	WG295406-05	TC02202009.031	02/20/09 17:00	01



00103242

Login Number: L09020400 Prep Date: 02/19/09 11:08 Sample ID: WG295247-01
Instrument ID: TOC-VWP Run Date: 02/19/09 11:08 Prep Method: 415.1
File ID: TC02192009.004 Analyst: DIH Method: 415.1
Workgroup (AAB#): WG295247 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: TOC-VW-13-JAN-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

SDL Method Detection Limit
PQL Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > RL

Report Name: BLANK
PDF ID: 1324661
23-FEB-2009 15:49



Login Number: L09020400 Prep Date: 02/20/09 10:30 Sample ID: WG295406-01
Instrument ID: TOC-VWP Run Date: 02/20/09 10:30 Prep Method: 415.1
File ID: TC02202009.004 Analyst: DIH Method: 415.1
Workgroup (AAB#): WG295406 Matrix: Water Units: mg/L
Contract #: DACA56-94-D-0020 Cal ID: TOC-VW-13-JAN-09

Analytes	SDL	PQL	Concentration	Dilution	Qualifier
Total Organic Carbon	0.500	1.00	0.500	1	U

SDL Method Detection Limit

PQL Reporting/Practical Quantitation Limit

ND Analyte Not detected at or above reporting limit

* |Analyte concentration| > RL

Report Name: BLANK

PDF ID: 1324661

23-FEB-2009 15:49



Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

00103244

Login Number: L09020400 Analyst: DIH Prep Method: 415.1
Instrument ID: TOC-VWP Matrix: Water Method: 415.1
Workgroup (AAB#): WG295406 Units: mg/L
QC Key: STD Lot #: STD30420
Sample ID: WG295406-02 LCS File ID: TC02202009.005 Run Date: 02/20/2009 10:41
Sample ID: WG295406-03 LCS2 File ID: TC02202009.006 Run Date: 02/20/2009 10:54

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	23.5	93.8	25.0	25.3	101	7.35	85 - 115	15	

LCS_LCS2 - Modified 03/06/2008
PDF File ID: 1324662
Report generated: 02/23/2009 15:49



00103245

Login Number: L09020400 Analyst: DIH Prep Method: 415.1
Instrument ID: TOC-VWP Matrix: Water Method: 415.1
Workgroup (AAB#): WG295247 Units: mg/L
QC Key: STD Lot #: STD30420
Sample ID: WG295247-02 LCS File ID: TC02192009.005 Run Date: 02/19/2009 11:21
Sample ID: WG295247-03 LCS2 File ID: TC02192009.006 Run Date: 02/19/2009 11:33

Analytes	LCS			LCS2			%RPD	%Rec Limits	RPD Lmt	Q
	Known	Found	% REC	Known	Found	% REC				
Total Organic Carbon	25.0	25.4	102	25.0	27.5	110	7.90	85 - 115	15	



2.2.2.3 Raw Data

TC/TIC curves

00103 47
wg 292773

Total Organic Carbon

MAKE DAILY

CCV (TOC): see below

LCS (TOC): _____

 $\left(\frac{10}{200} (1000) = 50 \text{ mg/L}\right)$ $\left(\frac{2}{200} (1000) = 10 \text{ mg/L}\right)$ $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$

CCV (TIC): _____

MS (TOC): _____

 $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$

Calibration Curve Date: _____



SM5310-C : Matrix 2 WG _____



EPA 415.1/9060A(mod): Matrix 1 WG _____

SOP: K 4151 Rev. 11

WG _____

Instrument: Shimadza TOC-VWP/ASI



drain reservoir filled



ASI water bottle full



dilution water bottle full



DAILY CHECK

3rd bottle full

sufficient gas



sufficient persulfate



sufficient acid

waste container

Position	Sample ID	Dilution
1	TC CURVE	
2	TIC curve	
3	TC ICV(25)	
4	TIC ICV(25)	
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16	all curve points and ICV's were injected and analyzed in duplicate	
17		
18		
19		
20		
21		
22		
23		
24		
25		

Position	Sample ID	Dilution
26		
27		
28		
29		
30		
31	curve std	
32	std 30838	
33	TIC 28734	
34		
35		
36	ICV	
37	TC std 30420	
38	TIC std 28733	
39		
40		
41		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Position	Sample ID	Dilution
51		
52		
53		
54		
55		
56		
57	see SOP for	
58	curve pts	
59		
60		
61		
62	$\frac{5 \text{ ml}}{200} (1000) = 25 \text{ mg/L}$	
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		

Analyst: Deanna RobertsDate/Time: 1/13/09

WG: _____

WG: _____

WG: _____

DCN#78103



Deanna Roberts

Approved: January 19, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
1	TC	TC CURVE		Comple	01/13/2009 03:12:54 PM	0, 1,
2	IC	TIC CURVE		Comple	01/13/2009 04:22:39 PM	0, 6,
3	TC	TC ICV	TC:24.92mg/L	Comple	01/13/2009 04:38:03 PM	11
4	IC	TIC ICV	IC:24.60mg/L	Comple	01/13/2009 04:50:47 PM	12



Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.132

Instr. Information

System
DetectorTOCVW ASI
Wet Chemical

Cal. Curve

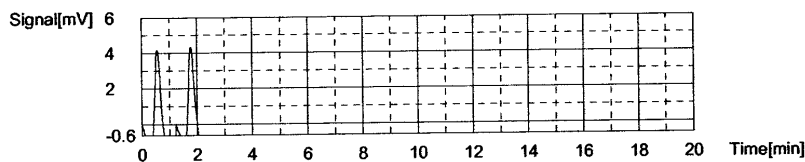
Sample Name: TC CURVE
 Sample ID: TCCURVE
 Cal. Curve: TCCURVE-01-13-2009.2009_01_13_14_10_52.cal
 Status: Completed

Type	Anal.
Standard	TC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.437	500uL	1	*****		01/13/2009 02:14:13 PM
2	8.432	500uL	1	*****		01/13/2009 02:18:55 PM

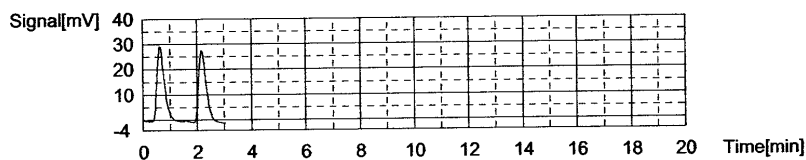
Acid Add. 0.000%
 Mean Area 8.434



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	56.85	500uL	1	*****		01/13/2009 02:24:22 PM
2	54.36	500uL	1	*****		01/13/2009 02:29:25 PM

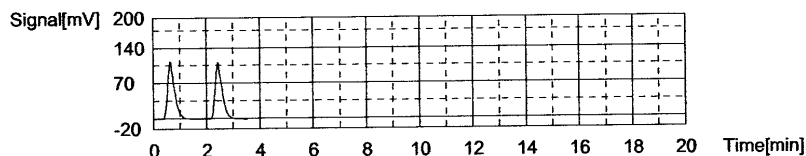
Acid Add. 0.000%
 Mean Area 55.61



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	206.9	500uL	1	*****		01/13/2009 02:35:09 PM
2	202.6	500uL	1	*****		01/13/2009 02:39:10 PM

Acid Add. 0.000%
 Mean Area 204.8



Conc: 10.00mg/L

1/5

Kearna Roberts

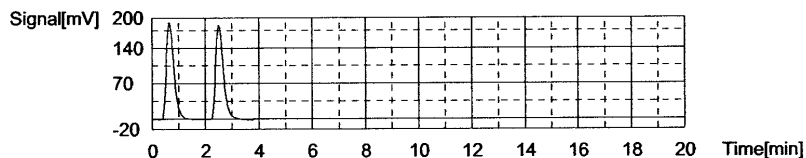
Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.132

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	380.7	500uL	1	*****		01/13/2009 02:44:58 PM
2	379.4	500uL	1	*****		01/13/2009 02:49:11 PM

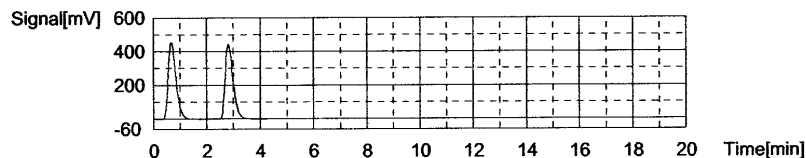
Acid Add. 0.000%
Mean Area 380.1



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	934.8	500uL	1	*****		01/13/2009 02:55:16 PM
2	914.5	500uL	1	*****		01/13/2009 03:00:30 PM

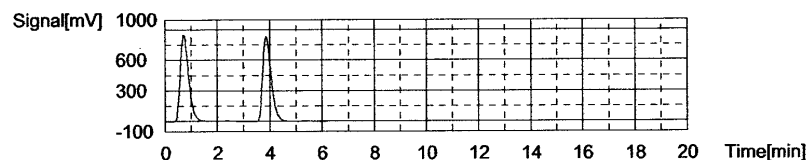
Acid Add. 0.000%
Mean Area 924.7



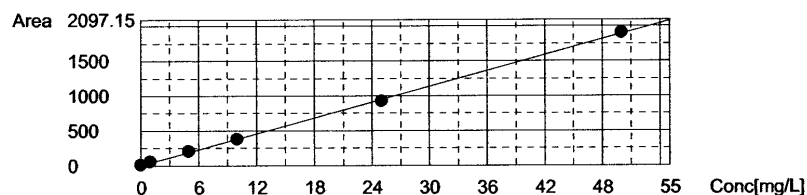
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1922	500uL	1	*****		01/13/2009 03:07:36 PM
2	1891	500uL	1	*****		01/13/2009 03:12:54 PM

Acid Add. 0.000%
Mean Area 1907



Slope: 37.71
Intercept 8.127
 r^2 0.999609
Zero Shift No



Cal. Curve

Sample Name: TIC CURVE
Sample ID: TICCURVE
Cal. Curve: TICCURVE-01-13-2009.2009_01_13_15_12_54.cal
Status: Completed

Type	Anal.
Standard	IC

Conc: 0.000mg/L

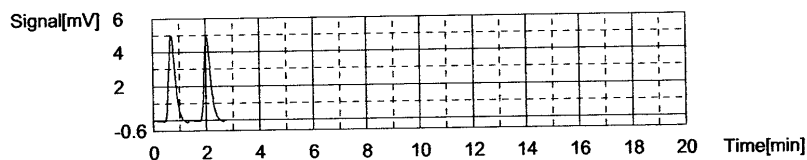
Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.t32

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	8.658	500uL	1	*****		01/13/2009 03:16:31 PM
2	8.479	500uL	1	*****		01/13/2009 03:20:08 PM

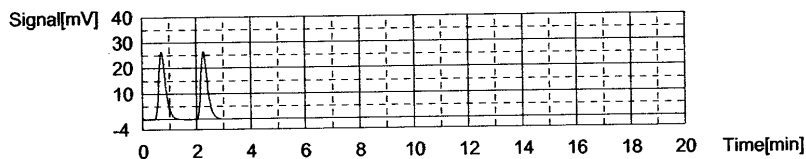
Acid Add. 3.000%
Mean Area 8.569



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.56	500uL	1	*****		01/13/2009 03:27:22 PM
2	46.10	500uL	1	*****		01/13/2009 03:31:26 PM

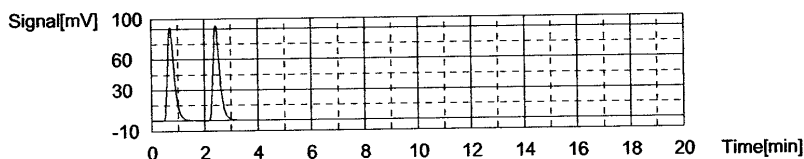
Acid Add. 3.000%
Mean Area 46.33



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	160.8	500uL	1	*****		01/13/2009 03:38:53 PM
2	161.9	500uL	1	*****		01/13/2009 03:43:10 PM

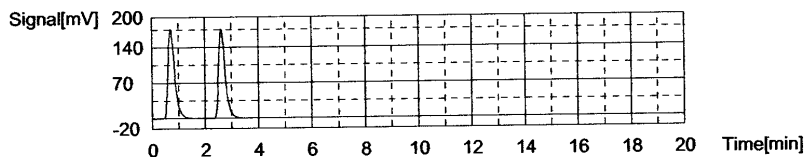
Acid Add. 3.000%
Mean Area 161.4



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	310.0	500uL	1	*****		01/13/2009 03:50:52 PM
2	308.4	500uL	1	*****		01/13/2009 03:55:18 PM

Acid Add. 3.000%
Mean Area 309.2



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	793.7	500uL	1	*****		01/13/2009 04:03:34 PM
2	782.1	500uL	1	*****		01/13/2009 04:08:41 PM

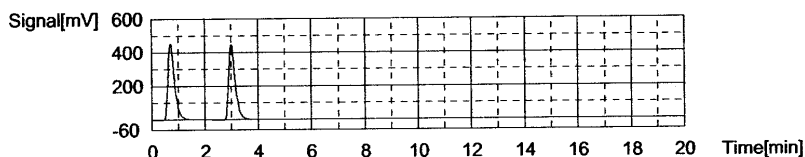
Heanna Roberts

Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.i32

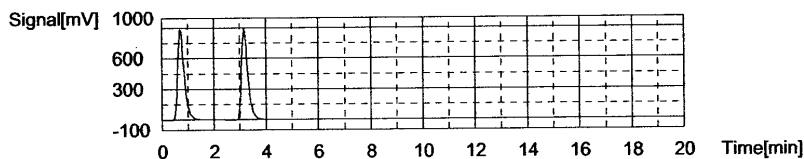
Acid Add. 3.000%
Mean Area 787.9



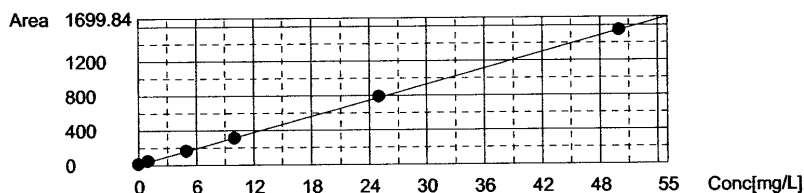
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1547	500uL	1	*****		01/13/2009 04:17:18 PM
2	1537	500uL	1	*****		01/13/2009 04:22:39 PM

Acid Add. 3.000%
Mean Area 1542



Slope: 30.70
Intercept 10.26
 r^2 0.999878
Zero Shift No



Sample

Sample Name: TC ICV
Sample ID: TCCURVE
Origin: TCCURVE-01-13-2009.cal
Status: Completed
Chk. Result

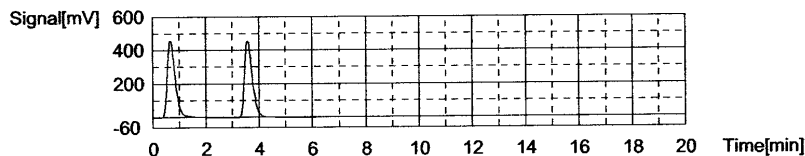
Type	Anal.	Dil.	Result
Unknown	TC	1.000	TC:24.92mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	951.9	25.03mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	01/13/2009 04:31:14 PM
2	943.7	24.81mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	01/13/2009 04:38:03 PM

Mean Area 947.8
Mean Conc. 24.92mg/L



Heanna Roberts

Approved: January 19, 2009

01/13/2009 05:00:03 PM

CURVES-01-13-2009.t32

Sample

Sample Name: TIC ICV
Sample ID: TICCURVE
Origin: TICCURVE-01-13-2009.cal
Status: Completed
Chk. Result

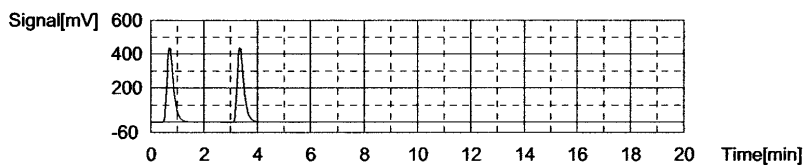
Type	Anal.	Dil.	Result
Unknown	IC	1.000	IC:24.60mg/L

1. Det

Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	765.5	24.60mg/L	500ul	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	01/13/2009 04:45:09 PM
2	765.4	24.60mg/L	500ul	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	01/13/2009 04:50:47 PM

Mean Area 765.5
Mean Conc. 24.60mg/L

*Heanna Roberts*

Approved: January 19, 2009

WORKGROUP: WG295406

Total Organic Carbon

295407

MAKE DAILY

295409

CCV (TOC): 51d 30838LCS (TOC): 51D 30420 $\left(\frac{10}{200} (1000) = 50 \text{ mg/L}\right)$ $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$ CCV (TIC): 51d 28734MS (TOC): 0.4/40 (1000) = 10 $\left(\frac{5}{200} (1000) = 25 \text{ mg/L}\right)$ Calibration Curve Date: 11/3/09☐ SM5310-C: Matrix 2 WG☒ EPA 415.1/9060A(mod): Matrix 1 WG AllSOP: K 4151 Rev. 11

WG

Instrument: Shimadzu TOC-VWP/ASI

- ☒ drain reservoir filled
☒ ASI water bottle full
☒ dilution water bottle full

- ☒ DAILY CHECK
☒ 3rd bottle full
☒ sufficient gas
☒ sufficient persulfate

- ☒ sufficient acid
☒ waste container

Position	Sample ID	Dilution
1	CCV 50	
2	CCV 10	
3	TK 25	
40	BLK	
5	LCS 25	
6	LCS DUP	
7	02-400-02	1/3
8	02-300-06	1/20
9	07	1/20
10	02-323-04	1/2
11	05	1/2
12	06	1/2
13	02-324-01	1/3
14	02-356-01	
15	CCV	
160	CCB	
17	02-356-02	
18	03	
19	07	
20	08	
21	10	
22	11	
23	12	
24	13	
25	14	

Position	Sample ID	Dilution
26	02-356-15	
27	CCV	
280	CCB	
29	02-366-01	
30	02	
31	DUP	
32	MS ↓	
330	BLK	
34	LCS	
35	LCS DUP	
36	02-366-03	
37	04	1/5
38	05	1/2
391	CCV	
400	CCB	
41	02-368-01	1/3
42	02	
43	03	
44	04	
45	02-401-01	
46	02	
47	03	
48	DUP 03	
49	MS 04	
50	MSD 05	

Position	Sample ID	Dilution
51	CCV	
520	CCB	
53	02-401-06	
54	07	
55	02-410-01	1/5
56	02	1/5
57	03	1/2
58	04	1/2
59	05	1/2
60	06	1/2
61	07	1/2
62	08	1/5
6315	CCV	
640	CCB/BLK	
655	LCS	
666	LCS DUP	
67	02-410-09	1/5
68	10	
694	02-427-01	
7016	04	
7128	DUP 04	
7233	MS 07	
7340	MSD 10	
7452	13	
75		

Analyst: Deanna JohnsonDate/Time: 2/20/09

pg1

DCN#78447

* 356's used 1/2 dilution
 from previous run
 on all but #10.



Deanna Roberts

Approved: February 24, 2009

WORKGROUP: WG295406

Total Organic Carbon

MAKE DAILY

CCV (TOC): _____

LCS (TOC): _____

$$\left(\frac{10}{200} (1000) = 50 \text{ mg/L} \right) \quad \left(\frac{3}{200} (1000) = 15 \text{ mg/L} \right)$$

$$\left(\frac{3}{200} (1000) = 15 \text{ mg/L} \right)$$

CCV (TIC): _____

MS (TOC): _____

$$\left(\frac{5}{200} (1000) = 25 \text{ mg/L} \right)$$

Calibration Curve Date: _____

☐

SM5310-C : Matrix 2 WG _____

☐

EPA 415.1/9060A(mod): Matrix 1 WG _____ SOP: K _____ Rev. _____

WG _____

Instrument: Shimadzu TOC-VWP/ASI

☐

drain reservoir filled

☐

ASI water bottle full

☐

dilution water bottle full

☐

DAILY CHECK

☐3rd bottle full☐

sufficient gas

☐

sufficient persulfate

☐

sufficient acid

☐

waste container

Position	Sample ID	Dilution
1	CCV	
2	CCB	
3	02-427-16	
4	19	
5	22	
6	25	
7	28	
8	31	
9	CCV 02-438-01 '13	
10	CCB	02
11	CCV	
12	CCB	
13		
14		
15		
16	final CCV was 116%.	
17	85-115%	
18	02-438 will be rean	
19	02-427 will not be rean, all	
20	results are ZRL.	
21		
22		
23		
24		
25		

7
8

Position	Sample ID	Dilution
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
42		
43		
44		
45		
46		
47		
48		
49		
50		

Position	Sample ID	Dilution
51		
52		
53		
54		
55		
56		
57		
58		
59		
60		
61		
62		
63		
64		
65		
66		
67		
68		
69		
70		
71		
72		
73		
74		
75		

Analyst: Deanna RobersonDate/Time: 2/20/09

pg 2

DCN#78447



Deanna Roberts

Approved: February 24, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
1	TOC	CCV 50	!!Error!! TOC:50.74mg/L TC:50.55mg/L IC:-0.1932mg	Comple	02/20/2009 09:59:02 AM	1
2	TOC	CCV 10	!!Error!! TOC:9.932mg/L TC:9.738mg/L IC:-0.1945mg	Comple	02/20/2009 10:11:01 AM	2
3	TOC	TIC 25	TOC:2.667mg/L TC:27.45mg/L IC:24.78mg/L	Comple	02/20/2009 10:25:09 AM	3
4	TOC	WG295406-01 BLANK	!!Error!! TOC:0.1403mg/L TC:0.01366mg/L IC:-0.126	Comple	02/20/2009 10:34:12 AM	0
5	TOC	WG295406-02 LCS	!!Error!! TOC:23.46mg/L TC:23.30mg/L IC:-0.1564mg	Comple	02/20/2009 10:46:22 AM	5
6	TOC	WG295406-03 LCSDUP	!!Error!! TOC:25.25mg/L TC:25.09mg/L IC:-0.1625mg	Comple	02/20/2009 10:58:52 AM	6
7	TOC	L09020400-02 (3)	TOC:4.780mg/L TC:26.81mg/L IC:22.03mg/L	Comple	02/20/2009 11:13:17 AM	7
8	TOC	L09020300-06 (20)	TOC:7.490mg/L TC:20.00mg/L IC:12.51mg/L	Comple	02/20/2009 11:26:20 AM	8
9	TOC	L09020300-07 (20)	TOC:6.979mg/L TC:15.50mg/L IC:8.519mg/L	Comple	02/20/2009 11:39:14 AM	9
10	TOC	L09020323-04 (2)	TOC:2.894mg/L TC:25.71mg/L IC:22.81mg/L	Comple	02/20/2009 11:53:03 AM	10
11	TOC	L09020323-05 (2)	TOC:2.692mg/L TC:24.19mg/L IC:21.50mg/L	Comple	02/20/2009 12:06:58 PM	11
12	TOC	L09020323-06 (2)	TOC:2.239mg/L TC:24.05mg/L IC:21.81mg/L	Comple	02/20/2009 12:21:20 PM	12
13	TOC	L09020324-01 (3)	TOC:4.460mg/L TC:36.49mg/L IC:32.03mg/L	Comple	02/20/2009 12:35:44 PM	13
14	TOC	L09020356-01 X	TOC:7.935mg/L TC:71.31mg/L IC:63.38mg/L	Comple	02/20/2009 12:52:05 PM	14
15	TOC	CCV	TOC:50.76mg/L TC:50.81mg/L IC:0.05441mg/L	Comple	02/20/2009 01:05:16 PM	15
16	TOC	CCB	!!Error!! TOC:0.08873mg/L TC:-0.00594mg/L IC:-0.009	Comple	02/20/2009 01:14:19 PM	0
17	TOC	L09020356-02 X	TOC:2.958mg/L TC:73.57mg/L IC:70.61mg/L	Comple	02/20/2009 01:30:23 PM	17
18	TOC	L09020356-03 X	TOC:2.317mg/L TC:83.09mg/L IC:80.77mg/L	Comple	02/20/2009 01:47:29 PM	18
19	TOC	L09020356-07 X	!!Error!! TOC:-0.3857mg/L TC:86.51mg/L IC:86.89mg	Comple	02/20/2009 02:04:49 PM	19
20	TOC	L09020356-08 X	TOC:0.2440mg/L TC:84.89mg/L IC:84.65mg/L	Comple	02/20/2009 02:21:57 PM	20
21	TOC	L09020356-10	TOC:13.62mg/L TC:41.29mg/L IC:27.67mg/L	Comple	02/20/2009 02:36:20 PM	21
22	TOC	L09020356-11 X	TOC:4.344mg/L TC:82.05mg/L IC:77.71mg/L	Comple	02/20/2009 02:53:07 PM	22
23	TOC	L09020356-12 X	!!Error!! TOC:-5.144mg/L TC:91.95mg/L IC:97.09mg	Comple	02/20/2009 03:10:44 PM	23
24	TOC	L09020356-13 X	TOC:20.96mg/L TC:98.60mg/L IC:77.64mg/L	Comple	02/20/2009 03:28:01 PM	24
25	TOC	L09020356-14 X	TOC:2.960mg/L TC:85.98mg/L IC:83.02mg/L	Comple	02/20/2009 03:45:03 PM	25
26	TOC	L09020356-15 X	TOC:1.687mg/L TC:81.71mg/L IC:80.02mg/L	Comple	02/20/2009 04:02:11 PM	26
27	TOC	CCV	TOC:53.61mg/L TC:53.83mg/L IC:0.2235mg/L	Comple	02/20/2009 04:15:13 PM	27
28	TOC	CCB	!!Error!! TOC:0.07069mg/L TC:0.01530mg/L IC:-0.05	Comple	02/20/2009 04:24:19 PM	0
29	TOC	L09020366-01	TOC:5.901mg/L TC:48.11mg/L IC:42.21mg/L	Comple	02/20/2009 04:39:20 PM	29
30	TOC	L09020366-02	TOC:1.409mg/L TC:12.06mg/L IC:10.65mg/L	Comple	02/20/2009 04:52:49 PM	30
31	TOC	WG295406-05 DUP	TOC:1.046mg/L TC:11.09mg/L IC:10.05mg/L	Comple	02/20/2009 05:05:32 PM	31
32	TOC	WG295406-06 MS	TOC:12.47mg/L TC:23.47mg/L IC:11.00mg/L	Comple	02/20/2009 05:18:43 PM	32
33	TOC	WG295407-01 BLANK	!!Error!! TOC:0.08174mg/L TC:0.00515mg/L IC:-0.07	Comple	02/20/2009 05:27:45 PM	0
34	TOC	WG295407-02 LCS	!!Error!! TOC:25.69mg/L TC:25.59mg/L IC:-0.09054m	Comple	02/20/2009 05:39:53 PM	34
35	TOC	WG295407-03 LCSDUP	!!Error!! TOC:25.52mg/L TC:25.41mg/L IC:-0.1036mg	Comple	02/20/2009 05:52:43 PM	35
36	TOC	L09020366-03	TOC:1.289mg/L TC:10.34mg/L IC:9.053mg/L	Comple	02/20/2009 06:05:14 PM	36
37	TOC	L09020366-04 (5) X	TOC:1.769mg/L TC:12.34mg/L IC:10.57mg/L	Comple	02/20/2009 06:17:52 PM	37
38	TOC	L09020366-05 (2) X	TOC:1.635mg/L TC:3.513mg/L IC:1.879mg/L	Comple	02/20/2009 06:29:56 PM	38
39	TOC	CCV	!!Error!! TOC:49.86mg/L TC:49.75mg/L IC:-0.1097mg	Comple	02/20/2009 06:42:59 PM	1
40	TOC	CCB	!!Error!! TOC:0.09371mg/L TC:-0.01549mg/L IC:-0.10	Comple	02/20/2009 06:52:01 PM	0
41	TOC	L09020368-01 (3)	TOC:1.905mg/L TC:13.57mg/L IC:11.67mg/L	Comple	02/20/2009 07:05:02 PM	41
42	TOC	L09020368-02	TOC:2.433mg/L TC:17.44mg/L IC:15.00mg/L	Comple	02/20/2009 07:18:45 PM	42
43	TOC	L09020368-03	TOC:2.114mg/L TC:13.40mg/L IC:11.28mg/L	Comple	02/20/2009 07:32:31 PM	43
44	TOC	L09020368-04	TOC:0.6789mg/L TC:8.136mg/L IC:7.457mg/L	Comple	02/20/2009 07:45:08 PM	44
45	TOC	L09020401-01	TOC:3.432mg/L TC:8.547mg/L IC:5.115mg/L	Comple	02/20/2009 07:57:46 PM	45
46	TOC	L09020401-02	TOC:3.361mg/L TC:7.444mg/L IC:4.083mg/L	Comple	02/20/2009 08:10:13 PM	46
47	TOC	L09020401-03	TOC:0.8874mg/L TC:3.757mg/L IC:2.870mg/L	Comple	02/20/2009 08:22:29 PM	47
48	TOC	WG295409-05 DUP	TOC:0.8517mg/L TC:3.489mg/L IC:2.638mg/L	Comple	02/20/2009 08:34:33 PM	48
49	TOC	L09020401-04 MS	TOC:10.35mg/L TC:12.01mg/L IC:1.659mg/L	Comple	02/20/2009 08:46:54 PM	49
50	TOC	L09020401-05 MSD	TOC:9.989mg/L TC:11.12mg/L IC:1.128mg/L	Comple	02/20/2009 08:59:14 PM	50
51	TOC	CCV	!!Error!! TOC:50.71mg/L TC:50.60mg/L IC:-0.1132mg	Comple	02/20/2009 09:12:19 PM	1
52	TOC	CCB	!!Error!! TOC:0.09404mg/L TC:-0.01437mg/L IC:-0.10	Comple	02/20/2009 09:21:25 PM	0
53	TOC	L09020401-06	TOC:1.866mg/L TC:9.372mg/L IC:7.506mg/L	Comple	02/20/2009 09:34:09 PM	53
54	TOC	L09020401-07	TOC:1.438mg/L TC:6.852mg/L IC:5.415mg/L	Comple	02/20/2009 09:46:48 PM	54
55	TOC	L09020410-01 (5) X	TOC:25.93mg/L TC:70.94mg/L IC:45.01mg/L	Comple	02/20/2009 10:02:12 PM	55
56	TOC	L09020410-02 (5) X	TOC:4.243mg/L TC:97.91mg/L IC:93.67mg/L	Comple	02/20/2009 10:19:34 PM	56
57	TOC	L09020410-03 (2) X	TOC:35.02mg/L TC:81.95mg/L IC:46.93mg/L	Comple	02/20/2009 10:36:11 PM	57
58	TOC	L09020410-04 (2) X	TOC:32.40mg/L TC:57.15mg/L IC:24.75mg/L	Comple	02/20/2009 10:49:55 PM	58
59	TOC	L09020410-05 (2) X	TOC:34.33mg/L TC:75.13mg/L IC:40.80mg/L	Comple	02/20/2009 11:05:02 PM	59
60	TOC	L09020410-06 (2) X	TOC:18.29mg/L TC:67.63mg/L IC:49.34mg/L	Comple	02/20/2009 11:21:32 PM	60
61	TOC	L09020410-07 (2) X	TOC:4.414mg/L TC:9.038mg/L IC:4.623mg/L	Comple	02/20/2009 11:34:14 PM	61
62	TOC	L09020410-08 (5) X	TOC:51.26mg/L TC:77.07mg/L IC:25.81mg/L	Comple	02/20/2009 11:48:39 PM	62
63	TOC	CCV	!!Error!! TOC:53.22mg/L TC:53.20mg/L IC:-0.02692m	Comple	02/21/2009 12:01:35 AM	15
64	TOC	WG295409-01 BLANK	!!Error!! TOC:0.1113mg/L TC:0.03169mg/L IC:-0.075	Comple	02/21/2009 12:10:39 AM	0
65	TOC	WG295409-02 LCS	!!Error!! TOC:26.16mg/L TC:26.06mg/L IC:-0.09369m	Comple	02/21/2009 12:23:26 AM	5
66	TOC	WG295409-03 LCSDUP	!!Error!! TOC:28.21mg/L TC:28.11mg/L IC:-0.09930m	Comple	02/21/2009 12:35:42 AM	6
67	TOC	L09020410-09 (5) X	TOC:55.48mg/L TC:79.77mg/L IC:24.29mg/L	Comple	02/21/2009 12:51:57 AM	67

Heanna Roberts

Approved: February 24, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
68	TOC	L09020410-10	!!Error!! TOC:0.4250mg/L TC:0.3934mg/L IC:-0.0316	Complete	02/21/2009 01:03:32 AM	68
69	TOC	L09020427-01	TOC:0.9267mg/L TC:4.723mg/L IC:3.796mg/L	Complete	02/21/2009 01:15:46 AM	4
70	TOC	L09020427-04	TOC:0.4608mg/L TC:1.928mg/L IC:1.467mg/L	Complete	02/21/2009 01:27:51 AM	16
71	TOC	WG295409-05 DUP	TOC:0.6913mg/L TC:2.171mg/L IC:1.480mg/L	Complete	02/21/2009 01:39:53 AM	28
72	TOC	L09020427-07 MS	TOC:9.595mg/L TC:10.37mg/L IC:0.7762mg/L	Complete	02/21/2009 01:52:13 AM	33
73	TOC	L09020427-10 MSD	TOC:10.73mg/L TC:11.11mg/L IC:0.3805mg/L	Complete	02/21/2009 02:04:30 AM	40
74	TOC	L09020427-13	TOC:0.6139mg/L TC:2.298mg/L IC:1.684mg/L	Complete	02/21/2009 02:16:39 AM	52
75	TOC	CCV	!!Error!! TOC:51.37mg/L TC:51.29mg/L IC:-0.08314m	Complete	02/21/2009 02:29:36 AM	27
76	TOC	CCB	!!Error!! TOC:0.09337mg/L TC:-0.00056mg/L IC:-0.09	Complete	02/21/2009 02:38:40 AM	0
77	TOC	L09020427-16	TOC:0.3669mg/L TC:1.612mg/L IC:1.245mg/L	Complete	02/21/2009 02:50:39 AM	51
78	TOC	L09020427-19	TOC:0.4687mg/L TC:1.746mg/L IC:1.277mg/L	Complete	02/21/2009 03:02:50 AM	63
79	TOC	L09020427-22	TOC:0.5793mg/L TC:2.147mg/L IC:1.567mg/L	Complete	02/21/2009 03:14:54 AM	64
80	TOC	L09020427-25	TOC:0.5311mg/L TC:1.903mg/L IC:1.372mg/L	Complete	02/21/2009 03:26:49 AM	65
81	TOC	L09020427-28	!!Error!! TOC:0.9583mg/L TC:0.8732mg/L IC:-0.0851	Complete	02/21/2009 03:38:25 AM	66
82	TOC	L09020427-31	!!Error!! TOC:0.4134mg/L TC:0.3202mg/L IC:-0.0932	Complete	02/21/2009 03:50:10 AM	39
83	TOC	L09020438-01 (3) X	TOC:3.793mg/L TC:7.006mg/L IC:3.213mg/L	Complete	02/21/2009 04:02:36 AM	7
84	TOC	L09020438-02 X	TOC:4.127mg/L TC:32.17mg/L IC:28.04mg/L	Complete	02/21/2009 04:17:03 AM	8
85	TOC	CCV	!!Error!! TOC:58.18mg/L TC:58.16mg/L IC:-0.01920m	Complete	02/21/2009 04:30:35 AM	15
86	TOC	CCB	!!Error!! TOC:0.08442mg/L TC:0.00496mg/L IC:-0.07	Complete	02/21/2009 04:39:42 AM	0

Heanna Roberts

Approved: February 24, 2009

02/23/2009 12:30:53 PM

02-20-2009-DIH-TOC.i32

Instr. Information

System
DetectorTOCVW ASI
Wet Chemical

Sample

Sample Name: CCV 50
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

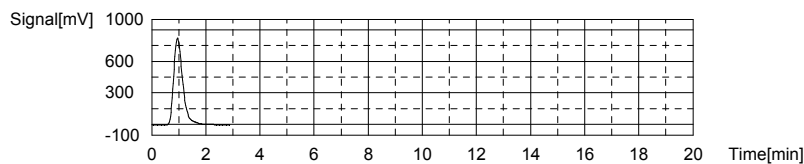
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.74mg/L TC:50.55mg/L IC:-0.1932mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1914	50.55mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 09:54:39 AM

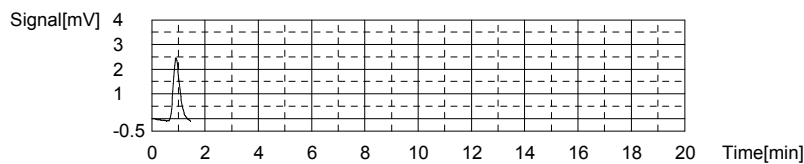
Mean Area 1914
Mean Conc. 50.55mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.327	-0.1932mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 09:59:02 AM

Mean Area 4.327
Mean Conc. -0.1932mg/L



Sample

Sample Name: CCV 10
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:9.932mg/L TC:9.738mg/L IC:-0.1945mg/L

1. Det

Anal.: TC

Kearna Roberts

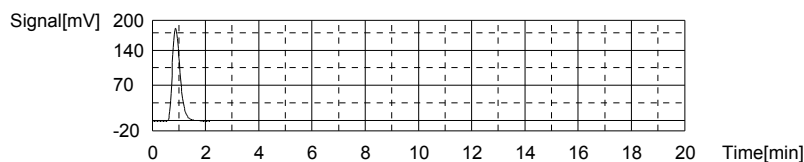
Approved: February 24, 2009

02/23/2009 12:30:53 PM

02-20-2009-DIH-TOC.t32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	375.3	9.738mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 10:06:38 AM

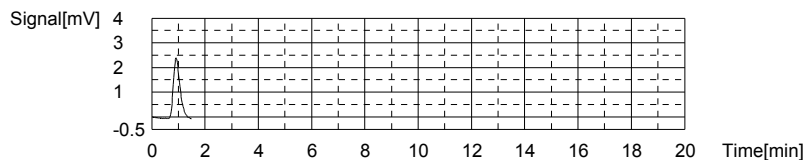
Mean Area 375.3
Mean Conc. 9.738mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.287	-0.1945mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 10:11:01 AM

Mean Area 4.287
Mean Conc. -0.1945mg/L



Sample

Sample Name: TIC 25
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

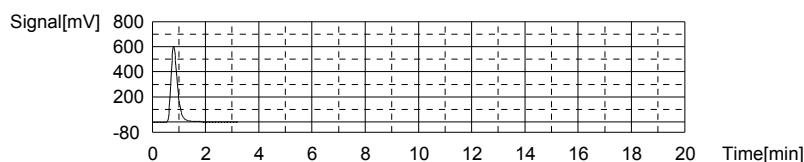
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.667mg/L TC:27.45mg/L IC:24.78mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1043	27.45mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 10:19:41 AM

Mean Area 1043
Mean Conc. 27.45mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	771.0	24.78mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 10:25:09 AM

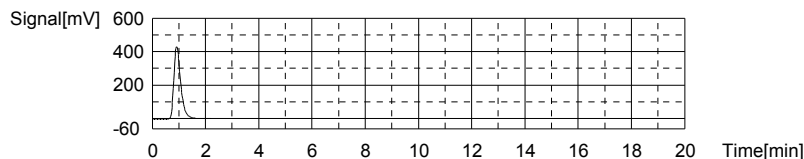
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Approved: February 24, 2009

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02-20-2009-DIH-TOC.t32

Mean Area 771.0
Mean Conc. 24.78mg/L



Sample

Sample Name: WG295406-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

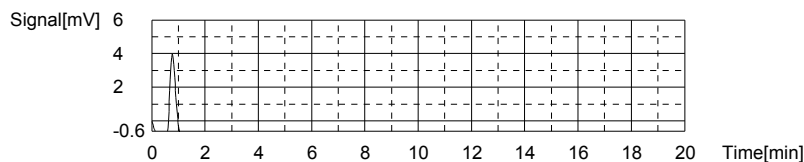
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1403mg/L TC:0.01366mg/L IC:-0.1267mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.642	0.01366mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 10:30:12 AM

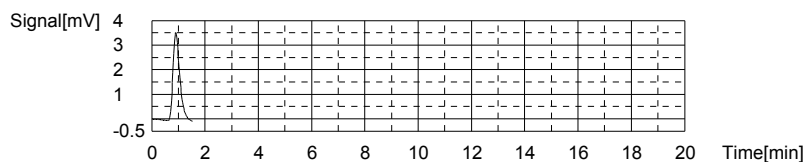
Mean Area 8.642
Mean Conc. 0.01366mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.371	-0.1267mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 10:34:12 AM

Mean Area 6.371
Mean Conc. -0.1267mg/L



Sample

Sample Name: WG295406-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:23.46mg/L TC:23.30mg/L IC:-0.1564mg/L

Kleanna Roberts

Approved: February 24, 2009

02/23/2009 12:30:53 PM

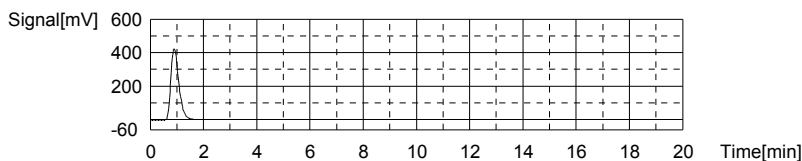
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	886.8	23.30mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 10:41:57 AM

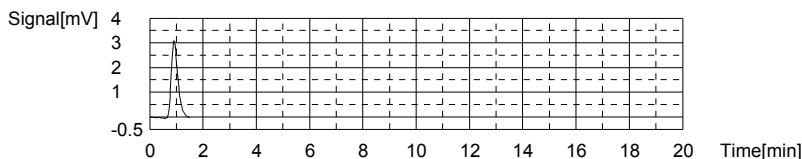
Mean Area 886.8
Mean Conc. 23.30mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.457	-0.1564mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 10:46:22 AM

Mean Area 5.457
Mean Conc. -0.1564mg/L



Sample

Sample Name: WG295406-03 LCSDUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

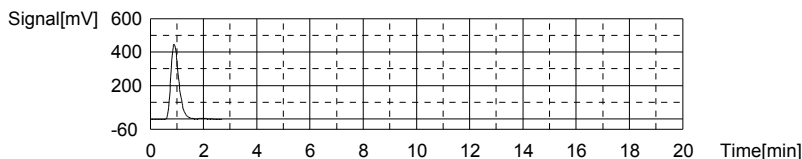
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.25mg/L TC:25.09mg/L IC:-0.1625mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	954.0	25.09mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 10:54:30 AM

Mean Area 954.0
Mean Conc. 25.09mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.270	-0.1625mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 10:58:52 AM

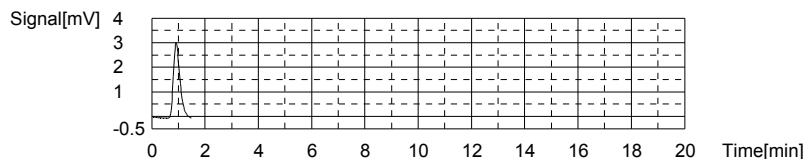
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02-20-2009-DIH-TOC.i32

Mean Area 5.270
Mean Conc. -0.1625mg/L



Sample

Sample Name: L09020400-02 (3)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

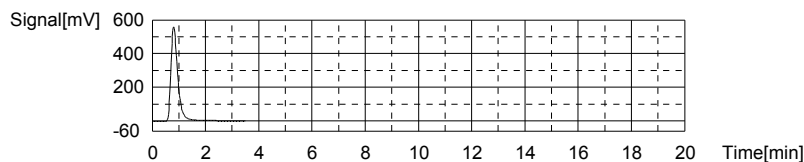
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.780mg/L TC:26.81mg/L IC:22.03mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1019	26.81mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:07:48 AM

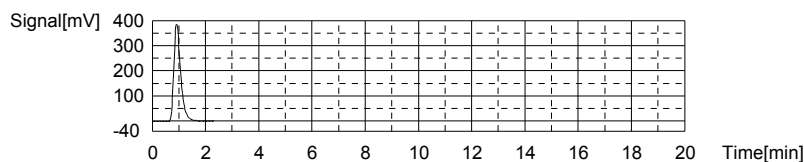
Mean Area 1019
Mean Conc. 26.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	686.6	22.03mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:13:17 AM

Mean Area 686.6
Mean Conc. 22.03mg/L



Sample

Sample Name: L09020300-06 (20)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.490mg/L TC:20.00mg/L IC:12.51mg/L

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Approved: February 24, 2009

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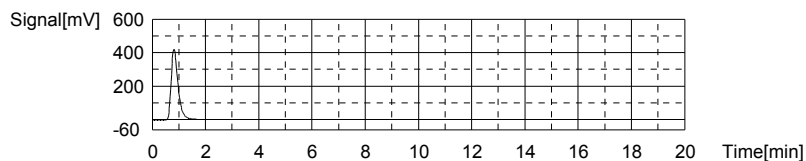
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	762.1	20.00mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:21:04 AM

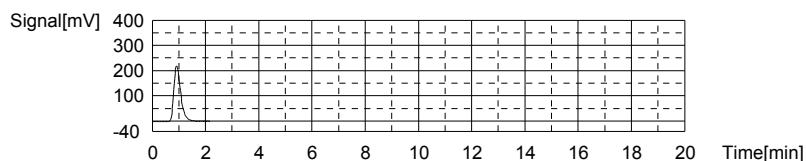
Mean Area 762.1
Mean Conc. 20.00mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	394.2	12.51mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:26:20 AM

Mean Area 394.2
Mean Conc. 12.51mg/L



Sample

Sample Name: L09020300-07 (20)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

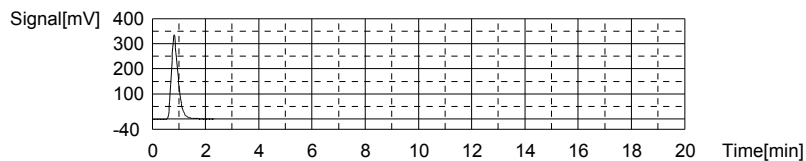
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.979mg/L TC:15.50mg/L IC:8.519mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	592.5	15.50mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:34:06 AM

Mean Area 592.5
Mean Conc. 15.50mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	271.8	8.519mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:39:14 AM

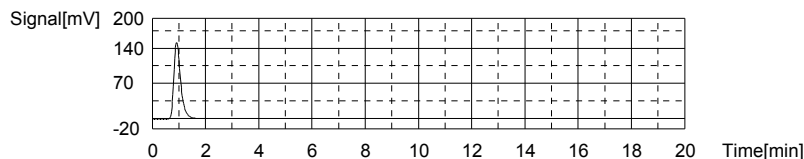
Heanna Roberts

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02-20-2009-DIH-TOC.t32

Mean Area 271.8
Mean Conc. 8.519mg/L



Sample

Sample Name: L09020323-04 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

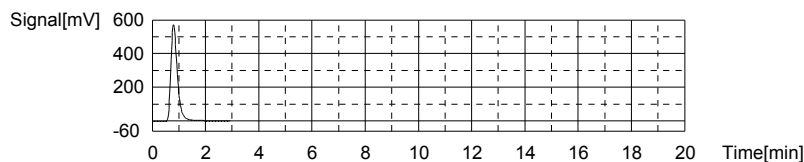
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.894mg/L TC:25.71mg/L IC:22.81mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	977.5	25.71mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 11:47:37 AM

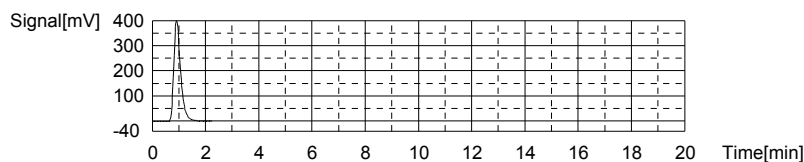
Mean Area 977.5
Mean Conc. 25.71mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	710.7	22.81mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 11:53:03 AM

Mean Area 710.7
Mean Conc. 22.81mg/L



Sample

Sample Name: L09020323-05 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.692mg/L TC:24.19mg/L IC:21.50mg/L

Approved: February 24, 2009

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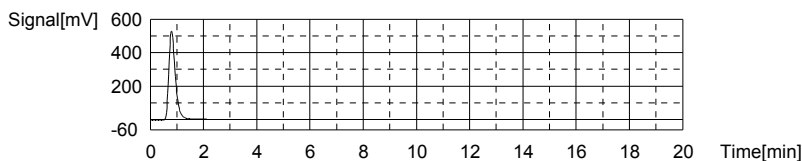
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	920.4	24.19mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 12:01:39 PM

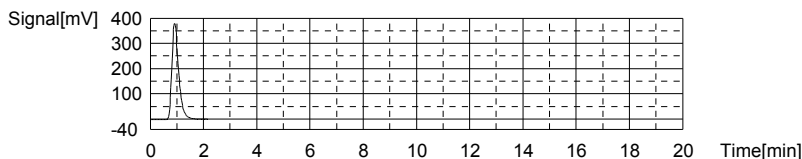
Mean Area 920.4
Mean Conc. 24.19mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	670.4	21.50mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 12:06:58 PM

Mean Area 670.4
Mean Conc. 21.50mg/L



Sample

Sample Name: L09020323-06 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

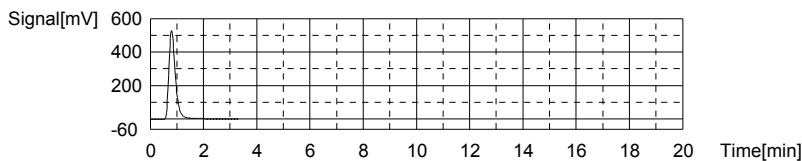
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.239mg/L TC:24.05mg/L IC:21.81mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	915.1	24.05mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 12:15:43 PM

Mean Area 915.1
Mean Conc. 24.05mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	680.0	21.81mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 12:21:20 PM

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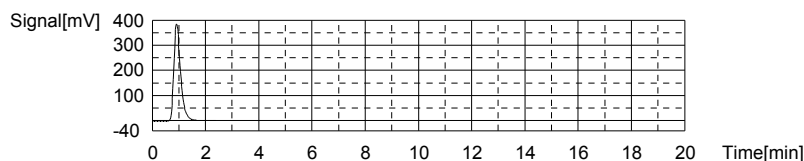
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02-20-2009-DIH-TOC.t32

Mean Area 680.0
Mean Conc. 21.81mg/L



Sample

Sample Name: L09020324-01 (3)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

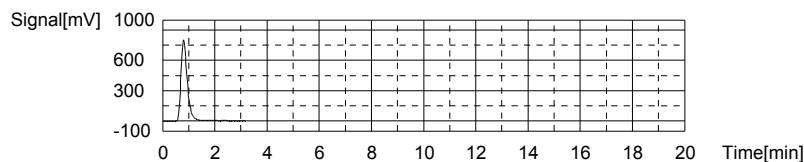
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.460mg/L TC:36.49mg/L IC:32.03mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1384	36.49mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 12:29:56 PM

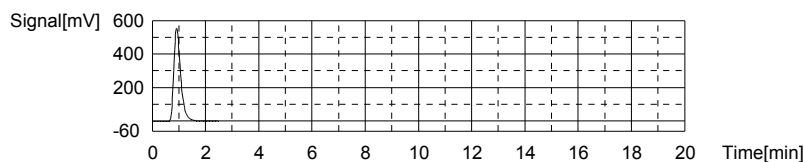
Mean Area 1384
Mean Conc. 36.49mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	993.6	32.03mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 12:35:44 PM

Mean Area 993.6
Mean Conc. 32.03mg/L



Sample

Sample Name: L09020356-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.935mg/L TC:71.31mg/L IC:63.38mg/L

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Approved: February 24, 2009

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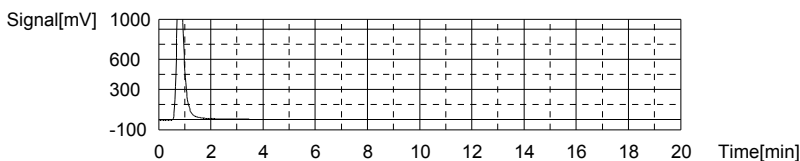
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2697	71.31mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 12:45:40 PM

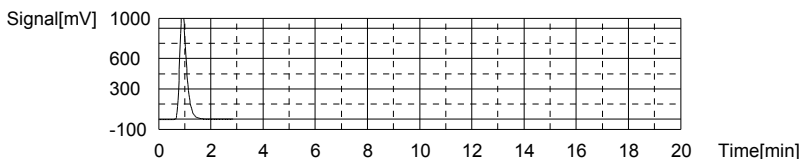
Mean Area 2697
Mean Conc. 71.31mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1956	63.38mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 12:52:05 PM

Mean Area 1956
Mean Conc. 63.38mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

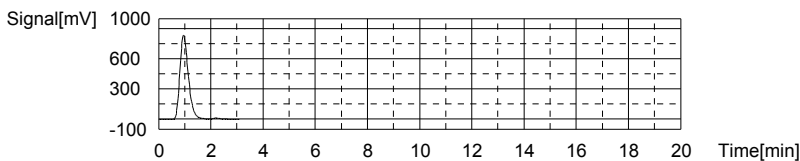
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:50.76mg/L TC:50.81mg/L IC:0.05441mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1924	50.81mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 01:00:38 PM

Mean Area 1924
Mean Conc. 50.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.93	0.05441mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 01:05:16 PM

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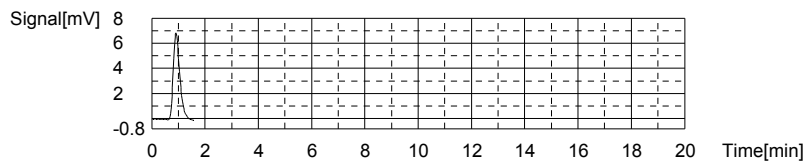
Kearna Roberts

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02-20-2009-DIH-TOC.i32

Mean Area 11.93
Mean Conc. 0.05441mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

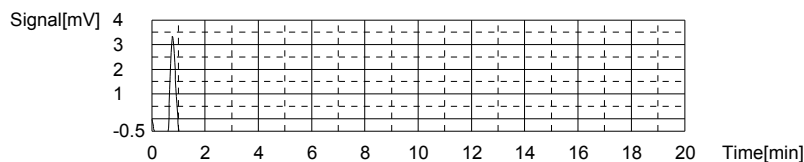
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.08873mg/L TC:-0.00594mg/L IC:-0.09467mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.903	-0.00594mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/20/2009 01:10:18 PM

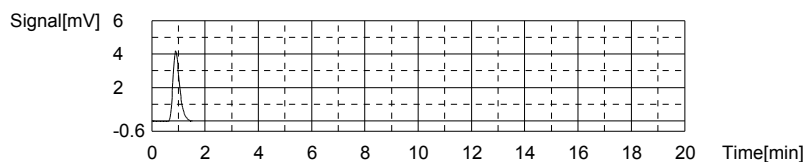
Mean Area 7.903
Mean Conc. -0.00594mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.353	-0.09467mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	2/20/2009 01:14:19 PM

Mean Area 7.353
Mean Conc. -0.09467mg/L



Sample

Sample Name: L09020356-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.958mg/L TC:73.57mg/L IC:70.61mg/L

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Approved: February 24, 2009

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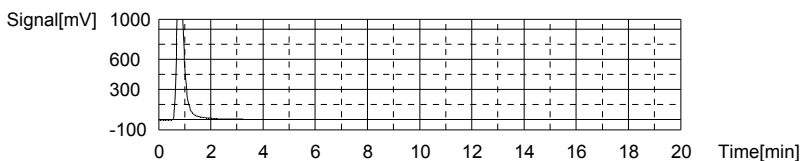
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2782	73.57mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 01:23:48 PM

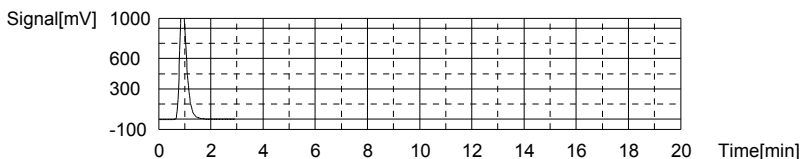
Mean Area 2782
Mean Conc. 73.57mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2178	70.61mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 01:30:23 PM

Mean Area 2178
Mean Conc. 70.61mg/L



Sample

Sample Name: L09020356-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

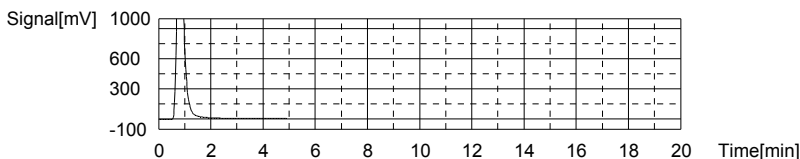
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.317mg/L TC:83.09mg/L IC:80.77mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3141	83.09mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 01:40:45 PM

Mean Area 3141
Mean Conc. 83.09mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2490	80.77mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 01:47:29 PM

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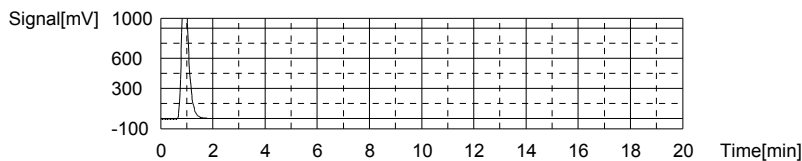
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Mean Area 2490
Mean Conc. 80.77mg/L



Sample

Sample Name: L09020356-07
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

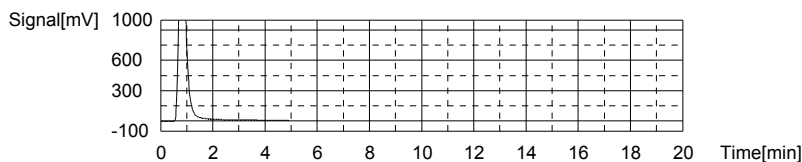
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-0.3857mg/L TC:86.51mg/L IC:86.89mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3270	86.51mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 01:57:50 PM

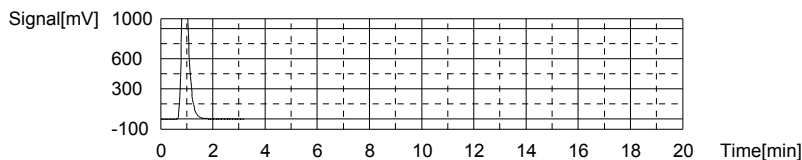
Mean Area 3270
Mean Conc. 86.51mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2678	86.89mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 02:04:49 PM

Mean Area 2678
Mean Conc. 86.89mg/L



Sample

Sample Name: L09020356-08
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.2440mg/L TC:84.89mg/L IC:84.65mg/L

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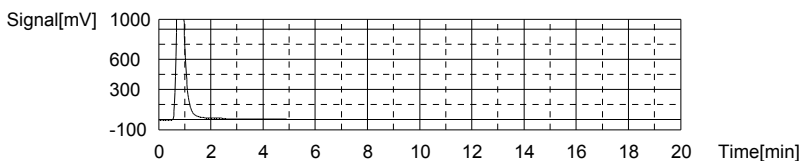
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3209	84.89mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:15:11 PM

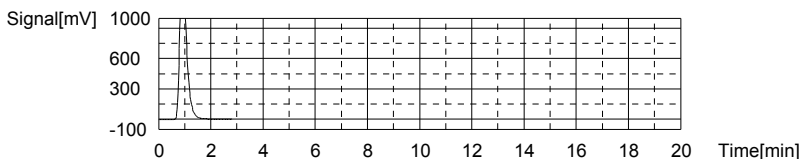
Mean Area 3209
Mean Conc. 84.89mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2609	84.65mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:21:57 PM

Mean Area 2609
Mean Conc. 84.65mg/L



Sample

Sample Name: L09020356-10
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

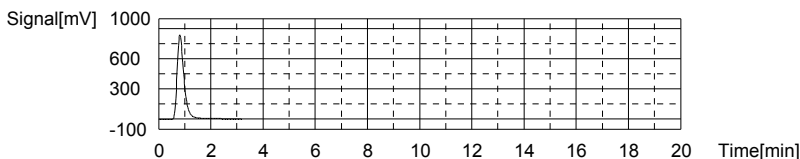
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:13.62mg/L TC:41.29mg/L IC:27.67mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1565	41.29mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:30:34 PM

Mean Area 1565
Mean Conc. 41.29mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	859.8	27.67mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:36:20 PM

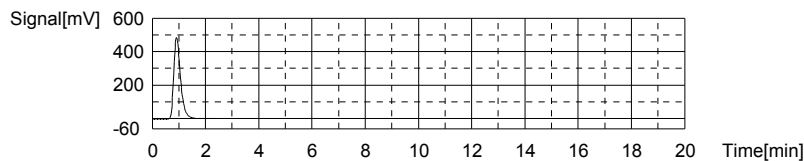
Heanna Roberts

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Mean Area 859.8
Mean Conc. 27.67mg/L



Sample

Sample Name: L09020356-11
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

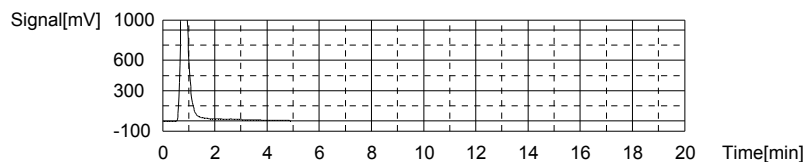
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.344mg/L TC:82.05mg/L IC:77.71mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3102	82.05mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:46:40 PM

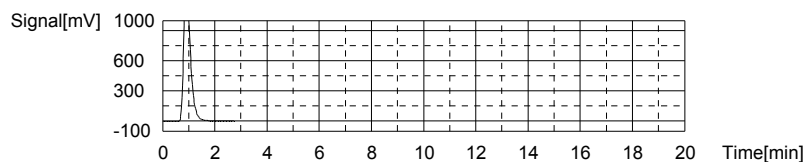
Mean Area 3102
Mean Conc. 82.05mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2396	77.71mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:53:07 PM

Mean Area 2396
Mean Conc. 77.71mg/L



Sample

Sample Name: L09020356-12
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-5.144mg/L TC:91.95mg/L IC:97.09mg/L

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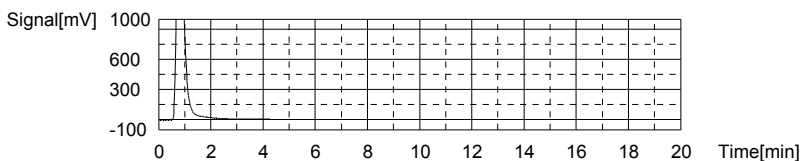
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3475	91.95mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 03:03:24 PM

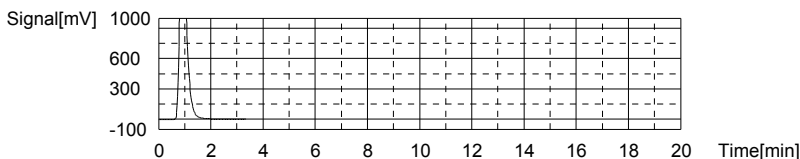
Mean Area 3475
Mean Conc. 91.95mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2991	97.09mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 03:10:44 PM

Mean Area 2991
Mean Conc. 97.09mg/L



Sample

Sample Name: L09020356-13
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

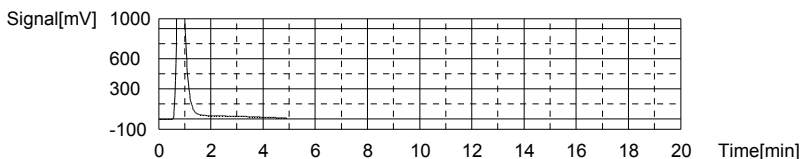
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:20.96mg/L TC:98.60mg/L IC:77.64mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3726	98.60mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 03:21:05 PM

Mean Area 3726
Mean Conc. 98.60mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2394	77.64mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 03:28:01 PM

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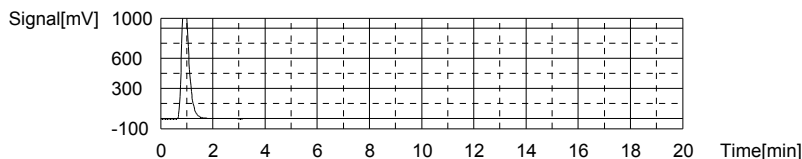
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Mean Area 2394
Mean Conc. 77.64mg/L



Sample

Sample Name: L09020356-14
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

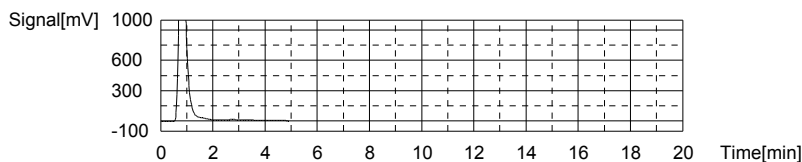
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.960mg/L TC:85.98mg/L IC:83.02mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3250	85.98mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:38:21 PM

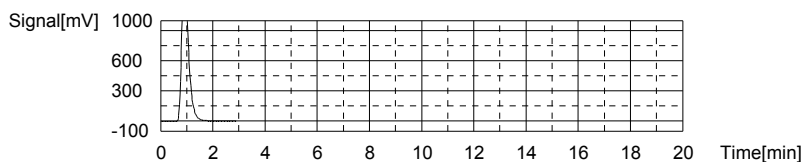
Mean Area 3250
Mean Conc. 85.98mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2559	83.02mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:45:03 PM

Mean Area 2559
Mean Conc. 83.02mg/L



Sample

Sample Name: L09020356-15
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.687mg/L TC:81.71mg/L IC:80.02mg/L

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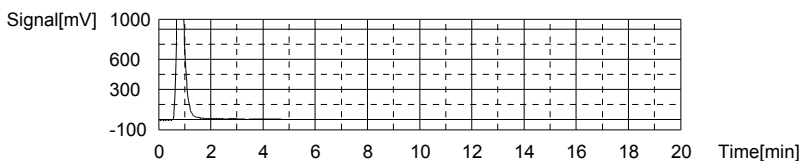
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3089	81.71mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 03:55:23 PM

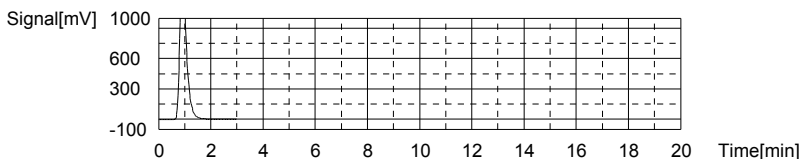
Mean Area 3089
Mean Conc. 81.71mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2467	80.02mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 04:02:11 PM

Mean Area 2467
Mean Conc. 80.02mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

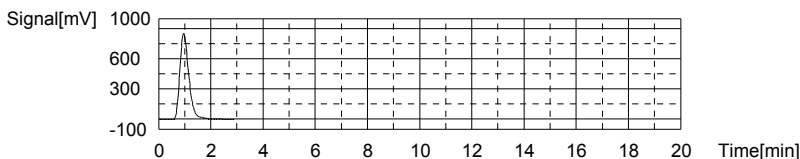
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:53.61mg/L TC:53.83mg/L IC:0.2235mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2038	53.83mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 04:10:31 PM

Mean Area 2038
Mean Conc. 53.83mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.12	0.2235mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 04:15:13 PM

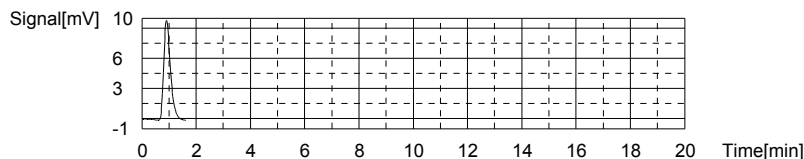
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Mean Area 17.12
Mean Conc. 0.2235mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

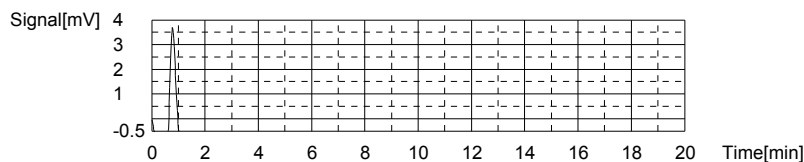
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.07069mg/L TC:0.01530mg/L IC:-0.05539mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.704	0.01530mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:20:17 PM

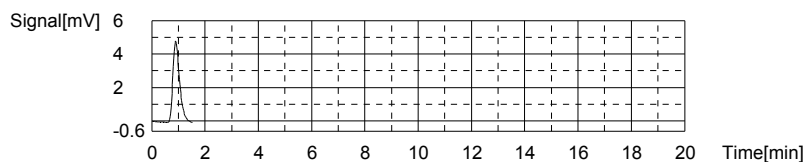
Mean Area 8.704
Mean Conc. 0.01530mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.559	-0.05539mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:24:19 PM

Mean Area 8.559
Mean Conc. -0.05539mg/L



Sample

Sample Name: L09020366-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.901mg/L TC:48.11mg/L IC:42.21mg/L

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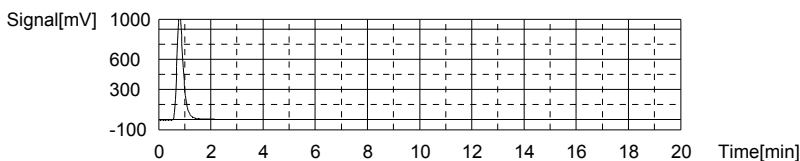
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1822	48.11mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 04:33:14 PM

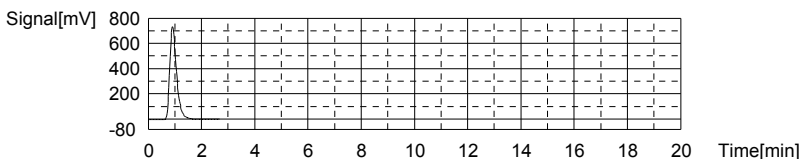
Mean Area 1822
Mean Conc. 48.11mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1306	42.21mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 04:39:20 PM

Mean Area 1306
Mean Conc. 42.21mg/L



Sample

Sample Name: L09020366-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

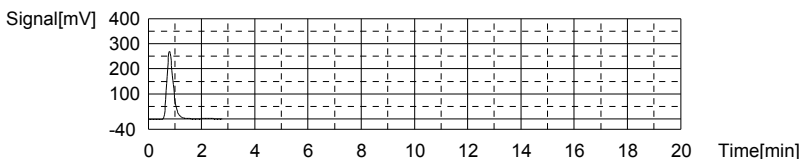
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.409mg/L TC:12.06mg/L IC:10.65mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	462.9	12.06mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 04:47:34 PM

Mean Area 462.9
Mean Conc. 12.06mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	337.3	10.65mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 04:52:49 PM

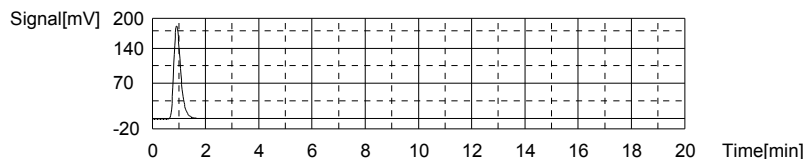
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Mean Area 337.3
Mean Conc. 10.65mg/L



Sample

Sample Name: WG295406-05 DUP
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result:

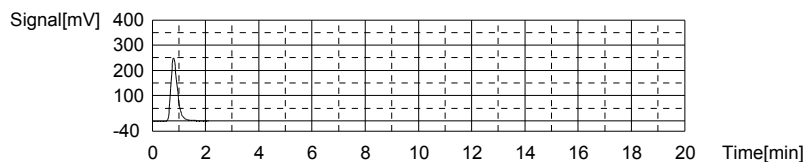
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.046mg/L TC:11.09mg/L IC:10.05mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	426.4	11.09mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 05:00:23 PM

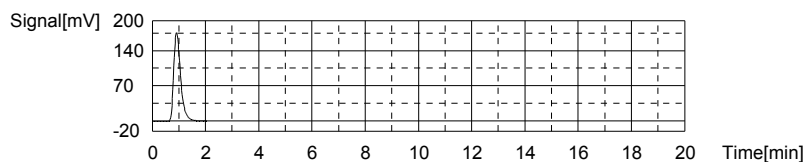
Mean Area 426.4
Mean Conc. 11.09mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	318.7	10.05mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 05:05:32 PM

Mean Area 318.7
Mean Conc. 10.05mg/L



Sample

Sample Name: WG295406-06 MS
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result:

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:12.47mg/L TC:23.47mg/L IC:11.00mg/L

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Approved: February 24, 2009

02/23/2009 12:30:53 PM

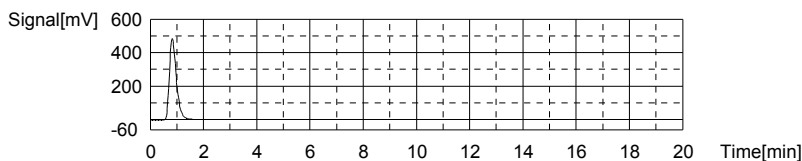
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	892.9	23.47mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 05:13:27 PM

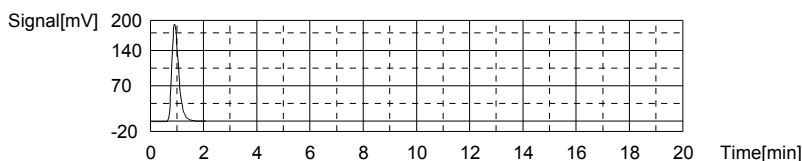
Mean Area 892.9
Mean Conc. 23.47mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	347.9	11.00mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 05:18:43 PM

Mean Area 347.9
Mean Conc. 11.00mg/L



Sample

Sample Name: WG295407-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

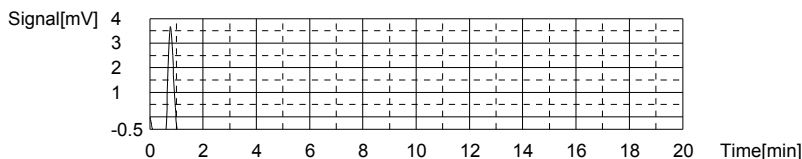
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.08174mg/L TC:0.00515mg/L IC:-0.07659mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.321	0.00515mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 05:23:45 PM

Mean Area 8.321
Mean Conc. 0.00515mg/L



Anal.: IC

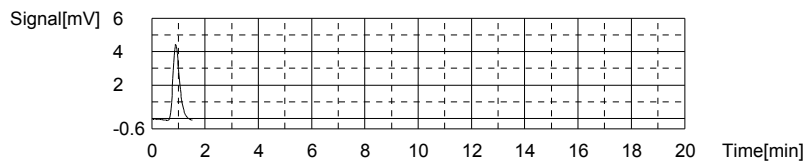
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.908	-0.07659mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 05:27:45 PM

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02-20-2009-DIH-TOC.t32

Mean Area 7.908
Mean Conc. -0.07659mg/L



Sample

Sample Name: WG295407-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

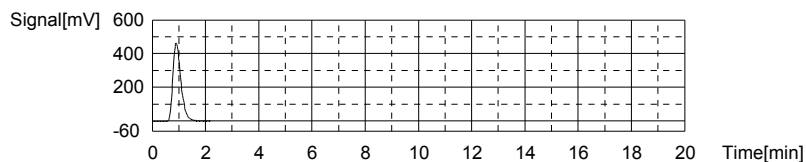
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.69mg/L TC:25.59mg/L IC:-0.09054mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	973.2	25.59mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 05:35:24 PM

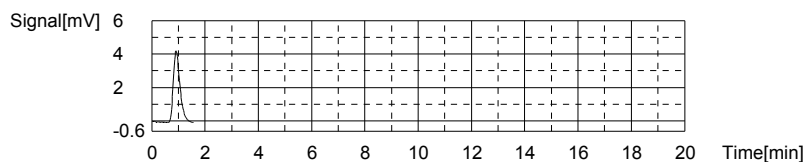
Mean Area 973.2
Mean Conc. 25.59mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.480	-0.09054mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 05:39:53 PM

Mean Area 7.480
Mean Conc. -0.09054mg/L



Sample

Sample Name: WG295407-03 LCSDUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.52mg/L TC:25.41mg/L IC:-0.1036mg/L

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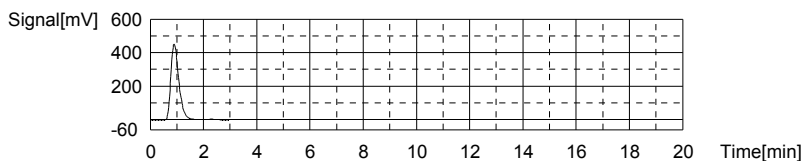
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	966.4	25.41mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:48:17 PM

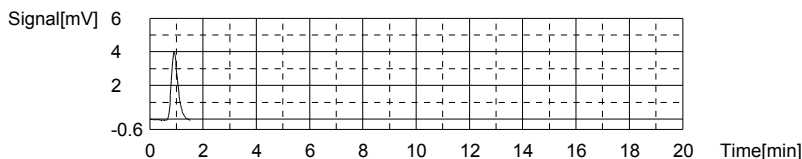
Mean Area 966.4
Mean Conc. 25.41mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.078	-0.1036mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:52:43 PM

Mean Area 7.078
Mean Conc. -0.1036mg/L



Sample

Sample Name: L09020366-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

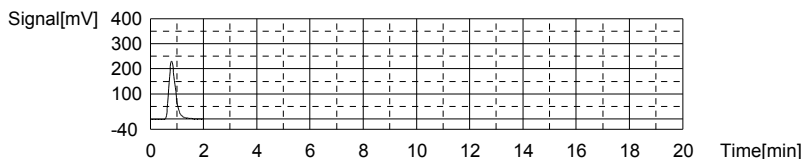
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.289mg/L TC:10.34mg/L IC:9.053mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	398.1	10.34mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 06:00:09 PM

Mean Area 398.1
Mean Conc. 10.34mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	288.2	9.053mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 06:05:14 PM

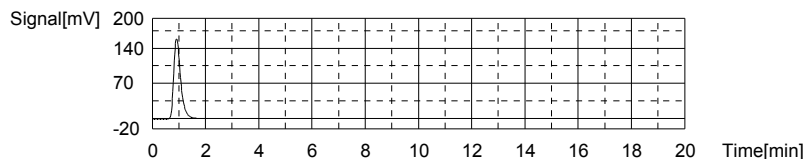
Kearna Roberts

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02-20-2009-DIH-TOC.t32

Mean Area 288.2
Mean Conc. 9.053mg/L



Sample

Sample Name: L09020366-04 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

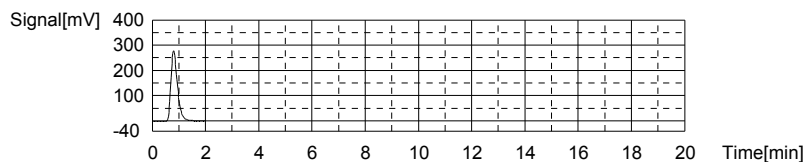
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.769mg/L TC:12.34mg/L IC:10.57mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	473.4	12.34mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 06:12:40 PM

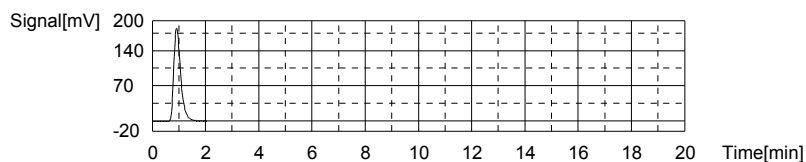
Mean Area 473.4
Mean Conc. 12.34mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	334.8	10.57mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 06:17:52 PM

Mean Area 334.8
Mean Conc. 10.57mg/L



Sample

Sample Name: L09020366-05 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.635mg/L TC:3.513mg/L IC:1.879mg/L

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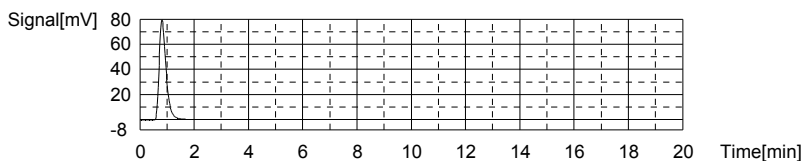
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	140.6	3.513mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 06:25:07 PM

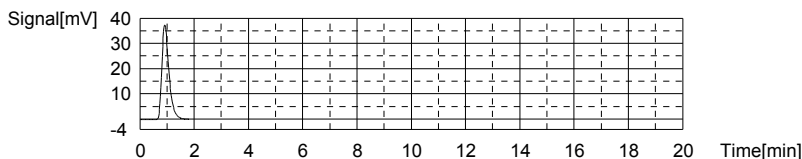
Mean Area 140.6
Mean Conc. 3.513mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.94	1.879mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 06:29:56 PM

Mean Area 67.94
Mean Conc. 1.879mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

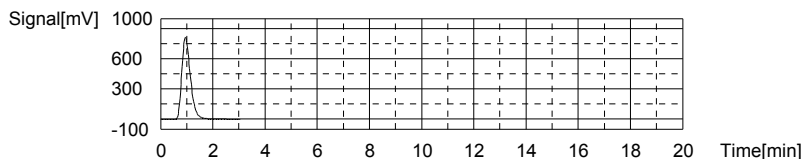
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:49.86mg/L TC:49.75mg/L IC:-0.1097mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1884	49.75mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 06:38:32 PM

Mean Area 1884
Mean Conc. 49.75mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.892	-0.1097mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 06:42:59 PM

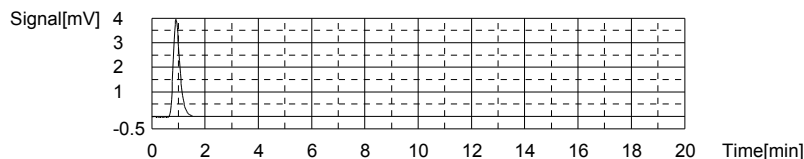
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Mean Area 6.892
Mean Conc. -0.1097mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

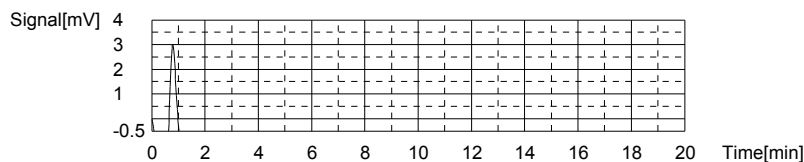
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.09371mg/L TC:-0.01549mg/L IC:-0.1092mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.543	-0.01549mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 06:48:02 PM

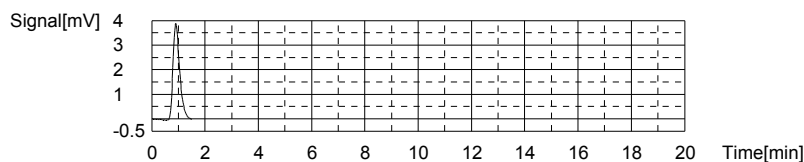
Mean Area 7.543
Mean Conc. -0.01549mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.907	-0.1092mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 06:52:01 PM

Mean Area 6.907
Mean Conc. -0.1092mg/L



Sample

Sample Name: L09020368-01 (3)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.905mg/L TC:13.57mg/L IC:11.67mg/L

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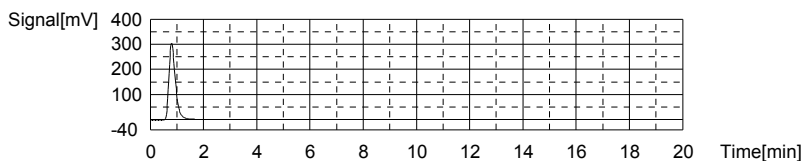
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	519.8	13.57mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 06:59:48 PM

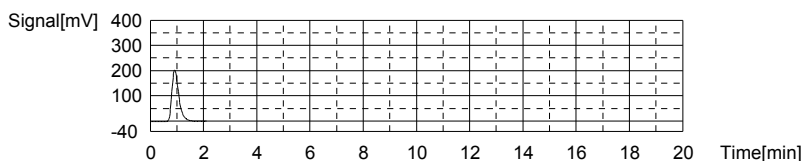
Mean Area 519.8
Mean Conc. 13.57mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	368.4	11.67mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 07:05:02 PM

Mean Area 368.4
Mean Conc. 11.67mg/L



Sample

Sample Name: L09020368-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

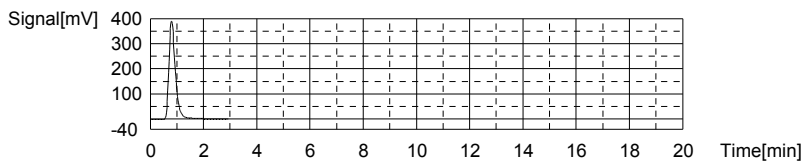
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.433mg/L TC:17.44mg/L IC:15.00mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	665.6	17.44mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 07:13:25 PM

Mean Area 665.6
Mean Conc. 17.44mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	470.9	15.00mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 07:18:45 PM

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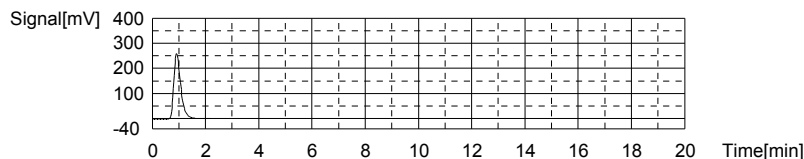
Heanna Roberts

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Mean Area 470.9
Mean Conc. 15.00mg/L



Sample

Sample Name: L09020368-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

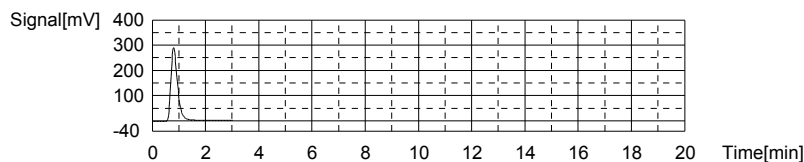
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.114mg/L TC:13.40mg/L IC:11.28mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	513.2	13.40mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 07:27:14 PM

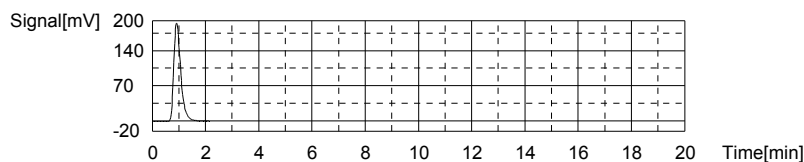
Mean Area 513.2
Mean Conc. 13.40mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	356.6	11.28mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 07:32:31 PM

Mean Area 356.6
Mean Conc. 11.28mg/L



Sample

Sample Name: L09020368-04
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.6789mg/L TC:8.136mg/L IC:7.457mg/L

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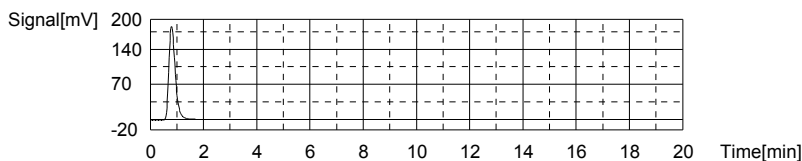
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	314.9	8.136mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 07:40:03 PM

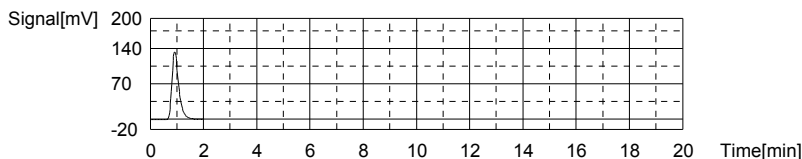
Mean Area 314.9
Mean Conc. 8.136mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	239.2	7.457mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 07:45:08 PM

Mean Area 239.2
Mean Conc. 7.457mg/L



Sample

Sample Name: L09020401-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

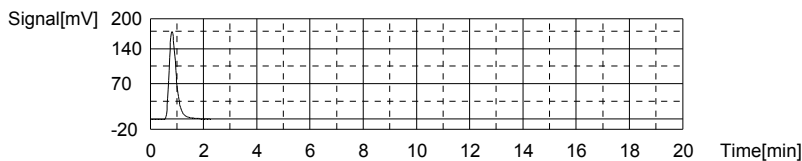
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.432mg/L TC:8.547mg/L IC:5.115mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	330.4	8.547mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 07:52:51 PM

Mean Area 330.4
Mean Conc. 8.547mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.3	5.115mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 07:57:46 PM

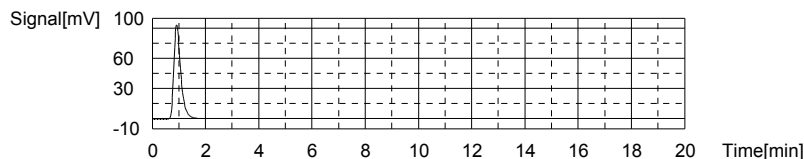
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Approved: February 24, 2009

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02-20-2009-DIH-TOC.i32

Mean Area 167.3
Mean Conc. 5.115mg/L



Sample

Sample Name: L09020401-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

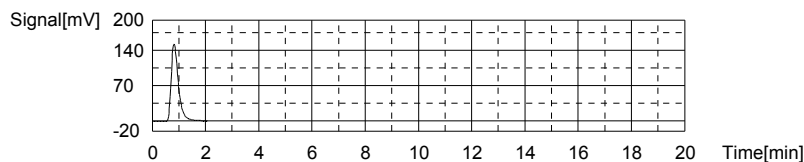
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.361mg/L TC:7.444mg/L IC:4.083mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	288.8	7.444mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/20/2009 08:05:18 PM

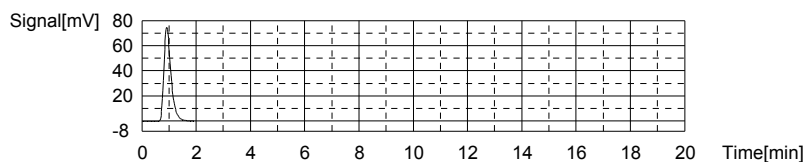
Mean Area 288.8
Mean Conc. 7.444mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	135.6	4.083mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	2/20/2009 08:10:13 PM

Mean Area 135.6
Mean Conc. 4.083mg/L



Sample

Sample Name: L09020401-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.8874mg/L TC:3.757mg/L IC:2.870mg/L

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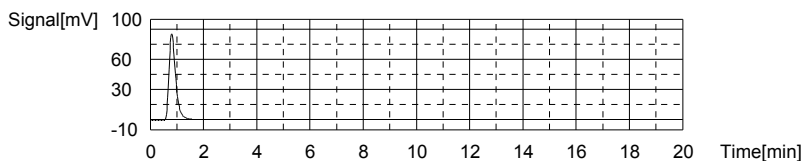
02-20-2009-DIH-TOC.132

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	149.8	3.757mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 08:17:38 PM

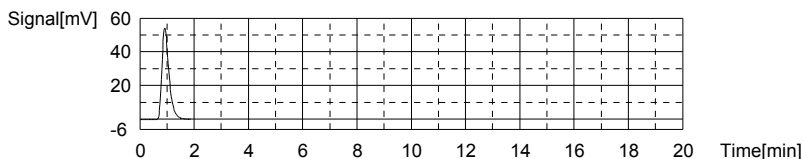
Mean Area 149.8
Mean Conc. 3.757mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	98.37	2.870mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 08:22:29 PM

Mean Area 98.37
Mean Conc. 2.870mg/L



Sample

Sample Name: WG295409-05 DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

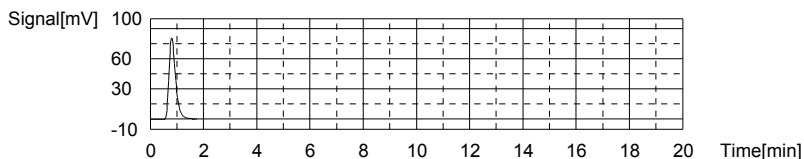
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.8517mg/L TC:3.489mg/L IC:2.638mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	139.7	3.489mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 08:29:43 PM

Mean Area 139.7
Mean Conc. 3.489mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	91.24	2.638mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 08:34:33 PM

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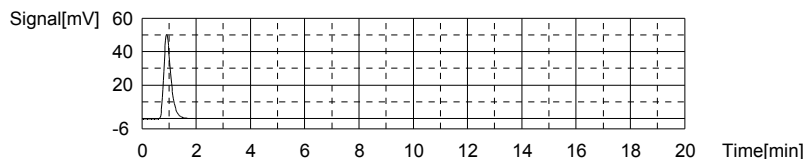
Heanna Roberts

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02-20-2009-DIH-TOC.i32

Mean Area 91.24
Mean Conc. 2.638mg/L



Sample

Sample Name: L09020401-04 MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

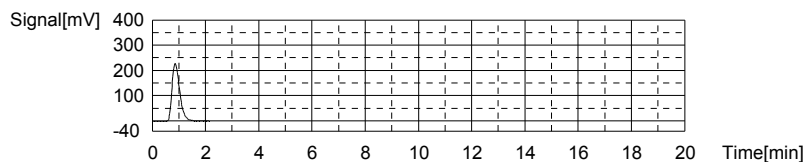
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.35mg/L TC:12.01mg/L IC:1.659mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	461.1	12.01mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/20/2009 08:42:09 PM

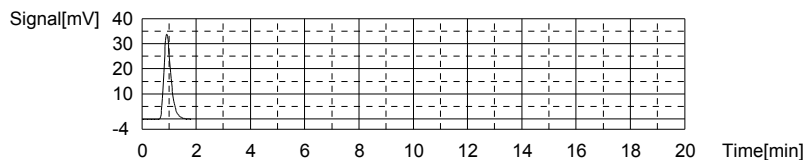
Mean Area 461.1
Mean Conc. 12.01mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.18	1.659mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	2/20/2009 08:46:54 PM

Mean Area 61.18
Mean Conc. 1.659mg/L



Sample

Sample Name: L09020401-05 MSD
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.989mg/L TC:11.12mg/L IC:1.128mg/L

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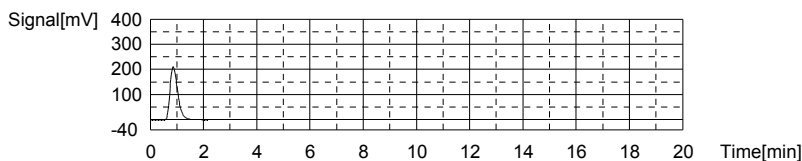
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	427.3	11.12mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 08:54:32 PM

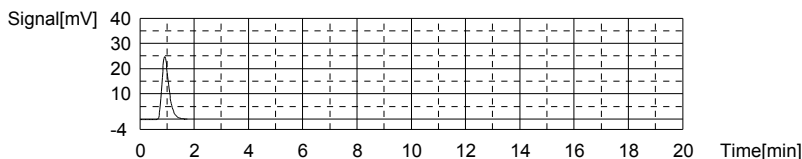
Mean Area 427.3
Mean Conc. 11.12mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.90	1.128mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 08:59:14 PM

Mean Area 44.90
Mean Conc. 1.128mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

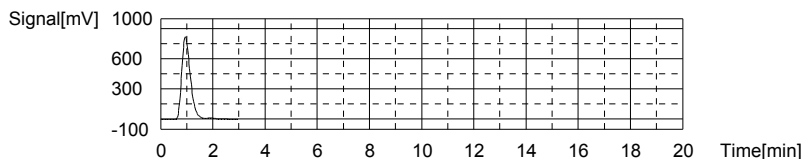
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.71mg/L TC:50.60mg/L IC:-0.1132mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1916	50.60mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 09:07:52 PM

Mean Area 1916
Mean Conc. 50.60mg/L



Anal.: IC

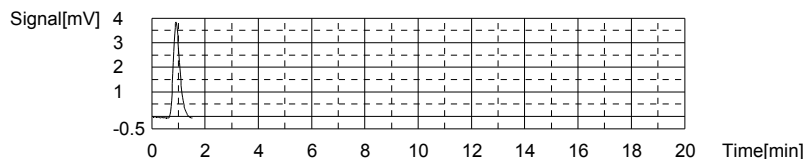
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.783	-0.1132mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 09:12:19 PM

Approved: February 24, 2009

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02-20-2009-DIH-TOC.i32

Mean Area 6.783
Mean Conc. -0.1132mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

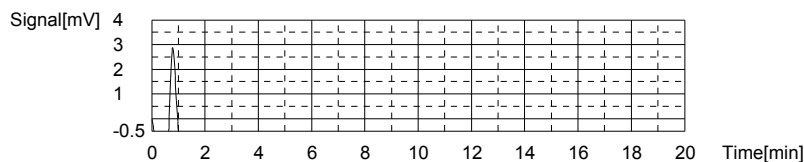
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.09404mg/L TC:-0.01437mg/L IC:-0.1084mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.585	-0.01437mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/20/2009 09:17:22 PM

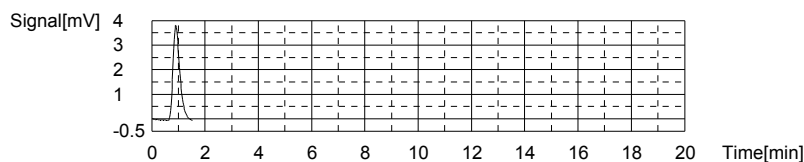
Mean Area 7.585
Mean Conc. -0.01437mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.931	-0.1084mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	2/20/2009 09:21:25 PM

Mean Area 6.931
Mean Conc. -0.1084mg/L



Sample

Sample Name: L09020401-06
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.866mg/L TC:9.372mg/L IC:7.506mg/L

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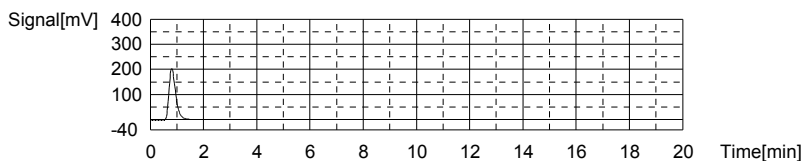
02-20-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	361.5	9.372mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 09:29:05 PM

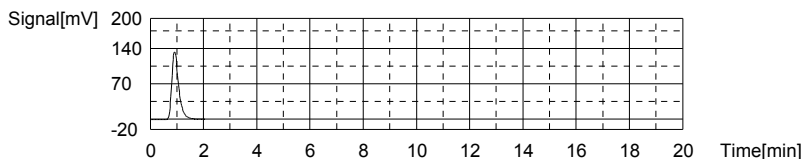
Mean Area 361.5
Mean Conc. 9.372mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	240.7	7.506mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 09:34:09 PM

Mean Area 240.7
Mean Conc. 7.506mg/L



Sample

Sample Name: L09020401-07
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

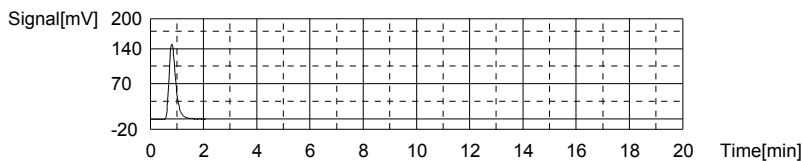
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.438mg/L TC:6.852mg/L IC:5.415mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	266.5	6.852mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/20/2009 09:41:43 PM

Mean Area 266.5
Mean Conc. 6.852mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	176.5	5.415mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/20/2009 09:46:48 PM

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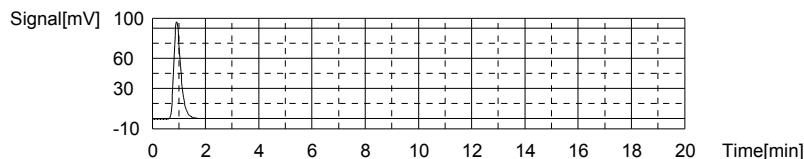
Kearna Roberts

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02-20-2009-DIH-TOC.i32

Mean Area 176.5
Mean Conc. 5.415mg/L



Sample

Sample Name: L09020410-01 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

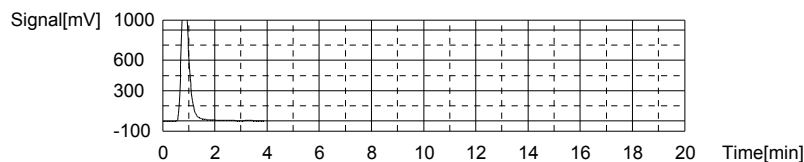
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:25.93mg/L TC:70.94mg/L IC:45.01mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2683	70.94mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 09:56:09 PM

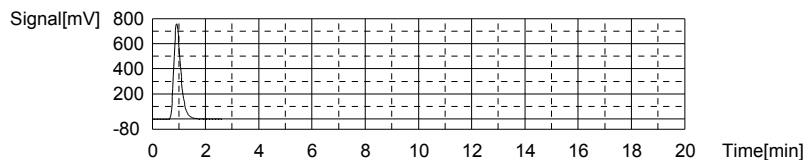
Mean Area 2683
Mean Conc. 70.94mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1392	45.01mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 10:02:12 PM

Mean Area 1392
Mean Conc. 45.01mg/L



Sample

Sample Name: L09020410-02 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.243mg/L TC:97.91mg/L IC:93.67mg/L

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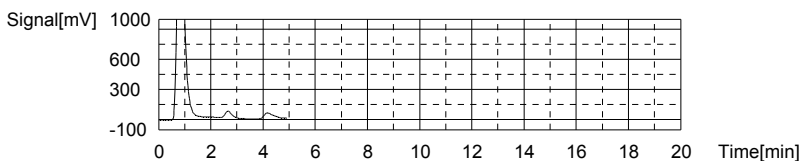
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3700	97.91mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 10:12:35 PM

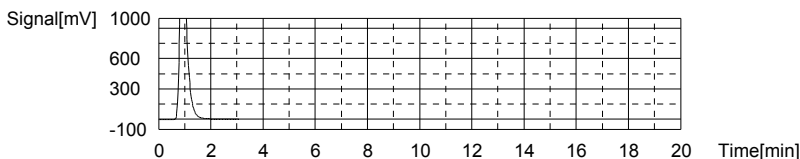
Mean Area 3700
Mean Conc. 97.91mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2886	93.67mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 10:19:34 PM

Mean Area 2886
Mean Conc. 93.67mg/L



Sample

Sample Name: L09020410-03 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

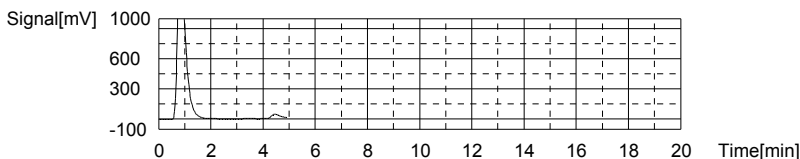
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:35.02mg/L TC:81.95mg/L IC:46.93mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3098	81.95mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 10:29:57 PM

Mean Area 3098
Mean Conc. 81.95mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1451	46.93mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 10:36:11 PM

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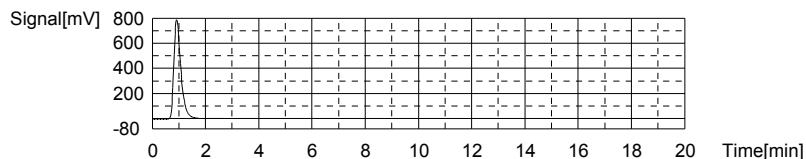
Kearna Roberts

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Mean Area 1451
Mean Conc. 46.93mg/L



Sample

Sample Name: L09020410-04 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

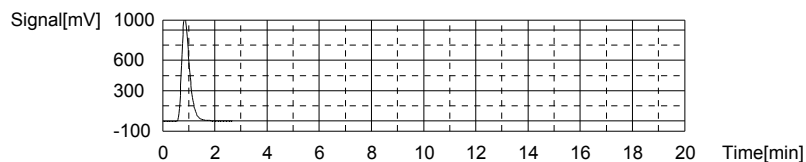
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:32.40mg/L TC:57.15mg/L IC:24.75mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2163	57.15mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/20/2009 10:44:20 PM

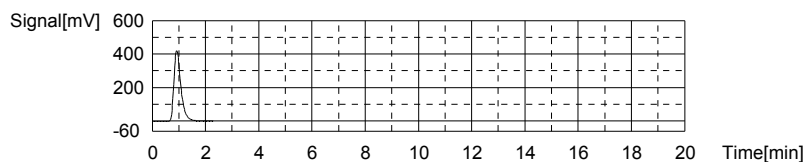
Mean Area 2163
Mean Conc. 57.15mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	770.2	24.75mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	2/20/2009 10:49:55 PM

Mean Area 770.2
Mean Conc. 24.75mg/L



Sample

Sample Name: L09020410-05 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:34.33mg/L TC:75.13mg/L IC:40.80mg/L

Kearna Roberts

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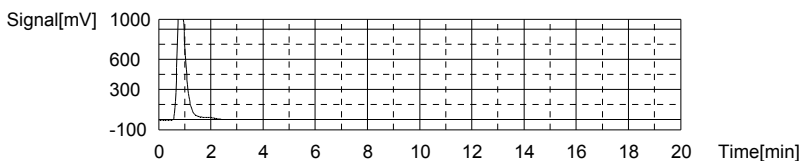
02-20-2009-DIH-TOC.132

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2841	75.13mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 10:58:54 PM

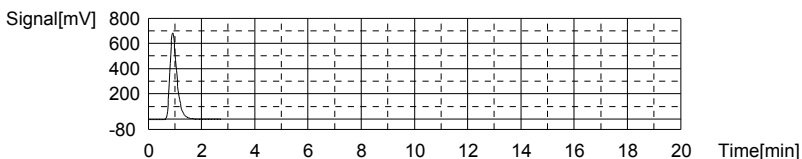
Mean Area 2841
Mean Conc. 75.13mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1263	40.80mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:05:02 PM

Mean Area 1263
Mean Conc. 40.80mg/L



Sample

Sample Name: L09020410-06 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

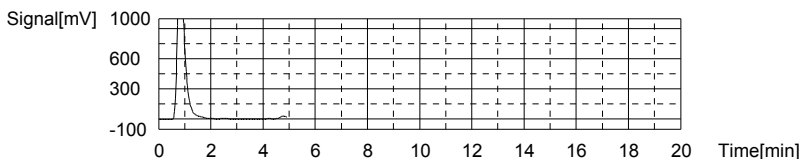
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:18.29mg/L TC:67.63mg/L IC:49.34mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2558	67.63mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:15:25 PM

Mean Area 2558
Mean Conc. 67.63mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1525	49.34mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:21:32 PM

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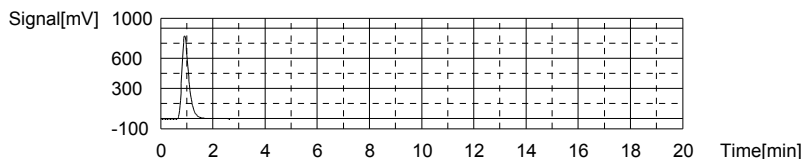
Kearna Roberts

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Mean Area 1525
Mean Conc. 49.34mg/L



Sample

Sample Name: L09020410-07 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

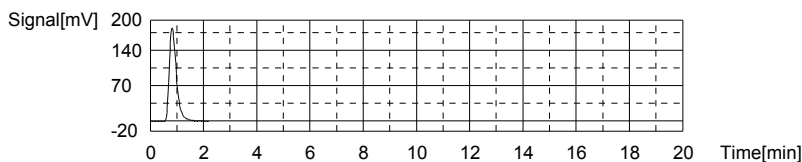
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.414mg/L TC:9.038mg/L IC:4.623mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	348.9	9.038mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/20/2009 11:29:14 PM

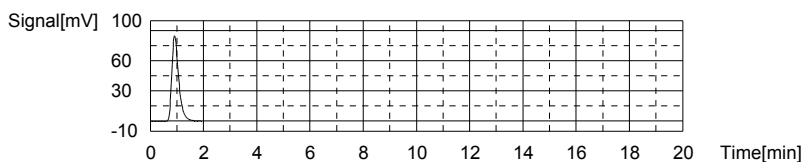
Mean Area 348.9
Mean Conc. 9.038mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	152.2	4.623mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	2/20/2009 11:34:14 PM

Mean Area 152.2
Mean Conc. 4.623mg/L



Sample

Sample Name: L09020410-08 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:51.26mg/L TC:77.07mg/L IC:25.81mg/L

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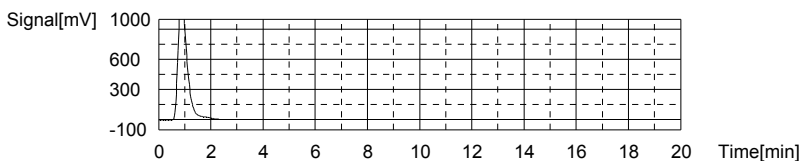
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2914	77.07mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:42:56 PM

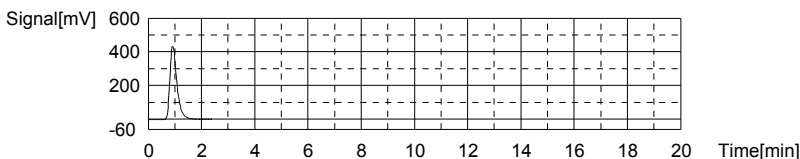
Mean Area 2914
Mean Conc. 77.07mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	802.5	25.81mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 11:48:39 PM

Mean Area 802.5
Mean Conc. 25.81mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

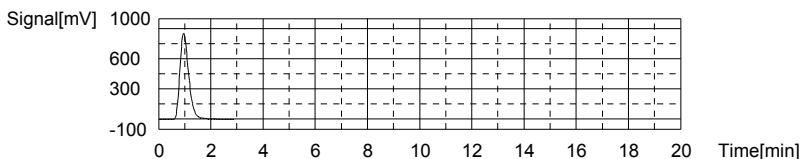
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:53.22mg/L TC:53.20mg/L IC:-0.02692mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2014	53.20mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 11:57:03 PM

Mean Area 2014
Mean Conc. 53.20mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.433	-0.02692mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 12:01:35 AM

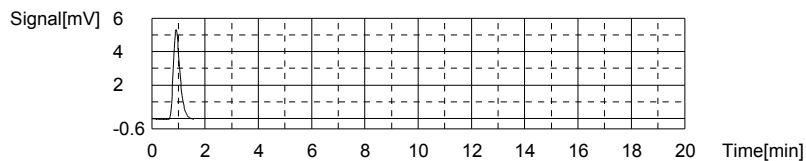
Kearna Roberts

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02/23/2009 12:30:53 PM

02-20-2009-DIH-TOC.t32

Mean Area 9.433
Mean Conc. -0.02692mg/L



Sample

Sample Name: WG295409-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

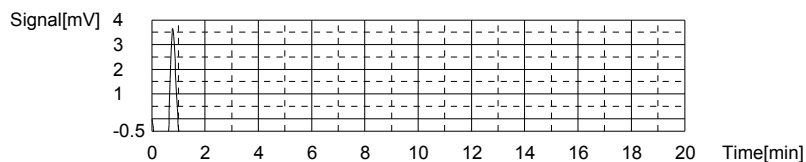
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1113mg/L TC:0.03169mg/L IC:-0.07962mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.322	0.03169mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 12:06:39 AM

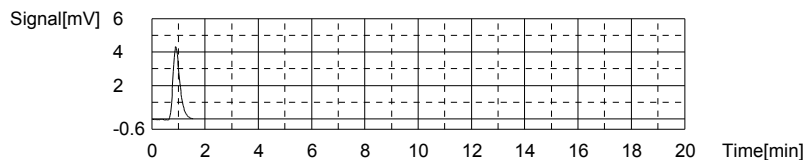
Mean Area 9.322
Mean Conc. 0.03169mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.815	-0.07962mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 12:10:39 AM

Mean Area 7.815
Mean Conc. -0.07962mg/L



Sample

Sample Name: WG295409-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.16mg/L TC:26.06mg/L IC:-0.09369mg/L

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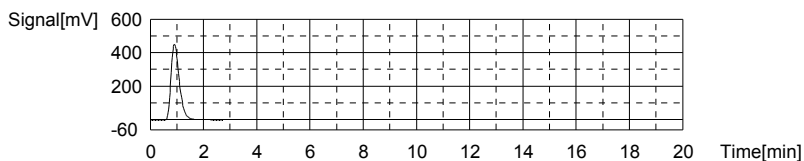
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	990.9	26.06mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 12:18:58 AM

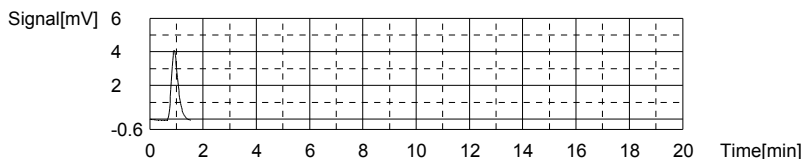
Mean Area 990.9
Mean Conc. 26.06mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.383	-0.09369mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 12:23:26 AM

Mean Area 7.383
Mean Conc. -0.09369mg/L



Sample

Sample Name: WG295409-03 LCSDUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

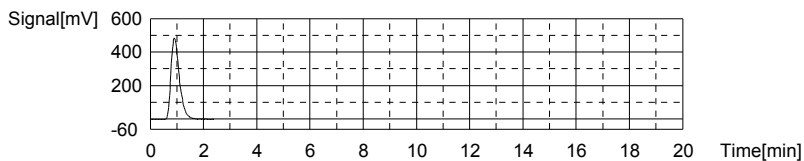
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:28.21mg/L TC:28.11mg/L IC:-0.09930mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1068	28.11mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 12:31:14 AM

Mean Area 1068
Mean Conc. 28.11mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.211	-0.09930mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 12:35:42 AM

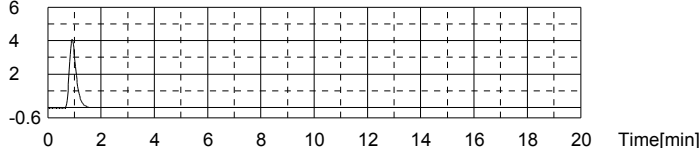
Approved: February 24, 2009

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Mean Area 7.211
Mean Conc. -0.09930mg/L

Signal[mV] 6



Sample

Sample Name: L09020410-09 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:55.48mg/L TC:79.77mg/L IC:24.29mg/L

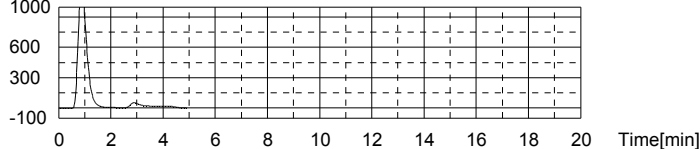
1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3016	79.77mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/21/2009 12:46:12 AM

Mean Area 3016
Mean Conc. 79.77mg/L

Signal[mV] 1000

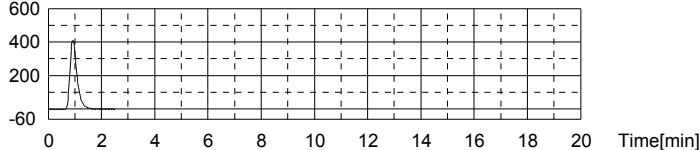


Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	756.0	24.29mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	2/21/2009 12:51:57 AM

Mean Area 756.0
Mean Conc. 24.29mg/L

Signal[mV] 600



Sample

Sample Name: L09020410-10
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4250mg/L TC:0.3934mg/L IC:-0.03161mg/L

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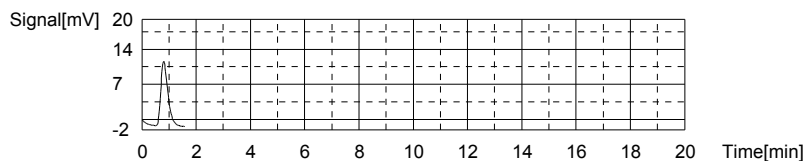
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.96	0.3934mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 12:59:00 AM

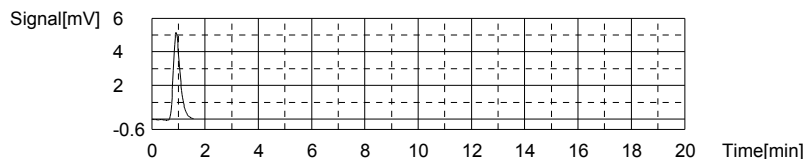
Mean Area 22.96
Mean Conc. 0.3934mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.289	-0.03161mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 01:03:32 AM

Mean Area 9.289
Mean Conc. -0.03161mg/L



Sample

Sample Name: L09020427-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

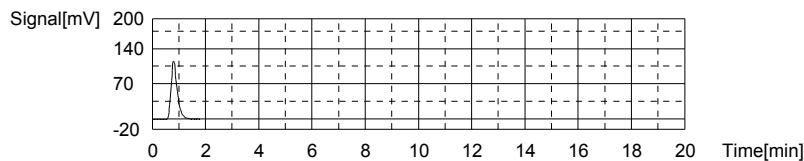
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.9267mg/L TC:4.723mg/L IC:3.796mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.2	4.723mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 01:10:50 AM

Mean Area 186.2
Mean Conc. 4.723mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	126.8	3.796mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 01:15:46 AM

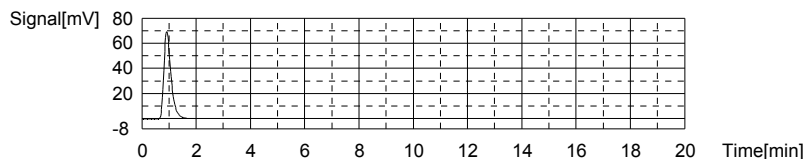
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Mean Area 126.8
Mean Conc. 3.796mg/L



Sample

Sample Name: L09020427-04
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

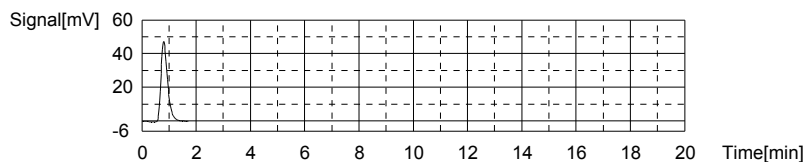
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.4608mg/L TC:1.928mg/L IC:1.467mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.82	1.928mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 01:23:02 AM

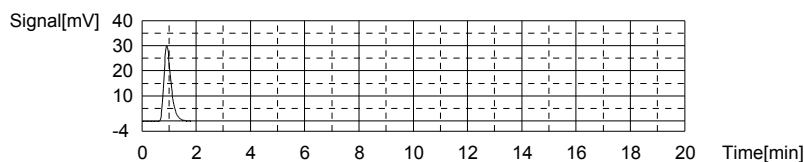
Mean Area 80.82
Mean Conc. 1.928mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.30	1.467mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 01:27:51 AM

Mean Area 55.30
Mean Conc. 1.467mg/L



Sample

Sample Name: WG295409-05 DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.6913mg/L TC:2.171mg/L IC:1.480mg/L

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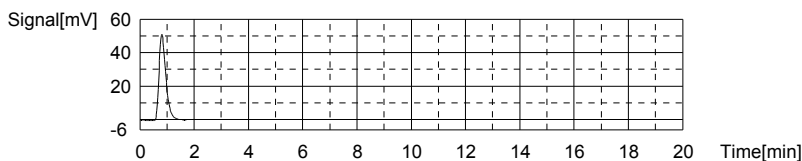
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.99	2.171mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 01:35:06 AM

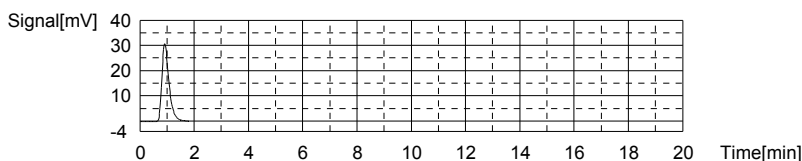
Mean Area 89.99
Mean Conc. 2.171mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.69	1.480mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 01:39:53 AM

Mean Area 55.69
Mean Conc. 1.480mg/L



Sample

Sample Name: L09020427-07 MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

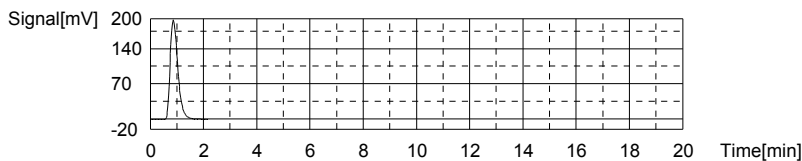
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.595mg/L TC:10.37mg/L IC:0.7762mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	399.2	10.37mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 01:47:32 AM

Mean Area 399.2
Mean Conc. 10.37mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.09	0.7762mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 01:52:13 AM

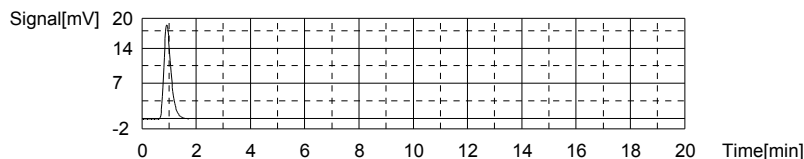
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Mean Area 34.09
Mean Conc. 0.7762mg/L



Sample

Sample Name: L09020427-10 MSD
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

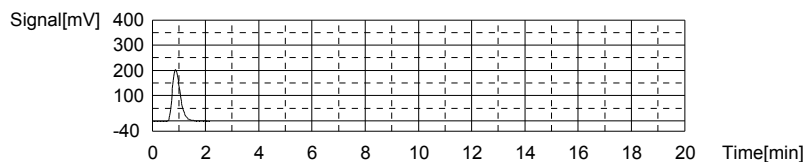
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:10.73mg/L TC:11.11mg/L IC:0.3805mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	427.2	11.11mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 01:59:54 AM

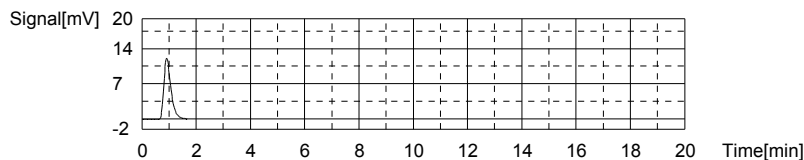
Mean Area 427.2
Mean Conc. 11.11mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.94	0.3805mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 02:04:30 AM

Mean Area 21.94
Mean Conc. 0.3805mg/L



Sample

Sample Name: L09020427-13
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.6139mg/L TC:2.298mg/L IC:1.684mg/L

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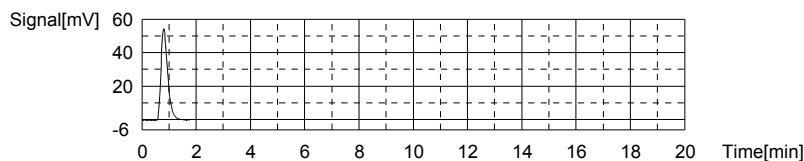
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	94.77	2.298mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 02:11:53 AM

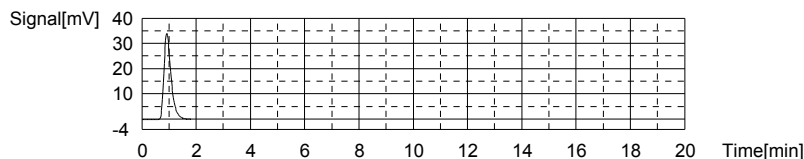
Mean Area 94.77
Mean Conc. 2.298mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.96	1.684mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 02:16:39 AM

Mean Area 61.96
Mean Conc. 1.684mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

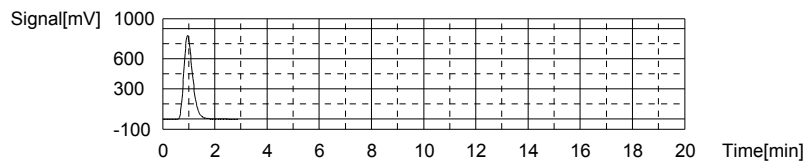
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:51.37mg/L TC:51.29mg/L IC:-0.08314mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1942	51.29mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 02:25:08 AM

Mean Area 1942
Mean Conc. 51.29mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.707	-0.08314mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 02:29:36 AM

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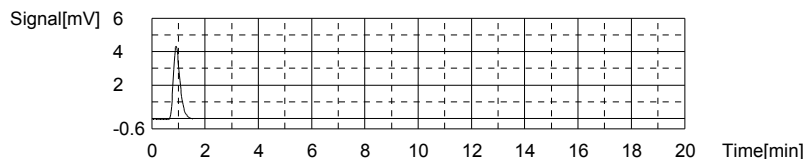
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02-20-2009-DIH-TOC.t32

Mean Area 7.707
Mean Conc. -0.08314mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

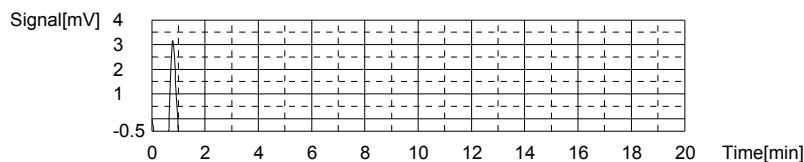
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.09337mg/L TC:-0.00056mg/L IC:-0.09392mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.106	-0.00056mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 02:34:39 AM

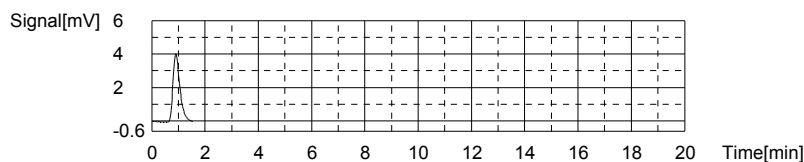
Mean Area 8.106
Mean Conc. -0.00056mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.376	-0.09392mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 02:38:40 AM

Mean Area 7.376
Mean Conc. -0.09392mg/L



Sample

Sample Name: L09020427-16
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.3669mg/L TC:1.612mg/L IC:1.245mg/L

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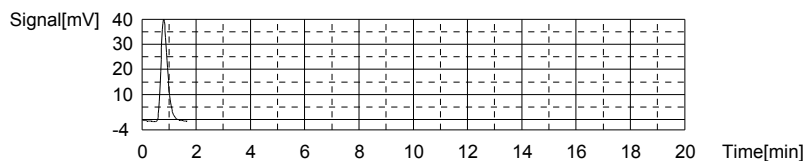
02-20-2009-DIH-TOC.132

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.89	1.612mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 02:45:51 AM

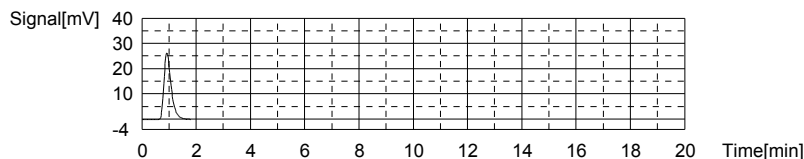
Mean Area 68.89
Mean Conc. 1.612mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.47	1.245mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 02:50:39 AM

Mean Area 48.47
Mean Conc. 1.245mg/L



Sample

Sample Name: L09020427-19
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

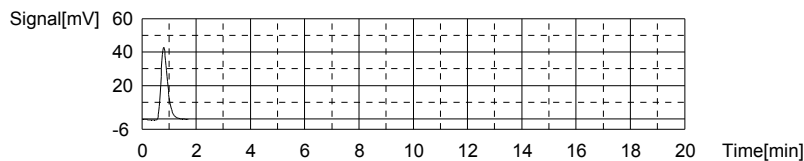
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.4687mg/L TC:1.746mg/L IC:1.277mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.97	1.746mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 02:58:05 AM

Mean Area 73.97
Mean Conc. 1.746mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.48	1.277mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 03:02:50 AM

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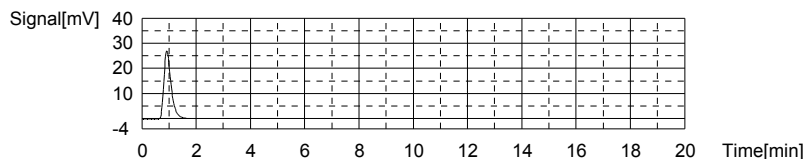
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Mean Area 49.48
Mean Conc. 1.277mg/L



Sample

Sample Name: L09020427-22
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

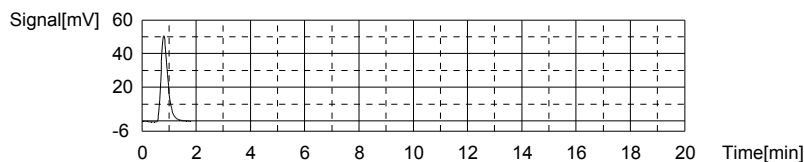
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.5793mg/L TC:2.147mg/L IC:1.567mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	89.07	2.147mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 03:10:06 AM

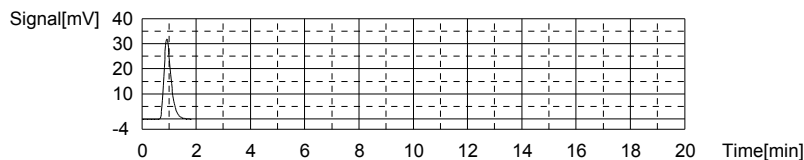
Mean Area 89.07
Mean Conc. 2.147mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.38	1.567mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 03:14:54 AM

Mean Area 58.38
Mean Conc. 1.567mg/L



Sample

Sample Name: L09020427-25
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.5311mg/L TC:1.903mg/L IC:1.372mg/L

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Kearna Roberts

Approved: February 24, 2009

02/23/2009 12:30:53 PM

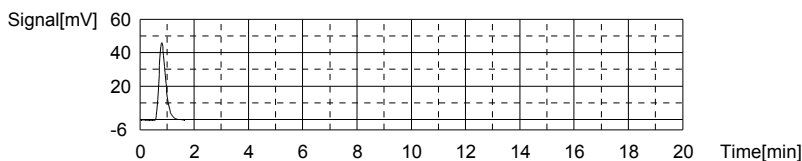
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.87	1.903mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 03:22:02 AM

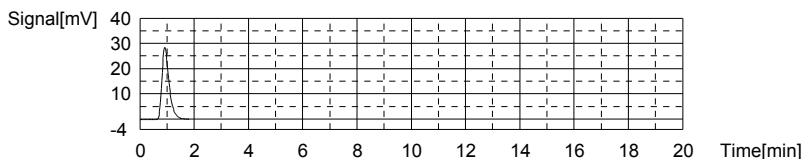
Mean Area 79.87
Mean Conc. 1.903mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.37	1.372mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 03:26:49 AM

Mean Area 52.37
Mean Conc. 1.372mg/L



Sample

Sample Name: L09020427-28
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

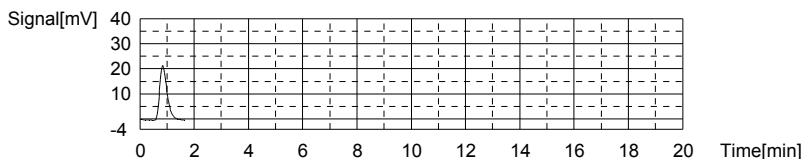
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.9583mg/L TC:0.8732mg/L IC:-0.08510mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.05	0.8732mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 03:33:58 AM

Mean Area 41.05
Mean Conc. 0.8732mg/L



Anal.: IC

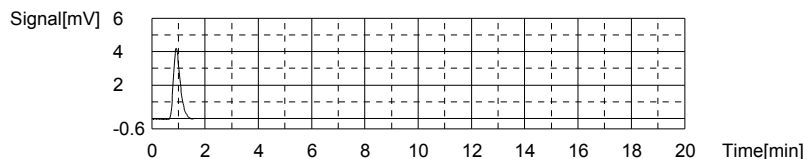
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.647	-0.08510mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 03:38:25 AM

Approved: February 24, 2009

02/23/2009 12:30:53 PM

02-20-2009-DIH-TOC.i32

Mean Area 7.647
Mean Conc. -0.08510mg/L



Sample

Sample Name: L09020427-31
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

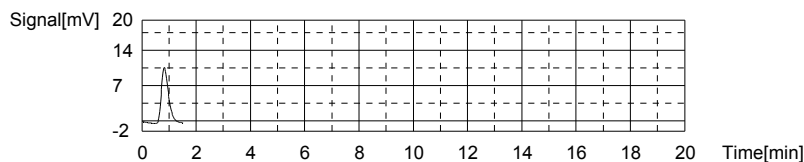
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.4134mg/L TC:0.3202mg/L IC:-0.09321mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.20	0.3202mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 03:45:40 AM

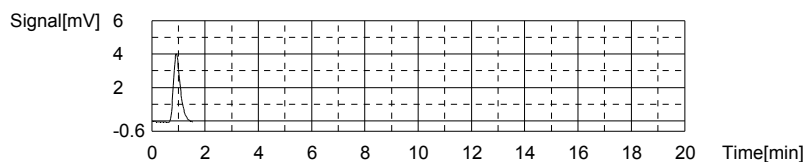
Mean Area 20.20
Mean Conc. 0.3202mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.398	-0.09321mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 03:50:10 AM

Mean Area 7.398
Mean Conc. -0.09321mg/L



Sample

Sample Name: L09020438-01 (3)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.793mg/L TC:7.006mg/L IC:3.213mg/L

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Kearna Roberts

Approved: February 24, 2009

02/23/2009 12:30:53 PM

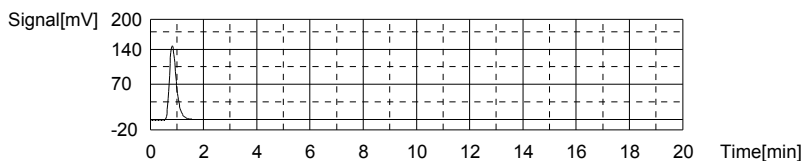
02-20-2009-DIH-TOC.132

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	272.3	7.006mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 03:57:43 AM

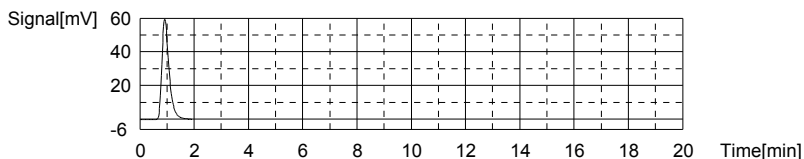
Mean Area 272.3
Mean Conc. 7.006mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	108.9	3.213mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 04:02:36 AM

Mean Area 108.9
Mean Conc. 3.213mg/L



Sample

Sample Name: L09020438-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

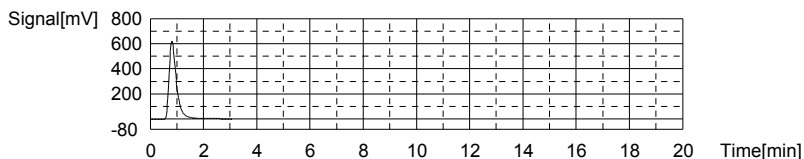
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.127mg/L TC:32.17mg/L IC:28.04mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1221	32.17mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 04:11:06 AM

Mean Area 1221
Mean Conc. 32.17mg/L



Anal.: IC

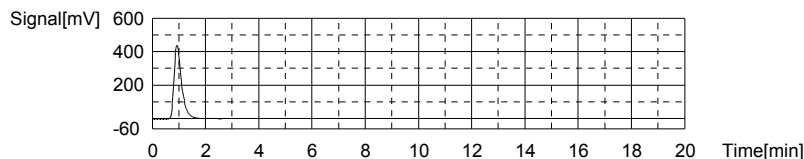
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	871.1	28.04mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 04:17:03 AM

Approved: February 24, 2009

02/23/2009 12:30:53 PM

02-20-2009-DIH-TOC.t32

Mean Area 871.1
Mean Conc. 28.04mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

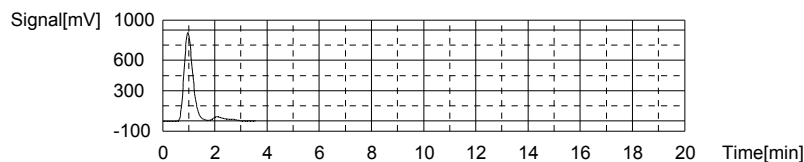
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:58.18mg/L TC:58.16mg/L IC:-0.01920mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2201	58.16mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/21/2009 04:26:06 AM

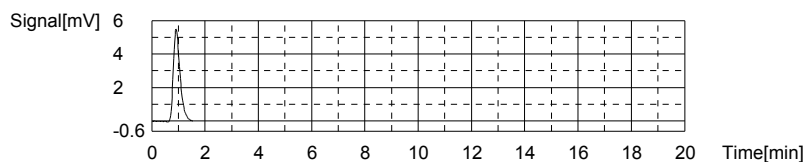
Mean Area 2201
Mean Conc. 58.16mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.670	-0.01920mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/21/2009 04:30:35 AM

Mean Area 9.670
Mean Conc. -0.01920mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.08442mg/L TC:0.00496mg/L IC:-0.07946mg/L

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Kearna Roberts

Approved: February 24, 2009

02/23/2009 12:30:53 PM

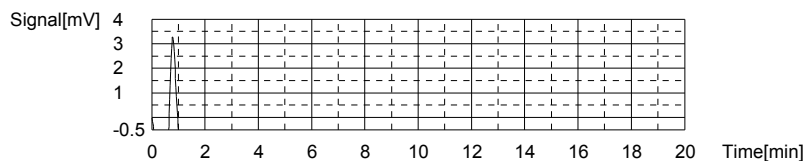
02-20-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.314	0.00496mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/21/2009 04:35:37 AM

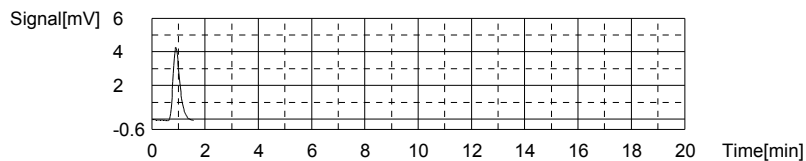
Mean Area 8.314
Mean Conc. 0.00496mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.820	-0.07946mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/21/2009 04:39:42 AM

Mean Area 7.820
Mean Conc. -0.07946mg/L



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Heanna Roberts

Approved: February 24, 2009

WORKGROUP: WG295247

Total Organic Carbon

295251/2

295252

CCV (TOC): 5/d 30838 MAKE DAILY LCS (TOC): 25/d 30420

$(\frac{10}{200} (1000) = 50 \text{ mg/L})$ $(\frac{2}{200} (1000) = 10 \text{ mg/L})$ $(\frac{5}{200} (1000) = 25 \text{ mg/L})$

CCV (TIC): 5/d 28734 MS (TOC): 0.4/40(1000)=10

$(\frac{5}{200} (1000) = 25 \text{ mg/L})$

Calibration Curve Date: 1/13/09

☒ SM5310-C Matrix 2 WG 295251 EPA 415.1/9060A(mod): Matrix 1 WG 295247, 295252 SOP: K 4/5/1 Rev. 1/1

WG Instrument: Shimadzu TOC-VWP/ASI

☒ drain reservoir filled
☒ ASI water bottle full
☒ dilution water bottle full

☒ DAILY CHECK
☒ 3rd bottle full
☒ sufficient gas
☒ sufficient persulfate

☒ sufficient acid
☒ waste container

Position	Sample ID	Dilution
1	CCV 50	
2	CCV 10	
3	TIC 25	
4	BLK	
5	LCS 25	
6	LCS DUP	
7	02-346-01	
8	02	
9	03	
10	02-278-05	1/10
11	02-371-01	1/5
12	02	1/5
13	02-294-02	1/10
14	02-300-01	1/2
15	CCV	
16	CCB	
17	02-300-06	1/50
18	07	1/50
19	02-311-09	
20	02-323-04	
21	05	
22	06	
23	02-324-01	
24	02	
25	03	

Position	Sample ID	Dilution
26	02-356-01	1/5
27	CCV	
28	CCB	
29	02-356-02	
30	02-346-03	1/4
31	DUP 346-01	
32	MS	
33	BLK	
34	LCS	
35	LCS DUP	
36	02-258-01	
37	02	
38	02-259-01	
39	CCV	
40	CCB	
41	02-275-01	
42	02-370-09	
43	02-372-01	1/5
44	02-276-01	
45	02	
46	02-364-01	
47	02	
48	DUP 258-01	
49	DUP 258-01	
50	02-294-02	1/25

Position	Sample ID	Dilution
51	CCV	
52	CCB/BLK	
53	LCS	
54	LCS DUP	
55	02-356-01	1/2
56	02	1/2
57	03	1/2
58	04	1/10
59	05	1/10
60	06	1/2
61	07	1/2
62	08	1/2
63	CCV	
64	CCB	
65	02-356-09	1/2
66	10	1/2
67	11	1/2
68	12	1/2
69	13	1/5
70	14	1/5
71	15	1/5
72	17	
73	DUP 15	1/5
74	MS	1/5
75	CCV	

Analyst: Heanna RobertsDate/Time: 2/19/09

DCN#78438



Heanna Roberts

Approved: February 24, 2009

	Analysis	Sample Name	Result	Status	Date / Time	Vial
1	TOC	CCV 50	!!Error!! TOC:54.02mg/L TC:53.81mg/L IC:-0.2127mg	Comple	02/19/2009 10:37:45 AM	1
2	TOC	CCV 10	!!Error!! TOC:11.23mg/L TC:11.05mg/L IC:-0.1807mg	Comple	02/19/2009 10:50:14 AM	2
3	TOC	TIC 25	TOC:2.657mg/L TC:27.42mg/L IC:24.76mg/L	Comple	02/19/2009 11:03:53 AM	3
4	TOC	WG295247-01 BLANK	!!Error!! TOC:0.1459mg/L TC:0.0557mg/L IC:-0.090	Comple	02/19/2009 11:12:59 AM	0
5	TOC	WG295247-02 LCS	!!Error!! TOC:25.41mg/L TC:25.22mg/L IC:-0.1897mg	Comple	02/19/2009 11:25:24 AM	5
6	TOC	WG295247-03 LCSDUP	!!Error!! TOC:27.50mg/L TC:27.31mg/L IC:-0.1887mg	Comple	02/19/2009 11:37:46 AM	6
7	TOC	L09020346-01	TOC:7.960mg/L TC:26.23mg/L IC:18.27mg/L	Comple	02/19/2009 11:51:17 AM	7
8	TOC	L09020346-02	TOC:7.072mg/L TC:24.36mg/L IC:17.28mg/L	Comple	02/19/2009 12:05:00 PM	8
9	TOC	L09020346-03 X	!!Error!! TOC:-0.1708mg/L TC:74.57mg/L IC:74.74mg	Comple	02/19/2009 12:20:51 PM	9
10	TOC	L09020278-05 (10)	TOC:9.361mg/L TC:12.91mg/L IC:3.552mg/L	Comple	02/19/2009 12:33:43 PM	10
11	TOC	L09020371-01 (5)	TOC:1.863mg/L TC:8.043mg/L IC:6.180mg/L	Comple	02/19/2009 12:46:09 PM	11
12	TOC	L09020371-02 (5)	TOC:1.739mg/L TC:8.327mg/L IC:6.587mg/L	Comple	02/19/2009 12:59:19 PM	12
13	TOC	L09020294-02 (10) X	TOC:45.85mg/L TC:69.14mg/L IC:23.28mg/L	Comple	02/19/2009 01:15:14 PM	13
14	TOC	L09020300-01 (2)	TOC:4.618mg/L TC:24.93mg/L IC:20.32mg/L	Comple	02/19/2009 01:28:35 PM	14
15	TOC	CCV	!!Error!! TOC:53.95mg/L TC:53.86mg/L IC:-0.08813m	Comple	02/19/2009 01:41:21 PM	15
16	TOC	CCB	!!Error!! TOC:0.1058mg/L TC:0.01960mg/L IC:-0.086	Comple	02/19/2009 01:50:22 PM	0
17	TOC	L09020300-06 (50) X	TOC:3.415mg/L TC:7.950mg/L IC:4.535mg/L	Comple	02/19/2009 02:03:12 PM	17
18	TOC	L09020300-07 (50) X	TOC:3.052mg/L TC:6.059mg/L IC:3.008mg/L	Comple	02/19/2009 02:15:22 PM	18
19	TOC	L09020311-09	!!Error!! TOC:0.2318mg/L TC:0.1762mg/L IC:-0.0556	Comple	02/19/2009 02:26:45 PM	19
20	TOC	L09020323-04 X	TOC:8.623mg/L TC:57.73mg/L IC:49.11mg/L	Comple	02/19/2009 02:43:10 PM	20
21	TOC	L09020323-05 X	TOC:7.269mg/L TC:58.53mg/L IC:51.26mg/L	Comple	02/19/2009 03:11:58 PM	21
22	TOC	L09020323-06 X	TOC:11.39mg/L TC:59.75mg/L IC:48.36mg/L	Comple	02/19/2009 03:28:20 PM	22
23	TOC	L09020324-01 X	TOC:0.3296mg/L TC:78.23mg/L IC:77.90mg/L	Comple	02/19/2009 03:45:17 PM	23
24	TOC	L09020324-02	TOC:3.871mg/L TC:34.45mg/L IC:30.58mg/L	Comple	02/19/2009 03:59:28 PM	24
25	TOC	L09020324-03	TOC:3.888mg/L TC:27.79mg/L IC:23.90mg/L	Comple	02/19/2009 04:12:59 PM	25
26	TOC	L09020400-01 (5)	TOC:6.337mg/L TC:36.89mg/L IC:30.55mg/L	Comple	02/19/2009 04:28:38 PM	26
27	TOC	CCV	!!Error!! TOC:50.19mg/L TC:50.17mg/L IC:-0.01350m	Comple	02/19/2009 04:41:49 PM	27
28	TOC	CCB	!!Error!! TOC:0.1025mg/L TC:-0.03068mg/L IC:-0.133	Comple	02/19/2009 04:50:49 PM	0
29	TOC	L09020400-02 X	TOC:6.181mg/L TC:72.00mg/L IC:65.82mg/L	Comple	02/19/2009 05:07:23 PM	29
30	TOC	L09020346-03 (4)	TOC:1.875mg/L TC:11.39mg/L IC:9.512mg/L	Comple	02/19/2009 05:20:11 PM	30
31	TOC	WG295247-05 DUP	TOC:6.146mg/L TC:14.93mg/L IC:8.780mg/L	Comple	02/19/2009 05:32:59 PM	31
32	TOC	WG295247-06 MS	TOC:17.98mg/L TC:28.16mg/L IC:10.18mg/L	Comple	02/19/2009 05:48:28 PM	32
33	TOC	WG295251-01 BLANK	!!Error!! TOC:0.1120mg/L TC:-0.02098mg/L IC:-0.133	Comple	02/19/2009 06:05:00 PM	0
34	TOC	WG295251-02 LCS	!!Error!! TOC:27.39mg/L TC:27.27mg/L IC:-0.1133mg	Comple	02/19/2009 06:27:20 PM	34
35	TOC	WG295251-03 LCSDUP	!!Error!! TOC:25.26mg/L TC:25.14mg/L IC:-0.1171mg	Comple	02/19/2009 06:48:58 PM	35
36	TOC	L09020258-01	TOC:6.210mg/L TC:17.23mg/L IC:11.02mg/L	Comple	02/19/2009 07:11:31 PM	36
37	TOC	L09020258-02	TOC:2.795mg/L TC:3.261mg/L IC:0.4664mg/L	Comple	02/19/2009 07:32:45 PM	37
38	TOC	L09020259-01	TOC:8.444mg/L TC:9.689mg/L IC:1.245mg/L	Comple	02/19/2009 07:54:28 PM	38
39	TOC	CCV	!!Error!! TOC:55.87mg/L TC:55.74mg/L IC:-0.1268mg	Comple	02/19/2009 08:16:33 PM	39
40	TOC	CCB	!!Error!! TOC:0.1037mg/L TC:-0.04442mg/L IC:-0.148	Comple	02/19/2009 08:33:04 PM	0
41	TOC	L09020275-01	TOC:24.36mg/L TC:36.21mg/L IC:11.85mg/L	Comple	02/19/2009 08:58:53 PM	41
42	TOC	L09020370-09	TOC:3.178mg/L TC:5.623mg/L IC:2.445mg/L	Comple	02/19/2009 09:20:29 PM	42
43	TOC	L09020372-01 (5)	TOC:6.171mg/L TC:7.155mg/L IC:0.9834mg/L	Comple	02/19/2009 09:42:35 PM	43
44	TOC	L09020276-01	TOC:3.874mg/L TC:5.545mg/L IC:1.671mg/L	Comple	02/19/2009 10:04:12 PM	44
45	TOC	L09020276-02	TOC:2.747mg/L TC:4.638mg/L IC:1.891mg/L	Comple	02/19/2009 10:26:44 PM	45
46	TOC	L09020364-01	TOC:2.450mg/L TC:4.017mg/L IC:1.567mg/L	Comple	02/19/2009 10:47:48 PM	46
47	TOC	L09020364-02	TOC:2.376mg/L TC:4.088mg/L IC:1.711mg/L	Comple	02/19/2009 11:08:33 PM	47
48	TOC	WG295251-05 DUP	TOC:5.144mg/L TC:9.859mg/L IC:4.715mg/L	Comple	02/19/2009 11:30:47 PM	48
49	TOC	WG295251-06 MS	TOC:16.00mg/L TC:23.22mg/L IC:7.226mg/L	Comple	02/19/2009 11:53:51 PM	49
50	TOC	L09020294-02 (25)	TOC:11.02mg/L TC:12.85mg/L IC:1.831mg/L	Comple	02/20/2009 12:15:21 AM	50
51	TOC	CCV	!!Error!! TOC:50.25mg/L TC:50.15mg/L IC:-0.1025mg	Comple	02/20/2009 12:28:03 AM	51
52	TOC	WG295252-01 BLANK	!!Error!! TOC:0.1088mg/L TC:-0.02960mg/L IC:-0.138	Comple	02/20/2009 12:37:05 AM	0
53	TOC	WG295252-02 LCS	!!Error!! TOC:27.32mg/L TC:27.21mg/L IC:-0.1134mg	Comple	02/20/2009 12:49:26 AM	53
54	TOC	WG295252-03 LCSDUP	!!Error!! TOC:26.74mg/L TC:26.62mg/L IC:-0.1145mg	Comple	02/20/2009 01:01:51 AM	54
55	TOC	L09020356-01 (2) X	TOC:3.683mg/L TC:7.176mg/L IC:3.493mg/L	Comple	02/20/2009 01:14:19 AM	55
56	TOC	L09020356-02 (2) X	TOC:3.315mg/L TC:6.834mg/L IC:3.519mg/L	Comple	02/20/2009 01:26:46 AM	56
57	TOC	L09020356-03 (2) X	TOC:2.016mg/L TC:5.900mg/L IC:3.884mg/L	Comple	02/20/2009 01:39:02 AM	57
58	TOC	L09020356-04 (10)	TOC:25.08mg/L TC:34.92mg/L IC:9.841mg/L	Comple	02/20/2009 01:52:25 AM	58
59	TOC	L09020356-05 (10)	TOC:14.43mg/L TC:24.58mg/L IC:10.15mg/L	Comple	02/20/2009 02:05:48 AM	59
60	TOC	L09020356-06 (2)	TOC:14.00mg/L TC:20.29mg/L IC:6.291mg/L	Comple	02/20/2009 02:19:04 AM	60
61	TOC	L09020356-07 (2) X	TOC:2.222mg/L TC:6.940mg/L IC:4.718mg/L	Comple	02/20/2009 02:31:31 AM	61
62	TOC	L09020356-08 (2) X	TOC:4.771mg/L TC:8.873mg/L IC:4.102mg/L	Comple	02/20/2009 02:44:01 AM	62
63	TOC	CCV	!!Error!! TOC:53.29mg/L TC:53.20mg/L IC:-0.09259m	Comple	02/20/2009 02:56:47 AM	63
64	TOC	CCB	!!Error!! TOC:0.1013mg/L TC:-0.02978mg/L IC:-0.131	Comple	02/20/2009 03:05:49 AM	0
65	TOC	L09020356-09 (2)	TOC:17.39mg/L TC:22.05mg/L IC:4.653mg/L	Comple	02/20/2009 03:18:54 AM	65
66	TOC	L09020356-10 (2) X	TOC:5.981mg/L TC:7.123mg/L IC:1.142mg/L	Comple	02/20/2009 03:31:17 AM	66
67	TOC	L09020356-11 (2) X	TOC:1.879mg/L TC:4.991mg/L IC:3.112mg/L	Comple	02/20/2009 03:43:45 AM	67

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	Analysis	Sample Name	Result	Status	Date / Time	Vial
68	TOC	L09020356-12 (2) ~~OR~~	TOC:1.426mg/L TC:5.176mg/L IC:3.750mg/L	Comple	02/20/2009 03:56:08 AM	68
69	TOC	L09020356-13 (5) ~~OR~~	TOC:5.878mg/L TC:7.595mg/L IC:1.717mg/L	Comple	02/20/2009 04:08:24 AM	4
70	TOC	L09020356-14 (5) ~~OR~~	TOC:1.831mg/L TC:3.800mg/L IC:1.968mg/L	Comple	02/20/2009 04:20:36 AM	16
71	TOC	~~WG295252-04 (5) X~~	TOC:1.899mg/L TC:4.399mg/L IC:2.500mg/L	Comple	02/20/2009 04:32:50 AM	28
72	TOC	L09020356-17	!!Error!! TOC:0.2513mg/L TC:0.1449mg/L IC:-0.1064	Comple	02/20/2009 04:44:16 AM	33
73	TOC	WG295252-05 (5) DUP	TOC:2.171mg/L TC:4.304mg/L IC:2.133mg/L	Comple	02/20/2009 04:56:29 AM	40
74	TOC	WG292252-06 (5) MS	TOC:4.572mg/L TC:6.550mg/L IC:1.978mg/L	Comple	02/20/2009 05:08:53 AM	52
75	TOC	CCV	!!Error!! TOC:51.47mg/L TC:51.37mg/L IC:-0.09959m	Comple	02/20/2009 05:21:51 AM	1
76	TOC	CCB	!!Error!! TOC:0.1017mg/L TC:-0.02604mg/L IC:-0.127	Comple	02/20/2009 05:30:51 AM	0

x L09020356-15(5)

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02-19-2009-DIH-TOC.i32

Instr. Information

System
DetectorTOCVW ASI
Wet Chemical

Sample

Sample Name: CCV 50
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

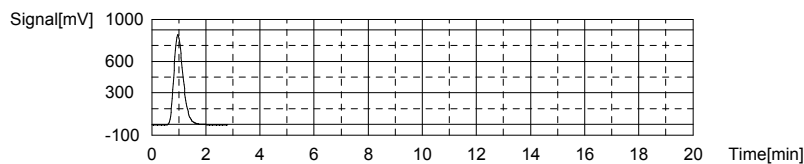
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:54.02mg/L TC:53.81mg/L IC:-0.2127mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2037	53.81mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:33:25 AM

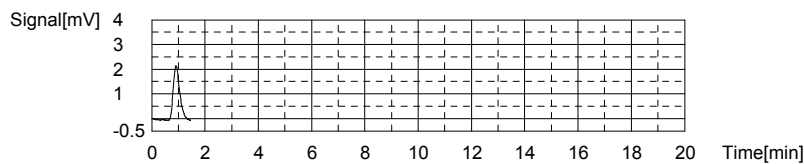
Mean Area 2037
Mean Conc. 53.81mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.728	-0.2127mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:37:45 AM

Mean Area 3.728
Mean Conc. -0.2127mg/L



Sample

Sample Name: CCV 10
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:11.23mg/L TC:11.05mg/L IC:-0.1807mg/L

1. Det

Anal.: TC

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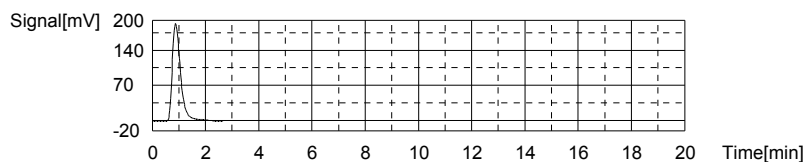
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	424.7	11.05mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:45:52 AM

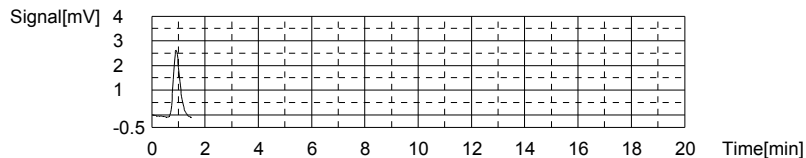
Mean Area 424.7
Mean Conc. 11.05mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.712	-0.1807mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:50:14 AM

Mean Area 4.712
Mean Conc. -0.1807mg/L



Sample

Sample Name: TIC 25
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

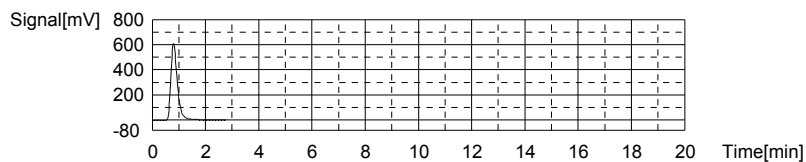
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.657mg/L TC:27.42mg/L IC:24.76mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1042	27.42mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:58:27 AM

Mean Area 1042
Mean Conc. 27.42mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	770.5	24.76mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:03:53 AM

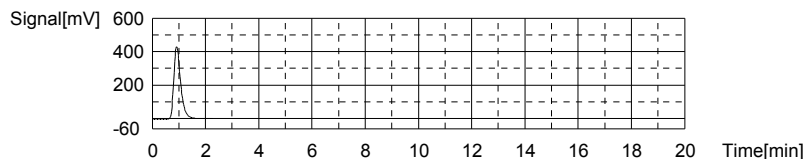
Kearna Roberts

Approved: February 24, 2009

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02-19-2009-DIH-TOC.i32

Mean Area 770.5
Mean Conc. 24.76mg/L



Sample

Sample Name: WG295247-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

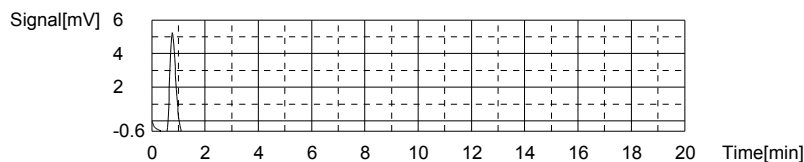
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1459mg/L TC:0.05577mg/L IC:-0.09014mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.23	0.05577mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:08:56 AM

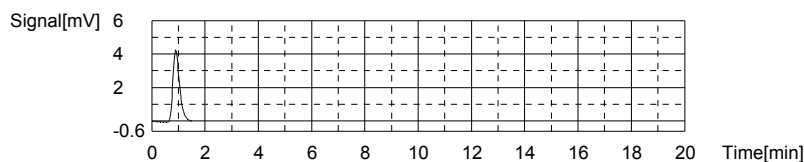
Mean Area 10.23
Mean Conc. 0.05577mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.492	-0.09014mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:12:59 AM

Mean Area 7.492
Mean Conc. -0.09014mg/L



Sample

Sample Name: WG295247-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.41mg/L TC:25.22mg/L IC:-0.1897mg/L

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Approved: February 24, 2009

02/20/2009 08:09:29 AM

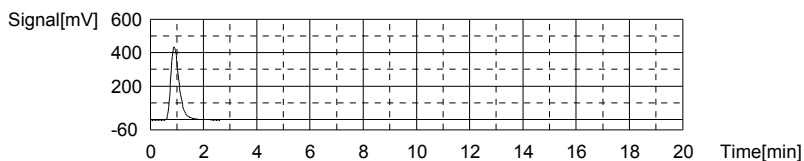
02-19-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	959.1	25.22mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:21:02 AM

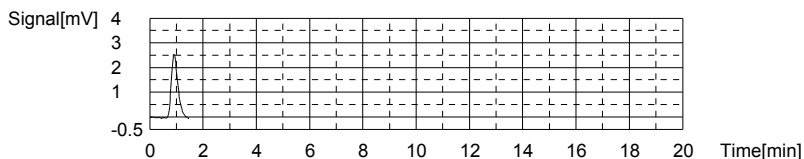
Mean Area 959.1
Mean Conc. 25.22mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.437	-0.1897mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:25:24 AM

Mean Area 4.437
Mean Conc. -0.1897mg/L



Sample

Sample Name: WG295247-03 LCSDUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

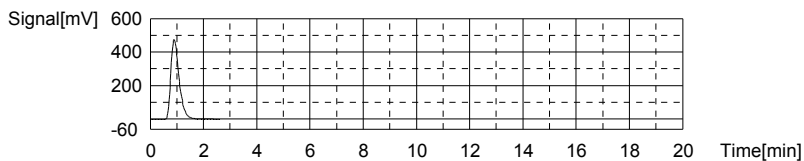
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.50mg/L TC:27.31mg/L IC:-0.1887mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1038	27.31mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:33:26 AM

Mean Area 1038
Mean Conc. 27.31mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.467	-0.1887mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:37:46 AM

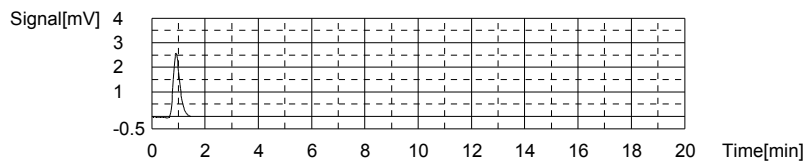
Kleanna Roberts

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

Mean Area 4.467
Mean Conc. -0.1887mg/L



Sample

Sample Name: L09020346-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

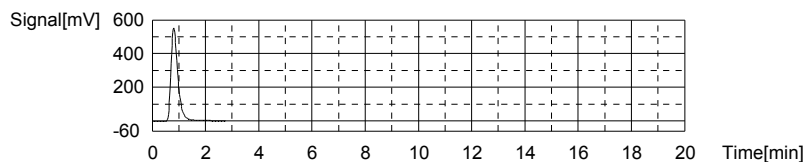
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.960mg/L TC:26.23mg/L IC:18.27mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	997.2	26.23mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:45:58 AM

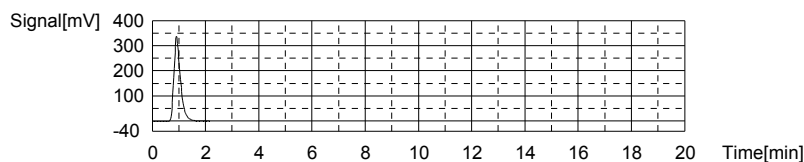
Mean Area 997.2
Mean Conc. 26.23mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	571.2	18.27mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 11:51:17 AM

Mean Area 571.2
Mean Conc. 18.27mg/L



Sample

Sample Name: L09020346-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.072mg/L TC:24.36mg/L IC:17.28mg/L

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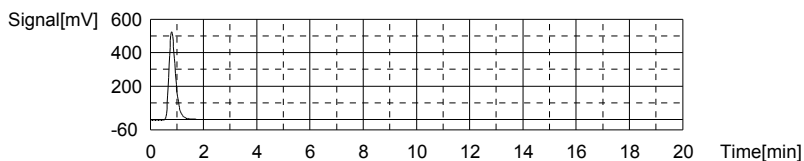
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	926.5	24.36mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 11:59:35 AM

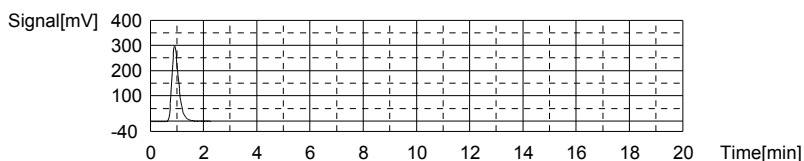
Mean Area 926.5
Mean Conc. 24.36mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	540.9	17.28mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:05:00 PM

Mean Area 540.9
Mean Conc. 17.28mg/L



Sample

Sample Name: L09020346-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

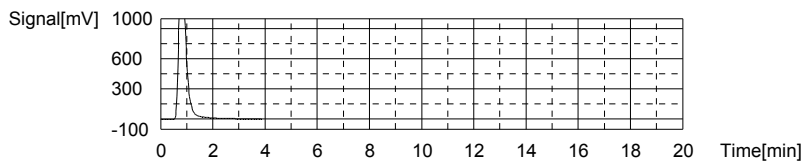
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:-0.1708mg/L TC:74.57mg/L IC:74.74mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2820	74.57mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:14:19 PM

Mean Area 2820
Mean Conc. 74.57mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2305	74.74mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:20:51 PM

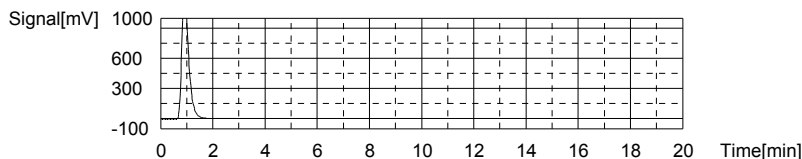
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Mean Area 2305
Mean Conc. 74.74mg/L



Sample

Sample Name: L09020278-05 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

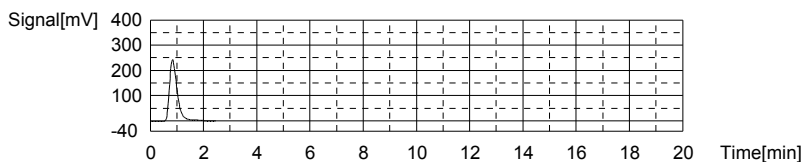
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:9.361mg/L TC:12.91mg/L IC:3.552mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	495.0	12.91mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:28:45 PM

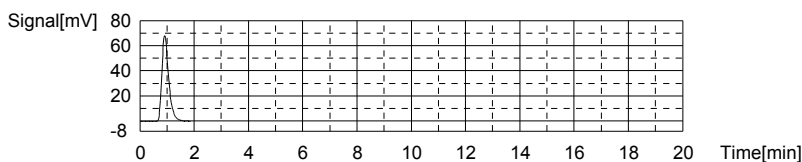
Mean Area 495.0
Mean Conc. 12.91mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	119.3	3.552mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:33:43 PM

Mean Area 119.3
Mean Conc. 3.552mg/L



Sample

Sample Name: L09020371-01 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.863mg/L TC:8.043mg/L IC:6.180mg/L

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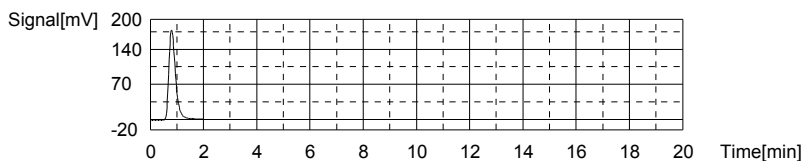
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	311.4	8.043mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:41:08 PM

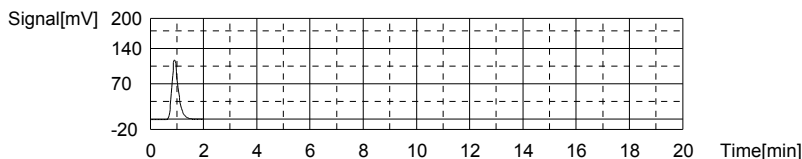
Mean Area 311.4
Mean Conc. 8.043mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.0	6.180mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:46:09 PM

Mean Area 200.0
Mean Conc. 6.180mg/L



Sample

Sample Name: L09020371-02 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

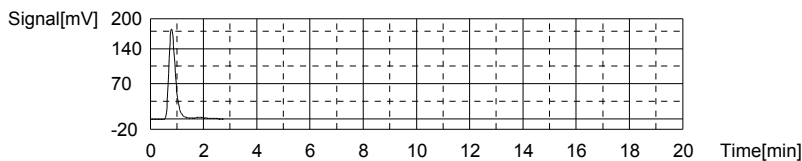
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.739mg/L TC:8.327mg/L IC:6.587mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.1	8.327mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 12:54:21 PM

Mean Area 322.1
Mean Conc. 8.327mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	212.5	6.587mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 12:59:19 PM

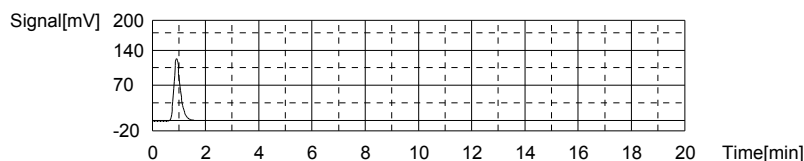
Kearna Roberts

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

Mean Area 212.5
Mean Conc. 6.587mg/L



Sample

Sample Name: L09020294-02 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

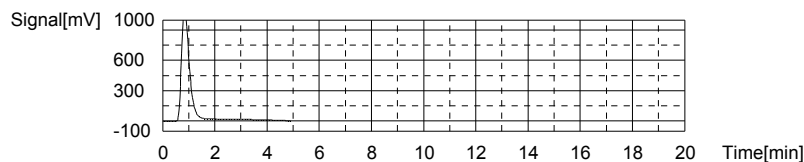
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:45.85mg/L TC:69.14mg/L IC:23.28mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2615	69.14mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 01:09:40 PM

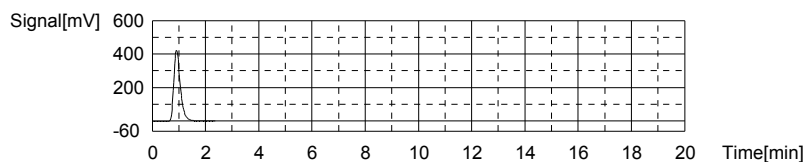
Mean Area 2615
Mean Conc. 69.14mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	725.1	23.28mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 01:15:14 PM

Mean Area 725.1
Mean Conc. 23.28mg/L



Sample

Sample Name: L09020300-01 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.618mg/L TC:24.93mg/L IC:20.32mg/L

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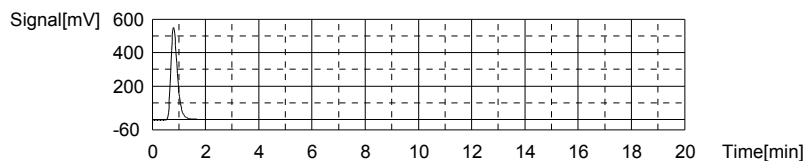
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	948.3	24.93mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 01:23:13 PM

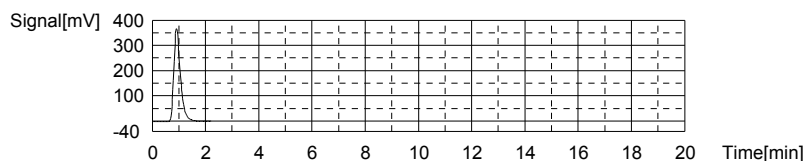
Mean Area 948.3
Mean Conc. 24.93mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	634.0	20.32mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 01:28:35 PM

Mean Area 634.0
Mean Conc. 20.32mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

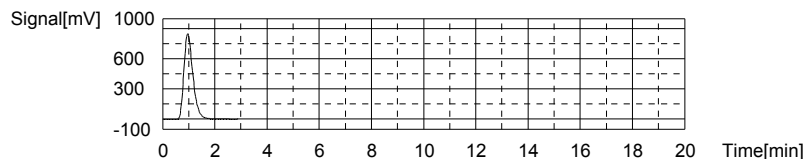
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:53.95mg/L TC:53.86mg/L IC:-0.08813mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2039	53.86mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 01:36:54 PM

Mean Area 2039
Mean Conc. 53.86mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.554	-0.08813mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 01:41:21 PM

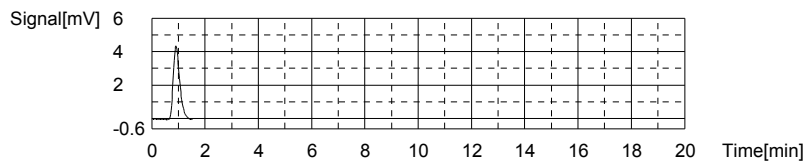
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Mean Area 7.554
Mean Conc. -0.08813mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

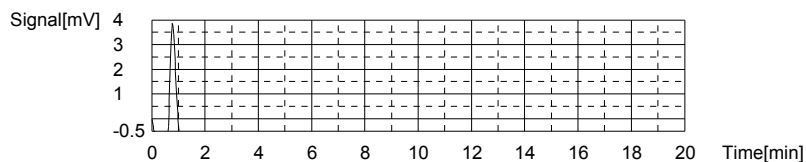
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1058mg/L TC:0.01960mg/L IC:-0.08617mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.866	0.01960mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 01:46:23 PM

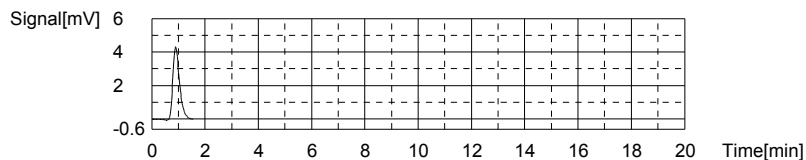
Mean Area 8.866
Mean Conc. 0.01960mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.614	-0.08617mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 01:50:22 PM

Mean Area 7.614
Mean Conc. -0.08617mg/L



Sample

Sample Name: L09020300-06 (50)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.415mg/L TC:7.950mg/L IC:4.535mg/L

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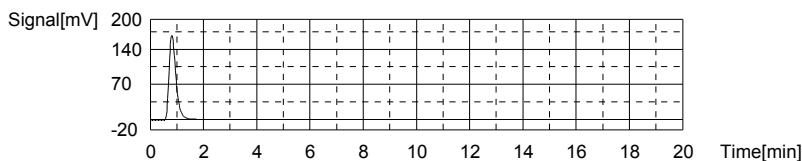
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	307.9	7.950mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 01:58:19 PM

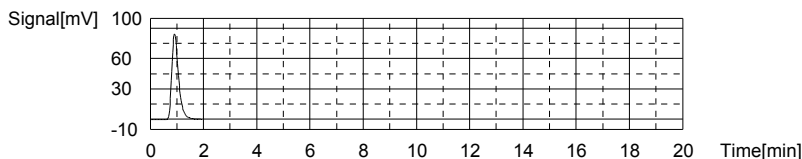
Mean Area 307.9
Mean Conc. 7.950mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	149.5	4.535mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 02:03:12 PM

Mean Area 149.5
Mean Conc. 4.535mg/L



Sample

Sample Name: L09020300-07 (50)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

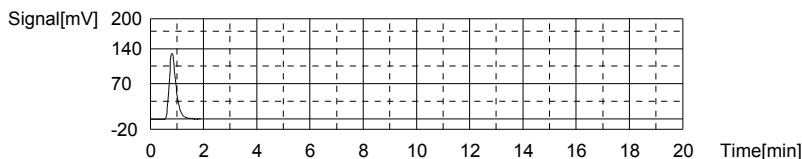
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.052mg/L TC:6.059mg/L IC:3.008mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	236.6	6.059mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 02:10:32 PM

Mean Area 236.6
Mean Conc. 6.059mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	102.6	3.008mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 02:15:22 PM

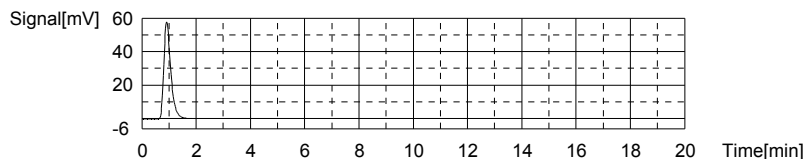
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Mean Area 102.6
Mean Conc. 3.008mg/L



Sample

Sample Name: L09020311-09
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

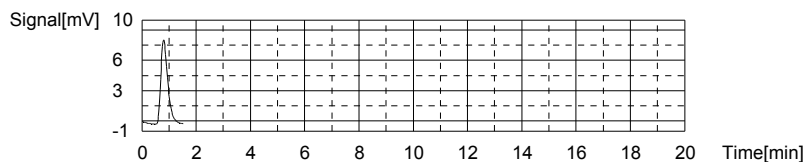
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.2318mg/L TC:0.1762mg/L IC:-0.05562mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.77	0.1762mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 02:22:20 PM

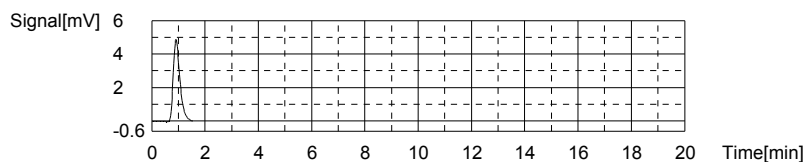
Mean Area 14.77
Mean Conc. 0.1762mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.552	-0.05562mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 02:26:45 PM

Mean Area 8.552
Mean Conc. -0.05562mg/L



Sample

Sample Name: L09020323-04
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.623mg/L TC:57.73mg/L IC:49.11mg/L

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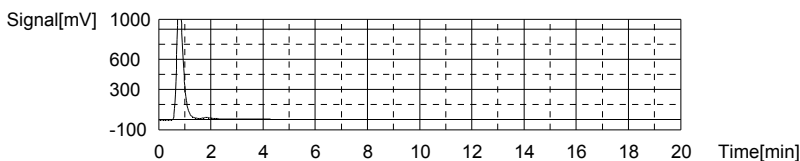
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2185	57.73mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 02:37:05 PM

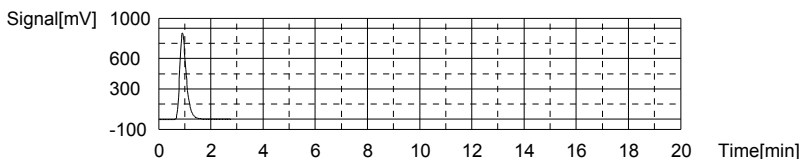
Mean Area 2185
Mean Conc. 57.73mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1518	49.11mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 02:43:10 PM

Mean Area 1518
Mean Conc. 49.11mg/L



Sample

Sample Name: L09020323-05
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

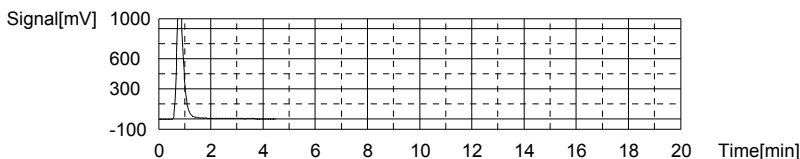
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:7.269mg/L TC:58.53mg/L IC:51.26mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2215	58.53mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 03:05:48 PM

Mean Area 2215
Mean Conc. 58.53mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1584	51.26mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 03:11:58 PM

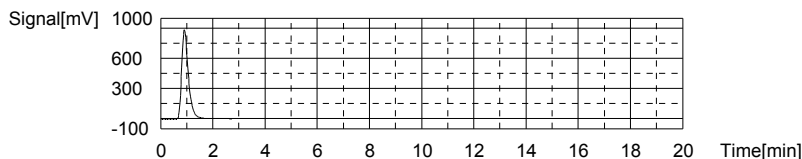
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Mean Area 1584
Mean Conc. 51.26mg/L



Sample

Sample Name: L09020323-06
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

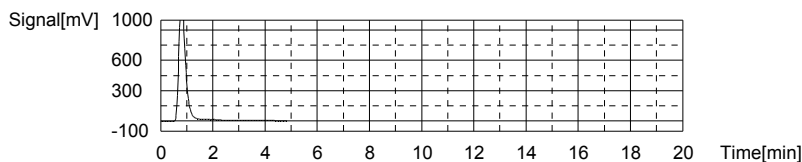
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.39mg/L TC:59.75mg/L IC:48.36mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2261	59.75mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 03:22:15 PM

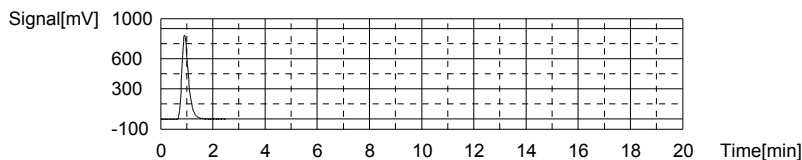
Mean Area 2261
Mean Conc. 59.75mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1495	48.36mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 03:28:20 PM

Mean Area 1495
Mean Conc. 48.36mg/L



Sample

Sample Name: L09020324-01
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:0.3296mg/L TC:78.23mg/L IC:77.90mg/L

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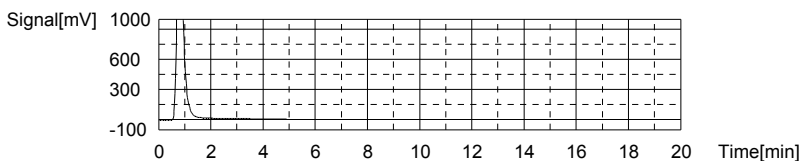
Approved: February 24, 2009

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2958	78.23mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 03:38:40 PM

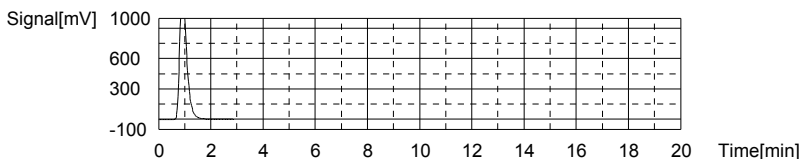
Mean Area 2958
Mean Conc. 78.23mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2402	77.90mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 03:45:17 PM

Mean Area 2402
Mean Conc. 77.90mg/L



Sample

Sample Name: L09020324-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

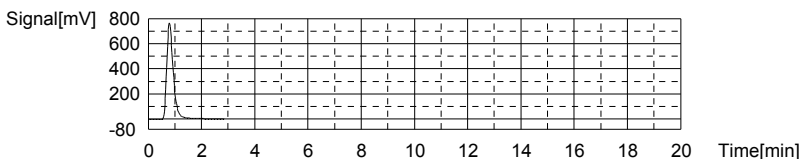
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.871mg/L TC:34.45mg/L IC:30.58mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1307	34.45mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 03:53:35 PM

Mean Area 1307
Mean Conc. 34.45mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	949.0	30.58mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 03:59:28 PM

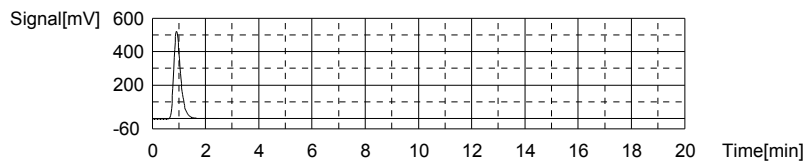
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Mean Area 949.0
Mean Conc. 30.58mg/L



Sample

Sample Name: L09020324-03
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

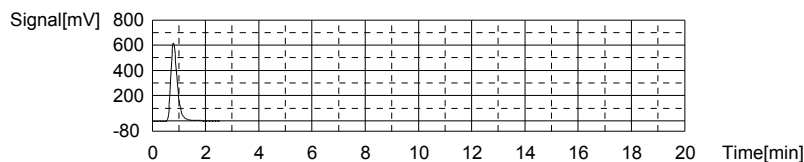
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.888mg/L TC:27.79mg/L IC:23.90mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1056	27.79mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/19/2009 04:07:27 PM

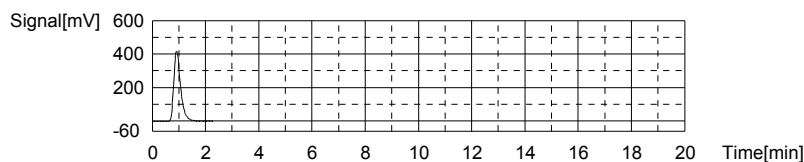
Mean Area 1056
Mean Conc. 27.79mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	744.1	23.90mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	2/19/2009 04:12:59 PM

Mean Area 744.1
Mean Conc. 23.90mg/L



Sample

Sample Name: L09020400-01 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.337mg/L TC:36.89mg/L IC:30.55mg/L

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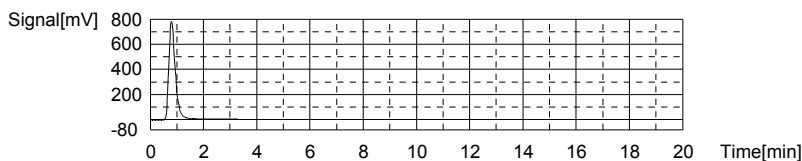
02-19-2009-DIH-TOC.132

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1399	36.89mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 04:22:55 PM

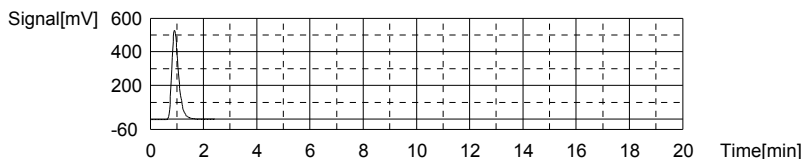
Mean Area 1399
Mean Conc. 36.89mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	948.2	30.55mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 04:28:38 PM

Mean Area 948.2
Mean Conc. 30.55mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

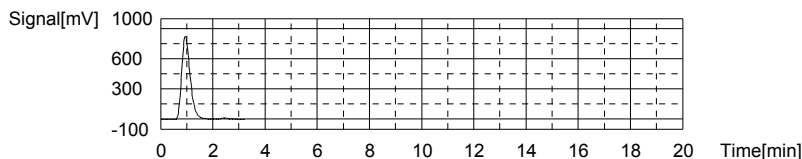
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.19mg/L TC:50.17mg/L IC:-0.01350mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1900	50.17mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 04:37:18 PM

Mean Area 1900
Mean Conc. 50.17mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.845	-0.01350mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 04:41:49 PM

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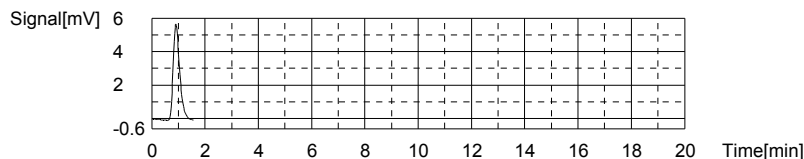
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Mean Area 9.845
Mean Conc. -0.01350mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

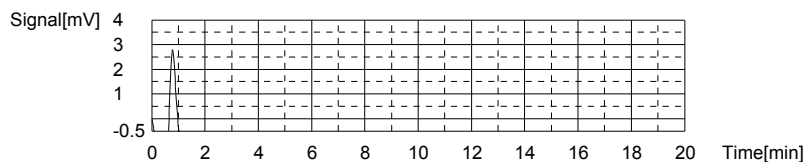
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1025mg/L TC:-0.03068mg/L IC:-0.1332mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.970	-0.03068mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	2/19/2009 04:46:51 PM

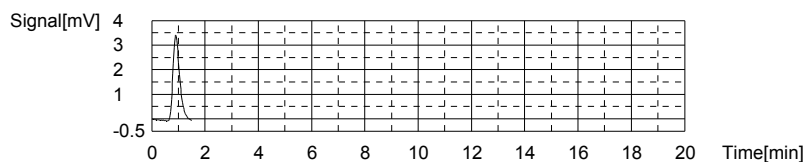
Mean Area 6.970
Mean Conc. -0.03068mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.170	-0.1332mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	2/19/2009 04:50:49 PM

Mean Area 6.170
Mean Conc. -0.1332mg/L



Sample

Sample Name: L09020400-02
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.181mg/L TC:72.00mg/L IC:65.82mg/L

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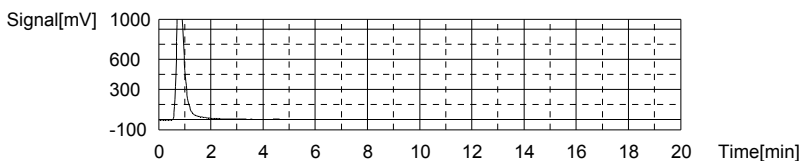
02-19-2009-DIH-TOC.i32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2723	72.00mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:01:11 PM

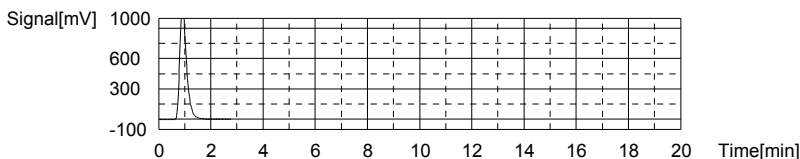
Mean Area 2723
Mean Conc. 72.00mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2031	65.82mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:07:23 PM

Mean Area 2031
Mean Conc. 65.82mg/L



Sample

Sample Name: L09020346-03 (4)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

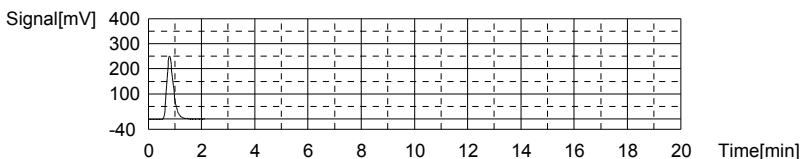
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.875mg/L TC:11.39mg/L IC:9.512mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	437.5	11.39mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:14:58 PM

Mean Area 437.5
Mean Conc. 11.39mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	302.3	9.512mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:20:11 PM

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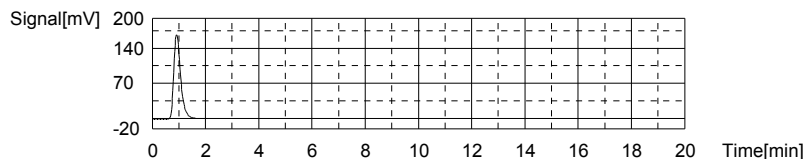
Heanna Roberts

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Mean Area 302.3
Mean Conc. 9.512mg/L



Sample

Sample Name: WG295247-05 DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

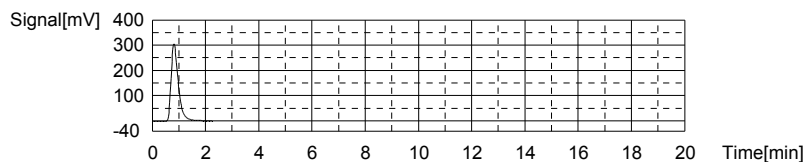
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.146mg/L TC:14.93mg/L IC:8.780mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	570.9	14.93mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	2/19/2009 05:27:54 PM

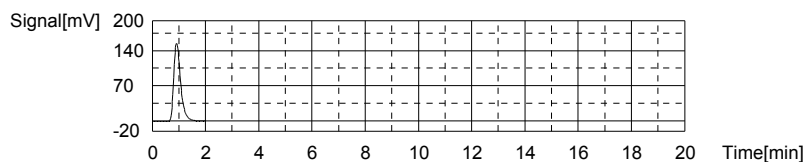
Mean Area 570.9
Mean Conc. 14.93mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	279.8	8.780mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	2/19/2009 05:32:59 PM

Mean Area 279.8
Mean Conc. 8.780mg/L



Sample

Sample Name: WG295247-06 MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:17.98mg/L TC:28.16mg/L IC:10.18mg/L

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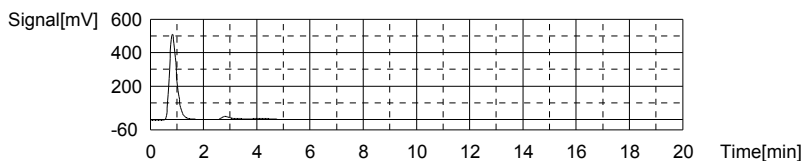
02-19-2009-DIH-TOC.t32

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1070	28.16mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:43:21 PM

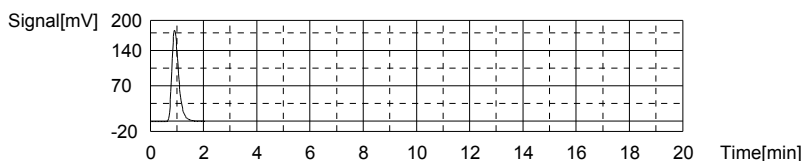
Mean Area 1070
Mean Conc. 28.16mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.8	10.18mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 05:48:28 PM

Mean Area 322.8
Mean Conc. 10.18mg/L



Sample

Sample Name: WG295251-01 BLANK
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

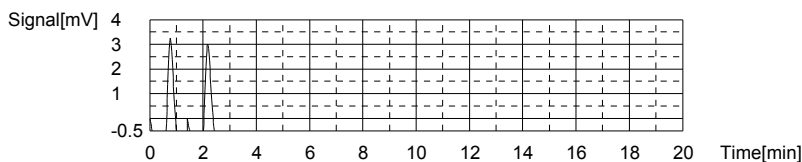
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1120mg/L TC:-0.02098mg/L IC:-0.1330mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.628	-0.01323mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:53:30 PM
2	7.044	-0.02872mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 05:57:02 PM

Mean Area 7.336
Mean Conc. -0.02098mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.371	-0.1267mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 06:01:02 PM
2	5.982	-0.1393mg/L	500uL	1		TICCURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 06:05:00 PM

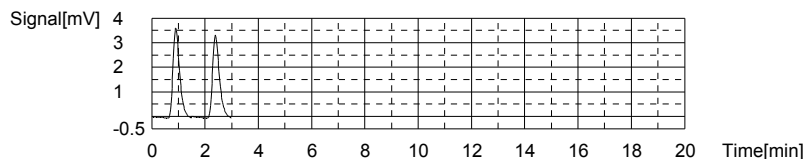
Kearna Roberts

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Mean Area 6.177
Mean Conc. -0.1330mg/L



Sample

Sample Name: WG295251-02 LCS
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

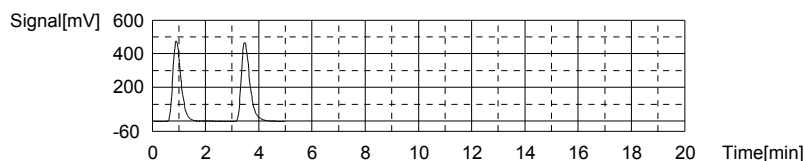
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.39mg/L TC:27.27mg/L IC:-0.1133mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1018	26.78mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:13:02 PM
2	1055	27.76mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:18:43 PM

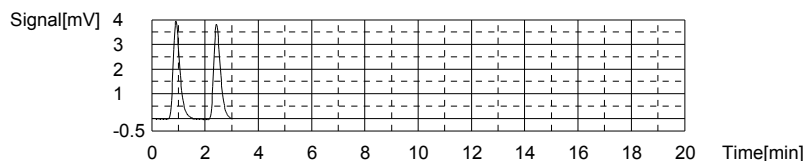
Mean Area 1037
Mean Conc. 27.27mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.841	-0.1113mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:23:08 PM
2	6.720	-0.1153mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:27:20 PM

Mean Area 6.781
Mean Conc. -0.1133mg/L



Sample

Sample Name: WG295251-03 LCSDUP
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

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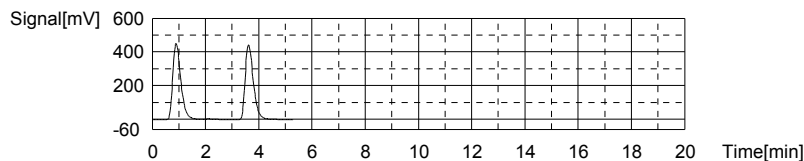
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:25.26mg/L TC:25.14mg/L IC:-0.1171mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	961.1	25.27mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:35:30 PM
2	951.2	25.01mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:40:21 PM

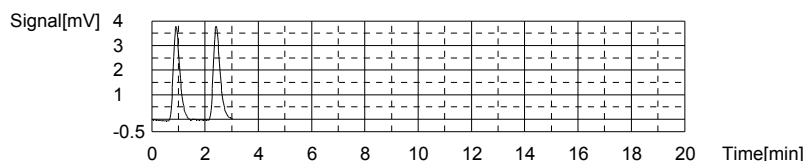
Mean Area 956.2
Mean Conc. 25.14mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.653	-0.1175mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:44:45 PM
2	6.673	-0.1168mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 06:48:58 PM

Mean Area 6.663
Mean Conc. -0.1171mg/L



Sample

Sample Name: L09020258-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

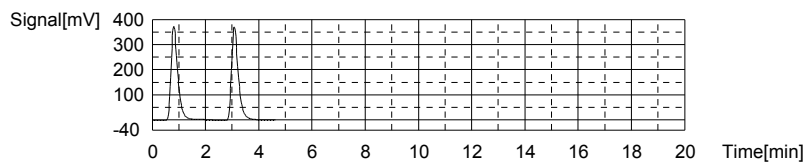
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.210mg/L TC:17.23mg/L IC:11.02mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	654.5	17.14mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 06:56:41 PM
2	660.8	17.31mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 07:01:27 PM

Mean Area 657.7
Mean Conc. 17.23mg/L



Anal.: IC

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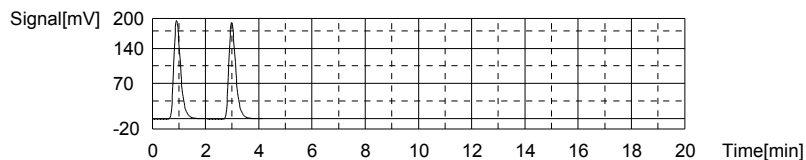
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	349.3	11.04mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:06:36 PM
2	347.6	10.99mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:11:31 PM

Mean Area 348.5
Mean Conc. 11.02mg/L



Sample

Sample Name: L09020258-02
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result

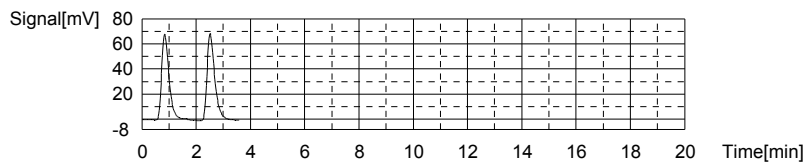
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.795mg/L TC:3.261mg/L IC:0.4664mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.5	3.113mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10	502/19/2009 07:18:39 PM
2	136.7	3.410mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10	502/19/2009 07:23:50 PM

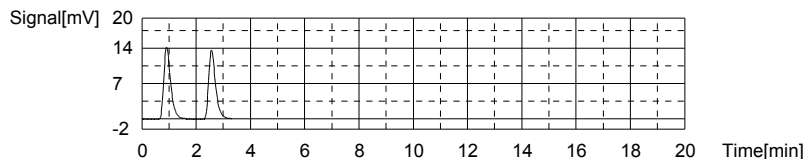
Mean Area 131.1
Mean Conc. 3.261mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.05	0.4818mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:28:24 PM
2	24.11	0.4511mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12	502/19/2009 07:32:45 PM

Mean Area 24.58
Mean Conc. 0.4664mg/L



Sample

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Sample Name: L09020259-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result

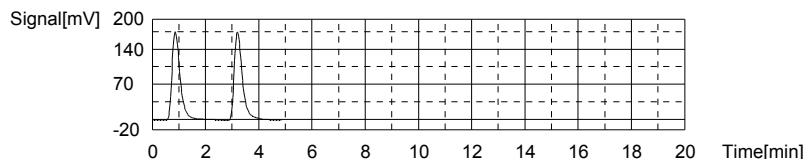
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:8.444mg/L TC:9.689mg/L IC:1.245mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	369.6	9.587mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 07:40:32 PM
2	377.3	9.791mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 07:45:20 PM

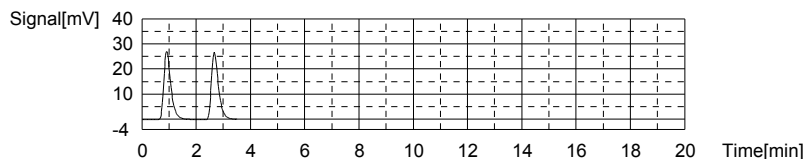
Mean Area 373.5
Mean Conc. 9.689mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.70	1.252mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 07:50:01 PM
2	48.26	1.238mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 07:54:28 PM

Mean Area 48.48
Mean Conc. 1.245mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:55.87mg/L TC:55.74mg/L IC:-0.1268mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2077	54.87mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 08:02:39 PM
2	2143	56.62mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 08:07:59 PM

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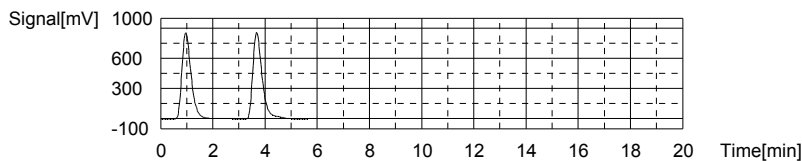
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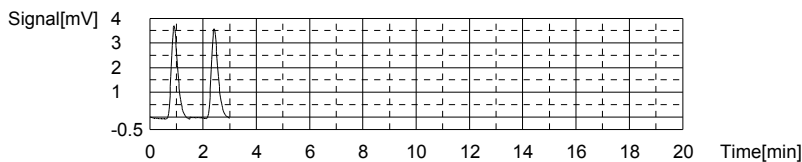
Mean Area 2110
Mean Conc. 55.74mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.449	-0.1241mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:12:21 PM
2	6.286	-0.1294mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:16:33 PM

Mean Area 6.368
Mean Conc. -0.1268mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

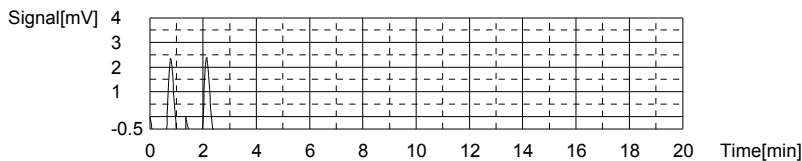
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1037mg/L TC:-0.04442mg/L IC:-0.1482mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.371	-0.04657mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:21:33 PM
2	6.533	-0.04227mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:25:05 PM

Mean Area 6.452
Mean Conc. -0.04442mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.698	-0.1486mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:29:05 PM
2	5.723	-0.1478mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:33:04 PM

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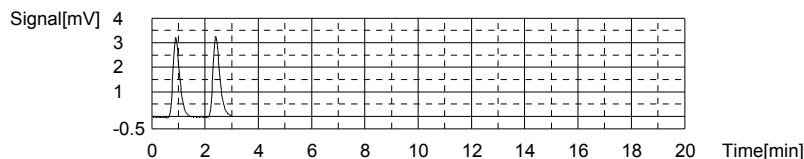
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Mean Area 5.710
Mean Conc. -0.1482mg/L



Sample

Sample Name: L09020275-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

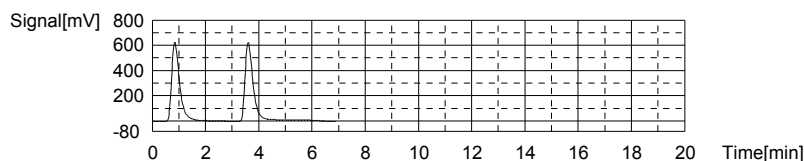
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:24.36mg/L TC:36.21mg/L IC:11.85mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1308	34.47mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:41:17 PM
2	1439	37.95mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 08:48:47 PM

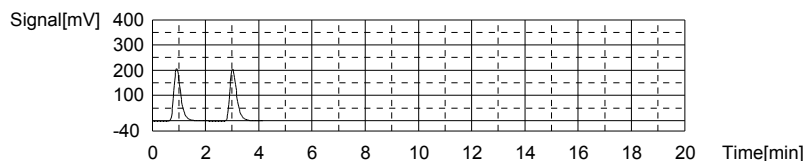
Mean Area 1374
Mean Conc. 36.21mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	375.5	11.90mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:53:59 PM
2	372.8	11.81mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 08:58:53 PM

Mean Area 374.1
Mean Conc. 11.85mg/L



Sample

Sample Name: L09020370-09
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

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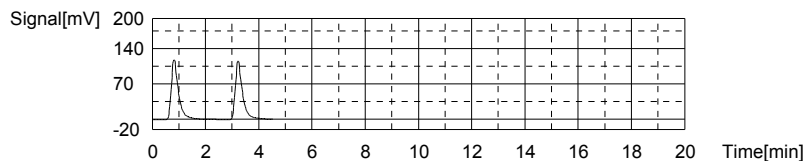
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.178mg/L TC:5.623mg/L IC:2.445mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	223.8	5.720mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:06:45 PM
2	216.5	5.526mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:11:09 PM

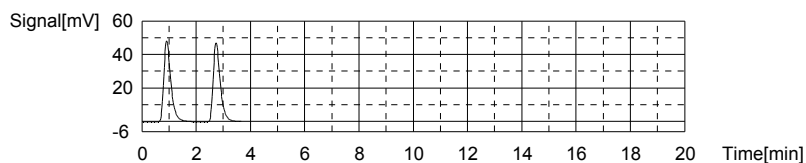
Mean Area 220.2
Mean Conc. 5.623mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.24	2.475mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:15:55 PM
2	84.41	2.415mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:20:29 PM

Mean Area 85.33
Mean Conc. 2.445mg/L



Sample

Sample Name: L09020372-01 (5)
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

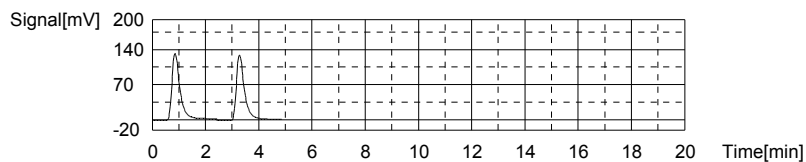
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:6.171mg/L TC:7.155mg/L IC:0.9834mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	280.8	7.232mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:28:22 PM
2	275.0	7.078mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:33:16 PM

Mean Area 277.9
Mean Conc. 7.155mg/L



Anal.: IC

Kleanna Roberts

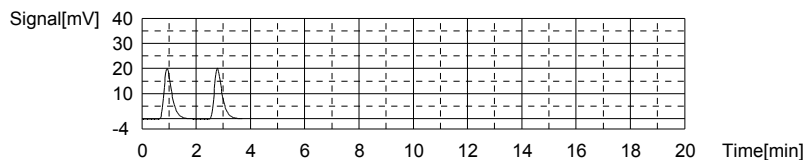
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.62	0.9889mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:38:02 PM
2	40.28	0.9778mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:42:35 PM

Mean Area 40.45
Mean Conc. 0.9834mg/L



Sample

Sample Name: L09020276-01
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

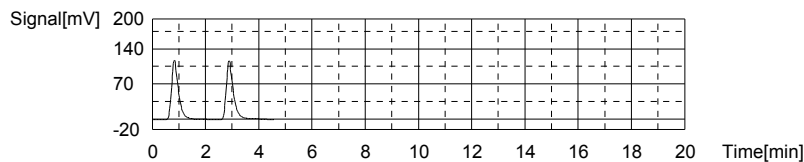
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.874mg/L TC:5.545mg/L IC:1.671mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	211.5	5.394mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:50:06 PM
2	222.9	5.696mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 09:54:54 PM

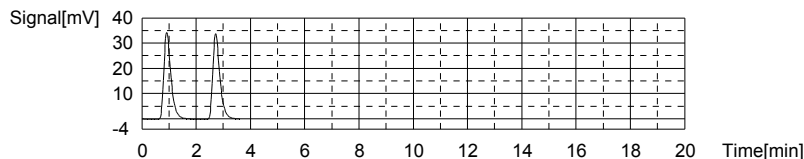
Mean Area 217.2
Mean Conc. 5.545mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.03	1.686mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 09:59:41 PM
2	61.07	1.655mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:04:12 PM

Mean Area 61.55
Mean Conc. 1.671mg/L



Sample

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02-19-2009-DIH-TOC.i32

Sample Name: L09020276-02
 Sample ID: <Untitled>
 Origin: TOC-01-13-2009A.met
 Status: Completed
 Chk. Result:

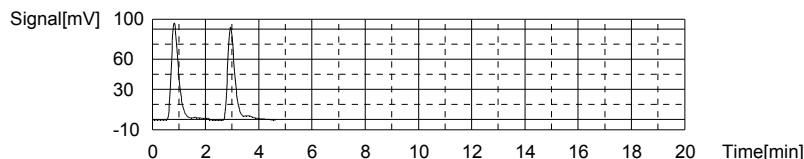
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.747mg/L TC:4.638mg/L IC:1.891mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.2	4.617mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 10:11:47 PM
2	183.8	4.659mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 10:17:32 PM

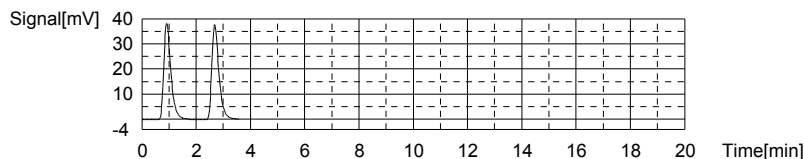
Mean Area 183.0
 Mean Conc. 4.638mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	68.53	1.898mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 10:22:15 PM
2	68.10	1.884mg/L	500uL	1		TICURVE-01-13-2009.2009 01 13 15 12 50	02/19/2009 10:26:44 PM

Mean Area 68.31
 Mean Conc. 1.891mg/L



Sample

Sample Name: L09020364-01
 Sample ID: <Untitled>
 Origin: TOC-01-13-2009A.met
 Status: Completed
 Chk. Result:

Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.450mg/L TC:4.017mg/L IC:1.567mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.9	4.052mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 10:34:14 PM
2	158.3	3.983mg/L	500uL	1		TCCURVE-01-13-2009.2009 01 13 14 10 50	02/19/2009 10:38:31 PM

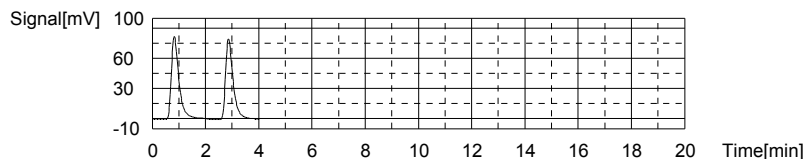
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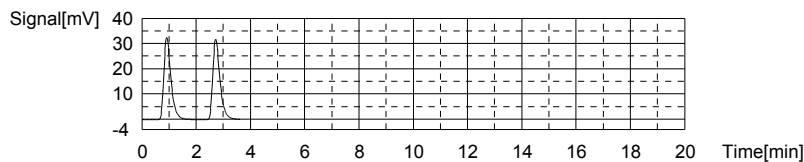
Mean Area 159.6
Mean Conc. 4.017mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.79	1.581mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:43:17 PM
2	57.94	1.553mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 10:47:48 PM

Mean Area 58.37
Mean Conc. 1.567mg/L



Sample

Sample Name: L09020364-02
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

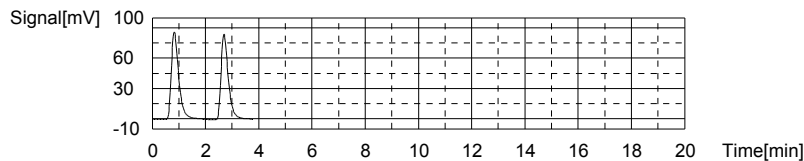
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.376mg/L TC:4.088mg/L IC:1.711mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.9	4.158mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:55:09 PM
2	159.6	4.017mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 10:59:19 PM

Mean Area 162.3
Mean Conc. 4.088mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.33	1.729mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:04:02 PM
2	62.26	1.694mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:08:33 PM

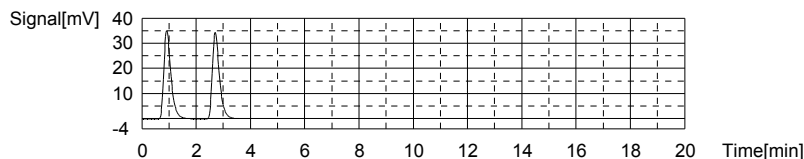
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Mean Area 62.80
Mean Conc. 1.711mg/L



Sample

Sample Name: WG295251-05 DUP
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

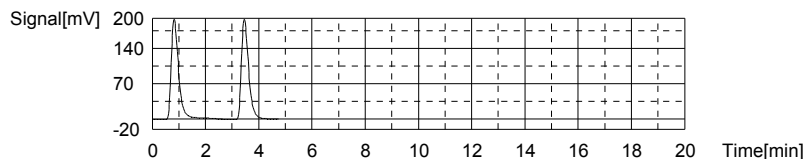
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.144mg/L TC:9.859mg/L IC:4.715mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	385.0	9.995mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:16:39 PM
2	374.7	9.722mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:21:12 PM

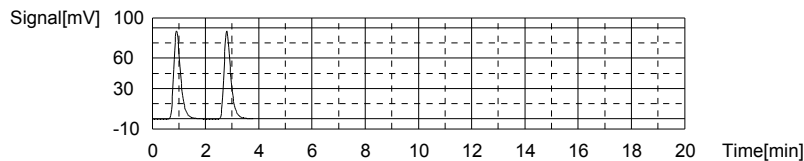
Mean Area 379.9
Mean Conc. 9.859mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	155.4	4.728mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:26:06 PM
2	154.6	4.701mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:30:47 PM

Mean Area 155.0
Mean Conc. 4.715mg/L



Sample

Sample Name: WG295251-06 MS
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

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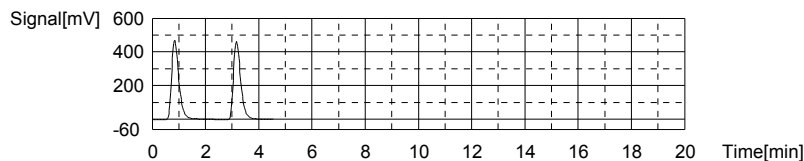
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:16.00mg/L TC:23.22mg/L IC:7.226mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	891.1	23.42mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:38:35 PM
2	876.5	23.03mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/19/2009 11:44:03 PM

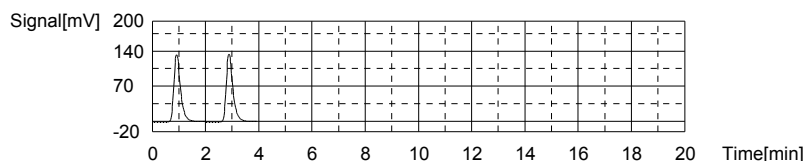
Mean Area 883.8
Mean Conc. 23.22mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	230.9	7.187mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:49:07 PM
2	233.3	7.265mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/19/2009 11:53:51 PM

Mean Area 232.1
Mean Conc. 7.226mg/L



Sample

Sample Name: L09020294-02 (25)
Sample ID: <Untitled>
Origin: TOC-01-13-2009A.met
Status: Completed
Chk. Result:

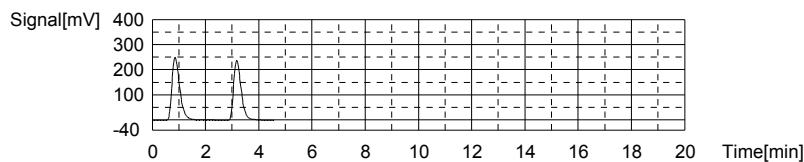
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:11.02mg/L TC:12.85mg/L IC:1.831mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	511.7	13.36mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:01:38 AM
2	473.9	12.35mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:06:09 AM

Mean Area 492.8
Mean Conc. 12.85mg/L



Anal.: IC

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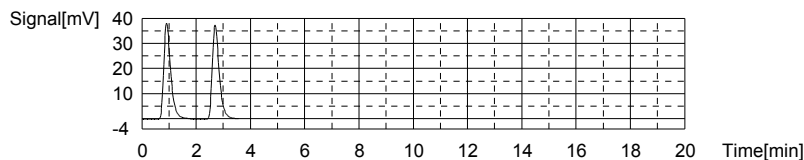
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.86	1.844mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:10:53 AM
2	66.07	1.818mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:15:21 AM

Mean Area 66.47
Mean Conc. 1.831mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

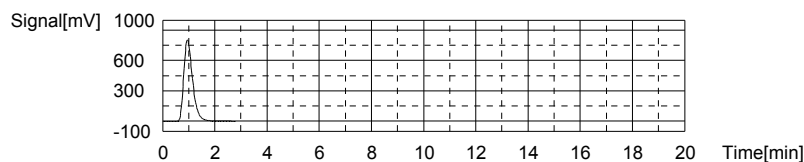
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:50.25mg/L TC:50.15mg/L IC:-0.1025mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1899	50.15mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:23:36 AM

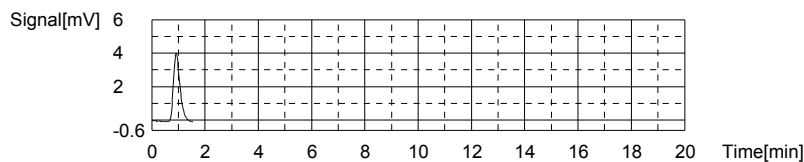
Mean Area 1899
Mean Conc. 50.15mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.113	-0.1025mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:28:03 AM

Mean Area 7.113
Mean Conc. -0.1025mg/L



Sample

Sample Name: WG295252-01 BLANK
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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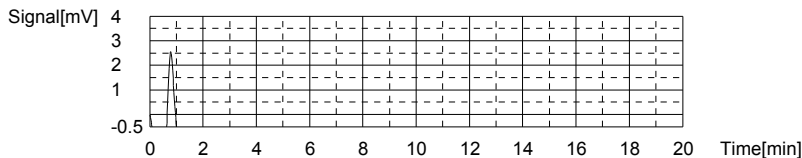
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1088mg/L TC:-0.02960mg/L IC:-0.1384mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.011	-0.02960mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:33:06 AM

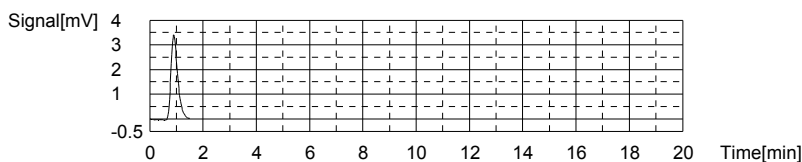
Mean Area 7.011
Mean Conc. -0.02960mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.012	-0.1384mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:37:05 AM

Mean Area 6.012
Mean Conc. -0.1384mg/L



Sample

Sample Name: WG295252-02 LCS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

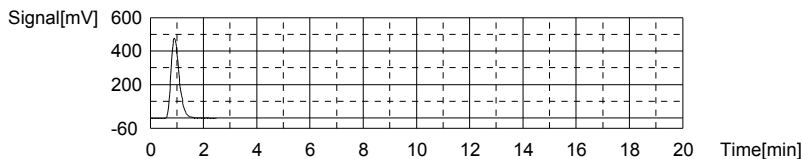
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:27.32mg/L TC:27.21mg/L IC:-0.1134mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1034	27.21mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:45:02 AM

Mean Area 1034
Mean Conc. 27.21mg/L



Anal.: IC

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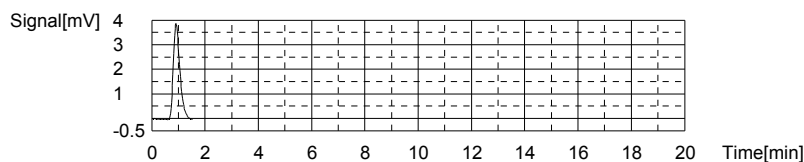
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.778	-0.1134mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 12:49:26 AM

Mean Area 6.778
Mean Conc. -0.1134mg/L



Sample

Sample Name: WG295252-03 LCSDUP
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

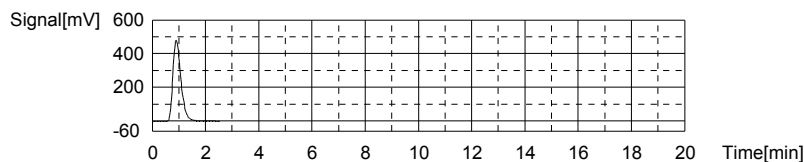
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:26.74mg/L TC:26.62mg/L IC:-0.1145mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1012	26.62mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 12:57:26 AM

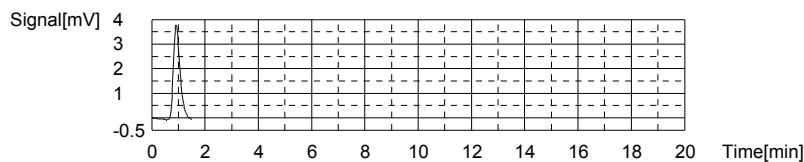
Mean Area 1012
Mean Conc. 26.62mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.744	-0.1145mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:01:51 AM

Mean Area 6.744
Mean Conc. -0.1145mg/L



Sample

Sample Name: L09020356-01 (2)
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

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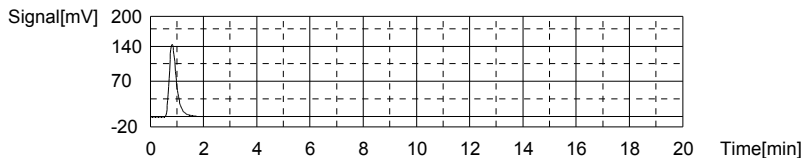
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.683mg/L TC:7.176mg/L IC:3.493mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	278.7	7.176mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:09:29 AM

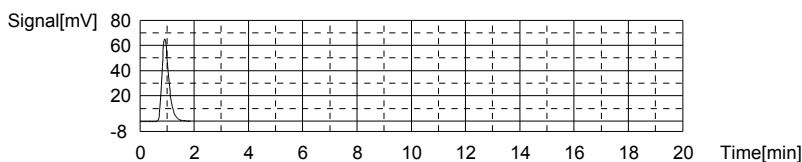
Mean Area 278.7
Mean Conc. 7.176mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	117.5	3.493mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:14:19 AM

Mean Area 117.5
Mean Conc. 3.493mg/L



Sample

Sample Name: L09020356-02 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

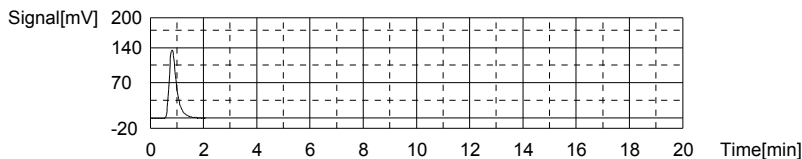
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:3.315mg/L TC:6.834mg/L IC:3.519mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	265.8	6.834mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:21:53 AM

Mean Area 265.8
Mean Conc. 6.834mg/L



Anal.: IC

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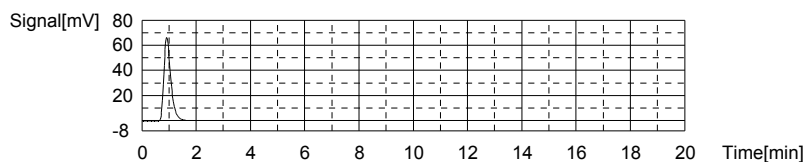
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	118.3	3.519mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:26:46 AM

Mean Area 118.3
Mean Conc. 3.519mg/L



Sample

Sample Name: L09020356-03 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

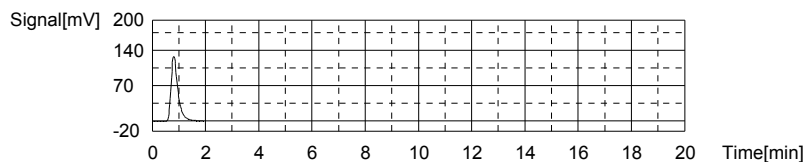
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.016mg/L TC:5.900mg/L IC:3.884mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	230.6	5.900mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:34:09 AM

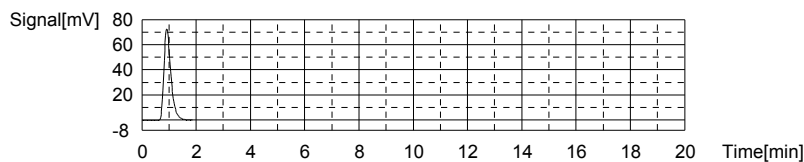
Mean Area 230.6
Mean Conc. 5.900mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	129.5	3.884mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:39:02 AM

Mean Area 129.5
Mean Conc. 3.884mg/L



Sample

Sample Name: L09020356-04 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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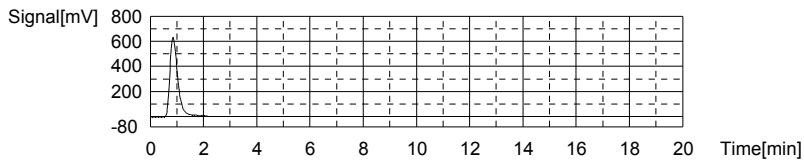
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:25.08mg/L TC:34.92mg/L IC:9.841mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1325	34.92mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 01:47:16 AM

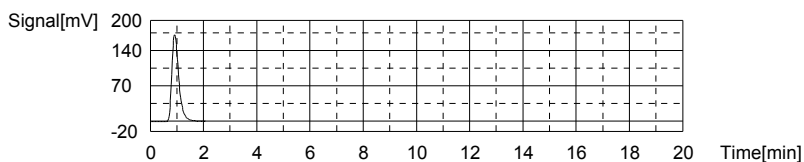
Mean Area 1325
Mean Conc. 34.92mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	312.4	9.841mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 01:52:25 AM

Mean Area 312.4
Mean Conc. 9.841mg/L



Sample

Sample Name: L09020356-05 (10)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

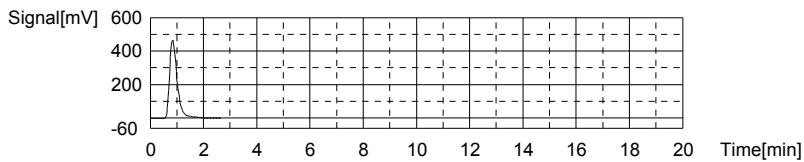
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.43mg/L TC:24.58mg/L IC:10.15mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	935.0	24.58mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:00:33 AM

Mean Area 935.0
Mean Conc. 24.58mg/L



Anal.: IC

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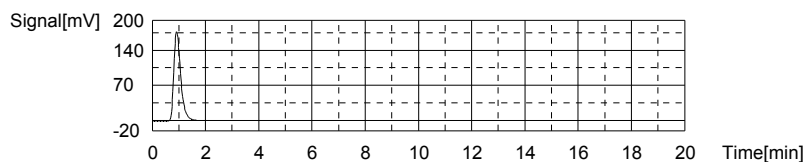
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.0	10.15mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:05:48 AM

Mean Area 322.0
Mean Conc. 10.15mg/L



Sample

Sample Name: L09020356-06 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

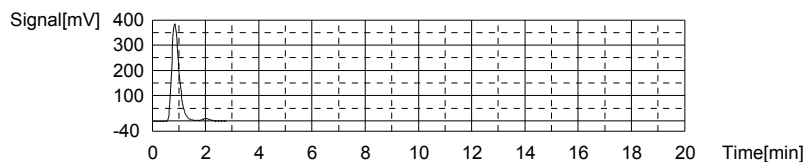
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:14.00mg/L TC:20.29mg/L IC:6.291mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	773.3	20.29mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:14:03 AM

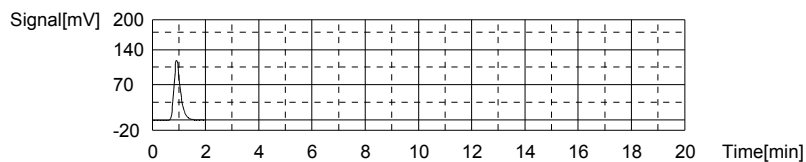
Mean Area 773.3
Mean Conc. 20.29mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	203.4	6.291mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:19:04 AM

Mean Area 203.4
Mean Conc. 6.291mg/L



Sample

Sample Name: L09020356-07 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Approved: February 24, 2009

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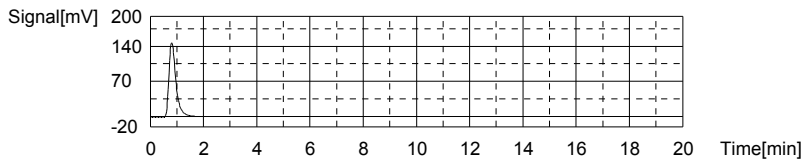
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.222mg/L TC:6.940mg/L IC:4.718mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	269.8	6.940mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:26:34 AM

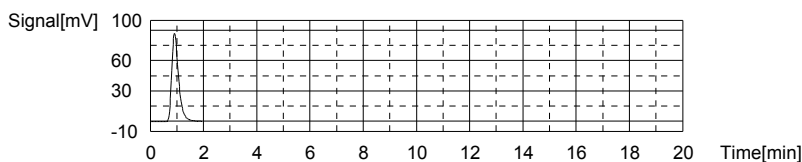
Mean Area 269.8
Mean Conc. 6.940mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	155.1	4.718mg/L	500uL	1		TICURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:31:31 AM

Mean Area 155.1
Mean Conc. 4.718mg/L



Sample

Sample Name: L09020356-08 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

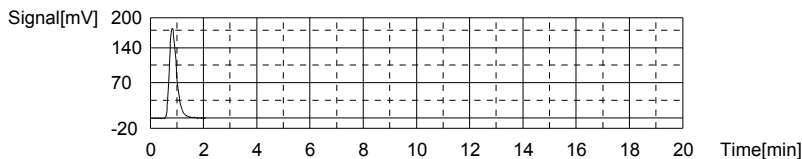
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.771mg/L TC:8.873mg/L IC:4.102mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	342.7	8.873mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:39:05 AM

Mean Area 342.7
Mean Conc. 8.873mg/L



Anal.: IC

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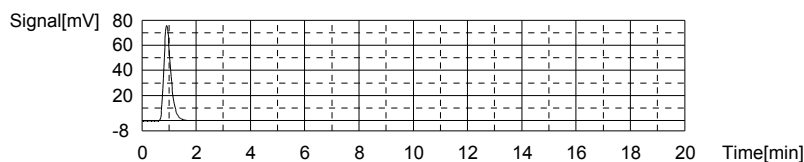
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	136.2	4.102mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:44:01 AM

Mean Area 136.2
Mean Conc. 4.102mg/L



Sample

Sample Name: CCV
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

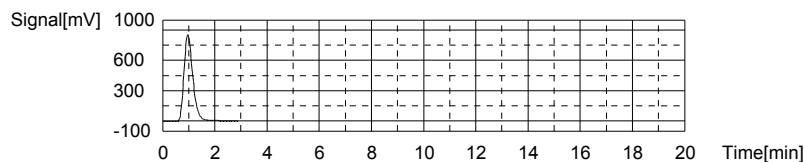
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:53.29mg/L TC:53.20mg/L IC:-0.09259mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2014	53.20mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 02:52:23 AM

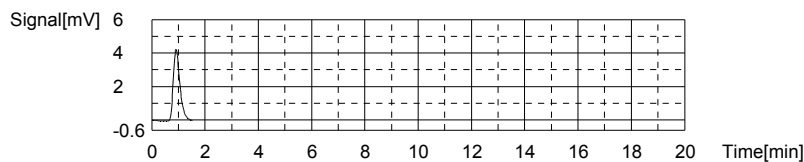
Mean Area 2014
Mean Conc. 53.20mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.417	-0.09259mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 02:56:47 AM

Mean Area 7.417
Mean Conc. -0.09259mg/L



Sample

Sample Name: CCB
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

Approved: February 24, 2009

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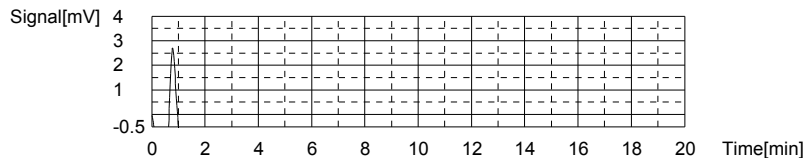
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1013mg/L TC:-0.02978mg/L IC:-0.1311mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.004	-0.02978mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:01:49 AM

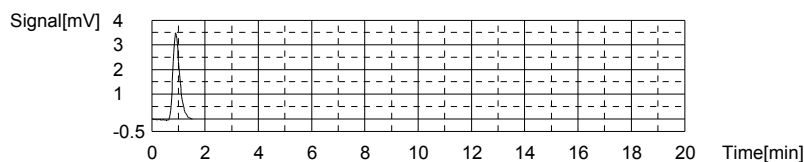
Mean Area 7.004
Mean Conc. -0.02978mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.236	-0.1311mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:05:49 AM

Mean Area 6.236
Mean Conc. -0.1311mg/L



Sample

Sample Name: L09020356-09 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

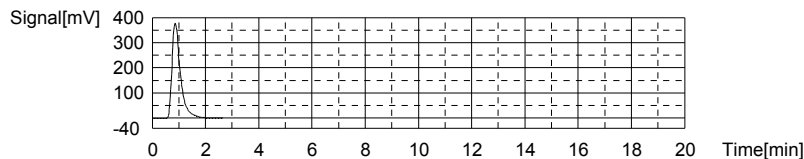
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:17.39mg/L TC:22.05mg/L IC:4.653mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	839.4	22.05mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:13:59 AM

Mean Area 839.4
Mean Conc. 22.05mg/L



Anal.: IC

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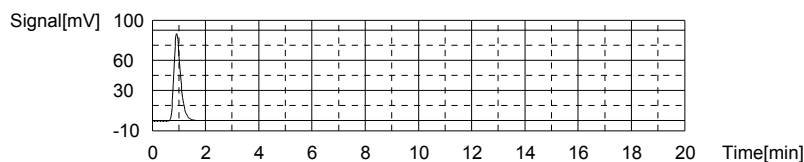
Approved: February 24, 2009

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	153.1	4.653mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:18:54 AM

Mean Area 153.1
Mean Conc. 4.653mg/L



Sample

Sample Name: L09020356-10 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

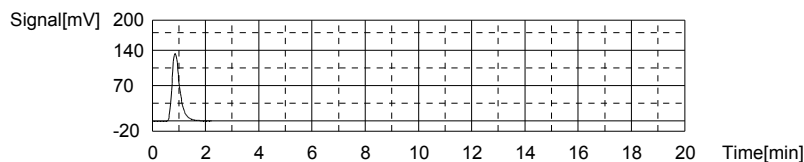
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.981mg/L TC:7.123mg/L IC:1.142mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	276.7	7.123mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:26:36 AM

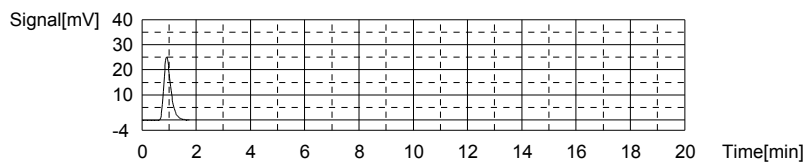
Mean Area 276.7
Mean Conc. 7.123mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.33	1.142mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:31:17 AM

Mean Area 45.33
Mean Conc. 1.142mg/L



Sample

Sample Name: L09020356-11 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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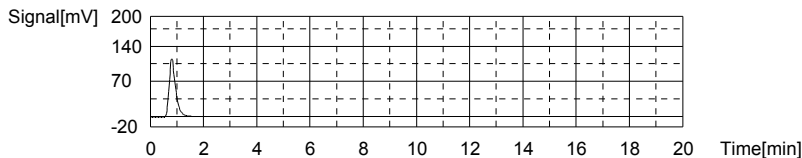
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.879mg/L TC:4.991mg/L IC:3.112mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	196.3	4.991mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:38:54 AM

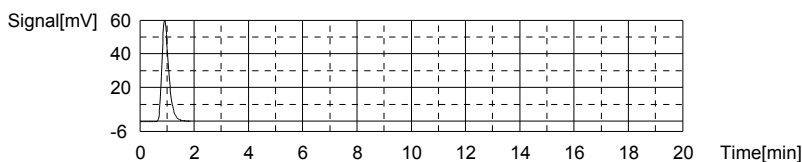
Mean Area 196.3
Mean Conc. 4.991mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	105.8	3.112mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:43:45 AM

Mean Area 105.8
Mean Conc. 3.112mg/L



Sample

Sample Name: L09020356-12 (2)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

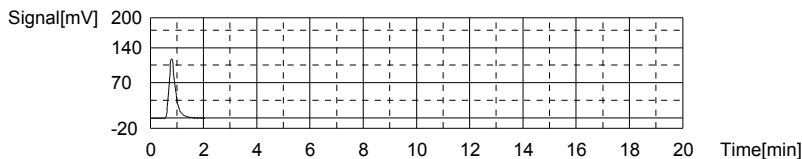
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.426mg/L TC:5.176mg/L IC:3.750mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	203.3	5.176mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 03:51:16 AM

Mean Area 203.3
Mean Conc. 5.176mg/L



Anal.: IC

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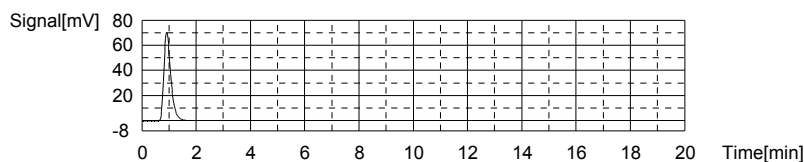
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.4	3.750mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 03:56:08 AM

Mean Area 125.4
Mean Conc. 3.750mg/L



Sample

Sample Name: L09020356-13 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

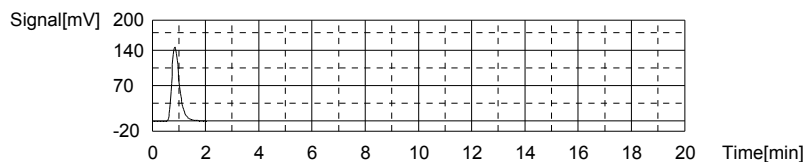
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:5.878mg/L TC:7.595mg/L IC:1.717mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	294.5	7.595mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:03:40 AM

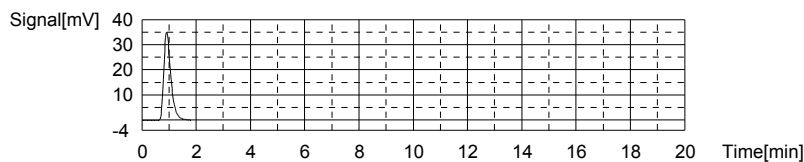
Mean Area 294.5
Mean Conc. 7.595mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.98	1.717mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:08:24 AM

Mean Area 62.98
Mean Conc. 1.717mg/L



Sample

Sample Name: L09020356-14 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

Approved: February 24, 2009

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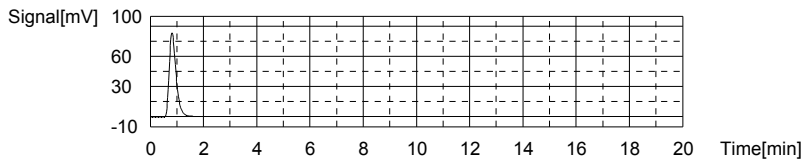
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.831mg/L TC:3.800mg/L IC:1.968mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	151.4	3.800mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:15:50 AM

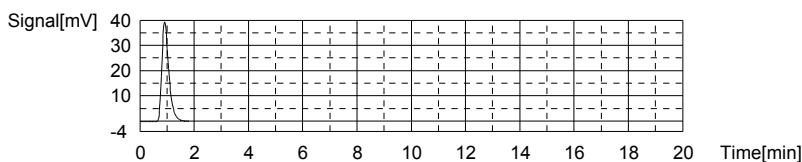
Mean Area 151.4
Mean Conc. 3.800mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.69	1.968mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:20:36 AM

Mean Area 70.69
Mean Conc. 1.968mg/L



Sample

Sample Name: WG295252-04 (5)
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

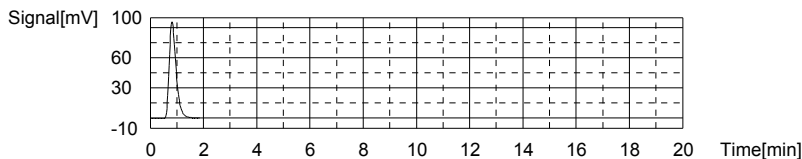
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:1.899mg/L TC:4.399mg/L IC:2.500mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	174.0	4.399mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:28:00 AM

Mean Area 174.0
Mean Conc. 4.399mg/L



Anal.: IC

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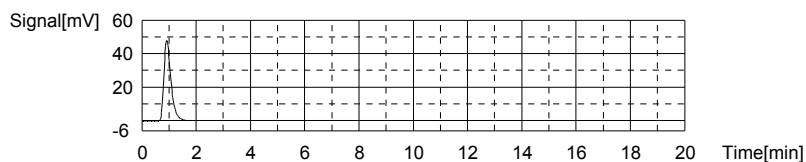
Approved: February 24, 2009

02/20/2009 08:09:29 AM

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No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	87.02	2.500mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:32:50 AM

Mean Area 87.02
Mean Conc. 2.500mg/L



Sample

Sample Name: L09020356-17
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

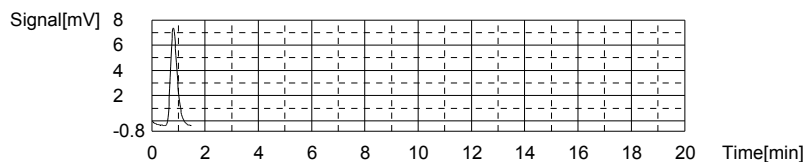
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.2513mg/L TC:0.1449mg/L IC:-0.1064mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.59	0.1449mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:39:49 AM

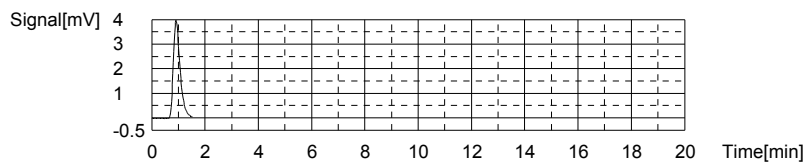
Mean Area 13.59
Mean Conc. 0.1449mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.994	-0.1064mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:44:16 AM

Mean Area 6.994
Mean Conc. -0.1064mg/L



Sample

Sample Name: WG295252-05 (5) DUP
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

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Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.i32

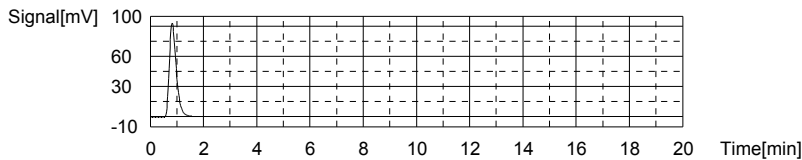
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:2.171mg/L TC:4.304mg/L IC:2.133mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.4	4.304mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 04:51:40 AM

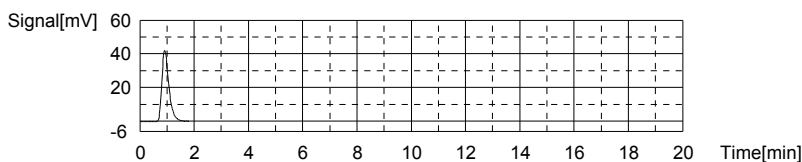
Mean Area 170.4
Mean Conc. 4.304mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.74	2.133mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 04:56:29 AM

Mean Area 75.74
Mean Conc. 2.133mg/L



Sample

Sample Name: WG292252-06 (5) MS
Sample ID:
Origin: TOC-01-13-2009.met
Status: Completed
Chk. Result

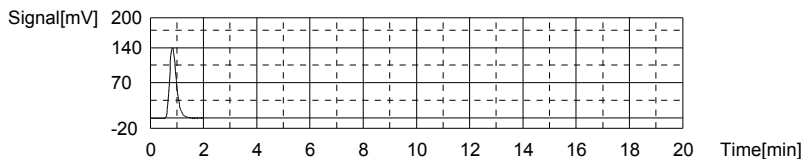
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	TOC:4.572mg/L TC:6.550mg/L IC:1.978mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	255.1	6.550mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:04:06 AM

Mean Area 255.1
Mean Conc. 6.550mg/L



Anal.: IC

50/52

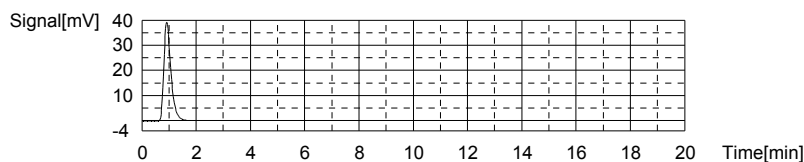
Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	71.00	1.978mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:08:53 AM

Mean Area 71.00
Mean Conc. 1.978mg/L



Sample

Sample Name: CCV
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

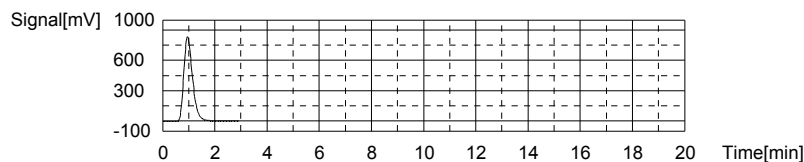
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:51.47mg/L TC:51.37mg/L IC:-0.09959mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1945	51.37mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:17:26 AM

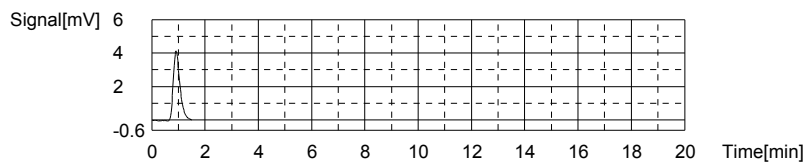
Mean Area 1945
Mean Conc. 51.37mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.202	-0.09959mg/L	500uL		1	TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:21:51 AM

Mean Area 7.202
Mean Conc. -0.09959mg/L



Sample

Sample Name: CCB
Sample ID: TOC-01-13-2009.met
Origin: Completed
Status: Completed
Chk. Result

51/52

Kearna Roberts

Approved: February 24, 2009

02/20/2009 08:09:29 AM

02-19-2009-DIH-TOC.t32

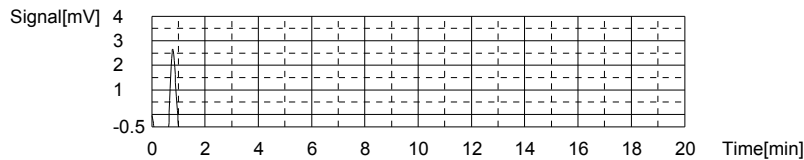
Type	Anal.	Dil.	Result
Unknown	TOC	1.000	!!Error!! TOC:0.1017mg/L TC:-0.02604mg/L IC:-0.1277mg/L

1. Det

Anal.: TC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.145	-0.02604mg/L	500uL	1		TCCURVE-01-13-2009.2009_01_13_14_10_50	02/20/2009 05:26:53 AM

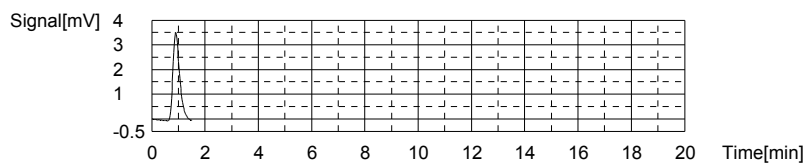
Mean Area 7.145
Mean Conc. -0.02604mg/L



Anal.: IC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.338	-0.1277mg/L	500uL	1		TICCURVE-01-13-2009.2009_01_13_15_12_50	02/20/2009 05:30:51 AM

Mean Area 6.338
Mean Conc. -0.1277mg/L

*Heanna Roberts*

Approved: February 24, 2009

3.0 Attachments

Microbac Laboratories Inc.

Analyst Listing

February 24, 2009

ADC - ANTHONY D. CANTER	AJF - AMANDA J. FICKIESEN	ALB - ANNIE L. BROWN
AM - ALISON J. MILLER	AML - ANTHONY M. LONG	BRG - BRENDA R. GREGORY
CAA - CASSIE A. AUGENSTEIN	CAF - CHERYL A. FLOWERS	CAH - CHARLES A. HALL
CEB - CHAD E. BARNES	CLC - CHRYS L. CRAWFORD	CLW - CHARISSA L. WINTERS
CMS - CRYSTAL M. STEPHENS	CPD - CHAD P. DAVIS	CSH - CHRIS S. HILL
CTB - CHRIS T. BUCINA	DDE - DEBRA D. ELLIOTT	DEL - DON E. LIGHTFRITZ
DEV - DAVID E. VANDENBERG	DGB - DOUGLAS G. BUTCHER	DIH - DEANNA I. HESSON
DLB - DAVID L. BUMGARNER	DLP - DOROTHY L. PAYNE	DLR - DIANNA L. RAUCH
DR - DEANNA ROBERTS	DSF - DEBRA S. FREDERICK	EAB - EDDIE A. BYERS
ECL - ERIC C. LAWSON	ED - EMILY E. DECKER	EDA - ERIN D. AGEES
EDH - ETHAN D. MORRIS	ERP - ERIN R. PORTER	FJB - FRANCES J. BOLDEN
HAV - HEMA VILASAGAR	HJR - HOLLY J. REED	JBK - JEREMY B. KINNEY
JC - JOHN L. CONLEY	JDH - JUSTIN D. HESSON	JKP - JACQUELINE K. PARSONS
JKT - JANE K. THOMPSON	JWR - JOHN W. RICHARDS	JWS - JACK W. SHEAVES
JYH - JI Y. HU	KEB - KATHRYN E. BARNES	KHR - KIM H. RHODES
KJW - KATIE J. WIEFERICH	KRA - KATHY R. ALBERTSON	LHT - LANCE H. THOMPSON
LKN - LINDA K. NEDEFF	LSB - LESLIE S. BUCINA	MDA - MIKE D. ALBERTSON
MDC - MICHAEL D. COCHRAN	MES - MARY E. SCHILLING	MMB - MAREN M. BEERY
MRT - MICHELLE R. TAYLOR	MSW - MATT S. WILSON	NPM - NATHANIEL P. MILLER
PDM - PIERCE D. MORRIS	RAH - ROY A. HALSTEAD	RB - ROBERT BUCHANAN
REK - ROBERT E. KYER	RLK - ROBIN L. KLINGER	RWC - RODNEY W. CAMPBELL
SAV - SARAH A. VANDENBERG	SDH - SHANA D. HINYARD	SDL - SHELLY D. LENT
SLM - STEPHANIE L. MOSSBURG	SLP - SHERI L. PFALZGRAF	SMH - SHAUNA M. HYDE
TDH - TRICIA D. HUCK	TIP - TAE I. PARRISH	TMB - TIFFANY M. BAILEY
TMM - TAMMY M. MORRIS	VC - VICKI COLLIER	WTD - WADE T. DELONG

Qualifier: STD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Result is greater than the associated numerical value.
A	See the report narrative
B	Analyte present in method blank
B3	Target analyte detected in calibration blank at or above the method reporting limit
C	Confirmed by GC/MS
CG	Confluent growth
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
E1	Concentration estimated. Analyte exceeded calibration range. Insufficient sample for reanalysis.
E2	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to matrix.
E3	Concentration estimated. Analyte exceeded calibration range. Reanalysis not performed due to holding time requirements
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	The analyte was positively identified, but the quantitation was below the RL
J,B	Analyte detected in both the method blank and sample above the MDL.
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration is disproportionate to the spike level.
N	Tentatively identified compound(TIC)
NA	Not applicable
ND	Not detected at or above the reporting limit
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria fail. See narrative.
Q1	Sample integrity was not maintained. See report narrative.
QNS	Quantity of sample not sufficient to perform analysis
R1	Duplicate RPD/RSD exceeded the method acceptance limit.
R2	Duplicate RPD/RSD exceeded the laboratory acceptance limit.
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Undetected; the concentration is below the reported MDL.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
V2	CCV recovery was above method acceptance limits. Insufficient volume for sample reanalysis.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

***Special Notes for Organic Analytes



Qualkey: STD

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



Chain of Custody

00103375
 NO. 5776

Laboratory Name: Microbac		Address: 158 Starlite Dr. Marietta, OH		Contact: Stephanie Mossburg													
Project Name: LHAAP		Project Location: KARNACK, TX.		Analysis and Method Desired (Indicate separate containers)													
Project No.: 117591-0009A130		Project Contact: JEN HOANG		Project Telephone No.: 713-996-4408													
Point of Contact: Scott Beesinger		Project Manager/Supervisor: Praveen Srivastava		Telephone No.: 903-679-3448													
Item No.	Sample Number	Date	Time	Comp	Grab	Matrix	Sample Description, Location	Number of Containers	VOC	GASES	TOC	ANIONS					
1	105-021809	02/18/09	0951		X	W	Site 47	7	2	3	1	1					
2	47WW09-021809	02/18/09	1216		X	W	Site 47	7	2	3	1	1					
3	TRIP BLANK	02/18/09	0700			W	Site 47	2	2								
4																	
5																	
6																	
7																	
8																	
9																	
10																	
Transfers Relinquished By (signature)		Date/Time		Transfers Accepted By (signature)		Date/Time		Special Instructions									
<i>[Signature]</i>		2/18/09 3:00						48 HR. TAT									
								FedEx Airbill No.:									
				Laboratory		2-19-09 0920		Sampler's Signature <i>[Signature]</i>									
TAT: Standard Rush Date		Seals Intact? Y N		Received Good Condition Y N Cold													

Client: <u>SHAW Tonghorn</u>			
Workorder Number: <u>B</u>			
Date Received: <u>2-19-08</u>			
Delivered by:	☐ Fedx	☒ UPS	☐ Client ☐ Courier
Time: <u>0920</u>			
Opened by: <u>ERP</u>			
IR Temp Gun:	☐ H	☒ G	
Logged by: <u>ERP/JKT</u>		<u>L 09020400</u>	

Cooler information

Cooler ID	Temp C	Airbill#	COC#	Other
<u>2504</u>	<u>0</u>	<u>1266V7250190306450</u>		<u>SH 2D TAT</u>

Inspection Checklist

	Y	N	NA	Discrepancy ID
Were shipping coolers sealed?	☒	☐	☐	
Were custody seals intact?	☒	☐	☐	
Were cooler temperatures in range of 0 - 6?	☒	☐	☐	
Was ice present?	☒	☐	☐	
Were COC's received/ information complete/signed and dated?	☒	☐	☐	
Were sample containers and labels intact and match COC?	☒	☐	☐	
Were the correct containers and volumes received?	☒	☐	☐	
Were correct preservatives used? (water only)	☒	☐	☐	
Were pH ranges acceptable? (voa's excluded)	☒	☐	☐	
Were VOA samples free of headspace (< 6mm)?	☒	☐	☐	
Were samples received within EPA hold times?	☒	☐	☐	

Discrepancy/Comments/Other Problems

Distribution

Name of Microbac representative:
Client/Company:
Person Contacted:
Date contacted:

Resolution/other comments:

Internal Chain of Custody Report

00103377

Login: L09020400

Account: 2773

Project: 2773.025

Samples: 3

Due Date: 23-FEB-2009

Samplenum **Container ID** **Products**
L09020400-01 553238 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	19-FEB-2009 10:13	ERE	
2	ANALYZ	W1	WET	19-FEB-2009 10:16	HJR	JKT
3	STORE	WET	A1	20-FEB-2009 08:47	ERE	DIH

Samplenum **Container ID** **Products**
L09020400-02 553239 826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:39	MRT	ERE

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:39	MRT	ERE

Samplenum **Container ID** **Products**
L09020400-01 553237 300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	19-FEB-2009 10:13	ERE	
2	ANALYZ	L1	SEM	19-FEB-2009 10:18	ADC	RLK

Samplenum **Container ID** **Products**
L09020400-02 553242 TOC

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	W1	19-FEB-2009 10:13	ERE	
2	ANALYZ	W1	WET	19-FEB-2009 10:16	HJR	JKT
3	STORE	WET	A1	23-FEB-2009 13:34	ERE	DIH

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login



Internal Chain of Custody Report

00103378

Login: L09020400

Account: 2773

Project: 2773.025

Samples: 3

Due Date: 23-FEB-2009

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L09020400-02	553241	300

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	L1	19-FEB-2009 10:13	ERE	
2	ANALYZ	L1	SEM	19-FEB-2009 10:18	ADC	RLK

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L09020400-03	553243	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:39	MRT	ERE

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:39	MRT	ERE

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L09020400-01	553235	826-LOW

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:38	MRT	ERE

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG4	19-FEB-2009 11:39	MRT	ERE

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login



Login: L09020400**Account:** 2773**Project:** 2773.025**Samples:** 3**Due Date:** 23-FEB-2009

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L09020400-01	553236	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:49	EAB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:49	EAB	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:49	EAB	RLK

<u>Samplenum</u>	<u>Container ID</u>	<u>Products</u>
L09020400-02	553240	RSK175

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:49	EAB	RLK

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:50	EAB	RLK

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish
1	LOGIN	COOLER	V1	19-FEB-2009 10:13	ERE	
2	ANALYZ	V1	ORG3	19-FEB-2009 10:50	EAB	RLK

A1 - Sample Archive (COLD)
 A2 - Sample Archive (AMBIENT)
 F1 - Volatiles Freezer in Login
 V1 - Volatiles Refrigerator in Login
 W1 - Walkin Cooler in Login

