Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 211047
ANALYTICAL REPORT

Baseline Environmental	Project	: Y0239-04.A3
5900 Hollis Street	Location	: Doyle Drive Replacement Project
Emeryville, CA 94608	Level	: III

Sample ID	Lab ID
BTSB-R1(I)	211047-001
BTSB-R3(I)	211047-002
BTSB-R3(D)	211047-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 04/15/2009
Project Manager

Signature: _____ Date: 04/20/2009
Senior Program Manager

NELAP # 01107CA

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**211047**
Client:	**Baseline Environmental**
Project:	**Y0239-04.A3**
Location:	**Doyle Drive Replacement Project**
Request Date:	**03/31/09**
Samples Received:	**03/31/09**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 03/31/09. See attached cooler receipt form for any sample receipt problems or discrepancies.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
High response was observed for motor oil C24-C36 in the CCV analyzed 04/10/09 22:26; this analyte was not detected at or above the RL in the associated sample.

High recoveries were observed for diesel C12-C24 in the MS/MSD for batch 149610; the parent sample was not a project sample, the LCS was within limits, the associated RPD was within limits, and this analyte was not detected at or above the RL in the associated samples.

No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low response was observed for vinyl acetate in the ICV analyzed 04/01/09 16:39; this analyte was not detected at or above the RL in the associated samples.

Low response was observed for bromomethane in the CCV analyzed 04/09/09 10:04; this analyte met minimum response criteria. High response was observed for carbon tetrachloride; this analyte was not detected at or above the RL in the associated samples.

Matrix spikes were not performed for this analysis in batch 149782 due to insufficient sample amount.

No other analytical problems were encountered.

Metals (EPA 6020 and EPA 7470A):
High % difference was observed for arsenic in the serial dilution for batch 149491.

No other analytical problems were encountered.

Chain of Custody

211047

BASELINE Environmental Consulting

5900 Hollis Street, Suite D
Emeryville, CA 94608
Tel: (510) 420-8686 Fax: (510) 420-1707

CHAIN OF CUSTODY RECORD

Turn-Around-Time Normal
Laboratory CTF
BASELINE Contact Person CHERI

Project Number Y0239-04.A3
Project Name: Doyle Drive Replacement Project
Samplers: (Signature) [signature]

Sample ID No. Station	Date	Time	Media	Containers No.	L-AG	40-ml VOA	500 ml-Poly	250 ml Poly	Ice	HCL	HNO_3	H_2SO_4	NaOH	TPH-g (EPA Method 8015M)	TPH-d and mo (EPA Method 8015M with silica gel cleanup)	VOC (EPA Method 8260B)	Title 26 Metals (EPA Method 6020/7000)							Remarks/ Composite
BTSB-R1(I)	3-31-09	10:40	water	6		6				X				X		X								
					1										X									
							1										X							

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	3-31-09 13:45	[signature]	3/31/09 13:45
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	

Arrival at Laboratory:
Remarks:
Email contact: cheri@baseline-env.com

Received at laboratory with intact: YES NO
Comments:

Y0239-04.A3.DoyleDrive_gw_chain_of_custody(2).xls

21047

BASELINE Environmental Consulting
5900 Hollis Street, Suite D
Emeryville, CA 94608
Tel: (510) 420-8686 Fax: (510) 420-1707

CHAIN OF CUSTODY RECORD

Turn-Around-Time Normal
Laboratory CTT
BASELINE Contact Person CHERI

Project Number Y0239-04.A3
Project Name: Doyle Drive Replacement Project
Samplers: (Signature)

Sample ID No. Station	Date	Time	Media	Containers No.	Type: L-AG	Type: 40-ml VOA	Type: 500 ml-Poly	Type: 250 ml Poly	Preservative: Ice	Preservative: HCL	Preservative: HNO_3	Preservative: H_2SO_4	Preservative: NaOH	TPH-g (EPA Method 8015M)	TPH-d and mo (EPA Method 8015M with silica gel cleanup)	VOC (EPA Method 8260B)	Title 26 Metals (EPA Method 6020/7000)	Remarks/ Composite
BTSB-R3(I)	3-31-09	11:40	water	8		6				X				X		X		
															X			
							1										X	

Relinquished by: (Signature) — Date/Time 3-31-09 13:45 — Received by: (Signature) — Date/Time 3/31/09 1545 — Arrival at Laboratory:
Relinquished by: (Signature) — Date/Time — Received by: (Signature) — Remarks:
Relinquished by: (Signature) — Date/Time — Received by: (Signature) — Email contact: cheri@baseline-env.com

Received at laboratory with intact: YES NO
Comments:

2

Y0239-04.A3.DoyleDrive_gw_chain_of_custody(2).xls

211047

BASELINE Environmental Consulting

5900 Hollis Street, Suite D
Emeryville, CA 94608
Tel: (510) 420-8686 Fax: (510) 420-1707

CHAIN OF CUSTODY RECORD

Turn-Around-Time Normal
Laboratory CTT
BASELINE Contact Person CHERI

Project Number Y0239-04.A3
Project Name: Doyle Drive Replacement Project
Samplers: (Signature) [signature]

Sample ID No. Station	Date	Time	Media	Containers No.	L-AG	40-ml VOA	500 ml-Poly	250 ml Poly	Ice	HCL	HNO_3	H_2SO_4	NaOH	TPH-g (EPA Method 8015M)	TPH-d and mo (EPA Method 8015M with silica gel cleanup)	VOC (EPA Method 8260B)	Title 26 Metals (EPA Method 6020/7000)							Remarks/ Composite
BTSB-R3(D)	3-31-09	12:40	water	8		6				X				X		X								
							1								X									
																	X							

Type: L-AG, 40-ml VOA, 500 ml-Poly, 250 ml Poly
Preservative: Ice, HCL, HNO_3, H_2SO_4, NaOH

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	
[signature]	3/31/09 13:45	[signature]	3/31/09 13:45	Arrival at Laboratory:
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		Remarks:
				Email contact: cheri@baseline-env.com
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		

Received at laboratory with intact: YES NO

Comments:

3

Y0239-04.A3.DoyleDrive_gw_chain_of_custody(2).xls

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 211047 Date Received 3/31/09 Number of coolers 2
Client Baseline Project Doyle Drive Replacement Project

Date Opened 3/31/09 By (print) Dhuong Le (sign) D. Le
Date Logged in ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) _____ YES (NO)
   Shipping info _____

2A. Were custody seals present? ... ☐ YES (circle) on cooler on samples ☑ NO
   How many _____ Name _____ Date _____

2B. Were custody seals intact upon arrival? _____ YES NO (N/A)

3. Were custody papers dry and intact when received? _____ (YES) NO

4. Were custody papers filled out properly (ink, signed, etc)? _____ (YES) NO

5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO

6. Indicate the packing in cooler: (if other, describe) _____

   ☑ Bubble Wrap ☑ Foam blocks ☑ Bags ☐ None
   ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation:

   Type of ice used: ☑ Wet ☐ Blue/Gel ☐ None Temp(°C) 6.3, 5.9

   ☐ Samples Received on ice & cold without a temperature blank

   ☑ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? _____ YES (NO)
   If YES, what time were they transferred to freezer? _____

9. Did all bottles arrive unbroken/unopened? _____ (YES) NO

10. Are samples in the appropriate containers for indicated tests? _____ (YES) NO

11. Are sample labels present, in good condition and complete? _____ YES (NO)

12. Do the sample labels agree with custody papers? _____ (YES) NO

13. Was sufficient amount of sample sent for tests requested? _____ (YES) NO

14. Are the samples appropriately preserved? _____ (YES) NO N/A

15. Are bubbles > 6mm absent in VOA samples? _____ (YES) NO N/A

16. Was the client contacted concerning this sample delivery? _____ YES NO
   If YES, Who was called? _____ By _____ Date: _____

COMMENTS
Samphe #3 - 1/6 VOA had no label on it identified it by elimination.

SOP Volume: Client Services
Section: 1.1.2
Page: 1 of 1

Rev. 6 Number 1 of 3
Effective: 23 July 2008
Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc

Laboratory Job Number 211047

ANALYTICAL REPORT

TPH-Purgeables and/or BTXE by GC

Matrix: Water

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/31/09
Units:	ug/L	Received:	03/31/09
Diln Fac:	1.000		

Field ID: BTSB-R1(I) Batch#: 149623
Type: SAMPLE Analyzed: 04/05/09
Lab ID: 211047-001

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	77	65-135

Field ID: BTSB-R3(I) Batch#: 149553
Type: SAMPLE Analyzed: 04/03/09
Lab ID: 211047-002

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	65-135

Field ID: BTSB-R3(D) Batch#: 149553
Type: SAMPLE Analyzed: 04/03/09
Lab ID: 211047-003

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	65-135

Type: BLANK Batch#: 149553
Lab ID: QC490116 Analyzed: 04/02/09

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-135

Type: BLANK Batch#: 149623
Lab ID: QC490402 Analyzed: 04/05/09

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	75	65-135

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC490117	Batch#:	149553
Matrix:	Water	Analyzed:	04/02/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	955.3	96	75-125

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	65-135

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	149553
MSS Lab ID:	211060-002	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Analyzed:	04/02/09
Diln Fac:	1.000		

Type: MS Lab ID: QC490118

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	27.48	2,000	1,546	76	75-125

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	126	65-135

Type: MSD Lab ID: QC490119

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,631	80	75-125	5	35

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	129	65-135

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC490403	Batch#:	149623
Matrix:	Water	Analyzed:	04/05/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	3,000	2,665	89	75-125

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	103	65-135

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	149623
MSS Lab ID:	211060-002	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Analyzed:	04/05/09
Diln Fac:	1.000		

Type: MS Lab ID: QC490404

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	22.55	2,000	1,709	84	75-125

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	96	65-135

Type: MSD Lab ID: QC490405

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,758	87	75-125	3	35

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	65-135

RPD= Relative Percent Difference

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCVOA Water: EPA 8015B / EPA 8021B

Inst : GC04
Calnum : 309130012001
Units : ng

Name : GC04 surr ical 090
Date : 31-MAR-2009 18:26
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	090_011	309130012011	SURROGATE_1	31-MAR-2009 18:26	S11560 (5000X)
L2	090_012	309130012012	SURROGATE_2	31-MAR-2009 19:03	S11560 (5000X)
L3	090_013	309130012013	SURROGATE_3	31-MAR-2009 19:41	S11560 (5000X)
L4	090_014	309130012014	SURROGATE_4	31-MAR-2009 20:19	S11560 (5000X)
L5	090_015	309130012015	SURROGATE_5	31-MAR-2009 20:56	S11560 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Bromofluorobenzene (FID)	A	822.82	917.08	928.52	920.69	893.37	AVRG		0.00112		896.50	5	0.995	20	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Bromofluorobenzene (FID)	A	450.0	-8	450.0	2	450.0	4	450.0	3	450.0	0

Analyst: PDM Date: 04/02/09 Reviewer: ATL Date: 04/06/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCVOA Water: EPA 8015B

Inst : GC04
Calnum : 309130012003
Units : ng

Name : GC04 tvh ical 090
Date : 01-APR-2009 07:36
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	090_032	309130012032	TVH_15	01-APR-2009 07:36	S11029 (1000X), S11560 (5000X)
L2	090_033	309130012033	TVH_16	01-APR-2009 08:13	S11028 (1000X), S11560 (5000X)
L3	090_034	309130012034	TVH_17	01-APR-2009 08:51	S11027 (2000X), S11560 (5000X)
L4	090_035	309130012035	TVH_18	01-APR-2009 09:28	S11027 (1000X), S11560 (5000X)
L5	090_045	309130012045	TVH_14	01-APR-2009 15:44	S11030 (1000X), S11560 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Gasoline C7-C12	A	2600.4	2368.1	2405.4	2307.9	3111.4	AVRG		3.91E-4		2558.7	13	0.995	20	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Gasoline C7-C12	A	2500	2	10000	-7	25000	-6	50000	-10	250.0	22

PDM 04/02/09 : separated from coeluting peak, TFT, in runs _033 and _035

PDM 04/02/09 : low level re-run due to possible prep error

WNH 04/06/09 : Reprocessed for pre-manual integration documents to be included

WNH: 04/06/09 ATL: 04/06/09 PDM: 04/07/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 GCVOA Water
EPA 8015B

Inst : GC04 Name : GC04 tvh ical 090
Calnum : 309130012003 Cal Date : 01-APR-2009

ICV 309130012052 (090_052 02-APR-2009) stds: S11421 (1000X), S11560 (5000X)

Analyte	Ch	Average RF	RF	Spiked	Quant	Units	%D	Flags
Gasoline C7-C12	A	2558.7	2279.7	10000	8910	ng	-11	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCVOA Water: EPA 8015B

Inst : GC19
Calnum : 349061129002
Units : ng

Name : GC19 TVH ical 042
Date : 11-FEB-2009 17:06
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	042_011	349061129011	TVH_15	11-FEB-2009 17:06	S11029 (1000X), S10937 (5000X)
L2	042_012	349061129012	TVH_16	11-FEB-2009 17:43	S11028 (1000X), S10937 (5000X)
L3	042_013	349061129013	TVH_17	11-FEB-2009 18:21	S11027 (2000X), S10937 (5000X)
L4	042_014	349061129014	TVH_18	11-FEB-2009 18:58	S11027 (1000X), S10937 (5000X)
L5	042_021	349061129021	TVH_14	12-FEB-2009 08:36	S11030 (1000X), S10937 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Gasoline C7-C12	A	2564.0	2429.9	2293.8	2317.7	3198.3	AVRG		3.91E-4		2560.8	15	0.995	20	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Gasoline C7-C12	A	2500	0	10000	-5	25000	-10	50000	-9	250.0	25

PDM 02/12/09 : low point,TVH ICAL _14, RR for better Gas recovery

PDM 02/12/09 : separated coeluting peak, TFT

Analyst: PDM Date: 02/12/09 Reviewer: ATL Date: 02/13/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 GCVOA Water
EPA 8015B

Inst : GC19 Name : GC19 TVH ical 042
Calnum : 349061129002 Cal Date : 11-FEB-2009

ICV 349061129022 (042_022 12-FEB-2009) stds: S10986 (1000X), S10937 (5000X)

Analyte	Ch	Average RF	RF	Spiked	Quant	Units	%D	Flags
Gasoline C7-C12	A	2560.8	2239.7	10000	8746	ng	-13	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCVOA Water: EPA 8015B / EPA 8021B

Inst : GC19
Calnum : 349101423001
Units : ng

Name : gc19 surr ical 070
Date : 12-MAR-2009 12:30
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	070_018	349101423018	SURROGATE_1	12-MAR-2009 12:30	S11560 (5000X)
L2	070_019	349101423019	SURROGATE_2	12-MAR-2009 13:08	S11560 (5000X)
L3	070_020	349101423020	SURROGATE_3	12-MAR-2009 13:45	S11560 (5000X)
L4	070_021	349101423021	SURROGATE_4	12-MAR-2009 14:23	S11560 (5000X)
L5	070_022	349101423022	SURROGATE_5	12-MAR-2009 15:51	S11560 (5000X)

Analyte	Ch	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Bromofluorobenzene (FID)	A	477.39	484.39	507.16	489.82	455.66	AVRG		0.00207		482.88	4	0.995	20	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Bromofluorobenzene (FID)	A	450.0	-1	450.0	0	450.0	5	450.0	1	450.0	-6

Analyst: PDM Date: 03/13/09 Reviewer: ATL Date: 03/13/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS SPIKE USER REPORT FOR 211047 GCVOA Water
EPA 8015B

Inst : GC04 Run Name : QC490117 IDF : 1.0
Seqnum : 309133100003.3 File : 092_003 Time : 02-APR-2009 11:35
Standards: S11652 (2000X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	309130012003	01-APR-2009	2558.7	2444.3	5000	4776	ng	-4	15	u
Bromofluorobenzene (FID)	A	309130012001	31-MAR-2009	896.50	926.50	450.0	465.1	ng	3	15	u

WNH 04/06/09 [Trifluorotoluene (FID) A]: Passes control limits. [general version]

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/09/09

u=use

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCVOA Water
EPA 8015B

Inst : GC04 Run Name : TVH IDF : 1.0
Seqnum : 309133100014 File : 092_014 Time : 02-APR-2009 20:15
Standards: S11652 (1000X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	309130012003	01-APR-2009	2558.7	2193.8	10000	8574	ng	-14	15	
Bromofluorobenzene (FID)	A	309130012001	31-MAR-2009	896.50	1157.7	450.0	581.1	ng	**29**	15	c+

PDM 04/07/09 [Bromofluorobenzene (FID) A]: Passes control limits.

PDM 04/08/09 [Trifluorotoluene (FID) A]: Passes control limits.

Analyst: WNH Date: 04/06/09 Reviewer: ATL Date: 04/08/09

+=high bias c=CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCVOA Water
EPA 8015B

Inst : GC04 Run Name : TVH IDF : 1.0
Seqnum : 309133100027 File : 092_027 Time : 03-APR-2009 04:24
Standards: S11652 (666.7X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	309130012003	01-APR-2009	2558.7	2186.2	15000	12820	ng	-15	15	
Bromofluorobenzene (FID)	A	309130012001	31-MAR-2009	896.50	1219.3	450.0	612.0	ng	**36**	15	c+

PDM 04/07/09 : Corrected automatically drawn baseline .

PDM 04/07/09 [Trifluorotoluene (FID) A]: Separated from coeluting peak.

PDM 04/08/09 [Trifluorotoluene (FID) A]: Passes control limits.

PDM 04/08/09 [Bromofluorobenzene (FID) A]: Passes control limits.

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/08/09

+=high bias c=CCV

CURTIS & TOMPKINS SPIKE USER REPORT FOR 211047 GCVOA Water
EPA 8015B

Inst : GC19 Run Name : QC490403 IDF : 1.0
Seqnum : 349137249004.2 File : 095_004 Time : 05-APR-2009 10:09
Standards: S11652 (666.7X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	349061129002	11-FEB-2009	2560.8	2274.5	15000	13320	ng	-11	15	u
Bromofluorobenzene (FID)	A	349101423001	12-MAR-2009	482.88	495.74	450.0	462.0	ng	3	15	u

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/09/09

u=use

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCVOA Water
EPA 8015B

Inst : GC19 Run Name : TVH IDF : 1.0
Seqnum : 349137249009 File : 095_009 Time : 05-APR-2009 13:59
Standards: S11652 (1000X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	349061129002	11-FEB-2009	2560.8	2352.4	10000	9186	ng	-8	15	
Bromofluorobenzene (FID)	A	349101423001	12-MAR-2009	482.88	426.65	450.0	397.6	ng	-12	15	

PDM 04/07/09 : PID surrogates are not applicable.

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/08/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCVOA Water
EPA 8015B

Inst : GC19 Run Name : TVH IDF : 1.0
Seqnum : 349137249020 File : 095_020 Time : 05-APR-2009 20:53
Standards: S11652 (2000X), S11560 (5000X)

Analyte	Ch	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Gasoline C7-C12	A	349061129002	11-FEB-2009	2560.8	2397.1	5000	4680	ng	-6	15	
Bromofluorobenzene (FID)	A	349101423001	12-MAR-2009	482.88	418.54	450.0	390.0	ng	-13	15	

PDM 04/07/09 [Trifluorotoluene (FID) A]: Separated from coeluting peak.

PDM 04/07/09 : PID surrogates are not applicable.

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/08/09

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 309130012

Instrument : GC04 Begun : 03/31/09 06:52
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	090_001	X	IB			03/31/09 06:52	1.0	1	
002	090_002	X	CCV			03/31/09 08:28	1.0	2 1	
003	090_003	X	IB			03/31/09 12:42	1.0	1	
004	090_004	X	IB			03/31/09 13:19	1.0	1	
005	090_005	X	IB			03/31/09 13:57	1.0	1	
006	090_006	X	CCV			03/31/09 14:47	1.0	2 1	
007	090_007	X	CCV			03/31/09 15:34	1.0	3 1	
008	090_008	X	IB			03/31/09 16:33	1.0	1	
009	090_009	IB	CRACKED			03/31/09 17:10	1.0	1	
010	090_010	IB	CALIB			03/31/09 17:48	1.0	1	
011	090_011	ICAL	SURROGATE_1			03/31/09 18:26	1.0	1	
012	090_012	ICAL	SURROGATE_2			03/31/09 19:03	1.0	1	
013	090_013	ICAL	SURROGATE_3			03/31/09 19:41	1.0	1	
014	090_014	ICAL	SURROGATE_4			03/31/09 20:19	1.0	1	
015	090_015	ICAL	SURROGATE_5			03/31/09 20:56	1.0	1	
016	090_016	X	IB			03/31/09 21:34	1.0	1	
017	090_017	IB	CALIB			03/31/09 22:12	1.0	1	
018	090_018	ICAL	BTXE_6			03/31/09 22:49	1.0	4 1	
019	090_019	ICAL	MBTXE_7			03/31/09 23:27	1.0	5 1	
020	090_020	ICAL	MBTXE_8			04/01/09 00:04	1.0	5 1	
021	090_021	ICAL	MBTXE_9			04/01/09 00:42	1.0	5 1	
022	090_022	ICAL	MBTXE_10			04/01/09 01:20	1.0	6 1	
023	090_023	ICAL	MBTXE_11			04/01/09 01:57	1.0	6 1	
024	090_024	ICAL	MBTXE_12			04/01/09 02:35	1.0	6 1	
025	090_025	ICAL	MTBE_13			04/01/09 03:13	1.0	7 1	
026	090_026	X	IB			04/01/09 03:50	1.0	1	
027	090_027	ICV	MBTXE			04/01/09 04:28	1.0	8 1	
028	090_028	X	ICV			04/01/09 05:05	1.0	8 1	
029	090_029	X	IB			04/01/09 05:43	1.0	1	
030	090_030	IB	CALIB			04/01/09 06:21	1.0	1	
031	090_031	X	TVH_14			04/01/09 06:58	1.0	9 1	
032	090_032	ICAL	TVH_15			04/01/09 07:36	1.0	10 1	
033	090_033	ICAL	TVH_16			04/01/09 08:13	1.0	11 1	
034	090_034	ICAL	TVH_17			04/01/09 08:51	1.0	12 1	
035	090_035	ICAL	TVH_18			04/01/09 09:28	1.0	12 1	
036	090_036	X	IB			04/01/09 10:06	1.0	1	
037	090_037	X	ICV			04/01/09 10:44	1.0	3 1	
038	090_038	X	ICV			04/01/09 11:21	1.0	3 1	
039	090_039	X	IB			04/01/09 11:59	1.0	1	
040	090_040	CMARKER				04/01/09 12:36	1.0	13 1	
041	090_041	X	IB			04/01/09 13:14	1.0	1	
042	090_042	ICV	MBTXE			04/01/09 13:52	1.0	14 1	
043	090_043	X	IB			04/01/09 14:29	1.0	1	
044	090_044	X	IB			04/01/09 15:07	1.0	1	
045	090_045	ICAL	TVH_14			04/01/09 15:44	1.0	9 1	
046	090_046	X	IB			04/01/09 16:22	1.0	1	
047	090_047	X	ICV			04/01/09 17:07	1.0	3 1	
048	090_048	X	IB			04/01/09 17:44	1.0	1	
049	090_049	X	CMARKER			04/01/09 18:22	1.0	13 1	
050	090_050	X	IB			04/02/09 07:14	1.0	1	
051	090_051	X	ICV			04/02/09 08:32	1.0	3 1	
052	090_052	ICV	TVH			04/02/09 09:26	1.0	15 1	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 309130012

Instrument : GC04 Begun : 03/31/09 06:52
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

PDM 04/02/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 001 through 052.

Analyst: PDM Date: 04/02/09 Reviewer: ATL Date: 04/06/09

Standards used: 1=S11560 2=S11540 3=S11652 4=S11329 5=S11328 6=S11327 7=S11330 8=S11280 9=S11030 10=S11029 11=S11028 12=S11027 13=S10996 14=S10872 15=S11421

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 309133100

Instrument : GC04 Begun : 04/02/09 10:20
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	092_001	X	CMARK			04/02/09 10:20	1.0	1 2	
002	092_002	X	CCV			04/02/09 10:57	1.0	3 2	
003	092_003	CCV/LCS	QC490117	Water	149553	04/02/09 11:35	1.0	4 2	
004	092_004	X	CCV			04/02/09 12:13	1.0	3 2	
005	092_005	BLANK	QC490116	Water	149553	04/02/09 12:50	1.0	2	
006	092_006	X	IB			04/02/09 15:14	1.0	2	
007	092_007	SAMPLE	211046-001	Water	149553	04/02/09 15:52	1.0	2	
008	092_008	SAMPLE	211060-001	Water	149553	04/02/09 16:29	1.0	2	
009	092_009	MSS	211060-002	Water	149553	04/02/09 17:07	1.0	2	
010	092_010	MS	QC490118	Water	149553	04/02/09 17:45	1.0	4 2	
011	092_011	MSD	QC490119	Water	149553	04/02/09 18:22	1.0	4 2	
012	092_012	SAMPLE	211060-003	Water	149553	04/02/09 19:00	1.0	2	
013	092_013	SAMPLE	211060-004	Water	149553	04/02/09 19:38	1.0	2	
014	092_014	CCV	TVH		149553	04/02/09 20:15	1.0	4 2	
015	092_015	X	CCV		149553	04/02/09 20:53	1.0	4 2	
016	092_016	X	CMARK			04/02/09 21:30	1.0	1 2	
017	092_017	SAMPLE	211031-001	Water	149553	04/02/09 22:08	1.0	2	
018	092_018	SAMPLE	211031-002	Water	149553	04/02/09 22:46	1.0	2	
019	092_019	SAMPLE	211031-003	Water	149553	04/02/09 23:23	1.0	2	
020	092_020	SAMPLE	211047-001	Water	149553	04/03/09 00:01	1.0	2	
021	092_021	SAMPLE	211047-002	Water	149553	04/03/09 00:39	1.0	2	
022	092_022	SAMPLE	211047-003	Water	149553	04/03/09 01:16	1.0	2	
023	092_023	SAMPLE	211050-002	Water	149553	04/03/09 01:54	1.0	2	
024	092_024	SAMPLE	211050-003	Water	149553	04/03/09 02:31	1.0	2	
025	092_025	SAMPLE	211050-004	Water	149553	04/03/09 03:09	1.0	2	
026	092_026	X	TVH		149553	04/03/09 03:46	1.0	4 2	
027	092_027	CCV	TVH		149553	04/03/09 04:24	1.0	4 2	
028	092_028	X	CMARK			04/03/09 05:02	1.0	1 2	

PDM 04/07/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 001 through 028.

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/08/09

Standards used: 1=S10996 2=S11560 3=S11540 4=S11652

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 349061129

Instrument : GC19 Begun : 02/11/09 10:49
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	042_001	X	IB			02/11/09 10:49	1.0	1	
002	042_002	X	IB			02/11/09 11:27	1.0	1	
003	042_003	ICAL	SURROGATE_1			02/11/09 12:05	1.0	1	
004	042_004	ICAL	SURROGATE_2			02/11/09 12:42	1.0	1	
005	042_005	ICAL	SURROGATE_3			02/11/09 13:20	1.0	1	
006	042_006	ICAL	SURROGATE_4			02/11/09 13:58	1.0	1	
007	042_007	ICAL	SURROGATE_5			02/11/09 14:35	1.0	1	
008	042_008	IB	CALIB			02/11/09 15:13	1.0	1	
009	042_009	X	IB			02/11/09 15:50	1.0	1	
010	042_010	X	TVH_14			02/11/09 16:28	1.0	2 1	
011	042_011	ICAL	TVH_15			02/11/09 17:06	1.0	3 1	
012	042_012	ICAL	TVH_16			02/11/09 17:43	1.0	4 1	
013	042_013	ICAL	TVH_17			02/11/09 18:21	1.0	5 1	
014	042_014	ICAL	TVH_18			02/11/09 18:58	1.0	5 1	
015	042_015	X	IB			02/11/09 19:36	1.0	1	
016	042_016	X	ICV			02/11/09 20:14	1.0	6 1	
017	042_017	X	TVH			02/11/09 20:51	1.0	6 1	
018	042_018	X	IB			02/11/09 21:29	1.0	1	
019	042_019	CMARKER				02/11/09 22:06	1.0	7 1	
020	042_020	X	IB			02/12/09 07:21	1.0	1	
021	042_021	ICAL	TVH_14			02/12/09 08:36	1.0	2 1	
022	042_022	ICV	TVH			02/12/09 09:14	1.0	6 1	
023	042_023	X	IB			02/12/09 10:14	1.0	1	
024	042_024	IB	CALIB			02/12/09 10:52	1.0	1	
025	042_025	ICAL	BTXE_6			02/12/09 11:44	1.0	8 1	
026	042_026	ICAL	MBTXE_7			02/12/09 12:21	1.0	9 1	
027	042_027	ICAL	MBTXE_8			02/12/09 12:59	1.0	9 1	
028	042_028	ICAL	MBTXE_9			02/12/09 13:36	1.0	9 1	
029	042_029	ICAL	MBTXE_10			02/12/09 14:14	1.0	10 1	
030	042_030	ICAL	MBTXE_11			02/12/09 14:52	1.0	10 1	
031	042_031	ICAL	MBTXE_12			02/12/09 15:29	1.0	10 1	
032	042_032	ICAL	MTBE_13			02/12/09 16:07	1.0	11 1	
033	042_033	X	IB			02/12/09 16:44	1.0	1	
034	042_034	X	MBTXE			02/12/09 17:22	1.0	12 1	
035	042_035	X	ICV			02/12/09 17:59	1.0	12 1	
036	042_036	X	IB			02/18/09 07:16	1.0	1	
037	042_037	X	IB			02/18/09 07:58	1.0	1	
038	042_038	X	IB			02/18/09 09:21	1.0	1	
039	042_039	ICV	MBTXE			02/18/09 09:59	1.0	13 1	

PDM 02/12/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 001 through 022.

PDM 02/18/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 023 through 039.

Analyst: PDM Date: 02/12/09 Reviewer: ATL Date: 02/13/09

Standards used: 1=S10937 2=S11030 3=S11029 4=S11028 5=S11027 6=S10986 7=S10996 8=S11012 9=S11328 10=S11327 11=S11330 12=S10872 13=S11280

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 349101423

Instrument : GC19 Begun : 03/11/09 10:23
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	070_001	X	X			03/11/09 10:23	1.0	1 2	
002	070_002	X	CCV			03/11/09 11:00	1.0	3 2	
003	070_003	X	CCV			03/11/09 11:38	1.0	4 2	
004	070_004	X	CCV			03/11/09 12:16	1.0	3 2	
005	070_005	X	IB			03/11/09 13:28	1.0	2	
006	070_006	X	IB			03/11/09 14:06	1.0	2	
007	070_007	X	IB			03/11/09 14:44	1.0	2	
008	070_008	X	IB			03/11/09 15:21	1.0	2	
009	070_009	X	IB			03/11/09 15:59	1.0	2	
010	070_010	X	IB			03/11/09 16:36	1.0	2	
011	070_011	X	IB			03/11/09 17:26	1.0	2	
012	070_012	X	IB			03/12/09 07:27	1.0	2	
013	070_013	X	IB			03/12/09 08:08	1.0	2	
014	070_014	X	IB			03/12/09 08:46	1.0	2	
015	070_015	X	IB			03/12/09 09:23	1.0	2	
016	070_016	X	IB			03/12/09 10:01	1.0	2	
017	070_017	X	IB			03/12/09 10:38	1.0	2	
018	070_018	ICAL	SURROGATE_1			03/12/09 12:30	1.0	2	
019	070_019	ICAL	SURROGATE_2			03/12/09 13:08	1.0	2	
020	070_020	ICAL	SURROGATE_3			03/12/09 13:45	1.0	2	
021	070_021	ICAL	SURROGATE_4			03/12/09 14:23	1.0	2	
022	070_022	ICAL	SURROGATE_5			03/12/09 15:51	1.0	2	

PDM 03/13/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 001 through 022.

Analyst: PDM Date: 03/13/09 Reviewer: ATL Date: 03/13/09

Standards used: 1=S10996 2=S11560 3=S11372 4=S11421

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 349137249

Instrument : GC19 Begun : 04/05/09 07:29
Method : EPA 8015B, EPA 8021B SOP Version : TVH_BTXE_rv14

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	095_001	X	IB			04/05/09 07:29	1.0	1	
002	095_002	X	CMARK			04/05/09 08:21	1.0	2 1	
003	095_003	X	CCV			04/05/09 09:19	1.0	3 1	
004	095_004	CCV/LCS	QC490403	Water	149623	04/05/09 10:09	1.0	3 1	
005	095_005	BLANK	QC490402	Water	149623	04/05/09 10:56	1.0	1	
006	095_006	MSS	211060-002	Water	149623	04/05/09 12:06	1.0	1	
007	095_007	MS	QC490404	Water	149623	04/05/09 12:44	1.0	3 1	
008	095_008	MSD	QC490405	Water	149623	04/05/09 13:22	1.0	3 1	
009	095_009	CCV	TVH		149623	04/05/09 13:59	1.0	3 1	
010	095_010	X	TVH		149623	04/05/09 14:37	1.0	3 1	
011	095_011	X	CMARK			04/05/09 15:14	1.0	2 1	
012	095_012	SAMPLE	211060-001	Water	149623	04/05/09 15:52	1.0	1	
013	095_013	SAMPLE	211060-003	Water	149623	04/05/09 16:30	1.0	1	
014	095_014	SAMPLE	211060-004	Water	149623	04/05/09 17:07	1.0	1	headspace <= 1 mL
015	095_015	SAMPLE	211031-001	Water	149623	04/05/09 17:45	1.0	1	
016	095_016	SAMPLE	211031-002	Water	149623	04/05/09 18:23	1.0	1	
017	095_017	SAMPLE	211031-003	Water	149623	04/05/09 19:00	1.0	1	
018	095_018	X	IB			04/05/09 19:38	1.0	1	
019	095_019	SAMPLE	211047-001	Water	149623	04/05/09 20:15	1.0	1	
020	095_020	CCV	TVH		149623	04/05/09 20:53	1.0	3 1	
021	095_021	X	TVH		149623	04/05/09 21:31	1.0	3 1	
022	095_022	X	CMARK			04/05/09 22:08	1.0	2 1	

PDM 04/07/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 001 through 022.

Analyst: PDM Date: 04/07/09 Reviewer: ATL Date: 04/08/09

Standards used: 1=S11560 2=S10996 3=S11652

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Laboratory Job Number 211047

ANALYTICAL REPORT

TPH-Extractables by GC

Matrix: Water

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 3520C
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/31/09
Units:	ug/L	Received:	03/31/09
Diln Fac:	1.000	Prepared:	04/03/09
Batch#:	149610		

Field ID: BTSB-R1(I)
Type: SAMPLE
Lab ID: 211047-001
Analyzed: 04/11/09
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	99	61-127

Field ID: BTSB-R3(I)
Type: SAMPLE
Lab ID: 211047-002
Analyzed: 04/11/09
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	83	61-127

Field ID: BTSB-R3(D)
Type: SAMPLE
Lab ID: 211047-003
Analyzed: 04/11/09
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	100	61-127

Type: BLANK
Lab ID: QC490357
Analyzed: 04/08/09
Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C12-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
o-Terphenyl	100	61-127

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 3520C
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC490358	Batch#:	149610
Matrix:	Water	Prepared:	04/03/09
Units:	ug/L	Analyzed:	04/08/09

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C12-C24	2,500	2,425	97	65-135

Surrogate	%REC	Limits
o-Terphenyl	111	61-127

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 3520C
Project#:	Y0239-04.A3	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	149610
MSS Lab ID:	211060-002	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Prepared:	04/03/09
Diln Fac:	1.000	Analyzed:	04/08/09

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC490359

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C12-C24	437.8	2,500	5,066	185 *	65-135

Surrogate	%REC	Limits
o-Terphenyl	96	61-127

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC490360

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C12-C24	2,500	6,452	241 *	65-135	24	35

Surrogate	%REC	Limits
o-Terphenyl	121	61-127

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC17A
Calnum : 179050911004
Units : mg/L

Name : Diesel_035
Date : 04-FEB-2009 13:48
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	035a012	179050911012	DSL_100	04-FEB-2009 13:48	S10989
L2	035a013	179050911013	DSL_500	04-FEB-2009 14:16	S10990
L3	035a014	179050911014	DSL_1000	04-FEB-2009 14:44	S10991
L4	035a015	179050911015	DSL_5000	04-FEB-2009 15:11	S10987
L5	035a016	179050911016	DSL_7500	04-FEB-2009 15:39	S10992
L6	035a047	179050911047	DSL_10	05-FEB-2009 11:25	S10988

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Diesel C12-C24	68055	64008	65600	63822	66058	41829	AVRG		1.62E-5		61562	16	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Diesel C12-C24	100.0	11	500.0	4	1000	7	5000	4	7500	7	10.00	-32

ATL 02/05/09 : DSL: 10-20 not used b/c %RSD out.

ATL 02/05/09 : All levels were manaually integrated for fuel hump except Levels 1 and 4.

Analyst: ATL Date: 02/05/09 Reviewer: CP Date: 02/05/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 GCSV Water
EPA 8015B

Inst : GC17A
Calnum : 179050911004

Name : Diesel_035
Cal Date : 04-FEB-2009

ICV 179050911018 (035a018 04-FEB-2009) stds: S10993

Analyte	Average RF	RF	Spiked	Quant	Units	%D	Flags
Diesel C12-C24	61562	64948	500.0	527.5	mg/L	6	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC17A
Calnum : 179111539001
Units : mg/L

Name : HEXOTP_077
Date : 18-MAR-2009 11:54
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	077a003	179111539003	HEXOTP_5	18-MAR-2009 11:54	S11524
L2	077a004	179111539004	HEXOTP_10	18-MAR-2009 12:21	S11525
L3	077a005	179111539005	HEXOTP_25	18-MAR-2009 12:49	S11526
L4	077a006	179111539006	HEXOTP_50	18-MAR-2009 13:16	S11527
L5	077a007	179111539007	HEXOTP_100	18-MAR-2009 13:43	S11528
L6	077a008	179111539008	HEXOTP_200	18-MAR-2009 14:10	S11529

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
o-Terphenyl	61072	81330	75769	77144	73032	78002	AVRG		1.34E-5		74391	10	0.995	20	
Hexacosane	54985	63316	62169	63527	75367	79263	AVRG		1.51E-5		66438	14	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
o-Terphenyl	5.000	-18	10.00	9	25.00	2	50.00	4	100.0	-2	200.0	5
Hexacosane	5.000	-17	10.00	-5	25.00	-6	50.00	-4	100.0	13	200.0	19

DNT 03/18/09 : All levels were manually integrated. Level 1's OTP was re-assigned. The method was updated from Level 4's retention time.

ATL 03/19/09 : This is a surrogate ical. Cmarker is not needed.

Analyst: DNT Date: 03/18/09 Reviewer: ATL Date: 03/19/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26A
Calnum : 869120309005
Units : mg/L

Name : 26A dsl_083
Date : 24-MAR-2009 21:07
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	083a010	869120309010	DSL_10	24-MAR-2009 21:07	S10988
L2	083a011	869120309011	DSL_100	24-MAR-2009 21:36	S10989
L3	083a012	869120309012	DSL_500	24-MAR-2009 22:06	S10990
L4	083a013	869120309013	DSL_1000	24-MAR-2009 22:35	S10991
L5	083a014	869120309014	DSL_5000	24-MAR-2009 23:03	S10987
L6	083a015	869120309015	DSL_7500	24-MAR-2009 23:33	S10992

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Diesel C12-C24	25251	29050	28587	27177	24692	28770	AVRG		3.67E-5		27254	7	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Diesel C12-C24	10.00	-7	100.0	7	500.0	5	1000	0	5000	-9	7500	6

CP 03/25/09 : Do not use range C10-C14 (%RSD failure).

JDG 03/26/09 : DSL_10: corrected automatically drawn baseline.

Analyst: JDG Date: 03/26/09 Reviewer: ATL Date: 03/26/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Name : 26A dsl_083
Calnum : 869120309005 Cal Date : 24-MAR-2009

ICV 869120309042 (083a042 25-MAR-2009) stds: S11261

Analyte	Average RF	RF	Spiked	Quant	Units	%D	Flags
Diesel C12-C24	27254	26978	500.0	494.9	mg/L	-1	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26A
Calnum : 869137473001
Units : mg/L

Name : HEXOTP_095
Date : 05-APR-2009 23:35
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	095a019	869137473019	HEXOTP_5	05-APR-2009 23:35	S11524
L2	095a020	869137473020	HEXOTP_10	06-APR-2009 00:04	S11525
L3	095a021	869137473021	HEXOTP_25	06-APR-2009 00:32	S11526
L4	095a022	869137473022	HEXOTP_50	06-APR-2009 01:01	S11527
L5	095a023	869137473023	HEXOTP_100	06-APR-2009 01:29	S11528

Analyte	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
o-Terphenyl	30624	35359	34715	35078	31969	AVRG		2.98E-5		33549	6	0.995	20	
Hexacosane	22267	22200	23725	23602	21588	AVRG		4.41E-5		22676	4	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
o-Terphenyl	5.000	-9	10.00	5	25.00	3	50.00	5	100.0	-5
Hexacosane	5.000	-2	10.00	-2	25.00	5	50.00	4	100.0	-5

JDG 04/06/09 : HEXOTP 5 - HEXOTP 100: corrected automatically drawn baseline.

JDG 04/07/09 [Hexacosane A]: HEXOTP_200 was dropped due to a high %D.

Analyst: JDG Date: 04/06/09 Reviewer: ATL Date: 04/07/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26A
Calnum : 869139300001
Units : mg/L

Name : MO_096
Date : 06-APR-2009 19:33
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	096a005	869139300005	MO_50	06-APR-2009 19:33	S11818
L2	096a006	869139300006	MO_250	06-APR-2009 20:02	S11813
L3	096a007	869139300007	MO_500	06-APR-2009 20:31	S11814
L4	096a008	869139300008	MO_1000	06-APR-2009 20:59	S11815
L5	096a009	869139300009	MO_5000	06-APR-2009 21:28	S11816

Analyte	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Motor Oil C24-C36	17606	16621	16119	15961	11686	AVRG		6.41E-5		15598	15	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Motor Oil C24-C36	50.00	13	250.0	7	500.0	3	1000	2	5000	-25

JDG 04/07/09 : MO_50,500,1000,5000: corrected automatically drawn baseline.

JDG 04/07/09 : MO 7500 was not used becuause it had a high %RSD.

Analyst: JDG Date: 04/07/09 Reviewer: ATL Date: 04/08/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26B
Calnum : 879141842002
Units : mg/L

Name : DSL_098
Date : 08-APR-2009 21:45
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	098b014	879141842014	DSL_10	08-APR-2009 21:45	S10988
L2	098b015	879141842015	DSL_100	08-APR-2009 22:14	S10989
L3	098b016	879141842016	DSL_500	08-APR-2009 22:42	S10990
L4	098b017	879141842017	DSL_1000	08-APR-2009 23:11	S10991
L5	098b018	879141842018	DSL_5000	08-APR-2009 23:40	S10987
L6	098b019	879141842019	DSL_7500	09-APR-2009 00:09	S10992

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Diesel C12-C24	14777	21062	20535	18173	14091	15018	AVRG		5.79E-5		17276	18	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Diesel C12-C24	10.00	-14	100.0	22	500.0	19	1000	5	5000	-18	7500	-13

JDG 04/09/09 [Diesel C10-C14 B]: DSL range C10-C14 will not be used.

JDG 04/09/09 : DSL_10: corrected automatically drawn baseline.

Analyst: JDG Date: 04/09/09 Reviewer: ATL Date: 04/13/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 GCSV Water
EPA 8015B

Inst : GC26B
Calnum : 879141842002

Name : DSL_098
Cal Date : 08-APR-2009

ICV 879141842021 (098b021 09-APR-2009) stds: S11261

Analyte	Average RF	RF	Spiked	Quant	Units	%D	Flags
Diesel C12-C24	17276	17440	500.0	504.7	mg/L	1	

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26B
Calnum : 879141842003
Units : mg/L

Name : OTPHEX_098
Date : 09-APR-2009 02:33
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	098b024	879141842024	HEXOTP_5	09-APR-2009 02:33	S11524
L2	098b025	879141842025	HEXOTP_10	09-APR-2009 03:02	S11525
L3	098b026	879141842026	HEXOTP_25	09-APR-2009 03:31	S11526
L4	098b027	879141842027	HEXOTP_50	09-APR-2009 03:59	S11527
L5	098b028	879141842028	HEXOTP_100	09-APR-2009 04:28	S11528
L6	098b029	879141842029	HEXOTP_200	09-APR-2009 04:57	S11529

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
o-Terphenyl	19427	20796	20512	20980	21240	21793	AVRG		4.81E-5		20791	4	0.995	20	
Hexacosane	13694	12457	12709	13442	13851	10962	AVRG		7.78E-5		12853	8	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
o-Terphenyl	5.000	-7	10.00	0	25.00	-1	50.00	1	100.0	2	200.0	5
Hexacosane	5.000	7	10.00	-3	25.00	-1	50.00	5	100.0	8	200.0	-15

Analyst: JDG Date: 04/09/09 Reviewer: ATL Date: 04/13/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 GCSV Water: EPA 8015B

Inst : GC26B
Calnum : 879143342001
Units : mg/L

Name : MO_099
Date : 09-APR-2009 19:14
X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	099b013	879143342013	MO_50	09-APR-2009 19:14	S11818
L2	099b014	879143342014	MO_250	09-APR-2009 19:42	S11813
L3	099b015	879143342015	MO_500	09-APR-2009 20:11	S11814
L4	099b016	879143342016	MO_1000	09-APR-2009 20:40	S11815
L5	099b017	879143342017	MO_5000	09-APR-2009 21:08	S11816
L6	099b018	879143342018	MO_7500	09-APR-2009 21:37	S11817

Analyte	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	MxRSD	Flg
Motor Oil C24-C36	9044.5	8222.1	8383.3	7340.9	6308.1	6339.8	AVRG		1.31E-4		7606.5	15	0.995	20	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Motor Oil C24-C36	50.00	19	250.0	8	500.0	10	1000	-3	5000	-17	7500	-17

TFB 04/10/09 : Carbon marker not updated because RT within +/- 0.005

TFB 04/10/09 : MO 50 and 5000: fix automatically drawn baseline.

ATL 04/13/09 : TFB did verify the sequence that ICAL ran on, but forgot to verify it in LIMS. ICAL is within limits, ok to use.

Analyst: TFB Date: 04/10/09 Reviewer: ATL Date: 04/13/09

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC17A Run Name : DSL_250 IDF : 1.0
Seqnum : 179140125028 File : 097a028 Time : 07-APR-2009 22:18
Standards: S11497

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	179050911004	04-FEB-2009	61562	61763	250.0	250.8	mg/L	0	15	
o-Terphenyl	179111539001	18-MAR-2009	74391	69267	50.00	46.56	mg/L	-7	15	

JDG 04/08/09 : Corrected automatically drawn baseline .

JDG: 04/08/09 DNT: 04/08/09 ATL: 04/15/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC17A Run Name : DSL_1000 IDF : 1.0
Seqnum : 179140125043 File : 097a043 Time : 08-APR-2009 05:11
Standards: S11499

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	179050911004	04-FEB-2009	61562	59984	1000	974.4	mg/L	-3	15	
o-Terphenyl	179111539001	18-MAR-2009	74391	76400	50.00	51.35	mg/L	3	15	

JDG 04/08/09 [o-Terphenyl A]: Corrected automatically drawn baseline .

JDG: 04/08/09 DNT: 04/08/09 ATL: 04/15/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : DSL_500 IDF : 1.0
Seqnum : 869141966005 File : 098a005 Time : 08-APR-2009 14:06
Standards: S11261

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	869120309005	24-MAR-2009	27254	28648	500.0	525.6	mg/L	5	15	
o-Terphenyl	869137473001	05-APR-2009	33549	36484	50.00	54.38	mg/L	9	15	

DNT 04/09/09 : Corrected automatically drawn baseline .

DNT: 04/09/09 TFB: 04/09/09 ATL: 04/13/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : MO_500 IDF : 1.0
Seqnum : 869141966006 File : 098a006 Time : 08-APR-2009 14:35
Standards: S11602

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	869139300001	06-APR-2009	15598	16231	500.0	520.3	mg/L	4	15	
o-Terphenyl	869137473001	05-APR-2009	33549	36455	50.00	54.33	mg/L	9	15	

TFB: 04/09/09 DNT: 04/09/09 ATL: 04/15/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : DSL_1000 IDF : 1.0
Seqnum : 869141966020 File : 098a020 Time : 09-APR-2009 00:46
Standards: S11499

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	869120309005	24-MAR-2009	27254	27070	1000	993.2	mg/L	-1	15	
o-Terphenyl	869137473001	05-APR-2009	33549	34595	50.00	51.56	mg/L	3	15	

JDG 04/09/09 [o-Terphenyl A]: Corrected automatically drawn baseline .

JDG: 04/09/09 DNT: 04/09/09 ATL: 04/10/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : MO_500 IDF : 1.0
Seqnum : 869141966021 File : 098a021 Time : 09-APR-2009 01:15
Standards: S11602

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	869139300001	06-APR-2009	15598	15995	500.0	512.7	mg/L	3	15	
o-Terphenyl	869137473001	05-APR-2009	33549	35068	50.00	52.26	mg/L	5	15	

JDG 04/09/09 : Corrected automatically drawn baseline .

JDG: 04/09/09 TFB: 04/09/09 ATL: 04/15/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : DSL_250 IDF : 1.0
Seqnum : 869144975003 File : 100a003 Time : 10-APR-2009 18:09
Standards: S11497

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	869120309005	24-MAR-2009	27254	25799	250.0	236.7	mg/L	-5	15	
o-Terphenyl	869137473001	05-APR-2009	33549	29980	50.00	44.68	mg/L	-11	15	

ATL 04/11/09 : Manually integrated fuel hump.

Analyst: ATL Date: 04/11/09 Reviewer: DNT Date: 04/13/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : MO_500 IDF : 1.0
Seqnum : 869144975004 File : 100a004 Time : 10-APR-2009 19:06
Cal : 869139300001 Caldate : 06-APR-2009
Standards: S11814

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	15598	14091	500.0	451.7	mg/L	-10	15	

Analyst: ATL Date: 04/11/09 Reviewer: JDG Date: 04/14/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : DSL_1000 IDF : 1.0
Seqnum : 869144975022 File : 100a022 Time : 11-APR-2009 11:55
Standards: S11499

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	869120309005	24-MAR-2009	27254	25401	1000	932.0	mg/L	-7	15	
o-Terphenyl	869137473001	05-APR-2009	33549	30900	50.00	46.05	mg/L	-8	15	

DNT 04/12/09 [o-Terphenyl A]: Corrected automatically drawn baseline .

Analyst: DNT Date: 04/12/09 Reviewer: ATL Date: 04/13/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26A Run Name : MO_500 IDF : 1.0
Seqnum : 869144975023 File : 100a023 Time : 11-APR-2009 12:52
Cal : 869139300001 Caldate : 06-APR-2009
Standards: S11814

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	15598	15961	500.0	511.6	mg/L	2	15	

DNT: 04/12/09 TFB: 04/13/09 ATL: 04/15/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26B Run Name : DSL_250 IDF : 1.0
Seqnum : 879145843003 File : 100b003 Time : 10-APR-2009 18:38
Standards: S11497

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	879141842002	08-APR-2009	17276	18185	250.0	263.2	mg/L	5	15	
o-Terphenyl	879141842003	09-APR-2009	20791	21347	50.00	51.34	mg/L	3	15	

ATL 04/11/09 [o-Terphenyl B]: Combined split peak .

Analyst: ATL Date: 04/11/09 Reviewer: TFB Date: 04/13/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26B Run Name : MO_500 IDF : 1.0
Seqnum : 879145843007 File : 100b007 Time : 10-APR-2009 22:26
Cal : 879143342001 Caldate : 09-APR-2009
Standards: S11814

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	7606.5	9354.2	500.0	614.9	mg/L	**23**	15	c+ ***

ATL 04/11/09 : ND samples or sample <1/2 RL is okay to report. Affected samples will need to RR.

TFB: 04/13/09 JDG: 04/14/09 ATL: 04/15/09

+=high bias c=CCV

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26B Run Name : DSL_1000 IDF : 1.0
Seqnum : 879145843022 File : 100b022 Time : 11-APR-2009 12:23
Standards: S11499

Analyte	Cal	Caldate	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Diesel C12-C24	879141842002	08-APR-2009	17276	17540	1000	1015	mg/L	2	15	
o-Terphenyl	879141842003	09-APR-2009	20791	22237	50.00	53.48	mg/L	7	15	

DNT 04/12/09 : Corrected automatically drawn baseline .

DNT: 04/12/09 TFB: 04/13/09 ATL: 04/13/09

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 GCSV Water
EPA 8015B

Inst : GC26B Run Name : MO_500 IDF : 1.0
Seqnum : 879145843023 File : 100b023 Time : 11-APR-2009 13:20
Cal : 879143342001 Caldate : 09-APR-2009
Standards: S11814

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Motor Oil C24-C36	7606.5	8408.6	500.0	552.7	mg/L	11	15	

DNT: 04/12/09 TFB: 04/13/09 ATL: 04/13/09

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179050911

Instrument : GC17A Begun : 02/04/09 08:31
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	035a001	X	PRIMER			02/04/09 08:31	1.0		
002	035a002	X	IB			02/04/09 08:59	1.0		
003	035a003	IB	CALIB			02/04/09 09:26	1.0		
004	035a004	X	HEX_5			02/04/09 09:54	1.0	1	
005	035a005	X	HEX_10			02/04/09 10:22	1.0	2	
006	035a006	X	HEX_25			02/04/09 10:49	1.0	3	
007	035a007	X	IB			02/04/09 11:30	1.0		
008	035a008	X	IB			02/04/09 11:58	1.0		
009	035a009	X	IB			02/04/09 12:25	1.0		
010	035a010	IB	CALIB			02/04/09 12:53	1.0		
011	035a011	X	ICAL			02/04/09 13:21	1.0	4	
012	035a012	ICAL	DSL_100			02/04/09 13:48	1.0	5	
013	035a013	ICAL	DSL_500			02/04/09 14:16	1.0	6	
014	035a014	ICAL	DSL_1000			02/04/09 14:44	1.0	7	
015	035a015	ICAL	DSL_5000			02/04/09 15:11	1.0	8	
016	035a016	ICAL	DSL_7500			02/04/09 15:39	1.0	9	
017	035a017	IB	CALIB			02/04/09 16:07	1.0		
018	035a018	ICV	DSL_500			02/04/09 16:34	1.0	10	
019	035a019	X	ICV			02/04/09 17:02	1.0	10	
020	035a020	IB	CALIB			02/04/09 17:30	1.0		
021	035a021	ICAL	MO_50			02/04/09 17:57	1.0	11	
022	035a022	ICAL	MO_250			02/04/09 18:25	1.0	12	
023	035a023	ICAL	MO_500			02/04/09 18:53	1.0	13	
024	035a024	ICAL	MO_1000			02/04/09 19:20	1.0	14	
025	035a025	ICAL	MO_5000			02/04/09 19:48	1.0	15	
026	035a026	ICAL	MO_7500			02/04/09 20:16	1.0	16	
027	035a027	IB	CALIB			02/04/09 20:43	1.0		
028	035a028	ICAL	OTP_5			02/04/09 21:11	1.0	17	
029	035a029	ICAL	OTP_10			02/04/09 21:38	1.0	18	
030	035a030	ICAL	OTP_25			02/04/09 22:06	1.0	19	
031	035a031	ICAL	OTP_50			02/04/09 22:33	1.0	20	
032	035a032	ICAL	OTP_100			02/04/09 23:01	1.0	21	
033	035a033	ICAL	OTP_200			02/04/09 23:28	1.0	22	
034	035a034	IB	CALIB			02/04/09 23:55	1.0		
035	035a035	ICAL	HEX_5			02/05/09 00:23	1.0	1	
036	035a036	ICAL	HEX_10			02/05/09 00:50	1.0	2	
037	035a037	ICAL	HEX_25			02/05/09 01:18	1.0	3	
038	035a038	ICAL	HEX_50			02/05/09 01:45	1.0	23	
039	035a039	ICAL	HEX_100			02/05/09 02:13	1.0	24	
040	035a040	ICAL	HEX_200			02/05/09 02:40	1.0	25	
041	035a041	IB	CALIB			02/05/09 03:08	1.0		
042	035a042	CMARKER	C8-C50			02/05/09 03:35	1.0	26	
043	035a043	X	IB			02/05/09 04:02	1.0		
044	035a044	X	TANKCHECK			02/05/09 04:30	1.0		
045	035a045	X	TANKCHECK			02/05/09 04:57	1.0		
046	035a046	IB	CALIB			02/05/09 10:58	1.0		
047	035a047	ICAL	DSL_10			02/05/09 11:25	1.0	4	

JDG 02/05/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 45.

CP 04/10/09 : low point was re-run at end of sequence because of poor

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179050911

Instrument : GC17A Begun : 02/04/09 08:31
Method : EPA 8015B SOP Version : TEH_rv13

chromatography indicating a possible mis-inject. There was also septa contamination present.

Analyst: ATL Date: 02/05/09 Reviewer: CP Date: 02/05/09

Standards used: 1=S10602 2=S10603 3=S10604 4=S10988 5=S10989 6=S10990 7=S10991 8=S10987 9=S10992 10=S10993 11=S10563 12=S10565 13=S10564 14=S10566 15=S10567 16=S10568 17=S10979 18=S10980 19=S10981 20=S10982 21=S10983 22=S10984 23=S10605 24=S10606 25=S10607 26=S11248

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179111539

Instrument : GC17A Begun : 03/18/09 10:59
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
001	077a001	X	IB				03/18/09 10:59	1.0		
002	077a002	IB	CALIB				03/18/09 11:27	1.0		
003	077a003	ICAL	HEXOTP_5				03/18/09 11:54	1.0	1	
004	077a004	ICAL	HEXOTP_10				03/18/09 12:21	1.0	2	
005	077a005	ICAL	HEXOTP_25				03/18/09 12:49	1.0	3	
006	077a006	ICAL	HEXOTP_50				03/18/09 13:16	1.0	4	
007	077a007	ICAL	HEXOTP_100				03/18/09 13:43	1.0	5	
008	077a008	ICAL	HEXOTP_200				03/18/09 14:10	1.0	6	
009	077a009	IB	CALIB				03/18/09 14:38	1.0		
010	077a010	X	IB				03/18/09 15:05	1.0		
011	077a011	CMARKER	C8-C50				03/18/09 15:32	1.0	7	
012	077a012	X	CCV				03/18/09 17:55	1.0	8	
013	077a013	X	CCV				03/18/09 18:23	1.0	9	
014	077a014	CCV	DSL_500				03/18/09 18:50	1.0	8	
015	077a015	CCV	MO_500				03/18/09 19:21	1.0	9	
016	077a016	CCV	OTPHEX_50				03/18/09 20:45	1.0	4	
017	077a017	SAMPLE	210606-003	S	Water	148922	03/18/09 21:37	1.0		
018	077a018	SAMPLE	210607-001	S	Water	148922	03/18/09 22:04	1.0		
019	077a019	SAMPLE	210671-001	S	Water	148922	03/18/09 22:32	1.0		
020	077a020	SAMPLE	210697-002		Water	148923	03/18/09 22:59	2.0		2:BUNKC:12-40=5200
021	077a021	SAMPLE	210460-003		Soil	148954	03/18/09 23:26	5.0		
022	077a022	SAMPLE	210460-002		Soil	148954	03/18/09 23:54	5.0		
023	077a023	SAMPLE	210460-001		Soil	148954	03/19/09 00:21	5.0		
024	077a024	X	IB				03/19/09 00:49	1.0		
025	077a025	SAMPLE	210603-002		Water	148923	03/19/09 01:16	1.0		
026	077a026	SAMPLE	210603-004		Water	148923	03/19/09 01:43	1.0		
027	077a027	SAMPLE	210603-005		Water	148923	03/19/09 02:11	1.0		
028	077a028	CCV	DSL_1000				03/19/09 02:39	1.0	10	
029	077a029	X	MO_500				03/19/09 03:06	1.0	9	
030	077a030	CCV	OTPHEX_50				03/19/09 03:33	1.0	4	
031	077a031	X	CCV				03/19/09 04:00	1.0	10	
032	077a032	CCV	MO_500				03/19/09 04:28	1.0	9	
033	077a033	X	CCV				03/19/09 04:55	1.0	4	
034	077a034	SAMPLE	210460-008		Soil	148954	03/19/09 05:22	5.0		
035	077a035	SAMPLE	210460-007		Soil	148954	03/19/09 05:50	5.0		
036	077a036	SAMPLE	210460-006		Soil	148954	03/19/09 06:17	5.0		
037	077a037	SAMPLE	210460-005		Soil	148954	03/19/09 06:44	5.0		
038	077a038	SAMPLE	210460-004		Soil	148954	03/19/09 07:11	5.0		
039	077a039	X	CMARKER				03/19/09 07:39	1.0	7	
040	077a040	X	DSL_250				03/19/09 08:06	1.0	11	
041	077a041	X	MO_500				03/19/09 08:34	1.0	9	
042	077a042	CCV	OTPHEX_50				03/19/09 09:02	1.0	4	
043	077a043	CCV	DSL_250				03/19/09 09:29	1.0	11	
044	077a044	CCV	MO_500				03/19/09 09:56	1.0	9	
045	077a045	X	TANKCHECK				03/19/09 10:56	1.0		
046	077a046	X	TANKCHECK				03/19/09 11:24	1.0		
047	077a047	X	MO_500				03/19/09 12:33	1.0	9	
048	077a048	MS	QC487682		Soil	148957	03/19/09 13:13	1.0		
049	077a049	MSS	210461-019		Soil	148957	03/19/09 13:41	1.0		
050	077a050	MSD	QC487683		Soil	148957	03/19/09 14:09	1.0		
051	077a051	SAMPLE	210459-008		Soil	148957	03/19/09 14:36	5.0		
052	077a052	SAMPLE	210461-021		Soil	148957	03/19/09 15:04	1.0		

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179111539

Instrument : GC17A Begun : 03/18/09 10:59
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
053	077a053	X	IB				03/19/09 15:31	1.0		
054	077a054	X	CMARKER				03/19/09 16:44	1.0	7	
055	077a055	X	DSL_500				03/19/09 17:11	1.0	8	
056	077a056	X	MO_500				03/19/09 17:39	1.0	9	
057	077a057	CCV	OTPHEX_50				03/19/09 18:06	1.0	4	
058	077a058	CCV	DSL_500				03/19/09 18:33	1.0	8	
059	077a059	CCV	MO_500				03/19/09 19:00	1.0	9	
060	077a060	X	CCV				03/19/09 19:28	1.0	4	
061	077a061	BLANK	QC487669		Soil	148954	03/19/09 19:56	1.0		
062	077a062	LCS	QC487670		Soil	148954	03/19/09 20:23	1.0		
063	077a063	MS	QC487671		Soil	148954	03/19/09 20:51	1.0		
064	077a064	MSD	QC487672		Soil	148954	03/19/09 21:19	1.0		
065	077a065	SAMPLE	210743-006		Soil	149041	03/19/09 21:46	1.0		
066	077a066	X	IB				03/19/09 22:14	1.0		
067	077a067	BLANK	QC488022		Soil	149041	03/19/09 22:42	1.0		
068	077a068	LCS	QC488023		Soil	149041	03/19/09 23:10	1.0		
069	077a069	MSS	210743-005		Soil	149041	03/19/09 23:37	1.0		
070	077a070	MS	QC488024		Soil	149041	03/20/09 00:05	1.0		
071	077a071	MSD	QC488025		Soil	149041	03/20/09 00:32	1.0		
072	077a072	X	DSL_1000				03/20/09 01:00	1.0	10	
073	077a073	X	MO_500				03/20/09 01:28	1.0	9	
074	077a074	CCV	OTPHEX_50				03/20/09 01:55	1.0	4	
075	077a075	CCV	DSL_1000				03/20/09 02:23	1.0	10	
076	077a076	CCV	MO_500				03/20/09 02:51	1.0	9	
077	077a077	X	CCV				03/20/09 03:18	1.0	4	
078	077a078	SAMPLE	210743-002		Soil	149041	03/20/09 03:46	1.0		
079	077a079	SAMPLE	210743-004		Soil	149041	03/20/09 04:13	1.0		
080	077a080	SAMPLE	210743-008		Soil	149041	03/20/09 04:41	1.0		
081	077a081	SAMPLE	210743-003		Soil	149041	03/20/09 05:08	1.0		
082	077a082	SAMPLE	210743-007		Soil	149041	03/20/09 05:36	1.0		
083	077a083	SAMPLE	210743-001		Soil	149041	03/20/09 06:03	1.0		
084	077a084	SAMPLE	210631-001		Soil	149041	03/20/09 06:30	1.0		
085	077a085	SAMPLE	210614-001		Soil	149041	03/20/09 06:58	20.0		
086	077a086	X	CMARKER				03/20/09 07:25	1.0	7	
087	077a087	X	DSL_500				03/20/09 07:53	1.0	8	
088	077a088	X	MO_500				03/20/09 08:21	1.0	9	
089	077a089	CCV	OTPHEX_50				03/20/09 09:03	1.0	4	
090	077a090	CCV	DSL_500				03/20/09 09:30	1.0	8	
091	077a091	CCV	MO_500				03/20/09 09:58	1.0	9	
092	077a092	SAMPLE	210456-001		Soil	148954	03/20/09 10:39	1.0		
093	077a093	SAMPLE	210456-004		Soil	148954	03/20/09 11:07	3.0		2:BUNKC:12-40=8100
094	077a094	SAMPLE	210456-005		Soil	148954	03/20/09 11:34	1.0		3:BUNKC:12-50=21000
095	077a095	SAMPLE	210456-003		Soil	148954	03/20/09 12:02	5.0		2:BUNKC:12-50=7000
096	077a096	SAMPLE	210608-001		Soil	149041	03/20/09 12:30	5.0		2:BUNKC:12-40=11000
097	077a097	SAMPLE	210608-002		Soil	149041	03/20/09 12:57	50.0		2:BUNKC:12-40=9300
098	077a098	CCV	OTPHEX_50				03/20/09 13:29	1.0	4	
099	077a099	CCV	DSL_1000				03/20/09 13:57	1.0	12	
100	077a100	CCV	MO_500				03/20/09 14:25	1.0	9	

DNT 03/18/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 9.

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179111539

Instrument : GC17A Begun : 03/18/09 10:59
Method : EPA 8015B SOP Version : TEH_rv13

JDG 03/19/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 10 through 40.

JDG 03/20/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 41 through 85.

JDG 03/20/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 86 through 92.

JDG 03/20/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 93 through 100.

Standards used: 1=S11524 2=S11525 3=S11526 4=S11527 5=S11528 6=S11529 7=S11248 8=S11261 9=S11601 10=S11262 11=S11260 12=S11499

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179140125

Instrument : GC17A Begun : 04/07/09 07:25
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
001	097a001	X	IB				04/07/09 07:25	1.0		
002	097a002	X	CMARKER				04/07/09 07:52	1.0	1	
003	097a003	CCV	DSL_500				04/07/09 08:19	1.0	2	
004	097a004	CCV	MO_500				04/07/09 08:46	1.0	3	
005	097a005	CCV	HEXOTP_50				04/07/09 09:14	1.0	4	
006	097a006	BLANK	QC490429		Soil	149630	04/07/09 10:56	1.0		
007	097a007	LCS	QC490430		Soil	149630	04/07/09 11:24	1.0		
008	097a008	MSS	211049-002		Soil	149630	04/07/09 11:52	1.0		
009	097a009	SAMPLE	211049-003		Soil	149630	04/07/09 12:19	1.0		
010	097a010	MS	QC490433		Soil	149630	04/07/09 12:46	1.0		
011	097a011	MSD	QC490434		Soil	149630	04/07/09 13:14	1.0		
012	097a012	SAMPLE	210802-010	S	Soil	149676	04/07/09 13:42	1.0		9:JETA:10-16=14000
013	097a013	SAMPLE	210802-010	S	Soil	149676	04/07/09 14:41	10.0		
014	097a014	CCV	DSL_1000				04/07/09 15:23	1.0	5	
015	097a015	CCV	MO_500				04/07/09 15:50	1.0	3	
016	097a016	SAMPLE	210955-001		Water	149420	04/07/09 16:49	1.0		
017	097a017	SAMPLE	210955-002		Water	149420	04/07/09 17:16	1.0		
018	097a018	SAMPLE	210955-003		Water	149420	04/07/09 17:44	1.0		
019	097a019	SAMPLE	210955-004		Water	149420	04/07/09 18:12	1.0		
020	097a020	SAMPLE	210955-005		Water	149420	04/07/09 18:39	1.0		
021	097a021	SAMPLE	211161-002	S	Soil	149676	04/07/09 19:06	1.0		16:BUNKC:12-40=180000
022	097a022	SAMPLE	211162-002	S	Soil	149676	04/07/09 19:33	100.0		
023	097a023	X	IB				04/07/09 20:00	1.0		
024	097a024	SAMPLE	210939-001		Water	149610	04/07/09 20:28	1.0		
025	097a025	SAMPLE	210939-002		Water	149610	04/07/09 20:55	1.0		
026	097a026	?SAMPLE	211165-001				04/07/09 21:23	1.0		
027	097a027	X	CMARKER				04/07/09 21:51	1.0	1	
028	097a028	CCV	DSL_250				04/07/09 22:18	1.0	6	
029	097a029	CCV	MO_500				04/07/09 22:45	1.0	3	
030	097a030	CCV	JP5_250				04/07/09 23:13	1.0	7	
031	097a031	CCV	KERO_250				04/07/09 23:41	1.0	8	
032	097a032	X	CCV				04/08/09 00:08	1.0	6	
033	097a033	X	CCV				04/08/09 00:36	1.0	3	
034	097a034	X	CCV				04/08/09 01:03	1.0	7	
035	097a035	X	CCV				04/08/09 01:30	1.0	8	
036	097a036	BLANK	QC490357		Water	149610	04/08/09 01:58	1.0		
037	097a037	LCS	QC490358	S	Water	149610	04/08/09 02:25	1.0		
038	097a038	MSS	211060-002	S	Water	149610	04/08/09 02:53	1.0		
039	097a039	MS	QC490359	S	Water	149610	04/08/09 03:21	1.0		
040	097a040	MSD	QC490360	S	Water	149610	04/08/09 03:48	1.0		
041	097a041	BLANK	QC490590	S	Water	149666	04/08/09 04:16	1.0		
042	097a042	BLANK	QC490357	S	Water	149610	04/08/09 04:43	1.0		
043	097a043	CCV	DSL_1000				04/08/09 05:11	1.0	5	
044	097a044	CCV	MO_500				04/08/09 05:38	1.0	3	
045	097a045	CCV	JP5_250				04/08/09 06:06	1.0	7	
046	097a046	CCV	KERO_250				04/08/09 06:33	1.0	8	
047	097a047	X	CCV				04/08/09 07:00	1.0	5	
048	097a048	X	CCV				04/08/09 07:28	1.0	3	
049	097a049	X	CCV				04/08/09 07:55	1.0	7	

DNT 04/07/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 15.

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 179140125

Instrument : GC17A Begun : 04/07/09 07:25
Method : EPA 8015B SOP Version : TEH_rv13

JDG 04/08/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 16 through 49.

Standards used: 1=S11248 2=S11261 3=S11602 4=S11709 5=S11499 6=S11497 7=S11474 8=S11463

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 869120309

Instrument : GC26A Begun : 03/24/09 13:09
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	083a001	X	IB			03/24/09 13:09	1.0		
002	083a002	X	CMARKER			03/24/09 13:37	1.0	1	
003	083a003	CCV	DSL_250			03/24/09 14:06	1.0	2	
004	083a004	CCV	MO_500			03/24/09 14:35	1.0	3	
005	083a005	CCV	DSL_250			03/24/09 15:04	1.0	2	
009	083a009	IB	CALIB			03/24/09 20:38	1.0		
010	083a010	ICAL	DSL_10			03/24/09 21:07	1.0	4	
011	083a011	ICAL	DSL_100			03/24/09 21:36	1.0	5	
012	083a012	ICAL	DSL_500			03/24/09 22:06	1.0	6	
013	083a013	ICAL	DSL_1000			03/24/09 22:35	1.0	7	
014	083a014	ICAL	DSL_5000			03/24/09 23:03	1.0	8	
015	083a015	ICAL	DSL_7500			03/24/09 23:33	1.0	9	
016	083a016	IB	CALIB			03/25/09 00:01	1.0		
017	083a017	X	DSL_500			03/25/09 00:30	1.0	10	
018	083a018	X	ICV			03/25/09 00:59	1.0	10	
019	083a019	IB	CALIB			03/25/09 01:27	1.0		
020	083a020	ICAL	MO_50			03/25/09 01:56	1.0	11	
021	083a021	ICAL	MO_250			03/25/09 02:25	1.0	12	
022	083a022	ICAL	MO_500			03/25/09 02:54	1.0	13	
023	083a023	ICAL	MO_1000			03/25/09 03:23	1.0	14	
024	083a024	ICAL	MO_5000			03/25/09 03:52	1.0	15	
025	083a025	X	MO_7500			03/25/09 04:20	1.0	16	
026	083a026	IB	CALIB			03/25/09 04:49	1.0		
027	083a027	ICAL	HEXOTP_5			03/25/09 05:17	1.0	17	
028	083a028	ICAL	HEXOTP_10			03/25/09 05:46	1.0	18	
029	083a029	ICAL	HEXOTP_25			03/25/09 06:14	1.0	19	
030	083a030	X	HEXOTP_50			03/25/09 06:43	1.0	20	
031	083a031	ICAL	HEXOTP_100			03/25/09 07:11	1.0	21	
032	083a032	X	HEXOTP_200			03/25/09 07:40	1.0	22	
033	083a033	X	IB			03/25/09 08:09	1.0		
034	083a034	CMARKER	C8-C50			03/25/09 08:37	1.0	1	
035	083a035	X	IB			03/25/09 09:45	1.0		
036	083a036	X	IB			03/25/09 10:13	1.0		
037	083a037	ICAL	HEXOTP_50			03/25/09 10:41	1.0	23	
040	083a040	X	CCVTEST			03/25/09 14:45	1.0	3	
041	083a041	X	IB			03/25/09 16:14	1.0		
042	083a042	ICV	DSL_500			03/25/09 16:42	1.0	24	

JDG 03/25/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 37.

JDG 03/26/09 : Runs 6-8 did not run.

Analyst: JDG Date: 03/25/09 Reviewer: ATL Date: 03/26/09

Standards used: 1=S11248 2=S11497 3=S11603 4=S10988 5=S10989 6=S10990 7=S10991 8=S10987 9=S10992 10=S10993 11=S10563 12=S10565 13=S10564 14=S10566 15=S10567 16=S10568 17=S11524 18=S11525 19=S11526 20=S11606 21=S11528 22=S11529 23=S11527 24=S11261

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 869137473

Instrument : GC26A Begun : 04/05/09 11:13
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	095a001	X	PRIMER			04/05/09 11:13	1.0		
002	095a002	X	IB			04/05/09 11:41	1.0		
003	095a003	X	IB			04/05/09 12:09	1.0		
004	095a004	X	IB			04/05/09 12:38	1.0		
005	095a005	X	IB			04/05/09 13:06	1.0		
006	095a006	X	CMARKER			04/05/09 13:35	1.0	1	
007	095a007	CCV	DSL_500			04/05/09 14:03	1.0	2	
008	095a008	CCV	MO_500			04/05/09 14:31	1.0	3	
009	095a009	CCV	MO_500			04/05/09 17:34	1.0	3	
010	095a010	X	IB			04/05/09 19:17	1.0		
011	095a011	IB	CALIB			04/05/09 19:45	1.0		
012	095a012	ICAL	MO_50			04/05/09 20:14	1.0	4	
013	095a013	ICAL	MO_250			04/05/09 20:42	1.0	5	
014	095a014	ICAL	MO_500			04/05/09 21:11	1.0	6	
015	095a015	ICAL	MO_1000			04/05/09 21:40	1.0	7	
016	095a016	ICAL	MO_5000			04/05/09 22:08	1.0	8	
017	095a017	ICAL	MO_7500			04/05/09 22:37	1.0	9	
018	095a018	IB	CALIB			04/05/09 23:06	1.0		
019	095a019	ICAL	HEXOTP_5			04/05/09 23:35	1.0	10	
020	095a020	ICAL	HEXOTP_10			04/06/09 00:04	1.0	11	
021	095a021	ICAL	HEXOTP_25			04/06/09 00:32	1.0	12	
022	095a022	ICAL	HEXOTP_50			04/06/09 01:01	1.0	13	
023	095a023	ICAL	HEXOTP_100			04/06/09 01:29	1.0	14	
024	095a024	X	HEXOTP_200			04/06/09 01:58	1.0	15	
025	095a025	X	IB			04/06/09 02:26	1.0		
026	095a026	CMARKER	C8-C50			04/06/09 02:55	1.0	1	
027	095a027	X	IB			04/06/09 03:23	1.0		

JDG 04/06/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 27.

Analyst: CP Date: 04/14/09 Reviewer: JDG Date: 04/14/09

Standards used: 1=S11248 2=S11261 3=S11602 4=S10563 5=S10565 6=S10564 7=S10566 8=S10567 9=S10568 10=S11524 11=S11525 12=S11526 13=S11527 14=S11528 15=S11529

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 869139300

Instrument : GC26A Begun : 04/06/09 17:40
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	096a001	X	PRIMER			04/06/09 17:40	1.0		
002	096a002	X	IB			04/06/09 18:09	1.0		
003	096a003	X	IB			04/06/09 18:37	1.0		
004	096a004	IB	CALIB			04/06/09 19:05	1.0		
005	096a005	ICAL	MO_50			04/06/09 19:33	1.0	1	
006	096a006	ICAL	MO_250			04/06/09 20:02	1.0	2	
007	096a007	ICAL	MO_500			04/06/09 20:31	1.0	3	
008	096a008	ICAL	MO_1000			04/06/09 20:59	1.0	4	
009	096a009	ICAL	MO_5000			04/06/09 21:28	1.0	5	
010	096a010	X	MO_7500			04/06/09 21:56	1.0	6	
011	096a011	IB	CALIB			04/06/09 22:25	1.0		
012	096a012	CMARKER	C8-C50			04/06/09 22:54	1.0	7	
013	096a013	X	IB			04/06/09 23:22	1.0		
014	096a014	X	IB			04/07/09 11:53	1.0		
015	096a015	X	MO_7500			04/07/09 12:21	1.0	6	

JDG 04/07/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 15.

Analyst: JDG Date: 04/07/09 Reviewer: ATL Date: 04/08/09

Standards used: 1=S11818 2=S11813 3=S11814 4=S11815 5=S11816 6=S11817 7=S11248

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CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 869141966

Instrument : GC26A Begun : 04/08/09 12:11
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
001	098a001	X	PRIMER				04/08/09 12:11	1.0		
002	098a002	X	IB				04/08/09 12:39	1.0		
003	098a003	X	IB				04/08/09 13:08	1.0		
005	098a005	CCV	DSL_500				04/08/09 14:06	1.0	1	
006	098a006	CCV	MO_500				04/08/09 14:35	1.0	2	
007	098a007	CCV	HEXOTP_50				04/08/09 15:04	1.0	3	
008	098a008	CCV	JP5_250				04/08/09 19:00	1.0	4	
009	098a009	X	CCV				04/08/09 19:29	1.0	4	
010	098a010	BLANK	QC490357	S	Water	149610	04/08/09 19:58	1.0		
011	098a011	LCS	QC490358	S	Water	149610	04/08/09 20:27	1.0		
012	098a012	BS	QC489295	S	Water	149353	04/08/09 20:56	1.0		
013	098a013	BSD	QC489296	S	Water	149353	04/08/09 21:25	1.0		
014	098a014	BLANK	QC489718	S	Water	149458	04/08/09 21:53	1.0		
015	098a015	SAMPLE	210962-002	S	Water	149458	04/08/09 22:22	1.0		
016	098a016	SAMPLE	210962-003	S	Water	149458	04/08/09 22:51	1.0		
017	098a017	SAMPLE	210962-004	S	Water	149458	04/08/09 23:20	1.0		
018	098a018	SAMPLE	210962-005	S	Water	149458	04/08/09 23:49	1.0		
019	098a019	SAMPLE	210962-006	S	Water	149458	04/09/09 00:18	1.0		
020	098a020	CCV	DSL_1000				04/09/09 00:46	1.0	5	
021	098a021	CCV	MO_500				04/09/09 01:15	1.0	2	
022	098a022	CCV	HEXOTP_50				04/09/09 01:44	1.0	3	
023	098a023	CCV	JP5_250				04/09/09 02:13	1.0	4	
024	098a024	X	CCV				04/09/09 02:42	1.0	5	
025	098a025	X	CCV				04/09/09 03:10	1.0	2	
026	098a026	X	CCV				04/09/09 03:39	1.0	3	
027	098a027	X	CCV				04/09/09 04:08	1.0	4	
028	098a028	LCS	QC489719	S	Water	149458	04/09/09 04:37	1.0		
029	098a029	MSS	210917-003		Water	149458	04/09/09 05:05	1.0		
030	098a030	MS	QC489720		Water	149458	04/09/09 05:34	1.0		
031	098a031	MSD	QC489721		Water	149458	04/09/09 06:03	1.0		
032	098a032	MSS	211032-002	S	Soil	149630	04/09/09 06:31	1.0		
033	098a033	MS	QC490431	S	Soil	149630	04/09/09 07:00	1.0		
034	098a034	MSD	QC490432	S	Soil	149630	04/09/09 07:28	1.0		
035	098a035	MSS	211010-024		Soil	149633	04/09/09 07:56	1.0		
036	098a036	MS	QC490451		Soil	149633	04/09/09 08:24	1.0		
037	098a037	MSD	QC490452		Soil	149633	04/09/09 08:53	1.0		
038	098a038	X	CMARKER				04/09/09 09:21	1.0	6	
039	098a039	CCV	DSL_500				04/09/09 09:50	1.0	1	
040	098a040	CCV	MO_500				04/09/09 10:19	1.0	2	
041	098a041	CCV	JP5_250				04/09/09 10:47	1.0	4	
042	098a042	LCS	QC490442		Soil	149632	04/09/09 11:16	1.0		
043	098a043	MSS	210968-009		Soil	149632	04/09/09 11:44	1.0		

JDG 04/09/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 37.

JDG 04/09/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 38 through 43.

Standards used: 1=S11261 2=S11602 3=S11709 4=S11474 5=S11499 6=S11248

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 869144975

Instrument : GC26A Begun : 04/10/09 16:15
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
001	100a001	X	IB				04/10/09 16:15	1.0		
002	100a002	X	CMARKER				04/10/09 17:12	1.0	1	
003	100a003	CCV	DSL_250				04/10/09 18:09	1.0	2	
004	100a004	CCV	MO_500				04/10/09 19:06	1.0	3	
005	100a005	CCV	HEXOTP_50				04/10/09 20:03	1.0	4	
006	100a006	CCV	JET_250				04/10/09 21:00	1.0	5	
007	100a007	X	CCV				04/10/09 21:57	1.0	2	
008	100a008	X	CCV				04/10/09 22:55	1.0	3	
009	100a009	X	CCV				04/10/09 23:52	1.0	4	
010	100a010	X	CCV				04/11/09 00:49	1.0	5	
011	100a011	SAMPLE	211045-011	S	Soil	149634	04/11/09 01:46	1.0		
012	100a012	SAMPLE	211045-012	S	Soil	149634	04/11/09 02:42	1.0		
013	100a013	SAMPLE	211045-013	S	Soil	149634	04/11/09 03:39	1.0		
014	100a014	SAMPLE	211045-014	S	Soil	149634	04/11/09 04:36	1.0		
015	100a015	SAMPLE	211045-015	S	Soil	149634	04/11/09 05:33	1.0		
016	100a016	X	IB				04/11/09 06:15	1.0		
017	100a017	SAMPLE	211045-016	S	Soil	149634	04/11/09 07:11	1.0		12:DSL:10-14=26000
018	100a018	SAMPLE	211045-017	S	Soil	149634	04/11/09 08:08	1.0		
019	100a019	SAMPLE	211045-018	S	Soil	149634	04/11/09 09:05	1.0		12:DSL:10-14=26000
020	100a020	SAMPLE	211047-001	S	Water	149610	04/11/09 10:01	1.0		
021	100a021	SAMPLE	211047-002	S	Water	149610	04/11/09 10:59	1.0		
022	100a022	CCV	DSL_1000				04/11/09 11:55	1.0	6	
023	100a023	CCV	MO_500				04/11/09 12:52	1.0	3	
024	100a024	CCV	HEXOTP_50				04/11/09 13:48	1.0	4	
025	100a025	CCV	JET_250				04/11/09 14:45	1.0	5	
030	100a030	CCV	JP5_250				04/11/09 19:28	1.0	7	
032	100a032	SAMPLE	211059-001	S	Soil	149630	04/11/09 21:22	5.0		
033	100a033	SAMPLE	211059-002	S	Soil	149630	04/11/09 22:19	5.0		
034	100a034	SAMPLE	211059-003	S	Soil	149630	04/11/09 23:16	1.0		
035	100a035	SAMPLE	211059-004	S	Soil	149630	04/12/09 00:13	1.0		
036	100a036	SAMPLE	211059-005	S	Soil	149630	04/12/09 01:09	5.0		
037	100a037	SAMPLE	211059-006	S	Soil	149630	04/12/09 02:06	1.0		
038	100a038	X	IB				04/12/09 03:03	1.0		
039	100a039	SAMPLE	211060-001	S	Water	149610	04/12/09 04:01	1.0		
040	100a040	SAMPLE	211060-003	S	Water	149610	04/12/09 04:58	1.0		
041	100a041	SAMPLE	211060-004	S	Water	149610	04/12/09 05:55	1.0		
042	100a042	X	CMARKER				04/12/09 06:52	1.0	1	
043	100a043	CCV	DSL_500				04/12/09 07:49	1.0	8	
044	100a044	X	CCV				04/12/09 08:45	1.0	3	
045	100a045	X	CCV				04/12/09 09:40	1.0	4	
046	100a046	CCV	JP5_250				04/12/09 10:10	1.0	7	
047	100a047	CCV	MO_500				04/12/09 10:38	1.0	3	

DNT 04/13/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 47.

Standards used: 1=S11248 2=S11497 3=S11814 4=S11709 5=S11462 6=S11499 7=S11474 8=S11261

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 879141842

Instrument : GC26B Begun : 04/08/09 12:02
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	098b001	X	PRIMER			04/08/09 12:02	1.0		
002	098b002	X	IB			04/08/09 12:31	1.0		
003	098b003	X	IB			04/08/09 12:59	1.0		
005	098b005	CCV	DSL_500			04/08/09 13:57	1.0	1	
006	098b006	CCV	MO_500			04/08/09 14:26	1.0	2	
007	098b007	CCV	HEXOTP_50			04/08/09 14:55	1.0	3	
013	098b013	IB	CALIB			04/08/09 21:16	1.0		
014	098b014	ICAL	DSL_10			04/08/09 21:45	1.0	4	
015	098b015	ICAL	DSL_100			04/08/09 22:14	1.0	5	
016	098b016	ICAL	DSL_500			04/08/09 22:42	1.0	6	
017	098b017	ICAL	DSL_1000			04/08/09 23:11	1.0	7	
018	098b018	ICAL	DSL_5000			04/08/09 23:40	1.0	8	
019	098b019	ICAL	DSL_7500			04/09/09 00:09	1.0	9	
020	098b020	IB				04/09/09 00:38	1.0		
021	098b021	ICV	DSL_500			04/09/09 01:07	1.0	1	
023	098b023	IB	CALIB			04/09/09 02:04	1.0		
024	098b024	ICAL	HEXOTP_5			04/09/09 02:33	1.0	10	
025	098b025	ICAL	HEXOTP_10			04/09/09 03:02	1.0	11	
026	098b026	ICAL	HEXOTP_25			04/09/09 03:31	1.0	12	
027	098b027	ICAL	HEXOTP_50			04/09/09 03:59	1.0	13	
028	098b028	ICAL	HEXOTP_100			04/09/09 04:28	1.0	14	
029	098b029	ICAL	HEXOTP_200			04/09/09 04:57	1.0	15	
030	098b030	IB	CALIB			04/09/09 05:26	1.0		
031	098b031	ICAL	MO_50			04/09/09 05:54	1.0	16	
032	098b032	ICAL	MO_250			04/09/09 06:23	1.0	17	
033	098b033	ICAL	MO_1000			04/09/09 06:51	1.0	18	
034	098b034	ICAL	MO_5000			04/09/09 07:20	1.0	19	
035	098b035	ICAL	MO_500			04/09/09 07:48	1.0	20	
036	098b036	X	MO_7500			04/09/09 08:16	1.0	21	
038	098b038	CMARKER	C8-C50			04/09/09 09:13	1.0	22	

JDG 04/09/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 38.

Analyst: JDG Date: 04/09/09 Reviewer: ATL Date: 04/13/09

Standards used: 1=S11261 2=S11602 3=S11709 4=S10988 5=S10989 6=S10990 7=S10991 8=S10987 9=S10992 10=S11524 11=S11525 12=S11526 13=S11527 14=S11528 15=S11529 16=S11818 17=S11813 18=S11815 19=S11816 20=S11814 21=S11817 22=S11248

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 879143342

Instrument : GC26B Begun : 04/09/09 13:02
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	099b001	X	PRIMER			04/09/09 13:02	1.0		
002	099b002	X	IB			04/09/09 13:25	1.0		
003	099b003	X	IB			04/09/09 13:54	1.0		
004	099b004	X	CMARKER			04/09/09 14:23	1.0	1	
005	099b005	CCV	DSL_250			04/09/09 14:51	1.0	2	
006	099b006	CCV	MO_500			04/09/09 15:20	1.0	3	
007	099b007	CCV	HEXOTP_50			04/09/09 15:49	1.0	4	
008	099b008	X	IB			04/09/09 16:33	1.0		
009	099b009	X	IB			04/09/09 17:24	1.0		
010	099b010	X	IB			04/09/09 17:48	1.0		
011	099b011	X	IB			04/09/09 18:20	1.0		
012	099b012	IB	CALIB			04/09/09 18:45	1.0		
013	099b013	ICAL	MO_50			04/09/09 19:14	1.0	5	
014	099b014	ICAL	MO_250			04/09/09 19:42	1.0	6	
015	099b015	ICAL	MO_500			04/09/09 20:11	1.0	7	
016	099b016	ICAL	MO_1000			04/09/09 20:40	1.0	8	
017	099b017	ICAL	MO_5000			04/09/09 21:08	1.0	9	
018	099b018	ICAL	MO_7500			04/09/09 21:37	1.0	10	
019	099b019	X	IB			04/09/09 22:05	1.0		
020	099b020	X	CMARKER			04/09/09 22:34	1.0	1	
021	099b021	X	IB			04/09/09 23:03	1.0		

Analyst: TFB Date: 04/10/09 Reviewer: ATL Date: 04/13/09

Standards used: 1=S11248 2=S11497 3=S11602 4=S11709 5=S11818 6=S11813 7=S11814 8=S11815 9=S11816 10=S11817

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 879145843

Instrument : GC26B Begun : 04/10/09 16:43
Method : EPA 8015B SOP Version : TEH_rv13

#	File	Type	Sample ID	P	Matrix	Batch	Analyzed	IDF	Stds Used	
001	100b001	X	IB				04/10/09 16:43	1.0		
002	100b002	X	CMARKER				04/10/09 17:40	1.0	1	
003	100b003	CCV	DSL_250				04/10/09 18:38	1.0	2	
004	100b004	X	CCV				04/10/09 19:34	1.0	3	
005	100b005	CCV	HEXOTP_50				04/10/09 20:31	1.0	4	
006	100b006	X	CCV				04/10/09 21:29	1.0	2	
007	100b007	CCV	MO_500				04/10/09 22:26	1.0	3	
008	100b008	X	CCV				04/10/09 23:23	1.0	4	
009	100b009	X	IB				04/11/09 00:20	1.0		
010	100b010	X	IB				04/11/09 01:17	1.0		
011	100b011	SAMPLE	211047-003	S	Water	149610	04/11/09 02:14	1.0		
012	100b012	SAMPLE	211050-002	S	Water	149610	04/11/09 03:11	1.0		
013	100b013	SAMPLE	211050-003	S	Water	149610	04/11/09 04:08	1.0		
014	100b014	SAMPLE	211050-004	S	Water	149610	04/11/09 05:04	1.0		
015	100b015	SAMPLE	211089-002	S	Soil	149634	04/11/09 06:01	1.0		
016	100b016	X	IB				04/11/09 06:43	1.0		
017	100b017	SAMPLE	211051-002	S	Water	149666	04/11/09 07:39	1.0		
018	100b018	SAMPLE	211051-004	S	Water	149666	04/11/09 08:36	1.0		
019	100b019	SAMPLE	211051-005	S	Water	149666	04/11/09 09:33	1.0		
020	100b020	SAMPLE	211056-001	S	Soil	149633	04/11/09 10:30	1.0		
021	100b021	SAMPLE	211051-002	S	Water	149666	04/11/09 11:27	1.0		
022	100b022	CCV	DSL_1000				04/11/09 12:23	1.0	5	
023	100b023	CCV	MO_500				04/11/09 13:20	1.0	3	
024	100b024	CCV	HEXOTP_50				04/11/09 14:17	1.0	4	
028	100b028	SAMPLE	211014-002		Soil	149743	04/11/09 18:03	1.0		
029	100b029	MSS	211010-012		Soil	149742	04/11/09 19:00	1.0		
030	100b030	SAMPLE	211070-001		Soil	149633	04/11/09 19:57	1.0		
031	100b031	SAMPLE	211070-003		Soil	149633	04/11/09 20:54	1.0		
032	100b032	SAMPLE	211070-010		Soil	149633	04/11/09 21:50	10.0		
033	100b033	X	IB				04/11/09 22:47	1.0		
034	100b034	SAMPLE	211056-003	S	Soil	149633	04/11/09 23:44	1.0		
035	100b035	SAMPLE	211010-005		Soil	149633	04/12/09 00:41	1.0		
036	100b036	SAMPLE	210941-001		Soil	149569	04/12/09 01:38	1.0		
037	100b037	SAMPLE	210941-002		Soil	149569	04/12/09 02:35	1.0		
038	100b038	SAMPLE	210941-004		Soil	149569	04/12/09 03:32	1.0		
039	100b039	X	CMARKER				04/12/09 04:29	1.0	1	
040	100b040	CCV	DSL_500				04/12/09 05:27	1.0	6	
041	100b041	CCV	MO_500				04/12/09 06:24	1.0	3	
042	100b042	CCV	HEXOTP_50				04/12/09 07:21	1.0	4	

DNT 04/13/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 42.

Standards used: 1=S11248 2=S11497 3=S11814 4=S11709 5=S11499 6=S11261

SAMPLE PREPARATION SUMMARY

Batch # : 149610
Started By : SJD
Method : 3520C
Spike #1 ID : S11746

Prep Date : 03-APR-2009 17:30
SOP Version : TEH_3520_rv12
Spike #2 ID : S11320

Analysis : TEH
Finished By : DJT
Units : mL
Spike #3 ID : S11760

Sample	Stype	Matrix	Initial	Final	Clean DF	Prep DF	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Clean Method	Analysis	Comments
210939-001		Water	120	1	1	0.008333	7	.2				TEH	conc to 1mL
210939-002		Water	120	1	1	0.008333	7	.2				TEH	conc to 1mL
211046-001		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211047-001		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211047-002		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211047-003		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211050-002		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211050-003		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211050-004		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211060-001		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211060-002		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	mss
211060-003		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211060-004		Water	500	2.5	1	0.005	7	.5			3630C	TEHM	
211095-003		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211095-005		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211096-001		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211096-002		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211096-003		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211096-004		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
211144-003		Water	500	2.5	1	0.005	7	.5	.5		3630C	TEH	
QC490357	BLANK	Water	500	2.5	1	0.005		.5	.5		3630C		
QC490358	LCS	Water	500	2.5	1	0.005		.5	.5	.5	3630C		
QC490359	MS	Water	500	2.5	1	0.005	7	.5		.5	3630C		
QC490360	MSD	Water	500	2.5	1	0.005	7	.5		.5	3630C		

TFB 04/08/09 : Batch reviewed for jobs 210939 and 211046.

CP 04/09/09 : MSS non-homogeneous. MSS container has sediment in bottle. RPD within limits, confirmed by re-analysis. OK to report.

Analyst: TFB Date: 04/09/09 Reviewer: DNT Date: 04/09/09

TEH (8015) Water Prep Log Curtis & Tompkins, Ltd.

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LIMS Batch No: 149610
LIMS Analysis: TEH/m
Date Extracted: 4/3/09

Extraction Method:
☐ mod. EPA 3510c sep. funnel
☒ mod. EPA 3520c cont. L/L

Cleanup Method (if needed):
☒ EPA 3630c Silica Gel

Sample #	Container ID	Volume of Sample (mL)	Sample pH	Final Volume (mL)	Cleanup (x if needed)	Comments
210939-001	A,B,C	120	7	1.0		conc to 1mL *
-002	A,B,C					*
211046-001	A,C	500		2.5	X	
211047-001	H				X	
-002					X	
-003					X	
211050-002	I				X	
-003					X	
-004					X	
211060-001	G				X	
-002	M				X	MSS
-003	G				X	
-004					X	
211095-003	A				X	**
-005	B					
211096-001	A					
-002	A					
-003	B					
-004	A					
211149-003	C					
MBQC49357	N/A		N/A			
LCS 58						
MS 59	O		7			500 4/3/09 of 211060-0020
MSD 60	O					

0.2*/0.5** mL of TEH_SURR was added to all samples
0.5 mL of TEH_SP was added to all spikes
pH of all samples adjusted to pH ≤ 2 with H_2SO_4
☒ 3520c: Samples were continually extracted about 450 mL of CH_2Cl_2
Extraction Start Time:
Extraction End Time:
☐ 3510c: Samples were extracted 3 times with 60 mL of CH_2Cl_2
Extracts filtered through baked, CH2Cl2-rinsed granular Na2SO4
Concentrated to final volume at temperature (degrees C)
Relinquished to TEH Department

	Mfg & Lot# / LIMS # / Time	Date/ Initials
	S11746A/S11320A**	500 4/3/09
	S11760C	
	FS075640	
	EM49034	
	17:30	
	12:00	500 4/4/09
	NA	DJT 4/6/09
	EM48086817	
	100°	
	✓	

4/3/09
Extraction Chemist **Date**

Contined from Page
Continued on Page

TFB 4/7/09
Reviewed by **Date**

Curtis & Tompkins, Ltd. **Silica Gel Cleanup** **EPA 3630c**

Prep Chemist: TWY
Cleanup Date: 4/7/09

Benchbook # **BK 2843**
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Sample #	Batch#	Initial Volume (mL)	Final Volume (mL)	Comments
210802-010	149676	1.0	1.0	
211161-002	↓	↓	↓	
211162-002	↓	↓	↓	
MB QC490638	↓	↓	↓	
LCS ↓ 39	↓	↓	↓	
211046-001	149610	1.0	1.0	
211047-001	↓	↓	↓	
↓ -002	↓	↓	↓	
211050-002	↓	↓	↓	
↓ -003	↓	↓	↓	
↓ -004	↓	↓	↓	
211060-001	↓	↓	↓	
↓ -002	↓	↓	↓	
↓ -003	↓	↓	↓	
↓ -004	↓	↓	↓	
211095-003	↓	↓	↓	
↓ -005	↓	↓	↓	
211096-001	↓	↓	↓	
↓ -002	↓	↓	↓	
↓ -003	↓	↓	↓	
↓ -004	↓	↓	↓	
211144-003	↓	↓	↓	
MB QC490357	↓	↓	↓	
LCS ↓ 58	↓	↓	↓	
MS ↓ 59	↓	↓	↓	
MSD ↓ 60	↓	↓	↓	
211047-003	↓	↓	↓	

	Mfg & Lot # / Time / Program	Initials / Date
☐ Extracts were cleaned up using C&T assembled — g columns	N/A	TWY 4/7/09
☑ Extracts were cleaned up using 1.0 g cartridges	SP10882	↓
Extracts were eluted with 4.0 mL CH_2Cl_2	EM49034	↓
Concentrated to volumes as noted above	↓	↓

4/7/09
Extraction Chemist / Date

Continued from page ___
Continued on page ___

TFB 4/7/09
Reviewed by / Date

Laboratory Job Number 211047

ANALYTICAL REPORT

Volatile Organics by GC/MS

Matrix: Water

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8260B
Field ID:	BTSB-R1(I)	Batch#:	149782
Lab ID:	211047-001	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Analyzed:	04/09/09
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Acetone	ND	10	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	1.0
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
Chloroform	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	0.2
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2-Dichloroethene (total)	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

22.0

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8260B
Field ID:	BTSB-R3(I)	Batch#:	149782
Lab ID:	211047-002	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Analyzed:	04/09/09
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Acetone	ND	10	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	1.0
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
Chloroform	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	0.2
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2-Dichloroethene (total)	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	101	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8260B
Field ID:	BTSB-R3(D)	Batch#:	149782
Lab ID:	211047-003	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09
Units:	ug/L	Analyzed:	04/09/09
Diln Fac:	1.000		

Analyte	Result	RL	MDL
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Acetone	ND	10	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	1.0
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
Chloroform	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	0.2
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2-Dichloroethene (total)	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	76-120
Toluene-d8	100	80-120
Bromofluorobenzene	96	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

24.0

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	149782
Units:	ug/L	Analyzed:	04/09/09
Diln Fac:	1.000		

Type: BS Lab ID: QC491055

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	21.60	108	65-135
Benzene	20.00	21.31	107	65-135
Trichloroethene	20.00	21.32	107	65-135
Toluene	20.00	21.81	109	65-135
Chlorobenzene	20.00	20.54	103	65-135

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	101	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC491056

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	22.23	111	65-135	3	35
Benzene	20.00	21.64	108	65-135	2	35
Trichloroethene	20.00	21.81	109	65-135	2	35
Toluene	20.00	22.07	110	65-135	1	35
Chlorobenzene	20.00	20.89	104	65-135	2	35

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	76-120
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 5030B
Project#:	Y0239-04.A3	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC491057	Batch#:	149782
Matrix:	Water	Analyzed:	04/09/09
Units:	ug/L		

Analyte	Result	RL	MDL
Chloromethane	ND	1.0	0.2
Vinyl Chloride	ND	0.5	
Bromomethane	ND	1.0	0.2
Chloroethane	ND	1.0	0.2
Acetone	ND	10	
1,1-Dichloroethene	ND	0.5	
Methylene Chloride	ND	10	1.0
Carbon Disulfide	ND	0.5	
MTBE	ND	0.5	
Vinyl Acetate	ND	10	
1,1-Dichloroethane	ND	0.5	
2-Butanone	ND	10	
Chloroform	ND	0.5	
1,1,1-Trichloroethane	ND	0.5	
Carbon Tetrachloride	ND	0.5	
1,2-Dichloroethane	ND	0.5	
Benzene	ND	0.5	
Trichloroethene	ND	0.5	
1,2-Dichloropropane	ND	0.5	
Bromodichloromethane	ND	0.5	
4-Methyl-2-Pentanone	ND	10	
cis-1,3-Dichloropropene	ND	0.5	
Toluene	ND	0.5	
trans-1,3-Dichloropropene	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	
2-Hexanone	ND	10	
Tetrachloroethene	ND	0.5	
Dibromochloromethane	ND	0.5	
Chlorobenzene	ND	0.5	
Ethylbenzene	ND	0.5	
m,p-Xylenes	ND	0.5	
o-Xylene	ND	0.5	
Styrene	ND	0.5	
Bromoform	ND	1.0	0.2
1,1,2,2-Tetrachloroethane	ND	0.5	
1,2-Dichloroethene (total)	ND	0.5	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	76-120
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-120

ND= Not Detected
RL= Reporting Limit
MDL= Method Detection Limit

CURTIS & TOMPKINS BFB TUNE FOR 211047 MSVOA Water
EPA 8260B

Inst : MSVOA11 Run Name : BFB IDF : 1.0
Seqnum : 839131620003 File : kd103 Time : 01-APR-2009 10:37

Standards: S10902

Mass	Ion Abundance Criteria	Abundance	% Relative Abundance	Q
50	15% - 40% of mass 95	48848	17.19	
75	30% - 60% of mass 95	147370	51.85	
95		284224	100.00	
96	5% - 9% of mass 95	18495	6.51	
173	< 2% of mass 174	613	0.36	
174	> 50% and < 100% of mass 95	168853	59.41	
175	5% - 9% of mass 174	12705	7.52	
176	> 95% and < 101% of mass 174	163712	96.96	
177	5% - 9% of mass 176	10974	6.70	

Analyst: ACM Date: 04/01/09 Reviewer: LW Date: 04/02/09

CURTIS & TOMPKINS BFB TUNE FOR 211047 MSVOA Water
EPA 8260B

Inst : MSVOA11 Run Name : BFB IDF : 1.0
Seqnum : 839143114003 File : kd903 Time : 09-APR-2009 09:51

Standards: S10902

Mass	Ion Abundance Criteria	Abundance	% Relative Abundance	Q
50	15% - 40% of mass 95	18861	19.33	
75	30% - 60% of mass 95	50941	52.21	
95		97562	100.00	
96	5% - 9% of mass 95	6002	6.15	
173	< 2% of mass 174	201	0.34	
174	> 50% and < 100% of mass 95	59381	60.86	
175	5% - 9% of mass 174	4140	6.97	
176	> 95% and < 101% of mass 174	56786	95.63	
177	5% - 9% of mass 176	3769	6.64	

Analyst: ACM Date: 04/09/09 Reviewer: EAH Date: 04/09/09

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 MSVOA Water: EPA 8260B

Inst : MSVOA11
Calnum : 839131620002
Units : ug/L

Name : 8260GX11
Date : 01-APR-2009 11:58
X Axis : R

Type : WATER

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	kd106	839131620006		01-APR-2009 11:58	S11357 (1000000X), S11721 (2000000X), S11730 (2000000X), S10687 (2000000X), S11736 (2500X)
L2	kd107	839131620007		01-APR-2009 12:26	S11357 (500000X), S11721 (1000000X), S11730 (1000000X), S10687 (1000000X), S11736 (2500X)
L3	kd108	839131620008		01-APR-2009 12:54	S11357 (250000X), S11721 (250000X), S11730 (250000X), S10687 (500000X), S11736 (2500X)
L4	kd109	839131620009		01-APR-2009 13:23	S11357 (100000X), S11721 (100000X), S11730 (100000X), S10687 (200000X), S11736 (2500X)
L5	kd110	839131620010		01-APR-2009 13:51	S11357 (50000X), S11721 (50000X), S11730 (50000X), S10687 (100000X), S11736 (2500X)
L6	kd111	839131620011		01-APR-2009 14:19	S11357 (25000X), S11721 (25000X), S11730 (25000X), S10687 (50000X), S11736 (2500X)
L7	kd112	839131620012		01-APR-2009 14:47	S11357 (10000X), S11721 (10000X), S11730 (10000X), S10687 (20000X), S11736 (2500X)
L8	kd113	839131620013		01-APR-2009 15:15	S11357 (6667X), S11721 (6667X), S11730 (6667X), S10687 (13330X), S11736 (2500X)
L9	kd114	839131620014		01-APR-2009 15:43	S11357 (5000X), S11721 (5000X), S11730 (5000X), S10687 (10000X), S11736 (2500X)

Analyte	L1	L2	L3	L4	L5	L6	L7	L8	L9	Type	a0	a1	a2	Avg	r^2 %RSD	Max %RSD	Min RF	Min r^2	Flg
Chloromethane		0.5660	0.5406	0.5438	0.5260	0.5151	0.5165	0.5465	0.5263	AVRG		1.86879		0.5351	3	15	0.10	0.99	
Vinyl Chloride	0.4983	0.4587	0.5048	0.6003	0.5260	0.4834	0.5092	0.5569	0.5372	AVRG		1.92514		0.5194	8	15	0.05	0.99	
Bromomethane		0.2828m	0.3082m	0.3035m	0.3094	0.3168	0.3531	0.3768	0.3586	AVRG		3.06628		0.3261	10	15	0.05	0.99	
Chloroethane		0.3998	0.4039	0.4297	0.4156	0.3855	0.3844	0.3931	0.3786	AVRG		2.50733		0.3988	4	15	0.05	0.99	
Acetone			0.2571	0.2310	0.2299	0.2090	0.2193	0.2165	0.2338	AVRG		4.38395		0.2281	7	15	0.05	0.99	
1,1-Dichloroethene		0.3372m	0.4136m	0.4294m	0.4412m	0.4244m	0.3862	0.3691m	0.4173	AVRG		2.48580		0.4023	9	15	0.05	0.99	
Methylene Chloride			0.5653	0.5742	0.5398	0.5315	0.5147	0.5179	0.5142	AVRG		1.86297		0.5368	5	15	0.05	0.99	
Carbon Disulfide		1.4691	1.6416	1.6799	1.7852	1.6933	1.5907	1.5567	1.6922	AVRG		0.61028		1.6386	6	15	0.05	0.99	
MTBE		1.5825	1.6482	1.6906	1.6468	1.6423	1.6295	1.6433	1.6845	AVRG		0.60755		1.6459	2	15	0.05	0.99	
trans-1,2-Dichloroethene		0.5077m	0.5243m	0.5288	0.5177m	0.5023m	0.4737	0.4769	0.4942m	AVRG		1.98719		0.5032	4	15	0.05	0.99	
Vinyl Acetate			0.7104	0.9360	0.7902	0.8494	0.7519	0.9164	0.7663	AVRG		1.22362		0.8172	10	15	0.05	0.99	
1,1-Dichloroethane		0.9713	1.0118	0.9957	1.0023	0.9678	0.9222	0.9359	0.9404	AVRG		1.03260		0.9684	3	15	0.10	0.99	
2-Butanone			0.2098m	0.2074m	0.2081m	0.2028	0.2083m	0.2090	0.2237	AVRG		4.76447		0.2099	3	15	0.05	0.99	
cis-1,2-Dichloroethene		0.5582	0.5899m	0.5946	0.6014	0.5696m	0.5532	0.5628	0.5639m	AVRG		1.74154		0.5742	3	15	0.05	0.99	
Chloroform		0.9640	0.9950	0.9521	0.9614	0.9319	0.9008	0.9098	0.9087	AVRG		1.06330		0.9405	4	15	0.05	0.99	
1,1,1-Trichloroethane		0.6498	0.7567	0.7382	0.8074	0.7441	0.6654	0.6583	0.7314	AVRG		1.39102		0.7189	8	15	0.05	0.99	
Carbon Tetrachloride		0.2362	0.2886	0.2778	0.3171	0.3005	0.2470	0.2405	0.2877	AVRG		3.64372		0.2744	11	15	0.05	0.99	
1,2-Dichloroethane		0.3820	0.4153	0.4101	0.4041	0.4002	0.3904	0.3968	0.3945	AVRG		2.50514		0.3992	3	15	0.05	0.99	
Benzene		1.2292	1.2447	1.1736	1.2358	1.1822	1.1131	1.1278	1.1268	AVRG		0.84808		1.1791	5	15	0.05	0.99	
Trichloroethene		0.2733	0.2955	0.2754	0.3006	0.2829	0.2606	0.2623	0.2766	AVRG		3.59192		0.2784	5	15	0.05	0.99	
1,2-Dichloropropane		0.3054	0.3156	0.3186	0.3231	0.3088	0.2972	0.3050	0.3031	AVRG		3.23011		0.3096	3	15	0.05	0.99	
Bromodichloromethane		0.3684	0.3821	0.3881	0.4018	0.3961	0.3952	0.4061	0.4055	AVRG		2.54511		0.3929	3	15	0.05	0.99	
4-Methyl-2-Pentanone		0.2207	0.2069	0.2187	0.2133	0.2279	0.2297	0.2359	0.2468	AVRG		4.44454		0.2250	6	15	0.05	0.99	
cis-1,3-Dichloropropene		0.4382	0.4781	0.4710	0.4938	0.4918	0.4817	0.4862	0.4824	AVRG		2.09250		0.4779	4	15	0.05	0.99	

Analyte	L1	L2	L3	L4	L5	L6	L7	L8	L9	Type	a0	a1	a2	Avg	r^2 %RSD	Max %RSD	Min RF	Min r^2	Flg
Toluene		0.7862	0.7791	0.7008	0.7747	0.7334	0.6725	0.7015	0.6945	AVRG		1.36921		0.7304	6	15	0.05	0.99	
trans-1,3-Dichloropropene		0.3966	0.4162	0.4246	0.4459	0.4494	0.4483	0.4542	0.4521	AVRG		2.29410		0.4359	5	15	0.05	0.99	
1,1,2-Trichloroethane		0.1347	0.1477	0.1414	0.1429	0.1381	0.1360	0.1406	0.1408	AVRG		7.12853		0.1403	3	15	0.05	0.99	
2-Hexanone			0.1735	0.1691	0.1771	0.1789	0.1885	0.1968	0.2116	AVRG		5.40320		0.1851	8	15	0.05	0.99	
Tetrachloroethene		0.2256	0.2569	0.2240	0.2701	0.2453	0.2049	0.2044	0.2296	AVRG		4.29936		0.2326	10	15	0.05	0.99	
Dibromochloromethane		0.2501	0.2723	0.2748	0.2966	0.2980	0.3027	0.3123	0.3107	AVRG		3.45212		0.2897	8	15	0.05	0.99	
Chlorobenzene		0.9986	1.0006	0.8977	0.9627	0.9139	0.8575	0.8903	0.8606	AVRG		1.08374		0.9227	6	15	0.30	0.99	
Ethylbenzene		1.6690	1.7287	1.4958	1.7194	1.6320	1.4529	1.5187	1.5163	AVRG		0.62829		1.5916	7	15	0.05	0.99	
m,p-Xylenes	0.4630	0.5850	0.6238	0.5552	0.6397	0.6043	0.5410	0.5594	0.5512	AVRG		1.75696		0.5692	9	15	0.05	0.99	
o-Xylene		0.6060	0.6417	0.5714	0.6405	0.6122	0.5621	0.5760	0.5616	AVRG		1.67667		0.5964	6	15	0.05	0.99	
Styrene		0.9289	1.0180	0.9434	1.0669	1.0408	0.9935	1.0348	1.0082	AVRG		0.99572		1.0043	5	15	0.05	0.99	
Bromoform		0.1331	0.1432	0.1395	0.1566	0.1574	0.1642	0.1699	0.1727	AVRG		6.46896		0.1546	9	15	0.10	0.99	
1,1,2,2-Tetrachloroethane		0.9375	0.9586	0.9550	0.9530	0.9163	0.8580	0.9002	0.8737	AVRG		1.08809		0.9190	4	15	0.30	0.99	
1,2-Dichloroethane-d4		0.3754	0.3792	0.3805	0.3748	0.3729	0.3689	0.3619	0.3659	AVRG		2.68502		0.3724	2	15	0.05	0.99	
Toluene-d8		1.2818	1.2796	1.2791	1.2825	1.2787	1.2870	1.2852	1.2873	AVRG		0.77964		1.2826	0	15	0.05	0.99	
Bromofluorobenzene		1.2715	1.2751	1.3101	1.2922	1.2609	1.2210	1.2121	1.1955	AVRG		0.79693		1.2548	3	15	0.05	0.99	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D	L7	%D	L8	%D	L9	%D
Chloromethane			1.000	6	2.000	1	5.000	2	10.00	-2	20.00	-4	50.00	-3	75.00	2	100.0	-2
Vinyl Chloride	0.500	-4	1.000	-12	2.000	-3	5.000	16	10.00	1	20.00	-7	50.00	-2	75.00	7	100.0	3
Bromomethane			1.000	-13	2.000	-6	5.000	-7	10.00	-5	20.00	-3	50.00	8	75.00	16	100.0	10
Chloroethane			1.000	0	2.000	1	5.000	8	10.00	4	20.00	-3	50.00	-4	75.00	-1	100.0	-5
Acetone					2.000	13	5.000	1	10.00	1	20.00	-8	50.00	-4	75.00	-5	100.0	3
1,1-Dichloroethene			0.500	-16	2.000	3	5.000	7	10.00	10	20.00	5	50.00	-4	75.00	-8	100.0	4
Methylene Chloride					2.000	5	5.000	7	10.00	1	20.00	-1	50.00	-4	75.00	-4	100.0	-4
Carbon Disulfide			0.500	-10	2.000	0	5.000	3	10.00	9	20.00	3	50.00	-3	75.00	-5	100.0	3
MTBE			0.500	-4	2.000	0	5.000	3	10.00	0	20.00	0	50.00	-1	75.00	0	100.0	2
trans-1,2-Dichloroethene			0.500	1	2.000	4	5.000	5	10.00	3	20.00	0	50.00	-6	75.00	-5	100.0	-2
Vinyl Acetate					2.000	-13	5.000	15	10.00	-3	20.00	4	50.00	-8	75.00	12	100.0	-6
1,1-Dichloroethane			0.500	0	2.000	4	5.000	3	10.00	3	20.00	0	50.00	-5	75.00	-3	100.0	-3
2-Butanone					2.000	0	5.000	-1	10.00	-1	20.00	-3	50.00	-1	75.00	0	100.0	7
cis-1,2-Dichloroethene			0.500	-3	2.000	3	5.000	4	10.00	5	20.00	-1	50.00	-4	75.00	-2	100.0	-2
Chloroform			0.500	3	2.000	6	5.000	1	10.00	2	20.00	-1	50.00	-4	75.00	-3	100.0	-3
1,1,1-Trichloroethane			0.500	-10	2.000	5	5.000	3	10.00	12	20.00	4	50.00	-7	75.00	-8	100.0	2
Carbon Tetrachloride			0.500	-14	2.000	5	5.000	1	10.00	16	20.00	10	50.00	-10	75.00	-12	100.0	5
1,2-Dichloroethane			0.500	-4	2.000	4	5.000	3	10.00	1	20.00	0	50.00	-2	75.00	-1	100.0	-1
Benzene			0.500	4	2.000	6	5.000	0	10.00	5	20.00	0	50.00	-6	75.00	-4	100.0	-4
Trichloroethene			0.500	-2	2.000	6	5.000	-1	10.00	8	20.00	2	50.00	-6	75.00	-6	100.0	-1
1,2-Dichloropropane			0.500	-1	2.000	2	5.000	3	10.00	4	20.00	0	50.00	-4	75.00	-1	100.0	-2
Bromodichloromethane			0.500	-6	2.000	-3	5.000	-1	10.00	2	20.00	1	50.00	1	75.00	3	100.0	3
4-Methyl-2-Pentanone			0.500	-2	2.000	-8	5.000	-3	10.00	-5	20.00	1	50.00	2	75.00	5	100.0	10
cis-1,3-Dichloropropene			0.500	-8	2.000	0	5.000	-1	10.00	3	20.00	3	50.00	1	75.00	2	100.0	1
Toluene			0.500	8	2.000	7	5.000	-4	10.00	6	20.00	0	50.00	-8	75.00	-4	100.0	-5
trans-1,3-Dichloropropene			0.500	-9	2.000	-5	5.000	-3	10.00	2	20.00	3	50.00	3	75.00	4	100.0	4
1,1,2-Trichloroethane			0.500	-4	2.000	5	5.000	1	10.00	2	20.00	-2	50.00	-3	75.00	0	100.0	0
2-Hexanone					2.000	-6	5.000	-9	10.00	-4	20.00	-3	50.00	2	75.00	6	100.0	14
Tetrachloroethene			0.500	-3	2.000	10	5.000	-4	10.00	16	20.00	5	50.00	-12	75.00	-12	100.0	-1
Dibromochloromethane			0.500	-14	2.000	-6	5.000	-5	10.00	2	20.00	3	50.00	5	75.00	8	100.0	7
Chlorobenzene			0.500	8	2.000	8	5.000	-3	10.00	4	20.00	-1	50.00	-7	75.00	-4	100.0	-7
Ethylbenzene			0.500	5	2.000	9	5.000	-6	10.00	8	20.00	3	50.00	-9	75.00	-5	100.0	-5
m,p-Xylenes	0.500	-19	1.000	3	4.000	10	10.00	-2	20.00	12	40.00	6	100.0	-5	150.0	-2	200.0	-3
o-Xylene			0.500	2	2.000	8	5.000	-4	10.00	7	20.00	3	50.00	-6	75.00	-3	100.0	-6
Styrene			0.500	-8	2.000	1	5.000	-6	10.00	6	20.00	4	50.00	-1	75.00	3	100.0	0
Bromoform			0.500	-14	2.000	-7	5.000	-10	10.00	1	20.00	2	50.00	6	75.00	10	100.0	12
1,1,2,2-Tetrachloroethane			0.500	2	2.000	4	5.000	4	10.00	4	20.00	0	50.00	-7	75.00	-2	100.0	-5
1,2-Dichloroethane-d4			50.00	1	50.00	2	50.00	2	50.00	1	50.00	0	50.00	-1	50.00	-3	50.00	-2
Toluene-d8			50.00	0	50.00	0	50.00	0	50.00	0	50.00	0	50.00	0	50.00	0	50.00	0
Bromofluorobenzene			50.00	1	50.00	2	50.00	4	50.00	3	50.00	0	50.00	-3	50.00	-3	50.00	-5

ACM 04/02/09 : All manual integrations done to integrate at noise level. (BrMe 1,1-DCE, trans-1,2-DCE,

2-butanone, cis-1,2-DCE,n-butylbz).

Analyst: ACM Date: 04/02/09 Reviewer: LW Date: 04/02/09

m=manual integration

Instrument amount = a0 + response * a1 + response^2 * a2; AVRG=Average response factor

839131620002

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 MSVOA Water
EPA 8260B

Inst : MSVOA11 Name : 8260GX11
Calnum : 839131620002 Cal Date : 01-APR-2009 Type : WATER

ICV 839131620015 (kd115 01-APR-2009) stds: S11751 (10000X), S11736 (2500X)
ICV 839131620016 (kd116 01-APR-2009) stds: S11752 (10000X), S11443 (10000X), S11731 (10000X), S11736 (2500X)

Analyte	ICV Seqnum	Average RF	RF	Spiked	Quant	Units	%D	Max	Flags
Chloromethane	839131620015	0.5351	0.4779	25.00	22.33	ug/L	-11	30	
Vinyl Chloride	839131620015	0.5194	0.5212	25.00	25.08	ug/L	0	20	
Bromomethane	839131620015	0.3261	0.2646	25.00	20.28	ug/L	-19	30	
Chloroethane	839131620015	0.3988	0.3768	25.00	23.62	ug/L	-6	30	
Acetone	839131620016	0.2281	0.1693	25.00	18.56	ug/L	-26	40	
1,1-Dichloroethene	839131620016	0.4023	0.4147	25.00	25.77	ug/L	3	20	
Methylene Chloride	839131620016	0.5368	0.5385	25.00	25.08	ug/L	0	30	
Carbon Disulfide	839131620016	1.6386	1.4676	25.00	22.39	ug/L	-10	30	
MTBE	839131620016	1.6459	1.5075	25.00	22.90	ug/L	-8	30	
trans-1,2-Dichloroethene	839131620016	0.5032	0.5220	25.00	25.93	ug/L	4	30	m
Vinyl Acetate	839131620016	0.8172	0.4842	25.00	14.81	ug/L	**-41**	40	v- ***
1,1-Dichloroethane	839131620016	0.9684	0.9398	25.00	24.26	ug/L	-3	30	
2-Butanone	839131620016	0.2099	0.1836	25.00	21.87	ug/L	-13	40	
cis-1,2-Dichloroethene	839131620016	0.5742	0.5711	25.00	24.86	ug/L	-1	30	m
Chloroform	839131620016	0.9405	0.9253	25.00	24.60	ug/L	-2	20	
1,1,1-Trichloroethane	839131620016	0.7189	0.7725	25.00	26.87	ug/L	7	30	
Carbon Tetrachloride	839131620016	0.2744	0.3174	25.00	28.91	ug/L	16	30	
1,2-Dichloroethane	839131620016	0.3992	0.3905	25.00	24.45	ug/L	-2	30	
Benzene	839131620016	1.1791	1.2085	25.00	25.62	ug/L	2	30	
Trichloroethene	839131620016	0.2784	0.3039	25.00	27.29	ug/L	9	30	
1,2-Dichloropropane	839131620016	0.3096	0.3119	25.00	25.19	ug/L	1	20	
Bromodichloromethane	839131620016	0.3929	0.3858	25.00	24.55	ug/L	-2	30	
4-Methyl-2-Pentanone	839131620016	0.2250	0.2186	25.00	24.29	ug/L	-3	40	
cis-1,3-Dichloropropene	839131620016	0.4779	0.5030	25.00	26.31	ug/L	5	30	
Toluene	839131620016	0.7304	0.7723	25.00	26.43	ug/L	6	20	
trans-1,3-Dichloropropene	839131620016	0.4359	0.4244	25.00	24.34	ug/L	-3	30	
1,1,2-Trichloroethane	839131620016	0.1403	0.1435	25.00	25.57	ug/L	2	30	
2-Hexanone	839131620016	0.1851	0.1705	25.00	23.03	ug/L	-8	40	
Tetrachloroethene	839131620016	0.2326	0.2761	25.00	29.68	ug/L	19	30	
Dibromochloromethane	839131620016	0.2897	0.3059	25.00	26.40	ug/L	6	30	
Chlorobenzene	839131620016	0.9227	0.9571	25.00	25.93	ug/L	4	30	
Ethylbenzene	839131620016	1.5916	1.7585	25.00	27.62	ug/L	10	20	
m,p-Xylenes	839131620016	0.5692	0.6465	50.00	56.79	ug/L	14	30	
o-Xylene	839131620016	0.5964	0.6536	25.00	27.40	ug/L	10	30	
Styrene	839131620016	1.0043	1.1052	25.00	27.51	ug/L	10	30	
Bromoform	839131620016	0.1546	0.1623	25.00	26.25	ug/L	5	30	
1,1,2,2-Tetrachloroethane	839131620016	0.9190	0.9019	25.00	24.53	ug/L	-2	30	

-=low bias m=manual integration v=ICV

CURTIS & TOMPKINS SPIKE USER REPORT FOR 211047 MSVOA Water
EPA 8260B

Inst : MSVOA11 Run Name : QC491055 IDF : 1.0
Seqnum : 839143114004.4 File : kd904 Time : 09-APR-2009 10:04
Cal : 839131620002 Caldate : 01-APR-2009 Caltype : WATER
Standards: S11752 (12500X), S11443 (12500X), S11731 (12500X), S11751 (12500X), S11736 (2500X)

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Min RF	Flags
Chloromethane	0.5351	0.4441	20.00	16.60	ug/L	-17	30	0.1000	u
Vinyl Chloride	0.5194	0.5289	20.00	20.37	ug/L	2	20	0.0500	u
Bromomethane	0.3261	0.1822	20.00	11.17	ug/L	**-44**	30	0.0500	c- m u ***
Chloroethane	0.3988	0.4247	20.00	21.30	ug/L	6	30	0.0500	u
Acetone	0.2281	0.1936	20.00	16.97	ug/L	-15	40	0.0500	u
1,1-Dichloroethene	0.4023	0.4344	20.00	21.60	ug/L	8	20	0.0500	m u
Methylene Chloride	0.5368	0.6063	20.00	22.59	ug/L	13	30	0.0500	u
Carbon Disulfide	1.6386	1.5322	20.00	18.70	ug/L	-6	30	0.0500	u
MTBE	1.6459	1.6075	20.00	19.53	ug/L	-2	30	0.0500	u
trans-1,2-Dichloroethene	0.5032	0.5547	20.00	22.05	ug/L	10	30	0.0500	u
Vinyl Acetate	0.8172	0.7541	20.00	18.45	ug/L	-8	40	0.0500	u v- ***
1,1-Dichloroethane	0.9684	1.0144	20.00	20.95	ug/L	5	30	0.1000	u
2-Butanone	0.2099	0.1992	20.00	18.98	ug/L	-5	40	0.0500	u
cis-1,2-Dichloroethene	0.5742	0.6062	20.00	21.11	ug/L	6	30	0.0500	m u
Chloroform	0.9405	1.0254	20.00	21.81	ug/L	9	20	0.0500	u
1,1,1-Trichloroethane	0.7189	0.8766	20.00	24.39	ug/L	**22**	30	0.0500	!c+ u
Carbon Tetrachloride	0.2744	0.3680	20.00	26.82	ug/L	**34**	30	0.0500	c+ u ***
1,2-Dichloroethane	0.3992	0.4502	20.00	22.55	ug/L	13	30	0.0500	u
Benzene	1.1791	1.2564	20.00	21.31	ug/L	7	30	0.0500	u
Trichloroethene	0.2784	0.2968	20.00	21.32	ug/L	7	30	0.0500	u
1,2-Dichloropropane	0.3096	0.3131	20.00	20.23	ug/L	1	20	0.0500	u
Bromodichloromethane	0.3929	0.4202	20.00	21.39	ug/L	7	30	0.0500	u
4-Methyl-2-Pentanone	0.2250	0.2180	20.00	19.38	ug/L	-3	40	0.0500	u
cis-1,3-Dichloropropene	0.4779	0.5415	20.00	22.66	ug/L	13	30	0.0500	u
Toluene	0.7304	0.7963	20.00	21.81	ug/L	9	20	0.0500	u
trans-1,3-Dichloropropene	0.4359	0.4555	20.00	20.90	ug/L	4	30	0.0500	u
1,1,2-Trichloroethane	0.1403	0.1520	20.00	21.67	ug/L	8	30	0.0500	u
2-Hexanone	0.1851	0.1568	20.00	16.94	ug/L	-15	40	0.0500	u
Tetrachloroethene	0.2326	0.2696	20.00	23.18	ug/L	16	30	0.0500	u
Dibromochloromethane	0.2897	0.3152	20.00	21.76	ug/L	9	30	0.0500	u
Chlorobenzene	0.9227	0.9477	20.00	20.54	ug/L	3	30	0.3000	u
Ethylbenzene	1.5916	1.6446	20.00	20.67	ug/L	3	20	0.0500	u
m,p-Xylenes	0.5692	0.6078	40.00	42.71	ug/L	7	30	0.0500	u
o-Xylene	0.5964	0.6037	20.00	20.24	ug/L	1	30	0.0500	u
Styrene	1.0043	1.0204	20.00	20.32	ug/L	2	30	0.0500	u
Bromoform	0.1546	0.1675	20.00	21.67	ug/L	8	30	0.1000	u
1,1,2,2-Tetrachloroethane	0.9190	0.8720	20.00	18.98	ug/L	-5	30	0.3000	u
1,2-Dichloroethane-d4	0.3724	0.3755	50.00	50.41	ug/L	1	30	0.0500	u
Toluene-d8	1.2826	1.2937	50.00	50.43	ug/L	1	30	0.0500	u
Bromofluorobenzene	1.2548	1.2114	50.00	48.27	ug/L	-3	30	0.0500	u

ISTD (ICAL kd112)	ICAL Area	Area	%Drift	ICAL RT	RT	Drift
Pentafluorobenzene	1290873	1205177	-6.64	9.64	9.64	0.01
1,4-Difluorobenzene	2394933	2256872	-5.76	10.69	10.69	0.00
Chlorobenzene-d5	2043495	2064945	1.05	14.25	14.25	0.00
1,4-Dichlorobenzene-d4	875369	943351	7.77	16.68	16.68	0.00

ACM 04/09/09 [Bromomethane]: Corrected baseline noise or negative peak . [general version]

ACM 04/09/09 [1,1-Dichloroethene]: Corrected baseline noise or negative peak . [general version]

ACM 04/09/09 [cis-1,2-Dichloroethene]: Corrected baseline noise or negative peak . [general version]

ACM 04/09/09 [1,2-Dibromo-3-Chloropropane]: Corrected baseline noise or negative peak . [general version]

Analyst: ACM Date: 04/10/09 Reviewer: LW Date: 04/13/09

!=warning +=high bias -=low bias c=CCV m=manual integration u=use v=ICV

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 839143114

Date : 04/09/09 Reference : kd112
Sequence : MSVOA11 kd9 Analyzed : 04/01/09 14:47

#	Type	Sample ID	PFLBZ	RT	14DFB	RT	CLBZD5	RT	DCBZ14D4	RT
		ICAL STD	1290873	9.64	2394933	10.69	2043495	14.25	875369	16.68
		LOWER LIMIT	645437	9.14	1197467	10.19	1021748	13.75	437685	16.18
		UPPER LIMIT	2581746	10.14	4789866	11.19	4086990	14.75	1750738	17.18
004	CCV/BS	QC491055	1205177	9.64	2256872	10.69	2064945	14.25	943351	16.68
005	BSD	QC491056	1240432	9.64	2325353	10.69	2147950	14.25	990150	16.68
007	BLANK	QC491057	1190321	9.63	2285506	10.69	2104591	14.25	959593	16.68
008	SAMPLE	211057-003	1200130	9.64	2278646	10.69	2133110	14.25	951523	16.68
009	SAMPLE	211057-004	1174802	9.63	2256031	10.69	2106269	14.25	938576	16.68
010	SAMPLE	211113-002	1180959	9.63	2260536	10.69	2112020	14.25	943002	16.68
011	SAMPLE	210989-004	1165850	9.64	2233499	10.69	2096142	14.25	936769	16.68
012	SAMPLE	210981-001	1168656	9.64	2228887	10.69	2068483	14.25	939731	16.68
013	SAMPLE	211047-001	1149891	9.63	2206580	10.69	2045950	14.25	921480	16.68
014	SAMPLE	211047-002	1147138	9.63	2194718	10.69	2036028	14.25	919015	16.68
015	SAMPLE	211047-003	1140865	9.63	2184850	10.69	2027375	14.25	899188	16.68
016	SAMPLE	211087-001	1129180	9.63	2168828	10.69	2005918	14.25	904395	16.68
017	SAMPLE	211057-010	1115836	9.63	2167880	10.69	2003757	14.25	891455	16.68
018	SAMPLE	211087-002	1129393	9.63	2149177	10.69	2007627	14.25	904299	16.68
019	SAMPLE	211127-001	1123559	9.63	2148861	10.69	2016140	14.25	909131	16.68
020	SAMPLE	211127-002	1124596	9.63	2152966	10.69	1999309	14.25	885683	16.68
021	SAMPLE	211052-013	1123735	9.63	2133323	10.69	2011414	14.25	885116	16.68
022	SAMPLE	211057-005	1096290	9.63	2107177	10.69	1999055	14.25	871775	16.68
023	SAMPLE	211057-006	1099338	9.63	2117373	10.69	1985042	14.25	868404	16.68
024	SAMPLE	211057-007	1114516	9.63	2080265	10.69	1955043	14.25	873657	16.68
025	SAMPLE	211057-008	1051264	9.63	2041195	10.69	1929412	14.25	858897	16.68
026	SAMPLE	211057-009	1055553	9.63	2046690	10.69	1944255	14.25	856393	16.68
027	SAMPLE	211057-011	1053573	9.63	2051190	10.69	1925461	14.25	869395	16.68

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 839131620

Instrument : MSVOA11 Begun : 04/01/09 09:40
Method : EPA 8260B SOP Version : TVH_8260B_rv0

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	kd101	X	IB			04/01/09 09:40	1.0	1	
002	kd102	TUN	BFB			04/01/09 10:26	1.0	2	
003	kd103	TUN	BFB			04/01/09 10:37	1.0	2	
004	kd104	X	IB			04/01/09 11:02	1.0	1	
005	kd105	IB	CALIB			04/01/09 11:30	1.0	1	
006	kd106	ICAL				04/01/09 11:58	1.0	3 4 5 6 1	
007	kd107	ICAL				04/01/09 12:26	1.0	3 4 5 6 1	
008	kd108	ICAL				04/01/09 12:54	1.0	3 4 5 6 1	
009	kd109	ICAL				04/01/09 13:23	1.0	3 4 5 6 1	
010	kd110	ICAL				04/01/09 13:51	1.0	3 4 5 6 1	
011	kd111	ICAL				04/01/09 14:19	1.0	3 4 5 6 1	
012	kd112	ICAL				04/01/09 14:47	1.0	3 4 5 6 1	
013	kd113	ICAL				04/01/09 15:15	1.0	3 4 5 6 1	
014	kd114	ICAL				04/01/09 15:43	1.0	3 4 5 6 1	
015	kd115	ICV				04/01/09 16:11	1.0	7 1	
016	kd116	ICV				04/01/09 16:39	1.0	8 9 10 1	
017	kd117	X	IB			04/01/09 17:07	1.0	1	
018	kd118	X	IB			04/01/09 17:35	1.0	1	
019	kd119	TUN	BFB			04/01/09 18:12	1.0	2	
020	kd120	CCV				04/01/09 18:29	1.0	3 4 5 6 1	
021	kd121	BS	QC489933	Water	149510	04/01/09 18:58	1.0	8 9 10 7 1	
022	kd122	BSD	QC489934	Water	149510	04/01/09 19:26	1.0	8 9 10 7 1	
023	kd123	X	IB			04/01/09 19:54	1.0	1	
024	kd124	BLANK	QC489954	Water	149510	04/01/09 20:22	1.0	1	
025	kd125	SAMPLE	210905-001	Water	149510	04/01/09 20:50	1.0	1	
026	kd126	SAMPLE	210927-002	Water	149510	04/01/09 21:18	1.0	1	
027	kd127	SAMPLE	210928-002	Water	149510	04/01/09 21:46	1.0	1	
028	kd128	SAMPLE	210929-004	Water	149510	04/01/09 22:14	1.0	1	
029	kd129	SAMPLE	210905-002	Water	149510	04/01/09 22:42	1.0	1	
030	kd130	SAMPLE	210905-003	Water	149510	04/01/09 23:10	1.0	1	
031	kd131	SAMPLE	210905-004	Water	149510	04/01/09 23:38	1.0	1	
032	kd132	SAMPLE	210905-005	Water	149510	04/02/09 00:06	1.0	1	
033	kd133	SAMPLE	210905-006	Water	149510	04/02/09 00:35	1.0	1	
034	kd134	SAMPLE	210927-001	Water	149510	04/02/09 01:03	1.0	1	
035	kd135	SAMPLE	210928-001	Water	149510	04/02/09 01:31	1.0	1	
036	kd136	SAMPLE	210926-001	Water	149510	04/02/09 01:59	1.0	1	
037	kd137	SAMPLE	210929-003	Water	149510	04/02/09 02:27	1.0	1	2:TCE=860
038	kd138	SAMPLE	210838-014	Water	149510	04/02/09 02:55	1.0	1	
039	kd139	SAMPLE	210838-015	Water	149510	04/02/09 03:23	1.0	1	
040	kd140	SAMPLE	210838-016	Water	149510	04/02/09 03:51	1.0	1	
041	kd141	SAMPLE	210838-017	Water	149510	04/02/09 04:19	1.0	1	
042	kd142	SAMPLE	210838-018	Water	149510	04/02/09 04:50	1.0	1	
043	kd143	SAMPLE	210838-011	Water	149510	04/02/09 05:18	1.667	1	
044	kd144	SAMPLE	210838-006	Water	149510	04/02/09 05:46	62.50	1	
045	kd145	X	IB			04/02/09 06:14	1.0	1	
046	kd146	X	IB			04/02/09 06:42	1.0	1	
047	kd147	X	IB			04/02/09 07:10	1.0	1	

ACM 04/01/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 17.

ACM 04/02/09 : I verified that the vials loaded on the instrument matched the

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 839131620

Instrument : MSVOA11 Begun : 04/01/09 09:40
Method : EPA 8260B SOP Version : TVH_8260B_rv0

sequence data entry, for runs 18 through 47.

ACM 04/03/09 : Matrix spikes were not performed for this analysis in batch 149510 due to insufficient sample amount.

Analyst: ACM Date: 04/01/09 Reviewer: LW Date: 04/02/09

Standards used: 1=S11736 2=S10902 3=S11357 4=S11721 5=S11730 6=S10687 7=S11751 8=S11752 9=S11443 10=S11731

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 839143114

Instrument : MSVOA11 Begun : 04/09/09 09:14
Method : EPA 8260B SOP Version : TVH_8260B_rv0

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	kd901	X	IB			04/09/09 09:14	1.0	1	
002	kd902	TUN	BFB			04/09/09 09:40	1.0	2	
003	kd903	TUN	BFB			04/09/09 09:51	1.0	2	
004	kd904	CCV/BS	QC491055	Water	149782	04/09/09 10:04	1.0	3 4 5 6 1	
005	kd905	BSD	QC491056	Water	149782	04/09/09 10:32	1.0	3 4 5 6 1	
006	kd906	X	IB			04/09/09 11:00	1.0	1	
007	kd907	BLANK	QC491057	Water	149782	04/09/09 11:28	1.0	1	
008	kd908	SAMPLE	211057-003	Water	149782	04/09/09 11:56	1.0	1	4:MTLNCL=400
009	kd909	SAMPLE	211057-004	Water	149782	04/09/09 12:24	1.0	1	
010	kd910	SAMPLE	211113-002	Water	149782	04/09/09 12:52	10.0	1	1:TCE=160
011	kd911	SAMPLE	210989-004	Water	149782	04/09/09 13:20	1.429	1	
012	kd912	SAMPLE	210981-001	Water	149782	04/09/09 13:48	1.0	1	
013	kd913	SAMPLE	211047-001	Water	149782	04/09/09 14:17	1.0	1	
014	kd914	SAMPLE	211047-002	Water	149782	04/09/09 14:44	1.0	1	
015	kd915	SAMPLE	211047-003	Water	149782	04/09/09 15:13	1.0	1	
016	kd916	SAMPLE	211087-001	Water	149782	04/09/09 15:41	1.0	1	
017	kd917	SAMPLE	211057-010	Water	149782	04/09/09 16:09	1.0	1	
018	kd918	SAMPLE	211087-002	Water	149782	04/09/09 16:37	1.0	1	2:ACE=660
019	kd919	SAMPLE	211127-001	Water	149782	04/09/09 17:05	1.0	1	
020	kd920	SAMPLE	211127-002	Water	149782	04/09/09 17:33	40.0	1	1:TCE=120
021	kd921	SAMPLE	211052-013	Water	149782	04/09/09 18:01	7.143	1	2:PCE=240
022	kd922	SAMPLE	211057-005	Water	149782	04/09/09 18:29	1.0	1	
023	kd923	SAMPLE	211057-006	Water	149782	04/09/09 18:57	1.0	1	
024	kd924	SAMPLE	211057-007	Water	149782	04/09/09 19:25	1.0	1	
025	kd925	SAMPLE	211057-008	Water	149782	04/09/09 19:53	1.0	1	
026	kd926	SAMPLE	211057-009	Water	149782	04/09/09 20:21	1.0	1	
027	kd927	SAMPLE	211057-011	Water	149782	04/09/09 20:49	1.0	1	
028	kd928	X	IB			04/09/09 21:17	1.0	1	
029	kd929	X	IB			04/09/09 21:45	1.0	1	
030	kd930	X	IB			04/09/09 22:13	1.0	1	

ACM 04/09/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 10.

ACM 04/10/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 30.

ACM 04/10/09 : Matrix spikes were not performed for this analysis in batch 149782 due to insufficient sample amount.

Analyst: ACM Date: 04/10/09 Reviewer: LW Date: 04/10/09

Standards used: 1=S11736 2=S10902 3=S11752 4=S11443 5=S11731 6=S11751

GC/MS VOLATILE ORGANICS **Batch #:** 149782 **Water Sample Prep Sheet**

	Sample Number	Sample Vial	pH	Head space?	Shelf	Dil'n Flask	MS#	Comments	Initials & Date
1	210989-4	B	<2			1	11	RL 1.42X TCE Ct (+/-20%) TCE @90	4/9/09
2	211053-1	A						1X Clean MB in fridge PUT OFF	
3	2								
4	3							EB	
5	4							TB	
6	210981-1		<2					1X	
7	211057-3							J to MDL	
8	4								
9	5								
10	6								
11	7								
12	8								
13	9								
14	10							TB	
15	11							1X	
16	211047-1	E						1X	
17	2	D							
18	3								
19	211085-1	B						2X FOAMY PUT OFF	
20	211113-2	A	<2			2		~~25X~~ 10X Check DF/List w/Amp	
21	211087-1	A						EB J to MDL	
22	2							1X	
23	3							Put off	
24	4							Put off	
25	5								
26	211127-1	A	<2					TB	
27	2	B	<2			3		40X TCE	
28	211052-13	C	<2			6		7.14X	
29									
30									
31									
32									
33									
34									
35									

Laboratory Job Number 211047

ANALYTICAL REPORT

Metals

Matrix: Water

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	211047	Project#:	Y0239-04.A3
Client:	Baseline Environmental	Location:	Doyle Drive Replacement Project
Field ID:	BTSB-R1(I)	Units:	ug/L
Lab ID:	211047-001	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Arsenic	4.4	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Barium	52	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Beryllium	ND	5.0	50.00	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cadmium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Chromium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cobalt	1.7	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Copper	1.4	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Lead	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Mercury	ND	0.20	1.000	149536	04/02/09	04/02/09	METHOD	EPA 7470A
Molybdenum	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Nickel	3.3	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Selenium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Silver	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Thallium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Vanadium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Zinc	15	5.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	211047	Project#:	Y0239-04.A3
Client:	Baseline Environmental	Location:	Doyle Drive Replacement Project
Field ID:	BTSB-R3(I)	Units:	ug/L
Lab ID:	211047-002	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Arsenic	2.1	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Barium	41	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Beryllium	ND	5.0	50.00	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cadmium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Chromium	6.3	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cobalt	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Copper	3.6	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Lead	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Mercury	ND	0.20	1.000	149536	04/02/09	04/02/09	METHOD	EPA 7470A
Molybdenum	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Nickel	9.1	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Selenium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Silver	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Thallium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Vanadium	6.9	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Zinc	7.7	5.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	211047	Project#:	Y0239-04.A3
Client:	Baseline Environmental	Location:	Doyle Drive Replacement Project
Field ID:	BTSB-R3(D)	Units:	ug/L
Lab ID:	211047-003	Sampled:	03/31/09
Matrix:	Water	Received:	03/31/09

Analyte	Result	RL	Diln Fac	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Arsenic	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Barium	210	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Beryllium	ND	5.0	50.00	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cadmium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Chromium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Cobalt	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Copper	2.4	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Lead	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Mercury	ND	0.20	1.000	149536	04/02/09	04/02/09	METHOD	EPA 7470A
Molybdenum	1.4	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Nickel	1.5	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Selenium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Silver	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Thallium	ND	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Vanadium	2.6	1.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020
Zinc	9.3	5.0	5.000	149491	04/01/09	04/03/09	EPA 200.8	EPA 6020

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y0239-04.A3	Analysis:	EPA 7470A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	149536
Lab ID:	QC490025	Prepared:	04/02/09
Matrix:	Water	Analyzed:	04/02/09
Units:	ug/L		

Result	RL
ND	0.20

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y0239-04.A3	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	149536
Matrix:	Water	Prepared:	04/02/09
Units:	ug/L	Analyzed:	04/02/09
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC490026	5.000	5.260	105	80-120		
BSD	QC490027	5.000	5.510	110	80-120	5	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y0239-04.A3	Analysis:	EPA 7470A
Analyte:	Mercury	Batch#:	149536
Field ID:	ZZZZZZZZZZ	Sampled:	03/31/09
MSS Lab ID:	211051-003	Received:	03/31/09
Matrix:	Filtrate	Prepared:	04/02/09
Units:	ug/L	Analyzed:	04/02/09
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC490028	<0.03335	5.000	5.360	107	75-125		
MSD	QC490029		5.000	5.540	111	75-125	3	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	METHOD
Project#:	Y0239-04.A3	Analysis:	EPA 7470A
Analyte:	Mercury	Units:	ug/L
Field ID:	ZZZZZZZZZZ	Diln Fac:	5.000
Type:	Serial Dilution	Batch#:	149536
MSS Lab ID:	211051-003	Sampled:	03/31/09
Lab ID:	QC490030	Received:	03/31/09
Matrix:	Filtrate	Analyzed:	04/02/09

MSS Result	MSS RL	Result	RL	% Diff	Lim
ND	0.2000	ND	1.000	NC	10

NC= Not Calculated
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 200.8
Project#:	Y0239-04.A3	Analysis:	EPA 6020
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC489859	Batch#:	149491
Matrix:	Filtrate	Prepared:	04/01/09
Units:	ug/L		

Analyte	Result	RL	Analyzed
Antimony	ND	1.0	04/03/09
Arsenic	ND	1.0	04/03/09
Barium	ND	1.0	04/03/09
Beryllium	ND	1.0	04/06/09
Cadmium	ND	1.0	04/03/09
Chromium	ND	1.0	04/03/09
Cobalt	ND	1.0	04/03/09
Copper	ND	1.0	04/03/09
Lead	ND	1.0	04/03/09
Molybdenum	ND	1.0	04/03/09
Nickel	ND	1.0	04/03/09
Selenium	ND	1.0	04/03/09
Silver	ND	1.0	04/03/09
Thallium	ND	1.0	04/03/09
Vanadium	ND	1.0	04/03/09
Zinc	ND	5.0	04/03/09

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 200.8
Project#:	Y0239-04.A3	Analysis:	EPA 6020
Matrix:	Filtrate	Batch#:	149491
Units:	ug/L	Prepared:	04/01/09
Diln Fac:	1.000		

Type: BS Lab ID: QC489860

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	100.0	96.66	97	80-120	04/03/09
Arsenic	100.0	93.47	93	80-120	04/03/09
Barium	100.0	101.9	102	80-120	04/03/09
Beryllium	100.0	99.47	99	80-120	04/06/09
Cadmium	100.0	96.29	96	80-120	04/03/09
Chromium	100.0	98.19	98	80-120	04/03/09
Cobalt	100.0	99.04	99	80-120	04/03/09
Copper	100.0	96.90	97	80-120	04/03/09
Lead	100.0	94.63	95	80-120	04/03/09
Molybdenum	100.0	97.64	98	80-120	04/03/09
Nickel	100.0	99.25	99	80-120	04/03/09
Selenium	100.0	95.82	96	80-120	04/03/09
Silver	100.0	97.28	97	80-120	04/03/09
Thallium	50.00	47.97	96	80-120	04/03/09
Vanadium	100.0	97.85	98	80-120	04/03/09
Zinc	100.0	93.53	94	80-120	04/03/09

Type: BSD Lab ID: QC489861

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	100.0	93.96	94	80-120	3	20	04/03/09
Arsenic	100.0	90.53	91	80-120	3	20	04/03/09
Barium	100.0	99.16	99	80-120	3	20	04/03/09
Beryllium	100.0	96.34	96	80-120	3	20	04/06/09
Cadmium	100.0	93.14	93	80-120	3	20	04/03/09
Chromium	100.0	95.00	95	80-120	3	20	04/03/09
Cobalt	100.0	95.73	96	80-120	3	20	04/03/09
Copper	100.0	94.30	94	80-120	3	20	04/03/09
Lead	100.0	91.08	91	80-120	4	20	04/03/09
Molybdenum	100.0	94.64	95	80-120	3	20	04/03/09
Nickel	100.0	95.66	96	80-120	4	20	04/03/09
Selenium	100.0	95.12	95	80-120	1	20	04/03/09
Silver	100.0	94.19	94	80-120	3	20	04/03/09
Thallium	50.00	46.19	92	80-120	4	20	04/03/09
Vanadium	100.0	94.52	95	80-120	3	20	04/03/09
Zinc	100.0	90.32	90	80-120	3	20	04/03/09

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 200.8
Project#:	Y0239-04.A3	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Sampled:	03/30/09
MSS Lab ID:	211029-002	Received:	03/30/09
Matrix:	Filtrate	Prepared:	04/01/09
Units:	ug/L	Analyzed:	04/03/09
Batch#:	149491		

Type: MS Lab ID: QC489862

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.3910	100.0	95.45	95	75-125	5.000
Arsenic	7.735	100.0	103.8	96	75-125	5.000
Barium	617.5	100.0	730.0	113 NM	75-125	5.000
Beryllium	<11.43	100.0	83.85	84	75-125	500.0
Cadmium	0.07000	100.0	89.60	90	75-125	5.000
Chromium	0.2190	100.0	94.00	94	75-125	5.000
Cobalt	0.7315	100.0	90.40	90	75-125	5.000
Copper	<18.19	100.0	90.20	90	75-125	500.0
Lead	<0.1101	100.0	86.35	86	75-125	5.000
Molybdenum	14.95	100.0	111.3	96	75-125	5.000
Nickel	10.62	100.0	100.7	90	75-125	5.000
Selenium	0.1930	100.0	94.05	94	75-125	5.000
Silver	<0.07314	100.0	89.70	90	75-125	5.000
Thallium	0.1485	50.00	47.82	95	75-125	5.000
Vanadium	2.898	100.0	100.0	97	75-125	5.000
Zinc	19.33	100.0	113.5	94	75-125	5.000

Type: MSD Lab ID: QC489863

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Diln Fac
Antimony	100.0	89.60	89	75-125	6	20	5.000
Arsenic	100.0	105.5	98	75-125	2	20	5.000
Barium	100.0	667.0	50 NM	75-125	9	20	5.000
Beryllium	100.0	81.90	82	75-125	2	20	500.0
Cadmium	100.0	84.70	85	75-125	6	20	5.000
Chromium	100.0	95.30	95	75-125	1	20	5.000
Cobalt	100.0	93.00	92	75-125	3	20	5.000
Copper	100.0	84.35	84	75-125	7	20	500.0
Lead	100.0	82.45	82	75-125	5	20	5.000
Molybdenum	100.0	104.4	89	75-125	6	20	5.000
Nickel	100.0	100.1	89	75-125	1	20	5.000
Selenium	100.0	93.05	93	75-125	1	20	5.000
Silver	100.0	85.25	85	75-125	5	20	5.000
Thallium	50.00	45.37	90	75-125	5	20	5.000
Vanadium	100.0	100.1	97	75-125	0	20	5.000
Zinc	100.0	110.6	91	75-125	3	20	5.000

NM= Not Meaningful: Sample concentration > 4X spike concentration
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 200.8
Project#:	Y0239-04.A3	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Units:	ug/L
Type:	Serial Dilution	Batch#:	149491
MSS Lab ID:	211029-002	Sampled:	03/30/09
Lab ID:	QC489864	Received:	03/30/09
Matrix:	Filtrate	Analyzed:	04/03/09

Analyte	MSS Result	MSS RL	Result	RL	% Diff	Lim	Diln Fac
Antimony	0.3910	1.000	ND	2.500	NC	10	25.00
Arsenic	7.735	1.000	9.128	2.500	18 *	10	25.00
Barium	617.5	1.000	620.8	2.500	1	10	25.00
Beryllium	ND	50.00	ND	250.0	NC	10	2,500
Cadmium	0.07000	1.000	ND	2.500	NC	10	25.00
Chromium	0.2190	1.000	ND	3.000	NC	10	25.00
Cobalt	0.7315	1.000	ND	2.500	NC	10	25.00
Copper	ND	54.56	ND	272.8	NC	10	2,500
Lead	ND	1.000	ND	2.500	NC	10	25.00
Molybdenum	14.95	1.000	14.80	2.500	1	10	25.00
Nickel	10.62	1.000	11.00	2.792	4	10	25.00
Selenium	0.1930	1.000	ND	2.500	NC	10	25.00
Silver	ND	1.000	ND	2.500	NC	10	25.00
Thallium	0.1485	1.000	ND	1.250	NC	10	25.00
Vanadium	2.898	1.000	9.605	2.500	NC	10	25.00
Zinc	19.33	5.000	26.05	10.32	NC	10	25.00

*= Value outside of QC limits; see narrative
NC= Not Calculated
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	211047	Location:	Doyle Drive Replacement Project
Client:	Baseline Environmental	Prep:	EPA 200.8
Project#:	Y0239-04.A3	Analysis:	EPA 6020
Field ID:	ZZZZZZZZZZ	Units:	ug/L
Type:	Post Digest Spike	Batch#:	149491
MSS Lab ID:	211029-002	Sampled:	03/30/09
Lab ID:	QC489865	Received:	03/30/09
Matrix:	Filtrate	Analyzed:	04/03/09

Analyte	MSS Result	Spiked	Result	%REC	Limits	Diln Fac
Antimony	0.3910	500.0	452.4	90	75-125	5.000
Arsenic	7.735	500.0	466.6	92	75-125	5.000
Barium	583.5	50,000	46,710	92	75-125	500.0
Beryllium	<11.43	50,000	43,560	87	75-125	500.0
Cadmium	0.07000	500.0	432.3	86	75-125	5.000
Chromium	0.2190	500.0	465.8	93	75-125	5.000
Cobalt	0.7315	500.0	456.2	91	75-125	5.000
Copper	<18.19	50,000	44,500	89	75-125	500.0
Lead	<0.1101	500.0	409.3	82	75-125	5.000
Molybdenum	14.95	500.0	466.3	90	75-125	5.000
Nickel	10.62	500.0	456.9	89	75-125	5.000
Selenium	0.1930	500.0	450.9	90	75-125	5.000
Silver	<0.07314	500.0	392.8	79	75-125	5.000
Thallium	0.1485	250.0	222.3	89	75-125	5.000
Vanadium	2.898	500.0	482.9	96	75-125	5.000
Zinc	19.33	500.0	444.4	85	75-125	5.000

REPORTING SUMMARY FOR 211047 METALS Water
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
211047-001	MET14	04/02/09 16:22	1.0										+							
211047-001	MET16	04/03/09 11:34	5.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
211047-001	MET06	04/03/09 19:02	50.0				+													
211047-002	MET14	04/02/09 16:24	1.0										+							
211047-002	MET16	04/03/09 11:45	5.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
211047-002	MET06	04/03/09 19:12	50.0				+													
211047-003	MET14	04/02/09 16:27	1.0										+							
211047-003	MET16	04/03/09 11:56	5.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
211047-003	MET06	04/03/09 19:23	50.0				+													
QC489859	MET16	04/03/09 07:24	1.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
QC489859	MET06	04/06/09 14:01	1.0				+													
QC489860	MET16	04/03/09 07:35	1.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
QC489860	MET06	04/06/09 14:12	1.0				+													
QC489861	MET16	04/03/09 07:46	1.0	+	+	+		+	+	+	+	+		+	+	+	+	+	+	+
QC489861	MET06	04/06/09 14:23	1.0				+													
QC489862	MET16	04/03/09 08:20	5.0	+	+	+		+	+	+		+		+	+	+	+	+	+	+
QC489862	MET06	04/03/09 15:05	500.0				+				+									
QC489862	MET06	04/03/09 20:46	10.0																	
QC489863	MET16	04/03/09 08:32	5.0	+	+	+		+	+	+		+		+	+	+	+	+	+	+
QC489863	MET06	04/03/09 15:16	500.0				+				+									
QC489863	MET06	04/03/09 20:56	10.0																	
QC489864	MET16	04/03/09 08:09	25.0	+	+	+		+	+	+		+		+	+	+	+	+	+	+
QC489864	MET06	04/03/09 14:54	2500				+				+									
QC489864	MET06	04/03/09 17:57	250.0																	
QC489864	MET06	04/03/09 20:35	50.0																	
QC489864	MET06	04/06/09 14:33	2500																	
QC489865	MET16	04/03/09 08:43	5.0	+	+			+	+	+		+		+	+	+	+	+	+	+
QC489865	MET06	04/03/09 15:27	500.0			+	+				+									
QC489865	MET06	04/03/09 18:08	50.0																	
QC489865	MET06	04/03/09 21:07	10.0																	
QC490025	MET14	04/02/09 15:17	1.0										+							
QC490026	MET14	04/02/09 15:19	1.0										+							
QC490027	MET14	04/02/09 15:22	1.0										+							
QC490028	MET14	04/02/09 15:29	1.0										+							
QC490029	MET14	04/02/09 15:32	1.0										+							
QC490030	MET14	04/02/09 17:48	5.0										+							
QC490031	MET14	04/02/09 15:34	1.0										+							

REPORTING SUMMARY FOR 211047 METALS Water
Curtis & Tompkins Laboratories

Lab ID	Inst ID	Analyzed	IDF	SB	AS	BA	BE	CD	CR	CO	CU	PB	HG	MO	NI	SE	AG	TL	V	ZN
QC490032	MET14	04/02/09 15:38	1.0										+							
QC490033	MET14	04/02/09 15:45	1.0										+							
QC490034	MET14	04/02/09 15:47	1.0										+							
QC490035	MET14	04/02/09 15:51	1.0										+							
QC490036	MET14	04/02/09 15:53	1.0										+							

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	09d02m00001	TUN				04/02/09 12:57	1.0	1	
002	09d02m00002	X	RINSE			04/02/09 13:04	1.0	2	
003	09d02m00003	ICALBLK	CALBLANK			04/02/09 13:14	1.0	2	
004	09d02m00004	ICAL				04/02/09 13:25	1.0	3 2	
005	09d02m00005	ICAL				04/02/09 13:36	1.0	4 2	
006	09d02m00006	ICAL				04/02/09 13:47	1.0	5 2	
007	09d02m00007	ICAL				04/02/09 13:57	1.0	6 2	
008	09d02m00008	ICAL				04/02/09 14:08	1.0	7 2	
009	09d02m00009	ICAL				04/02/09 14:18	1.0	8 2	
010	09d02m00010	ICV				04/02/09 14:29	1.0	9 2	
011	09d02m00011	X				04/02/09 14:39	1.0	2	
012	09d02m00012	ICB				04/02/09 14:50	1.0	2	
013	09d02m00013	ICSA				04/02/09 15:01	1.0	10 2	7:CA=300000
014	09d02m00014	ICSAB				04/02/09 15:12	1.0	11 2	7:CA=290000
015	09d02m00015	X				04/02/09 15:23	1.0	11 2	7:CA=290000
016	09d02m00016	X	RINSE			04/02/09 15:34	1.0	2	
017	09d02m00017	X	RINSE			04/02/09 15:44	1.0	2	
018	09d02m00018	BLANK	QC488669	Soil	149204	04/02/09 15:55	5.0	2	
019	09d02m00019	BS	QC488670	Soil	149204	04/02/09 16:06	20.0	2	
020	09d02m00020	BSD	QC488671	Soil	149204	04/02/09 16:16	20.0	2	
021	09d02m00021	MSS	210885-001	Soil	149204	04/02/09 16:27	50.0	2	4:CA=47000
022	09d02m00022	SER	QC488674	Soil	149204	04/02/09 16:38	250.0	2	
023	09d02m00023	MS	QC488672	Soil	149204	04/02/09 16:48	50.0	2	
024	09d02m00024	MSD	QC488673	Soil	149204	04/02/09 16:59	50.0	2	
025	09d02m00025	CCV				04/02/09 17:10	1.0	12 2	
026	09d02m00026	CCB				04/02/09 17:20	1.0	2	
027	09d02m00027	X				04/02/09 17:31	1.0	2	
028	09d02m00028	PDS	QC488675	Soil	149204	04/02/09 17:42	50.0	13 14 2	1:CA=53000
029	09d02m00029	SAMPLE	210885-002	Soil	149204	04/02/09 17:53	50.0	2	1:MN=460
030	09d02m00030	SAMPLE	210885-003	Soil	149204	04/02/09 18:03	50.0	2	2:CA=86000
031	09d02m00031	SAMPLE	210885-006	Soil	149204	04/02/09 18:14	50.0	2	2:CA=54000
032	09d02m00032	SAMPLE	210885-007	Soil	149204	04/02/09 18:25	50.0	2	2:FE=30000
033	09d02m00033	SAMPLE	210885-010	Soil	149204	04/02/09 18:35	50.0	2	1:CA=110000
034	09d02m00034	SAMPLE	210885-011	Soil	149204	04/02/09 18:46	50.0	2	1:CA=110000
035	09d02m00035	CCV				04/02/09 18:57	1.0	12 2	
036	09d02m00036	TUN				04/02/09 19:08	1.0	1	
037	09d02m00037	X	RINSE			04/02/09 19:15	1.0	2	
038	09d02m00038	X				04/02/09 19:26	1.0	2	
039	09d02m00039	CCB				04/02/09 19:36	1.0	2	
040	09d02m00040	ICSA				04/02/09 19:47	1.0	10 2	7:CA=310000
041	09d02m00041	ICSAB				04/02/09 19:58	1.0	11 2	7:CA=290000
042	09d02m00042	X	RINSE			04/02/09 20:09	1.0	2	
043	09d02m00043	X	RINSE			04/02/09 20:20	1.0	2	
044	09d02m00044	BLANK	QC488683	Soil	149206	04/02/09 20:31	5.0	2	
045	09d02m00045	BS	QC488684	Soil	149206	04/02/09 20:42	20.0	2	
046	09d02m00046	BSD	QC488685	Soil	149206	04/02/09 20:52	20.0	2	
047	09d02m00047	MSS	210886-001	Soil	149206	04/02/09 21:03	50.0	2	1:CA=85000
048	09d02m00048	SER	QC488688	Soil	149206	04/02/09 21:14	250.0	2	
049	09d02m00049	MS	QC488686	Soil	149206	04/02/09 21:25	50.0	2	
050	09d02m00050	MSD	QC488687	Soil	149206	04/02/09 21:35	50.0	2	
051	09d02m00051	PDS	QC488689	Soil	149206	04/02/09 21:46	50.0	13 14 2	1:CA=90000
052	09d02m00052	CCV				04/02/09 21:57	1.0	12 2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
053	09d02m00053	X				04/02/09 22:07	1.0	2	
054	09d02m00054	CCB				04/02/09 22:18	1.0	2	
055	09d02m00055	SAMPLE	210886-002	Soil	149206	04/02/09 22:29	50.0	2	3:CA=95000
056	09d02m00056	SAMPLE	210886-003	Soil	149206	04/02/09 22:40	50.0	2	3:CU=980
057	09d02m00057	SAMPLE	210886-004	Soil	149206	04/02/09 22:50	50.0	2	2:CA=41000
058	09d02m00058	SAMPLE	210886-005	Soil	149206	04/02/09 23:01	50.0	2	2:CA=24000
059	09d02m00059	SAMPLE	210886-006	Soil	149206	04/02/09 23:12	50.0	2	1:CA=89000
060	09d02m00060	SAMPLE	210886-007	Soil	149206	04/02/09 23:22	50.0	2	1:CA=87000
061	09d02m00061	SAMPLE	210886-008	Soil	149206	04/02/09 23:33	50.0	2	2:CA=100000
062	09d02m00062	SAMPLE	210886-009	Soil	149206	04/02/09 23:44	50.0	2	2:CA=96000
063	09d02m00063	SAMPLE	210886-010	Soil	149206	04/02/09 23:54	50.0	2	2:CA=84000
064	09d02m00064	SAMPLE	210886-011	Soil	149206	04/03/09 00:05	50.0	2	2:CA=67000
065	09d02m00065	CCV				04/03/09 00:16	1.0	12 2	
066	09d02m00066	X				04/03/09 00:26	1.0	2	
067	09d02m00067	CCB				04/03/09 00:37	1.0	2	
068	09d02m00068	SAMPLE	210886-012	Soil	149206	04/03/09 00:48	50.0	2	4:AL=32000
069	09d02m00069	SAMPLE	210886-013	Soil	149206	04/03/09 00:59	50.0	2	2:CA=79000
070	09d02m00070	SAMPLE	210886-014	Soil	149206	04/03/09 01:09	50.0	2	1:CA=75000
071	09d02m00071	TUN				04/03/09 01:21	1.0	1	
072	09d02m00072	X	RINSE			04/03/09 01:28	1.0	2	
073	09d02m00073	SAMPLE	210886-015	Soil	149206	04/03/09 01:39	50.0	2	2:CA=61000
074	09d02m00074	SAMPLE	210886-016	Soil	149206	04/03/09 01:49	50.0	2	2:CA=72000
075	09d02m00075	SAMPLE	210886-017	Soil	149206	04/03/09 02:00	50.0	2	2:CA=95000
076	09d02m00076	SAMPLE	210886-018	Soil	149206	04/03/09 02:11	50.0	2	1:CA=81000
077	09d02m00077	SAMPLE	210886-019	Soil	149206	04/03/09 02:21	50.0	2	2:CA=94000
078	09d02m00078	SAMPLE	210886-020	Soil	149206	04/03/09 02:32	50.0	2	2:CA=110000
079	09d02m00079	CCV				04/03/09 02:43	1.0	12 2	
080	09d02m00080	X				04/03/09 02:53	1.0	2	
081	09d02m00081	CCB				04/03/09 03:04	1.0	2	
082	09d02m00082	ICSA				04/03/09 03:15	1.0	10 2	7:CA=310000
083	09d02m00083	ICSAB				04/03/09 03:26	1.0	11 2	7:CA=290000
084	09d02m00084	X	RINSE			04/03/09 03:37	1.0	2	
085	09d02m00085	X	RINSE			04/03/09 03:48	1.0	2	
086	09d02m00086	BLANK	QC489576	Soil	149427	04/03/09 03:58	5.0	2	
087	09d02m00087	BS	QC489577	Soil	149427	04/03/09 04:09	10.0	2	
088	09d02m00088	BSD	QC489578	Soil	149427	04/03/09 04:20	10.0	2	
089	09d02m00089	MSS	210855-001	Soil	149427	04/03/09 04:30	50.0	2	
090	09d02m00090	SER	QC489581	Soil	149427	04/03/09 04:41	250.0	2	
091	09d02m00091	MS	QC489579	Soil	149427	04/03/09 04:52	50.0	2	
092	09d02m00092	MSD	QC489580	Soil	149427	04/03/09 05:03	50.0	2	
093	09d02m00093	PDS	QC489582	Soil	149427	04/03/09 05:13	50.0	13 14 2	
094	09d02m00094	CCV				04/03/09 05:24	1.0	12 2	
095	09d02m00095	X				04/03/09 05:34	1.0	2	
096	09d02m00096	CCB				04/03/09 05:45	1.0	2	
097	09d02m00097	SAMPLE	210883-001	Soil	149427	04/03/09 05:56	50.0	2	1:MN=280
098	09d02m00098	SAMPLE	210943-001	Soil	149427	04/03/09 06:07	50.0	2	
099	09d02m00099	SAMPLE	210945-010	Soil	149427	04/03/09 06:18	50.0	2	
100	09d02m00100	SAMPLE	210945-011	Soil	149427	04/03/09 06:28	50.0	2	
101	09d02m00101	SAMPLE	210945-012	Soil	149427	04/03/09 06:39	50.0	2	
102	09d02m00102	SAMPLE	210945-013	Soil	149427	04/03/09 06:50	50.0	2	
103	09d02m00103	CCV				04/03/09 07:00	1.0	12 2	
104	09d02m00104	X				04/03/09 07:11	1.0	2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
105	09d02m00105	CCB				04/03/09 07:22	1.0	2	
106	09d02m00106	TUN				04/03/09 07:33	1.0	1	
107	09d02m00107	X	RINSE			04/03/09 07:40	1.0	2	
108	09d02m00108	BLANK	QC489669	Soil	149447	04/03/09 07:51	5.0	2	
109	09d02m00109	BS	QC489670	Soil	149447	04/03/09 08:02	20.0	2	
110	09d02m00110	BSD	QC489671	Soil	149447	04/03/09 08:12	20.0	2	
111	09d02m00111	MSS	210959-003	Soil	149447	04/03/09 08:23	50.0	2	1:MN=530
112	09d02m00112	MS	QC489672	Soil	149447	04/03/09 08:34	50.0	2	
113	09d02m00113	MSD	QC489673	Soil	149447	04/03/09 08:45	50.0	2	
114	09d02m00114	MSS	210959-004	Soil	149447	04/03/09 08:55	50.0	2	
115	09d02m00115	MS	QC489676	Soil	149447	04/03/09 09:06	50.0	2	
116	09d02m00116	MSD	QC489677	Soil	149447	04/03/09 09:17	50.0	2	
117	09d02m00117	SAMPLE	210959-001	Soil	149447	04/03/09 09:28	50.0	2	
118	09d02m00118	CCV				04/03/09 09:38	1.0	12 2	
119	09d02m00119	CCB				04/03/09 09:49	1.0	2	
120	09d02m00120	X				04/03/09 10:00	1.0	2	
121	09d02m00121	SAMPLE	210959-002	Soil	149447	04/03/09 10:10	50.0	2	
122	09d02m00122	SAMPLE	210959-005	Soil	149447	04/03/09 10:26	50.0	2	
123	09d02m00123	SAMPLE	210959-006	Soil	149447	04/03/09 10:37	50.0	2	
124	09d02m00124	SAMPLE	210959-007	Soil	149447	04/03/09 10:48	50.0	2	1:MN=340
125	09d02m00125	SAMPLE	210959-008	Soil	149447	04/03/09 10:58	50.0	2	1:MN=280
126	09d02m00126	SAMPLE	210959-009	Soil	149447	04/03/09 11:09	50.0	2	
127	09d02m00127	SAMPLE	210959-010	Soil	149447	04/03/09 11:20	50.0	2	
128	09d02m00128	SAMPLE	210959-011	Soil	149447	04/03/09 11:31	50.0	2	
129	09d02m00129	SAMPLE	210959-012	Soil	149447	04/03/09 11:41	50.0	2	
130	09d02m00130	SAMPLE	210959-013	Soil	149447	04/03/09 11:52	50.0	2	1:MN=230
131	09d02m00131	CCV				04/03/09 12:03	1.0	12 2	
132	09d02m00132	CCB				04/03/09 12:13	1.0	2	
133	09d02m00133	X				04/03/09 12:24	1.0	2	
134	09d02m00134	X	210959-014		149447	04/03/09 12:35	50.0	2	
135	09d02m00135	ICSA				04/03/09 12:46	1.0	10 2	7:CA=310000
136	09d02m00136	ICSAB				04/03/09 12:57	1.0	11 2	7:CA=300000
137	09d02m00137	X	RINSE			04/03/09 13:08	1.0	2	
138	09d02m00138	X	RINSE			04/03/09 13:18	1.0	2	
139	09d02m00139	SAMPLE	210959-015	Soil	149447	04/03/09 13:29	50.0	2	
140	09d02m00140	TUN				04/03/09 13:41	1.0	1	
141	09d02m00141	X	RINSE			04/03/09 13:47	1.0	2	
142	09d02m00142	SAMPLE	210959-016	Soil	149447	04/03/09 13:58	50.0	2	
143	09d02m00143	SAMPLE	210959-017	Soil	149447	04/03/09 14:09	50.0	2	
144	09d02m00144	CCV				04/03/09 14:20	1.0	12 2	
145	09d02m00145	CCB				04/03/09 14:31	1.0	2	
146	09d02m00146	MSS	211029-002	Filtrate	149491	04/03/09 14:42	500.0	2	
147	09d02m00147	SER	QC489864	Filtrate	149491	04/03/09 14:54	2500	2	
148	09d02m00148	MS	QC489862	Filtrate	149491	04/03/09 15:05	500.0	2	
149	09d02m00149	MSD	QC489863	Filtrate	149491	04/03/09 15:16	500.0	2	
150	09d02m00150	PDS	QC489865	Filtrate	149491	04/03/09 15:27	500.0	13 14 2	
151	09d02m00151	SAMPLE	211029-001	Filtrate	149491	04/03/09 15:37	500.0	2	
152	09d02m00152	SAMPLE	211029-003	Filtrate	149491	04/03/09 15:48	50.0	2	
153	09d02m00153	SAMPLE	211029-004	Filtrate	149491	04/03/09 15:59	500.0	2	
154	09d02m00154	SAMPLE	211029-005	Filtrate	149491	04/03/09 16:10	1.0	2	
155	09d02m00155	SAMPLE	211029-006	Filtrate	149491	04/03/09 16:20	500.0	2	
156	09d02m00156	CCV				04/03/09 16:31	1.0	12 2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
157	09d02m00157	CCB				04/03/09 16:42	1.0	2	
158	09d02m00158	X				04/03/09 16:53	1.0	2	
159	09d02m00159	SAMPLE	211029-007	Filtrate	149491	04/03/09 17:04	500.0	2	
160	09d02m00160	CCV				04/03/09 17:14	1.0	12 2	
161	09d02m00161	X				04/03/09 17:25	1.0	2	
162	09d02m00162	CCB				04/03/09 17:36	1.0	2	
163	09d02m00163	MSS	211029-002	Filtrate	149491	04/03/09 17:46	50.0	2	1:NA=40000
164	09d02m00164	SER	QC489864	Filtrate	149491	04/03/09 17:57	250.0	2	
165	09d02m00165	PDS	QC489865	Filtrate	149491	04/03/09 18:08	50.0	13 14 2	
166	09d02m00166	SAMPLE	211029-001	Filtrate	149491	04/03/09 18:18	50.0	2	1:NA=46000
167	09d02m00167	SAMPLE	211029-004	Filtrate	149491	04/03/09 18:29	50.0	2	1:NA=48000
168	09d02m00168	SAMPLE	211029-006	Filtrate	149491	04/03/09 18:40	50.0	2	1:NA=41000
169	09d02m00169	SAMPLE	211029-007	Filtrate	149491	04/03/09 18:51	50.0	2	1:NA=71000
170	09d02m00170	SAMPLE	211047-001	Water	149491	04/03/09 19:02	50.0	2	2:NA=23000
171	09d02m00171	SAMPLE	211047-002	Water	149491	04/03/09 19:12	50.0	2	
172	09d02m00172	SAMPLE	211047-003	Water	149491	04/03/09 19:23	50.0	2	
173	09d02m00173	CCV				04/03/09 19:34	1.0	12 2	
174	09d02m00174	X				04/03/09 19:44	1.0	2	
175	09d02m00175	CCB				04/03/09 19:55	1.0	2	
176	09d02m00176	TUN				04/03/09 20:07	1.0	1	
177	09d02m00177	X	RINSE			04/03/09 20:13	1.0	2	
178	09d02m00178	MSS	211029-002	Filtrate	149491	04/03/09 20:24	10.0	2	1:NA=200000
179	09d02m00179	SER	QC489864	Filtrate	149491	04/03/09 20:35	50.0	2	
180	09d02m00180	MS	QC489862	Filtrate	149491	04/03/09 20:46	10.0	2	1:NA=200000
181	09d02m00181	MSD	QC489863	Filtrate	149491	04/03/09 20:56	10.0	2	1:NA=190000
182	09d02m00182	PDS	QC489865	Filtrate	149491	04/03/09 21:07	10.0	13 14 2	2:NA=200000
183	09d02m00183	SAMPLE	211029-001	Filtrate	149491	04/03/09 21:18	10.0	2	4:NA=230000
184	09d02m00184	SAMPLE	211029-003	Filtrate	149491	04/03/09 21:28	10.0	2	1:NA=32000
185	09d02m00185	SAMPLE	211029-004	Filtrate	149491	04/03/09 21:39	10.0	2	2:NA=240000
186	09d02m00186	SAMPLE	211029-006	Filtrate	149491	04/03/09 21:50	10.0	2	5:NA=400000
187	09d02m00187	SAMPLE	211029-007	Filtrate	149491	04/03/09 22:01	10.0	2	3:NA=360000
188	09d02m00188	CCV				04/03/09 22:11	1.0	12 2	
189	09d02m00189	X				04/03/09 22:22	1.0	2	
190	09d02m00190	CCB				04/03/09 22:33	1.0	2	
191	09d02m00191	SAMPLE	210959-016	Soil	149447	04/03/09 22:44	50.0	2	
192	09d02m00192	ICSA				04/03/09 22:54	1.0	10 2	7:CA=310000
193	09d02m00193	ICSAB				04/03/09 23:05	1.0	11 2	7:CA=300000
194	09d02m00194	X	RINSE			04/03/09 23:16	1.0	2	
195	09d02m00195	X	RINSE			04/03/09 23:27	1.0	2	
196	09d02m00196	SAMPLE	210959-017	Soil	149447	04/03/09 23:38	50.0	2	
197	09d02m00197	CCV				04/03/09 23:49	1.0	12 2	
198	09d02m00198	X				04/03/09 23:59	1.0	2	
199	09d02m00199	CCB				04/04/09 00:10	1.0	2	
200	09d02m00200	ICSA				04/04/09 00:21	1.0	10 2	7:CA=310000
201	09d02m00201	ICSAB				04/04/09 00:32	1.0	11 2	7:CA=300000
202	09d02m00202	X	RINSE			04/04/09 00:43	1.0	2	
203	09d02m00203	X	RINSE			04/04/09 00:54	1.0	2	
204	09d02m00204	BLANK	QC489968	Soil	149519	04/04/09 01:05	5.0	2	
205	09d02m00205	BS	QC489969	Soil	149519	04/04/09 01:16	10.0	2	
206	09d02m00206	BSD	QC489970	Soil	149519	04/04/09 01:26	10.0	2	
207	09d02m00207	MSS	211014-004	Soil	149519	04/04/09 01:37	50.0	2	1:MN=420
208	09d02m00208	SER	QC489973	Soil	149519	04/04/09 01:48	250.0	2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
209	09d02m00209	MS	QC489971	Soil	149519	04/04/09 01:59	50.0	2	
210	09d02m00210	MSD	QC489972	Soil	149519	04/04/09 02:09	50.0	2	
211	09d02m00211	TUN				04/04/09 02:21	1.0	1	
212	09d02m00212	X	RINSE			04/04/09 02:28	1.0	2	
213	09d02m00213	PDS	QC489974	Soil	149519	04/04/09 02:38	50.0	13 14 2	2:FE=21000
214	09d02m00214	CCV				04/04/09 02:49	1.0	12 2	
215	09d02m00215	X				04/04/09 03:00	1.0	2	
216	09d02m00216	CCB				04/04/09 03:10	1.0	2	
217	09d02m00217	SAMPLE	211014-001	Soil	149519	04/04/09 03:21	50.0	2	
218	09d02m00218	SAMPLE	211014-002	Soil	149519	04/04/09 03:32	50.0	2	
219	09d02m00219	SAMPLE	211014-003	Soil	149519	04/04/09 03:43	50.0	2	
220	09d02m00220	SAMPLE	211014-005	Soil	149519	04/04/09 03:53	50.0	2	1:MN=450
221	09d02m00221	SAMPLE	211014-006	Soil	149519	04/04/09 04:04	50.0	2	1:MN=460
222	09d02m00222	SAMPLE	211014-007	Soil	149519	04/04/09 04:15	50.0	2	1:MN=370
223	09d02m00223	SAMPLE	211014-008	Soil	149519	04/04/09 04:26	50.0	2	1:MN=440
224	09d02m00224	SAMPLE	211014-009	Soil	149519	04/04/09 04:37	50.0	2	1:MN=400
225	09d02m00225	SAMPLE	211014-017	Soil	149519	04/04/09 04:47	50.0	2	
226	09d02m00226	SAMPLE	211014-018	Soil	149519	04/04/09 04:58	50.0	2	
227	09d02m00227	CCV				04/04/09 05:09	1.0	12 2	
228	09d02m00228	X				04/04/09 05:19	1.0	2	
229	09d02m00229	CCB				04/04/09 05:30	1.0	2	
230	09d02m00230	SAMPLE	211014-019	Soil	149519	04/04/09 05:41	50.0	2	
231	09d02m00231	SAMPLE	211014-020	Soil	149519	04/04/09 05:52	50.0	2	
232	09d02m00232	SAMPLE	211014-021	Soil	149519	04/04/09 06:02	50.0	2	1:MN=210
233	09d02m00233	SAMPLE	211014-022	Soil	149519	04/04/09 06:13	50.0	2	
234	09d02m00234	SAMPLE	211014-023	Soil	149519	04/04/09 06:24	50.0	2	
235	09d02m00235	SAMPLE	211014-024	Soil	149519	04/04/09 06:35	50.0	2	1:MN=230
236	09d02m00236	SAMPLE	211014-025	Soil	149519	04/04/09 06:46	50.0	2	1:MN=230
237	09d02m00237	SAMPLE	211014-026	Soil	149519	04/04/09 06:56	50.0	2	1:MN=510
238	09d02m00238	SAMPLE	211014-027	Soil	149519	04/04/09 07:07	50.0	2	
239	09d02m00239	CCV				04/04/09 07:18	1.0	12 2	
240	09d02m00240	X				04/04/09 07:28	1.0	2	
241	09d02m00241	CCB				04/04/09 07:39	1.0	2	
242	09d02m00242	ICSA				04/04/09 07:50	1.0	10 2	7:CA=310000
243	09d02m00243	ICSAB				04/04/09 08:01	1.0	11 2	7:CA=290000
244	09d02m00244	X	RINSE			04/04/09 08:12	1.0	2	
245	09d02m00245	X	RINSE			04/04/09 08:23	1.0	2	
246	09d02m00246	TUN				04/04/09 08:34	1.0	1	
247	09d02m00247	X	RINSE			04/04/09 08:41	1.0	2	
248	09d02m00248	BLANK	QC489961	Soil	149518	04/04/09 08:52	5.0	2	
249	09d02m00249	BS	QC489962	Soil	149518	04/04/09 09:02	10.0	2	
250	09d02m00250	BSD	QC489963	Soil	149518	04/04/09 09:13	10.0	2	
251	09d02m00251	MSS	211010-012	Soil	149518	04/04/09 09:24	50.0	2	
252	09d02m00252	MS	QC489964	Soil	149518	04/04/09 09:34	50.0	2	1:MN=200
253	09d02m00253	MSD	QC489965	Soil	149518	04/04/09 09:45	50.0	2	1:MN=210
254	09d02m00254	MSS	211010-015	Soil	149518	04/04/09 09:56	50.0	2	
255	09d02m00255	MS	QC489966	Soil	149518	04/04/09 10:07	50.0	2	
256	09d02m00256	CCV				04/04/09 10:17	1.0	12 2	
257	09d02m00257	X				04/04/09 10:28	1.0	2	
258	09d02m00258	CCB				04/04/09 10:39	1.0	2	
259	09d02m00259	MSD	QC489967	Soil	149518	04/04/09 10:50	50.0	2	
260	09d02m00260	SAMPLE	211010-001	Soil	149518	04/04/09 11:00	50.0	2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
261	09d02m00261	SAMPLE	211010-002	Soil	149518	04/04/09 11:11	50.0	2	
262	09d02m00262	SAMPLE	211010-003	Soil	149518	04/04/09 11:22	50.0	2	
263	09d02m00263	SAMPLE	211010-004	Soil	149518	04/04/09 11:33	50.0	2	
264	09d02m00264	SAMPLE	211010-005	Soil	149518	04/04/09 11:43	50.0	2	
265	09d02m00265	SAMPLE	211010-006	Soil	149518	04/04/09 11:54	50.0	2	
266	09d02m00266	SAMPLE	211010-007	Soil	149518	04/04/09 12:05	50.0	2	
267	09d02m00267	SAMPLE	211010-008	Soil	149518	04/04/09 12:16	50.0	2	
268	09d02m00268	SAMPLE	211010-009	Soil	149518	04/04/09 12:26	50.0	2	
269	09d02m00269	CCV				04/04/09 12:37	1.0	12 2	
270	09d02m00270	X				04/04/09 12:48	1.0	2	
271	09d02m00271	CCB				04/04/09 12:59	1.0	2	
272	09d02m00272	SAMPLE	211010-010	Soil	149518	04/04/09 13:10	50.0	2	
273	09d02m00273	SAMPLE	211010-011	Soil	149518	04/04/09 13:20	50.0	2	
274	09d02m00274	SAMPLE	211010-013	Soil	149518	04/04/09 13:31	50.0	2	1:MN=480
275	09d02m00275	SAMPLE	211010-014	Soil	149518	04/04/09 13:42	50.0	2	1:MN=340
276	09d02m00276	SAMPLE	211010-016	Soil	149518	04/04/09 13:52	50.0	2	1:MN=290
277	09d02m00277	SAMPLE	211010-017	Soil	149518	04/04/09 14:03	50.0	2	
278	09d02m00278	SAMPLE	211010-018	Soil	149518	04/04/09 14:14	50.0	2	
279	09d02m00279	CCV				04/04/09 14:25	1.0	12 2	
280	09d02m00280	CCB				04/04/09 14:35	1.0	2	
281	09d02m00281	TUN				04/04/09 14:47	1.0	1	
282	09d02m00282	X	RINSE			04/04/09 14:54	1.0	2	
283	09d02m00283	X				04/04/09 15:04	1.0	2	
284	09d02m00284	ICSA				04/04/09 15:15	1.0	10 2	7:CA=310000
285	09d02m00285	ICSAB				04/04/09 15:26	1.0	11 2	7:CA=290000
286	09d02m00286	X	RINSE			04/04/09 15:37	1.0	2	
287	09d02m00287	X	RINSE			04/04/09 15:48	1.0	2	
288	09d02m00288	BLANK	QC489975	Soil	149520	04/04/09 15:59	5.0	2	
289	09d02m00289	BS	QC489976	Soil	149520	04/04/09 16:10	10.0	2	
290	09d02m00290	BSD	QC489977	Soil	149520	04/04/09 16:20	10.0	2	
291	09d02m00291	MSS	211014-016	Soil	149520	04/04/09 16:31	50.0	2	
292	09d02m00292	MS	QC489978	Soil	149520	04/04/09 16:42	50.0	2	
293	09d02m00293	MSD	QC489979	Soil	149520	04/04/09 16:53	50.0	2	
294	09d02m00294	SER	QC489982	Soil	149520	04/04/09 17:03	250.0	2	
295	09d02m00295	PDS	QC489983	Soil	149520	04/04/09 17:14	50.0	13 14 2	
296	09d02m00296	CCV				04/04/09 17:25	1.0	12 2	
297	09d02m00297	X				04/04/09 17:35	1.0	2	
298	09d02m00298	CCB				04/04/09 17:46	1.0	2	
299	09d02m00299	MSS	211010-024	Soil	149520	04/04/09 17:57	50.0	2	1:MN=530
300	09d02m00300	MS	QC489980	Soil	149520	04/04/09 18:08	50.0	2	
301	09d02m00301	MSD	QC489981	Soil	149520	04/04/09 18:19	50.0	2	
302	09d02m00302	SAMPLE	211010-019	Soil	149520	04/04/09 18:29	50.0	2	
303	09d02m00303	SAMPLE	211010-020	Soil	149520	04/04/09 18:40	50.0	2	1:MN=400
304	09d02m00304	SAMPLE	211010-021	Soil	149520	04/04/09 18:51	50.0	2	
305	09d02m00305	SAMPLE	211010-022	Soil	149520	04/04/09 19:02	50.0	2	
306	09d02m00306	SAMPLE	211010-023	Soil	149520	04/04/09 19:13	50.0	2	
307	09d02m00307	SAMPLE	211014-028	Soil	149520	04/04/09 19:23	50.0	2	
308	09d02m00308	SAMPLE	211014-029	Soil	149520	04/04/09 19:34	50.0	2	
309	09d02m00309	CCV				04/04/09 19:45	1.0	12 2	
310	09d02m00310	X				04/04/09 19:55	1.0	2	
311	09d02m00311	CCB				04/04/09 20:06	1.0	2	
312	09d02m00312	SAMPLE	211014-030	Soil	149520	04/04/09 20:17	50.0	2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69133257

Instrument : MET06 Begun : 04/02/09 12:57
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
313	09d02m00313	SAMPLE	211014-031	Soil	149520	04/04/09 20:28	50.0	2	
314	09d02m00314	BLANK	QC489776	Soil	149471	04/04/09 20:39	5.0	2	
315	09d02m00315	BS	QC489777	Soil	149471	04/04/09 20:49	10.0	2	
316	09d02m00316	X				04/04/09 21:01	1.0	1	
317	09d02m00317	TUN				04/04/09 21:08	1.0	1	
318	09d02m00318	X	RINSE			04/04/09 21:15	1.0	2	
319	09d02m00319	BSD	QC489778	Soil	149471	04/04/09 21:26	10.0	2	
320	09d02m00320	MSS	210968-024	Soil	149471	04/04/09 21:36	50.0	2	
321	09d02m00321	MS	QC489779	Soil	149471	04/04/09 21:47	50.0	2	
322	09d02m00322	MSD	QC489780	Soil	149471	04/04/09 21:58	50.0	2	
323	09d02m00323	SAMPLE	210968-033	Soil	149471	04/04/09 22:09	50.0	2	1:BA=220
324	09d02m00324	SAMPLE	210968-034	Soil	149471	04/04/09 22:20	50.0	2	
325	09d02m00325	CCV				04/04/09 22:30	1.0	12 2	
326	09d02m00326	X				04/04/09 22:41	1.0	2	
327	09d02m00327	CCB				04/04/09 22:52	1.0	2	
328	09d02m00328	SAMPLE	210968-035	Soil	149471	04/04/09 23:03	50.0	2	
329	09d02m00329	SAMPLE	210968-036	Soil	149471	04/04/09 23:13	50.0	2	
330	09d02m00330	CCV				04/04/09 23:24	1.0	12 2	
331	09d02m00331	X				04/04/09 23:35	1.0	2	
332	09d02m00332	CCB				04/04/09 23:46	1.0	2	
333	09d02m00333	ICSA				04/04/09 23:56	1.0	10 2	7:CA=300000
334	09d02m00334	ICSAB				04/05/09 00:07	1.0	11 2	7:CA=290000
335	09d02m00335	X	RINSE			04/05/09 00:18	1.0	2	
336	09d02m00336	X	RINSE			04/05/09 00:29	1.0	2	
337	09d02m00337	X	RINSE			04/05/09 00:40	1.0	2	
338	09d02m00338	X	RINSE			04/05/09 00:50	1.0	2	
339	09d02m00339	X	RINSE			04/05/09 01:01	1.0	2	

JYF 04/03/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 83.

AH 04/06/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 84 through 334.

Standards used: 1=S11767 2=S11768 3=S11771 4=S11772 5=S11773 6=S11774 7=S11769 8=S11770 9=S11775 10=S11777 11=S11778 12=S11776 13=S10997 14=S10998

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 69133257

Date : 04/02/09 Reference : 09d02m00003
Sequence : MET06 09d02m00 Analyzed : 04/02/09 13:14

#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
		IB+ICALBLK STD	5323163	3772053	38207	1654418	374500	28815	5854523	6228979	5460201	8660791
		LOWER LIMIT	1596949	1131616	11462	496325	112350	8645	1756357	1868694	1638060	2598237
		UPPER LIMIT	6387796	4526464	45848	1985302	449400	34578	7025428	7474775	6552241	10392949
012	ICB		5291968	3749575	40245	1767932	394842	30607	5633326	5762984	5279277	8238145
013	ICSA		4201779	2898581	32859	1376675	266704	22466	3768030	3411949	3785176	5836997
014	ICSAB		4123090	2816197	30083	1285515	252100	20774	3741635	3467562	3738196	5909139
018	BLANK	QC488669	4805107	3267974	31921	1545724	343376	25486	5373198	5872227	4955698	8422873
019	BS	QC488670	4933141	3421814	33457	1622381	349893	26672	5502425	5942526	5096550	8530926
020	BSD	QC488671	4929587	3365142	32720	1595126	344337	26362	5405036	5795353	5003345	8310811
021	MSS	210885-001	4691443	3479483	34363	1647971	322741	24636	5041939	5359272	7026161 *	7937968
022	SER	QC488674	4936376	3455216	33424	1641191	345230	26076	5359870	5856204	5510289	8275579
023	MS	QC488672	5081578	3784672	34008	1651573	323097	24492	5549931	5814883	7267639 *	8701213
024	MSD	QC488673	4873164	3541665	35137	1679906	330133	25434	5128401	5415714	6954727 *	8001421
025	CCV		5136980	3544872	34563	1642146	345437	26813	5281873	5435115	5080365	8267255
026	CCB		5088712	3478395	34207	1645205	358388	27203	5469839	5908226	5116911	8344698
028	PDS	QC488675	4831777	3653098	37159	1744018	333566	26380	5010816	5015723	7080100 *	7799051
029	SAMPLE	210885-002	5302512	3953782	39634	1854982	367753	28812	5591966	5778812	5706209	8527656
030	SAMPLE	210885-003	5191785	3557650	36218	1649060	343194	27260	5346844	5400201	5484067	8170102
031	SAMPLE	210885-006	5182489	3540322	36036	1658454	350131	26983	5383788	5504646	5776588	8181028
032	SAMPLE	210885-007	5445333	4054043	40212	1845821	354273	28389	5530880	5731296	5736008	8448804
033	SAMPLE	210885-010	5187798	3502289	36210	1649224	339656	26628	5238488	5259382	5175608	8085666
034	SAMPLE	210885-011	5159180	3506394	36520	1650504	341633	26662	5228096	5228383	5139206	7976021
035	CCV		5129334	3566612	35238	1632556	344957	26851	5248986	5281746	5067871	8074629
039	CCB		5500185	3783581	38156	1756702	381255	29828	5752791	5925087	5402795	8518952
040	ICSA		4171974	2862326	32360	1334399	255846	22356	3795293	3397662	3801935	5856611
041	ICSAB		4136937	2889849	31288	1337281	256022	21677	3865378	3444916	3849184	5961418
044	BLANK	QC488683	5322129	3728373	36330	1721710	376891	29277	5926788	6146840	5538574	8941602
045	BS	QC488684	5192179	3720642	36509	1722193	371011	29189	5833261	6031639	5543482	8789087
046	BSD	QC488685	5285043	3721665	37116	1720602	374364	29589	5783667	5997861	5504474	8810296
047	MSS	210886-001	5295909	3716715	37200	1688923	351343	27871	5566764	5570174	5406638	8445406
048	SER	QC488688	5377439	3699065	36999	1723987	365452	28999	5799423	5991153	5462201	8654522
049	MS	QC488686	5281651	3710774	36853	1683013	348435	27780	5554984	5578267	5334183	8402315
050	MSD	QC488687	5273126	3733659	37157	1684566	353133	28013	5605821	5615754	5432511	8480387
051	PDS	QC488689	5258021	3761532	37255	1665460	338046	27304	5427222	5305940	5360371	8178108
052	CCV		5508160	3926604	38732	1769584	369516	29661	5745188	5662548	5613723	8695130
054	CCB		5724910	4024310	39180	1802587	388429	30901	6093528	6176035	5789455	8955352
055	SAMPLE	210886-002	5420780	3934306	38949	1759526	355983	28573	5683908	5544836	5580731	8431020
056	SAMPLE	210886-003	5555949	4062406	40106	1808242	368615	29812	5914999	5958486	5830486	8775085
057	SAMPLE	210886-004	5491026	3995267	39540	1786776	364974	29614	5861661	5863411	5650620	8617992
058	SAMPLE	210886-005	5395666	4006614	39598	1788142	364619	29099	5824216	5921717	5702902	8675590
059	SAMPLE	210886-006	5353048	3879826	39531	1751699	359110	28957	5662908	5514815	5572998	8406298
060	SAMPLE	210886-007	5397149	3863485	38701	1735501	358085	28514	5657987	5516094	5507699	8366913
061	SAMPLE	210886-008	5398162	3787475	37654	1690960	340206	27674	5588041	5510448	5413086	8312194
062	SAMPLE	210886-009	5415803	3841120	38176	1693991	346967	27594	5713918	5560734	5526729	8518115
063	SAMPLE	210886-010	5467976	4000164	38991	1745946	347451	27761	5805356	5621492	5750737	8559074
064	SAMPLE	210886-011	5517681	4097220	40330	1766301	356138	28953	5911666	5719580	5820252	8658564
065	CCV		5485844	3982527	38581	1758222	365476	28997	5826668	5638132	5675496	8645602
067	CCB		5836106	4181951	40886	1809755	389839	31372	6243700	6198920	5973942	8985657
068	SAMPLE	210886-012	5588066	4418721	43184	1930529	360365	29315	5896196	5759530	6489429	8634592
069	SAMPLE	210886-013	5537899	4038668	39593	1763204	356933	29043	5881857	5615166	6436693	8577341
070	SAMPLE	210886-014	5423298	4076703	40445	1805963	358678	28985	5773002	5572251	5743292	8434052

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#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
073	SAMPLE	210886-015	5600136	4188007	40465	1780837	356063	28552	5987216	5728243	5891198	8597347
074	SAMPLE	210886-016	5574215	4122890	40719	1769516	364341	29720	5920323	5651100	5809122	8521335
075	SAMPLE	210886-017	5482203	4038731	39635	1741791	354864	28774	5827179	5499643	5764171	8503671
076	SAMPLE	210886-018	5599974	4105943	39896	1728846	353562	28741	5904593	5587394	5889050	8538712
077	SAMPLE	210886-019	5520971	4105556	39703	1736357	352152	28651	5877208	5531680	6014762	8475456
078	SAMPLE	210886-020	5433020	3931546	40123	1691970	347650	28663	5693389	5389390	5559742	8314009
079	CCV		5428179	3988579	37846	1660521	347329	28317	5800663	5565063	5683748	8569786
081	CCB		5683106	4193878	40389	1780547	383161	31204	6191752	6028149	6017377	8757557
082	ICSA		4329065	3135626	32259	1277621	238733	21916	4074693	3470275	4131968	6057143
083	ICSAB		4272026	3090739	31123	1291795	243134	21368	4032375	3441386	4120586	6010171
086	BLANK	QC489576	5509016	4022445	36373	1705266	365303	28834	6163182	6013187	5873752	8963379
087	BS	QC489577	5473698	4091662	37393	1720435	359106	28927	6061906	5837804	5848907	8860207
088	BSD	QC489578	5558047	4101360	37347	1708147	355842	28692	6037211	5773836	5898138	8825693
089	MSS	210855-001	5480742	4140398	38109	1739935	366497	29382	6174141	6024291	6088589	8885170
090	SER	QC489581	5540330	4122478	37213	1708504	365193	29266	6264145	6156340	6004573	8916887
091	MS	QC489579	5662005	4281376	38875	1753225	367713	30105	6381303	6196082	6302524	9188836
092	MSD	QC489580	5624981	4228884	38745	1756694	370159	30074	6270324	6069796	6128486	9013202
093	PDS	QC489582	5642857	4343271	38912	1742328	361894	29101	6137413	5687013	6224078	8917500
094	CCV		5542286	4234757	38620	1747440	359360	29630	5987521	5572888	6011423	8825116
096	CCB		5700105	4331846	38497	1759897	378483	30482	6419165	6250716	6234215	9072901
097	SAMPLE	210883-001	5973743	4627576 *	40693	1824025	384608	31524	6572649	6216871	6605466 *	9349087
098	SAMPLE	210943-001	5849949	4547059 *	39769	1788304	373797	30779	6430736	6141265	6477037	9265611
099	SAMPLE	210945-010	6064413	4532840 *	39897	1767807	373101	30934	6541395	6279408	6513314	9315989
100	SAMPLE	210945-011	5965842	4487480	39612	1771396	372932	30591	6463117	6127736	6411679	9079456
101	SAMPLE	210945-012	5894783	4447764	39134	1773121	375678	30283	6329941	6034101	6317171	8931253
102	SAMPLE	210945-013	5775726	4395016	38882	1722229	357892	29844	6277148	6007264	6264731	8938920
103	CCV		5760895	4332295	38613	1725930	357901	28972	6060638	5615698	6093944	8838202
105	CCB		5887651	4430029	38913	1765890	380839	30597	6573443	6276014	6356251	9216137
108	BLANK	QC489669	5721940	4244515	36519	1683176	363318	28448	6364618	6148575	6143066	9139717
109	BS	QC489670	5618531	4198768	37463	1727343	365875	29201	6265500	6061871	6036717	8893197
110	BSD	QC489671	5582304	4133518	36582	1690189	356287	28816	6237836	6114319	6012928	8962226
111	MSS	210959-003	5693231	4413233	38682	1735930	359130	29109	6275084	6040899	6337616	8929055
112	MS	QC489672	5740342	4373056	39293	1745212	358953	29341	6337121	6131951	6357178	9118064
113	MSD	QC489673	5553502	4289596	37509	1698134	355178	28572	6167584	6069648	6216841	9046005
114	MSS	210959-004	5659683	4235832	37501	1698243	361280	29242	6262535	6135985	6178958	9143197
115	MS	QC489676	5671812	4238527	37929	1705222	365504	29567	6294841	6138011	6170607	9073974
116	MSD	QC489677	5595552	4186934	37050	1667981	356538	28718	6227142	6053338	6102604	8977514
117	SAMPLE	210959-001	5806986	4286924	37502	1650895	357514	29189	6394366	6300278	6265778	9226884
118	CCV		5570711	4195882	36969	1622661	340496	28255	5979679	5561314	5911504	8641403
119	CCB		5854086	4376544	38052	1696939	365476	29568	6531653	6281823	6257445	9245426
121	SAMPLE	210959-002	5870427	4405940	37949	1657044	348488	29042	6402288	6191966	6333521	9189673
122	SAMPLE	210959-005	5993036	4534286 *	39677	1739815	366281	30660	6387918	6104994	6431615	8996867
123	SAMPLE	210959-006	5851142	4362469	39247	1709992	365299	30336	6301356	6031893	6232721	9019717
124	SAMPLE	210959-007	5870683	4371696	38551	1712200	366066	29633	6420476	6223237	6318183	9257232
125	SAMPLE	210959-008	5951413	4455016	39330	1751667	370524	30120	6282932	6154087	6333183	9127288
126	SAMPLE	210959-009	5752818	4438107	39576	1739075	370406	30036	6362640	6046656	6326712	9072127
127	SAMPLE	210959-010	5913076	4455986	39626	1756259	373529	30237	6438778	6287707	6383138	9272125
128	SAMPLE	210959-011	5777111	4403175	39989	1759901	370756	30472	6372987	6167005	6357973	9117992
129	SAMPLE	210959-012	5892859	4390796	39400	1744220	374831	30499	6424361	6268983	6385316	9211477
130	SAMPLE	210959-013	5761939	4352581	39029	1754083	373370	30107	6319832	6173960	6314269	9034164
131	CCV		5486819	4165223	37662	1633753	346677	28549	6067664	5689673	5962341	8872203
132	CCB		5607819	4204677	38737	1740111	376252	30057	6351802	6159338	6080366	8981093

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#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
135	ICSA		4335646	3226245	31609	1247313	238324	21726	4174378	3536766	4270730	6219617
136	ICSAB		4283961	3151274	29970	1204859	230318	20680	4130473	3498192	4253495	6136286
139	SAMPLE	210959-015	5801805	4422687	36852	1650636	351103	28857	6423483	6130334	6375258	9148392
142	SAMPLE	210959-016	5922328	4598768 *	40033	1860647	387083	30773	6509946	6114766	6563194 *	9261080
143	SAMPLE	210959-017	5980870	4623855 *	40434	1857238	388347	31172	6587759	6221636	6561823 *	9381658
144	CCV		5665270	4309404	37891	1721953	360255	28830	6156622	5629415	6108543	8987118
145	CCB		5776211	4404724	39559	1794457	387448	31057	6602013	6288236	6324425	9268233
146	MSS	211029-002	5827496	4485914	39738	1811921	389230	31488	6675507	6287755	6397856	9318921
147	SER	QC489864	5740061	4342851	38838	1812709	388226	31072	6568368	6333925	6292818	9298355
148	MS	QC489862	5798564	4470565	34285	1685543	367651	27960	6620628	6299944	6387213	9345861
149	MSD	QC489863	5846216	4511460	38341	1706286	370420	30396	6666950	6285752	6444464	9386865
150	PDS	QC489865	5605054	4324571	36865	1599131	341078	28385	6070534	5560690	6050458	8787552
151	SAMPLE	211029-001	5748101	4325894	37003	1627579	357152	29713	6456009	6225377	6224847	9115305
152	SAMPLE	211029-003	5647305	4299087	36633	1599551	353311	29367	6362378	6036794	6193851	8990847
153	SAMPLE	211029-004	5745963	4432179	37846	1675269	370770	30632	6534921	6234471	6316965	9192132
154	SAMPLE	211029-005	5694325	4241675	36867	1630370	356032	29148	6360480	6124918	6185783	9122113
155	SAMPLE	211029-006	5787331	4386229	39607	1779411	387249	31433	6483575	6123859	6321129	9159049
156	CCV		5618440	4220102	38313	1752140	367405	29362	5980573	5546223	5992970	8763660
157	CCB		5672023	4212156	38020	1755507	379428	30221	6284826	6068778	6066182	8967504
159	SAMPLE	211029-007	5583232	4123687	37395	1710882	369689	29573	6227540	6003104	5911655	8810165
160	CCV		5354751	4033083	36831	1667020	351565	28376	5783268	5414996	5734149	8430117
162	CCB		5373949	3969233	36560	1640079	361598	29270	6102443	5998425	5759406	8741564
163	MSS	211029-002	5497386	4090362	37663	1647906	351183	29122	5971899	5557015	5843075	8601785
164	SER	QC489864	5542792	4177910	37565	1669387	365456	29776	6246162	5961455	6055889	8855532
165	PDS	QC489865	5361694	4106136	37089	1580912	333435	27961	5730441	5245057	5732820	8337978
166	SAMPLE	211029-001	5515800	4225441	37568	1591555	343342	29223	6059796	5575467	6115591	8752084
167	SAMPLE	211029-004	5405778	4099316	35822	1547045	332619	27941	5927616	5470145	5935797	8621277
168	SAMPLE	211029-006	5515315	4188244	36688	1562589	335297	28692	5935132	5462124	6191681	8547367
169	SAMPLE	211029-007	5676637	4344640	37755	1561979	330327	28541	5916829	5284239	5953389	8517392
170	SAMPLE	211047-001	5592519	4260549	37152	1582789	342675	28826	6046638	5536158	6007826	8793392
171	SAMPLE	211047-002	5544180	4173989	36304	1611400	348493	28271	6092907	5669348	5865309	8822990
172	SAMPLE	211047-003	5800316	4205067	38265	1703546	370237	29669	6185501	5819568	6018239	8966749
173	CCV		5517339	4155428	37840	1665785	354162	28944	5915659	5482561	5853125	8636587
175	CCB		5479403	4062728	37455	1649556	365027	29760	6177132	6011676	5939085	8793420
178	MSS	211029-002	5067618	3959203	36838	1583373	314473	26469	5409981	4705065	5455643	7759080
179	SER	QC489864	5357948	4077679	38525	1672919	357229	28992	5941083	5554262	5818303	8479897
180	MS	QC489862	4941646	3918154	37049	1504248	308121	26429	5406404	4748189	5451189	7883761
181	MSD	QC489863	4953401	3957320	37149	1515846	309399	26469	5484225	4806955	5546100	7992852
182	PDS	QC489865	4899046	3969724	36650	1498970	303719	25831	5387416	4672433	5480980	7824721
183	SAMPLE	211029-001	4867071	3783900	37013	1503956	301142	26400	5059935	4413214	5858263	7366124
184	SAMPLE	211029-003	5587627	4297609	37057	1597967	348371	29138	6169762	5657426	6090531	8768572
185	SAMPLE	211029-004	5243604	4260599	37539	1505572	292086	26256	5485387	4766006	6372143	8056598
186	SAMPLE	211029-006	4925864	4212352	39336	1544636	281546	25694	4997784	4196309	8204895 *	7379256
187	SAMPLE	211029-007	5107156	4186533	39902	1586761	304696	26567	5275786	4292568	5474685	7474617
188	CCV		5571734	4295658	38772	1691915	356840	29358	6046890	5515724	6062245	8731906
190	CCB		5692946	4286048	38211	1668531	366783	30374	6432637	6121491	6190003	9063114
191	SAMPLE	210959-016	5685051	4427135	40402	1764389	374423	31463	6476411	6201355	6509332	9317384
192	ICSA		4321311	3227569	32668	1276738	244578	22751	4276400	3570036	4371082	6334296
193	ICSAB		4200710	3125147	30370	1221708	235036	21006	4282719	3606870	4338576	6326448
196	SAMPLE	210959-017	5731784	4439473	36154	1607641	343384	28690	6670032	6372946	6602205 *	9558161
197	CCV		5557017	4400758	36128	1546390	332325	28524	6358291	5889233	6373686	9288212
199	CCB		5608371	4318004	36192	1562840	344620	29238	6721911	6454927	6450161	9516868

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#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
200	ICSA		4344105	3286192	30595	1133118	219024	21647	4313389	3562715	4428878	6371888
201	ICSAB		4331622	3304460	30173	1124673	218357	21151	4399317	3610315	4514600	6427493
204	BLANK	QC489968	5310040	4090568	36106	1576170	345589	28642	6471931	6249179	6213729	9351749
205	BS	QC489969	5214232	4046930	36483	1567470	338100	28361	6236582	5863286	6052208	9057712
206	BSD	QC489970	5168911	4028428	35016	1571551	336360	27788	6150773	5823316	5999339	8867034
207	MSS	211014-004	5487719	4430768	38100	1676107	353310	29725	6539676	6163230	6563785 *	9323787
208	SER	QC489973	5499299	4342438	37524	1630202	360633	30012	6688988	6393715	6463660	9453385
209	MS	QC489971	5324141	4266339	37501	1621586	346335	29049	6418182	6083790	6379661	9250770
210	MSD	QC489972	5332595	4263254	36800	1593195	338684	28541	6369236	6092146	6394266	9229371
213	PDS	QC489974	5169052	4310576	35703	1584163	329271	27285	6199588	5733148	6300344	8997052
214	CCV		5025726	3999164	34904	1523531	326356	27235	6053222	5657425	5939285	8903435
216	CCB		5220296	4041242	33245	1486266	327436	27144	6426524	6317753	6145992	9268734
217	SAMPLE	211014-001	5315244	4222086	35861	1556507	337847	28273	6440791	6193733	6331683	9191936
218	SAMPLE	211014-002	5360202	4249911	35985	1534058	333291	28508	6419456	6108334	6345593	9179201
219	SAMPLE	211014-003	5362140	4291584	34903	1515600	329047	27725	6453057	6114816	6386271	9234693
220	SAMPLE	211014-005	5518761	4406189	36346	1526248	327320	28377	6452848	6247445	6484372	9379705
221	SAMPLE	211014-006	5456936	4380003	36217	1510912	324631	28160	6493318	6165213	6473549	9339035
222	SAMPLE	211014-007	5348848	4302291	35821	1510358	324283	28047	6377002	6113542	6356468	9120423
223	SAMPLE	211014-008	5547740	4447748	36949	1559573	333006	28705	6512909	6152023	6526361	9297105
224	SAMPLE	211014-009	5454520	4374477	37505	1589977	334776	28914	6471025	6049290	6444088	9135602
225	SAMPLE	211014-017	5393756	4324807	36659	1541994	332579	28693	6475971	6182811	6458643	9253332
226	SAMPLE	211014-018	5424023	4297393	35634	1504850	327923	27939	6466708	6166634	6405507	9291655
227	CCV		5383998	4351003	35280	1414738	311492	27755	6349654	5851508	6340987	9204291
229	CCB		5267649	4193578	34595	1503490	336768	28122	6619570	6363516	6335717	9387832
230	SAMPLE	211014-019	5414053	4318341	35945	1515214	327309	27958	6519771	6226287	6440218	9276312
231	SAMPLE	211014-020	5583175	4508594	38013	1582917	339686	29405	6672272	6351130	6540404	9413691
232	SAMPLE	211014-021	5565059	4500569	38723	1631250	352821	30283	6717726	6375710	6656481 *	9470065
233	SAMPLE	211014-022	5457228	4335755	37286	1581107	342410	29070	6451760	6066871	6620563 *	9195255
234	SAMPLE	211014-023	5451211	4413919	36982	1603015	344543	29253	6524015	6193308	6691113 *	9345071
235	SAMPLE	211014-024	5322011	4280716	36861	1599590	344155	28972	6412263	6081581	6570432 *	9099156
236	SAMPLE	211014-025	5282863	4183937	36658	1538140	335485	28415	6404128	6156141	6395576	9151227
237	SAMPLE	211014-026	5108478	4085893	35543	1506753	335415	28111	6286967	6115486	6197463	9075528
238	SAMPLE	211014-027	5233697	4175921	35828	1537047	332068	28678	6422106	6185657	6409052	9162628
239	CCV		5006125	4038775	34478	1440100	315354	27031	6153687	5713450	6060048	9007042
241	CCB		5136590	4076060	34731	1497076	336061	27997	6519948	6301096	6228304	9259527
242	ICSA		4115068	3165609	28167	1069772	210851	20040	4356273	3637179	4422741	6424428
243	ICSAB		4044809	3137738	26993	1049011	206415	19099	4307465	3562932	4381866	6314351
248	BLANK	QC489961	5163496	4131709	32876	1471067	320284	26356	6479438	6097108	6229086	9260832
249	BS	QC489962	5111839	4022628	32029	1444284	308005	25387	6230534	5873415	6047256	9057031
250	BSD	QC489963	5069689	3891258	31458	1410672	302003	25163	6099469	5814021	5873162	8912730
251	MSS	211010-012	5158946	4260663	34862	1480619	311077	26618	6299177	6027868	6377998	9035985
252	MS	QC489964	5060696	4156075	34632	1512770	312411	26298	6115840	5916716	6206370	8808270
253	MSD	QC489965	5130209	4199770	34514	1487918	312759	26457	6271794	5949324	6331146	8973903
254	MSS	211010-015	5043322	4021705	32746	1418798	312293	26041	6266150	6077989	6116196	9021811
255	MS	QC489966	4979033	4001123	33046	1433578	314501	26316	6215583	6001490	6100674	9004107
256	CCV		4960144	3986293	32075	1374578	301471	25225	6062454	5640893	5991400	8818057
258	CCB		5019062	3970379	31719	1402044	316115	26095	6328122	6127258	6053216	9063351
259	MSD	QC489967	5017071	3998453	31764	1375591	302178	25479	6153373	5925821	6038364	8917152
260	SAMPLE	211010-001	5099943	4042421	32406	1357983	299189	25590	6251819	5985256	6090662	8978815
261	SAMPLE	211010-002	5086515	4016038	32128	1376225	302843	25611	6181027	6038419	6062051	8948402
262	SAMPLE	211010-003	5209956	4095187	33113	1409958	309254	26433	6323857	6144386	6203900	9067923
263	SAMPLE	211010-004	5145743	4060539	32181	1385085	306497	25881	6262067	6085815	6156620	8983537

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 69133257

Date : 04/02/09 Reference : 09d02m00003
Sequence : MET06 09d02m00 Analyzed : 04/02/09 13:14

#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
264	SAMPLE	211010-005	5079098	4007158	32187	1395544	304240	25833	6181121	5977143	6075244	8956514
265	SAMPLE	211010-006	5199951	4069523	32483	1411260	312130	26172	6299934	6057713	6136065	9027831
266	SAMPLE	211010-007	4984214	4024760	32293	1404926	305182	25349	6108907	5894721	6081990	8820139
267	SAMPLE	211010-008	5084955	4014110	32386	1387008	309642	26045	6279843	6088817	6077840	9069237
268	SAMPLE	211010-009	5154009	4120057	33504	1442649	313154	26283	6318188	6107555	6192320	9082876
269	CCV		5073147	4046950	31836	1322141	293914	25101	6111501	5672956	6040800	8885562
271	CCB		4966013	3895060	32044	1395148	313563	26029	6256163	6149027	5997105	8964672
272	SAMPLE	211010-010	5084747	4037454	32946	1401070	307066	26462	6218731	6061240	6277566	9022697
273	SAMPLE	211010-011	5092760	4058701	33374	1431961	314724	26634	6252121	6055380	6185051	9000980
274	SAMPLE	211010-013	5221114	4230593	35297	1479601	317332	27194	6300951	6011738	6274192	9007944
275	SAMPLE	211010-014	5318339	4233068	34958	1501662	320860	27272	6337186	6115477	6317396	9115010
276	SAMPLE	211010-016	5205668	4146217	34719	1481016	318797	26922	6270727	6026803	6210962	8941327
277	SAMPLE	211010-017	5110152	4058830	34058	1424697	316215	26809	6254393	6024593	6159716	8972048
278	SAMPLE	211010-018	5095354	3982286	33977	1452715	319118	27196	6169639	5961595	6071667	8910924
279	CCV		4924985	3863560	32755	1382259	303596	25792	5909433	5589064	5814106	8749366
280	CCB		5126093	4017104	33492	1454862	328109	27098	6342943	6159067	6070883	9025666
284	ICSA		3959083	3016214	26886	1028397	203822	19196	4241302	3576055	4237790	6289081
285	ICSAB		4005602	3064753	25477	997382	198205	18143	4272819	3580013	4310776	6311404
288	BLANK	QC489975	5042321	3852959	29991	1287952	289028	24548	6294183	6121735	5975869	9139974
289	BS	QC489976	4841346	3743021	28888	1271151	277439	23313	5919827	5725835	5719012	8680402
290	BSD	QC489977	4898102	3765242	29539	1286541	283740	23508	5988198	5734798	5756511	8707252
291	MSS	211014-016	4919266	3796854	30069	1306268	287851	24342	6057913	5930289	5873443	8893740
292	MS	QC489978	4831569	3736529	29616	1280215	283861	24100	5879190	5773668	5763885	8664020
293	MSD	QC489979	4954136	3867932	31863	1371456	305361	25401	6041681	5874223	5918822	8735495
294	SER	QC489982	5126661	3980700	33300	1441961	318620	26917	6330189	6174286	6071512	9135863
295	PDS	QC489983	5050512	3989687	33854	1414472	305996	26536	5984368	5532082	6002346	8720701
296	CCV		5002984	3997396	33402	1440405	313215	26315	5967955	5550261	5974268	8776599
298	CCB		4929046	3873669	32029	1399348	317566	26321	6213973	6062271	5905903	8930043
299	MSS	211010-024	5055781	3923819	32344	1388680	304798	25926	6150624	5978983	6103595	8941812
300	MS	QC489980	4877122	3806347	31774	1328736	293279	25515	5860944	5784217	5917717	8720935
301	MSD	QC489981	4828702	3750428	31920	1340083	293640	25135	5858056	5755843	5872940	8651338
302	SAMPLE	211010-019	4897613	3817489	31792	1307791	294607	25440	6066212	5978372	5893714	8937642
303	SAMPLE	211010-020	4748118	3796714	32413	1378467	296488	25316	5875323	5769940	5777607	8571466
304	SAMPLE	211010-021	4843313	3848458	32263	1349195	298024	25405	5991331	5893161	5920428	8812597
305	SAMPLE	211010-022	4838209	3846143	32193	1381919	306745	25867	6104719	6003049	5948231	8845936
306	SAMPLE	211010-023	4948161	3875799	32766	1370318	302698	26245	6190023	6084642	6039675	9017952
307	SAMPLE	211014-028	4784811	3732915	32027	1348710	297253	25939	5958720	5891965	6055675	8688817
308	SAMPLE	211014-029	4624254	3627758	31175	1329710	296215	25042	5793253	5821326	5674395	8542709
309	CCV		4943430	3919825	31079	1259145	281778	24718	5975117	5571557	5862704	8748502
311	CCB		4845489	3768108	32433	1367029	311381	26398	6181409	6074405	5855824	8883997
312	SAMPLE	211014-030	4903925	3800681	31935	1335840	300113	25579	6022696	5959021	5895180	8784868
313	SAMPLE	211014-031	4864186	3795068	31393	1294053	291885	25253	6041018	5908996	5919162	8816682
314	BLANK	QC489776	5108094	3874820	31996	1328737	304884	26146	6210481	6037463	5983266	9072046
315	BS	QC489777	5093896	3994548	33134	1416913	310699	26680	6196171	5856203	6012391	8969347
319	BSD	QC489778	5162960	4015781	33343	1405579	305639	25817	6295970	5907230	6090967	9150959
320	MSS	210968-024	4981392	3926402	33564	1421276	309911	26395	6084828	5963725	6007439	8879574
321	MS	QC489779	4907261	3844500	32963	1341200	296543	26042	5979745	5860144	5873722	8761076
322	MSD	QC489780	4952757	3828990	32880	1348577	302034	26302	6081714	5967417	5962793	8831719
323	SAMPLE	210968-033	4800304	3823895	32330	1340847	298838	26012	6097087	5923757	5925633	8780547
324	SAMPLE	210968-034	4923006	3878935	33059	1362501	304504	26435	6139982	6104896	5938147	8950086
325	CCV		4817628	3908515	32150	1327771	297402	25496	6064951	5606685	5884099	8796577
327	CCB		4737220	3692411	31584	1288547	298675	26293	6138049	6124320	5794490	8944154

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 69133257

Date : 04/02/09 Reference : 09d02m00003
Sequence : MET06 09d02m00 Analyzed : 04/02/09 13:14

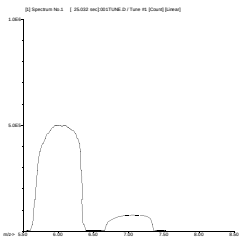
#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
328	SAMPLE	210968-035	4764962	3779174	32155	1318825	295290	25752	6035371	5963236	5843984	8806820
329	SAMPLE	210968-036	4706184	3709215	32023	1292735	287974	25644	5902640	5907002	5729160	8661282
330	CCV		4789817	3868242	32185	1253426	284733	25519	5969014	5580926	5814701	8720067
332	CCB		4790084	3805580	32844	1347054	308495	26718	6255751	6112761	5975454	8960382
333	ICSA		4174236	3227356	28140	1063162	216112	20687	4529713	3782802	4584081	6712367
334	ICSAB		4095848	3183108	26911	1002224	202314	19238	4507102	3744863	4550875	6645616

MET06 QC Tune Report

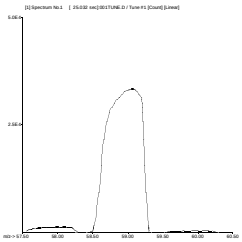
Data File: C:\ICPCHEM\1\DATA\09D02m00.B\001TUNE.D
Date Acquired: Apr 2 2009 12:57 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\DATA\09D02m00.B\TN6020.M

RSD (%)

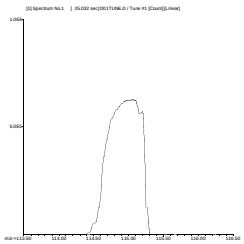
Element	Actual	Required	Flag
7 Li	1.12	5.00	
59 Co	0.54	5.00	
115 In	0.92	5.00	
205 Tl	0.79	5.00	



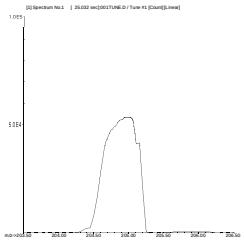
7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



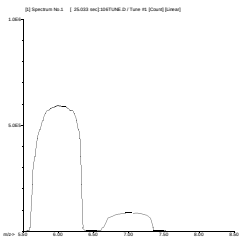
205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

MET06 QC Tune Report

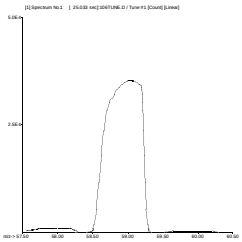
Data File: C:\ICPCHEM\1\DATA\09D02m00.B\106TUNE.D
Date Acquired: Apr 3 2009 07:33 am
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

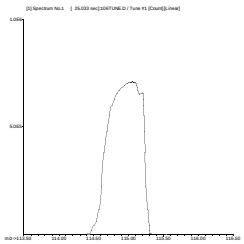
Element	Actual	Required	Flag
7 Li	1.33	5.00	
59 Co	0.99	5.00	
115 In	2.06	5.00	
205 Tl	1.23	5.00	



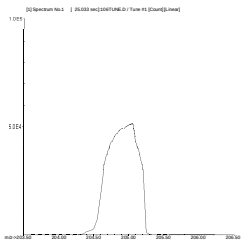
7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



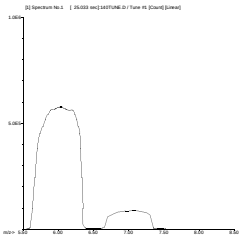
205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

MET06 QC Tune Report

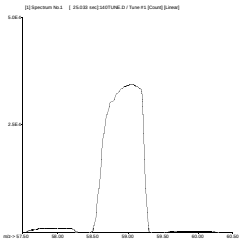
Data File: C:\ICPCHEM\1\DATA\09D02m00.B\140TUNE.D
Date Acquired: Apr 3 2009 01:41 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

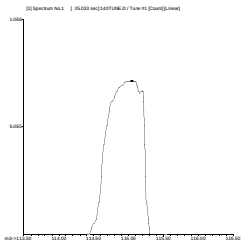
Element	Actual	Required	Flag
7 Li	3.14	5.00	
59 Co	2.00	5.00	
115 In	0.70	5.00	
205 Tl	2.10	5.00	



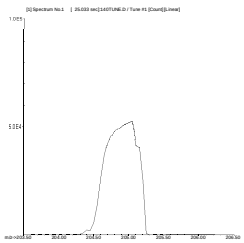
7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



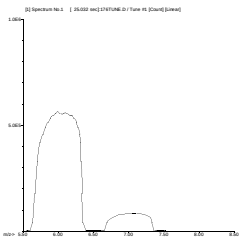
205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

MET06 QC Tune Report

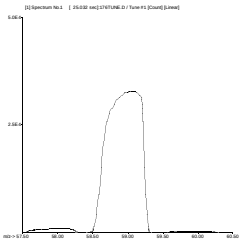
Data File: C:\ICPCHEM\1\DATA\09D02m00.B\176TUNE.D
Date Acquired: Apr 3 2009 08:07 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

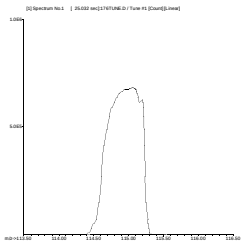
Element	Actual	Required	Flag
7 Li	1.30	5.00	
59 Co	0.87	5.00	
115 In	1.65	5.00	
205 Tl	0.65	5.00	



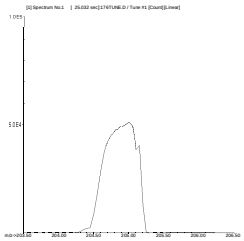
7 Li
Mass Calib.
Actual: 7.05
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 METALS Water: EPA 6020

Inst : MET06 Reviewer : ---
Calnum : 69133257001 Date : 02-APR-2009 13:14
Units : ug/L X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	09d02m00004	69133257004		02-APR-2009 13:25	S11771, S11768
L2	09d02m00005	69133257005		02-APR-2009 13:36	S11772, S11768
L3	09d02m00006	69133257006		02-APR-2009 13:47	S11773, S11768
L4	09d02m00007	69133257007		02-APR-2009 13:57	S11774, S11768
L5	09d02m00008	69133257008		02-APR-2009 14:08	S11769, S11768
L6	09d02m00009	69133257009		02-APR-2009 14:18	S11770, S11768

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	Flg
Antimony	A	0.2851	0.1277	0.1214	0.1192	0.1268	0.1277	BLNK	-0.0056	7.84413		0.1513	1.000	0.995	
Barium	A	0.0590	0.0402	0.0346	0.0317	0.0311	0.0320	BLNK	-0.0101	31.4336		0.0381	1.000	0.995	
Beryllium	A	0.1092	0.1115	0.1114	0.1094	0.1130	0.1127	BLNK	-0.0031	8.87084		0.1112	1.000	0.995	
Cadmium	A	0.0435	0.0430	0.0397	0.0388	0.0387	0.0388	BLNK	-0.0054	25.7775		0.0404	1.000	0.995	
Lead	A	0.4377	0.3831	0.3564	0.3463	0.3537	0.3475	BLNK	-0.0124	2.86747		0.3708	1.000	0.995	
Molybdenum	A	0.1937	0.1049	0.1072	0.0992	0.1035	0.1055	BLNK	-0.0577	9.51833		0.1190	1.000	0.995	
Silver	A	0.1936	0.1712	0.1659	0.1596	0.1644	0.1617	BLNK	-0.0094	6.16305		0.1694	1.000	0.995	
Thallium	A	0.5047	0.3917	0.3855	0.3732	0.4019	0.4170	BLNK	-0.0247	2.41674		0.4123	1.000	0.995	
Arsenic	E	0.2555	0.2857	0.3019	0.2774	0.2751	0.2784	BLNK	-0.0222	3.60035		0.2790	1.000	0.995	
Chromium	E	5.5625	3.2705	3.1134	2.6118	2.5156	2.5644	BLNK	-0.1175	0.39171		3.2730	1.000	0.995	
Cobalt	E	4.9222	5.0203	4.9589	4.8469	4.6685	4.7398	BLNK	-0.0076	0.21161		4.8594	1.000	0.995	
Copper	E	28.978	12.261	9.0864	5.7062	5.3244	5.3779	BLNK	-0.1158	0.18642		11.122	1.000	0.995	
Nickel	E	2.7191	1.9560	1.6641	1.4464	1.3597	1.3570	BLNK	-0.0350	0.73669		1.7504	1.000	0.995	
Vanadium	E	3.1491	1.9132	1.7892	1.6813	1.6545	1.7186	BLNK	-0.0568	0.58647		1.9843	1.000	0.995	
Zinc	E	20.140	7.5876	3.9665	0.8105	0.6602	0.6151	BLNK	-3.0099	1.63106		5.6300	0.999	0.995	
Selenium	H	0.0779	0.0710	0.0717	0.0677	0.0674	0.0662	BLNK	-0.0125	15.0542		0.0703	1.000	0.995	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Antimony	A	0.100	118	0.500	-1	1.000	-5	10.00	-7	100.0	-1	200.0	0
Barium	A	0.100	75	0.500	24	1.000	8	10.00	-1	100.0	-2	200.0	1
Beryllium	A	0.100	-6	0.500	-2	1.000	-2	10.00	-3	100.0	0	200.0	0
Cadmium	A	0.100	7	0.500	10	1.000	2	10.00	0	100.0	0	200.0	0
Lead	A	0.100	13	0.500	7	1.000	1	10.00	-1	100.0	1	200.0	0
Molybdenum	A	0.100	27	0.500	-12	1.000	-4	10.00	-6	100.0	-2	200.0	0
Silver	A	0.100	10	0.500	4	1.000	1	10.00	-2	100.0	1	200.0	0
Thallium	A	0.050	-27	0.250	-15	0.500	-12	5.000	-10	50.00	-3	100.0	1
Arsenic	E	0.100	-30	0.500	-2	1.000	6	10.00	0	100.0	-1	200.0	0
Chromium	E	0.100	0	0.500	5	1.000	10	10.00	1	100.0	-2	200.0	0
Cobalt	E	0.100	-3	0.500	5	1.000	4	10.00	2	100.0	-1	200.0	0
Copper	E	0.100	324	0.500	105	1.000	58	10.00	5	100.0	-1	200.0	0
Nickel	E	0.100	65	0.500	37	1.000	19	10.00	6	100.0	0	200.0	0
Vanadium	E	0.100	28	0.500	1	1.000	-1	10.00	-2	100.0	-3	200.0	1
Zinc	E	0.100	175	0.500	536	1.000	246	10.00	2	100.0	5	200.0	-1
Selenium	H	0.100	5	0.500	4	1.000	7	10.00	2	100.0	1	200.0	0

Instrument amount = a0 + response * a1 + response^2 * a2; BLNK=Y=aX+[blank]

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 METALS Water
EPA 6020

Inst : MET06
Calnum : 69133257001 Cal Date : 02-APR-2009

ICV 69133257010 (09d02m00010 02-APR-2009) stds: S11775, S11768

Analyte	Ch	Average RF	RF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	0.1513	0.1275	100.0	100.0	ug/L	0	10	
Barium	A	0.0381	0.0312	100.0	98.06	ug/L	-2	10	
Beryllium	A	0.1112	0.1147	100.0	101.7	ug/L	2	10	
Cadmium	A	0.0404	0.0389	100.0	100.3	ug/L	0	10	
Lead	A	0.3708	0.3524	100.0	101.0	ug/L	1	10	
Molybdenum	A	0.1190	0.1036	100.0	98.57	ug/L	-1	10	
Silver	A	0.1694	0.1632	100.0	100.6	ug/L	1	10	
Thallium	A	0.4123	0.3976	50.00	48.02	ug/L	-4	10	
Arsenic	E	0.2790	0.2763	100.0	99.44	ug/L	-1	10	
Chromium	E	3.2730	2.5088	100.0	98.16	ug/L	-2	10	
Cobalt	E	4.8594	4.6625	100.0	98.66	ug/L	-1	10	
Copper	E	11.122	5.3297	100.0	99.24	ug/L	-1	10	
Nickel	E	1.7504	1.3630	100.0	100.4	ug/L	0	10	
Vanadium	E	1.9843	1.6735	100.0	98.09	ug/L	-2	10	
Zinc	E	5.6300	0.6282	100.0	99.46	ug/L	-1	10	
Selenium	H	0.0703	0.0674	100.0	101.5	ug/L	2	10	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257012 File : 09d02m00012 Time : 02-APR-2009 14:50
Cal : 69133257001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	ND	0.1000	0.03166	ug/L	
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	ND	0.1000	0.3547	ug/L	
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5291968	-0.59
Scandium	A	3772053	3749575	-0.60
Scandium	E	38207	40245	5.33
Scandium	H	1654418	1767932	6.86
Germanium	H	374500	394842	5.43
Germanium	E	28815	30607	6.22
Indium	A	5854523	5633326	-3.78
Bismuth	A	6228979	5762984	-7.48
Yttrium	A	5460201	5279277	-3.31
Terbium	A	8660791	8238145	-4.88

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257135.1 File : 09d02m00135 Time : 03-APR-2009 12:46
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	0.1656	0.1000	ug/L	!a+
Barium	A	1.136	0.1000	ug/L	!a+
Beryllium	A	[0.01840]	0.1000	ug/L	
Cadmium	A	2.083	0.1000	ug/L	!a+
Lead	A	0.8359	0.1000	ug/L	!a+
Silver	A	0.2006	0.1000	ug/L	!a+
Thallium	A	[0.04000]	0.05000	ug/L	!a+
Arsenic	E	0.2415	0.1000	ug/L	!a+
Chromium	E	1.627	0.1000	ug/L	!a+
Cobalt	E	2.107	0.1000	ug/L	!a+
Copper	E	3.402	0.1000	ug/L	!a+
Nickel	E	2.618	0.1000	ug/L	!a+
Vanadium	E	[0.03910]	0.1000	ug/L	
Zinc	E	0.9551	0.1000	ug/L	!a+
Selenium	H	[0.09910]	0.1000	ug/L	!a+

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	95450	ug/L	95
Calcium	A	300000	306100	ug/L	102
Magnesium	A	100000	92710	ug/L	93
Molybdenum	A	2000	1898	ug/L	95
Potassium	A	100000	100800	ug/L	101
Sodium	E	250000	261400	ug/L	105
Iron	H	250000	240200	ug/L	96

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	4335646	-18.55
Scandium	A	3772053	3226245	-14.47
Scandium	E	38207	31609	-17.27
Scandium	H	1654418	1247313	-24.61
Germanium	H	374500	238324	-36.36
Germanium	E	28815	21726	-24.60
Indium	A	5854523	4174378	-28.70
Bismuth	A	6228979	3536766	-43.22
Yttrium	A	5460201	4270730	-21.78
Terbium	A	8660791	6219617	-28.19

!=warning +=high bias a=ICSA

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257136.1 File : 09d02m00136 Time : 03-APR-2009 12:57
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11778, S11768

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Cadmium	A	100.0	85.08	ug/L	-15	20	
Molybdenum	A	2000	1788	ug/L	-11		
Silver	A	50.00	42.75	ug/L	-14	20	
Arsenic	E	100.0	88.51	ug/L	-11	20	
Chromium	E	200.0	193.0	ug/L	-3	20	
Cobalt	E	200.0	182.1	ug/L	-9	20	
Copper	E	200.0	175.4	ug/L	-12	20	
Nickel	E	200.0	173.7	ug/L	-13	20	
Vanadium	E	200.0	198.1	ug/L	-1	20	
Zinc	E	100.0	75.37	ug/L	**-25**	20	ab- ***
Selenium	H	100.0	90.22	ug/L	-10	20	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Scandium	H	1654418	1204859	-27.17
Scandium	A	3772053	3151274	-16.46
Scandium	E	38207	29970	-21.56
Germanium	H	374500	230318	-38.50
Germanium	E	28815	20680	-28.23
Indium	A	5854523	4130473	-29.45
Yttrium	A	5460201	4253495	-22.10

-=low bias ab=ICSAB

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257144 File : 09d02m00144 Time : 03-APR-2009 14:20
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1513	0.1254	100.0	98.32	ug/L	-2	10	
Barium	A	0.0381	0.0321	100.0	101.0	ug/L	1	10	
Beryllium	A	0.1112	0.1037	100.0	92.01	ug/L	-8	10	
Cadmium	A	0.0404	0.0374	100.0	96.27	ug/L	-4	10	
Lead	A	0.3708	0.3300	100.0	94.61	ug/L	-5	10	
Molybdenum	A	0.1190	0.0971	100.0	92.33	ug/L	-8	10	
Silver	A	0.1694	0.1553	100.0	95.69	ug/L	-4	10	
Thallium	A	0.4123	0.3903	50.00	47.14	ug/L	-6	10	
Arsenic	E	0.2790	0.2742	100.0	98.71	ug/L	-1	10	
Chromium	E	3.2730	2.5765	100.0	100.8	ug/L	1	10	
Cobalt	E	4.8594	4.8490	100.0	102.6	ug/L	3	10	
Copper	E	11.122	5.2789	100.0	98.29	ug/L	-2	10	
Nickel	E	1.7504	1.4086	100.0	103.7	ug/L	4	10	
Vanadium	E	1.9843	1.7191	100.0	100.8	ug/L	1	10	
Zinc	E	5.6300	0.5986	100.0	94.63	ug/L	-5	10	
Selenium	H	0.0703	0.0707	100.0	106.4	ug/L	6	10	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5665270	6.43
Scandium	A	3772053	4309404	14.25
Scandium	E	38207	37891	-0.83
Scandium	H	1654418	1721953	4.08
Germanium	H	374500	360255	-3.80
Germanium	E	28815	28830	0.05
Indium	A	5854523	6156622	5.16
Bismuth	A	6228979	5629415	-9.63
Yttrium	A	5460201	6108543	11.87
Terbium	A	8660791	8987118	3.77

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257145 File : 09d02m00145 Time : 03-APR-2009 14:31
Cal : 69133257001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	[0.06410]	0.1000	0.03166	ug/L	!ib
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	ND	0.1000	0.3547	ug/L	
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5776211	8.51
Scandium	A	3772053	4404724	16.77
Scandium	E	38207	39559	3.54
Scandium	H	1654418	1794457	8.46
Germanium	H	374500	387448	3.46
Germanium	E	28815	31057	7.78
Indium	A	5854523	6602013	12.77
Bismuth	A	6228979	6288236	0.95
Yttrium	A	5460201	6324425	15.83
Terbium	A	8660791	9268233	7.01

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257156 File : 09d02m00156 Time : 03-APR-2009 16:31
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1513	0.1270	100.0	99.59	ug/L	0	10	
Barium	A	0.0381	0.0324	100.0	101.9	ug/L	2	10	
Beryllium	A	0.1112	0.1047	100.0	92.90	ug/L	-7	10	
Cadmium	A	0.0404	0.0377	100.0	97.25	ug/L	-3	10	
Lead	A	0.3708	0.3343	100.0	95.86	ug/L	-4	10	
Molybdenum	A	0.1190	0.0982	100.0	93.37	ug/L	-7	10	
Silver	A	0.1694	0.1570	100.0	96.77	ug/L	-3	10	
Thallium	A	0.4123	0.3910	50.00	47.22	ug/L	-6	10	
Arsenic	E	0.2790	0.2742	100.0	98.69	ug/L	-1	10	
Chromium	E	3.2730	2.5702	100.0	100.6	ug/L	1	10	
Cobalt	E	4.8594	4.8118	100.0	101.8	ug/L	2	10	
Copper	E	11.122	5.1922	100.0	96.68	ug/L	-3	10	
Nickel	E	1.7504	1.4077	100.0	103.7	ug/L	4	10	
Vanadium	E	1.9843	1.7121	100.0	100.4	ug/L	0	10	
Zinc	E	5.6300	0.5972	100.0	94.40	ug/L	-6	10	
Selenium	H	0.0703	0.0705	100.0	106.2	ug/L	6	10	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5618440	5.55
Scandium	A	3772053	4220102	11.88
Scandium	E	38207	38313	0.28
Scandium	H	1654418	1752140	5.91
Germanium	H	374500	367405	-1.89
Germanium	E	28815	29362	1.90
Indium	A	5854523	5980573	2.15
Bismuth	A	6228979	5546223	-10.96
Yttrium	A	5460201	5992970	9.76
Terbium	A	8660791	8763660	1.19

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257157 File : 09d02m00157 Time : 03-APR-2009 16:42
Cal : 69133257001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	[0.08170]	0.1000	0.03166	ug/L	!ib
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	ND	0.1000	0.3547	ug/L	
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5672023	6.55
Scandium	A	3772053	4212156	11.67
Scandium	E	38207	38020	-0.49
Scandium	H	1654418	1755507	6.11
Germanium	H	374500	379428	1.32
Germanium	E	28815	30221	4.88
Indium	A	5854523	6284826	7.35
Bismuth	A	6228979	6068778	-2.57
Yttrium	A	5460201	6066182	11.10
Terbium	A	8660791	8967504	3.54

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257160 File : 09d02m00160 Time : 03-APR-2009 17:14
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1513	0.1288	100.0	101.1	ug/L	1	10	
Barium	A	0.0381	0.0330	100.0	103.7	ug/L	4	10	
Beryllium	A	0.1112	0.1079	100.0	95.72	ug/L	-4	10	
Cadmium	A	0.0404	0.0384	100.0	99.09	ug/L	-1	10	
Lead	A	0.3708	0.3425	100.0	98.20	ug/L	-2	10	
Molybdenum	A	0.1190	0.1006	100.0	95.67	ug/L	-4	10	
Silver	A	0.1694	0.1592	100.0	98.11	ug/L	-2	10	
Thallium	A	0.4123	0.3933	50.00	47.50	ug/L	-5	10	
Arsenic	E	0.2790	0.2809	100.0	101.1	ug/L	1	10	
Chromium	E	3.2730	2.5985	100.0	101.7	ug/L	2	10	
Cobalt	E	4.8594	4.8996	100.0	103.7	ug/L	4	10	
Copper	E	11.122	5.2734	100.0	98.19	ug/L	-2	10	
Nickel	E	1.7504	1.4175	100.0	104.4	ug/L	4	10	
Vanadium	E	1.9843	1.7368	100.0	101.8	ug/L	2	10	
Zinc	E	5.6300	0.6030	100.0	95.35	ug/L	-5	10	
Selenium	H	0.0703	0.0708	100.0	106.6	ug/L	7	10	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5354751	0.59
Scandium	A	3772053	4033083	6.92
Scandium	E	38207	36831	-3.60
Scandium	H	1654418	1667020	0.76
Germanium	H	374500	351565	-6.12
Germanium	E	28815	28376	-1.52
Indium	A	5854523	5783268	-1.22
Bismuth	A	6228979	5414996	-13.07
Yttrium	A	5460201	5734149	5.02
Terbium	A	8660791	8430117	-2.66

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257162 File : 09d02m00162 Time : 03-APR-2009 17:36
Cal : 69133257001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	[0.04310]	0.1000	0.03166	ug/L	!ib
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	ND	0.1000	0.3547	ug/L	
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5373949	0.95
Scandium	A	3772053	3969233	5.23
Scandium	E	38207	36560	-4.31
Scandium	H	1654418	1640079	-0.87
Germanium	H	374500	361598	-3.45
Germanium	E	28815	29270	1.58
Indium	A	5854523	6102443	4.23
Bismuth	A	6228979	5998425	-3.70
Yttrium	A	5460201	5759406	5.48
Terbium	A	8660791	8741564	0.93

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257173 File : 09d02m00173 Time : 03-APR-2009 19:34
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1513	0.1264	100.0	99.13	ug/L	-1	10	
Barium	A	0.0381	0.0325	100.0	102.3	ug/L	2	10	
Beryllium	A	0.1112	0.1053	100.0	93.45	ug/L	-7	10	
Cadmium	A	0.0404	0.0378	100.0	97.33	ug/L	-3	10	
Lead	A	0.3708	0.3355	100.0	96.20	ug/L	-4	10	
Molybdenum	A	0.1190	0.0983	100.0	93.47	ug/L	-7	10	
Silver	A	0.1694	0.1573	100.0	96.91	ug/L	-3	10	
Thallium	A	0.4123	0.3911	50.00	47.24	ug/L	-6	10	
Arsenic	E	0.2790	0.2783	100.0	100.2	ug/L	0	10	
Chromium	E	3.2730	2.5709	100.0	100.6	ug/L	1	10	
Cobalt	E	4.8594	4.8172	100.0	101.9	ug/L	2	10	
Copper	E	11.122	5.2238	100.0	97.27	ug/L	-3	10	
Nickel	E	1.7504	1.3994	100.0	103.1	ug/L	3	10	
Vanadium	E	1.9843	1.7107	100.0	100.3	ug/L	0	10	
Zinc	E	5.6300	0.6059	100.0	95.82	ug/L	-4	10	
Selenium	H	0.0703	0.0707	100.0	106.3	ug/L	6	10	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5517339	3.65
Scandium	A	3772053	4155428	10.16
Scandium	E	38207	37840	-0.96
Scandium	H	1654418	1665785	0.69
Germanium	H	374500	354162	-5.43
Germanium	E	28815	28944	0.45
Indium	A	5854523	5915659	1.04
Bismuth	A	6228979	5482561	-11.98
Yttrium	A	5460201	5853125	7.20
Terbium	A	8660791	8636587	-0.28

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257175 File : 09d02m00175 Time : 03-APR-2009 19:55
Cal : 69133257001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	[0.04330]	0.1000	0.03166	ug/L	!ib
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	ND	0.1000	0.3547	ug/L	
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	5479403	2.94
Scandium	A	3772053	4062728	7.71
Scandium	E	38207	37455	-1.97
Scandium	H	1654418	1649556	-0.29
Germanium	H	374500	365027	-2.53
Germanium	E	28815	29760	3.28
Indium	A	5854523	6177132	5.51
Bismuth	A	6228979	6011676	-3.49
Yttrium	A	5460201	5939085	8.77
Terbium	A	8660791	8793420	1.53

!=warning ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257192 File : 09d02m00192 Time : 03-APR-2009 22:54
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	0.1646	0.1000	ug/L	!a+
Barium	A	1.188	0.1000	ug/L	!a+
Beryllium	A	[0.01610]	0.1000	ug/L	
Cadmium	A	2.270	0.1000	ug/L	!a+
Lead	A	0.8271	0.1000	ug/L	!a+
Silver	A	0.1961	0.1000	ug/L	!a+
Thallium	A	[0.04190]	0.05000	ug/L	!a+
Arsenic	E	0.2347	0.1000	ug/L	!a+
Chromium	E	1.601	0.1000	ug/L	!a+
Cobalt	E	2.092	0.1000	ug/L	!a+
Copper	E	3.304	0.1000	ug/L	!a+
Nickel	E	2.569	0.1000	ug/L	!a+
Vanadium	E	[0.04460]	0.1000	ug/L	
Zinc	E	0.9083	0.1000	ug/L	!a+
Selenium	H	0.1119	0.1000	ug/L	!a+

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	95560	ug/L	96
Calcium	A	300000	307500	ug/L	103
Magnesium	A	100000	93090	ug/L	93
Molybdenum	A	2000	1892	ug/L	95
Potassium	A	100000	101400	ug/L	101
Sodium	E	250000	258200	ug/L	103
Iron	H	250000	241600	ug/L	97

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	5323163	4321311	-18.82
Scandium	A	3772053	3227569	-14.43
Scandium	E	38207	32668	-14.50
Scandium	H	1654418	1276738	-22.83
Germanium	H	374500	244578	-34.69
Germanium	E	28815	22751	-21.04
Indium	A	5854523	4276400	-26.96
Bismuth	A	6228979	3570036	-42.69
Yttrium	A	5460201	4371082	-19.95
Terbium	A	8660791	6334296	-26.86

!=warning +=high bias a=ICSA

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69133257193 File : 09d02m00193 Time : 03-APR-2009 23:05
Cal : 69133257001 Caldate : 02-APR-2009
Standards: S11778, S11768

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Cadmium	A	100.0	85.57	ug/L	-14	20	
Molybdenum	A	2000	1789	ug/L	-11		
Silver	A	50.00	42.37	ug/L	-15	20	
Arsenic	E	100.0	90.37	ug/L	-10	20	
Chromium	E	200.0	191.2	ug/L	-4	20	
Cobalt	E	200.0	180.2	ug/L	-10	20	
Copper	E	200.0	172.4	ug/L	-14	20	
Nickel	E	200.0	171.4	ug/L	-14	20	
Vanadium	E	200.0	196.3	ug/L	-2	20	
Zinc	E	100.0	75.46	ug/L	**-25**	20	ab- ***
Selenium	H	100.0	90.98	ug/L	-9	20	

ISTD (ICALBLK 09d02m00003)	Ch	ICALBLK Abund	Abund	%Drift
Scandium	H	1654418	1221708	-26.15
Scandium	A	3772053	3125147	-17.15
Scandium	E	38207	30370	-20.51
Germanium	H	374500	235036	-37.24
Germanium	E	28815	21006	-27.10
Indium	A	5854523	4282719	-26.85
Yttrium	A	5460201	4338576	-20.54

-=low bias ab=ICSAB

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 899133456

Instrument : MET16 Begun : 04/02/09 16:16
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	09d02q00001	TUN				04/02/09 16:16	1.0	1	
002	09d02q00002	X	RINSE			04/02/09 16:23	1.0	2	
003	09d02q00003	ICALBLK	CALBLANK			04/02/09 16:34	1.0	2	
004	09d02q00004	ICAL				04/02/09 16:45	1.0	3 2	
005	09d02q00005	ICAL				04/02/09 16:57	1.0	4 2	
006	09d02q00006	ICAL				04/02/09 17:08	1.0	5 2	
007	09d02q00007	ICAL				04/02/09 17:19	1.0	6 2	
008	09d02q00008	ICAL				04/02/09 17:31	1.0	7 2	
009	09d02q00009	ICAL				04/02/09 17:42	1.0	8 2	
010	09d02q00010	ICV				04/02/09 17:54	1.0	9 2	
011	09d02q00011	ICB				04/02/09 18:05	1.0	2	
012	09d02q00012	X				04/02/09 18:15	1.0	2	
013	09d02q00013	ICSA				04/02/09 18:26	1.0	10 2	7:CA=290000
014	09d02q00014	ICSAB				04/02/09 18:37	1.0	11 2	7:CA=290000
015	09d02q00015	X	RINSE			04/02/09 18:49	1.0	2	
016	09d02q00016	X	RINSE			04/02/09 19:00	1.0	2	
017	09d02q00017	BLANK	QC489440	Water	149395	04/02/09 19:12	1.0	2	
018	09d02q00018	BS	QC489441	Water	149395	04/02/09 19:23	1.0	2	
019	09d02q00019	BSD	QC489442	Water	149395	04/02/09 19:34	1.0	2	
020	09d02q00020	MSS	210980-005	Water	149395	04/02/09 19:45	1.0	2	
021	09d02q00021	SER	QC489445	Water	149395	04/02/09 19:57	5.0	2	
022	09d02q00022	MS	QC489443	Water	149395	04/02/09 20:08	1.0	2	
023	09d02q00023	MSD	QC489444	Water	149395	04/02/09 20:19	1.0	2	
024	09d02q00024	PDS	QC489446	Water	149395	04/02/09 20:31	1.0	12 13 2	
025	09d02q00025	CCV				04/02/09 20:42	1.0	14 2	
026	09d02q00026	CCB				04/02/09 20:53	1.0	2	
027	09d02q00027	X				04/02/09 21:04	1.0	2	
028	09d02q00028	BLANK	QC488964	Filtrate	149272	04/02/09 21:16	1.0	2	
029	09d02q00029	BS	QC488965	Filtrate	149272	04/02/09 21:27	1.0	2	
030	09d02q00030	BSD	QC488966	Filtrate	149272	04/02/09 21:38	1.0	2	
031	09d02q00031	MSS	210930-003	Filtrate	149272	04/02/09 21:50	5.0	2	4:NA=1500000
032	09d02q00032	SER	QC488969	Filtrate	149272	04/02/09 22:01	25.0	2	
033	09d02q00033	MS	QC488967	Filtrate	149272	04/02/09 22:12	5.0	2	
034	09d02q00034	MSD	QC488968	Filtrate	149272	04/02/09 22:24	5.0	2	
035	09d02q00035	PDS	QC488970	Filtrate	149272	04/02/09 22:35	5.0	12 13 2	
036	09d02q00036	SAMPLE	210930-002	Filtrate	149272	04/02/09 22:46	5.0	2	1:NA=170000
037	09d02q00037	SAMPLE	210930-004	Filtrate	149272	04/02/09 22:58	5.0	2	4:NA=600000
038	09d02q00038	CCV				04/02/09 23:09	1.0	14 2	
039	09d02q00039	CCB				04/02/09 23:20	1.0	2	
040	09d02q00040	X				04/02/09 23:32	1.0	2	
041	09d02q00041	SAMPLE	210930-005	Filtrate	149272	04/02/09 23:43	5.0	2	3:NA=160000
042	09d02q00042	CCV				04/02/09 23:55	1.0	15 2	
043	09d02q00043	X				04/03/09 00:06	1.0	2	
044	09d02q00044	CCB				04/03/09 00:17	1.0	2	
045	09d02q00045	ICSA				04/03/09 00:29	1.0	10 2	7:CA=280000
046	09d02q00046	ICSAB				04/03/09 00:40	1.0	11 2	7:CA=280000
047	09d02q00047	X	RINSE			04/03/09 00:51	1.0	2	
048	09d02q00048	X	RINSE			04/03/09 01:02	1.0	2	
049	09d02q00049	SAMPLE	210962-002	Filtrate	149395	04/03/09 01:14	5.0	2	5:NA=820000
050	09d02q00050	SAMPLE	210962-003	Filtrate	149395	04/03/09 01:25	5.0	2	4:NA=1100000
051	09d02q00051	SAMPLE	210962-004	Filtrate	149395	04/03/09 01:37	5.0	2	5:NA=1300000
052	09d02q00052	SAMPLE	210962-005	Filtrate	149395	04/03/09 01:48	5.0	2	5:NA=1300000

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 899133456

Instrument : MET16 Begun : 04/02/09 16:16
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
053	09d02q00053	SAMPLE	210962-006	Filtrate	149395	04/03/09 01:59	5.0	2	5:NA=1400000
054	09d02q00054	SAMPLE	210994-003	Filtrate	149395	04/03/09 02:11	5.0	2	5:NA=2100000
055	09d02q00055	SAMPLE	210996-001	Filtrate	149395	04/03/09 02:22	5.0	2	2:NA=86000
056	09d02q00056	SAMPLE	210996-002	Filtrate	149395	04/03/09 02:33	5.0	2	1:NA=80000
057	09d02q00057	TUN				04/03/09 02:45	1.0	1	
058	09d02q00058	X	RINSE			04/03/09 02:52	1.0	2	
059	09d02q00059	CCV				04/03/09 03:03	1.0	14 2	
060	09d02q00060	CCB				04/03/09 03:14	1.0	2	
061	09d02q00061	X				04/03/09 03:26	1.0	2	
062	09d02q00062	SAMPLE	210996-003	Filtrate	149395	04/03/09 03:37	5.0	2	1:NA=110000
063	09d02q00063	SAMPLE	210962-003	Filtrate	149395	04/03/09 03:48	50.0	2	1:NA=110000
064	09d02q00064	BLANK	QC488897	Soil	149253	04/03/09 04:00	5.0	2	
065	09d02q00065	SAMPLE	210814-014	Soil	149253	04/03/09 04:11	50.0	2	
066	09d02q00066	SAMPLE	210814-015	Soil	149253	04/03/09 04:22	50.0	2	
067	09d02q00067	SAMPLE	210814-016	Soil	149253	04/03/09 04:34	50.0	2	
068	09d02q00068	SAMPLE	210814-017	Soil	149253	04/03/09 04:45	50.0	2	1:MN=200
069	09d02q00069	SAMPLE	210896-001	Filtrate	149223	04/03/09 04:56	5.0	2	4:NA=1600000
070	09d02q00070	SAMPLE	210896-002	Filtrate	149223	04/03/09 05:08	5.0	2	4:NA=1600000
071	09d02q00071	SAMPLE	210896-004	Filtrate	149223	04/03/09 05:19	5.0	2	4:NA=580000
072	09d02q00072	CCV				04/03/09 05:31	1.0	14 2	
073	09d02q00073	CCB				04/03/09 05:42	1.0	2	
074	09d02q00074	X				04/03/09 05:53	1.0	2	
075	09d02q00075	CCV				04/03/09 06:05	1.0	14 2	
076	09d02q00076	CCB				04/03/09 06:16	1.0	2	
077	09d02q00077	X				04/03/09 06:27	1.0	2	
078	09d02q00078	ICSA				04/03/09 06:39	1.0	10 2	7:CA=270000
079	09d02q00079	ICSAB				04/03/09 06:50	1.0	11 2	7:CA=280000
080	09d02q00080	X	RINSE			04/03/09 07:01	1.0	2	
081	09d02q00081	X	RINSE			04/03/09 07:12	1.0	2	
082	09d02q00082	BLANK	QC489859	Filtrate	149491	04/03/09 07:24	1.0	2	
083	09d02q00083	BS	QC489860	Filtrate	149491	04/03/09 07:35	1.0	2	
084	09d02q00084	BSD	QC489861	Filtrate	149491	04/03/09 07:46	1.0	2	
085	09d02q00085	MSS	211029-002	Filtrate	149491	04/03/09 07:58	5.0	2	3:NA=390000
086	09d02q00086	SER	QC489864	Filtrate	149491	04/03/09 08:09	25.0	2	
087	09d02q00087	MS	QC489862	Filtrate	149491	04/03/09 08:20	5.0	2	
088	09d02q00088	MSD	QC489863	Filtrate	149491	04/03/09 08:32	5.0	2	
089	09d02q00089	PDS	QC489865	Filtrate	149491	04/03/09 08:43	5.0	12 13 2	3:NA=420000
090	09d02q00090	CCV				04/03/09 08:54	1.0	14 2	
091	09d02q00091	CCB				04/03/09 09:06	1.0	2	
092	09d02q00092	X				04/03/09 09:17	1.0	2	
093	09d02q00093	SAMPLE	211029-001	Filtrate	149491	04/03/09 09:28	5.0	2	4:NA=450000
094	09d02q00094	SAMPLE	211029-003	Filtrate	149491	04/03/09 09:40	5.0	2	1:NA=65000
095	09d02q00095	SAMPLE	211029-004	Filtrate	149491	04/03/09 09:51	5.0	2	5:NA=450000
096	09d02q00096	CCV				04/03/09 10:02	1.0	14 2	
097	09d02q00097	CCB				04/03/09 10:13	1.0	2	
098	09d02q00098	X				04/03/09 10:25	1.0	2	
099	09d02q00099	SER	QC488969	Filtrate	149272	04/03/09 10:37	25.0	2	
100	09d02q00100	SAMPLE	211029-005	Filtrate	149491	04/03/09 10:48	5.0	2	
101	09d02q00101	SAMPLE	211029-006	Filtrate	149491	04/03/09 11:00	5.0	2	8:NA=720000
102	09d02q00102	SAMPLE	211029-007	Filtrate	149491	04/03/09 11:11	5.0	2	5:NA=720000
103	09d02q00103	SAMPLE	211046-001	Water	149491	04/03/09 11:22	5.0	2	
104	09d02q00104	SAMPLE	211047-001	Water	149491	04/03/09 11:34	5.0	2	2:NA=23000

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 899133456

Instrument : MET16 Begun : 04/02/09 16:16
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
105	09d02q00105	SAMPLE	211047-002	Water	149491	04/03/09 11:45	5.0	2	
106	09d02q00106	SAMPLE	211047-003	Water	149491	04/03/09 11:56	5.0	2	
107	09d02q00107	CCV				04/03/09 12:08	1.0	14 2	
108	09d02q00108	X				04/03/09 12:19	1.0	2	
109	09d02q00109	CCB				04/03/09 12:30	1.0	2	
110	09d02q00110	ICSA				04/03/09 12:42	1.0	10 2	7:CA=320000
111	09d02q00111	ICSAB				04/03/09 12:53	1.0	11 2	7:CA=310000
112	09d02q00112	X	RINSE			04/03/09 13:04	1.0	2	

JYF 04/03/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 111.

Standards used: 1=S11767 2=S11768 3=S11771 4=S11772 5=S11773 6=S11774 7=S11769 8=S11770 9=S11775 10=S11777 11=S11778 12=S10997 13=S10998 14=S11776 15=S11519

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 899133456

Date : 04/02/09 Reference : 09d02q00003
Sequence : MET16 09d02q00 Analyzed : 04/02/09 16:34

#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
		IB+ICALBLK STD	1050227	1258360	22416	412172	106292	16373	2238072	2471677	2169981	3490396
		LOWER LIMIT	315068	377508	6725	123652	31888	4912	671422	741503	650994	1047119
		UPPER LIMIT	1260272	1510032	26899	494606	127550	19648	2685686	2966012	2603977	4188475
011	ICB		1008649	1207561	21605	363784	97297	15933	2232584	2493706	2118889	3496498
013	ICSA		656778	970510	19223	339969	84638	13679	1804141	1916021	1871110	3110770
014	ICSAB		702999	1050885	19583	359797	88056	13770	1793587	1901289	1880384	3077097
017	BLANK	QC489440	898763	1087131	19934	361313	103222	15930	2248905	2565227	2089216	3617494
018	BS	QC489441	782182	935483	17380	324134	95635	14719	2044533	2394912	1914342	3449864
019	BSD	QC489442	791692	974006	18079	310582	91356	14535	2051001	2401130	1969923	3480118
020	MSS	210980-005	786869	976021	17818	334377	96302	14744	2160027	2541787	1999412	3558228
021	SER	QC489445	885249	1119435	20007	369564	99032	15189	2223792	2518257	2093374	3508220
022	MS	QC489443	766077	1006957	18138	329373	94602	14811	2125245	2435480	2030813	3564748
023	MSD	QC489444	780862	1003963	18610	335504	93879	14737	2131641	2419599	2016081	3561447
024	PDS	QC489446	766793	997818	18827	336302	93714	14937	2129818	2410341	2000880	3528163
025	CCV		956172	1182912	21884	383615	99796	16159	2167481	2355322	2087310	3460919
026	CCB		991828	1219459	21799	384381	101010	16170	2286342	2497276	2174030	3522961
028	BLANK	QC488964	819059	1025575	19090	350081	97112	15285	2198676	2518155	2051305	3523615
029	BS	QC488965	808191	1040604	19191	335612	92410	14862	2123793	2388865	2046993	3513540
030	BSD	QC488966	824068	1068484	19504	342945	92930	15334	2150629	2429309	2060354	3556285
031	MSS	210930-003	729413	1084922	23309	341191	76474	14399	1707392	1511788	1832456	2707172
032	SER	QC488969	1226888	1534661 *	28829 *	453405	105264	18289	2168011	1951433	2286535	3244594
033	MS	QC488967	791528	1161191	24418	395994	86256	14645	1709416	1490174	1863848	2673329
034	MSD	QC488968	774685	1142626	24427	399127	85775	14541	1697162	1476375	1853931	2665490
035	PDS	QC488970	756331	1147243	23872	391076	84544	14175	1693997	1471834	1845671	2660098
036	SAMPLE	210930-002	1207270	1436546	26646	462295	111143	17864	2113794	2046242	2190692	3256120
037	SAMPLE	210930-004	1051419	1398326	25933	413572	96471	16814	2012978	1788562	2109134	3032426
038	CCV		1355753 *	1489293	26244	432177	105741	17875	2292699	2286029	2325180	3472696
039	CCB		1417487 *	1451055	26225	437093	108019	17942	2346685	2383306	2301832	3471200
041	SAMPLE	210930-005	1272783 *	1351570	24783	407192	97281	16495	2073949	2011612	2115912	3229694
042	CCV		1349196 *	1367819	24234	408971	100473	16900	2212233	2285583	2207962	3411577
044	CCB		1477360 *	1455767	26209	479271	114659	18142	2363219	2415041	2325607	3532518
045	ICSA		898445	1198094	22099	364762	87248	14819	1874574	1847827	1990832	3103268
046	ICSAB		944013	1207688	21643	364723	87266	14592	1845065	1824601	1990977	3042253
049	SAMPLE	210962-002	1044724	1364213	25239	382720	87864	15536	1893456	1663140	2052255	2884196
050	SAMPLE	210962-003	985624	1353199	25488	395849	89114	15519	1856938	1582060	2020498	2805793
051	SAMPLE	210962-004	906622	1295731	24839	388461	86800	14973	1793683	1507688	1956149	2706711
052	SAMPLE	210962-005	888672	1279937	25288	394177	86910	15149	1766140	1481742	1929074	2686496
053	SAMPLE	210962-006	828163	1223677	24586	387440	85239	14835	1725125	1445130	1884014	2620357
054	SAMPLE	210994-003	644388	1061750	22588	367787	76357	12643	1553850	1257041	1727801	2400746
055	SAMPLE	210996-001	1276254 *	1363282	25418	448320	108084	16923	2091554	2002036	2148714	3183594
056	SAMPLE	210996-002	1308175 *	1336317	24246	426941	104625	16408	2085984	2060561	2104328	3176025
059	CCV		1332703 *	1270807	22487	393348	96634	15499	2081264	2140646	2074776	3237283
060	CCB		1462020 *	1362044	23801	410941	102037	16923	2251904	2289601	2208162	3358370
062	SAMPLE	210996-003	1330894 *	1264291	22385	379576	93849	15388	2024232	2048655	2067911	3151574
063	SAMPLE	210962-003	1414701 *	1378740	24561	389948	95486	16319	2130527	2072207	2148497	3256918
064	BLANK	QC488897	1423453 *	1262347	22900	379497	98355	16321	2086264	2189626	2054836	3179497
065	SAMPLE	210814-014	1381365 *	1288057	22692	379372	94656	16102	2166556	2294302	2148330	3346982
066	SAMPLE	210814-015	1372816 *	1339932	23797	377728	94860	16951	2233978	2312254	2240727	3407656
067	SAMPLE	210814-016	1382546 *	1337959	24070	371727	94581	17012	2246857	2334946	2246888	3430165
068	SAMPLE	210814-017	1391070 *	1363840	24416	370042	93260	17152	2273364	2335493	2263812	3459964
069	SAMPLE	210896-001	761757	1102117	20931	328904	73702	12837	1632416	1446803	1768189	2554028

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 899133456

Date : 04/02/09 Reference : 09d02q00003
Sequence : MET16 09d02q00 Analyzed : 04/02/09 16:34

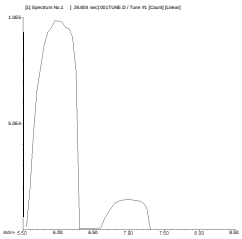
#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
070	SAMPLE	210896-002	746709	1111956	21767	341530	75699	13417	1631820	1430818	1789911	2548461
071	SAMPLE	210896-004	1020214	1246697	22758	372696	87239	14664	1868554	1725493	1959063	2900229
072	CCV		1212602	1265333	22352	377379	93210	15808	2153735	2180512	2125132	3358073
073	CCB		1324343 *	1285952	22922	363046	93415	16312	2237964	2290437	2169655	3362947
075	CCV		1248378	1246720	21351	343536	87359	15196	2170907	2232114	2131244	3347923
076	CCB		1292721 *	1258447	21879	343431	89233	15766	2214705	2293329	2153190	3344459
078	ICSA		887701	1080064	19176	305409	75481	13503	1792981	1824122	1898077	3003368
079	ICSAB		920564	1083372	19218	307141	75338	13250	1776875	1782378	1891412	2996362
082	BLANK	QC489859	1239704	1174841	20072	313741	94090	16482	2124465	2208319	2061492	3296527
083	BS	QC489860	1199135	1169463	19474	311841	81436	14441	2031956	2106547	2017476	3226722
084	BSD	QC489861	1192774	1186172	19839	314650	82207	14609	2075375	2147814	2054259	3291962
085	MSS	211029-002	1126448	1240878	21468	315983	78255	14499	1966734	1849081	2041923	3056079
086	SER	QC489864	1297688 *	1340861	22798	343962	87515	15896	2164859	2082380	2185840	3287305
087	MS	QC489862	1089491	1248200	21696	329816	80926	14627	1969963	1839835	2050225	3058035
088	MSD	QC489863	1158041	1346675	21300	330811	81056	14508	2108806	1961577	2193592	3289407
089	PDS	QC489865	1049958	1200277	19503	314785	77607	13726	1909546	1832981	1984612	3039589
090	CCV		1223020	1250496	20477	337379	86527	14832	2102645	2156686	2108422	3262977
091	CCB		1251407	1253753	20144	329223	85857	14894	2197603	2280056	2135921	3337428
093	SAMPLE	211029-001	1028083	1154208	19702	318691	77109	13463	1875688	1854100	2437054	3009899
094	SAMPLE	211029-003	1227885	1209047	19669	326057	83886	14167	2053357	2074390	2017111	3167321
095	SAMPLE	211029-004	995162	1161117	19814	332870	76685	12900	1807713	1853475	2350643	2958738
096	CCV		1141278	1139985	18610	316473	81478	13612	2025839	2146578	1964507	3204121
097	CCB		1212080	1181297	19752	313249	82313	14391	2101679	2214326	2039700	3214412
099	SER	QC488969	1170411	1217465	20056	313080	76461	13706	1912766	1822339	1965214	2974401
100	SAMPLE	211029-005	1304350 *	1213532	20059	325326	83707	14467	2052616	2148581	2003052	3140577
101	SAMPLE	211029-006	872160	1202632	20284	331764	70393	12289	1693630	1662021	3728173 *	2836947
102	SAMPLE	211029-007	984391	1138495	19054	303038	72188	12570	1759531	1667389	1831403	2773778
103	SAMPLE	211046-001	1271061 *	1244903	19978	318926	82512	14528	2107713	2161589	2077264	3257252
104	SAMPLE	211047-001	1242440	1212442	19519	325240	81940	14191	2053905	2105234	2023568	3184725
105	SAMPLE	211047-002	1207267	1174289	19073	302410	79479	14070	2006254	2101701	1995521	3116965
106	SAMPLE	211047-003	1152501	1116999	19227	302814	78965	14058	1913653	1978857	1877230	2979900
107	CCV		1143998	1139759	18208	295248	76895	13397	2006249	2099267	1970824	3175845
109	CCB		1195979	1185780	19619	301171	79749	14257	2106953	2231125	2038450	3234414
110	ICSA		720451	862953	17019	276427	69294	12088	1535124	1579798	1600001	2605884
111	ICSAB		827228	923099	16719	273913	68901	11851	1671437	1693329	1764259	2844199

MET16 QC Tune Report

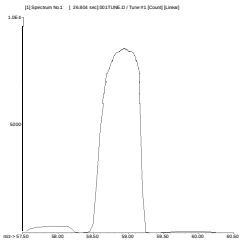
Data File: C:\ICPCHEM\1\DATA\09D02q00.B\001TUNE.D
Date Acquired: Apr 2 2009 04:16 pm
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

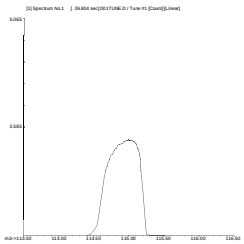
Element	Actual	Required	Flag
7 Li	1.40	5.00	
59 Co	1.11	5.00	
115 In	0.86	5.00	
205 Tl	0.88	5.00	



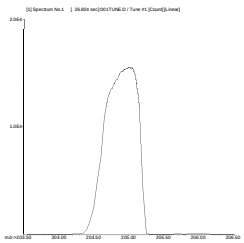
7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 58.95
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



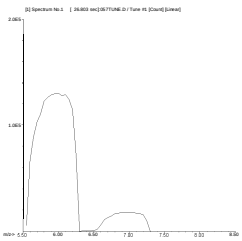
205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:

MET16 QC Tune Report

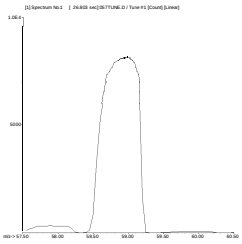
Data File: C:\ICPCHEM\1\DATA\09D02q00.B\057TUNE.D
Date Acquired: Apr 3 2009 02:45 am
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

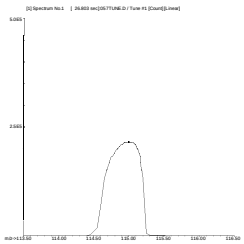
Element	Actual	Required	Flag
7 Li	1.13	5.00	
59 Co	1.15	5.00	
115 In	2.01	5.00	
205 Tl	3.66	5.00	



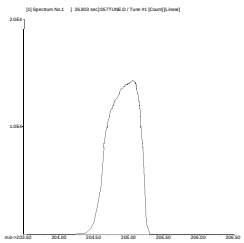
7 Li
Mass Calib.
Actual: 6.95
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 58.95
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 205.00
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 METALS Water: EPA 6020

Inst : MET16 Reviewer : ---
Calnum : 899133456001 Date : 02-APR-2009 16:34
Units : ug/L X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	09d02q00004	899133456004		02-APR-2009 16:45	S11771, S11768
L2	09d02q00005	899133456005		02-APR-2009 16:57	S11772, S11768
L3	09d02q00006	899133456006		02-APR-2009 17:08	S11773, S11768
L4	09d02q00007	899133456007		02-APR-2009 17:19	S11774, S11768
L5	09d02q00008	899133456008		02-APR-2009 17:31	S11769, S11768
L6	09d02q00009	899133456009		02-APR-2009 17:42	S11770, S11768

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	Flg
Antimony	A	0.3409	0.1340	0.1352	0.1318	0.1331	0.1348	BLNK	-0.0216	7.43720		0.1683	1.000	0.995	
Barium	A	0.0501	0.0334	0.0354	0.0323	0.0320	0.0318	BLNK	-0.0045	31.3934		0.0358	1.000	0.995	
Beryllium	A	0.1532	0.1343	0.1372	0.1392	0.1356	0.1355	BLNK	-0.0027	7.37668		0.1392	1.000	0.995	
Cadmium	A	0.0371	0.0357	0.0379	0.0362	0.0354	0.0356	BLNK	-0.0035	28.1362		0.0363	1.000	0.995	
Lead	A	0.6472	0.3828	0.3665	0.3455	0.3354	0.3346	BLNK	-0.0854	2.98889		0.4020	1.000	0.995	
Molybdenum	A	0.1428	0.0959	0.1011	0.0949	0.0933	0.0940	BLNK	-0.0191	10.6519		0.1037	1.000	0.995	
Silver	A	0.1570	0.1450	0.1514	0.1472	0.1441	0.1465	BLNK	-0.0061	6.84931		0.1485	1.000	0.995	
Thallium	A	0.4861	0.3573	0.3634	0.3598	0.3601	0.3818	BLNK	-0.0241	2.65007		0.3848	0.999	0.995	
Arsenic	E	0.3182	0.2717	0.2911	0.2639	0.2580	0.2543	BLNK	-0.0186	3.92136		0.2762	1.000	0.995	
Chromium	E	5.7948	2.8642	2.4123	2.0544	1.9981	1.9672	BLNK	-0.1935	0.50732		2.8485	1.000	0.995	
Cobalt	E	3.9201	3.8000	3.5274	3.4839	3.3986	3.3302	BLNK	-0.0010	0.29903		3.5767	1.000	0.995	
Copper	E	12.205	5.2766	4.6486	3.8473	3.6104	3.5395	BLNK	-0.1481	0.28161		5.5213	1.000	0.995	
Nickel	E	2.7843	1.1550	1.0883	0.9719	0.9377	0.9075	BLNK	-0.0171	1.09460		1.3075	1.000	0.995	
Vanadium	E	3.0676	1.8053	1.6047	1.4387	1.4238	1.4218	BLNK	-0.1082	0.70358		1.7936	1.000	0.995	
Zinc	E	9.8302	1.3730	1.3432	0.5555	0.4924	0.4759	BLNK	-0.2577	2.08928		2.3450	1.000	0.995	
Selenium	H	0.0607	0.0583	0.0624	0.0570	0.0551	0.0559	BLNK	-0.0225	17.9366		0.0582	1.000	0.995	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Antimony	A	0.100	132	0.500	-5	1.000	-2	10.00	-2	100.0	-1	200.0	0
Barium	A	0.100	53	0.500	4	1.000	11	10.00	1	100.0	1	200.0	0
Beryllium	A	0.100	10	0.500	-1	1.000	1	10.00	3	100.0	0	200.0	0
Cadmium	A	0.100	1	0.500	0	1.000	6	10.00	2	100.0	-1	200.0	0
Lead	A	0.100	8	0.500	-3	1.000	1	10.00	2	100.0	0	200.0	0
Molybdenum	A	0.100	33	0.500	-2	1.000	6	10.00	1	100.0	-1	200.0	0
Silver	A	0.100	1	0.500	-2	1.000	3	10.00	1	100.0	-1	200.0	0
Thallium	A	0.050	-19	0.250	-15	0.500	-9	5.000	-5	50.00	-5	100.0	1
Arsenic	E	0.100	6	0.500	3	1.000	12	10.00	3	100.0	1	200.0	0
Chromium	E	0.100	0	0.500	7	1.000	3	10.00	2	100.0	1	200.0	0
Cobalt	E	0.100	16	0.500	13	1.000	5	10.00	4	100.0	2	200.0	0
Copper	E	0.100	96	0.500	19	1.000	16	10.00	7	100.0	2	200.0	0
Nickel	E	0.100	188	0.500	23	1.000	17	10.00	6	100.0	3	200.0	-1
Vanadium	E	0.100	8	0.500	5	1.000	2	10.00	0	100.0	0	200.0	0
Zinc	E	0.100	1696	0.500	135	1.000	155	10.00	13	100.0	3	200.0	-1
Selenium	H	0.100	-14	0.500	0	1.000	10	10.00	2	100.0	-1	200.0	0

Instrument amount = a0 + response * a1 + response^2 * a2; BLNK=Y=aX+[blank]

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 METALS Water
EPA 6020

Inst : MET16
Calnum : 899133456001 Cal Date : 02-APR-2009

ICV 899133456010 (09d02q00010 02-APR-2009) stds: S11775, S11768

Analyte	Ch	Average RF	RF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	0.1683	0.1340	100.0	99.63	ug/L	0	10	
Barium	A	0.0358	0.0315	100.0	98.81	ug/L	-1	10	
Beryllium	A	0.1392	0.1353	100.0	99.81	ug/L	0	10	
Cadmium	A	0.0363	0.0354	100.0	99.55	ug/L	0	10	
Lead	A	0.4020	0.3264	100.0	97.48	ug/L	-3	10	
Molybdenum	A	0.1037	0.0934	100.0	99.50	ug/L	0	10	
Silver	A	0.1485	0.1428	100.0	97.81	ug/L	-2	10	
Thallium	A	0.3848	0.3482	50.00	46.12	ug/L	-8	10	
Arsenic	E	0.2762	0.2553	100.0	100.1	ug/L	0	10	
Chromium	E	2.8485	1.9508	100.0	98.77	ug/L	-1	10	
Cobalt	E	3.5767	3.3460	100.0	100.0	ug/L	0	10	
Copper	E	5.5213	3.5431	100.0	99.63	ug/L	0	10	
Nickel	E	1.3075	0.9223	100.0	100.9	ug/L	1	10	
Vanadium	E	1.7936	1.4105	100.0	99.13	ug/L	-1	10	
Zinc	E	2.3450	0.4928	100.0	102.7	ug/L	3	10	
Selenium	H	0.0582	0.0555	100.0	99.59	ug/L	0	10	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456011 File : 09d02q00011 Time : 02-APR-2009 18:05
Cal : 899133456001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	[0.09810]	0.1000	0.05623	ug/L	!ib
Barium	A	ND	0.1000	0.04661	ug/L	
Beryllium	A	ND	0.1000	0.03849	ug/L	
Cadmium	A	ND	0.1000	0.02757	ug/L	
Lead	A	ND	0.1000	0.04402	ug/L	
Molybdenum	A	[0.03210]	0.1000	0.02174	ug/L	!ib
Silver	A	ND	0.1000	0.02926	ug/L	
Thallium	A	ND	0.05000	0.01280	ug/L	
Arsenic	E	ND	0.1000	0.03563	ug/L	
Chromium	E	ND	0.1000	0.08000	ug/L	
Cobalt	E	ND	0.1000	0.06245	ug/L	
Copper	E	ND	0.1000	0.08496	ug/L	
Nickel	E	ND	0.1000	0.07446	ug/L	
Vanadium	E	ND	0.1000	0.06241	ug/L	
Zinc	E	ND	0.1000	0.2752	ug/L	
Selenium	H	ND	0.1000	0.04707	ug/L	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1008649	-3.96
Scandium	A	1258360	1207561	-4.04
Scandium	E	22416	21605	-3.62
Scandium	H	412172	363784	-11.74
Germanium	H	106292	97297	-8.46
Germanium	E	16373	15933	-2.69
Indium	A	2238072	2232584	-0.25
Bismuth	A	2471677	2493706	0.89
Yttrium	A	2169981	2118889	-2.35
Terbium	A	3490396	3496498	0.17

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456075 File : 09d02q00075 Time : 03-APR-2009 06:05
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1683	0.1276	100.0	94.89	ug/L	-5	10	
Barium	A	0.0358	0.0319	100.0	100.2	ug/L	0	10	
Beryllium	A	0.1392	0.1129	100.0	83.30	ug/L	**-17**	10	c- ***
Cadmium	A	0.0363	0.0338	100.0	95.21	ug/L	-5	10	
Lead	A	0.4020	0.3153	100.0	94.15	ug/L	-6	10	
Molybdenum	A	0.1037	0.0895	100.0	95.30	ug/L	-5	10	
Silver	A	0.1485	0.1351	100.0	92.55	ug/L	-7	10	
Thallium	A	0.3848	0.3420	50.00	45.30	ug/L	-9	10	
Arsenic	E	0.2762	0.2455	100.0	96.25	ug/L	-4	10	
Chromium	E	2.8485	1.8454	100.0	93.43	ug/L	-7	10	
Cobalt	E	3.5767	3.1491	100.0	94.17	ug/L	-6	10	
Copper	E	5.5213	3.4048	100.0	95.73	ug/L	-4	10	
Nickel	E	1.3075	0.8610	100.0	94.23	ug/L	-6	10	
Vanadium	E	1.7936	1.3514	100.0	94.98	ug/L	-5	10	
Zinc	E	2.3450	0.4721	100.0	98.37	ug/L	-2	10	
Selenium	H	0.0582	0.0569	100.0	102.0	ug/L	2	10	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1248378	18.87
Scandium	A	1258360	1246720	-0.93
Scandium	E	22416	21351	-4.75
Scandium	H	412172	343536	-16.65
Germanium	H	106292	87359	-17.81
Germanium	E	16373	15196	-7.19
Indium	A	2238072	2170907	-3.00
Bismuth	A	2471677	2232114	-9.69
Yttrium	A	2169981	2131244	-1.79
Terbium	A	3490396	3347923	-4.08

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456076 File : 09d02q00076 Time : 03-APR-2009 06:16
Cal : 899133456001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	[0.06320]	0.1000	0.05623	ug/L	!ib
Barium	A	ND	0.1000	0.04661	ug/L	
Beryllium	A	ND	0.1000	0.03849	ug/L	i+ ***
Cadmium	A	ND	0.1000	0.02757	ug/L	
Lead	A	ND	0.1000	0.04402	ug/L	
Molybdenum	A	[0.03250]	0.1000	0.02174	ug/L	!ib
Silver	A	ND	0.1000	0.02926	ug/L	
Thallium	A	ND	0.05000	0.01280	ug/L	
Arsenic	E	ND	0.1000	0.03563	ug/L	
Chromium	E	ND	0.1000	0.08000	ug/L	
Cobalt	E	ND	0.1000	0.06245	ug/L	
Copper	E	ND	0.1000	0.08496	ug/L	
Nickel	E	ND	0.1000	0.07446	ug/L	
Vanadium	E	ND	0.1000	0.06241	ug/L	
Zinc	E	ND	0.1000	0.2752	ug/L	
Selenium	H	ND	0.1000	0.04707	ug/L	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1292721	**23.09 ***
Scandium	A	1258360	1258447	0.01
Scandium	E	22416	21879	-2.40
Scandium	H	412172	343431	-16.68
Germanium	H	106292	89233	-16.05
Germanium	E	16373	15766	-3.71
Indium	A	2238072	2214705	-1.04
Bismuth	A	2471677	2293329	-7.22
Yttrium	A	2169981	2153190	-0.77
Terbium	A	3490396	3344459	-4.18

!=warning +=high bias i=ISTD failure ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456078 File : 09d02q00078 Time : 03-APR-2009 06:39
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	0.1708	0.1000	ug/L	!a+
Barium	A	1.043	0.1000	ug/L	!a+
Beryllium	A	[0.02540]	0.1000	ug/L	
Cadmium	A	1.878	0.1000	ug/L	!a+
Lead	A	0.8215	0.1000	ug/L	!a+
Silver	A	0.2128	0.1000	ug/L	!a+
Thallium	A	0.05120	0.05000	ug/L	!a+
Arsenic	E	0.2360	0.1000	ug/L	!a+
Chromium	E	1.404	0.1000	ug/L	!a+
Cobalt	E	2.015	0.1000	ug/L	!a+
Copper	E	3.385	0.1000	ug/L	!a+
Nickel	E	2.535	0.1000	ug/L	!a+
Vanadium	E	[0.04340]	0.1000	ug/L	
Zinc	E	3.571	0.1000	ug/L	!a+
Selenium	H	0.1226	0.1000	ug/L	!a+

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	91290	ug/L	91
Calcium	A	300000	273400	ug/L	91
Magnesium	A	100000	89450	ug/L	89
Molybdenum	A	2000	1931	ug/L	97
Potassium	A	100000	92510	ug/L	93
Sodium	E	250000	223200	ug/L	89
Iron	H	250000	238900	ug/L	96

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	887701	-15.48
Scandium	A	1258360	1080064	-14.17
Scandium	E	22416	19176	-14.45
Scandium	H	412172	305409	-25.90
Germanium	H	106292	75481	-28.99
Germanium	E	16373	13503	-17.53
Indium	A	2238072	1792981	-19.89
Bismuth	A	2471677	1824122	-26.20
Yttrium	A	2169981	1898077	-12.53
Terbium	A	3490396	3003368	-13.95

!=warning +=high bias a=ICSA

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456079 File : 09d02q00079 Time : 03-APR-2009 06:50
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11778, S11768

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Cadmium	A	100.0	93.86	ug/L	-6	20	
Molybdenum	A	2000	2019	ug/L	1		
Silver	A	50.00	48.50	ug/L	-3	20	
Arsenic	E	100.0	97.82	ug/L	-2	20	
Chromium	E	200.0	186.4	ug/L	-7	20	
Cobalt	E	200.0	175.4	ug/L	-12	20	
Copper	E	200.0	170.8	ug/L	-15	20	
Nickel	E	200.0	170.4	ug/L	-15	20	
Vanadium	E	200.0	190.0	ug/L	-5	20	
Zinc	E	100.0	84.03	ug/L	-16	20	
Selenium	H	100.0	99.07	ug/L	-1	20	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Scandium	H	412172	307141	-25.48
Scandium	A	1258360	1083372	-13.91
Scandium	E	22416	19218	-14.27
Germanium	H	106292	75338	-29.12
Germanium	E	16373	13250	-19.07
Indium	A	2238072	1776875	-20.61
Yttrium	A	2169981	1891412	-12.84

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456090 File : 09d02q00090 Time : 03-APR-2009 08:54
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1683	0.1295	100.0	96.26	ug/L	-4	10	
Barium	A	0.0358	0.0324	100.0	101.7	ug/L	2	10	
Beryllium	A	0.1392	0.1130	100.0	83.36	ug/L	**-17**	10	c- ***
Cadmium	A	0.0363	0.0341	100.0	96.04	ug/L	-4	10	
Lead	A	0.4020	0.3119	100.0	93.13	ug/L	-7	10	
Molybdenum	A	0.1037	0.0897	100.0	95.51	ug/L	-4	10	
Silver	A	0.1485	0.1389	100.0	95.12	ug/L	-5	10	
Thallium	A	0.3848	0.3425	50.00	45.35	ug/L	-9	10	
Arsenic	E	0.2762	0.2519	100.0	98.75	ug/L	-1	10	
Chromium	E	2.8485	1.9111	100.0	96.76	ug/L	-3	10	
Cobalt	E	3.5767	3.2740	100.0	97.90	ug/L	-2	10	
Copper	E	5.5213	3.4934	100.0	98.23	ug/L	-2	10	
Nickel	E	1.3075	0.9038	100.0	98.91	ug/L	-1	10	
Vanadium	E	1.7936	1.3910	100.0	97.76	ug/L	-2	10	
Zinc	E	2.3450	0.4744	100.0	98.87	ug/L	-1	10	
Selenium	H	0.0582	0.0557	100.0	99.82	ug/L	0	10	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1223020	16.45
Scandium	A	1258360	1250496	-0.62
Scandium	E	22416	20477	-8.65
Scandium	H	412172	337379	-18.15
Germanium	H	106292	86527	-18.60
Germanium	E	16373	14832	-9.41
Indium	A	2238072	2102645	-6.05
Bismuth	A	2471677	2156686	-12.74
Yttrium	A	2169981	2108422	-2.84
Terbium	A	3490396	3262977	-6.52

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456091 File : 09d02q00091 Time : 03-APR-2009 09:06
Cal : 899133456001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	[0.09470]	0.1000	0.05623	ug/L	!ib
Barium	A	ND	0.1000	0.04661	ug/L	
Beryllium	A	ND	0.1000	0.03849	ug/L	
Cadmium	A	ND	0.1000	0.02757	ug/L	
Lead	A	ND	0.1000	0.04402	ug/L	
Molybdenum	A	[0.04800]	0.1000	0.02174	ug/L	!ib
Silver	A	ND	0.1000	0.02926	ug/L	
Thallium	A	[0.01420]	0.05000	0.01280	ug/L	!ib
Arsenic	E	ND	0.1000	0.03563	ug/L	
Chromium	E	ND	0.1000	0.08000	ug/L	
Cobalt	E	ND	0.1000	0.06245	ug/L	
Copper	E	0.1309	0.1000	0.08496	ug/L	ib ***
Nickel	E	ND	0.1000	0.07446	ug/L	
Vanadium	E	ND	0.1000	0.06241	ug/L	
Zinc	E	ND	0.1000	0.2752	ug/L	
Selenium	H	[0.07260]	0.1000	0.04707	ug/L	!ib

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1251407	19.16
Scandium	A	1258360	1253753	-0.37
Scandium	E	22416	20144	-10.14
Scandium	H	412172	329223	-20.12
Germanium	H	106292	85857	-19.23
Germanium	E	16373	14894	-9.03
Indium	A	2238072	2197603	-1.81
Bismuth	A	2471677	2280056	-7.75
Yttrium	A	2169981	2135921	-1.57
Terbium	A	3490396	3337428	-4.38

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456096 File : 09d02q00096 Time : 03-APR-2009 10:02
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1683	0.1291	100.0	95.97	ug/L	-4	10	
Barium	A	0.0358	0.0319	100.0	100.3	ug/L	0	10	
Beryllium	A	0.1392	0.1113	100.0	82.10	ug/L	**-18**	10	c- ***
Cadmium	A	0.0363	0.0337	100.0	94.94	ug/L	-5	10	
Lead	A	0.4020	0.3151	100.0	94.11	ug/L	-6	10	
Molybdenum	A	0.1037	0.0908	100.0	96.74	ug/L	-3	10	
Silver	A	0.1485	0.1357	100.0	92.96	ug/L	-7	10	
Thallium	A	0.3848	0.3405	50.00	45.09	ug/L	-10	10	
Arsenic	E	0.2762	0.2457	100.0	96.31	ug/L	-4	10	
Chromium	E	2.8485	1.8865	100.0	95.51	ug/L	-4	10	
Cobalt	E	3.5767	3.2416	100.0	96.93	ug/L	-3	10	
Copper	E	5.5213	3.3918	100.0	95.37	ug/L	-5	10	
Nickel	E	1.3075	0.8908	100.0	97.49	ug/L	-3	10	
Vanadium	E	1.7936	1.3674	100.0	96.10	ug/L	-4	10	
Zinc	E	2.3450	0.4682	100.0	97.55	ug/L	-2	10	
Selenium	H	0.0582	0.0554	100.0	99.43	ug/L	-1	10	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1141278	8.67
Scandium	A	1258360	1139985	-9.41
Scandium	E	22416	18610	-16.98
Scandium	H	412172	316473	-23.22
Germanium	H	106292	81478	-23.35
Germanium	E	16373	13612	-16.86
Indium	A	2238072	2025839	-9.48
Bismuth	A	2471677	2146578	-13.15
Yttrium	A	2169981	1964507	-9.47
Terbium	A	3490396	3204121	-8.20

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456097 File : 09d02q00097 Time : 03-APR-2009 10:13
Cal : 899133456001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	[0.07460]	0.1000	0.05623	ug/L	!ib
Barium	A	ND	0.1000	0.04661	ug/L	
Beryllium	A	ND	0.1000	0.03849	ug/L	
Cadmium	A	ND	0.1000	0.02757	ug/L	
Lead	A	ND	0.1000	0.04402	ug/L	
Molybdenum	A	[0.03950]	0.1000	0.02174	ug/L	!ib
Silver	A	ND	0.1000	0.02926	ug/L	
Thallium	A	ND	0.05000	0.01280	ug/L	
Arsenic	E	ND	0.1000	0.03563	ug/L	
Chromium	E	ND	0.1000	0.08000	ug/L	
Cobalt	E	ND	0.1000	0.06245	ug/L	
Copper	E	ND	0.1000	0.08496	ug/L	
Nickel	E	ND	0.1000	0.07446	ug/L	
Vanadium	E	ND	0.1000	0.06241	ug/L	
Zinc	E	ND	0.1000	0.2752	ug/L	
Selenium	H	ND	0.1000	0.04707	ug/L	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1212080	15.41
Scandium	A	1258360	1181297	-6.12
Scandium	E	22416	19752	-11.88
Scandium	H	412172	313249	-24.00
Germanium	H	106292	82313	-22.56
Germanium	E	16373	14391	-12.11
Indium	A	2238072	2101679	-6.09
Bismuth	A	2471677	2214326	-10.41
Yttrium	A	2169981	2039700	-6.00
Terbium	A	3490396	3214412	-7.91

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456107 File : 09d02q00107 Time : 03-APR-2009 12:08
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1683	0.1303	100.0	96.91	ug/L	-3	10	
Barium	A	0.0358	0.0319	100.0	100.3	ug/L	0	10	
Beryllium	A	0.1392	0.1127	100.0	83.17	ug/L	**-17**	10	c- ***
Cadmium	A	0.0363	0.0345	100.0	97.00	ug/L	-3	10	
Lead	A	0.4020	0.3125	100.0	93.32	ug/L	-7	10	
Molybdenum	A	0.1037	0.0906	100.0	96.51	ug/L	-3	10	
Silver	A	0.1485	0.1374	100.0	94.12	ug/L	-6	10	
Thallium	A	0.3848	0.3455	50.00	45.76	ug/L	-8	10	
Arsenic	E	0.2762	0.2490	100.0	97.62	ug/L	-2	10	
Chromium	E	2.8485	1.9106	100.0	96.74	ug/L	-3	10	
Cobalt	E	3.5767	3.2965	100.0	98.57	ug/L	-1	10	
Copper	E	5.5213	3.4730	100.0	97.65	ug/L	-2	10	
Nickel	E	1.3075	0.9046	100.0	99.00	ug/L	-1	10	
Vanadium	E	1.7936	1.4017	100.0	98.51	ug/L	-1	10	
Zinc	E	2.3450	0.4628	100.0	96.43	ug/L	-4	10	
Selenium	H	0.0582	0.0557	100.0	99.80	ug/L	0	10	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1143998	8.93
Scandium	A	1258360	1139759	-9.43
Scandium	E	22416	18208	-18.77
Scandium	H	412172	295248	-28.37
Germanium	H	106292	76895	-27.66
Germanium	E	16373	13397	-18.18
Indium	A	2238072	2006249	-10.36
Bismuth	A	2471677	2099267	-15.07
Yttrium	A	2169981	1970824	-9.18
Terbium	A	3490396	3175845	-9.01

-=low bias c=CCV

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456109 File : 09d02q00109 Time : 03-APR-2009 12:30
Cal : 899133456001 Caldate : 02-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05623	ug/L	
Barium	A	ND	0.1000	0.04661	ug/L	
Beryllium	A	ND	0.1000	0.03849	ug/L	
Cadmium	A	ND	0.1000	0.02757	ug/L	
Lead	A	ND	0.1000	0.04402	ug/L	
Molybdenum	A	ND	0.1000	0.02174	ug/L	
Silver	A	ND	0.1000	0.02926	ug/L	
Thallium	A	ND	0.05000	0.01280	ug/L	
Arsenic	E	ND	0.1000	0.03563	ug/L	
Chromium	E	ND	0.1000	0.08000	ug/L	
Cobalt	E	ND	0.1000	0.06245	ug/L	
Copper	E	ND	0.1000	0.08496	ug/L	
Nickel	E	ND	0.1000	0.07446	ug/L	
Vanadium	E	ND	0.1000	0.06241	ug/L	
Zinc	E	ND	0.1000	0.2752	ug/L	
Selenium	H	ND	0.1000	0.04707	ug/L	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	1195979	13.88
Scandium	A	1258360	1185780	-5.77
Scandium	E	22416	19619	-12.48
Scandium	H	412172	301171	-26.93
Germanium	H	106292	79749	-24.97
Germanium	E	16373	14257	-12.92
Indium	A	2238072	2106953	-5.86
Bismuth	A	2471677	2231125	-9.73
Yttrium	A	2169981	2038450	-6.06
Terbium	A	3490396	3234414	-7.33

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456110 File : 09d02q00110 Time : 03-APR-2009 12:42
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	0.2044	0.1000	ug/L	!a+
Barium	A	1.133	0.1000	ug/L	!a+
Beryllium	A	[0.02920]	0.1000	ug/L	
Cadmium	A	2.112	0.1000	ug/L	!a+
Lead	A	0.9044	0.1000	ug/L	!a+
Silver	A	0.2322	0.1000	ug/L	!a+
Thallium	A	0.05840	0.05000	ug/L	!a+
Arsenic	E	0.2661	0.1000	ug/L	!a+
Chromium	E	1.398	0.1000	ug/L	!a+
Cobalt	E	2.127	0.1000	ug/L	!a+
Copper	E	3.683	0.1000	ug/L	!a+
Nickel	E	2.474	0.1000	ug/L	!a+
Vanadium	E	[0.06800]	0.1000	ug/L	!a+
Zinc	E	3.692	0.1000	ug/L	!a+
Selenium	H	0.1730	0.1000	ug/L	!a+

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	105800	ug/L	106
Calcium	A	300000	315800	ug/L	105
Magnesium	A	100000	103200	ug/L	103
Molybdenum	A	2000	2191	ug/L	110
Potassium	A	100000	107000	ug/L	107
Sodium	E	250000	221500	ug/L	89
Iron	H	250000	239800	ug/L	96

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	1050227	720451	-31.40
Scandium	A	1258360	862953	-31.42
Scandium	E	22416	17019	-24.08
Scandium	H	412172	276427	-32.93
Germanium	H	106292	69294	-34.81
Germanium	E	16373	12088	-26.17
Indium	A	2238072	1535124	-31.41
Bismuth	A	2471677	1579798	-36.08
Yttrium	A	2169981	1600001	-26.27
Terbium	A	3490396	2605884	-25.34

!=warning +=high bias a=ICSA

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD AB FOR 211047 METALS Water
EPA 6020

Inst : MET16 IDF : 1.0
Seqnum : 899133456111 File : 09d02q00111 Time : 03-APR-2009 12:53
Cal : 899133456001 Caldate : 02-APR-2009
Standards: S11778, S11768

Analyte	Ch	Spiked	Quant	Units	%D	Max %D	Flags
Cadmium	A	100.0	95.06	ug/L	-5	20	
Molybdenum	A	2000	2046	ug/L	2		
Silver	A	50.00	48.57	ug/L	-3	20	
Arsenic	E	100.0	100.7	ug/L	1	20	
Chromium	E	200.0	190.9	ug/L	-5	20	
Cobalt	E	200.0	180.7	ug/L	-10	20	
Copper	E	200.0	173.1	ug/L	-13	20	
Nickel	E	200.0	175.3	ug/L	-12	20	
Vanadium	E	200.0	195.1	ug/L	-2	20	
Zinc	E	100.0	84.73	ug/L	-15	20	
Selenium	H	100.0	98.69	ug/L	-1	20	

ISTD (ICALBLK 09d02q00003)	Ch	ICALBLK Abund	Abund	%Drift
Scandium	H	412172	273913	-33.54
Scandium	A	1258360	923099	-26.64
Scandium	E	22416	16719	-25.41
Germanium	H	106292	68901	-35.18
Germanium	E	16373	11851	-27.62
Indium	A	2238072	1671437	-25.32
Yttrium	A	2169981	1764259	-18.70

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69138882

Instrument : MET06 Begun : 04/06/09 10:42
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	09d06k00001	TUN				04/06/09 10:42	1.0	1	
002	09d06k00002	X	RINSE			04/06/09 10:49	1.0	2	
003	09d06k00003	ICALBLK	CALBLANK			04/06/09 11:00	1.0	2	
004	09d06k00004	ICAL				04/06/09 11:11	1.0	3 2	
005	09d06k00005	ICAL				04/06/09 11:21	1.0	4 2	
006	09d06k00006	ICAL				04/06/09 11:32	1.0	5 2	
007	09d06k00007	ICAL				04/06/09 11:43	1.0	6 2	
008	09d06k00008	ICAL				04/06/09 11:53	1.0	7 2	
009	09d06k00009	ICAL				04/06/09 12:04	1.0	8 2	
010	09d06k00010	X				04/06/09 12:14	1.0	9 2	
011	09d06k00011	X				04/06/09 12:25	1.0	9 2	
012	09d06k00012	ICV				04/06/09 12:35	1.0	9 2	
013	09d06k00013	X				04/06/09 12:46	1.0	2	
014	09d06k00014	X				04/06/09 12:58	1.0	2	
015	09d06k00015	ICB				04/06/09 13:11	1.0	2	
016	09d06k00016	ICSA				04/06/09 13:18	1.0	10 2	7:CA=340000
017	09d06k00017	ICSAB				04/06/09 13:29	1.0	11 2	10:CA=320000
018	09d06k00018	X	RINSE			04/06/09 13:40	1.0	2	
019	09d06k00019	X	RINSE			04/06/09 13:50	1.0	2	
020	09d06k00020	BLANK	QC489859	Filtrate	149491	04/06/09 14:01	1.0	2	
021	09d06k00021	BS	QC489860	Filtrate	149491	04/06/09 14:12	1.0	2	
022	09d06k00022	BSD	QC489861	Filtrate	149491	04/06/09 14:23	1.0	2	
023	09d06k00023	SER	QC489864	Filtrate	149491	04/06/09 14:33	2500	2	
024	09d06k00024	SAMPLE	210886-003	Soil	149206	04/06/09 14:44	500.0	2	
025	09d06k00025	SER	QC489846	Filtrate	149487	04/06/09 14:55	25.0	2	
026	09d06k00026	SAMPLE	210883-001	Soil	149427	04/06/09 15:06	100.0	2	
027	09d06k00027	SAMPLE	211029-004	Filtrate	149491	04/06/09 15:16	50.0	2	1:NA=55000
028	09d06k00028	CCV				04/06/09 15:27	1.0	12 2	
029	09d06k00029	X				04/06/09 15:37	1.0	2	
030	09d06k00030	CCB				04/06/09 15:48	1.0	2	
031	09d06k00031	SAMPLE	211029-006	Filtrate	149491	04/06/09 16:00	100.0	2	1:NA=43000
032	09d06k00032	CCV				04/06/09 16:10	1.0	12 2	
033	09d06k00033	CCB				04/06/09 16:21	1.0	2	
034	09d06k00034	X				04/06/09 16:31	1.0	2	
035	09d06k00035	BLANK	QC490388	Soil	149618	04/06/09 16:48	5.0	2	
036	09d06k00036	TUN				04/06/09 16:56	1.0	1	
037	09d06k00037	X	RINSE			04/06/09 17:05	1.0	2	
038	09d06k00038	BS	QC490389	Soil	149618	04/06/09 17:12	20.0	2	
039	09d06k00039	BSD	QC490390	Soil	149618	04/06/09 17:19	20.0	2	
040	09d06k00040	SAMPLE	211142-001	Soil	149618	04/06/09 17:28	50.0	2	
041	09d06k00041	CCV				04/06/09 17:34	1.0	12 2	
042	09d06k00042	CCB				04/06/09 17:45	1.0	2	
043	09d06k00043	ICSA				04/06/09 17:51	1.0	10 2	7:CA=330000
044	09d06k00044	ICSAB				04/06/09 18:01	1.0	11 2	10:CA=320000
045	09d06k00045	X	RINSE			04/06/09 18:12	1.0	2	
046	09d06k00046	X	RINSE			04/06/09 18:23	1.0	2	
047	09d06k00047	SAMPLE	210959-017	Soil	149447	04/06/09 18:34	100.0	2	
048	09d06k00048	MSS	211014-004	Soil	149519	04/06/09 18:44	50.0	2	1:MN=490
049	09d06k00049	SAMPLE	211014-021	Soil	149519	04/06/09 18:55	50.0	2	1:MN=240
050	09d06k00050	SAMPLE	211014-022	Soil	149519	04/06/09 19:06	50.0	2	
051	09d06k00051	SAMPLE	211014-023	Soil	149519	04/06/09 19:16	50.0	2	
052	09d06k00052	SAMPLE	211014-024	Soil	149519	04/06/09 19:27	50.0	2	1:MN=270

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69138882

Instrument : MET06 Begun : 04/06/09 10:42
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
053	09d06k00053	BS	QC489577	Soil	149427	04/06/09 19:38	10.0	2	
054	09d06k00054	BSD	QC489578	Soil	149427	04/06/09 19:48	10.0	2	
055	09d06k00055	CCV				04/06/09 19:59	1.0	12 2	
056	09d06k00056	X				04/06/09 20:10	1.0	2	
057	09d06k00057	CCB				04/06/09 20:20	1.0	2	
058	09d06k00058	BLANK	QC490187	Soil	149573	04/06/09 20:31	5.0	2	
059	09d06k00059	BS	QC490188	Soil	149573	04/06/09 20:42	10.0	2	
060	09d06k00060	BSD	QC490189	Soil	149573	04/06/09 20:53	10.0	2	
061	09d06k00061	MSS	211049-002	Soil	149573	04/06/09 21:03	50.0	2	
062	09d06k00062	MS	QC490190	Soil	149573	04/06/09 21:14	50.0	2	
063	09d06k00063	MSD	QC490191	Soil	149573	04/06/09 21:25	50.0	2	
064	09d06k00064	SER	QC490192	Soil	149573	04/06/09 21:35	250.0	2	
065	09d06k00065	PDS	QC490193	Soil	149573	04/06/09 21:46	50.0	13 14 2	
066	09d06k00066	SAMPLE	211049-001	Soil	149573	04/06/09 21:57	50.0	2	
067	09d06k00067	SAMPLE	211049-003	Soil	149573	04/06/09 22:07	50.0	2	
068	09d06k00068	CCV				04/06/09 22:18	1.0	12 2	
069	09d06k00069	X				04/06/09 22:29	1.0	2	
070	09d06k00070	CCB				04/06/09 22:39	1.0	2	
071	09d06k00071	SAMPLE	210976-001	Soil	149573	04/06/09 22:50	50.0	2	3:CA=28000
072	09d06k00072	SAMPLE	210976-002	Soil	149573	04/06/09 23:01	50.0	2	2:AL=24000
073	09d06k00073	TUN				04/06/09 23:13	1.0	1	
074	09d06k00074	X	RINSE			04/06/09 23:19	1.0	2	
075	09d06k00075	SAMPLE	210976-003	Soil	149573	04/06/09 23:30	50.0	2	2:CA=48000
076	09d06k00076	SAMPLE	210976-004	Soil	149573	04/06/09 23:41	50.0	2	1:CA=91000
077	09d06k00077	SAMPLE	210976-005	Soil	149573	04/06/09 23:52	50.0	2	1:CA=90000
078	09d06k00078	SAMPLE	210976-006	Soil	149573	04/07/09 00:02	50.0	2	4:AL=39000
079	09d06k00079	SAMPLE	211089-001	Soil	149573	04/07/09 00:13	50.0	2	
080	09d06k00080	SAMPLE	211089-002	Soil	149573	04/07/09 00:24	50.0	2	
081	09d06k00081	SAMPLE	211117-001	Soil	149573	04/07/09 00:34	50.0	2	2:MG=29000
082	09d06k00082	SAMPLE	211117-002	Soil	149573	04/07/09 00:45	50.0	2	3:MG=29000
083	09d06k00083	CCV				04/07/09 00:56	1.0	12 2	
084	09d06k00084	X				04/07/09 01:06	1.0	2	
085	09d06k00085	CCB				04/07/09 01:17	1.0	2	
086	09d06k00086	SAMPLE	211117-003	Soil	149573	04/07/09 01:28	50.0	2	4:MG=63000
087	09d06k00087	CCV				04/07/09 01:39	1.0	12 2	
088	09d06k00088	X				04/07/09 01:50	1.0	2	
089	09d06k00089	CCB				04/07/09 02:00	1.0	2	
090	09d06k00090	ICSA				04/07/09 02:11	1.0	10 2	7:CA=340000
091	09d06k00091	ICSAB				04/07/09 02:22	1.0	11 2	10:CA=330000
092	09d06k00092	X	RINSE			04/07/09 02:33	1.0	2	
093	09d06k00093	X	RINSE			04/07/09 02:44	1.0	2	
094	09d06k00094	SAMPLE	211086-002	Water	149533	04/07/09 02:55	500.0	2	
095	09d06k00095	SAMPLE	211087-001	Filtrate	149533	04/07/09 03:06	500.0	2	
096	09d06k00096	SAMPLE	211087-002	Filtrate	149533	04/07/09 03:17	500.0	2	
097	09d06k00097	SAMPLE	211087-003	Filtrate	149533	04/07/09 03:27	500.0	2	
098	09d06k00098	SAMPLE	211087-004	Filtrate	149533	04/07/09 03:38	500.0	2	
099	09d06k00099	SAMPLE	211087-005	Filtrate	149533	04/07/09 03:49	500.0	2	
100	09d06k00100	SAMPLE	211087-006	Filtrate	149533	04/07/09 04:00	500.0	2	
101	09d06k00101	SAMPLE	211087-007	Filtrate	149533	04/07/09 04:11	500.0	2	
102	09d06k00102	CCV				04/07/09 04:22	1.0	12 2	
103	09d06k00103	X				04/07/09 04:32	1.0	2	
104	09d06k00104	CCB				04/07/09 04:43	1.0	2	

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 69138882

Instrument : MET06 Begun : 04/06/09 10:42
Method : EPA 6020 SOP Version : icpms_rv5

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
105	09d06k00105	SAMPLE	211087-008	Filtrate	149533	04/07/09 04:54	500.0	2	
106	09d06k00106	SAMPLE	211087-009	Filtrate	149533	04/07/09 05:05	500.0	2	
107	09d06k00107	SAMPLE	211087-010	Filtrate	149533	04/07/09 05:16	500.0	2	1:NA=22000
108	09d06k00108	TUN				04/07/09 05:27	1.0	1	
109	09d06k00109	X	RINSE			04/07/09 05:34	1.0	2	
110	09d06k00110	SAMPLE	211087-011	Filtrate	149533	04/07/09 05:45	500.0	2	
111	09d06k00111	SAMPLE	211087-013	Filtrate	149533	04/07/09 05:56	500.0	2	
112	09d06k00112	SAMPLE	211125-001	Filtrate	149590	04/07/09 06:07	500.0	2	1:NA=21000
113	09d06k00113	SAMPLE	211125-002	Filtrate	149590	04/07/09 06:17	500.0	2	1:NA=23000
114	09d06k00114	SAMPLE	211125-003	Filtrate	149590	04/07/09 06:28	500.0	2	1:NA=23000
115	09d06k00115	SAMPLE	211125-004	Filtrate	149590	04/07/09 06:39	500.0	2	
116	09d06k00116	SAMPLE	211125-005	Filtrate	149590	04/07/09 06:50	500.0	2	1:NA=20000
117	09d06k00117	CCV				04/07/09 07:01	1.0	12 2	
118	09d06k00118	X				04/07/09 07:11	1.0	2	
119	09d06k00119	CCB				04/07/09 07:22	1.0	2	
120	09d06k00120	SAMPLE	211125-006	Filtrate	149590	04/07/09 07:33	500.0	2	
121	09d06k00121	CCV				04/07/09 07:44	1.0	12 2	
122	09d06k00122	X				04/07/09 07:55	1.0	2	
123	09d06k00123	CCB				04/07/09 08:05	1.0	2	
124	09d06k00124	ICSA				04/07/09 08:16	1.0	10 2	7:CA=340000
125	09d06k00125	ICSAB				04/07/09 08:27	1.0	11 2	10:CA=330000
126	09d06k00126	X	RINSE			04/07/09 08:38	1.0	2	
127	09d06k00127	X	RINSE			04/07/09 08:49	1.0	2	
128	09d06k00128	X	RINSE			04/07/09 09:00	1.0	2	
129	09d06k00129	X	RINSE			04/07/09 09:11	1.0	2	
130	09d06k00130	X	RINSE			04/07/09 09:22	1.0	2	
131	09d06k00131	BLANK	QC490187	Soil	149573	04/07/09 09:33	5.0	2	
132	09d06k00132	BS	QC490188	Soil	149573	04/07/09 09:44	10.0	2	
133	09d06k00133	BSD	QC490189	Soil	149573	04/07/09 09:55	10.0	2	
134	09d06k00134	MSS	211049-002	Soil	149573	04/07/09 10:06	50.0	2	
135	09d06k00135	MS	QC490190	Soil	149573	04/07/09 10:16	50.0	2	

RCH 04/06/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 43.

AH 04/07/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 44 through 125.

Standards used: 1=S11767 2=S11768 3=S11771 4=S11772 5=S11773 6=S11774 7=S11769 8=S11770 9=S11775 10=S11777 11=S11778 12=S11776 13=S10997 14=S10998

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 69138882

Date : 04/06/09 Reference : 09d06k00003
Sequence : MET06 09d06k00 Analyzed : 04/06/09 11:00

#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
		IB+ICALBLK STD	4766031	3342618	26543	1226325	273253	20990	5224553	5668667	4890176	7978841
		LOWER LIMIT	1429809	1002785	7963	367898	81976	6297	1567366	1700600	1467053	2393652
		UPPER LIMIT	5719237	4011142	31852	1471590	327904	25188	6269464	6802400	5868211	9574609
015	ICB		4216619	2942613	26749	1149967	259298	21255	4734017	5203239	4420415	7248587
016	ICSA		3611628	2523531	23155	902920	180061	16435	3443413	3176923	3430711	5423485
017	ICSAB		3569518	2550223	22702	896311	177959	15919	3512277	3195067	3484406	5474250
020	BLANK	QC489859	4259348	2893642	24495	1058539	261580	21732	4636378	5002633	4344408	7309517
021	BS	QC489860	4270436	3001800	24640	1028803	226195	19120	4600536	4750202	4408425	7260108
022	BSD	QC489861	4272876	3028147	25050	1028761	225432	19490	4645149	4808505	4445092	7345888
023	SER	QC489864	4163490	2929841	25515	1062994	239539	20311	4826342	5279240	4414616	7454234
024	SAMPLE	210886-003	4065212	2828683	25098	1047570	233868	19803	4672122	5197844	4302746	7289293
025	SER	QC489846	4108548	2882886	24229	1021703	229938	19869	4595219	4949199	4301727	7096563
026	SAMPLE	210883-001	4142745	2961990	25854	1065585	238723	20508	4730411	5185407	4507979	7398688
027	SAMPLE	211029-004	4243360	3182172	24067	1053605	232509	18972	4839136	4944679	4781380	7400387
028	CCV		4272614	3143290	25566	1046750	230793	20200	4791432	4909753	4615002	7431345
030	CCB		4062846	2883671	26056	1072076	241711	20591	4732943	5190568	4375063	7303650
031	SAMPLE	211029-006	4260817	3109650	27934	1129680	248282	21916	4773479	4922714	4797546	7363113
032	CCV		4305963	3172807	28112	1135320	247019	21715	4834486	4890150	4647417	7433078
033	CCB		4262517	3067389	27570	1142660	256936	22150	4967222	5297057	4619532	7496943
035	BLANK	QC490388	4089003	2859182	26854	1218443	265688	21551	4653791	5091032	4333454	7228636
038	BS	QC490389	3900654	2808764	24928	1043988	231927	19256	4644328	5126649	4301467	7229133
039	BSD	QC490390	3856996	2767620	24911	1012887	227651	19425	4579543	5070170	4222058	7159280
040	SAMPLE	211142-001	3818736	2798033	25324	1024316	224612	19576	4481094	4980145	4268604	7065989
041	CCV		3884420	2819917	25127	1004238	222404	19400	4464148	4749796	4258938	7138508
042	CCB		3863882	2776026	25166	1016541	233683	20004	4655424	5090064	4257729	7233641
043	ICSA		3444503	2502570	22804	787379	162609	16148	3502614	3183949	3463607	5474257
044	ICSAB		3376085	2481775	21631	782815	161457	15277	3517540	3159819	3493348	5467684
047	SAMPLE	210959-017	3795689	2795433	24155	958305	217558	19377	4582817	5084197	4277730	7168463
048	MSS	211014-004	3803159	2841590	24478	981951	212099	19040	4546173	4893386	4321066	7105327
049	SAMPLE	211014-021	3831693	2813733	25486	951923	214969	19933	4557174	5017238	4264187	7094734
050	SAMPLE	211014-022	3792381	2785084	24655	958287	216113	19506	4455536	4874875	4383597	7028601
051	SAMPLE	211014-023	3792133	2814366	24650	947798	215455	19152	4521191	4930017	4403319	7060447
052	SAMPLE	211014-024	3670271	2743654	24260	950192	213857	19299	4382026	4843575	4300373	6904696
053	BS	QC489577	3969020	2874809	24234	972111	219614	19444	4621984	4838404	4343173	7162756
054	BSD	QC489578	4019093	2946640	24925	984103	222335	19670	4704964	4892804	4438565	7257373
055	CCV		3905535	2924429	24972	972703	217281	19533	4593894	4734123	4402535	7181719
057	CCB		3687900	2664241	22463	953642	220277	18093	4505464	4972396	4129550	6946276
058	BLANK	QC490187	3960479	2854153	24380	945386	217797	19880	4667802	5018746	4342199	7217283
059	BS	QC490188	3873549	2813242	24396	933722	213216	19288	4536637	4815555	4267762	7113951
060	BSD	QC490189	3964968	2924392	24383	958785	214474	19217	4644190	4868787	4391035	7230383
061	MSS	211049-002	3678427	2743968	24114	967763	217776	19038	4450444	4827777	4261299	6916412
062	MS	QC490190	3777848	2842057	24892	945360	214849	19760	4585961	4890027	4393533	7133348
063	MSD	QC490191	3714800	2746392	23246	917358	208920	18805	4469239	4830021	4266606	6998539
064	SER	QC490192	3653717	2645916	24292	935897	215517	19713	4488085	4962112	4133582	6935272
065	PDS	QC490193	3832034	2966443	24992	886921	201420	19482	4579904	4731167	4520508	7197743
066	SAMPLE	211049-001	3841969	2820194	24561	954860	214515	19626	4584700	4952952	4345882	7060618
067	SAMPLE	211049-003	3857527	2914921	25254	944554	213918	20078	4658676	4952921	4494387	7189275
068	CCV		3527653	2701071	25012	916593	206535	19735	4198491	4263742	4058798	6530687
070	CCB		3741498	2712594	24034	908632	211024	19543	4525091	4945060	4170331	6949926
071	SAMPLE	210976-001	3786250	2898566	25604	944556	199954	19194	4467466	4778468	5859047	6951540
072	SAMPLE	210976-002	3895513	3064532	25892	977015	209559	19822	4682875	4785140	5995938 *	7079073

CURTIS & TOMPKINS INTERNAL STANDARD SUMMARY FOR SEQUENCE 69138882

Date : 04/06/09 Reference : 09d06k00003
Sequence : MET06 09d06k00 Analyzed : 04/06/09 11:00

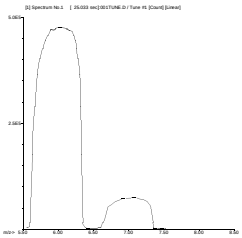
#	Type	Sample ID	LI A	SC A	SC E	SC H	GE H	GE E	IN A	BI A	Y A	TB A
075	SAMPLE	210976-003	3950922	3092621	27079	1058538	222243	20202	4707820	4777565	5593197	7144077
076	SAMPLE	210976-004	3822732	2915188	25535	970145	209789	19222	4620968	4653213	4551191	7060298
077	SAMPLE	210976-005	3586835	2759148	24190	921316	197516	18204	4398166	4500421	4598322	6786273
078	SAMPLE	210976-006	3647353	2963562	26198	993092	203280	19311	4480149	4706031	6632796 *	6970683
079	SAMPLE	211089-001	3717126	2789047	24910	953946	210830	19770	4539577	4888698	4297163	6998204
080	SAMPLE	211089-002	3749638	2825955	24489	930166	208137	19313	4558098	4836652	4314663	7001287
081	SAMPLE	211117-001	3602295	2701217	24239	892016	198561	18975	4319070	4569480	4133235	6805082
082	SAMPLE	211117-002	3633004	2693159	24032	928820	203802	18803	4349142	4603601	4136323	6882663
083	CCV		3752261	2776788	24258	833569	194593	19202	4402804	4553231	4227485	6827802
085	CCB		3767663	2834630	24900	924870	211610	19905	4710767	4997661	4384399	7207778
086	SAMPLE	211117-003	3553440	2711524	24616	880931	195972	18789	4315476	4416241	4106142	6724487
087	CCV		3677868	2724902	25061	869488	196993	19613	4348901	4441716	4145206	6674337
089	CCB		3596479	2658071	24116	963759	214847	19444	4543171	4896066	4153865	6910973
090	ICSA		3265499	2472151	21990	659705	141156	16095	3545024	3136189	3508712	5434043
091	ICSAB		3115388	2407083	21219	657304	139705	15129	3457777	3057351	3437116	5263503
094	SAMPLE	211086-002	3494073	2674175	22739	765869	185372	18519	4536208	4838640	4179095	6909966
095	SAMPLE	211087-001	3567490	2655491	22871	768043	184648	18654	4519781	4862331	4158060	6913775
096	SAMPLE	211087-002	3548676	2674616	22951	764215	184000	18805	4534881	4880477	4179621	6959307
097	SAMPLE	211087-003	3132871	2271416	24925	740979	177791	19541	3870662	4119553	3543608	5872313
098	SAMPLE	211087-004	3569610	2670251	22599	743651	177750	18215	4422566	4684395	4121238	6785343
099	SAMPLE	211087-005	3615601	2705585	23311	771594	186404	18794	4538857	4857839	4190601	6837568
100	SAMPLE	211087-006	3694390	2808633	23369	737835	178163	18602	4602936	4785171	4434521	7046823
101	SAMPLE	211087-007	3633966	2802608	24014	788472	185506	19062	4565475	4721736	4434936	6971023
102	CCV		3622135	2790719	23895	781540	181666	18718	4423547	4478409	4234245	6805673
104	CCB		3524233	2647827	23316	771064	184367	18791	4463206	4765255	4118199	6756524
105	SAMPLE	211087-008	3697313	2764530	23669	742021	178228	18667	4598907	4822780	4269276	7016523
106	SAMPLE	211087-009	3709073	2774706	24075	777629	186661	19401	4632515	4918551	4299470	7047778
107	SAMPLE	211087-010	3654168	2752557	24093	759627	179259	18964	4526416	4710110	4403347	6923657
110	SAMPLE	211087-011	3827442	2936520	26442	947175	207263	20393	4772672	4835327	4486058	7124338
111	SAMPLE	211087-013	3560534	2678079	24114	822432	196221	19289	4538733	4836181	4170823	6877506
112	SAMPLE	211125-001	3655043	2806854	24192	792277	186666	19148	4562466	4742725	4380990	6958338
113	SAMPLE	211125-002	3611138	2742483	24412	818654	186774	19161	4468056	4629464	4263021	6771755
114	SAMPLE	211125-003	3616992	2759633	24180	748385	177746	19054	4487721	4633276	4303281	6826311
115	SAMPLE	211125-004	3568527	2665176	23437	762435	183920	19031	4488008	4797206	4131828	6819210
116	SAMPLE	211125-005	3728526	2777698	24330	751575	179133	19237	4576431	4743399	4293411	6950421
117	CCV		3594349	2746553	23912	742047	173895	18727	4416654	4505481	4220923	6828194
119	CCB		3548210	2637957	23562	756939	181971	18963	4480732	4795846	4131967	6796203
120	SAMPLE	211125-006	3664410	2750587	23874	746764	177446	18794	4555737	4751856	4221874	6886545
121	CCV		3665666	2810353	24214	744698	174717	18649	4519430	4565184	4320948	6985198
123	CCB		3526045	2646576	23352	742978	178714	18790	4478866	4781822	4142925	6833107
124	ICSA		3196919	2494000	22156	618191	132501	15932	3549172	3117222	3528713	5378267
125	ICSAB		3060045	2415685	20687	615968	130647	14990	3497572	3056476	3487448	5300963
131	BLANK	QC490187	3578669	2692136	22401	690540	165506	18001	4484808	4708311	4213694	6875446
132	BS	QC490188	3586111	2706767	22396	680296	159106	17543	4438428	4598473	4194771	6792022
133	BSD	QC490189	3520875	2678467	22429	683118	160236	17549	4396346	4514046	4161709	6723147
134	MSS	211049-002	3372495	2603944	21907	658149	155493	17172	4322317	4570184	4143684	6655727
135	MS	QC490190	3310699	2603876	21656	666134	157908	17202	4271304	4515633	4103990	6608813

MET06 QC Tune Report

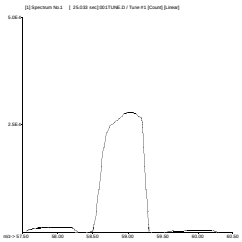
Data File: C:\ICPCHEM\1\DATA\09D06k00.B\001TUNE.D
Date Acquired: Apr 6 2009 10:42 am
Acq. Method: TN6020.M
Operator:
Sample Name: tun,s11767
Misc Info:
Vial Number: 1307
Current Method: C:\ICPCHEM\1\METHODS\TN6020.M

RSD (%)

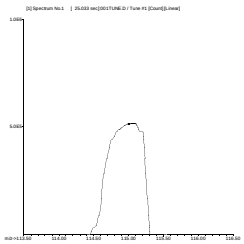
Element	Actual	Required	Flag
7 Li	0.81	5.00	
59 Co	0.33	5.00	
115 In	1.22	5.00	
205 Tl	0.64	5.00	



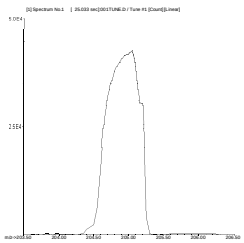
7 Li
Mass Calib.
Actual: 7.00
Required: 6.90 - 7.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



59 Co
Mass Calib.
Actual: 59.05
Required: 58.90 - 59.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



115 In
Mass Calib.
Actual: 115.00
Required: 114.90 - 115.10
Flag:
Peak Width
Actual: 0.65
Required: 0.90
Flag:



205 Tl
Mass Calib.
Actual: 204.95
Required: 204.90 - 205.10
Flag:
Peak Width
Actual: 0.60
Required: 0.90
Flag:

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 METALS Water: EPA 6020

Inst : MET06 Reviewer : ---
Calnum : 69138882001 Date : 06-APR-2009 11:00
Units : ug/L X Axis : R

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	09d06k00004	69138882004		06-APR-2009 11:11	S11771, S11768
L2	09d06k00005	69138882005		06-APR-2009 11:21	S11772, S11768
L3	09d06k00006	69138882006		06-APR-2009 11:32	S11773, S11768
L4	09d06k00007	69138882007		06-APR-2009 11:43	S11774, S11768
L5	09d06k00008	69138882008		06-APR-2009 11:53	S11769, S11768
L6	09d06k00009	69138882009		06-APR-2009 12:04	S11770, S11768

Analyte	Ch	L1	L2	L3	L4	L5	L6	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	Flg
Antimony	A	0.4295	0.1303	0.1226	0.1091	0.1198	0.1210	BLNK	-0.2584	8.29635		0.1720	1.000	0.995	
Barium	A	0.1027	0.0404	0.0340	0.0286	0.0293	0.0297	BLNK	-0.2999	33.8061		0.0441	1.000	0.995	
Beryllium	A	0.2373	0.1090	0.1019	0.0913	0.0978	0.0948	BLNK	-0.2690	10.5016		0.1220	1.000	0.995	
Cadmium	A	0.0887	0.0417	0.0381	0.0342	0.0354	0.0352	BLNK	-0.2792	28.4174		0.0456	1.000	0.995	
Lead	A	0.8905	0.3888	0.3457	0.3094	0.3237	0.3232	BLNK	-0.2789	3.09899		0.4302	1.000	0.995	
Molybdenum	A	0.2784	0.1038	0.0959	0.0846	0.0892	0.0931	BLNK	-0.3578	10.8565		0.1241	0.999	0.995	
Silver	A	0.3818	0.1625	0.1522	0.1387	0.1482	0.1442	BLNK	-0.2807	6.90856		0.1879	1.000	0.995	
Thallium	A	1.2092	0.4112	0.3743	0.3240	0.3731	0.3753	BLNK	-0.2038	2.67506		0.5112	1.000	0.995	
Arsenic	E	0.7248	0.3066	0.2737	0.2372	0.2406	0.2447	BLNK	-0.2214	4.10576		0.3379	1.000	0.995	
Chromium	E	10.524	3.6874	3.2373	2.4943	2.4071	2.4234	BLNK	-0.3341	0.41403		4.1289	1.000	0.995	
Cobalt	E	16.884	5.9024	5.2466	4.6757	4.4995	4.5002	BLNK	-0.3203	0.22264		6.9513	1.000	0.995	
Copper	E	38.427	12.707	8.7424	5.1548	4.8896	4.8246	BLNK	-0.3128	0.20708		12.458	1.000	0.995	
Nickel	E	5.7092	2.1238	1.7754	1.3655	1.3108	1.2863	BLNK	-0.3281	0.77596		2.2618	1.000	0.995	
Vanadium	E	4.7398	2.0757	1.7809	1.6055	1.5861	1.6149	BLNK	-0.2284	0.62233		2.2338	1.000	0.995	
Zinc	E	25.188	7.9044	3.8597	0.7111	0.5966	0.5417	BLNK	-1.2074	1.82169		6.4669	0.996	0.995	
Selenium	H	0.1665	0.0847	0.0712	0.0644	0.0650	0.0676	BLNK	-0.2581	14.9257		0.0866	1.000	0.995	

Spiked Amounts / Drifts	Ch	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D	L6	%D
Antimony	A	0.100	-2	0.500	-44	1.000	-24	10.00	-12	100.0	-1	200.0	0
Barium	A	0.100	-53	0.500	-23	1.000	-15	10.00	-6	100.0	-1	200.0	0
Beryllium	A	0.100	-120	0.500	-39	1.000	-20	10.00	-7	100.0	2	200.0	-1
Cadmium	A	0.100	-127	0.500	-37	1.000	-20	10.00	-6	100.0	0	200.0	0
Lead	A	0.100	-103	0.500	-35	1.000	-21	10.00	-7	100.0	0	200.0	0
Molybdenum	A	0.100	-156	0.500	-59	1.000	-32	10.00	-12	100.0	-4	200.0	1
Silver	A	0.100	-117	0.500	-44	1.000	-23	10.00	-7	100.0	2	200.0	-1
Thallium	A	0.050	-184	0.250	-72	0.500	-41	5.000	-17	50.00	-1	100.0	0
Arsenic	E	0.100	-24	0.500	-18	1.000	-10	10.00	-5	100.0	-1	200.0	0
Chromium	E	0.100	2	0.500	-14	1.000	1	10.00	0	100.0	-1	200.0	0
Cobalt	E	0.100	-44	0.500	-33	1.000	-15	10.00	1	100.0	0	200.0	0
Copper	E	0.100	383	0.500	101	1.000	50	10.00	4	100.0	1	200.0	0
Nickel	E	0.100	15	0.500	-1	1.000	5	10.00	3	100.0	1	200.0	0
Vanadium	E	0.100	-33	0.500	-16	1.000	-12	10.00	-2	100.0	-2	200.0	0
Zinc	E	0.100	3281	0.500	1098	1.000	482	10.00	17	100.0	7	200.0	-2
Selenium	H	0.100	-110	0.500	-25	1.000	-20	10.00	-6	100.0	-3	200.0	1

Instrument amount = a0 + response * a1 + response^2 * a2; BLNK=Y=aX+[blank]

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 METALS Water
EPA 6020

Inst : MET06
Calnum : 69138882001 Cal Date : 06-APR-2009

ICV 69138882012 (09d06k00012 06-APR-2009) stds: S11775, S11768

Analyte	Ch	Average RF	RF	Spiked	Quant	Units	%D	Max	Flags
Antimony	A	0.1720	0.1224	100.0	101.3	ug/L	1	10	
Barium	A	0.0441	0.0295	100.0	99.54	ug/L	0	10	
Beryllium	A	0.1220	0.1001	100.0	104.8	ug/L	5	10	
Cadmium	A	0.0456	0.0357	100.0	101.0	ug/L	1	10	
Lead	A	0.4302	0.3240	100.0	100.1	ug/L	0	10	
Molybdenum	A	0.1241	0.0901	100.0	97.48	ug/L	-3	10	
Silver	A	0.1879	0.1490	100.0	102.6	ug/L	3	10	
Thallium	A	0.5112	0.3630	50.00	48.35	ug/L	-3	10	
Arsenic	E	0.3379	0.2532	100.0	103.7	ug/L	4	10	
Chromium	E	4.1289	2.4321	100.0	100.4	ug/L	0	10	
Cobalt	E	6.9513	4.5866	100.0	101.8	ug/L	2	10	
Copper	E	12.458	4.8911	100.0	101.0	ug/L	1	10	
Nickel	E	2.2618	1.3314	100.0	103.0	ug/L	3	10	
Vanadium	E	2.2338	1.6209	100.0	100.6	ug/L	1	10	
Zinc	E	6.4669	0.5741	100.0	103.4	ug/L	3	10	
Selenium	H	0.0866	0.0670	100.0	99.73	ug/L	0	10	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69138882015 File : 09d06k00015 Time : 06-APR-2009 13:11
Cal : 69138882001 Caldate : 06-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	ND	0.1000	0.03166	ug/L	
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	0.4431	0.1000	0.3547	ug/L	ib ***
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d06k00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	4766031	4216619	-11.53
Scandium	A	3342618	2942613	-11.97
Scandium	E	26543	26749	0.78
Scandium	H	1226325	1149967	-6.23
Germanium	H	273253	259298	-5.11
Germanium	E	20990	21255	1.26
Indium	A	5224553	4734017	-9.39
Bismuth	A	5668667	5203239	-8.21
Yttrium	A	4890176	4420415	-9.61
Terbium	A	7978841	7248587	-9.15

ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69138882016 File : 09d06k00016 Time : 06-APR-2009 13:18
Cal : 69138882001 Caldate : 06-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	[-0.04480]	0.1000	ug/L	
Barium	A	0.9933	0.1000	ug/L	!a+
Beryllium	A	[-0.2402]	0.1000	ug/L	!a-
Cadmium	A	2.725	0.1000	ug/L	!a+
Lead	A	0.7094	0.1000	ug/L	!a+
Silver	A	[-0.03830]	0.1000	ug/L	
Thallium	A	[-0.1112]	0.05000	ug/L	!a-
Arsenic	E	[0.05420]	0.1000	ug/L	
Chromium	E	1.694	0.1000	ug/L	!a+
Cobalt	E	1.986	0.1000	ug/L	!a+
Copper	E	3.806	0.1000	ug/L	!a+
Nickel	E	2.592	0.1000	ug/L	!a+
Vanadium	E	[-0.1134]	0.1000	ug/L	!a-
Zinc	E	6.167	0.1000	ug/L	!a+
Selenium	H	[-0.1007]	0.1000	ug/L	!a-

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	111100	ug/L	111
Calcium	A	300000	339200	ug/L	113
Magnesium	A	100000	108200	ug/L	108
Molybdenum	A	2000	2253	ug/L	113
Potassium	A	100000	112300	ug/L	112
Sodium	E	250000	286300	ug/L	115
Iron	H	250000	261600	ug/L	105

ISTD (ICALBLK 09d06k00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	4766031	3611628	-24.22
Scandium	A	3342618	2523531	-24.50
Scandium	E	26543	23155	-12.76
Scandium	H	1226325	902920	-26.37
Germanium	H	273253	180061	-34.10
Germanium	E	20990	16435	-21.70
Indium	A	5224553	3443413	-34.09
Bismuth	A	5668667	3176923	-43.96
Yttrium	A	4890176	3430711	-29.84
Terbium	A	7978841	5423485	-32.03

!=warning +=high bias -=low bias a=ICSA

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69138882028 File : 09d06k00028 Time : 06-APR-2009 15:27
Cal : 69138882001 Caldate : 06-APR-2009
Standards: S11776, S11768

Analyte	Ch	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Antimony	A	0.1720	0.1209	100.0	100.0	ug/L	0	10	
Barium	A	0.0441	0.0296	100.0	99.84	ug/L	0	10	
Beryllium	A	0.1220	0.0981	100.0	102.7	ug/L	3	10	
Cadmium	A	0.0456	0.0355	100.0	100.7	ug/L	1	10	
Lead	A	0.4302	0.3188	100.0	98.52	ug/L	-1	10	
Molybdenum	A	0.1241	0.0887	100.0	95.89	ug/L	-4	10	
Silver	A	0.1879	0.1478	100.0	101.8	ug/L	2	10	
Thallium	A	0.5112	0.3597	50.00	47.90	ug/L	-4	10	
Arsenic	E	0.3379	0.2509	100.0	102.8	ug/L	3	10	
Chromium	E	4.1289	2.3914	100.0	98.68	ug/L	-1	10	
Cobalt	E	6.9513	4.4920	100.0	99.69	ug/L	0	10	
Copper	E	12.458	4.7350	100.0	97.74	ug/L	-2	10	
Nickel	E	2.2618	1.3019	100.0	100.7	ug/L	1	10	
Vanadium	E	2.2338	1.6018	100.0	99.46	ug/L	-1	10	
Zinc	E	6.4669	0.5643	100.0	101.6	ug/L	2	10	
Selenium	H	0.0866	0.0673	100.0	100.2	ug/L	0	10	

ISTD (ICALBLK 09d06k00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	4766031	4272614	-10.35
Scandium	A	3342618	3143290	-5.96
Scandium	E	26543	25566	-3.68
Scandium	H	1226325	1046750	-14.64
Germanium	H	273253	230793	-15.54
Germanium	E	20990	20200	-3.76
Indium	A	5224553	4791432	-8.29
Bismuth	A	5668667	4909753	-13.39
Yttrium	A	4890176	4615002	-5.63
Terbium	A	7978841	7431345	-6.86

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69138882030 File : 09d06k00030 Time : 06-APR-2009 15:48
Cal : 69138882001 Caldate : 06-APR-2009

Analyte	Ch	Quant	IQL	2X MDL	Units	Flags
Antimony	A	ND	0.1000	0.05957	ug/L	
Barium	A	ND	0.1000	0.07438	ug/L	
Beryllium	A	ND	0.1000	0.04572	ug/L	
Cadmium	A	ND	0.1000	0.06044	ug/L	
Lead	A	ND	0.1000	0.05505	ug/L	
Molybdenum	A	ND	0.1000	0.05038	ug/L	
Silver	A	ND	0.1000	0.06124	ug/L	
Thallium	A	ND	0.05000	0.03841	ug/L	
Arsenic	E	ND	0.1000	0.06416	ug/L	
Chromium	E	ND	0.1000	0.03166	ug/L	
Cobalt	E	ND	0.1000	0.06395	ug/L	
Copper	E	ND	0.1000	0.07274	ug/L	
Nickel	E	ND	0.1000	0.08200	ug/L	
Vanadium	E	ND	0.1000	0.05956	ug/L	
Zinc	E	0.1421	0.1000	0.3547	ug/L	ib ***
Selenium	H	ND	0.1000	0.06222	ug/L	

ISTD (ICALBLK 09d06k00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	4766031	4062846	-14.75
Scandium	A	3342618	2883671	-13.73
Scandium	E	26543	26056	-1.83
Scandium	H	1226325	1072076	-12.58
Germanium	H	273253	241711	-11.54
Germanium	E	20990	20591	-1.90
Indium	A	5224553	4732943	-9.41
Bismuth	A	5668667	5190568	-8.43
Yttrium	A	4890176	4375063	-10.53
Terbium	A	7978841	7303650	-8.46

ib=instrument blank

CURTIS & TOMPKINS INTERFERENCE CHECK STANDARD A FOR 211047 METALS Water
EPA 6020

Inst : MET06 IDF : 1.0
Seqnum : 69138882043 File : 09d06k00043 Time : 06-APR-2009 17:51
Cal : 69138882001 Caldate : 06-APR-2009
Standards: S11777, S11768

Analyte	Ch	Quant	IQL	Units	Flags
Antimony	A	[-0.03430]	0.1000	ug/L	
Barium	A	1.004	0.1000	ug/L	!a+
Beryllium	A	[-0.2334]	0.1000	ug/L	!a-
Cadmium	A	2.470	0.1000	ug/L	!a+
Lead	A	0.7184	0.1000	ug/L	!a+
Silver	A	[-0.04070]	0.1000	ug/L	
Thallium	A	[-0.1053]	0.05000	ug/L	!a-
Arsenic	E	[0.06420]	0.1000	ug/L	!a+
Chromium	E	1.570	0.1000	ug/L	!a+
Cobalt	E	1.910	0.1000	ug/L	!a+
Copper	E	3.600	0.1000	ug/L	!a+
Nickel	E	2.502	0.1000	ug/L	!a+
Vanadium	E	[-0.1226]	0.1000	ug/L	!a-
Zinc	E	5.938	0.1000	ug/L	!a+
Selenium	H	[-0.09900]	0.1000	ug/L	!a-

Interferent	Ch	Spiked	Quant	Units	%Rec
Aluminum	A	100000	108500	ug/L	109
Calcium	A	300000	333600	ug/L	111
Magnesium	A	100000	105500	ug/L	106
Molybdenum	A	2000	2236	ug/L	112
Potassium	A	100000	110100	ug/L	110
Sodium	E	250000	274100	ug/L	110
Iron	H	250000	270300	ug/L	108

ISTD (ICALBLK 09d06k00003)	Ch	ICALBLK Abund	Abund	%Drift
Lithium	A	4766031	3444503	-27.73
Scandium	A	3342618	2502570	-25.13
Scandium	E	26543	22804	-14.09
Scandium	H	1226325	787379	-35.79
Germanium	H	273253	162609	-40.49
Germanium	E	20990	16148	-23.07
Indium	A	5224553	3502614	-32.96
Bismuth	A	5668667	3183949	-43.83
Yttrium	A	4890176	3463607	-29.17
Terbium	A	7978841	5474257	-31.39

!=warning +=high bias -=low bias a=ICSA

SAMPLE PREPARATION SUMMARY

Batch # : 149491
Started By : KDG
Method : 200.8
Spike #1 ID : S10511

Prep Date : 01-APR-2009 08:30
Spike #2 ID : S10512

Analysis : ICAP
Finished By : KDG
Units : mL

Sample	Stype	Matrix	Initial	Final	Clean DF	Prep DF	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Clean Method	Analysis	Comments
211029-001		Filtrate	50	50	1	1.0						TAL/ICP	
211029-002		Filtrate	50	50	1	1.0						TAL/ICP	
211029-003		Filtrate	50	50	1	1.0						TAL/ICP	
211029-004		Filtrate	50	50	1	1.0						TAL/ICP	
211029-005		Filtrate	50	50	1	1.0						TAL/ICP	
211029-006		Filtrate	50	50	1	1.0						TAL/ICP	
211029-007		Filtrate	50	50	1	1.0						TAL/ICP	
211046-001		Water	50	50	1	1.0						AG, AS, CD, CR, CU, NI, PB, ZN	
211047-001		Water	50	50	1	1.0						T22/ICP	
211047-002		Water	50	50	1	1.0						T22/ICP	
211047-003		Water	50	50	1	1.0						T22/ICP	
QC489859	BLANK	Filtrate	50	50	1	1.0							
QC489860	BS	Filtrate	50	50	1	1.0		.25	.25				
QC489861	BSD	Filtrate	50	50	1	1.0		.25	.25				
QC489862	MS	Filtrate	50	50	1	1.0		.25	.25				
QC489863	MSD	Filtrate	50	50	1	1.0		.25	.25				
QC489864	SER	Filtrate	50	50	1	1.0							
QC489865	PDS	Filtrate	50	50	1	1.0							

Reviewed by: AH Date: 04/06/09

Water Digestion for ICP-MS

Curtis & Tompkins, Ltd.

LIMS Batch #: 148489
Digested by: KLS
Date Digested: 4/1/09

Digestion Method
☑ EPA 200.8 for ICP-MS
☐ EPA 3005A for ICP-MS
☐ _____

BK 2852
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Sample #	Sample #	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
BLK		50	50		
BS					
BSD					
MS -02	R				FIELD FILTERED
MSD -02					
211029-02					
- 01	G				
- 03					
- 04					
- 05					
- 06					
- 07					
046-01	X				
047-01	G				
- 02					
- 03					

4/1/09

	Reagent ID or LIMS #	Initials / Date
Digestion tubes; lot #	578055-2ec	
.25 mL of spike solution (Std1) was added to all spikes	310511	4/1
.25 mL of spike solution (Std2) was added to all spikes	310512	
digestion temperature (90-95 degrees C)	95	
digestion begun at (time)	8:30	
concentrated HCl	448050	
concentrated HNO3	447054	
digestion ended at (time)		
☐ filtered thru' Whatman # 541		
Relinquished to ICP group	N/A	

4/1/09
Prep Chemist / Date

Continued from page 1
Continued on page 1

4/1/09
Reviewed by / Date

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 849133378

Instrument : MET14 Begun : 04/02/09 14:58
Method : EPA 7470A SOP Version : HG_water_rv12

#	File	Type	Sample ID	Matrix	Batch	Analyzed	IDF	Stds Used	
001	149536	ICALBLK	STD01REP1			04/02/09 14:58	1.0		
002	149536	ICAL	STD02REP1			04/02/09 15:01	1.0	1	
003	149536	ICAL	STD03REP1			04/02/09 15:03	1.0	1	
004	149536	ICAL	STD04REP1			04/02/09 15:05	1.0	1	
005	149536	ICAL	STD05REP1			04/02/09 15:07	1.0	1	
006	149536	ICAL	STD06REP1			04/02/09 15:10	1.0	1	
007	149536	ICV				04/02/09 15:13	1.0	2	
008	149536	ICB				04/02/09 15:15	1.0		
009	149536	BLANK	QC490025	Water	149536	04/02/09 15:17	1.0		
010	149536	BS	QC490026	Water	149536	04/02/09 15:19	1.0		
011	149536	BSD	QC490027	Water	149536	04/02/09 15:22	1.0		
012	149536	X	211051-003	Filtrate	149536	04/02/09 15:24	1.0		
013	149536	X	QC490030	Filtrate	149536	04/02/09 15:27	5.0		
014	149536	MS	QC490028	Filtrate	149536	04/02/09 15:29	1.0		
015	149536	MSD	QC490029	Filtrate	149536	04/02/09 15:32	1.0		
016	149536	BLANK	QC490031	TCLP Leachate	149536	04/02/09 15:34	1.0		
017	149536	MSS	210919-001	TCLP Leachate	149536	04/02/09 15:36	1.0		
018	149536	MS	QC490032	TCLP Leachate	149536	04/02/09 15:38	1.0		
019	149536	CCV				04/02/09 15:40	1.0	3	
020	149536	CCB				04/02/09 15:43	1.0		
021	149536	MSD	QC490033	TCLP Leachate	149536	04/02/09 15:45	1.0		
022	149536	BLANK	QC490034	WET Leachate	149536	04/02/09 15:47	1.0		
023	149536	MSS	210919-001	WET Leachate	149536	04/02/09 15:49	1.0		
024	149536	MS	QC490035	WET Leachate	149536	04/02/09 15:51	1.0		
025	149536	MSD	QC490036	WET Leachate	149536	04/02/09 15:53	1.0		
026	149536	SAMPLE	210541-011	Filtrate	149536	04/02/09 15:55	1.0		
027	149536	SAMPLE	210541-012	Filtrate	149536	04/02/09 15:58	1.0		
028	149536	SAMPLE	210541-014	Filtrate	149536	04/02/09 16:00	1.0		
029	149536	SAMPLE	210923-001	Water	149536	04/02/09 16:02	1.0		
030	149536	SAMPLE	210939-001	Water	149536	04/02/09 16:04	1.0		
031	149536	CCV				04/02/09 16:06	1.0	3	
032	149536	CCB				04/02/09 16:08	1.0		
033	149536	SAMPLE	210939-002	Water	149536	04/02/09 16:17	1.0		
034	149536	SAMPLE	211046-001	Water	149536	04/02/09 16:19	1.0		
035	149536	SAMPLE	211047-001	Water	149536	04/02/09 16:22	1.0		
036	149536	SAMPLE	211047-002	Water	149536	04/02/09 16:24	1.0		
037	149536	SAMPLE	211047-003	Water	149536	04/02/09 16:27	1.0		
038	149536	SAMPLE	211050-002	Filtrate	149536	04/02/09 16:29	1.0		
039	149536	SAMPLE	211050-003	Filtrate	149536	04/02/09 16:31	1.0		
040	149536	SAMPLE	211050-004	Filtrate	149536	04/02/09 16:33	1.0		
041	149536	SAMPLE	211051-002	Filtrate	149536	04/02/09 16:36	1.0		
042	149536	SAMPLE	211051-004	Filtrate	149536	04/02/09 16:38	1.0		
043	149536	CCV				04/02/09 16:40	1.0	3	
044	149536	CCB				04/02/09 16:42	1.0		
045	149536	SAMPLE	211051-005	Filtrate	149536	04/02/09 16:45	1.0		
046	149536	CCV				04/02/09 16:47	1.0	3	
047	149536	CCB				04/02/09 16:50	1.0		
048	149536	MSS	211051-003	Filtrate	149536	04/02/09 17:46	1.0		
049	149536	SER	QC490030	Filtrate	149536	04/02/09 17:48	5.0		
050	149536	CCV				04/02/09 17:50	1.0	3	
051	149536	CCB				04/02/09 17:52	1.0		

CURTIS & TOMPKINS SEQUENCE SUMMARY FOR 849133378

Instrument : MET14 Begun : 04/02/09 14:58
Method : EPA 7470A SOP Version : HG_water_rv12

RFW 04/02/09 : I verified that the vials loaded on the instrument matched the sequence data entry, for runs 1 through 51.

Standards used: 1=S11761 2=S11763 3=S11764

CURTIS & TOMPKINS INITIAL CALIBRATION FOR 211047 METALS Water: EPA 7470A

Inst : MET14
Calnum : 849133378001
Units : ug/L

Date : 02-APR-2009 14:58
X Axis : R

Reviewer : ---
Type : WATER

Level	File	Seqnum	Sample ID	Analyzed	Stds
L1	149536	849133378002	STD02REP1	02-APR-2009 15:01	S11761 (500X)
L2	149536	849133378003	STD03REP1	02-APR-2009 15:03	S11761 (200X)
L3	149536	849133378004	STD04REP1	02-APR-2009 15:05	S11761 (50X)
L4	149536	849133378005	STD05REP1	02-APR-2009 15:07	S11761 (20X)
L5	149536	849133378006	STD06REP1	02-APR-2009 15:10	S11761 (10X)

Analyte	L1	L2	L3	L4	L5	Type	a0	a1	a2	Avg	r^2 %RSD	MnR^2	Flg
Mercury	2015.0	2254.0	2438.5	2392.6	2312.9	LINR	-0.0239	4.30E-4		2282.6	1.000	.99	

Spiked Amounts / Drifts	L1	%D	L2	%D	L3	%D	L4	%D	L5	%D
Mercury	0.200	-25	0.500	-8	2.000	4	5.000	2	10.00	-1

Instrument amount = a0 + response * a1 + response^2 * a2; LINR=Linear regression

CURTIS & TOMPKINS 2ND SOURCE CALIBRATION SUMMARY FOR 211047 METALS Water
EPA 7470A

Inst : MET14
Calnum : 849133378001 Cal Date : 02-APR-2009 Type : WATER

ICV 849133378007 (02-APR-2009) stds: S11763

Analyte	Average RF	RF	Spiked	Quant	Units	%D	Max	Flags
Mercury	2282.6	2500.6	5.000	5.350	ug/L	7	10	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378008 File : 149536 Time : 02-APR-2009 15:15
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	ND	0.2000	0.03335	ug/L	

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378019.1 File : 149536 Time : 02-APR-2009 15:40
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER
Standards: S11764

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Mercury	2282.6	2383.2	5.000	5.100	ug/L	2	20	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378020.1 File : 149536 Time : 02-APR-2009 15:43
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	[0.08000]	0.2000	0.03335	ug/L	!ib

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378031.1 File : 149536 Time : 02-APR-2009 16:06
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER
Standards: S11764

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Mercury	2282.6	2346.2	5.000	5.020	ug/L	0	20	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378032.1 File : 149536 Time : 02-APR-2009 16:08
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	[0.1120]	0.2000	0.03335	ug/L	!ib

!=warning ib=instrument blank

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378043 File : 149536 Time : 02-APR-2009 16:40
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER
Standards: S11764

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Mercury	2282.6	2312.8	5.000	4.950	ug/L	-1	20	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378044 File : 149536 Time : 02-APR-2009 16:42
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	ND	0.2000	0.03335	ug/L	

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378046 File : 149536 Time : 02-APR-2009 16:47
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER
Standards: S11764

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Mercury	2282.6	2282.2	5.000	4.880	ug/L	-2	20	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378047 File : 149536 Time : 02-APR-2009 16:50
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	ND	0.2000	0.03335	ug/L	

CURTIS & TOMPKINS CONTINUING CALIBRATION FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378050 File : 149536 Time : 02-APR-2009 17:50
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER
Standards: S11764

Analyte	Avg RF/CF	RF/CF	Spiked	Quant	Units	%D	Max %D	Flags
Mercury	2282.6	2262.0	5.000	4.840	ug/L	-3	20	

CURTIS & TOMPKINS INSTRUMENT BLANK FOR 211047 METALS Water
EPA 7470A

Inst : MET14 IDF : 1.0
Seqnum : 849133378051 File : 149536 Time : 02-APR-2009 17:52
Cal : 849133378001 Caldate : 02-APR-2009 Caltype : WATER

Analyte	Quant	IQL	MDL	Units	Flags
Mercury	ND	0.2000	0.03335	ug/L	

SAMPLE PREPARATION SUMMARY

Batch # : 149536
Started By : RFW
Method : METHOD
Spike #1 ID : S11761

Prep Date : 02-APR-2009 10:30

Analysis : HG
Finished By : RFW
Units : mL

Sample	Stype	Matrix	Initial	Final	Clean DF	Prep DF	pH	Sp 1 Vol	Sp 2 Vol	Sp 3 Vol	Clean Method	Analysis	Comments
210541-011		Filtrate	50	50	1	1.0						HG	
210541-012		Filtrate	50	50	1	1.0						HG	
210541-014		Filtrate	50	50	1	1.0						HG	
210919-001		TCLP Leachate	10	50	1	5.0						T22/HG	mss
210919-001		WET Leachate	10	50	1	5.0						T22/HG	mss
210923-001		Water	50	50	1	1.0						T22/HG	
210939-001		Water	50	50	1	1.0						T22/HG	
210939-002		Water	50	50	1	1.0						T22/HG	
211046-001		Water	50	50	1	1.0						HG	
211047-001		Water	50	50	1	1.0						T22/HG	
211047-002		Water	50	50	1	1.0						T22/HG	
211047-003		Water	50	50	1	1.0						T22/HG	
211050-002		Filtrate	50	50	1	1.0						T22/HG	
211050-003		Filtrate	50	50	1	1.0						T22/HG	
211050-004		Filtrate	50	50	1	1.0						T22/HG	
211051-002		Filtrate	50	50	1	1.0						T22/HG	
211051-003		Filtrate	50	50	1	1.0						T22/HG	mss
211051-004		Filtrate	50	50	1	1.0						T22/HG	
211051-005		Filtrate	50	50	1	1.0						T22/HG	
QC490025	BLANK	Water	50	50	1	1.0							
QC490026	BS	Water	50	50	1	1.0		2.5					
QC490027	BSD	Water	50	50	1	1.0		2.5					
QC490028	MS	Filtrate	50	50	1	1.0		2.5					
QC490029	MSD	Filtrate	50	50	1	1.0		2.5					
QC490030	SER	Filtrate	50	50	1	1.0							
QC490031	BLANK	TCLP Leachate	10	50	1	5.0							
QC490032	MS	TCLP Leachate	10	50	1	5.0		2.5					
QC490033	MSD	TCLP Leachate	10	50	1	5.0		2.5					
QC490034	BLANK	WET Leachate	10	50	1	5.0							
QC490035	MS	WET Leachate	10	50	1	5.0		2.5					
QC490036	MSD	WET Leachate	10	50	1	5.0		2.5					

Reviewed by: RFW Date: 04/02/09

Water Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 149536

Date Digested: 4/2/09

Digestion Method

☒ EPA 7470A/ EPA 245.1

☐ _____

BK2866

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Sample #	container ID	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
210919-001		10	50	N	TCLP, MSS
001		10			MSS, WET
210923-001	D	50			
210939-001	D				
2	D				
211046-001	X				
211047-001	G				
2					
3					
211050-002	H				
3					
4					
211051-002	H				
3	S+T				MSS
4	H				
5	H				
MB QC490025					
BS 26					
BSD 27					
MS 28					211051-003
MSD 29					
MB 31		10			TCLP
MS 32					210919-001
MSD 33					
MB 34					WET

	Reagent ID/ LIMS# / Time	Initials / Date
Digestion Tube Lot #	CV090133 4/2/09	RP 4/2/09
2.5 mL of spike solution was added to all spikes	S11761	
ICAL Source LIMS S#	S11762	
ICV / CCV LIMS S#	S11763/S11764	
Digestion Temperature (degrees C)	95	
Digestion Started at (time)	1030	
concentrated H_2SO_4	G35026	
concentrated HNO_3	G47034	
5% $KMnO_4$	033009	
5% $K_2S_2O_8$	021909	
NaCl.hydroxylamine hydrochloride	033109	
Stannous Chloride	033109	
Digestion Completed at (time)	1230	
☐ filtered thru' 0.45 um syringe filter (lot #)		

4/2/09

Prep Chemist / Date

Continued from page —

Continued on page 2

Porter Williams 4/2/09

Reviewed by / Date

Water Digestion for Mercury

Curtis & Tompkins, Ltd.

LIMS Batch #: 149536

Date Digested: 4/2/09

Digestion Method

☒ EPA 7470A/ EPA 245.1

☐ _____

BK2866

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Sample #	container ID	Volume Sample (mL)	Final Volume (mL)	Filtered? (y/n)	Comments
MS QC490035		10	50		210919-001, WET
MSD ↓ 36		10	↓		↓ ↓
210541-~~00~~ 011	G	50			
↓ 12	G	↓			
↓ 14	I	↓	↓		

	Reagent ID/ LIMS# / Time	Initials / Date
~~Digestion Tube Lot #~~	See page 2	
_____ mL of spike solution was added to all spikes		
ICAL Source LIMS S#		
ICV / CCV LIMS S#		
Digestion of Samples & Standards: Digestion Temperature (degrees C)		
Digestion Started at (time)		
concentrated H_2SO_4		
concentrated HNO_3		
5% $KMnO_4$		
5% $K_2S_2O_8$		
NaCl/hydroxylamine hydrochloride		
Stannous Chloride		
Digestion Completed at (time)		
☐ ~~filtered thru~~ 0.45 um syringe filter (lot #)		

4/2/09

Prep Chemist / Date

Continued from page ↑

Continued on page —

Porter Williams 4/2/09

Reviewed by / Date