CTO 107
Laboratory Data Packages and Data Validation Reports/Worksheets

Sample Delivery Group	Site	Laboratory	Data Package Present?	Data Review/Validation Report Present?	Review/ Validation Level	Box Number
03L005	Site 4 Plume	EMAX Laboratories	Yes	Yes	3	5
03L007	Site 16 South Shallow	EMAX Laboratories	Yes	Yes	3	5
03L010	Site 16 South Shallow	EMAX Laboratories	Yes	Yes	3	5
03L010	Site 9 Intermediate	EMAX Laboratories	Yes	Yes	3	5
04A069	Site 16 North Shallow	EMAX Laboratories	Yes	Yes	3	5
04A083	Site 16 North Shallow	EMAX Laboratories	Yes	Yes	3	5
04A105	Site 4 Plume	EMAX Laboratories	Yes	Yes	3	5
04A132	Site 4 Plume	EMAX Laboratories	Yes	Yes	3	5
04A144	Site 16 South Shallow	EMAX Laboratories	Yes	Yes	3	5
04A154	Site 9 Intermediate	EMAX Laboratories	Yes	Yes	3	5
04B030	Site 9 Intermediate	EMAX Laboratories	Yes	Yes	3	5

CTO 107
Report Titles Associated With Laboratory Data Packages and Data Validation Reports/Worksheets

Report #	Site	Report Title
1	4	Final Field Summary Report For The In-Situ Chemical Oxidation Pilot Test At Plume 4-1, Installation Restoration Site 4 Alameda Point, Alameda, California Document Control Number 8819 Revision 0 December 10, 2004
2	4	Final Field Summary Report Addendum For The In-Situ Chemical Oxidation Pilot Test At Plume 4-1, Installation Restoration Site 4 Alameda Point, Alameda, California Document Control Number 8819 Revision 1 November 10, 2005
3	9I	Final Field Summary Report Addendum For The Expanded In-Situ Chemical Oxidation Pilot Test At Installation Restoration Site 9 Intermediate Alameda Point, Alameda, California Document Control Number 8820 Revision 1 November 8, 2005
4	9I	Final Field Summary Report For The Full-Scale In-Situ Chemical Oxidation Removal Action At Installation Restoration Site 9 Intermediate Alameda Point, Alameda, California Document Control Number 10079 Revision 0 September 29, 2006
5	9S	Final Field Summary Report For The Full-Scale In-Situ Chemical Oxidation Removal Action At Installation Restoration Site 9 Shallow Alameda Point, Alameda, California Document Control Number 10080 Revision 0 September 29, 2006

AR 2573

CTO 107
Report Titles Associated With Laboratory Data Packages and Data Validation Reports/Worksheets

Report #	Site	Report Title
6	16N	Final Field Summary Report Full-Scale In-Situ Chemical Oxidation Removal Action At Installation Restoration Site 16 North Alameda Point, Alameda, California Document Control Number 9858 Revision 0 February 24, 2006
7	16S	Final Field Summary Report Full-Scale In-Situ Chemical Oxidation Removal Action At Installation Restoration Site 16 South Alameda Point, Alameda, California Document Control Number 9859 Revision 0 February 24, 2006
8	11/21	Technical Memorandum Installation and Sampling of Wells OU2B-MW01 through OU2B-MW05 At Installation Restoration Site 11/21 Alameda Point, Alameda, California Document Control Number 9820 Revision 0 January 20, 2006

AR 2162

AR_N00236_003110
ALAMEDA POINT
SSIC NO. 5090.3.A

FINAL
FIELD SUMMARY REPORT
FULL-SCALE IN SITU CHEMICAL OXIDATION
REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 16 SOUTH

DATED 24 FEBRUARY 2006

THIS RECORD IS ENTERED IN THE DATABASE AND FILED
AS

RECORD NO. AR_N00236_002162

FINAL
FIELD SUMMARY REPORT
FULL-SCALE IN SITU CHEMICAL OXIDATION
REMOVAL ACTION
AT INSTALLATION RESTORATION SITE 9 INTERMEDIATE

DATED 29 SEPTEMBER 2006

THIS RECORD IS ENTERED IN THE DATABASE AND FILED
AS

RECORD NO. AR_N00236_002573

Chemical Analytical Data Review/Validation Form

Report Type: { } Preliminary {X} Final

Project Number: 844918 Project Name: Alameda Point, CTO 107

Analysis/Method: {x} VOCs (8260B), SVOC (8270C), Pesticides (8081A), Metals (6010B), Hexavalent chromium (7196A) TOC(415.1)

Laboratory: EMAX SDG # 03L010

Evaluated By: Teresa Dembny Date Evaluated: 1/25/05

Sample Number(s): TB1-039, D10B-01-102, P-16-MWI01-092

Data Packages Deliverable Requirements:{ X} Level III { } Level IV {} Standard

Quality Control Deliverable	Received	Passed	Failed
Holding Times – Date Samples Collected: 12/02/03	12/03/03	OK	
Comment: VOCs-8260B (Analysis 12/15/03), SVOC-8270C (Prep-12/03/03, Analysis-12/08/03), Pesticides-8081A (Prep-12/03/03, Analysis-12/05/03), Metals-6010B (Prep-12/08/03,Analysis -12/15/03) , TOC(415.1)Analysis-12/09/03), Hexavalent chromium(7196A)Analysis-12/03/03.			
Surrogate Recoveries:		OK	
Lab Control Sample/Duplicate Recoveries (exceptions noted)		OK	
Matrix Spike / Matrix Spike Duplicate Recoveries & RPDs		OK	
Laboratory Blanks (daily, method, instrument)		OK	
Internal Standards		OK	
Initial Calibration: Not reviewed			
Continuing Calibration: Not reviewed			
Serial Dilution: Metals by ICP & Dissolved Metals sample D10B-01-102 analyazed for serial dilution and analytical spike, **Na** - out control limit .Qualify all sodium results **as J/UJ**			
Field Blank: Not applicable			
Trip Blank:		OK	

TABLE OF CONTENTS

CLIENT: **SHAW E&I**

PROJECT: **ALAMEDA POINT, CTO 0107**

SDG: **03L010**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	SW 5030B/8260B	2000 – 2039
GC/MS-SVOA	SW 3520C/8270C	3000 – 3045
GC-VOA	**	4000 –
GC-SVOA	SW3520C/8081A	5000 – 5025
HPLC	**	6000 –
METALS	METHOD 3010A/6010B	7000 – 7048
WET	METHOD 415.1 METHOD 7196A	8000 – 8032 8033 – 8042
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 205th Street
Torrance, CA 90501
Telephone: (310) 618-8889
Fax: (310) 618-0818

Date: 12-31-2003
EMAX Batch No.: 03L010

Attn: Suman Sharma

Shaw E&I
4005 Port Chicago Hwy.
Concord CA 94520

Subject: Laboratory Report
Project: Alameda Point, CTO 0107

Enclosed is the Laboratory report for samples received on 12/03/03. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
TB1-039	L010-01	12/02/03	WATER	VOLATILE ORGANICS BY GC/MS
D10B-01-102	L010-02	12/02/03	WATER	METALS DISSOLVED BY ICP
				VOLATILE ORGANICS BY GC/MS
				CHROMIUM HEXAVALENT
				SEMIVOLATILE ORGANICS BY GCMS
				TOTAL ORGANIC CARBON
				METALS BY ICP
P-16-MWI01-092	L010-03	12/02/03	WATER	METALS DISSOLVED BY ICP
				VOLATILE ORGANICS BY GC/MS
				CHROMIUM HEXAVALENT
				SEMIVOLATILE ORGANICS BY GCMS
				TOTAL ORGANIC CARBON
				PESTICIDES ORGANOCHLORINE
				METALS BY ICP

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

CHAIN OF CUSTODY

Shaw
Shaw Environmental and Infrastructure Inc.

C9 / VW01-03

4005 Port Chicago Hwy
Concord, CA 94520

Ref. Document # 349 0 244 Rev
Page 1 1

03L010

Project Manager: Dan Shafer (Name & phone #)

Send Report To: Suman Sharma
Phone/Fax Number: 925-288-2332
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Paddleford Mullenmeister

Project Number: 844918
Project Name / Location: Alameda CTO 107
Phase: Baseline GW Sampling
Purchase Order #:
Shipment Date: 12/2/02
Waybill Number:
Lab Destination: EMAX, 1835 205th St, Torrance, CA, 90501
Lab Contact Name / ph. #: 301-618-8889

	Sample ID Number	Sample Description	Collection Information: Date	Time	Method	Matrix	# of containers	Container Type	VOCs (8260B)	SVOC (EPA 8270C)	Hex. Chromium (EPA 7196A)	Metals (dissolved) (6010B)	Metals (Total) (6010B)	TOC (EPA 415.1)	Chlordane (EPA 8081A)
								Preservative (water)	HCL	Ice	Ice	HNO_3	HNO_3	H_2SO_4	Ice
								Container Type	3 VOA	2 1-Liter	250 ml HDPE	500 ml HDPE	500 ml HDPE	250 ml HDPE	2 1-Liter
1	TBI-039	TRIP BLANK	12-02-03	0700	G	A	3	VOA	X						
2	D10B-01-102	Groundwater	12/02/03	0945	G	GW	3	VOA	X						
3	P-16-MWI01-92	Groundwater	12/02/03	1115	G	GW	3	VOA	X						
				Last Line				EEM 12/2/03							

Special Instructions: List of metals (Al, As, Sb, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, Va, Zn)

Turnaround Time: ☒ Normal ☐ 24-hr ☐ 48-hr ☐ 3-day ☐ 5-day

Level Of QC Required: I II (III) Project Specific:

Relinquished By: Eugene Mullenmeister Date: 12/2/03 Time: 17:05
Received By: Golden State Date: 12-02-03 Time: 1705
Relinquished By: Date: Time:
Received By: Date: 12-3-03 Time: 8:45 AM

Method Codes
G = Grab

Matrix Codes
DW = Drinking Water
GW = Ground Water
WW = Waste Water

T = 2.2°C

CHAIN OF CUSTODY

Ref. Document # 333 0-33

Page 1 of 1

Shaw

Shaw Environmental and Infrastructure Inc. C9 / VW01-03

4005 Port Chicago Hwy
Concord, CA 94520

03 L016

Project Manager: Dan Shafer (Name & phone #)

Send Report To: Suman Sharma
Phone/Fax Number: 925-288-2332
Address: 4005 Port Chicago Hwy
City: Concord, CA, 94520

Sampler's Name(s): Paddleford, Mullenmeister

Project Number: 844918
Project Name / Location: Alameda CTO 107
Phase: Baseline GW Sampling
Purchase Order #:
Shipment Date: 12/2/03
Waybill Number:
Lab Destination: EMAX, 1835 205th St, Torrance, CA, 90501
Lab Contact Name / ph. #: 301-618-8889

	Sample ID Number	Sample Description	Collection Information: Date	Time	Method	Matrix	# of containers	Container Type	VOCs (8260B)	SVOC (EPA 8270C)	Hex. Chromium (EPA 7196A)	Metals (dissolved) (6010B)	Metals (Total) (6010B)	TOC (EPA 415.1)	Chlordane (EPA 8081A)
								Preservative (water)	HCL	Ice	Ice	HNO_3	HNO_3	H_2SO_4	Ice
								Container Type	3 VOA	2 1-Liter	250 ml HDPE	500 ml HDPE	500 ml HDPE	250 ml HDPE	2 1-Liter
2	D10B-01-102	Groundwater	12/2/03	09:43	G	GW	5	HDPE/Glass		X	X	X	X	X	
3	P-16-MW101-092	Groundwater	12/2/03	11:15	G	GW		HDPE/Glass		X	X	X	X	X	X
				Last Line				EEM 12-2-03							

Special Instructions: List of metals (Al, As, Sb, Ba, Be, Ca, Cd, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Se, Ag, Na, Tl, Va, Zn)

Turnaround Time: ☐ 24-hr ☐ 48-hr ☒ Normal ☐ 3-day ☐ 5-day

Level Of QC Required: I II (III) Project Specific:

Relinquished By: Eugene Mullenmeister Date: 12/2/03 Time: 12:05
Received By: Golden State Date: 12/02/03 Time: 17:05

Relinquished By: Date: Time:
Received By: Date: 12-03-03 Time: 8:45 AM

Method Codes
G = Grab

Matrix Codes
DW = Drinking Water
GW = Ground Water
WW = Waste Water

T = 2.2°C

GOLDEN STATE OVERNIGHT

1-800-322-5555
www.shipgso.com

PDS

Package 1 of 1

FROM

SHAW ENVIRONMENTAL - JOB SITE 35243
399 W SEAPLANE LAGOON
ALAMEDA 94501

SHIP TO

03L010
12-3-03
8:45AM

CECILIA
EMAX LABORATORIES, INC.
1835 W. 205 TH STREET
TORRANCE CA 90501

GSO TRACKING NUMBER

35243226234

GSO TRACKING NUMBER
35243226234

SHIPMENT DETAILS

C.O.D: N/A

Notes:

Ref #: SHAW ENVIRONMENTAL - SITE

CSL-32

CUSTODY SEAL

RADUNICH

Person Collecting Sample _____ (signature) Sample No. _____

Date Collected 12.02.03 Time Collected _____

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill		
☐ EMAX Courier		ECN	03-L010
☐ Client Delivery		Recepient	I. PATEL
☑ Third Party	Golden State Overnight 35243226234	Date	12-03-03
		Time	8:45

COC Inspection

- ☑ Client Name
- ☑ Address
- ☑ Client PM/FC
- ☑ Tel #/Fax #
- ☑ Sampler Name
- ☐ Courier Signature/Date/Time
- ☑ TAT
- ☑ Sample ID
- ☑ Sampling Date/Time/Location
- ☑ Analysis Required
- ☑ Matrix
- ☑ Preservative (if any)

Safety Issues: ☑ None ☐ High Concentrations expected ☐ Superfund Site Samples

Comments: ☐ Rad Screening Required

Packaging Inspection

Container	☑ Cooler	☐ Box	☐	☐
Condition	☑ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ Plastic Bag
Temperatures	☑ Cooler 1 2.2°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action

12-3-03

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling [signature] Date 12-03-03

SRF [signature] Date 12/3/03

PM [signature] Date 12/4/03

DATA QUALIFIERS

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
H		Heavier hydrocarbons contributed to the quantitation.
L		Lighter hydrocarbons contributed to the quantitation.
Y		Sample exhibits fuel pattern which does not resemble standard.
Z		Sample exhibits unknown single peak or peaks.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

Acronyms and Abbreviations	
CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

LABORATORY REPORT FOR

SHAW E&I

ALAMEDA POINT, CTO 0107

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

SDG#: 03L010

CASE NARRATIVE

CLIENT: SHAW E&I

PROJECT: ALAMEDA POINT, CTO 0107

SDG: 03L010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 12/03/03 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846,3RD ed.

1. Holding Time

   - Analytical holding time was met.

2. Tuning and Calibration

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. Method Blank

   Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

   Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

   Recoveries were within QC limit.

6. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

7. Sample Analysis

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107

SDG NO. : 03L010
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067L44B	1	NA	12/15/0302:24	12/15/0302:24	RLC514	RLC387	V067L44	Method Blank
LCS1W	V067L44L	1	NA	12/15/0301:11	12/15/0301:11	RLC512	RLC387	V067L44	Lab Control Sample (LCS)
LCD1W	V067L44C	1	NA	12/15/0301:47	12/15/0301:47	RLC513	RLC387	V067L44	LCS Duplicate
TB1-039	L010-01	1	NA	12/15/0304:50	12/15/0304:50	RLC518	RLC387	V067L44	Field Sample
D10B-01-102	L010-02	1	NA	12/15/0310:17	12/15/0310:17	RLC527	RLC387	V067L44	Field Sample
P-16-MWI01-092	L010-03	1	NA	12/15/0310:54	12/15/0310:54	RLC528	RLC387	V067L44	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/15/03 04:50
Sample ID:	TB1-039	Date Analyzed:	12/15/03 04:50
Lab Samp ID:	L010-01	Dilution Factor:	1
Lab File ID:	RLC518	Matrix	: WATER
Ext Btch ID:	V067L44	% Moisture	: NA
Calib. Ref.:	RLC387	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	.5	.2
1,1,1-TRICHLOROETHANE	ND	.5	.2
1,1,2,2-TETRACHLOROETHANE	ND	.5	.3
1,1,2-TRICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHENE	ND	.5	.2
1,2,3-TRICHLOROPROPANE	ND	.5	.2
1,2,4-TRICHLOROBENZENE	ND	.5	.2
1,2,4-TRIMETHYLBENZENE	ND	.5	.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	2	1
1,2-DICHLOROBENZENE	ND	.5	.2
1,2-DICHLOROETHANE	ND	.5	.2
1,2-DICHLOROPROPANE	ND	.5	.2
1,2-ETHYLENEDIBROMIDE	ND	.5	.2
1,3,5-TRIMETHYLBENZENE	ND	.5	.2
1,3-DICHLOROBENZENE	ND	.5	.2
1,3-DICHLOROPROPENE	ND	.5	.2
1,4-DICHLOROBENZENE	ND	.5	.2
4-CHLOROTOLUENE	ND	.5	.2
BENZENE	ND	.5	.2
BROMOBENZENE	ND	.5	.2
BROMODICHLOROMETHANE	ND	.5	.2
BROMOFORM	ND	.5	.2
BROMOMETHANE	ND	.5	.2
CARBON TETRACHLORIDE	ND	.5	.2
CHLOROBENZENE	ND	.5	.2
CHLOROETHANE	ND	.5	.2
CHLOROFORM	ND	.5	.2
CHLOROMETHANE	ND	.5	.5
CIS-1,2-DICHLOROETHENE	ND	.5	.2
DIBROMOCHLOROMETHANE	ND	.5	.2
DICHLORODIFLUOROMETHANE	ND	.5	.5
ETHYLBENZENE	ND	.5	.2
HEXACHLOROBUTADIENE	ND	.5	.2
ISOPROPYL BENZENE	ND	.5	.2
XYLENES	ND	2	.5
METHYLENE CHLORIDE	ND	1	.5
N-BUTYLBENZENE	ND	.5	.2
N-PROPYLBENZENE	ND	.5	.2
NAPHTHALENE	ND	.5	.3
SEC-BUTYLBENZENE	ND	.5	.2
STYRENE	ND	.5	.2
TERT-BUTYLBENZENE	ND	.5	.2
TETRACHLOROETHYLENE	ND	.5	.2
TOLUENE	ND	.5	.2
TRANS-1,2-DICHLOROETHENE	ND	.5	.2
TRICHLOROETHENE	ND	.5	.2
TRICHLOROFLUOROMETHANE	ND	.5	.2
VINYL CHLORIDE	ND	.5	.3
ACETONE	ND	50	2
2-BUTANONE	ND	50	5
MTBE	ND	.5	.2
T-BUTANOL	ND	50	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	.3
4-METHYL-2-PENTANONE	ND	50	1
2-HEXANONE	ND	50	1
112TRICHLORO122TRIFLUOROETHANE	ND	5	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	63-143
TOLUENE-D8	96	63-143
BROMOFLUOROBENZENE	102	63-143

Reporting Limit

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/15/03 10:17
Sample ID	: D10B-01-102	Date Analyzed:	12/15/03 10:17
Lab Samp ID	: L010-02	Dilution Factor:	1
Lab File ID	: RLC527	Matrix	: WATER
Ext Btch ID	: V067L44	% Moisture	: NA
Calib. Ref.	: RLC387	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	.5	.2
1,1,1-TRICHLOROETHANE	ND	.5	.2
1,1,2,2-TETRACHLOROETHANE	ND	.5	.3
1,1,2-TRICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHENE	ND	.5	.2
1,2,3-TRICHLOROPROPANE	ND	.5	.2
1,2,4-TRICHLOROBENZENE	ND	.5	.2
1,2,4-TRIMETHYLBENZENE	ND	.5	.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	2	1
1,2-DICHLOROBENZENE	ND	.5	.2
1,2-DICHLOROETHANE	ND	.5	.2
1,2-DICHLOROPROPANE	ND	.5	.2
1,2-ETHYLENEDIBROMIDE	ND	.5	.2
1,3,5-TRIMETHYLBENZENE	ND	.5	.2
1,3-DICHLOROBENZENE	ND	.5	.2
1,3-DICHLOROPROPENE	ND	.5	.2
1,4-DICHLOROBENZENE	ND	.5	.2
4-CHLOROTOLUENE	ND	.5	.2
BENZENE	ND	.5	.2
BROMOBENZENE	ND	.5	.2
BROMODICHLOROMETHANE	ND	.5	.2
BROMOFORM	ND	.5	.2
BROMOMETHANE	ND	.5	.2
CARBON TETRACHLORIDE	ND	.5	.2
CHLOROBENZENE	ND	.5	.2
CHLOROETHANE	ND	.5	.2
CHLOROFORM	ND	.5	.2
CHLOROMETHANE	ND	.5	.5
CIS-1,2-DICHLOROETHENE	ND	.5	.2
DIBROMOCHLOROMETHANE	ND	.5	.2
DICHLORODIFLUOROMETHANE	ND	.5	.5
ETHYLBENZENE	ND	.5	.2
HEXACHLOROBUTADIENE	ND	.5	.2
ISOPROPYL BENZENE	ND	.5	.2
XYLENES	ND	2	.5
METHYLENE CHLORIDE	ND	1	.5
N-BUTYLBENZENE	ND	.5	.2
N-PROPYLBENZENE	ND	.5	.2
NAPHTHALENE	ND	.5	.3
SEC-BUTYLBENZENE	ND	.5	.2
STYRENE	ND	.5	.2
TERT-BUTYLBENZENE	ND	.5	.2
TETRACHLOROETHYLENE	ND	.5	.2
TOLUENE	ND	.5	.2
TRANS-1,2-DICHLOROETHENE	ND	.5	.2
TRICHLOROETHENE	ND	.5	.2
TRICHLOROFLUOROMETHANE	ND	.5	.2
VINYL CHLORIDE	ND	.5	.3
ACETONE	ND	50	2
2-BUTANONE	ND	50	5
MTBE	ND	.5	.2
T-BUTANOL	ND	50	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	.3
4-METHYL-2-PENTANONE	ND	50	1
2-HEXANONE	ND	50	1
112TRICHLORO122TRIFLUOROETHANE	ND	5	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	96	63-143
TOLUENE-D8	92	63-143
BROMOFLUOROBENZENE	101	63-143

Reporting Limit

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/15/03 10:54
Sample ID	: P-16-MWI01-092	Date Analyzed:	12/15/03 10:54
Lab Samp ID	: L010-03	Dilution Factor:	1
Lab File ID	: RLC528	Matrix	: WATER
Ext Btch ID	: V067L44	% Moisture	: NA
Calib. Ref.	: RLC387	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	.5	.2
1,1,1-TRICHLOROETHANE	ND	.5	.2
1,1,2,2-TETRACHLOROETHANE	ND	.5	.3
1,1,2-TRICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHENE	ND	.5	.2
1,2,3-TRICHLOROPROPANE	ND	.5	.2
1,2,4-TRICHLOROBENZENE	ND	.5	.2
1,2,4-TRIMETHYLBENZENE	ND	.5	.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	2	1
1,2-DICHLOROBENZENE	ND	.5	.2
1,2-DICHLOROETHANE	ND	.5	.2
1,2-DICHLOROPROPANE	ND	.5	.2
1,2-ETHYLENEDIBROMIDE	ND	.5	.2
1,3,5-TRIMETHYLBENZENE	ND	.5	.2
1,3-DICHLOROBENZENE	ND	.5	.2
1,3-DICHLOROPROPENE	ND	.5	.2
1,4-DICHLOROBENZENE	ND	.5	.2
4-CHLOROTOLUENE	ND	.5	.2
BENZENE	ND	.5	.2
BROMOBENZENE	ND	.5	.2
BROMODICHLOROMETHANE	ND	.5	.2
BROMOFORM	ND	.5	.2
BROMOMETHANE	ND	.5	.2
CARBON TETRACHLORIDE	ND	.5	.2
CHLOROBENZENE	ND	.5	.2
CHLOROETHANE	ND	.5	.2
CHLOROFORM	ND	.5	.2
CHLOROMETHANE	ND	.5	.5
CIS-1,2-DICHLOROETHENE	ND	.5	.2
DIBROMOCHLOROMETHANE	ND	.5	.2
DICHLORODIFLUOROMETHANE	ND	.5	.5
ETHYLBENZENE	ND	.5	.2
HEXACHLOROBUTADIENE	ND	.5	.2
ISOPROPYL BENZENE	ND	.5	.2
XYLENES	ND	2	.5
METHYLENE CHLORIDE	ND	1	.5
N-BUTYLBENZENE	ND	.5	.2
N-PROPYLBENZENE	ND	.5	.2
NAPHTHALENE	ND	.5	.3
SEC-BUTYLBENZENE	ND	.5	.2
STYRENE	ND	.5	.2
TERT-BUTYLBENZENE	ND	.5	.2
TETRACHLOROETHYLENE	ND	.5	.2
TOLUENE	ND	.5	.2
TRANS-1,2-DICHLOROETHENE	ND	.5	.2
TRICHLOROETHENE	ND	.5	.2
TRICHLOROFLUOROMETHANE	ND	.5	.2
VINYL CHLORIDE	ND	.5	.3
ACETONE	ND	50	2
2-BUTANONE	ND	50	5
MTBE	ND	.5	.2
T-BUTANOL	ND	50	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	.3
4-METHYL-2-PENTANONE	ND	50	1
2-HEXANONE	ND	50	1
112TRICHLORO122TRIFLUOROETHANE	ND	5	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	63-143
TOLUENE-D8	94	63-143
BROMOFLUOROBENZENE	104	63-143

Reporting Limit

QC SUMMARIES

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	NA
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/15/03
Batch No.	: 03L010	Date Extracted:	12/15/03 02:24
Sample ID	: MBLK1W	Date Analyzed:	12/15/03 02:24
Lab Samp ID	: V067L44B	Dilution Factor:	1
Lab File ID	: RLC514	Matrix	: WATER
Ext Btch ID	: V067L44	% Moisture	: NA
Calib. Ref.	: RLC387	Instrument ID	: T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1,2-TETRACHLOROETHANE	ND	.5	.2
1,1,1-TRICHLOROETHANE	ND	.5	.2
1,1,2,2-TETRACHLOROETHANE	ND	.5	.3
1,1,2-TRICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHANE	ND	.5	.2
1,1-DICHLOROETHENE	ND	.5	.2
1,2,3-TRICHLOROPROPANE	ND	.5	.2
1,2,4-TRICHLOROBENZENE	ND	.5	.2
1,2,4-TRIMETHYLBENZENE	ND	.5	.2
1,2-DIBROMO-3-CHLOROPROPANE	ND	2	1
1,2-DICHLOROBENZENE	ND	.5	.2
1,2-DICHLOROETHANE	ND	.5	.2
1,2-DICHLOROPROPANE	ND	.5	.2
1,2-ETHYLENEDIBROMIDE	ND	.5	.2
1,3,5-TRIMETHYLBENZENE	ND	.5	.2
1,3-DICHLOROBENZENE	ND	.5	.2
1,3-DICHLOROPROPENE	ND	.5	.2
1,4-DICHLOROBENZENE	ND	.5	.2
4-CHLOROTOLUENE	ND	.5	.2
BENZENE	ND	.5	.2
BROMOBENZENE	ND	.5	.2
BROMODICHLOROMETHANE	ND	.5	.2
BROMOFORM	ND	.5	.2
BROMOMETHANE	ND	.5	.2
CARBON TETRACHLORIDE	ND	.5	.2
CHLOROBENZENE	ND	.5	.2
CHLOROETHANE	ND	.5	.2
CHLOROFORM	ND	.5	.2
CHLOROMETHANE	ND	.5	.5
CIS-1,2-DICHLOROETHENE	ND	.5	.2
DIBROMOCHLOROMETHANE	ND	.5	.2
DICHLORODIFLUOROMETHANE	ND	.5	.5
ETHYLBENZENE	ND	.5	.2
HEXACHLOROBUTADIENE	ND	.5	.2
ISOPROPYL BENZENE	ND	.5	.2
XYLENES	ND	2	.5
METHYLENE CHLORIDE	ND	1	.5
N-BUTYLBENZENE	ND	.5	.2
N-PROPYLBENZENE	ND	.5	.2
NAPHTHALENE	ND	.5	.3
SEC-BUTYLBENZENE	ND	.5	.2
STYRENE	ND	.5	.2
TERT-BUTYLBENZENE	ND	.5	.2
TETRACHLOROETHYLENE	ND	.5	.2
TOLUENE	ND	.5	.2
TRANS-1,2-DICHLOROETHENE	ND	.5	.2
TRICHLOROETHENE	ND	.5	.2
TRICHLOROFLUOROMETHANE	ND	.5	.2
VINYL CHLORIDE	ND	.5	.3
ACETONE	ND	50	2
2-BUTANONE	ND	50	5
MTBE	ND	.5	.2
T-BUTANOL	ND	50	5
DIPE	ND	5	1
ETBE	ND	5	1
TAME	ND	5	.3
4-METHYL-2-PENTANONE	ND	50	1
2-HEXANONE	ND	50	1
112TRICHLORO122TRIFLUOROETHANE	ND	5	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	63-143
TOLUENE-D8	93	63-143
BROMOFLUOROBENZENE	104	63-143

Reporting Limit

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
BATCH NO.: 03L010
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V067L44B	V067L44L	V067L44C		
LAB FILE ID:	RLC514	RLC512	RLC513		
DATE EXTRACTED:	12/15/0302:24	12/15/0301:11	12/15/0301:47	DATE COLLECTED:	NA
DATE ANALYZED:	12/15/0302:24	12/15/0301:11	12/15/0301:47	DATE RECEIVED:	12/15/03
PREP. BATCH:	V067L44	V067L44	V067L44		
CALIB. REF:	RLC387	RLC387	RLC387		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	8.29	83	10	7.6	76	9	70-130	30
Benzene	ND	10	8.39	84	10	8.06	81	4	70-130	30
Chlorobenzene	ND	10	8.56	86	10	8.12	81	5	70-130	30
Toluene	ND	10	8.28	83	10	7.78	78	6	70-130	30
Trichloroethene	ND	10	8.97	90	10	8.33	83	7	60-140	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	8.97	90	10	9.08	91	70-130
Toluene-d8	10	9.27	93	10	9.43	94	70-130
Bromofluorobenzene	10	9.2	92	10	9.27	93	70-130

INITIAL CALIBRATIONS

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
L: ile ID: RLC381
I: ment ID: T-067
GC Column:RTX502.2ID:0.32mm (mm)

Contract: ALAMEDA POINT, CTO 0107
SAS No.: SDG No.: 03L010
BFB Injection Date : 12/11/03
BFB Injection Time : 10:38
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.46
75	30.0 - 60.0% of mass 95	41.54
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.98
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	78.13
175	5.0 - 9.0% of mass 174	6.00(7.7)1
176	95.0 - 101.0% of mass 174	76.44(97.8)1
177	5.0 - 9.0% of mass 176	4.74(6.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD0.3	V067L111	RLC382	12/11/03	12:36
2	VSTD0.5	V067L112	RLC383	12/11/03	13:13
3	VSTD01	V067L113	RLC384	12/11/03	13:49
4	VSTD02	V067L114	RLC385	12/11/03	14:26
5	VSTD05	V067L115	RLC386	12/11/03	15:02
6	VSTD010	V067L116	RLC387	12/11/03	15:39
7	VSTD020	V067L117	RLC388	12/11/03	16:15
8	VSTD030	V067L118	RLC389	12/11/03	16:52
9	VSTD040	V067L119	RLC390	12/11/03	17:28
10	VSTD010	IV067L112	RLC393	12/11/03	19:18

FORM V VOA OLM02.0

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :T067
Beginning DateTime :12/11/03 12:36
Spike Units :PPB
IC File :RLC387

Column Spec :RTX502.2 ID :0.32MM
Ending DateTime :12/11/03 17:28
HPChem Method :V067L11

	Parameters	3 12:36 RLC382	5 13:13 RLC383	1 13:49 RLC384	2 14:26 RLC385	5 15:02 RLC386	10 15:39 RLC387	20 16:15 RLC388	30 16:52 RLC389	40 17:28 RLC390	Av_RRF	% RSD	Av_Rt_M
1	1,4-Difluorobenzene	1	1	1	1	1	1	1	1	1	1	0	10.4324
2	Dichlorodifluoromethane	------	0.244	0.300	0.336	0.315	0.330	0.326	0.310	------	0.309	10.03	2.9128
3	Chloromethane	0.219	0.271	0.318	0.336	0.336	0.339	0.337	0.330	------	0.311	13.99	3.3386
4	Vinyl Chloride	------	0.259	0.312	0.334	0.311	0.291	0.270	0.234	------	0.287	12.18	3.4064
5	Bromomethane	0.222	0.273	0.269	0.319	0.280	0.305	0.293	0.281	------	0.280	10.32	3.9163
6	Chloroethane	0.123	0.162	0.163	0.179	0.169	0.187	0.181	0.170	------	0.167	11.90	4.1205
7	Trichlorofluoromethane	------	0.300	0.370	0.408	0.390	0.416	0.409	0.386	------	0.383	10.39	4.4895
* 8	2-Propanol	------	------	------	------	------	------	------	------	------	0.00	0.00	0.0000
* 9	Acrolein	------	------	0.023	0.028	0.026	0.030	0.026	0.025	0.026	0.026	8.35	5.0349
10	112Trichloro122trifluoroethane	0.182	0.190	0.223	0.229	0.229	0.231	0.238	0.231	0.249	0.223	9.89	5.0935
* 11	Acetone	------	0.055	0.051	0.052	0.042	0.047	0.040	0.040	0.039	0.046	13.94	5.1191
12	1,1-Dichloroethene	0.427	0.428	0.476	0.508	0.491	0.501	0.505	0.490	0.528	0.484	7.24	5.3533
** 13	t-Butanol	------	------	0.016	0.022	0.020	0.024	0.021	0.021	0.021	0.021	11.64	5.4286
14	acetonitrile	------	------	------	------	------	------	------	------	------	0.000	0.00	0.0000
15	Iodomethane	------	0.077	0.096	0.157	0.194	0.307	0.419	0.440	------	0.241	61.60	5.8513
16	Methylene Chloride	0.896	0.981	0.648	0.606	0.519	0.522	0.517	0.484	0.509	0.631	29.00	6.0468
* 17	Carbon Disulfide	0.544	0.550	0.596	0.657	0.633	0.653	0.686	0.661	0.716	0.633	9.29	6.1328
18	Acrylonitrile	------	------	0.108	0.138	0.121	0.136	0.124	0.122	0.122	0.124	8.11	6.1824
19	MTBE	0.402	0.506	0.500	0.592	0.530	0.569	0.541	0.535	0.530	0.522	10.14	6.2735
20	trans-1,2-Dichloroethene	0.440	0.450	0.473	0.517	0.508	0.513	0.526	0.499	0.539	0.496	6.92	6.5151
21	DIPE	1.014	1.122	1.185	1.314	1.219	1.256	1.234	1.176	1.239	1.195	7.28	6.9719
22	1,1-Dichloroethane	0.572	0.610	0.642	0.714	0.687	0.683	0.704	0.681	0.723	0.669	7.56	7.1705
23	Vinyl Acetate	0.277	0.384	0.407	0.483	0.433	0.448	0.427	0.422	0.418	0.411	13.90	7.1308
24	ETBE	0.645	0.765	0.796	0.869	0.812	0.849	0.846	0.820	0.843	0.805	8.42	7.6339
* 25	2-Butanone	------	------	0.073	0.094	0.075	0.085	0.078	0.078	0.077	0.080	8.98	7.8224
26	2,2-Dichloropropane	0.360	0.351	0.378	0.409	0.403	0.389	0.415	0.393	0.424	0.391	6.34	8.1089
27	cis-1,2-Dichloroethene	0.360	0.369	0.410	0.447	0.428	0.430	0.447	0.435	0.460	0.427	8.25	8.1800
* 28	TBF	------	0.132	0.137	0.167	0.154	0.156	0.162	0.161	0.158	0.154	8.08	8.4220
29	Chloroform	0.590	0.615	0.637	0.690	0.645	0.664	0.674	0.653	0.684	0.650	5.02	8.4514
30	Bromochloromethane	0.255	0.304	0.310	0.352	0.326	0.333	0.329	0.317	0.324	0.317	8.46	8.7344
31	1,1,1-Trichloroethane	0.389	0.409	0.444	0.473	0.466	0.474	0.496	0.481	0.519	0.461	8.90	9.1747
32	TAME	0.543	0.633	0.641	0.733	0.665	0.692	0.702	0.663	0.685	0.662	8.20	9.6447
33	1,2-Dichloroethane-d4	0.219	0.250	0.232	0.256	0.224	0.229	0.217	0.215	0.220	0.229	6.39	9.7122
34	Chlorobenzene-d5	1	1	1	1	1	1	1	1	1	1	0	17.0722
35	11-Dichloropropene	0.121	0.129	0.148	0.156	0.156	0.158	0.162	0.157	0.174	0.151	10.90	9.4560
36	Carbon Tetrachloride	0.308	0.319	0.364	0.384	0.400	0.400	0.429	0.412	0.460	0.386	12.79	9.6563
37	1,2-Dichloroethane	0.249	0.279	0.299	0.332	0.314	0.324	0.316	0.306	0.323	0.305	8.56	9.8830
38	Benzene	1.459	1.385	1.505	1.593	1.514	1.542	1.550	1.488	1.633	1.519	4.82	9.9509
39	Trichloroethene	0.391	0.397	0.439	0.453	0.445	0.452	0.461	0.445	0.494	0.442	7.17	11.1143
40	1,2-Dichloropropane	0.373	0.367	0.405	0.445	0.424	0.435	0.433	0.410	0.448	0.416	7.14	11.1470
41	Bromodichloromethane	0.376	0.406	0.436	0.479	0.465	0.480	0.482	0.470	0.504	0.459	9.09	11.9186
42	Dibromomethane	0.175	0.185	0.203	0.228	0.213	0.221	0.215	0.205	0.219	0.207	8.34	12.0312
43	2-Chloroethylvinylether	------	0.056	0.061	0.078	0.073	0.058	0.080	0.078	0.087	0.071	16.31	12.5013
* 44	4-Methyl-2-Pentanone	------	0.170	0.216	0.273	0.238	0.254	0.249	0.243	0.250	0.237	13.28	12.5757
45	cis-1,3-Dichloropropene	0.401	0.429	0.475	0.515	0.515	0.535	0.557	0.533	0.571	0.503	11.43	13.0357
46	Toluene-d8	1.399	1.293	1.284	1.311	1.226	1.242	1.193	1.173	1.278	1.267	5.38	13.5901
47	Toluene	0.946	0.919	1.076	1.026	1.011	1.033	1.030	0.993	1.101	1.015	5.24	13.7672
48	Ethyl methacrylate	------	0.246	0.248	0.327	0.311	0.338	0.330	0.328	0.336	0.308	12.50	14.0839
49	trans-1,3-Dichloropropene	------	0.281	0.308	0.351	0.348	0.376	0.380	0.373	0.397	0.351	10.93	14.1152
50	1,1,2-Trichloroethane	0.229	0.245	0.254	0.298	0.268	0.284	0.272	0.266	0.284	0.267	8.11	14.4805
* 51	2-Hexanone	------	------	0.118	0.160	0.143	0.166	0.153	0.149	0.153	0.149	10.25	14.4825
52	1,3-Dichloropropane	0.366	0.408	0.430	0.482	0.438	0.463	0.453	0.429	0.453	0.436	7.78	15.0498
53	Tetrachloroethene	0.328	0.326	0.352	0.404	0.361	0.361	0.363	0.359	0.400	0.362	7.42	15.2551
54	Dibromochloromethane	0.217	0.258	0.275	0.307	0.302	0.324	0.325	0.322	0.346	0.297	13.59	15.6771
55	1,2-Dibromoethane	0.199	0.234	0.237	0.273	0.251	0.270	0.267	0.266	0.255	0.248	8.22	15.1570
56	1-Chlorohexane	0.520	0.562	0.600	0.658	0.671	0.661	0.716	0.692	0.782	0.651	12.22	16.5443
57	Chlorobenzene	1.014	1.045	1.108	1.179	1.128	1.158	1.163	1.110	1.247	1.128	6.23	17.1649
58	1112-Tetrachloroethane	0.247	0.291	0.304	0.328	0.329	0.344	0.359	0.352	0.388	0.327	12.67	17.2543
59	Ethylbenzene	1.737	1.741	1.874	1.942	1.912	1.966	1.986	1.927	2.143	1.914	6.51	17.2923
* 60	m/p-Xylenes	1.366	1.312	1.411	1.455	1.432	1.452	1.474	1.414	1.560	1.431	4.86	17.4777
61	o-Xylene	1.352	1.274	1.354	1.454	1.416	1.456	1.482	1.437	1.595	1.413	7.53	18.5534
62	Styrene	0.974	1.024	1.110	1.214	1.192	1.230	1.248	1.226	1.360	1.175	10.17	18.6329
63	1,2-Dichlorobenzene-d4	1	1	1	1	1	1	1	1	1	1	0	23.8943
64	Bromoform	------	0.300	0.342	0.395	0.394	0.431	0.427	0.428	0.467	0.398	13.54	19.4627
65	Isopropyl benzene	4.008	3.645	4.095	4.163	4.126	4.137	4.126	4.061	4.649	4.108	6.22	19.4554
66	1,1,2,2-Tetrachloroethane	0.759	0.806	0.840	0.923	0.830	0.874	0.820	0.796	0.852	0.833	5.67	19.8559
67	Bromofluorobenzene	1.310	1.200	1.169	1.190	1.097	1.112	1.052	1.035	1.153	1.146	7.37	20.0777
68	123-Trichloropropane	0.427	0.504	0.500	0.568	0.511	0.520	0.489	0.474	0.509	0.500	7.56	20.2316
69	1,4-Dichloro-2-Butene	------	0.061	0.066	0.124	0.125	0.130	0.136	0.138	0.145	0.116	28.64	20.3993
70	n-Propylbenzene	5.275	4.896	5.434	5.658	5.771	5.717	5.879	5.716	6.583	5.659	8.15	20.4798
71	Bromobenzene	0.998	0.958	1.035	1.044	1.003	1.032	1.010	0.986	1.118	1.020	4.45	20.5775
72	2-Chlorotoluene	3.481	3.285	3.610	3.597	3.524	3.513	3.531	3.377	3.828	3.535	4.82	20.9300
73	135-Trimethylbenzene	3.178	3.057	3.363	3.488	3.481	3.490	3.579	3.485	3.970	3.455	7.44	20.8886
74	4-Chlorotoluene	2.929	2.846	3.129	3.154	3.092	3.034	3.094	2.997	3.392	3.074	5.04	21.0524
75	Tert-Butylbenzene	2.803	2.636	2.901	3.011	3.007	3.062	3.072	3.059	3.436	2.999	7.30	21.8121
76	124-Trimethylbenzene	3.080	3.005	3.183	3.442	3.498	3.550	3.674	3.571	4.073	3.453	9.56	21.9080
77	Sec-Butylbenzene	4.241	4.199	4.423	4.765	4.892	4.966	5.189	5.080	5.808	4.845	10.45	22.3615
78	p-Isopropyltoluene	------	2.763	2.837	3.175	3.360	3.438	3.775	3.689	4.188	3.502	14.18	22.6912
79	1,3-Dichlorobenzene	1.850	1.817	1.936	2.004	1.977	1.992	2.022	1.984	2.257	1.982	6.30	22.8994
80	1,4-Dichlorobenzene	1.843	1.775	1.885	1.973	1.942	1.972	2.008	1.956	2.229	1.954	6.49	23.1344
81	n-Butylbenzene	2.475	2.564	2.500	3.034	3.255	3.371	3.983	3.875	4.277	3.259	20.80	23.5961
82	1,2-Dichlorobenzene	1.616	1.587	1.692	1.747	1.701	1.741	1.762	1.721	1.923	1.721	5.57	23.9122
83	1,2-Dibromo-3-Chloropropane	------	0.047	0.059	0.096	0.092	0.101	0.101	0.100	0.098	0.087	24.24	25.4479
84	124-Trichlorobenzene	0.479	0.554	0.551	0.735	0.780	0.873	1.015	0.996	1.077	0.784	28.37	27.3050
85	Hexachlorobutadiene	0.381	0.393	0.431	0.487	0.523	0.548	0.617	0.605	0.694	0.520	20.64	27.6194
86	Naphthalene	0.387	0.506	0.490	0.822	0.832	0.963	1.230	1.205	1.156	0.843	38.47	27.8875
87	123-Trichlorobenzene	0.269	0.385	0.374	0.558	0.601	0.686	0.791	0.775	0.826	0.585	34.84	28.4734

* Spike Amount = Nominal Amount * 2
** Spike Amount = Nominal Amount * 5
Ave_%RSD : 11.4 Max_%RSD : 61.6

Use Least Square Linear Regression for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCE
15	Iodomethane	-0.07152	0.45348	0.9955
16	Methylene Chloride	0.01747	0.49694	0.9994
43	2-Chloroethylvinylether	-0.00772	0.08509	0.9963
69	1,4-Dichloro-2-Butene	-0.00897	0.14434	0.9994
70	n-Butylbenzene	-0.31670	4.19209	0.9979
83	1,2-Dibromo-3-Chloropropane	-0.00137	0.09932	0.9997
84	124-Trichlorobenzene	-0.08358	1.06464	0.9985
85	Hexachlorobutadiene	-0.05387	0.66995	0.9965
86	Naphthalene	-0.08003	1.19933	0.9984
87	123-Trichlorobenzene	-0.06322	0.82219	0.9989

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2012

Compound List Report TO67

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Initial Calibration
Total Cpnds : 87

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Difluorobenzene	114	10.43	1.000	A	0	A	B
2	T	Dichlorodifluoromethane	85	2.91	0.279	A	2	A	B
3	T	Chloromethane	50	3.34	0.320	A	1	A	B
4	T	Vinyl Chloride	62	3.40	0.326	A	1	A	B
5	T	Bromomethane	94	4.03	0.386	A	1	A	B
6	T	Chloroethane	64	4.13	0.396	A	2	A	B
7	T	Trichlorofluoromethane	101	4.49	0.430	A	1	A	B
8	T	2-Propanol	45	4.88	0.468	A	1	A	B
9	T	Acrolein	56	5.04	0.483	A	1	A	B
10	T	112Trichloro122trifluoroethane	151	5.10	0.489	A	1	A	B
11	T	Acetone	43	5.11	0.490	A	1	A	B
12	T	1,1-Dichloroethene	61	5.35	0.513	A	2	A	B
13	T	t-Butanol	59	5.43	0.520	A	1	A	B
14	T	acetonitrile	41	5.43	0.520	A	2	A	B
15	T	Iodomethane	142	5.83	0.559	L	2	A	B
16	T	Methylene Chloride	49	6.05	0.580	L	2	A	B
17	T	Carbon Disulfide	76	6.14	0.589	A	1	A	B
18	T	Acrylonitrile	53	6.19	0.593	A	2	A	B
19	T	MTBE	73	6.28	0.602	A	1	A	B
20	T	trans-1,2-Dichloroethene	61	6.51	0.624	A	2	A	B
[illegible]	T	DIPE	45	6.98	0.669	A	1	A	B
22	T	1,1-Dichloroethane	63	7.17	0.687	A	2	A	B
23	T	Vinyl Acetate	43	7.12	0.683	A	1	A	B
24	T	ETBE	59	7.63	0.732	A	1	A	B
25	T	2-Butanone	43	7.82	0.750	A	1	A	B
26	T	2,2-Dichloropropane	77	8.11	0.777	A	3	A	B
27	T	cis-1,2-Dichloroethene	96	8.18	0.784	A	2	A	B
28	T	TBF	59	8.42	0.807	A	2	A	B
29	T	Chloroform	83	8.45	0.810	A	2	A	B
30	T	Bromochloromethane	49	8.73	0.837	A	2	A	B
31	T	1,1,1-Trichloroethane	97	9.18	0.880	A	2	A	B
32	T	TAME	73	9.64	0.924	A	2	A	B
33	S	1,2-Dichloroethane-d4	65	9.72	0.931	A	1	A	B
34	I	Chlorobenzene-d5	117	17.07	1.000	A	2	A	B
35	T	11-Dichloropropene	77	9.46	0.554	A	2	A	B
36	T	Carbon Tetrachloride	119	9.66	0.566	A	1	A	B
37	T	1,2-Dichloroethane	62	9.88	0.579	A	2	A	B
38	T	Benzene	78	9.95	0.583	A	2	A	B
39	T	Trichloroethene	130	11.12	0.651	A	3	A	B
40	T	1,2-Dichloropropane	63	11.44	0.670	A	2	A	B
41	T	Bromodichloromethane	83	11.92	0.698	A	2	A	B
42	T	Dibromomethane	93	12.02	0.704	A	2	A	B
[illegible]	T	2-Chloroethylvinylether	63	12.50	0.732	L	2	A	B
[illegible]	T	4-Methyl-2-Pentanone	43	12.58	0.737	A	3	A	B
45	T	cis-1,3-Dichloropropene	75	13.04	0.764	A	3	A	B
46	S	Toluene-d8	98	13.59	0.796	A	1	A	B
47	T	Toluene	92	13.77	0.806	A	1	A	B
48	T	Ethyl methacrylate	69	14.08	0.825	A	2	A	B

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2012A

49	T	trans-1,3-Dichloropropene	75	14.11	0.826	A	3	A	B
50	T	1,1,2-Trichloroethane	97	14.48	0.848	A	3	A	B
51	T	2-Hexanone	43	14.48	0.848	A	2	A	B
52	T	1,3-Dichloropropane	76	15.05	0.881	A	2	A	B
53	T	Tetrachloroethene	164	15.26	0.894	A	3	A	B
54	T	Dibromochloromethane	129	15.67	0.918	A	2	A	B
	T	1,2-Dibromoethane	107	16.15	0.946	A	1	A	B
56	T	1-Chlorohexane	91	16.54	0.969	A	3	A	B
57	P,M	Chlorobenzene	112	17.16	1.005	A	3	A	B
58	T	1112-Tetrachloroethane	131	17.25	1.010	A	3	A	B
59	T	Ethylbenzene	91	17.30	1.013	A	1	A	B
60	T	m/p-Xylenes	91	17.48	1.024	A	1	A	B
61	T	o-Xylene	91	18.55	1.086	A	1	A	B
62	T	Styrene	104	18.64	1.092	A	2	A	B
63	I	1,2-Dichlorobenzene-d4	152	23.87	1.000	A	1	A	B
64	T	Bromoform	173	19.46	0.815	A	2	A	B
65	T	Isopropyl benzene	105	19.46	0.815	A	3	A	B
66	T	1,1,2,2-Tetrachloroethane	83	19.86	0.832	A	2	A	B
67	S	Bromofluorobenzene	95	20.08	0.841	A	2	A	B
68	T	123-Trichloropropane	75	20.23	0.848	A	2	A	B
69	T	1,4-Dichloro-2-Butene	53	20.40	0.855	L	1	A	B
70	T	n-Propylbenzene	91	20.49	0.858	A	2	A	B
71	T	Bromobenzene	156	20.57	0.862	A	2	A	B
72	T	2-Chlorotoluene	91	20.93	0.877	A	1	A	B
73	T	135-Trimethylbenzene	105	20.89	0.875	A	2	A	B
74	T	4-Chlorotoluene	91	21.05	0.882	A	1	A	B
75	T	Tert-Butylbenzene	119	21.81	0.914	A	2	A	B
76	T	124-Trimethylbenzene	105	21.90	0.918	A	1	A	B
77	T	Sec-Butylbenzene	105	22.36	0.937	A	1	A	B
	T	p-Isopropyltoluene	119	22.69	0.951	A	2	A	B
79	T	1,3-Dichlorobenzene	146	22.90	0.959	A	2	A	B
80	T	1,4-Dichlorobenzene	146	23.14	0.969	A	2	A	B
81	T	n-Butylbenzene	91	23.60	0.989	L	2	A	B
82	T	1,2-Dichlorobenzene	146	23.91	1.002	A	2	A	B
83	T	1,2-Dibromo-3-Chloropropane	157	25.45	1.066	L	2	A	B
84	T	124-Trichlorobenzene	180	27.31	1.144	L	2	A	B
85	T	Hexachlorobutadiene	225	27.62	1.157	L	2	A	B
86	T	Naphthalene	128	27.89	1.168	L	1	A	B
87	T	123-Trichlorobenzene	180	28.47	1.193	L	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

VO67L11.M Thu Dec 11 18:09:53 2003

FC 12/17/03

2012B

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IVO67L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	10.000	10.000	0	103	-0.02
2	T	Dichlorodifluoromethane	10.000	10.737	-7	103	0.00
3	P,T	Chloromethane	10.000	11.226	-12	106	0.00
4	C,T	Vinyl Chloride	10.000	10.732	-7	109	0.00
5	T	Bromomethane	10.000	10.553	-6	100	-0.02
6	T	Chloroethane	10.000	11.135	-11	102	-0.02
7	T	Trichlorofluoromethane	10.000	11.011	-10	104	0.00
8	T	2-Propanol	-1.000	0.000	0	0	-4.88#
9	T	Acrolein	20.000	19.337	3	88	-0.02
10	T	112Trichloro122trifluoroeth	10.000	10.363	-4	102	-0.02
11	T	Acetone	20.000	18.354	8	92	0.00
12	C,TM	1,1-Dichloroethene	10.000	10.037	-0	100	0.00
	T	t-Butanol	50.000	49.459	1	87	-0.02
14	T	acetonitrile	-1.000	0.000	0	89	0.00
15	T	Iodomethane	10.000	10.140	-1	130	0.07
16	T	Methylene Chloride	10.000	9.749	3	99	-0.02
17	T	Carbon Disulfide	10.000	10.000	0	99	-0.02
18	T	Acrylonitrile	20.000	19.734	1	93	0.00
19	T	MTBE	10.000	10.337	-3	98	-0.02
20	T	trans-1,2-Dichloroethene	10.000	10.131	-1	101	-0.02
21	T	DIPE	10.000	10.205	-2	100	-0.02
22	P,T	1,1-Dichloroethane	10.000	10.186	-2	102	0.00
23	T	Vinyl Acetate	10.000	10.242	-2	96	-0.02
24	T	ETBE	10.000	10.190	-2	99	0.00
25	T	2-Butanone	20.000	19.216	4	93	-0.02
26	T	2,2-Dichloropropane	10.000	9.887	1	102	0.00
27	T	cis-1,2-Dichloroethene	10.000	9.982	0	100	-0.02
28	T	TBF	20.000	21.568	-8	109	0.00
29	C,T	Chloroform	10.000	10.009	-0	101	-0.02
30	T	Bromochloromethane	10.000	9.965	0	97	0.00
31	T	1,1,1-Trichloroethane	10.000	10.298	-3	103	-0.02
32	T	TAME	10.000	10.275	-3	101	-0.02
33	S	1,2-Dichloroethane-d4	10.000	9.605	4	99	-0.02
34	I	Chlorobenzene-d5	10.000	10.000	0	102	-0.02
35	T	11-Dichloropropene	10.000	10.342	-3	101	-0.02
	T	Carbon Tetrachloride	10.000	10.514	-5	103	-0.02

FR 12/17/03

(#) = Out of Range

2014

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IVO67L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
37	T	1,2-Dichloroethane	10.000	10.266	-3	98	0.00
38	M,T	Benzene	10.000	9.885	1	99	-0.02
39	M,T	Trichloroethene	10.000	10.192	-2	102	-0.02
40	C,T	1,2-Dichloropropane	10.000	10.216	-2	99	0.00
41	T	Bromodichloromethane	10.000	10.347	-3	100	-0.02
42	T	Dibromomethane	10.000	10.313	-3	99	0.00
43	T	2-Chloroethylvinylether	10.000	10.681	-7	147	-0.02
44	T	4-Methyl-2-Pentanone	20.000	21.187	-6	100	-0.02
45	T	cis-1,3-Dichloropropene	10.000	10.366	-4	99	-0.02
46	S	Toluene-d8	10.000	9.542	5	99	0.00
47	C,TM	Toluene	10.000	9.885	1	99	-0.02
48	T	Ethyl methacrylate	10.000	10.751	-8	100	-0.02
[illegible]	T	trans-1,3-Dichloropropene	10.000	10.236	-2	97	0.00
50	T	1,1,2-Trichloroethane	10.000	10.174	-2	97	-0.02
51	T	2-Hexanone	20.000	20.265	-1	93	-0.02
52	T	1,3-Dichloropropane	10.000	10.069	-1	96	-0.02
53	T	Tetrachloroethene	10.000	9.844	2	100	-0.02
54	T	Dibromochloromethane	10.000	10.598	-6	99	0.00
55	T	1,2-Dibromoethane	10.000	9.459	5	88	0.00
56	T	1-Chlorohexane	10.000	10.318	-3	104	0.00
57	P,M	Chlorobenzene	10.000	10.091	-1	100	-0.02
58	T	1112-Tetrachloroethane	10.000	10.397	-4	101	0.00
59	C,T	Ethylbenzene	10.000	10.018	-0	99	-0.02
60	T	m/p-Xylenes	20.000	20.042	-0	101	-0.02
61	T	o-Xylene	10.000	10.037	-0	99	-0.02
62	T	Styrene	10.000	10.428	-4	101	-0.02
63	I	1,2-Dichlorobenzene-d4	10.000	10.000	0	101	-0.02
64	P,T	Bromoform	10.000	10.260	-3	96	0.00
65	T	Isopropyl benzene	10.000	9.970	0	100	-0.02
66	P,T	1,1,2,2-Tetrachloroethane	10.000	10.052	-1	97	-0.02
67	S	Bromofluorobenzene	10.000	9.507	5	99	-0.02
68	T	123-Trichloropropane	10.000	10.050	-1	98	-0.02
69	T	1,4-Dichloro-2-Butene	10.000	8.741	13	91	-0.02
70	T	n-Propylbenzene	10.000	10.163	-2	102	-0.02
71	T	Bromobenzene	10.000	9.931	1	99	-0.02
[illegible]	T	2-Chlorotoluene	10.000	9.824	2	100	-0.02

MC 12/17/03

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IVO67L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
73	T	135-Trimethylbenzene	10.000	10.076	-1	101	-0.02
74	T	4-Chlorotoluene	10.000	10.024	-0	103	-0.02
75	T	Tert-Butylbenzene	10.000	11.226	-12	111	-0.02
76	T	124-Trimethylbenzene	10.000	10.226	-2	100	0.00
77	T	Sec-Butylbenzene	10.000	10.383	-4	102	-0.02
78	T	p-Isopropyltoluene	10.000	10.468	-5	105	-0.02
79	T	1,3-Dichlorobenzene	10.000	10.012	-0	101	-0.02
80	T	1,4-Dichlorobenzene	10.000	10.127	-1	101	-0.02
81	T	n-Butylbenzene	10.000	9.382	6	108	-0.02
82	T	1,2-Dichlorobenzene	10.000	10.052	-1	100	0.00
83	T	1,2-Dibromo-3-Chloropropane	10.000	9.782	2	96	-0.02
84	T	124-Trichlorobenzene	10.000	9.420	6	106	-0.02
	T	Hexachlorobutadiene	10.000	9.284	7	105	-0.02
86	T	Naphthalene	10.000	10.399	-4	122	-0.02
87	T	123-Trichlorobenzene	10.000	9.426	6	105	-0.02

RC 12/17/03

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IVO67L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0	103	-0.02
2	T	Dichlorodifluoromethane	0.309	0.332	-7	103	0.00
3	P,T	Chloromethane	0.311	0.349	-12	106	0.00
4	C,T	Vinyl Chloride	0.287	0.308	-7	109	0.00
5	T	Bromomethane	0.280	0.296	-6	100	-0.02
6	T	Chloroethane	0.167	0.186	-11	102	-0.02
7	T	Trichlorofluoromethane	0.383	0.422	-10	104	0.00
8	T	2-Propanol	0.000	0.000	0	0#	-4.88#
9	T	Acrolein	0.026	0.025	4	88	-0.02
10	T	112Trichloro122trifluoroeth	0.223	0.231	-4	102	-0.02
11	T	Acetone	0.046	0.042	9	92	0.00
12	C,TM	1,1-Dichloroethene	0.484	0.486	-0	100	0.00
	T	t-Butanol	0.021	0.021	0	87	-0.02
14	T	acetonitrile	0.000	0.000	0	89	0.00
15	T	Iodomethane	0.241	0.388	-61#	130	0.07
16	T	Methylene Chloride	0.631	0.502	20	99	-0.02
17	T	Carbon Disulfide	1.266	1.266	0	99	-0.02
18	T	Acrylonitrile	0.062	0.061	2	93	0.00
19	T	MTBE	0.522	0.540	-3	98	-0.02
20	T	trans-1,2-Dichloroethene	0.496	0.503	-1	101	-0.02
21	T	DIPE	1.195	1.220	-2	100	-0.02
22	P,T	1,1-Dichloroethane	0.669	0.681	-2	102	0.00
23	T	Vinyl Acetate	0.411	0.421	-2	96	-0.02
24	T	ETBE	0.805	0.820	-2	99	0.00
25	T	2-Butanone	0.080	0.077	4	93	-0.02
26	T	2,2-Dichloropropane	0.391	0.387	1	102	0.00
27	T	cis-1,2-Dichloroethene	0.421	0.420	0	100	-0.02
28	T	TBF	0.154	0.166	-8	109	0.00
29	C,T	Chloroform	0.650	0.651	-0	101	-0.02
30	T	Bromochloromethane	0.317	0.315	1	97	0.00
31	T	1,1,1-Trichloroethane	0.461	0.475	-3	103	-0.02
32	T	TAME	0.662	0.680	-3	101	-0.02
33	S	1,2-Dichloroethane-d4	0.229	0.220	4	99	-0.02
34	I	Chlorobenzene-d5	1.000	1.000	0	102	-0.02
35	T	11-Dichloropropene	0.151	0.156	-3	101	-0.02
	T	Carbon Tetrachloride	0.386	0.406	-5	103	-0.02

KM 12/17/03

(#) = Out of Range

2017

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IV067L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\V067L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37	T	1,2-Dichloroethane	0.305	0.313	-3	98	0.00
38	M,T	Benzene	1.519	1.501	1	99	-0.02
39	M,T	Trichloroethene	0.442	0.450	-2	102	-0.02
40	C,T	1,2-Dichloropropane	0.416	0.425	-2	99	0.00
41	T	Bromodichloromethane	0.455	0.471	-4	100	-0.02
42	T	Dibromomethane	0.207	0.214	-3	99	0.00
43	T	2-Chloroethylvinylether	0.071	0.083	-17	147	-0.02
44	T	4-Methyl-2-Pentanone	0.237	0.251	-6	100	-0.02
45	T	cis-1,3-Dichloropropene	0.503	0.522	-4	99	-0.02
46	S	Toluene-d8	1.267	1.209	5	99	0.00
47	C,TM	Toluene	1.015	1.003	1	99	-0.02
48	T	Ethyl methacrylate	0.308	0.331	-7	100	-0.02
	T	trans-1,3-Dichloropropene	0.351	0.359	-2	97	0.00
50	T	1,1,2-Trichloroethane	0.267	0.271	-1	97	-0.02
51	T	2-Hexanone	0.149	0.151	-1	93	-0.02
52	T	1,3-Dichloropropane	0.436	0.439	-1	96	-0.02
53	T	Tetrachloroethene	0.362	0.356	2	100	-0.02
54	T	Dibromochloromethane	0.297	0.315	-6	99	0.00
55	T	1,2-Dibromoethane	0.248	0.234	6	88	0.00
56	T	1-Chlorohexane	0.651	0.672	-3	104	0.00
57	P,M	Chlorobenzene	1.128	1.138	-1	100	-0.02
58	T	1112-Tetrachloroethane	0.327	0.340	-4	101	0.00
59	C,T	Ethylbenzene	1.914	1.918	-0	99	-0.02
60	T	m/p-Xylenes	1.431	1.434	-0	101	-0.02
61	T	o-Xylene	1.413	1.418	-0	99	-0.02
62	T	Styrene	1.175	1.225	-4	101	-0.02
63	I	1,2-Dichlorobenzene-d4	1.000	1.000	0	101	-0.02
64	P,T	Bromoform	0.398	0.408	-3	96	0.00
65	T	Isopropyl benzene	4.108	4.095	0	100	-0.02
66	P,T	1,1,2,2-Tetrachloroethane	0.833	0.838	-1	97	-0.02
67	S	Bromofluorobenzene	1.146	1.090	5	99	-0.02
68	T	123-Trichloropropane	0.500	0.503	-1	98	-0.02
69	T	1,4-Dichloro-2-Butene	0.116	0.117	-1	91	-0.02
70	T	n-Propylbenzene	5.659	5.751	-2	102	-0.02
71	T	Bromobenzene	1.020	1.013	1	99	-0.02
72	T	2-Chlorotoluene	3.535	3.473	2	100	-0.02

12/17/03

(#) = Out of Range

2018

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L11\RLC393.D Vial: 13
Acq On : 11 Dec 2003 7:18 pm Operator: MN
Sample : IVO67L112 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA-TBF/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
73	T	135-Trimethylbenzene	3.455	3.481	-1	101	-0.02
74	T	4-Chlorotoluene	3.074	3.081	-0	103	-0.02
75	T	Tert-Butylbenzene	2.999	3.366	-12	111	-0.02
76	T	124-Trimethylbenzene	3.453	3.531	-2	100	0.00
77	T	Sec-Butylbenzene	4.845	5.030	-4	102	-0.02
78	T	p-Isopropyltoluene	3.402	3.562	-5	105	-0.02
79	T	1,3-Dichlorobenzene	1.982	1.984	-0	101	-0.02
80	T	1,4-Dichlorobenzene	1.954	1.979	-1	101	-0.02
81	T	n-Butylbenzene	3.259	3.616	-11	108	-0.02
82	T	1,2-Dichlorobenzene	1.721	1.730	-1	100	0.00
83	T	1,2-Dibromo-3-Chloropropane	0.087	0.096	-10	96	-0.02
84	T	124-Trichlorobenzene	0.784	0.919	-17	106	-0.02
	T	Hexachlorobutadiene	0.520	0.568	-9	105	-0.02
86	T	Naphthalene	0.843	1.167	-38#	122	-0.02
87	T	123-Trichlorobenzene	0.585	0.712	-22	105	-0.02

TCC 12/17/03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

DAILY CALIBRATION

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: EMAX Inc
Lab Code: EMXT Case No.:
L[illegible]ile ID: RLC509
I[illegible]ument ID: T-067
GC Column:RTX502.2ID:0.32mm (mm)

Contract: ALAMEDA POINT, CTO 0107
SAS No.: SDG No.: 03L010
BFB Injection Date : 12/14/03
BFB Injection Time : 23:21
Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.54
75	30.0 - 60.0% of mass 95	39.60
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.66
173	Less than 2.0% of mass 174	0.00(0.0)1
174	Greater than 50% of mass 95	73.88
175	5.0 - 9.0% of mass 174	5.66(7.7)1
176	95.0 - 101.0% of mass 174	74.29(100.6)1
177	5.0 - 9.0% of mass 176	5.26(7.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	VSTD010	CV067L1164	RLC510	12/14/03	23:58
2	MBLK1W	V067L44B	RLC514	12/15/03	02:24
3	LCS1W	V067L44L	RLC512	12/15/03	01:11
4	LCD1W	V067L44C	RLC513	12/15/03	01:47
5	TB1-039	L010-01	RLC518	12/15/03	04:50
6	D10B-01-102	L010-02	RLC527	12/15/03	10:17
7	P-16-MWI01-092	L010-03	RLC528	12/15/03	10:54

FORM V VOA OLM02.0

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RLC387
Instrument ID: T-067
Column: RTX502.2 ID: 0.32mm (mm)

Project: ALAMEDA POINT, CTO 0107
SDG No.: 03L010
Date Analyzed: 12/11/03
Time Analyzed: 15:39
Heated Purge: (Y/N) N

		IS1(DBF)		IS2(CBZ)		IS3(DCB)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1241078	10.43	1238997	17.07	518763	23.87
	UPPER LIMIT	2482156	10.93	2477994	17.57	1037526	24.37
	LOWER LIMIT	620539	9.93	619499	16.57	259382	23.37
	SAMPLE ID						
1	VSTD010	1110179	10.42	1118313	17.06	475886	23.85
2	MBLK1W	1565927	10.42	1507285	17.06	515637	23.85
3	LCS1W	1348136	10.42	1317225	17.05	526778	23.84
4	LCD1W	1409008	10.41	1362118	17.06	553751	23.85
5	TB1-039	1299373	10.41	1250492	17.06	447282	23.85
6	D10B-01-102	1186415	10.40	1167901	17.05	416111	23.84
7	P-16-MWI01-092	1184179	10.42	1155930	17.04	392812	23.84

IS1 (DFB) = 1,4-Difluorobenzene
IS2 (CBZ) = Chlorobenzene-d5
IS3 (DCB) = 1,2-Dichlorobenzene-d4

AREA UPPER LIMIT = + 100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
AREA UPPER LIMIT = + 50% of surrogate area
AREA LOWER LIMIT = - 50% of surrogate area

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII VOA-8260 1/2000

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	10.000	10.000	0	89	-0.01
2	T	Dichlorodifluoromethane	10.000	9.682	3	81	0.00
3	P,T	Chloromethane	10.000	9.062	9	74	0.00
4	C,T	Vinyl Chloride	10.000	9.851	1	87	0.00
5	T	Bromomethane	10.000	9.344	7	77	-0.01
6	T	Chloroethane	10.000	10.607	-6	85	-0.01
7	T	Trichlorofluoromethane	10.000	10.316	-3	85	-0.01
8	T	2-Propanol	-1.000	0.000	0	0	-4.88#
9	T	Acrolein	20.000	17.411	13	69	-0.01
10	T	112Trichloro122trifluoroeth	10.000	10.068	-1	87	-0.01
11	T	Acetone	20.000	19.098	5	83	-0.01
12	C,TM	1,1-Dichloroethene	10.000	8.967	10	78	-0.01
	T	t-Butanol	50.000	30.372	39#	47	-0.01 N.T.
14	T	acetonitrile	-1.000	0.000	0	43	-0.01
15	T	Iodomethane	10.000	5.678	43#	54	-0.01 N.T
16	T	Methylene Chloride	10.000	8.523	15	76	-0.01
17	T	Carbon Disulfide	10.000	8.563	14	74	-0.03
18	T	Acrylonitrile	20.000	21.508	-8	88	-0.01
19	T	MTBE	10.000	9.709	3	80	-0.01
20	T	trans-1,2-Dichloroethene	10.000	8.957	10	77	-0.01
21	T	DIPE	10.000	8.672	13	74	-0.01
22	P,T	1,1-Dichloroethane	10.000	9.039	10	79	-0.01
23	T	Vinyl Acetate	10.000	8.335	17	68	-0.01
24	T	ETBE	10.000	9.145	9	78	-0.01
25	T	2-Butanone	20.000	19.421	3	82	-0.03
26	T	2,2-Dichloropropane	10.000	8.971	10	81	-0.01
27	T	cis-1,2-Dichloroethene	10.000	9.073	9	79	-0.01
28	T	TBF	20.000	0.590	97#	3	-0.25 N.E
29	C,T	Chloroform	10.000	9.301	7	81	-0.01
30	T	Bromochloromethane	10.000	8.200	18	70	-0.01
31	T	1,1,1-Trichloroethane	10.000	9.985	0	87	-0.03
32	T	TAME	10.000	9.150	8	78	-0.01
33	S	1,2-Dichloroethane-d4	10.000	9.362	6	84	-0.01
34	I	Chlorobenzene-d5	10.000	10.000	0	90	-0.01
35	T	11-Dichloropropene	10.000	9.056	9	78	-0.03
	T	Carbon Tetrachloride	10.000	10.049	-0	87	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
37	T	1,2-Dichloroethane	10.000	9.555	4	81	-0.01
38	M,T	Benzene	10.000	8.940	11	79	-0.03
39	M,T	Trichloroethene	10.000	9.396	6	83	-0.01
40	C,T	1,2-Dichloropropane	10.000	8.700	13	75	-0.01
41	T	Bromodichloromethane	10.000	9.389	6	80	-0.01
42	T	Dibromomethane	10.000	8.766	12	74	-0.01
43	T	2-Chloroethylvinylether	10.000	6.141	39#	70	-0.01
44	T	4-Methyl-2-Pentanone	20.000	19.658	2	83	-0.01
45	T	cis-1,3-Dichloropropene	10.000	9.225	8	78	-0.03
46	S	Toluene-d8	10.000	9.299	7	86	-0.01
47	C,TM	Toluene	10.000	8.968	10	80	-0.01
48	T	Ethyl methacrylate	10.000	8.909	11	73	-0.01
[illegible]	T	trans-1,3-Dichloropropene	10.000	9.242	8	78	-0.01
[illegible]	T	1,1,2-Trichloroethane	10.000	9.026	10	76	-0.03
51	T	2-Hexanone	20.000	19.365	3	79	-0.03
52	T	1,3-Dichloropropane	10.000	8.938	11	76	-0.01
53	T	Tetrachloroethene	10.000	9.163	8	83	-0.03
54	T	Dibromochloromethane	10.000	9.897	1	82	-0.01
55	T	1,2-Dibromoethane	10.000	8.637	14	72	-0.01
56	T	1-Chlorohexane	10.000	8.937	11	80	-0.01
57	P,M	Chlorobenzene	10.000	9.294	7	82	-0.01
58	T	1112-Tetrachloroethane	10.000	10.059	-1	86	-0.01
59	C,T	Ethylbenzene	10.000	9.217	8	81	-0.03
60	T	m/p-Xylenes	20.000	18.454	8	82	-0.01
61	T	o-Xylene	10.000	9.503	5	83	-0.01
62	T	Styrene	10.000	9.696	3	84	-0.03
63	I	1,2-Dichlorobenzene-d4	10.000	10.000	0	92	-0.01
64	P,T	Bromoform	10.000	9.223	8	78	-0.01
65	T	Isopropyl benzene	10.000	9.352	6	85	-0.03
66	P,T	1,1,2,2-Tetrachloroethane	10.000	8.390	16	73	-0.03
67	S	Bromofluorobenzene	10.000	9.094	9	86	-0.03
68	T	123-Trichloropropane	10.000	8.862	11	78	-0.01
69	T	1,4-Dichloro-2-Butene	10.000	7.627	24	71	-0.01
70	T	n-Propylbenzene	10.000	9.037	10	82	-0.03
71	T	Bromobenzene	10.000	9.670	3	88	-0.01
[illegible]	T	2-Chlorotoluene	10.000	9.079	9	84	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
73	T	135-Trimethylbenzene	10.000	9.472	5	86	-0.01
74	T	4-Chlorotoluene	10.000	8.996	10	84	-0.01
75	T	Tert-Butylbenzene	10.000	10.703	-7	96	-0.01
76	T	124-Trimethylbenzene	10.000	9.495	5	85	-0.01
77	T	Sec-Butylbenzene	10.000	9.414	6	84	-0.01
78	T	p-Isopropyltoluene	10.000	9.416	6	85	-0.01
79	T	1,3-Dichlorobenzene	10.000	9.546	5	87	-0.01
80	T	1,4-Dichlorobenzene	10.000	9.653	3	88	-0.01
81	T	n-Butylbenzene	10.000	7.693	23	79	-0.01
82	T	1,2-Dichlorobenzene	10.000	9.577	4	87	-0.01
83	T	1,2-Dibromo-3-Chloropropane	10.000	8.903	11	79	-0.01
84	T	124-Trichlorobenzene	10.000	8.195	18	83	-0.03
[illegible]	T	Hexachlorobutadiene	10.000	8.694	13	89	-0.01
[illegible]	T	Naphthalene	10.000	8.173	18	86	-0.01
87	T	123-Trichlorobenzene	10.000	8.288	17	83	-0.01

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Difluorobenzene	1.000	1.000	0	89	-0.01
2	T	Dichlorodifluoromethane	0.309	0.299	3	81	0.00
3	P,T	Chloromethane	0.311	0.282	9	74	0.00
4	C,T	Vinyl Chloride	0.287	0.283	1	87	0.00
5	T	Bromomethane	0.280	0.262	6	77	-0.01
6	T	Chloroethane	0.167	0.177	-6	85	-0.01
7	T	Trichlorofluoromethane	0.383	0.395	-3	85	-0.01
8	T	2-Propanol	0.000	0.000	0	0#	-4.88#
9	T	Acrolein	0.026	0.023	12	69	-0.01
10	T	112Trichloro122trifluoroeth	0.223	0.224	-0	87	-0.01
11	T	Acetone	0.046	0.044	4	83	-0.01
12	C,TM	1,1-Dichloroethene	0.484	0.434	10	78	-0.01
	T	t-Butanol	0.021	0.013	38#	47#	-0.01
14	T	acetonitrile	0.000	0.000	0	43#	-0.01
15	T	Iodomethane	0.241	0.186	23	54	-0.01
16	T	Methylene Chloride	0.631	0.441	30#	76	-0.01
17	T	Carbon Disulfide	1.266	1.084	14	74	-0.03
18	T	Acrylonitrile	0.062	0.067	-8	88	-0.01
19	T	MTBE	0.522	0.507	3	80	-0.01
20	T	trans-1,2-Dichloroethene	0.496	0.444	10	77	-0.01
21	T	DIPE	1.195	1.036	13	74	-0.01
22	P,T	1,1-Dichloroethane	0.669	0.604	10	79	-0.01
23	T	Vinyl Acetate	0.411	0.342	17	68	-0.01
24	T	ETBE	0.805	0.736	9	78	-0.01
25	T	2-Butanone	0.080	0.078	3	82	-0.03
26	T	2,2-Dichloropropane	0.391	0.351	10	81	-0.01
27	T	cis-1,2-Dichloroethene	0.421	0.382	9	79	-0.01
28	T	TBF	0.154	0.005	97#	3#	-0.25
29	C,T	Chloroform	0.650	0.605	7	81	-0.01
30	T	Bromochloromethane	0.317	0.260	18	70	-0.01
31	T	1,1,1-Trichloroethane	0.461	0.460	0	87	-0.03
32	T	TAME	0.662	0.606	8	78	-0.01
33	S	1,2-Dichloroethane-d4	0.229	0.215	6	84	-0.01
34	I	Chlorobenzene-d5	1.000	1.000	0	90	-0.01
35	T	11-Dichloropropene	0.151	0.137	9	78	-0.03
	T	Carbon Tetrachloride	0.386	0.388	-1	87	-0.01

(#) = Out of Range

2026

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
37	T	1,2-Dichloroethane	0.305	0.291	5	81	-0.01
38	M,T	Benzene	1.519	1.358	11	79	-0.03
39	M,T	Trichloroethene	0.442	0.415	6	83	-0.01
40	C,T	1,2-Dichloropropane	0.416	0.362	13	75	-0.01
41	T	Bromodichloromethane	0.455	0.427	6	80	-0.01
42	T	Dibromomethane	0.207	0.182	12	74	-0.01
43	T	2-Chloroethylvinylether	0.071	0.045	37#	70	-0.01
44	T	4-Methyl-2-Pentanone	0.237	0.233	2	83	-0.01
45	T	cis-1,3-Dichloropropene	0.503	0.464	8	78	-0.03
46	S	Toluene-d8	1.267	1.178	7	86	-0.01
47	C,TM	Toluene	1.015	0.910	10	80	-0.01
48	T	Ethyl methacrylate	0.308	0.274	11	73	-0.01
[illegible]	T	trans-1,3-Dichloropropene	0.351	0.324	8	78	-0.01
50	T	1,1,2-Trichloroethane	0.267	0.241	10	76	-0.03
51	T	2-Hexanone	0.149	0.144	3	79	-0.03
52	T	1,3-Dichloropropane	0.436	0.390	11	76	-0.01
53	T	Tetrachloroethene	0.362	0.331	9	83	-0.03
54	T	Dibromochloromethane	0.297	0.294	1	82	-0.01
55	T	1,2-Dibromoethane	0.248	0.214	14	72	-0.01
56	T	1-Chlorohexane	0.651	0.582	11	80	-0.01
57	P,M	Chlorobenzene	1.128	1.048	7	82	-0.01
58	T	1112-Tetrachloroethane	0.327	0.329	-1	86	-0.01
59	C,T	Ethylbenzene	1.914	1.765	8	81	-0.03
60	T	m/p-Xylenes	1.431	1.320	8	82	-0.01
61	T	o-Xylene	1.413	1.343	5	83	-0.01
62	T	Styrene	1.175	1.139	3	84	-0.03
63	I	1,2-Dichlorobenzene-d4	1.000	1.000	0	92	-0.01
64	P,T	Bromoform	0.398	0.367	8	78	-0.01
65	T	Isopropyl benzene	4.108	3.842	6	85	-0.03
66	P,T	1,1,2,2-Tetrachloroethane	0.833	0.699	16	73	-0.03
67	S	Bromofluorobenzene	1.146	1.043	9	86	-0.03
68	T	123-Trichloropropane	0.500	0.443	11	78	-0.01
69	T	1,4-Dichloro-2-Butene	0.116	0.101	13	71	-0.01
70	T	n-Propylbenzene	5.659	5.114	10	82	-0.03
71	T	Bromobenzene	1.020	0.987	3	88	-0.01
[illegible]	T	2-Chlorotoluene	3.535	3.210	9	84	-0.01

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\03L14\RLC510.D Vial: 3
Acq On : 14 Dec 2003 11:58 pm Operator: MN
Sample : CVO67L1164 Inst : TO67
Misc : 10ppb 8260/20ppb Ket-AA/50ppb TBA Multiplr: 1.00
MS Integration Params: 524TAIL.P

Method : C:\HPCHEM\1\METHODS\VO67L11.M (RTE Integrator)
Title : METHOD 8260
Last Update : Thu Dec 11 18:09:15 2003
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
73	T	135-Trimethylbenzene	3.455	3.272	5	86	-0.01
74	T	4-Chlorotoluene	3.074	2.766	10	84	-0.01
75	T	Tert-Butylbenzene	2.999	3.209	-7	96	-0.01
76	T	124-Trimethylbenzene	3.453	3.278	5	85	-0.01
77	T	Sec-Butylbenzene	4.845	4.561	6	84	-0.01
78	T	p-Isopropyltoluene	3.402	3.204	6	85	-0.01
79	T	1,3-Dichlorobenzene	1.982	1.892	5	87	-0.01
80	T	1,4-Dichlorobenzene	1.954	1.886	3	88	-0.01
81	T	n-Butylbenzene	3.259	2.908	11	79	-0.01
82	T	1,2-Dichlorobenzene	1.721	1.648	4	87	-0.01
83	T	1,2-Dibromo-3-Chloropropane	0.087	0.087	0	79	-0.01
84	T	124-Trichlorobenzene	0.784	0.789	-1	83	-0.03
	T	Hexachlorobutadiene	0.520	0.529	-2	89	-0.01
86	T	Naphthalene	0.843	0.900	-7	86	-0.01
87	T	123-Trichlorobenzene	0.585	0.618	-6	83	-0.01

(#) = Out of Range SPCC's out = 0 CCC's out = 0

ANALYTICAL LOG

ANALYSIS LOG FOR VOLATILES

SOP ☒ EMAX-8260 Rev. No.: 1 ☐ EMAX-524.2 Rev. No.: 3 ☐ EMAX-CLP-VOA ☐ EMAX-624 Rev. No.: 1 ☐

Start Date 12/11/03

Book # A67-009

ANALYTICAL BATCH: N/A

	Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	Purge Vol (ml)	DF	MATRIX pH-W	MATRIX S	NOTES 8260/Kat-MA-TBF/TBA
01		RLC351	6FB67L32 ✓	1µl	25ml				10:38am
02		382	V067L11 1 ✓	.15µl					.3/.6/1.5 ppb
03		383	2 ✓	.25µl					.5/1.0/2.5
04		384	3 ✓	.50µl					1/2/5
05		385	4 ✓	1.0µl					2/4/10
94		386	5 ✓	2.5µl					5/10/25
07		387	6 ✓	5.0µl					10/20/50
08		388	7 ✓	10µl					20/40/100
09		389	8 ✓	15µl					20/60/150
10		390	9 ✓	20µl					40/80/200
11		391	IS/SS Check	25ml					
12		392	IV067L11 1	5µl					10/20/50 ppb
13		393	2 ✓						7:38pm
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									AN/12/11/03
25									

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12/11/03
ICAL ID	V067L11 (25ml)

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC 8260	SV18.09.45.3	50/250
DCC Kat-MA TBF	.40.2 / .53.1	
DCC Gases	.47.1	
BFB	SV18.09.40.1	50/250
IS/SURR. SS / IS	.38.2 / .37.3	
LCS 8260	SV18.09.46.1	50/250
LCS Kat-MA TBF	.40.3 / .53.2	
LCS Gases	.47.3	
SOLVENT	ID	
METHANOL		
	ARCHIVAL	
Data File	03L11	

Comments

Analyzed By: AN

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

2030

ANALYSIS LOG FOR VOLATILES

SOP ☑ EMAX-8260 Rev. No.: 1 ☐ EMAX-524.2 Rev. No.: 3 ☐ EMAX-CLP-VOA ☐ EMAX-624 Rev. No.: 1 ☐

Start Date 12/14/03 Book # A67-00

ANALYTICAL BATCH: V0671N4

Sample Prep. ID	Data File Name	Lab Sample ID	Sample Amount	Purge Vol (ml)	DF	MATRIX pH-W	MATRIX S	NOTES
01	RLC508	BFB67L43	1µl	25ml				
02	509	↓ 44 ✓	↓					11:21pm
03	510	CV067L1154 ✓	5µl					
04	511	↓ 55						
05	512	V067L44L ✓						
94	513	C ✓						
07	514	B ✓	25ml					
08	515	Q						
09	516	L013-06 ✓			1	<2		
10	517	L070-04						RR, bad purge
11	518	L010-01 ✓						
12	519	L013-03 ✓						
13	520	-03T ✓	2.5ml		10			
14	521	-04 ✓	25ml		1			
15	522	L013-05 ✓						
16	523	L070-02 ✓						
17	524	-03 ✓						
18	525	-03T ✓	2.5ml		10			
19	526	L029-~~03R~~ 23R µLN ✓	25ml		1			
20	527	L010-02 12/15/03			1			
21	528	↓ -03 ✓			1			10:54am
22								
23								
24								
25								ALN 12/15/03

Instrument No.	67
INITIAL CALIBRATION REFERENCE	
DATE	12/14/03
ICAL ID	V067L11

STANDARDS		
NAME	ID	CONC. (mg/L)
DCC	SV1B.09.45.3	50/25
DCC	↓ .40.2	
DCC	↓ .47.1	
BFB	SV1B.09.40.1	
IS/SURR.	↓ .50.2	50/25
LCS	SVB.09.46.1	
LCS	↓ .40.3	50/25
LCS	↓ .47.3	

SOLVENT	ID
METHANOL	
	ARCHIVAL
Data File	

Comments

Analyzed By: ALN

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOGS

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-29	Supelco, VOC mix 6, Gasses	2000	50	50 ppm
			AS	10-15-03

Standard ID	SV1B-09-37-1
Name	Gasses 2nd Source
Final Volume	2 ml x 2
Solvent /Lot #	SW1A-02-1301
Prep. Date	10-15-03
Exp. Date	1-15-04
Prepared By	AS
Reviewed By	10/31/03

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.09.37	Custom Internal Std.	2000	250	250
				10/16/03

Standard ID	SV1B-09-37-2
Name	IS.
Final Volume	2ml
Solvent /Lot #	SW1A.02.1301
Prep. Date	10/16/03
Exp. Date	1/16/04
Prepared By	AW
Reviewed By	10/31/03

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1B.09.37	Custom Int. Std.	2000	1.25ml	250
				10/17/03

Standard ID	SV1B-09-37-3
Name	I.S. Std.
Final Volume	10 ml
Solvent /Lot #	SW1A.02.1301
Prep. Date	10/17/03
Exp. Date	1/17/04
Prepared By	AW
Reviewed By	10/31/03

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.08.03	VOA Surrogate Mix	2500	200	250

Alr 10/17/03

Standard ID	SV1B-09-38 -1
Name	S.S. Std.
Final Volume	2ml
Solvent /Lot #	SW1A.02-1301
Prep. Date	10/17/03
Exp. Date	1/17/04
Prepared By	Alr
Reviewed By	TL 10/31/03

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.08.03	VOA Surr. Mix	2500	200	250

Alr 10/17/03

Standard ID	SV1B-09-38 -2
Name	S.S. Std.
Final Volume	2ml
Solvent /Lot #	SW1A.02.1301
Prep. Date	10/17/03
Exp. Date	1/17/04
Prepared By	Alr
Reviewed By	TL 10/31/03

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-32	TCL VOL MIX	2000	100ul	50ppm

cr 10/20/03

Standard ID	SV1B-09-38-3
Name	KETONES
Final Volume	2 ml
Solvent /Lot #	SW1A-02-1301
Prep. Date	10/20/03
Exp. Date	1/20/03
Prepared By	cr
Reviewed By	TL 10/31/03

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-04-165	VOA TUNING CMPD	5000	50	50 ppm
	CR 10/29/03			

Standard ID	SV1B-09-40-1
Name	BFB
Final Volume	5 mL
Solvent /Lot #	SW1A-02-1301
Prep. Date	10/29/03
Exp. Date	1/29/04
Prepared By	CR
Reviewed By	TM 10/31/03

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-53	Supelco, Ket, TCL 161 Mix 1	2000	1,250 µL	250
SV1A-09-46	Accu Std, A/A, M-103-M-5X	5000	500 µL	↓
			AS	11-3-03

Standard ID	SV1B-09-40-2
Name	Ket, A/A, Primary
Final Volume	10 mL
Solvent /Lot #	SW1A-02-1301
Prep. Date	11-3-03
Exp. Date	2-3-04
Prepared By	AS
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-26	Restek, Cat#30006, VOA Mix#1, Ket	5000	500 µL	250
SV1A-09-48	ULTRA Sci, AMN-623, Acrolein/Acrylonitrile	2000	1,250 µL	↓
			AS	11-3-03

Standard ID	SV1B-09-40-3
Name	Ket A/A, 2nd
Final Volume	10 mL
Solvent /Lot #	SW1A-02-1301
Prep. Date	11-3-03
Exp. Date	2-3-04
Prepared By	AS
Reviewed By	

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA-09-59	Tert-Butyl Formate	1000	500	250
	DH 11/05/03			

Standard ID	SV1B-09-45-1
Name	TBF 2nd source
Final Volume	2 ml
Solvent /Lot #	SWIA-02-1301
Prep. Date	11/05/03
Exp. Date	2/01/04
Prepared By	DN
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA.09.34	VOA Surrogate	2500	1 ml	2.5
	HH 11/07/03			

Standard ID	SV1B-09-45-2
Name	Surrogate
Final Volume	1L
Solvent /Lot #	SWIA.02.1356
Prep. Date	11/07/03
Exp. Date	02/07/04
Prepared By	HH
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA-09-41	Vinyl acetate	2000	250	50
SVIA-09-06	Iodomethane	2000	250	50
↓ -54	Carbon disulfide	5000	100	50
SVIA.08-90	1-chlorohexane	1000	500	50
SVIA-09-04	trans-1,4-Dichloro-2-butene	2000	250	50
-19	Freon 113	1000	500	50
-44	Ethyl Methacrylate	2000	250	50
-50	2-chloroethyl vinyl ether	5000	100	50
-11	M-502A-R-10X Vol Org. Comp	2000	250	50
↓ -47	Oxygenate Gasoline Additive	2000/10000	250	50/250
	DN 11/12/03			

Standard ID	SV1B-09-45-3
Name	8260 Std. Mix
Final Volume	10 ml
Solvent /Lot #	SWIA.02.1356
Prep. Date	11/12/03
Exp. Date	02/12/04
Prepared By	DN
Reviewed By	

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-25	Vinyl Acetate	2000	250	50
SV1A-08-33	Iodomethane	2000	250	50
SV1A-09-23	Carbon disulfide	2000	250	50
SV1A-08-87	1-Chlorohexane	1000	500	50
SV1A-09-27	trans-1,4-dichloro-2-butene	2000	250	50
-21	1,1,2-Trichlorotrifluoroethane	2000	250	50
-05	502/524 Volatile Org. Cal. Mix	2000	250	50
SV1A-08-31	California Oxgenates	2000/10000	250	50/250
SV1A-09-20	Ethyl Methacrylate	2000	250	50
-45	2-chloroethylvinyl ether	2000	250	50

DN 11/12/03

Standard ID	SV1B-09-46-1
Name	8260 STD. Mix 2nd source
Final Volume	10ml
Solvent /Lot #	SWIA.02.1356
Prep. Date	11/12/03
Exp. Date	02/12/04
Prepared By	DN
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A-09-58	Tert-Butyl Formate	1000	500	250

DN 11/17/03

Standard ID	SV1B-09-46-2
Name	TBF 1°
Final Volume	2 ml
Solvent /Lot #	SWIA-02-1356
Prep. Date	11/17/03
Exp. Date	02/17/04
Prepared By	DN
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L.
SV1A.09.36	M-502B-10X VOC-Gases	2000	250	250

HH 11/19/03

Standard ID	SV1B-09-46-3
Name	Gases
Final Volume	2ml
Solvent /Lot #	SWIA.02.1356
Prep. Date	11/19/03
Exp. Date	02/19/04
Prepared By	HH
Reviewed By	

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.09.36	M-502B-10X / VOC-Gases	2000	250	250
	HH 11/19/03			

Standard ID	SV1B-09-47-1
Name	Gases
Final Volume	2ml
Solvent /Lot #	SW1A-02.1356
Prep. Date	11/19/03
Exp. Date	02/19/04
Prepared By	HH
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.09.56	VOC - Mix 5	2000	250	250
	DN 11/21/03			

Standard ID	SV1B-09-47-2
Name	Gases 2nd source
Final Volume	2ml
Solvent /Lot #	SWA.02.1356
Prep. Date	11.21.03
Exp. Date	02.21.04
Prepared By	DN
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SV1A.09.57	VOC - Mix 6	2000	1250	250
	DN 11/21/03			

Standard ID	SV1B-09-47-3
Name	Gases 2nd source
Final Volume	10ml
Solvent /Lot #	SWA.02.1356
Prep. Date	11.21.03
Exp. Date	02.21.04
Prepared By	DN
Reviewed By	

Comments

STANDARDS LOG FOR VOLATILES BY GCMS

Book # SV1B-09

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA.09.58	TBF	1000	500	250

LW 12/10/03

Standard ID	SV1B-09- 53 -1
Name	TBF 1°
Final Volume	2ml
Solvent /Lot #	SWIA.02.1356
Prep. Date	12/10/03
Exp. Date	1/18/04
Prepared By	LW
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA.09.59	TBF	1000	500	250

LW 12/10/03

Standard ID	SV1B-09- 53-2
Name	TBF 2°
Final Volume	2ml
Solvent /Lot #	SWIA.02.1356
Prep. Date	12/10/03
Exp. Date	2/1/04
Prepared By	LW
Reviewed By	

Comments

Parent ID	Parent Standard Name	Conc. mg/L	Aliquot, uL	Final Conc. mg/L
SVIA.09.37	Custom Internal std	2000	1250	250
SVIA.09.34	VOA Surrogate	2500	1000	250

HH 12/11/03

Standard ID	SV1B-09- 53-3
Name	IS/SS
Final Volume	10mL
Solvent /Lot #	SWIA.02.1356
Prep. Date	12/11/03
Exp. Date	3/11/04
Prepared By	HH
Reviewed By	

Comments

LABORATORY REPORT FOR

SHAW E&I

ALAMEDA POINT, CTO 0107

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 03L010

CASE NARRATIVE

CLIENT: SHAW E&I

PROJECT: ALAMEDA POINT, CTO 0107

SDG: 03L010

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 12/03/03 for Semi Volatile Organic analysis by Method 8270C in accordance with USEPA SW846, 3rd edition.

1. Holding Time

   Analytical holding time was met.

2. Tuning and Calibration

   Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

   Method blank was free of contamination at reporting limit.

4. Surrogate Recovery

   Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

   Recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

7. Sample Analysis

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107

SDG NO. : 03L010
Instrument ID : T-052

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVL005WB	1	NA	12/08/0313:45	12/03/0315:00	RLK034	RKK086	SVL005W	Method Blank
LCS1W	SVL005WL	1	NA	12/08/0314:15	12/03/0315:00	RLK035	RKK086	SVL005W	Lab Control Sample (LCS)
LCD1W	SVL005WC	1	NA	12/08/0314:45	12/03/0315:00	RLK036	RKK086	SVL005W	LCS Duplicate
D10B-01-102	L010-02	0.96	NA	12/08/0321:46	12/03/0315:00	RLK050	RKK086	SVL005W	Field Sample
P-16-MWI01-092	L010-03	0.97	NA	12/08/0322:16	12/03/0315:00	RLK051	RKK086	SVL005W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/03/03 15:00
Sample ID:	D10B-01-102	Date Analyzed:	12/08/03 21:46
Lab Samp ID:	L010-02	Dilution Factor:	0.96
Lab File ID:	RLK050	Matrix	: WATER
Ext Btch ID:	SVL005W	% Moisture	: NA
Calib. Ref.:	RKK086	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.6	4.8
1,2-DICHLOROBENZENE	ND	9.6	4.8
1,3-DICHLOROBENZENE	ND	9.6	4.8
1,4-DICHLOROBENZENE	ND	9.6	4.8
2,4,5-TRICHLOROPHENOL	ND	48	4.8
2,4,6-TRICHLOROPHENOL	ND	9.6	4.8
2,4-DICHLOROPHENOL	ND	9.6	4.8
2,4-DIMETHYLPHENOL	ND	9.6	4.8
2,4-DINITROPHENOL	ND	48	9.6
2,4-DINITROTOLUENE	ND	9.6	5.8
2,6-DINITROTOLUENE	ND	9.6	5.8
2-CHLORONAPHTHALENE	ND	9.6	4.8
2-CHLOROPHENOL	ND	9.6	4.8
2-METHYLNAPHTHALENE	ND	9.6	4.8
2-METHYLPHENOL	ND	9.6	4.8
2-NITROANILINE	ND	48	5.8
2-NITROPHENOL	ND	9.6	4.8
3,3'-DICHLOROBENZIDINE	ND	19	4.8
3-NITROANILINE	ND	48	4.8
4,6-DINITRO-2-METHYLPHENOL	ND	48	9.6
4-BROMOPHENYL-PHENYL ETHER	ND	9.6	6.7
4-CHLORO-3-METHYLPHENOL	ND	9.6	4.8
4-CHLOROANILINE	ND	9.6	4.8
4-CHLOROPHENYL-PHENYL ETHER	ND	9.6	4.8
4-METHYLPHENOL (1)	ND	9.6	4.8
4-NITROANILINE	ND	48	4.8
4-NITROPHENOL	ND	48	4.8
ACENAPHTHENE	ND	9.6	4.8
ACENAPHTHYLENE	ND	9.6	4.8
ANTHRACENE	ND	9.6	4.8
BENZO(A)ANTHRACENE	ND	9.6	4.8
BENZO(A)PYRENE	ND	9.6	4.8
BENZO(B)FLUORANTHENE	ND	9.6	4.8
BENZO(K)FLUORANTHENE	ND	9.6	4.8
BENZO(G,H,I)PERYLENE	ND	9.6	4.8
BIS(2-CHLOROETHOXY)METHANE	ND	9.6	4.8
BIS(2-CHLOROETHYL)ETHER	ND	9.6	4.8
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.6	4.8
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.6
BUTYLBENZYLPHTHALATE	ND	9.6	4.8
CHRYSENE	ND	9.6	4.8
DI-N-BUTYLPHTHALATE	ND	9.6	4.8
DI-N-OCTYLPHTHALATE	ND	9.6	4.8
DIBENZO(A,H)ANTHRACENE	ND	9.6	4.8
DIBENZOFURAN	ND	9.6	4.8
DIETHYLPHTHALATE	ND	9.6	5.8
DIMETHYLPHTHALATE	ND	9.6	5.8
FLUORANTHENE	ND	9.6	4.8
FLUORENE	ND	9.6	4.8
HEXACHLOROBENZENE	ND	9.6	5.8
HEXACHLOROBUTADIENE	ND	9.6	4.8
HEXACHLOROCYCLOPENTADIENE	ND	9.6	4.8
HEXACHLOROETHANE	ND	9.6	4.8
INDENO(1,2,3-CD)PYRENE	ND	9.6	4.8
ISOPHORONE	ND	9.6	4.8
N-NITROSO-DIMETHYLAMINE	ND	9.6	4.8
N-NITROSO-DI-N-PROPYLAMINE	ND	9.6	4.8
N-NITROSODIPHENYLAMINE (2)	ND	9.6	4.8
NAPHTHALENE	ND	9.6	4.8
NITROBENZENE	ND	9.6	4.8
PENTACHLOROPHENOL	ND	48	9.6
PHENANTHRENE	ND	9.6	4.8
PHENOL	ND	9.6	4.8
PYRENE	ND	9.6	4.8
BENZOIC ACID	ND	48	4.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	71	27-165
2-FLUOROBIPHENYL	49	36-143
2-FLUOROPHENOL	48	27-143
NITROBENZENE-D5	52	27-143
PHENOL-D5	51	27-143
TERPHENYL-D14	80	36-165

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/03/03 15:00
Sample ID:	P-16-MWI01-092	Date Analyzed:	12/08/03 22:16
Lab Samp ID:	L010-03	Dilution Factor:	0.97
Lab File ID:	RLK051	Matrix :	WATER
Ext Btch ID:	SVL005W	% Moisture :	NA
Calib. Ref.:	RKK086	Instrument ID :	T-052

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.7	4.9
1,2-DICHLOROBENZENE	ND	9.7	4.9
1,3-DICHLOROBENZENE	ND	9.7	4.9
1,4-DICHLOROBENZENE	ND	9.7	4.9
2,4,5-TRICHLOROPHENOL	ND	48	4.9
2,4,6-TRICHLOROPHENOL	ND	9.7	4.9
2,4-DICHLOROPHENOL	ND	9.7	4.9
2,4-DIMETHYLPHENOL	ND	9.7	4.9
2,4-DINITROPHENOL	ND	48	9.7
2,4-DINITROTOLUENE	ND	9.7	5.8
2,6-DINITROTOLUENE	ND	9.7	5.8
2-CHLORONAPHTHALENE	ND	9.7	4.9
2-CHLOROPHENOL	ND	9.7	4.9
2-METHYLNAPHTHALENE	ND	9.7	4.9
2-METHYLPHENOL	ND	9.7	4.9
2-NITROANILINE	ND	48	5.8
2-NITROPHENOL	ND	9.7	4.9
3,3'-DICHLOROBENZIDINE	ND	19	4.9
3-NITROANILINE	ND	48	4.9
4,6-DINITRO-2-METHYLPHENOL	ND	48	9.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.7	6.8
4-CHLORO-3-METHYLPHENOL	ND	9.7	4.9
4-CHLOROANILINE	ND	9.7	4.9
4-CHLOROPHENYL-PHENYL ETHER	ND	9.7	4.9
4-METHYLPHENOL (1)	ND	9.7	4.9
4-NITROANILINE	ND	48	4.9
4-NITROPHENOL	ND	48	4.9
ACENAPHTHENE	ND	9.7	4.9
ACENAPHTHYLENE	ND	9.7	4.9
ANTHRACENE	ND	9.7	4.9
BENZO(A)ANTHRACENE	ND	9.7	4.9
BENZO(A)PYRENE	ND	9.7	4.9
BENZO(B)FLUORANTHENE	ND	9.7	4.9
BENZO(K)FLUORANTHENE	ND	9.7	4.9
BENZO(G,H,I)PERYLENE	ND	9.7	4.9
BIS(2-CHLOROETHOXY)METHANE	ND	9.7	4.9
BIS(2-CHLOROETHYL)ETHER	ND	9.7	4.9
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.7	4.9
BIS(2-ETHYLHEXYL)PHTHALATE	ND	19	9.7
BUTYLBENZYLPHTHALATE	ND	9.7	4.9
CHRYSENE	ND	9.7	4.9
DI-N-BUTYLPHTHALATE	ND	9.7	4.9
DI-N-OCTYLPHTHALATE	ND	9.7	4.9
DIBENZO(A,H)ANTHRACENE	ND	9.7	4.9
DIBENZOFURAN	ND	9.7	4.9
DIETHYLPHTHALATE	ND	9.7	5.8
DIMETHYLPHTHALATE	ND	9.7	5.8
FLUORANTHENE	ND	9.7	4.9
FLUORENE	ND	9.7	4.9
HEXACHLOROBENZENE	ND	9.7	5.8
HEXACHLOROBUTADIENE	ND	9.7	4.9
HEXACHLOROCYCLOPENTADIENE	ND	9.7	4.9
HEXACHLOROETHANE	ND	9.7	4.9
INDENO(1,2,3-CD)PYRENE	ND	9.7	4.9
ISOPHORONE	ND	9.7	4.9
N-NITROSO-DIMETHYLAMINE	ND	9.7	4.9
N-NITROSO-DI-N-PROPYLAMINE	ND	9.7	4.9
N-NITROSODIPHENYLAMINE (2)	ND	9.7	4.9
NAPHTHALENE	ND	9.7	4.9
NITROBENZENE	ND	9.7	4.9
PENTACHLOROPHENOL	ND	48	9.7
PHENANTHRENE	ND	9.7	4.9
PHENOL	ND	9.7	4.9
PYRENE	ND	9.7	4.9
BENZOIC ACID	ND	48	4.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	92	27-165
2-FLUOROBIPHENYL	74	36-143
2-FLUOROPHENOL	60	27-143
NITROBENZENE-D5	68	27-143
PHENOL-D5	67	27-143
TERPHENYL-D14	78	36-165

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARIES

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: SHAW E&I	Date Collected:	NA
Project	: ALAMEDA POINT, CTO 0107	Date Received:	NA
Batch No.	: 03L010	Date Extracted:	12/03/03 15:00
Sample ID:	MBLK1W	Date Analyzed:	12/08/03 13:45
Lab Samp ID:	SVL005WB	Dilution Factor:	1
Lab File ID:	RLK034	Matrix	: WATER
Ext Btch ID:	SVL005W	% Moisture	: NA
Calib. Ref.:	RKK086	Instrument ID	: T-052

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	50	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	50	10
2,4-DINITROTOLUENE	ND	10	6
2,6-DINITROTOLUENE	ND	10	6
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	50	6
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	20	5
3-NITROANILINE	ND	50	5
4,6-DINITRO-2-METHYLPHENOL	ND	50	10
4-BROMOPHENYL-PHENYL ETHER	ND	10	7
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	50	5
4-NITROPHENOL	ND	50	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	20	10
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	6
DIMETHYLPHTHALATE	ND	10	6
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	6
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DIMETHYLAMINE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	50	10
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5
BENZOIC ACID	ND	50	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	75	27-165
2-FLUOROBIPHENYL	74	36-143
2-FLUOROPHENOL	66	27-143
NITROBENZENE-D5	75	27-143
PHENOL-D5	67	27-143
TERPHENYL-D14	73	36-165

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
BATCH NO.: 03L010
METHOD: SW 3520C/8270C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVL005WB	SVL005WL	SVL005WC		
LAB FILE ID:	RLK034	RLK035	RLK036		
DATE EXTRACTED:	12/03/0315:00	12/03/0315:00	12/03/0315:00	DATE COLLECTED:	NA
DATE ANALYZED:	12/08/0313:45	12/08/0314:15	12/08/0314:45	DATE RECEIVED:	NA
PREP. BATCH:	SVL005W	SVL005W	SVL005W		
CALIB. REF:	RKK086	RKK086	RKK086		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	51.1	64	80	50	62	2	20-130	30
1,4-Dichlorobenzene	ND	80	43.4	54	80	42.5	53	2	20-130	30
2,4-Dinitrotoluene	ND	80	60.8	76	80	56.1	70	8	30-150	30
2-Chlorophenol	ND	80	54.2	68	80	53	66	2	20-130	30
4-Chloro-3-Methylphenol	ND	80	57.8	72	80	57.2	71	1	30-130	30
4-Nitrophenol	ND	80	49.7J	62	80	46J	58	8	20-150	30
Acenaphthene	ND	80	52.7	66	80	51.6	64	2	30-130	30
n-Nitroso-di-n-propylamine	ND	80	58.7	73	80	58.3	73	1	30-140	30
Pentachlorophenol	ND	80	65	81	80	59.7	75	9	30-150	30
Phenol	ND	80	50.6	63	80	50.2	63	1	20-130	30
Pyrene	ND	80	61.3	77	80	57.2	72	7	30-140	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	127	85	150	126	84	30-150
2-Fluorobiphenyl	100	76.8	77	100	77.3	77	40-130
2-Fluorophenol	150	105	70	150	104	69	30-130
Nitrobenzene-d5	100	80.9	81	100	80.3	80	30-130
Phenol-d5	150	110	73	150	107	72	30-130
Terphenyl-d14	100	80.6	81	100	76.1	76	40-150

INITIAL CALIBRATIONS

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RKK081
Instrument ID: T-052

Project: ALAMEDA POINT, CTO 0107
SDG No.: 03L010
DFTPP Injection Date: 11/13/03
DFTPP Injection Time: 15:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.46
68	Less than 2% of mass 69	0.71(1.5)1
69	Relative abundance of mass 198	48.14
70	Less than 2.0% of mass 69	0.20(0.4)1
127	40.0 - 60.0% of mass 198	49.76
197	Less than 1.0% of mass 198	0.67
198	Base Peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.89
275	10.0 - 30.0% of mass 198	19.33
365	Greater than 1.00% of mass 198	2.61
441	Present, but less than mass 443	14.41
442	Greater than 40.0% of mass 198	80.00
443	17.0 - 23.0% of mass 442	15.08(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD005	SV52K131	RKK082	11/13/03	17:14
2	SSTD010	SV52K132	RKK083	11/13/03	17:44
3	SSTD020	SV52K133	RKK084	11/13/03	18:14
4	SSTD040	SV52K134	RKK085	11/13/03	18:44
5	SSTD050	SV52K135	RKK086	11/13/03	19:14
6	SSTD080	SV52K136	RKK087	11/13/03	19:44
7	SSTD100	SV52K137	RKK088	11/13/03	20:14
8	SSTD120	SV52K138	RKK089	11/13/03	20:44
9	SSTD160	SV52K139	RKK090	11/13/03	21:14
10	SSTD050	ISV52K131	RKK092	11/13/03	22:14

FORM V SV OLM02.0

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RKK086
Instrument ID:

Project:ICAL
SDG No.:
Date Analyzed: 11/13/03
Time Analyzed: 19:14

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	316535	5.93	1134404	7.87	497584	10.65
UPPER LIMIT	633070	6.43	2268808	8.37	995168	11.15
LOWER LIMIT	158268	5.43	567202	7.37	248792	10.15
SAMPLE ID						
SV52K131	275954	5.93	1001781	7.86	457259	10.64
SV52K132	284492	5.93	1026716	7.87	468691	10.64
SV52K133	322193	5.93	1152915	7.87	524461	10.65
SV52K134	305710	5.93	1117372	7.87	497792	10.65
SV52K136	306809	5.94	1077849	7.87	479618	10.65
SV52K137	328109	5.94	1103792	7.87	498761	10.65
SV52K138	327011	5.94	1140681	7.88	495772	10.65
SV52K139	338182	5.94	1150590	7.88	495395	10.65
ISV52K131	335680	5.93	1272045	7.87	582126	10.65

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII SV-1 OLM02.0

VMP
11/17/03

3011

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RKK086
Instrument ID:

Project:ICAL
SDG No.:
Date Analyzed: 11/13/03
Time Analyzed: 19:14

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	671381	13.02	539062	17.27	498797	19.38
UPPER LIMIT	1342762	13.52	1078124	17.77	997594	19.88
LOWER LIMIT	335691	12.52	269531	16.77	249399	18.88
SAMPLE ID						
SV52K131	620798	13.02	516208	17.26	482646	19.38
SV52K132	628527	13.02	517864	17.27	480829	19.38
SV52K133	666490	13.02	563455	17.27	536700	19.38
SV52K134	685211	13.02	542890	17.27	492596	19.38
SV52K136	652995	13.02	510210	17.27	479143	19.38
SV52K137	658068	13.02	497999	17.27	471273	19.38
SV52K138	671491	13.02	499734	17.27	491822	19.39
SV52K139	663883	13.02	473289	17.28	506725	19.38
ISV52K131	805603	13.02	655849	17.27	609273	19.38

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII SV-2 OLM02.0

KMP 11/17/03

3012

INITIAL_CALIBRATION - RELATIVE_RESPONSE_FACTOR

Instrument ID :TO52
Beginning DateTime :11/13/03 17:14
Spike Units :PPM
IC File :RKK086

Column Spec :DB5-MS ID :0.25MM
Ending DateTime :11/13/03 21:14
HPChem Method :SV52K13

IDX	Parameters	5 17:14 RKK082	10 17:44 RKK083	20 18:14 RKK084	40 18:44 RKK085	50 19:14 RKK086	80 19:44 RKK087	100 20:14 RKK088	120 20:44 RKK089	160 21:14 RKK090	Av RRF	% RSD	Av Rt M
1	1,4-Dichlorobenzene-d4	1	1	1	1	1	1	1	1	1	1	0	5.9370
2	N-Nitrosodimethylamine	0.853	0.879	0.955	0.896	0.948	0.954	0.908	0.945	0.926	0.918	3.98	2.5500
3	Pyridine	0.940	1.339	1.387	1.619	1.472	1.533	1.480	1.482	1.479	1.415	13.79	2.6000
4	2-Fluorophenol	1.235	1.408	1.410	1.477	1.475	1.498	1.475	1.498	1.432	1.434	5.73	4.1185
5	Aniline	1.661	1.771	1.840	1.724	1.744	1.768	1.694	1.669	1.583	1.717	4.40	5.4685
6	Bis(2-chloroethyl)ether	1.376	1.327	1.361	1.275	1.232	1.248	1.205	1.188	1.100	1.258	7.03	5.5824
7	Phenol-d5	1.582	1.668	1.682	1.734	1.655	1.679	1.638	1.643	1.557	1.649	3.22	5.4306
8	Phenol	1.677	1.754	1.849	1.824	1.783	1.790	1.660	1.671	1.584	1.732	5.10	5.4519
9	2-Chlorophenol	1.513	1.512	1.575	1.592	1.551	1.540	1.551	1.543	1.497	1.542	1.99	5.6287
10	1,3-Dichlorobenzene	1.519	1.458	1.575	1.564	1.499	1.502	1.444	1.432	1.346	1.482	4.80	5.8491
11	1,4-Dichlorobenzene	1.717	1.695	1.699	1.640	1.590	1.570	1.509	1.501	1.414	1.593	6.57	5.9630
12	Benzyl alcohol	0.735	0.816	0.883	0.867	0.852	0.839	0.809	0.800	0.755	0.817	6.02	6.1648
13	1,2-Dichlorobenzene-d4	0.964	0.915	0.942	0.942	0.876	0.848	0.826	0.830	0.787	0.881	7.06	6.1565
14	1,2-Dichlorobenzene	1.541	1.503	1.507	1.489	1.422	1.412	1.331	1.295	1.196	1.411	8.20	6.1796
15	2-Methylphenol	1.107	1.117	1.115	1.130	1.091	1.088	1.057	1.042	0.991	1.082	4.11	6.3398
16	Bis(2-chloroisopropyl)ether	3.746	3.635	3.766	3.633	3.552	3.553	3.438	3.452	3.138	3.546	5.38	6.3824
17	4-Methylphenol	1.538	1.551	1.654	1.581	1.541	1.544	1.465	1.480	1.413	1.530	4.58	6.5815
18	N-Nitroso-di-n-propylamine	0.754	0.778	0.830	0.797	0.802	0.773	0.770	0.760	0.739	0.778	3.58	6.5769
19	Hexachloroethane	0.770	0.758	0.743	0.731	0.715	0.711	0.698	0.692	0.661	0.720	4.77	6.6787
20	Naphthalene-d8	1	1	1	1	1	1	1	1	1	1	0	7.8676
21	Nitrobenzene-d5	0.316	0.310	0.338	0.334	0.332	0.354	0.355	0.352	0.352	0.338	4.96	6.7750
22	Nitrobenzene	0.301	0.305	0.323	0.313	0.326	0.331	0.339	0.323	0.328	0.321	3.89	6.8037
23	Isophorone	0.586	0.578	0.609	0.596	0.597	0.613	0.631	0.619	0.615	0.605	2.77	7.1852
24	2-Nitrophenol	0.157	0.178	0.201	0.198	0.207	0.217	0.227	0.225	0.223	0.204	11.60	7.2898
25	2,4-Dimethylphenol	0.316	0.343	0.345	0.320	0.326	0.335	0.344	0.340	0.339	0.334	3.27	7.3963
26	bis(2-Chloroethoxy)methane	0.420	0.438	0.445	0.427	0.426	0.439	0.437	0.422	0.419	0.430	2.22	7.5528
27	Benzoic Acid	------	------	0.103	0.170	0.192	0.248	0.257	0.254	0.271	0.213	28.74	7.6464
28	2,4-Dichlorophenol	0.266	0.282	0.319	0.294	0.306	0.314	0.314	0.308	0.299	0.300	5.71	7.6667
29	1,2,4-Trichlorobenzene	0.296	0.313	0.323	0.306	0.305	0.312	0.309	0.300	0.295	0.307	2.89	7.7880
30	Naphthalene	1.088	1.097	1.130	1.054	1.058	1.059	1.049	1.020	0.996	1.061	3.78	7.9028
31	4-Chloroaniline	0.431	0.454	0.477	0.481	0.486	0.491	0.502	0.492	0.488	0.478	4.61	8.0148
32	Hexachlorobutadiene	0.160	0.162	0.175	0.161	0.159	0.155	0.166	0.153	0.150	0.160	4.66	8.1120
33	4-Chloro-3-methylphenol	0.274	0.290	0.320	0.314	0.324	0.325	0.329	0.321	0.309	0.312	5.84	8.8102
34	2-Methylnaphthalene	0.652	0.658	0.666	0.616	0.612	0.610	0.613	0.591	0.577	0.622	4.92	9.0000
35	Acenaphthene-d10	1	1	1	1	1	1	1	1	1	1	0	10.6482
36	Hexachlorocyclopentadiene	0.222	0.248	0.320	0.342	0.371	0.390	0.394	0.400	0.407	0.344	19.78	9.2491
37	2,4,6-Trichlorophenol	0.305	0.351	0.389	0.399	0.410	0.413	0.407	0.408	0.408	0.388	9.43	9.4620
38	2,4,5-Trichlorophenol	0.253	0.301	0.373	0.419	0.432	0.429	0.430	0.431	0.420	0.388	17.11	9.5130
39	2-Fluorobiphenyl	1.416	1.381	1.434	1.365	1.378	1.367	1.366	1.354	1.317	1.375	2.48	9.6083
40	2-Chloronaphthalene	1.310	1.381	1.389	1.343	1.334	1.334	1.313	1.289	1.281	1.331	2.80	9.7676
41	2-Nitroaniline	0.243	0.305	0.336	0.355	0.365	0.378	0.370	0.372	0.366	0.343	12.82	9.9602
42	Dimethylphthalate	1.326	1.411	1.448	1.428	1.462	1.463	1.446	1.452	1.448	1.431	2.99	10.2898
43	Acenaphthylene	2.104	2.047	2.133	2.102	2.115	2.041	2.009	2.009	1.946	2.056	3.01	10.4195
44	2,6-Dinitrotoluene	0.219	0.252	0.280	0.320	0.344	0.359	0.343	0.347	0.352	0.313	16.10	10.3722
45	3-Nitroaniline	0.259	0.312	0.374	0.398	0.431	0.432	0.429	0.442	0.420	0.389	16.34	10.6241
	Acenaphthene	1.168	1.172	1.139	1.115	1.119	1.094	1.079	1.080	1.036	1.111	4.00	10.7018
	2,4-Dinitrophenol	------	0.046	0.089	0.153	0.172	0.193	0.205	0.215	0.224	0.162	39.27	10.8010
	4-Nitrophenol	0.100	0.120	0.154	0.181	0.195	0.202	0.213	0.211	0.209	0.176	23.80	10.9417
49	Dibenzofuran	1.846	1.799	1.775	1.752	1.828	1.771	1.729	1.740	1.707	1.772	2.60	10.9824
50	2,4-Dinitrotoluene	0.289	0.325	0.398	0.435	0.447	0.461	0.451	0.475	0.465	0.416	15.92	11.0102
51	Diethylphthalate	1.315	1.417	1.373	1.420	1.446	1.459	1.401	1.422	1.368	1.402	3.15	11.4333
52	Fluorene	1.328	1.354	1.314	1.305	1.336	1.303	1.275	1.282	1.229	1.303	2.87	11.5306
53	4-Chlorophenyl-phenylether	0.568	0.594	0.574	0.583	0.582	0.584	0.579	0.591	0.576	0.581	1.43	11.5630
54	4-Nitroaniline	0.270	0.296	0.369	0.394	0.408	0.431	0.443	0.448	0.454	0.390	17.24	11.6074
55	1,2-Diphenylhydrazine	1.486	1.426	1.439	1.468	1.485	1.484	1.476	1.462	1.423	1.461	1.74	11.8194
56	2,4,6-Tribromophenol	0.218	0.253	0.292	0.313	0.339	0.326	0.330	0.333	0.331	0.304	13.88	11.9130
57	Phenanthrene-d10	1	1	1	1	1	1	1	1	1	1	0	13.0213
58	4,6-Dinitro-2-methylphenol	------	0.081	0.114	0.148	0.164	0.171	0.185	0.183	0.189	0.154	24.91	11.6615
59	N-Nitrosodiphenylamine	0.612	0.619	0.663	0.621	0.661	0.655	0.660	0.645	0.644	0.642	3.11	11.7657
60	4-Bromophenyl-phenylether	0.276	0.288	0.307	0.283	0.285	0.285	0.299	0.286	0.283	0.288	3.23	12.3417
61	Hexachlorobenzene	0.386	0.377	0.396	0.377	0.390	0.387	0.378	0.377	0.375	0.382	1.91	12.3972
62	Pentachlorophenol	0.071	0.121	0.163	0.184	0.201	0.213	0.216	0.224	0.223	0.180	29.39	12.7325
63	Benzidine	0.255	0.296	0.290	0.243	0.261	0.270	0.259	0.265	0.259	0.267	6.33	15.2352
64	Phenanthrene	1.305	1.311	1.309	1.236	1.279	1.261	1.252	1.230	1.208	1.266	2.99	13.0602
65	Anthracene	1.273	1.294	1.308	1.260	1.309	1.283	1.272	1.267	1.230	1.277	1.95	13.1426
66	Carbazole	1.082	1.206	1.266	1.211	1.239	1.248	1.267	1.239	1.226	1.220	4.58	13.4278
67	Di-n-butylphthalate	1.577	1.689	1.840	1.748	1.839	1.806	1.822	1.768	1.718	1.756	4.89	14.0768
68	Fluoranthene	1.125	1.169	1.190	1.185	1.194	1.148	1.154	1.155	1.125	1.161	2.25	14.9648
69	Chrysene-d12	1	1	1	1	1	1	1	1	1	1	0	17.2704
70	Pyrene	1.347	1.439	1.453	1.498	1.486	1.486	1.550	1.552	1.553	1.485	4.49	15.3185
71	Terphenyl-d14	0.903	0.979	1.012	1.003	1.045	1.050	1.081	1.067	1.077	1.024	5.58	15.6352
72	Butylbenzylphthalate	0.666	0.738	0.835	0.899	0.931	0.925	0.958	0.980	0.991	0.880	12.78	16.4778
73	Benzo(a)anthracene	1.196	1.203	1.231	1.236	1.234	1.213	1.234	1.241	1.240	1.225	1.38	17.2528
74	3,3'-Dichlorobenzidine	0.389	0.419	0.477	0.499	0.494	0.511	0.530	0.515	0.554	0.488	10.82	17.2602
75	Chrysene	1.215	1.260	1.284	1.210	1.251	1.231	1.290	1.269	1.286	1.255	2.43	17.3130
76	bis(2-Ethylhexyl)phthalate	0.959	1.076	1.177	1.252	1.278	1.330	1.347	1.342	1.404	1.240	11.70	17.4445
77	Perylene-d12	1	1	1	1	1	1	1	1	1	1	0	19.3833
78	Di-n-octylphthalate	1.375	1.698	1.942	2.214	2.245	2.297	2.333	2.301	2.182	2.065	16.02	18.4426
79	Benzo(b)fluoranthene	1.188	1.365	1.318	1.408	1.407	1.404	1.368	1.385	1.363	1.356	5.12	18.8685
80	Benzo(k)fluoranthene	1.323	1.295	1.305	1.359	1.323	1.258	1.282	1.171	1.174	1.277	5.13	18.9083
81	Benzo(a)pyrene	1.200	1.261	1.235	1.280	1.268	1.255	1.267	1.270	1.221	1.251	2.12	19.3120
82	Indeno(1,2,3-cd)pyrene	1.076	1.198	1.212	1.321	1.321	1.324	1.438	1.346	1.340	1.286	8.29	20.8065
83	Dibenzo(a,h)anthracene	1.082	1.218	1.244	1.316	1.322	1.286	1.407	1.290	1.235	1.267	7.06	20.8435
84	Benzo(g,h,i)perylene	1.185	1.275	1.241	1.335	1.348	1.306	1.369	1.321	1.275	1.295	4.45	21.1926

Ave_%RSD : 7.7 Max_%RSD : 39.3

Use Least Square Linear Regression with weighting factor of inverse concentration for comps with %_RSD > 15
Resp_Ratio = xo + x1 * Amt_Ratio

IDX	Parameter	x0	x1	CCF
27	Benzoic Acid	-0.10716	0.29434	0.9987
36	Hexachlorocyclopentadiene	-0.03249	0.40609	0.9992
38	2,4,5-Trichlorophenol	-0.02573	0.43713	0.9997
47	2,6-Dinitrotoluene	-0.02244	0.35599	0.9994
45	3-Nitroaniline	-0.02589	0.43831	0.9995
47	2,4-Dinitrophenol	-0.05799	0.22936	0.9977
48	4-Nitrophenol	-0.01959	0.21378	0.9991
50	2,4-Dinitrotoluene	-0.02917	0.47223	0.9997
54	4-Nitroaniline	-0.03246	0.45278	0.9993
58	4,6-Dinitro-2-methylphenol	-0.03407	0.19390	0.9991
62	Pentachlorophenol	-0.02409	0.22581	0.9992
78	Di-n-octylphthalate	-0.12791	2.31080	0.9993

KMP
11/17/03

3013

Compound List Report TO52

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:09:51 2003
Response via : Initial Calibration
Total Cpnds : 84

PK#		Compound Name	QIon	Exp_RT	Rel_RT	Cal	#Qual	A/H	ID
1	I	1,4-Dichlorobenzene-d4	152	5.93	1.000	A	1	A	B
2	T	N-Nitrosodimethylamine	74	2.55	0.430	A	1	A	B
3	T	Pyridine	79	2.59	0.437	A	1	A	B
4	S	2-Fluorophenol	112	4.12	0.694	A	1	A	B
5	T	Aniline	93	5.47	0.921	A	2	A	B
6	T	Bis(2-chloroethyl)ether	93	5.58	0.941	A	2	A	B
7	S	Phenol-d5	99	5.43	0.914	A	1	A	B
8	C	Phenol	94	5.45	0.919	A	2	A	B
9	T	2-Chlorophenol	128	5.63	0.948	A	2	A	B
10	T	1,3-Dichlorobenzene	146	5.85	0.986	A	2	A	B
11	C	1,4-Dichlorobenzene	146	5.97	1.006	A	2	A	B
12	T	Benzyl alcohol	108	6.16	1.038	A	2	A	B
13	S	1,2-Dichlorobenzene-d4	152	6.16	1.038	A	2	A	B
14	T	1,2-Dichlorobenzene	146	6.18	1.042	A	2	A	B
15	T	2-Methylphenol	107	6.34	1.069	A	2	A	B
16	T	Bis(2-chloroisopropyl)ether	45	6.38	1.076	A	2	A	B
17	T	4-Methylphenol	107	6.58	1.108	A	2	A	B
18	P	N-Nitroso-di-n-propylamine	70	6.58	1.108	A	2	A	B
19	T	Hexachloroethane	117	6.68	1.125	A	2	A	B
20	I	Naphthalene-d8	136	7.87	1.000	A	1	A	B
21	S	Nitrobenzene-d5	82	6.78	0.861	A	2	A	B
22	T	Nitrobenzene	77	6.80	0.864	A	2	A	B
23	T	Isophorone	82	7.18	0.913	A	1	A	B
24	C	2-Nitrophenol	139	7.29	0.927	A	2	A	B
25	T	2,4-Dimethylphenol	122	7.39	0.940	A	2	A	B
26	T	bis(2-Chloroethoxy)methane	93	7.55	0.960	A	2	A	B
27	T	Benzoic Acid	122	7.62	0.968	L	2	A	B
28	C	2,4-Dichlorophenol	162	7.67	0.975	A	2	A	B
29	T	1,2,4-Trichlorobenzene	180	7.79	0.990	A	2	A	B
30	T	Naphthalene	128	7.90	1.004	A	1	A	B
31	T	4-Chloroaniline	127	8.02	1.019	A	2	A	B
32	C	Hexachlorobutadiene	225	8.11	1.031	A	2	A	B
33	C	4-Chloro-3-methylphenol	107	8.81	1.120	A	2	A	B
34	T	2-Methylnaphthalene	142	9.00	1.144	A	1	A	B
35	I	Acenaphthene-d10	164	10.65	1.000	A	2	A	B
36	P	Hexachlorocyclopentadiene	237	9.25	0.869	L	2	A	B
37	C	2,4,6-Trichlorophenol	196	9.46	0.888	A	3	A	B
38	T	2,4,5-Trichlorophenol	196	9.51	0.893	L	2	A	B
39	S	2-Fluorobiphenyl	172	9.61	0.902	A	1	A	B
40	T	2-Chloronaphthalene	162	9.77	0.917	A	2	A	B
41	T	2-Nitroaniline	65	9.96	0.935	A	2	A	B
42	T	Dimethylphthalate	163	10.29	0.966	A	2	A	B
43	T	Acenaphthylene	152	10.42	0.978	A	2	A	B
44	T	2,6-Dinitrotoluene	165	10.37	0.973	L	2	A	B
45	T	3-Nitroaniline	138	10.63	0.998	L	2	A	B
46	C	Acenaphthene	154	10.70	1.005	A	2	A	B
47	P	2,4-Dinitrophenol	184	10.80	1.014	L	2	A	B
48	P	4-Nitrophenol	109	10.93	1.027	L	2	A	B
49	T	Dibenzofuran	168	10.98	1.031	A	1	A	B
50	T	2,4-Dinitrotoluene	165	11.01	1.034	L	2	A	B
51	T	Diethylphthalate	149	11.43	1.074	A	2	A	B

3014

52	T	Fluorene	166	11.53	1.083	A	2	A	B
53	T	4-Chlorophenyl-phenylether	204	11.57	1.086	A	2	A	B
54	T	4-Nitroaniline	138	11.60	1.089	L	2	A	B
55	T	1,2-Diphenylhydrazine	77	11.82	1.110	A	2	A	B
56	S	2,4,6-Tribromophenol	330	11.91	1.118	A	2	A	B
5[illegible]	I	Phenanthrene-d10	188	13.03	1.000	A	2	A	B
58	T	4,6-Dinitro-2-methylphenol	198	11.66	0.895	L	2	A	B
59	C	N-Nitrosodiphenylamine	169	11.77	0.903	A	2	A	B
60	T	4-Bromophenyl-phenylether	248	12.34	0.948	A	2	A	B
61	T	Hexachlorobenzene	284	12.40	0.952	A	2	A	B
62	C	Pentachlorophenol	266	12.73	0.978	L	2	A	B
63	T	Benzidine	184	15.23	1.170	A	2	A	B
64	T	Phenanthrene	178	13.06	1.003	A	2	A	B
65	T	Anthracene	178	13.14	1.009	A	2	A	B
66	T	Carbazole	167	13.43	1.031	A	2	A	B
67	T	Di-n-butylphthalate	149	14.08	1.081	A	2	A	B
68	C	Fluoranthene	202	14.97	1.149	A	2	A	B
69	I	Chrysene-d12	240	17.27	1.000	A	2	A	B
70	T	Pyrene	202	15.32	0.887	A	2	A	B
71	S	Terphenyl-d14	244	15.63	0.905	A	2	A	B
72	T	Butylbenzylphthalate	149	16.48	0.954	A	2	A	B
73	T	Benzo(a)anthracene	228	17.25	0.999	A	3	A	B
74	T	3,3'-Dichlorobenzidine	252	17.26	1.000	A	2	A	B
75	T	Chrysene	228	17.31	1.002	A	2	A	B
76	T	bis(2-Ethylhexyl)phthalate	149	17.44	1.010	A	2	A	B
77	I	Perylene-d12	264	19.38	1.000	A	2	A	B
78	C	Di-n-octylphthalate	149	18.44	0.951	L	2	A	B
79	T	Benzo(b)fluoranthene	252	18.87	0.973	A	3	A	B
[illegible]	T	Benzo(k)fluoranthene	252	18.91	0.975	A	2	A	B
8[illegible]	C	Benzo(a)pyrene	252	19.31	0.996	A	2	A	B
82	T	Indeno(1,2,3-cd)pyrene	276	20.80	1.073	A	2	A	B
83	T	Dibenzo(a,h)anthracene	278	20.84	1.075	A	2	A	B
84	T	Benzo(g,h,i)perylene	276	21.18	1.093	A	2	A	B

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
#Qual = number of qualifiers
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

SV52K13.M Fri Nov 14 18:18:40 2003 TO52

Cup
11/17/03

SECOND SOURCE VERIFICATION

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03K13\RKK092.D
Acq On : 13 NOV 2003 22:14
Sample : ISV52K13 1
Misc : 2ND SOURCE-50 PPM
MS Integration Params: RTEINT.P

Vial: 11
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0	106	0.00
2	T	N-Nitrosodimethylamine	50.000	51.821	-4	106	0.00
3	T	Pyridine	50.000	55.659	-11	113	0.00
4	S	2-Fluorophenol	50.000	0.000	100#	0	-4.12#
5	T	Aniline	50.000	50.064	-0	105	0.00
6	T	Bis(2-chloroethyl)ether	50.000	46.444	7	100	0.00
7	S	Phenol-d5	50.000	0.000	100#	0	-5.43#
8	C	Phenol	50.000	48.840	2	101	0.00
9	T	2-Chlorophenol	50.000	48.302	3	102	0.00
10	T	1,3-Dichlorobenzene	50.000	48.866	2	102	0.00
11	C	1,4-Dichlorobenzene	50.000	47.158	6	100	0.00
12	T	Benzyl alcohol	50.000	52.245	-4	106	0.00
13	S	1,2-Dichlorobenzene-d4	50.000	0.000	100#	0	-6.16#
14	T	1,2-Dichlorobenzene	50.000	50.186	-0	106	0.00
15	T	2-Methylphenol	50.000	49.218	2	104	0.00
16	T	Bis(2-chloroisopropyl)ether	50.000	48.060	4	102	0.00
17	T	4-Methylphenol	50.000	49.939	0	105	0.00
18	P	N-Nitroso-di-n-propylamine	50.000	52.056	-4	107	0.00
19	T	Hexachloroethane	50.000	47.743	5	102	0.00
20	I	Naphthalene-d8	40.000	40.000	0	112	0.00
21	S	Nitrobenzene-d5	50.000	0.000	100#	0	-6.78#
22	T	Nitrobenzene	50.000	42.817	14	95	0.00
23	T	Isophorone	50.000	52.049	-4	118	0.00
24	C	2-Nitrophenol	50.000	48.742	3	108	0.00
25	T	2,4-Dimethylphenol	50.000	45.133	10	104	0.00
26	T	bis(2-Chloroethoxy)methane	50.000	44.404	11	101	0.00
27	T	Benzoic Acid	50.000	45.727	9	107	0.00
28	C	2,4-Dichlorophenol	50.000	46.827	6	103	0.00
29	T	1,2,4-Trichlorobenzene	50.000	46.416	7	105	0.00
30	T	Naphthalene	50.000	47.357	5	107	0.00
31	T	4-Chloroaniline	50.000	48.243	4	106	0.00
32	C	Hexachlorobutadiene	50.000	45.916	8	104	0.00
33	C	4-Chloro-3-methylphenol	50.000	45.060	10	97	0.00
34	T	2-Methylnaphthalene	50.000	44.077	12	100	0.00
35	I	Acenaphthene-d10	40.000	40.000	0	117	0.00
36	P	Hexachlorocyclopentadiene	50.000	47.517	5	114	0.00
37	C	2,4,6-Trichlorophenol	50.000	47.145	6	104	0.00
38	T	2,4,5-Trichlorophenol	50.000	47.403	5	107	0.00
39	S	2-Fluorobiphenyl	50.000	0.000	100#	0	-9.61#

(#) = Out of Range

11/17/03

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03K13\RKK092.D Vial: 11
Acq On : 13 NOV 2003 22:14 Operator: SG
Sample : ISV52K13 1 Inst : TO52
Misc : 2ND SOURCE-50 PPM Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	50.000	45.845	8	107	0.00
41	T	2-Nitroaniline	50.000	47.080	6	104	0.00
42	T	Dimethylphthalate	50.000	45.931	8	105	0.00
43	T	Acenaphthylene	50.000	46.653	7	106	0.00
44	T	2,6-Dinitrotoluene	50.000	47.334	5	108	0.00
45	T	3-Nitroaniline	50.000	46.560	7	105	0.00
46	C	Acenaphthene	50.000	45.473	9	106	0.00
47	P	2,4-Dinitrophenol	50.000	46.517	7	114	0.00
48	P	4-Nitrophenol	50.000	43.360	13	102	0.00
49	T	Dibenzofuran	50.000	44.914	10	102	0.00
50	T	2,4-Dinitrotoluene	50.000	51.329	-3	121	0.00
51	T	Diethylphthalate	50.000	47.542	5	108	0.00
52	T	Fluorene	50.000	47.340	5	108	0.00
53	T	4-Chlorophenyl-phenylether	50.000	46.809	6	109	0.00
54	T	4-Nitroaniline	50.000	45.221	10	110	0.00
55	T	1,2-Diphenylhydrazine	50.000	44.532	11	103	0.00
56	S	2,4,6-Tribromophenol	50.000	0.000	100#	0	-11.91#
57	I	Phenanthrene-d10	40.000	40.000	0	120	0.00
58	T	4,6-Dinitro-2-methylphenol	50.000	49.110	2	120	0.00
59	C	N-Nitrosodiphenylamine	50.000	43.169	14	101	0.00
60	T	4-Bromophenyl-phenylether	50.000	44.259	11	107	0.00
61	T	Hexachlorobenzene	50.000	45.766	8	108	0.00
62	C	Pentachlorophenol	50.000	44.321	11	108	0.00
63	T	Benzidine	50.000	48.124	4	118	0.00
64	T	Phenanthrene	50.000	45.293	9	108	0.00
65	T	Anthracene	50.000	47.112	6	110	0.00
66	T	Carbazole	50.000	48.051	4	114	0.00
67	T	Di-n-butylphthalate	50.000	44.597	11	102	0.00
68	C	Fluoranthene	50.000	46.108	8	108	0.00
69	I	Chrysene-d12	40.000	40.000	0	122	0.00
70	T	Pyrene	50.000	45.313	9	110	0.00
71	S	Terphenyl-d14	50.000	0.000	100#	0	-15.63#
72	T	Butylbenzylphthalate	50.000	46.336	7	107	0.00
73	T	Benzo(a)anthracene	50.000	45.752	8	111	0.00
74	T	3,3'-Dichlorobenzidine	50.000	48.008	4	115	0.00
75	T	Chrysene	50.000	46.565	7	114	0.00
76	T	bis(2-Ethylhexyl)phthalate	50.000	46.097	8	109	0.00
77	I	Perylene-d12	40.000	40.000	0	122	0.00

(#) = Out of Range

11/17/03

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03K13\RKK092.D
Acq On : 13 NOV 2003 22:14
Sample : ISV52K13 1
Misc : 2ND SOURCE-50 PPM
MS Integration Params: RTEINT.P

Vial: 11
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	50.000	47.420	5	114	0.00
79	T	Benzo(b)fluoranthene	50.000	47.230	6	111	0.00
80	T	Benzo(k)fluoranthene	50.000	49.915	0	118	0.00
81	C	Benzo(a)pyrene	50.000	48.346	3	117	0.00
82	T	Indeno(1,2,3-cd)pyrene	50.000	45.367	9	108	0.00
83	T	Dibenzo(a,h)anthracene	50.000	47.004	6	110	0.00
84	T	Benzo(g,h,i)perylene	50.000	47.148	6	111	0.00

EWD 11/21/03

DAILY CALIBRATIONS

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RLK032
Instrument ID: T-052

Project: ALAMEDA POINT, CTO 0107
SDG No.: 03L010
DFTPP Injection Date: 12/08/03
DFTPP Injection Time: 12:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.44
68	Less than 2% of mass 69	0.05(0.1)1
69	Relative abundance of mass 198	37.86
70	Less than 2.0% of mass 69	0.18(0.5)1
127	40.0 - 60.0% of mass 198	40.34
197	Less than 1.0% of mass 198	0.35
198	Base Peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.83
275	10.0 - 30.0% of mass 198	19.60
365	Greater than 1.00% of mass 198	2.58
441	Present, but less than mass 443	15.08
442	Greater than 40.0% of mass 198	94.72
443	17.0 - 23.0% of mass 442	19.58(20.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD,BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	SSTD050	CSV52K1310	RLK033	12/08/03	13:13
2	MBLK1W	SVL005WB	RLK034	12/08/03	13:45
3	LCS1W	SVL005WL	RLK035	12/08/03	14:15
4	LCD1W	SVL005WC	RLK036	12/08/03	14:45
5	D10B-01-102	L010-02	RLK050	12/08/03	21:46
6	P-16-MWI01-092	L010-03	RLK051	12/08/03	22:16

FORM V SV OLM02.0

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RKK086
Instrument ID: T-052

Project:ALAMEDA POINT, CTO 0107
SDG No.: 03L010
Date Analyzed: 11/13/03
Time Analyzed: 19:14

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	316535	5.93	1134404	7.87	497584	10.65
	UPPER LIMIT	633070	6.43	2268808	8.37	995168	11.15
	LOWER LIMIT	158268	5.43	567202	7.37	248792	10.15
	SAMPLE ID						
1	SSTD050	327293	5.95	1134184	7.88	524293	10.66
2	MBLK1W	298785	5.94	1042323	7.87	483862	10.65
3	LCS1W	297065	5.94	1026765	7.87	477874	10.65
4	LCD1W	303396	5.94	1059877	7.87	491783	10.65
5	D10B-01-102	309686	5.93	1125503	7.86	519749	10.64
6	P-16-MWI01-092	314159	5.93	1130192	7.87	516510	10.64

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII SV-1 OLM02.0

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: EMAX Inc
Lab Code: EMXT
Lab File ID: RKK086
Instrument ID: T-052

Project:ALAMEDA POINT, CTO 0107
SDG No.: 03L010
Date Analyzed: 11/13/03
Time Analyzed: 19:14

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	671381	13.02	539062	17.27	498797	19.38
	UPPER LIMIT	1342762	13.52	1078124	17.77	997594	19.88
	LOWER LIMIT	335691	12.52	269531	16.77	249399	18.88
	SAMPLE ID						
1	SSTD050	711754	13.02	555021	17.28	530531	19.40
2	MBLK1W	647481	13.02	555006	17.27	526933	19.39
3	LCS1W	663932	13.02	522803	17.27	495625	19.39
4	LCD1W	687126	13.02	542567	17.27	526332	19.39
5	D10B-01-102	680542	13.02	567727	17.27	537542	19.38
6	P-16-MWI01-092	693298	13.02	587867	17.27	527923	19.39

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

Column used to flag internal standard area values with an asterisk
* Values outside of QC limits.

FORM VIII SV-2

OLM02.0

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D
Acq On : 8 DEC 2003 13:13
Sample : CSV52K1310
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	40.000	40.000	0	103	0.02
2	T	N-Nitrosodimethylamine	50.000	56.053	-12	112	0.04
3	T	Pyridine	50.000	61.920	-24#	123	0.02
4	S	2-Fluorophenol	50.000	53.412	-7	107	0.03
5	T	Aniline	50.000	51.927	-4	106	0.02
6	T	Bis(2-chloroethyl)ether	50.000	50.231	-0	105	0.02
7	S	Phenol-d5	50.000	51.807	-4	107	0.03
8	C	Phenol	50.000	49.717	1	100	0.02
9	T	2-Chlorophenol	50.000	52.028	-4	107	0.02
10	T	1,3-Dichlorobenzene	50.000	51.457	-3	105	0.00
11	C	1,4-Dichlorobenzene	50.000	50.363	-1	104	0.00
12	T	Benzyl alcohol	50.000	51.431	-3	102	0.03
13	S	1,2-Dichlorobenzene-d4	50.000	50.608	-1	105	0.00
[illegible]	T	1,2-Dichlorobenzene	50.000	48.731	3	100	0.00
[illegible]	T	2-Methylphenol	50.000	51.213	-2	105	0.02
16	T	Bis(2-chloroisopropyl)ether	50.000	53.618	-7	111	0.00
17	T	4-Methylphenol	50.000	51.618	-3	106	0.02
18	P	N-Nitroso-di-n-propylamine	50.000	52.358	-5	105	0.02
19	T	Hexachloroethane	50.000	52.166	-4	109	0.00
20	I	Naphthalene-d8	40.000	40.000	0	100	0.00
21	S	Nitrobenzene-d5	50.000	57.351	-15	117	0.00
22	T	Nitrobenzene	50.000	55.218	-10	109	0.02
23	T	Isophorone	50.000	55.611	-11	113	0.02
24	C	2-Nitrophenol	50.000	59.883	-20	118	0.00
25	T	2,4-Dimethylphenol	50.000	54.146	-8	111	0.02
26	T	bis(2-Chloroethoxy)methane	50.000	52.800	-6	107	0.02
27	T	Benzoic Acid	50.000	58.381	-17	134	0.07
28	C	2,4-Dichlorophenol	50.000	55.954	-12	110	0.02
29	T	1,2,4-Trichlorobenzene	50.000	57.070	-14	115	0.00
30	T	Naphthalene	50.000	50.257	-1	101	0.00
31	T	4-Chloroaniline	50.000	51.632	-3	102	0.00
32	C	Hexachlorobutadiene	50.000	58.005	-16	117	0.00
33	C	4-Chloro-3-methylphenol	50.000	53.532	-7	103	0.02
34	T	2-Methylnaphthalene	50.000	50.295	-1	102	0.00
35	I	Acenaphthene-d10	40.000	40.000	0	105	0.00
36	P	Hexachlorocyclopentadiene	50.000	54.382	-9	118	0.00
[illegible]	C	2,4,6-Trichlorophenol	50.000	58.324	-17	116	0.00
[illegible]	T	2,4,5-Trichlorophenol	50.000	56.483	-13	116	0.02
39	S	2-Fluorobiphenyl	50.000	53.719	-7	113	0.00

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D
Acq On : 8 DEC 2003 13:13
Sample : CSV52K1310
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	50.000	51.250	-3	108	0.00
41	T	2-Nitroaniline	50.000	54.617	-9	108	0.02
42	T	Dimethylphthalate	50.000	50.872	-2	105	0.00
43	T	Acenaphthylene	50.000	49.736	1	102	0.00
44	T	2,6-Dinitrotoluene	50.000	53.112	-6	110	0.02
45	T	3-Nitroaniline	50.000	48.507	3	99	0.00
46	C	Acenaphthene	50.000	48.031	4	101	0.00
47	P	2,4-Dinitrophenol	50.000	58.534	-17	136	0.00
48	P	4-Nitrophenol	50.000	46.591	7	99	0.03
49	T	Dibenzofuran	50.000	50.421	-1	103	0.00
50	T	2,4-Dinitrotoluene	50.000	51.979	-4	110	0.02
51	T	Diethylphthalate	50.000	49.348	1	101	0.00
52	T	Fluorene	50.000	49.905	0	103	0.00
	T	4-Chlorophenyl-phenylether	50.000	54.245	-8	114	0.00
	T	4-Nitroaniline	50.000	47.764	4	105	0.03
55	T	1,2-Diphenylhydrazine	50.000	51.271	-3	106	0.00
56	S	2,4,6-Tribromophenol	50.000	57.814	-16	109	0.02
57	I	Phenanthrene-d10	40.000	40.000	0	106	0.00
58	T	4,6-Dinitro-2-methylphenol	50.000	55.358	-11	121	0.02
59	C	N-Nitrosodiphenylamine	50.000	50.638	-1	104	0.00
60	T	4-Bromophenyl-phenylether	50.000	51.282	-3	110	0.00
61	T	Hexachlorobenzene	50.000	51.611	-3	107	0.00
62	C	Pentachlorophenol	50.000	53.856	-8	118	0.00
63	T	Benzidine	50.000	55.883	-12	121	0.00
64	T	Phenanthrene	50.000	49.773	0	104	0.00
65	T	Anthracene	50.000	49.259	1	102	0.00
66	T	Carbazole	50.000	50.333	-1	105	0.02
67	T	Di-n-butylphthalate	50.000	47.868	4	97	0.00
68	C	Fluoranthene	50.000	48.916	2	101	0.00
69	I	Chrysene-d12	40.000	40.000	0	103	0.02
70	T	Pyrene	50.000	50.390	-1	104	0.00
71	S	Terphenyl-d14	50.000	48.354	3	98	0.00
72	T	Butylbenzylphthalate	50.000	51.471	-3	100	0.00
73	T	Benzo(a)anthracene	50.000	49.493	1	101	0.02
74	T	3,3'-Dichlorobenzidine	50.000	53.353	-7	108	0.00
75	T	Chrysene	50.000	50.975	-2	105	0.02
76	T	bis(2-Ethylhexyl)phthalate	50.000	49.510	1	99	0.00
77	I	Perylene-d12	40.000	40.000	0	106	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D
Acq On : 8 DEC 2003 13:13
Sample : CSV52K1310
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	50.000	48.957	2	102	0.00
79	T	Benzo(b)fluoranthene	50.000	52.372	-5	107	0.02
80	T	Benzo(k)fluoranthene	50.000	52.226	-4	107	0.02
81	C	Benzo(a)pyrene	50.000	54.908	-10	115	0.02
82	T	Indeno(1,2,3-cd)pyrene	50.000	54.615	-9	113	0.02
83	T	Dibenzo(a,h)anthracene	50.000	51.185	-2	104	0.02
84	T	Benzo(g,h,i)perylene	50.000	51.031	-2	104	0.03

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D
Acq On : 8 DEC 2003 13:13
Sample : CSV52K1310
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0	103	0.02
2	T	N-Nitrosodimethylamine	0.918	1.029	-12	112	0.04
3	T	Pyridine	1.415	1.752	-24#	123	0.02
4	S	2-Fluorophenol	1.434	1.532	-7	107	0.03
5	T	Aniline	1.717	1.783	-4	106	0.02
6	T	Bis(2-chloroethyl)ether	1.258	1.263	-0	105	0.02
7	S	Phenol-d5	1.649	1.708	-4	107	0.03
8	C	Phenol	1.732	1.722	1	100	0.02
9	T	2-Chlorophenol	1.542	1.604	-4	107	0.02
10	T	1,3-Dichlorobenzene	1.482	1.525	-3	105	0.00
11	C	1,4-Dichlorobenzene	1.593	1.605	-1	104	0.00
12	T	Benzyl alcohol	0.817	0.841	-3	102	0.03
13	S	1,2-Dichlorobenzene-d4	0.881	0.892	-1	105	0.00
[illegible]	T	1,2-Dichlorobenzene	1.411	1.375	3	100	0.00
[illegible]	T	2-Methylphenol	1.082	1.108	-2	105	0.02
16	T	Bis(2-chloroisopropyl)ether	3.546	3.803	-7	111	0.00
17	T	4-Methylphenol	1.530	1.579	-3	106	0.02
18	P	N-Nitroso-di-n-propylamine	0.778	0.815	-5	105	0.02
19	T	Hexachloroethane	0.720	0.751	-4	109	0.00
20	I	Naphthalene-d8	1.000	1.000	0	100	0.00
21	S	Nitrobenzene-d5	0.338	0.388	-15	117	0.00
22	T	Nitrobenzene	0.321	0.354	-10	109	0.02
23	T	Isophorone	0.605	0.673	-11	113	0.02
24	C	2-Nitrophenol	0.204	0.244	-20	118	0.00
25	T	2,4-Dimethylphenol	0.334	0.362	-8	111	0.02
26	T	bis(2-Chloroethoxy)methane	0.430	0.455	-6	107	0.02
27	T	Benzoic Acid	0.213	0.258	-21#	134	0.07
28	C	2,4-Dichlorophenol	0.300	0.336	-12	110	0.02
29	T	1,2,4-Trichlorobenzene	0.307	0.350	-14	115	0.00
30	T	Naphthalene	1.061	1.067	-1	101	0.00
31	T	4-Chloroaniline	0.478	0.494	-3	102	0.00
32	C	Hexachlorobutadiene	0.160	0.186	-16	117	0.00
33	C	4-Chloro-3-methylphenol	0.312	0.334	-7	103	0.02
34	T	2-Methylnaphthalene	0.622	0.625	-0	102	0.00
35	I	Acenaphthene-d10	1.000	1.000	0	105	0.00
36	P	Hexachlorocyclopentadiene	0.344	0.416	-21#	118	0.00
37	C	2,4,6-Trichlorophenol	0.388	0.452	-16	116	0.00
[illegible]	T	2,4,5-Trichlorophenol	0.388	0.473	-22#	116	0.02
39	S	2-Fluorobiphenyl	1.375	1.478	-7	113	0.00

(#) = Out of Range

3027

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D Vial: 3
Acq On : 8 DEC 2003 13:13 Operator: SG
Sample : CSV52K1310 Inst : TO52
Misc : Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
40	T	2-Chloronaphthalene	1.331	1.364	-2	108	0.00
41	T	2-Nitroaniline	0.343	0.375	-9	108	0.02
42	T	Dimethylphthalate	1.431	1.456	-2	105	0.00
43	T	Acenaphthylene	2.056	2.045	1	102	0.00
44	T	2,6-Dinitrotoluene	0.313	0.360	-15	110	0.02
45	T	3-Nitroaniline	0.389	0.405	-4	99	0.00
46	C	Acenaphthene	1.111	1.067	4	101	0.00
47	P	2,4-Dinitrophenol	0.162	0.222	-37#	136	0.00
48	P	4-Nitrophenol	0.176	0.184	-5	99	0.03
49	T	Dibenzofuran	1.772	1.787	-1	103	0.00
50	T	2,4-Dinitrotoluene	0.416	0.468	-13	110	0.02
51	T	Diethylphthalate	1.402	1.384	1	101	0.00
52	T	Fluorene	1.303	1.300	0	103	0.00
[illegible]	T	4-Chlorophenyl-phenylether	0.581	0.630	-8	114	0.00
[illegible]	T	4-Nitroaniline	0.390	0.407	-4	105	0.03
55	T	1,2-Diphenylhydrazine	1.461	1.498	-3	106	0.00
56	S	2,4,6-Tribromophenol	0.304	0.351	-15	109	0.02
57	I	Phenanthrene-d10	1.000	1.000	0	106	0.00
58	T	4,6-Dinitro-2-methylphenol	0.154	0.187	-21#	121	0.02
59	C	N-Nitrosodiphenylamine	0.642	0.650	-1	104	0.00
60	T	4-Bromophenyl-phenylether	0.288	0.295	-2	110	0.00
61	T	Hexachlorobenzene	0.382	0.395	-3	107	0.00
62	C	Pentachlorophenol	0.180	0.224	-24#	118	0.00
63	T	Benzidine	0.267	0.298	-12	121	0.00
64	T	Phenanthrene	1.266	1.260	0	104	0.00
65	T	Anthracene	1.277	1.259	1	102	0.00
66	T	Carbazole	1.220	1.229	-1	105	0.02
67	T	Di-n-butylphthalate	1.756	1.681	4	97	0.00
68	C	Fluoranthene	1.161	1.135	2	101	0.00
69	I	Chrysene-d12	1.000	1.000	0	103	0.02
70	T	Pyrene	1.485	1.496	-1	104	0.00
71	S	Terphenyl-d14	1.024	0.990	3	98	0.00
72	T	Butylbenzylphthalate	0.880	0.906	-3	100	0.00
73	T	Benzo(a)anthracene	1.225	1.213	1	101	0.02
74	T	3,3'-Dichlorobenzidine	0.488	0.520	-7	108	0.00
75	T	Chrysene	1.255	1.280	-2	105	0.02
76	T	bis(2-Ethylhexyl)phthalate	1.240	1.228	1	99	0.00
77	I	Perylene-d12	1.000	1.000	0	106	0.02

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : D:\CHEMDATA\03L08\RLK033.D
Acq On : 8 DEC 2003 13:13
Sample : CSV52K1310
Misc :
MS Integration Params: RTEINT.P

Vial: 3
Operator: SG
Inst : TO52
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SV52K13.M (RTE Integrator)
Title : METHOD 8270C
Last Update : Fri Nov 14 18:03:50 2003
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
78	C	Di-n-octylphthalate	2.065	2.160	-5	102	0.00
79	T	Benzo(b)fluoranthene	1.356	1.421	-5	107	0.02
80	T	Benzo(k)fluoranthene	1.277	1.333	-4	107	0.02
81	C	Benzo(a)pyrene	1.251	1.373	-10	115	0.02
82	T	Indeno(1,2,3-cd)pyrene	1.286	1.405	-9	113	0.02
83	T	Dibenzo(a,h)anthracene	1.267	1.297	-2	104	0.02
84	T	Benzo(g,h,i)perylene	1.295	1.322	-2	104	0.03

ANALYTICAL LOG

ANALYSIS RUN LOG FOR SEMIVOLATILES

SOP ☒ EMAX-8270 Rev. No. 2 ☐ EMAX-8270SIM Rev. No. 0 ☐ EMAX-CLPSVOA ☐ Book # A52-006

Method File: SV52K13 Tune File: DFTPP Start Date/Time: 11/13/03 15:15 End Date/Time: 11/14/03 00:44

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
	RKK 080	TB 52K13 01				
	081	DFT52K13 01				
NA	082	SV52K13 1	NA			5ppm
	083	2				10ppm
	084	3				20 ppm
	085	4				40 ppm
	086	5				50 ppm
	087	6				80 ppm
	088	7				100 ppm
	089	8				120 ppm
	090	9				160 ppm
	091	SV52K13 10				
	092	ISV52K13 1				2nd Source-50
	093	ISV52K13 2				OK ppm Recovery
	094	CSV52K13 01				
	095	CSV52K13 02				10ppm (SS2C-03-10-1)
SVK003S	096	MDLV-11	NA	x		3540-5ppm
	097	MDLV-12				3540-10ppm

Sa 11/13/03

ANALYTICAL BATCH SV52K13 5

Instrument No:	52
INITIAL CALIBRATION REFERENCE	
Date	11/13/03
ICAL ID	SV 52 K13

Standards		
Name	ID	Conc. (mg/L)
DFTPP	SS2B-03-13-2	50
DCC	SS2C-03-9-1	50
I.S	SS2B-03-12-2	2000
ICV	SS2C-03-9-2	50

Solvent	ID
CH_2Cl_2	43183

Data File	03K13

Comments:

Analyzed By: Sa

This page is checked during data review:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

ANALYSIS RUN LOG FOR SEMIVOLATILES

SOP ☒ EMAX-8270 Rev. No. 2 ☐ EMAX-8270SIM Rev. No. 0 ☐ EMAX-CLPSVOA ☐ Book # A52-006

Method File: SV52 K13 Tune File: DFTPP Start Date/Time: 12/8/03 12:24 End Date/Time: 12/8/03 22:16

ANALYTICAL BATCH CSV52K1310

Preparative Batch	Data File Name	Run ID	DF	Matrix S	Matrix W	Notes
	RLK031	IB52K1310				
	032	DFT52K1310				
	033	CSV52K1310				
SVL005W	034	SVL005WB	NA		X	
	035	WL				
	036	WC				
	037	03L005-02				
	038	03L007-02				
	039	-03				
	040	-04				
	041	-05				
	042	-07				
	043	-08				
	044	-10				
	045	-11				
	046	-13				
	047	-14				
	048	-15				
	049	-16				
	050	03L010-02				
	051	-03				

SG 12/8/03

Instrument No:	52
INITIAL CALIBRATION REFERENCE	
Date	11/13/03
ICAL ID	SV52K13

Standards		
Name	ID	Conc. (mg/L)
DFTPP	SS2B-03-13-2	50
DCC	SS2C-03-9-1	50
I.S	SS2B-03-12-2	2000

Solvent	ID
CH_2Cl_2	43183

Data File	03L008

Comments:

Analyzed By: SG

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

EXTRACTION LOG

EXTRACTION LOG FOR SEMIVOLATILES

SOP ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3510 Rev. No.: 0 ☐ EMAX-3550 Rev. No.: 1 ☒ EMAX-3520 Rev. No.: 1 ☐ EMAX-CLP-SVOA ☐

Matrix: WATER Start Date: 12-3-03 Time: 15:00 Ending Date: 12/5/3 Time: 9:00 Book # ESV-016

PREPARATION BATCH: * SVL005 E

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
01	SVL005-WB	N/A	1000	-	1		
02	-WL		1080	-	1		
03	-WC		1080	-	1		
04	03L007-02		1040	6.28	1		
05	-03		1040	6.15	1		
06	-04		1030	6.21	1		
07	-05		1040	6.13	1		
08	-07		1030	6.11	1		
09	-08		1040	6.17	1		
10	-10		1030	6.09	1		
11	-11		1030	6.01	1		
12	-13		1020	5.93	1		
13	-14		1020	6.12	1		
14	-15		1020	6.07	1		
15	-16		1040	6.05	1		
16	03L010-02		1040	6.22	1		
17	-03		1030	6.31	1		
18	03L005-02		1060	5.37	1		
19							
20							
21							
22							pH meter 210A
23			YK 12/5/3				SWJA-05-232 = 7.01
24							SWJA 05-233 = 10.00
25							slope = 99.0
26							pH verification:
27							SWJA-05-284 = 8.00

Standards	ID	Amount Added (ml)
Surrogate	SS2B-03-17-3	1.0
LCS/MS	SS2B-03-12-3	0.4

Reagent	Lot# / ID
CH_2Cl_2	43183
Na_2SO_4	42364308
H_2SO_4	43080
NaOH	SP1B-01-207
Silica Sand	N/A

TUNING

Sonicator #	Reading
	N/A

Concentrator Water Bath Temp, T_1 (°C)	TT*	
1	35	35
2	35	35
3	35	35
4		
5		

Comments: Test Thermometer = T_1 — TT*

Prepared By: TW Witnessed By: JV

Standard Added By: TW

Checked By: ML

Extract Received by: SG 12/5/03 Location: SE03

Disposed by: Disposed on:

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Silica

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOGS

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2C-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-10-1	8270 ICAL std	200ppm	12.5ul	5ppm (x2)
			25 ul	10ppm (x2)
			50 ul	20ppm
			100ul	40ppm
			125 ul	50ppm (x6)
			200 ul	80ppm
			250ul	100 ppm
			300ul	120ppm
			400ul	160ppm
SS2B-03-12-2	Int. Std Mix	2000ppm	10 ul	40ppm

Standard ID	SS2C-03- 9 -1
Name	8270-ICAL pts
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	10/24/03
Exp. Date	1/24/04
Prepared By	SG
Comments	

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-10-2	8270 ICV. std	200ppm	125ul	50ppm
SS2B-03-12-2	Int. Std Mix	2000ppm	10ul	40ppm
				SG 10/24/03

Standard ID	SS2C-03- 9 -2
Name	8270-ICV
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	10/24/03
Exp. Date	1/24/04
Prepared By	SG
Comments	

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-10-1	8270 ICAL	200ppm	25 ul	10ppm
SS2B-03-12-2	Int. std Mix	2000ppm	10 ul	40 ppm
SS2A-02-123	** 2,4-Dinitrophenol	1000ppm	5ul	10ppm
SS2A-02-124	4-Methyl-4,6-Dinitrophenol	1000ppm	5 ul	10 ppm
				SG 10/24/03

Standard ID	SS2C-03- 9 -3
Name	* 8270 10ppm-MRL
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	~~11/30/03~~ ~~10/24/03~~ SG
Exp. Date	~~1/24/04~~ ~~10/24/03~~ 11/30 SG
Prepared By	SG
Comments	* This std is 20 ppm for 2,4-Dinitro, & 4-Methyl-4,6-Dinitr

** std expired 12/03

*** std not valid due to wr preparation SG

Reviewed By:

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2C-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-101	8270 - ICAL	200 ppm	25 ul	10 ppm
SS2B-03-12-2	Int. std Mix	2000 ppm	10 ul	40 ppm
SS2A-02-123	*2,4-Dinitrophenol	1000 ppm	5 ul	10 ppm
SS2A-02-124	4-Methyl-4,6-Dinitrophenol	1000 ppm	5 ul	10 ppm
				Su
			10/27/03	

Standard ID	SS2C-03- 10 -1
Name	** 8270 - MRL 10ppm
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	10/27/03
Exp. Date	11/30/03
Prepared By	Su

Comments ** this std is 20 ppm for 2,4-Dinitrophenol & 4-Methyl 4,6-Dinitrophenol
*std exp 12/03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-13-3	NDMA ICAL	500 ppb	5 ul	5 ppb
			10	10 ppb
			15	15
			20	20
			40	40
			50	50
			80	80
			100	100
SS2B-03-14-2	IS	10 ppm	20 ul	400 ppb
				Kv 10/24/03

Standard ID	SS2C-03- 10 -2
Name	NDMA ICAL
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	10/24/03
Exp. Date	1/24/03.
Prepared By	Kv

Comments ICAL

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-14-1	NDMA ICV	500 ppb	40 ul	40 ppb
SS2B-03-14-2	IS	10 ppm	20 ul	400 ppb
			Kv 10/24/03	

Standard ID	SS2C-03- 10 -3
Name	NDMA ICV
Final Volume	500 ul
Solvent /Lot #	43183
Prep. Date	10/24/03
Exp. Date	01/24/03
Prepared By	Kv

Comments ICV

Reviewed By: 3037

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2B-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-4	Benzidine & 3,3 Dichlo-	2.0mg/ml	1.0mL	200 ppm
SS2A-02-73	Toxic subs. Mix #1 (benzidine)		1.0 mL	
SS2A-03-5	B/N-composite Mix		1.0mL	
SS2A-02-266	Composite Mix #3		1.0 mL	
SS2A-02-75	phenol Mix		1.0mL	
SS2A-02-87	acid Surrogate Mix	7.5mg/ml	267 ul	
SS2A-02-219	B/N Surrogate Mix	5000ug/ml	400ul	

Standard ID	SS2B-03- 10 -1
Name	8270-ICAL
Final Volume	10ml
Solvent /Lot #	43099
Prep. Date	8/12/03
Exp. Date	2/12/04
Prepared By	SU
Comments	

SU 8/12/03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-15	phenol Mix	2000ug/ml	1.0mL	200ppm
SS2A-03-45	PAH Mix			
SS2A-03-40	Toxic subs. #1			
SSS2A-03-33	Toxic subs. #2			
SS2A-03-38	Benzidine			
SS2A-03-37	B/N-Mix #1			
SS2A-03-39	B/N-Mix #2			
SS2A-03-30	Carbazole			
SS2A-03-50	pyridine			

Standard ID	SS2B-03- 10 -2
Name	8270-ICV
Final Volume	10mL
Solvent /Lot #	43099
Prep. Date	8/12/03
Exp. Date	2/12/04
Prepared By	SU
Comments	

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-47	B/N Surrogate	5000ug/ml	2ml	100ppm
SS2A-03-46	Acid Surrogate	10,000 ug/ml	15ml	150ppm

Standard ID	SS2B-03- 10 -3
Name	8270 Surrogate
Final Volume	1000mL
Solvent /Lot #	43099
Prep. Date	8/15/03
Exp. Date	2/15/04
Prepared By	SU
Comments	

SU 8/15/03

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2B-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-15	phenol Mix	2000 ug/ml	2.5ml	200ppm
SS2A-03-45	PAH Mix			
SS2A-03-40	Toxic subs. Mix #1			
SS2A-03-42	Toxic subs. Mix #2			
SS2A-03-38	Benzidine			
SS2A-03-44	B/N Mix #1			
SS2A-03-51	B/N Mix #2			
SS2A-03-30	Carbazole			
SS2A-03-50	pyridine			

Standard ID	SS2B-03- 13-1
Name	8270 Full spike
Final Volume	2.5ml
Solvent /Lot #	43183
Prep. Date	10/16/03
Exp. Date	4/16/04
Prepared By	SG

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-02-228	Semi-volatiles GC/MS Tuning Std.	1000 ug/ml	0.5mL	50ppm

SG 10/22/03

Standard ID	SS2B-03- 13-2
Name	GC/MS-Tuning
Final Volume	10mL
Solvent /Lot #	43183
Prep. Date	10/22/03
Exp. Date	4/22/04
Prepared By	SG

Comments std. exp. in 5/04

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2B-03-10-1	8270-ICAL	200ppm	25 ml	500 ppb

KV 10/21/03

Standard ID	SS2B-03- 13-3
Name	NOMA ICAL
Final Volume	10 ml
Solvent /Lot #	43183
Prep. Date	10/24/03
Exp. Date	2/12/04
Prepared By	KV

Comments parent expired 2/12/04

Reviewed By: 3039

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2B-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-15	Phenol Mix	2000 ug/ml	2.5 ml	200 ppm
SS2A-03-45	PAH Mix			
SS2A-03-46	Toxic subs. Mix #1			
SS2A-03-42	Toxic subs. Mix #2			
SS2A-03-38	Benzidine			
SS2A-03-44	B/N Mix #1			
SS2A-03-51	B/N Mix #2			
SS2A-03-36	Carbazole			
SS2A-03-50	pyridine			

Standard ID	SS2B-03- 12-1
Name	8270- Full Spike
Final Volume	25 ml
Solvent /Lot #	43183
Prep. Date	9/10/03
Exp. Date	3/10/04
Prepared By	SG

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-48	Internal std Mix	4.0 mg/ml	5 ml	2.0 mg/ml
				SG
				10/10/03

Standard ID	SS2B-03- 12-2
Name	int. std
Final Volume	10 mL
Solvent /Lot #	43183
Prep. Date	10/10/03
Exp. Date	~~4~~/10/04 SG 10/10/03
Prepared By	SG

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-02-217	Acid Matrix spike	7500 ppm	2.666 ml	200 ppm
SS2A-02-218	B/N Matrix spike	5000 ppm	4 ml	↓
				SG
				10/16/03

Standard ID	SS2B-03- 12-3
Name	8270 Short list Spike.
Final Volume	100 mL
Solvent /Lot #	43183
Prep. Date	10/16/03
Exp. Date	4~~5~~/16/04 SG 10/16/03
Prepared By	SG

Comments

Reviewed By: tu 9/29/03

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2B-03

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.
SS2A-03-70	Internal std Mix	4.0mg/ml	5ml	2.0mg/ml
				SG
				11/29/03

Standard ID	SS2B-03- 19 -1
Name	Int-std
Final Volume	10mL
Solvent /Lot #	43183
Prep. Date	11/29/03
Exp. Date	5/29/04
Prepared By	SG

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.

Standard ID	SS2B-03- 19 -2
Name	
Final Volume	
Solvent /Lot #	
Prep. Date	
Exp. Date	
Prepared By	

Comments

Parent ID	Parent Standard Name	Conc.	Aliquot	Final Conc.

Standard ID	SS2B-03- 19 -3
Name	
Final Volume	
Solvent /Lot #	
Prep. Date	
Exp. Date	
Prepared By	

Comments

Reviewed By:

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2A-03

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	CATALOG #
SS2A-03- 1	B/N matrix spike	Restek	A 022648	—	5/2/03	SG	April/05	31084
SS2A-03- 2	acid matrix spike	Restek	A 021537	—	5/2/03	SG	Novem/04	31085
SS2A-03- 3	Carbazole	Supleco	LB 05768	—	5/23/03	SG	Jul/05	4-8076
SS2A-03- 4	Benzidine 3,3' Dichlor-benzidine	Acuna	B3010337	—	5/23/03	SG	Feb/15/05	Z-014F
SS2A-03- 5	B/N composite Mix	Acuna	B 2100270	—	5/23/03	SG	may 3/04	CIP-HC-BN-R
SS2A-03- 6	Toxic subs. Mix 1	acuna	B2090273	—	5/23/03	SG	may 21/06	Z-014D
SS2A-03- 7	Composite Mix #3	acuna	B3030231	—	5/23/03	SG	may 23/05	Z-014E-R3
SS2A-03- 8	phenol Mix	acuna	B2060385	—	5/23/03	SG	may 21/06	Z-014H
SS2A-03- 9	Carbazol	Supleco	LB05768	—	5/27/03	SG	Jul/05	4-8076
SS2A-03- 10	PAH mixture	ultra.	S1270	—	5/30/03	SG	12/04	US-106N
SS2A-03- 11	Benzidine Mix	↓	T0892	—	5/30/03	SG	08/04	US-105N
SS2A-03- 12	B/N mixture #1		S 601A	—	5/30/03	SG	06/04	US-100N
SS2A-03- 13	B/N Mixture #2		T1050		5/30/03	SG	09/04	US-101N
SS2A-03- 14	Toxic subs. Mix #2		T1414	—	5/30/03	SG	11/05	US-104N
SS2A-03- 15	phenolo Mix.		T0735	—	5/30/03	SG	07/05	US-107N
SS2A-03- 16	Toxic subs. Mix #1		T1242	—	5/30/03	SG	10/05	US-103N
SS2A-03- 17	pyridine	Supleco	LB08716		6/2/03	SG	Dec/05	48305-U
SS2A-03- 18	Carbazole	↓	LB05768	—	6/2/03	SG	Jul/05	4-8076
SS2A-03- 19	Internal Std	Acuna	B3010028	—	6/12/03	SG	Jun/06	Z-014J-PAK
SS2A-03- 20	custom 8270 std	Acuna	B3040107	—	6/12/03	SG	Ap/13/04	S-4521C-R
SS2A-03- 21	(breakdown) Int. Std.	Acuna	B3050091	—	6/13/03	SG	Jun/12/06	Z-014J-PAK
SS2A-03- 22	Benzidine	ultra.	U0218		6/17/03	SG	3/07	EPA-1071
SS2A-03- 23	pyridine	Restek	A026342	—	6/17/03	SG	3/07	30409
SS2A-03- 24	Benzoic acid	↓	A027002	—	6/17/03	SG	4/05	31415
SS2A-03- 25	Benzidine	↓	A023849		6/17/03	SG	3/04	31441
SS2A-03- 26	1,4-Dioxane	protocol	L102013/005	—	6/17/03	SG	6/9/04	S-1715
SS2A-03- 27	Internal Std Mix	acuna	B3050091	—	6/23/03	SG	Jun 18/06	Z-014J-PAK
SS2A-03- 28	pyridine	Supleco	LB12054	—	7/2/03	SG	May/06	48305-U
SS2A-03- 29	Carbazol	↓	LB05768	—	7/2/03	SG	Jul/05	48076
SS2A-03- 30	carbazol	Supleco	LB05768	—	7/3/03	SG	Jul/05	4-8076

Reviewed By 5/3/03
6/30/03
7/30/03

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2A-03

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	CATALOG #
SS2A-03-31	PAH mixt.	ultra	S1270	—	7/3/03	Sa	12/04	US-106N
SS2A-03-32	Benzidine Mixt.		T0892	—	7/3/03	Sa	8/04	US-105N
SS2A-03-33	Toxic subs. Mix #2		T1414	—	7/3/03	Sa	11/05	US-104N
SS2A-03-34	phenols Mixt.		T0735	—	7/3/03	Sa	7/05	US-107N
SS2A-03-35	Toxic subs. Mix #1		T1242	—	7/3/03	Sa	10/05	US-103N
SS2A-03-36	Benzidine Solution		U0218	—	7/3/03	Sa	3/07	EPA-107I
SS2A-03-37	Base/Neutrals Mix		S601A	—	7/3/03	Sa	6/04	US-100N
SS2A-03-38	Benzidine #1 Mixt	ultra	U0245	—	7/7/03	Sa	03/06	US-105N
SS2A-03-39	Base/Neutrals Mix #2		U0979	—	7/7/03	Sa	8/04	US-101N
SS2A-03-40	Toxic subs. Mix #1		T1242	—	7/7/03	Sa	10/05	US-103N
SS2A-03-41	Benzidine Solution		U0218	—	7/7/03	Sa	03/07	EPA-107I
SS2A-03-42	Toxic subs. Mix #2		T1414	—	7/7/03	Sa	11/05	US-104N
SS2A-03-43	phenols Mix		T0735	—	7/7/03	Sa	7/05	US-107N
SS2A-03-44	Base/Neutrals Mix		S601	—	7/7/03	Sa	8/05	US-100N
SS2A-03-45	PAH mix #1		U0297	—	7/7/03	Sa	4/06	US-106N
SS2A-03-46	acid surrogate	Restek	A026178	—	7/8/03	Sa	Nov/06	31087
SS2A-03-47	B/N Surrogate		A026594	—	7/8/03	Sa	april/06	31082
SS2A-03-48	Int-std Mix	Accu.	B3050092	—	7/10/03	Sa	Jul/3/06	Z-014I-PA K
SS2A-03-49	Carbazole	Supelco	LB05768	—	7/22/03	Sa	Jul/05	4-8076
SS2A-03-50	pyridine	Supelco	LB12059	—	7/30/03	Sa	May/2006	48305-4
SS2A-03-51	Base/Neutrals Mix #2	ultra	U0979	—	7/31/03	Sa	8/04	US 101N
SS2A-03-52	GCMS Tuning	ultra	U0169	—	8/4/03	Sa	03/05	GCM-150
SS2A-03-53	Acid Surrogate	Restek	A022228	—	8/4/03	Sa	2/07	31087
SS2A-03-54	B/N Surrogate Mix		A026594	—	8/4/03	Sa	4/06	31082
SS2A-03-55	internal std. Mix	Accu.	B3050092	—	8/5/03	Sa	aug/1/06	Z-014I-PA K
SS2A-03-56	pyridine	Supelco	LB12059	—	8/14/03	Sa	May/06	48305-4
SS2A-03-57	~~Benzidine 3,3' Dichlorobenzidine~~							~~CIP-HC-BN-SA~~ SA 8/19/03
SS2A-03-58	Benzidine & 3,3'	Accu	B2100237	—	8/19/03	Sa	oct/21/04	Z-014I
SS2A-03-59	Dichlorobenzidine B/N composite Mix	accu	B3070270		8/19/03	Sa	Jul/30/04	CIP-HC-BN-P
SS2A-03-60	Composite Mix #3	accu	B3030231		8/19/03	Sa	Mar 23/05	Z-014E-P3

Reviewed By 7/30/03

3043 8/29/03

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2A-03

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	CATALOG #
SS2A-03- 61	B/N mix #1	ultra	S6012	—	8/19/03	Su	8/05	US-100N
SS2A-03- 62	Toxic Subs. Mix #2		T1414	—	8/19/03	Su	11/05	US-104N
SS2A-03- 63	Benzidine Mixture		U0245	—	8/19/03	Su	03/06	US-105N
SS2A-03- 64	phenols Mix.		T0735	—	8/19/03	Su	07/05	US-107N
SS2A-03- 65	Toxic subs. Mix #1		T1242	—	8/19/03	Su	10/05	US-103N
SS2A-03- 66	PAH Mixture		U0297	—	8/19/03	Su	04/06	US-106N
SS2A-03- 67	B/N mixture #2		U0979	—	8/19/03	Su	08/04	US-101N
SS2A-03- 68	B/N Surrogate Mix	Restek	A026594	—	8/24/03	Su	april/06	31082
SS2A-03- 69	B/N Surrogate Mix	Restek	A026594	—	9/2/03	Su	april/06	31082
SS2A-03- 70	Internal std Mix	Accua	B305000 92	—	9/2/03	Su	aug 20/06	Z-014J
SS2A-03- 71	pyridine	Supleco	LB12059	—	9/2/03	Su	May/06	48305-U
SS2A-03- 72	hexachlorophene	ultra	T742A	—	9/8/03	Su	08/05	epa-1129 (app 9.1)
SS2A-03- 73	Base/Neutrals Mix 3		T1599	—	9/8/03	Su	01/05	US-114
SS2A-03- 74	organophosphorous		T1228	—	9/8/03	Su	10/05	US-119
SS2A-03- 75	pesticide Mix / pesticides Mix		U0335	—	9/8/03	Su	4/05	US-118
SS2A-03- 76	pyridines Mix		T1253	—	9/8/03	Su	10/05	US-120AN
SS2A-03- 77	phenols Mix #2		U0588	—	9/8/03	Su	05/06	US-117N
SS2A-03- 78	Nitrosamines Mix		T237B	—	9/8/03	Su	5/05	US-113N
SS2A-03- 79	Base/Neutrals Mix #4		U0569	—	9/8/03	Su	5/05	US-115N
SS2A-03- 80	PAH Mixture		U0326	—	9/8/03	Su	4/06	US-116N
SS2A-03- 81	α-α-Dimethylphenethylamine	Accua	B203020 90	—	9/8/03	Su	Nov 24/05	App-9-086 20X
SS2A-03- 82	P-phenylenediamine	Accua	B3090042	—	9/8/03	Su	sep 4/04	app-9-180-20X
SS2A-03- 83	1,2,4,5-Tetrachlorobenzene	Accua	B3010121	—	9/8/03	Su	sep 4/06	app-9-191-10X
SS2A-03- 84	pentachlorobenzene	Accua	A8010015	—	9/8/03	Su	Sep 4/06	AS-E0260
SS2A-03- 85	1,3 Dinitrobenzene	Accua	A8010034	—	9/8/03	Su	Sep 4/06	AS-E0527
SS2A-03- 86	hexachlorocyclopentadiene	ultra	U-0411	—	9/9/03	Su	4/05	CUS-4/06
SS2A-03- 87	Su 9/17/03 3,4-Dimethylphenol	protocol	L102051513	—	9/12/03	Su	9/7/06	S-1664
SS2A-03- 88	Internal std.	Accua	B3050092	—	10/16/03	Su	10/15/06	Z-014J
SS2A-03- 89	PAH Mixture	ultra	U0297	—	10/21/03	Su	4/06	US-106N
SS2A-03- 90	phenols Mixture	ultra	T0735	—	10/21/03	Su	7/05	US-107N

Reviewed By 9/29/03

STANDARDS LOG FOR SEMIVOLATILES

Book # SS2A-03

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	CATALOG #
SS2A-03- 91	Benzidine Mixture	ultra	U 0245	—	10/21/03	SG	3/06	US-105N
SS2A-03- 92	Toxic Subs. Mix #1	↓	U 0316	—	10/21/03	SG	4/06	US-103N
SS2A-03- 93	Base/Neutrals Mix #2	↓	U 0974	—	10/21/03	SG	8/04	US-101N
SS2A-03- 94	Base/Neutrals Mix #1	↓	U 0633	—	10/21/03	SG	6/05	US-100N
SS2A-03- 95	Toxic Subs. Mix #2	↓	T 1414	—	10/21/03	SG	11/05	US-104N
SS2A-03- 96	Pyridine	supleco	~~48830~~ SG 10/22/03	—	10/22/03	SG	May/06	48305-4
SS2A-03- 97	Carbazole	↓	LB12059 LB05768	—	10/24/03	SG	Jul/05	48076
SS2A-03- 98	nitrobenzene-d5	Restek	A020665	—	10/27/03	SG	aug/04	31044
SS2A-03- 99	n-nitrosodimethylamine	Restek	A024682	—	10/27/03	SG	10/05	31427 in mel
SS2A-03-100	1,2-Dichlorobenzene-d4	Restek	A028375	—	10/27/03	SG	July 2012	30049
SS2A-03-101								
SS2A-03-102								
SS2A-03-103								
SS2A-03-104								
SS2A-03-105								
SS2A-03-106								
SS2A-03-107								
SS2A-03-108								
SS2A-03-109								
SS2A-03-110								
SS2A-03-111								
SS2A-03-112								
SS2A-03-113								
SS2A-03-114								
SS2A-03-115								
SS2A-03-116								
SS2A-03-117								
SS2A-03-118								
SS2A-03-119								
SS2A-03-120								

Reviewed By _____

LABORATORY REPORT FOR

SHAW E&I

ALAMEDA POINT, CTO 0107

SW3520C/8081A
TECHNICAL CHLORDANE

SDG#: 03L010

CASE NARRATIVE

CLIENT: **SHAW E&I**

PROJECT: **ALAMEDA POINT, CTO 0107**

SDG: **03L010**

SW3520C/8081A
TECHNICAL CHLORDANE

One (1) water sample was received on 12/03/03 for Technical Chlordane analysis by Method 8081A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

   Analytical holding time was met.

2. Instrument Performance and Calibration

   Initial calibration was at five-point for Technical Chlordane, all RSDs were within 20%. All continue calibrations were analyzed at 10-sample interval and mean recoveries were within 85-115%.

3. Method Blank

   Method blank was free of contamination at reporting limit level.

4. Surrogate Recovery

   Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

   All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

7. Sample Analysis

   Sample was analyzed according to the prescribed QC procedures. All QC criteria were met.

LAB CHRONICLE
Technical Chlordane

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107

SDG NO. : 03L010
Instrument ID : GCT016

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CRL003WB	1	NA	12/05/0314:00	12/03/0315:00	WL05003A	WL05002A	CRL003W	Method Blank
LCS1W	CRL003WL	1	NA	12/05/0314:25	12/03/0315:00	WL05004A	WL05002A	CRL003W	Lab Control Sample (LCS)
LCD1W	CRL003WC	1	NA	12/05/0314:50	12/03/0315:00	WL05005A	WL05002A	CRL003W	LCS Duplicate
P-16-MWI01-092	L010-03	.96	NA	12/05/0321:08	12/03/0315:00	WL05020A	WL05014A	CRL003W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3520C/8081A
Technical Chlordane

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
Batch No.	: 03L010	Date Extracted:	12/03/03 15:00
Sample ID	: P-16-MWI01-092	Date Analyzed:	12/05/03 21:08
Lab Samp ID	: L010-03	Dilution Factor:	.96
Lab File ID	: WL05020A	Matrix	: WATER
Ext Btch ID	: CRL003W	% Moisture	: NA
Calib. Ref.	: WL05014A	Instrument ID	: GCT016

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
TECHNICAL CHLORDANE	(ND)|ND	.96	.24|.24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(80)|80	30-150
DECACHLOROBIPHENYL	(102)|89	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

QC SUMMARIES

SW3520C/8081A
Technical Chlordane

Client	: SHAW E&I	Date Collected:	NA
Project	: ALAMEDA POINT, CTO 0107	Date Received:	NA
Batch No.	: 03L010	Date Extracted:	12/03/03 15:00
Sample ID:	MBLK1W	Date Analyzed:	12/05/03 14:00
Lab Samp ID:	CRL003WB	Dilution Factor:	1
Lab File ID:	WL05003A	Matrix :	WATER
Ext Btch ID:	CRL003W	% Moisture :	NA
Calib. Ref.:	WL05002A	Instrument ID :	GCT016

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
TECHNICAL CHLORDANE	(ND)|ND	1	.25|.25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85)|80	30-150
DECACHLOROBIPHENYL	(102)|90	30-150

RL : Reporting limit
Left of | is related to first column ; Right of | related to second column
( ) included the reported column

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
BATCH NO.: 03L010
METHOD: SW3520C/8081A

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	CRL003WB	CRL003WL	CRL003WC		
LAB FILE ID:	WL05003A	WL05004A	WL05005A		
DATE EXTRACTED:	12/03/0315:00	12/03/0315:00	12/03/0315:00	DATE COLLECTED:	NA
DATE ANALYZED:	12/05/0314:00	12/05/0314:25	12/05/0314:50	DATE RECEIVED:	NA
PREP. BATCH:	CRL003W	CRL003W	CRL003W		
CALIB. REF:	WL05002A	WL05002A	WL05002A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Technical Chlordane	(ND)|ND	5	(4.6)|4.71	(92)|94	5	(4.61)|4.79	(92)|96	(0)|2	50-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.2	(.223)|.24	(112)|120	.2	(.216)|.231	(108)|115	30-150
Decachlorobiphenyl	.2	(.261)|.232	(130)|116	.2	(.266)|.24	(133)|120	30-150

INITIAL CALIBRATIONS

INITIAL CALIBRATION
METHOD EPA 8081

Lab Name : EMAX Inc
Instrument ID : GCT016 HP-5890
GC Column : RTX-CLPEST
Column size ID : .32MMX30M
LFID & Datetime: WJ24002A 10/24/03 12:15
LFID & Datetime: WJ24003A 10/24/03 12:40
LFID & Datetime: WJ24004A 10/24/03 13:06
LFID & Datetime: WJ24005A 10/24/03 13:31
LFID & Datetime: WJ24006A 10/24/03 13:56
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.5X	5.0X	7.5X	10.0X	MEAN	%RSD
CHLORDANE	100.00	6057.5	6531.5	5879.3	6082.1	5974.0	6104.9	4.1
SURROGATE	X	1.0X	2.5X	5.0X	7.5X	10.0X	MEAN	%RSD
TCX	5.00	4556.6	4682.6	4656.3	5100.2	5093.9	4817.9	5.4
DCB	5.00	8258.8	8146.4	7863.8	8502.8	8356.6	8225.7	2.9

END 10/27/03

INITIAL CALIBRATION
METHOD EPA 8081

Lab Name : EMAX Inc
Instrument ID : GCTO16 HP-5890
Column : RTX-CLPESTII
Column size ID : .32MMX30M
LFID & Datetime: WJ24002B 10/24/03 12:15
LFID & Datetime: WJ24003B 10/24/03 12:40
LFID & Datetime: WJ24004B 10/24/03 13:06
LFID & Datetime: WJ24005B 10/24/03 13:31
LFID & Datetime: WJ24006B 10/24/03 13:56
CONC UNIT: PPB

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.5X	5.0X	7.5X	10.0X	MEAN	%RSD
CHLORDANE	100.00	15143.6	13997.9	12272.0	12425.7	12134.5	13194.8	10.0
SURROGATE	**X**	**1.0X**	**2.5X**	**5.0X**	**7.5X**	**10.0X**	**MEAN**	**%RSD**
TCX	5.00	13396.8	13219.8	12312.3	12938.8	12631.0	12899.8	3.4
DCB	5.00	16343.6	16183.3	15204.3	15244.7	15007.0	15596.6	4.0

5010

SECOND SOURCE VERIFICATION

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004A 10/24/2003 13:06
Conc Cont LFID & Datetime: WJ24007A 10/24/2003 14:21
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	6104.9	3034690	497.09	-1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.783	4.731	4.835	25.0	4817.9	119887	24.88	-0		15
DCB	15.642	15.626	15.658	25.0	8225.7	201342	24.48	-2		15

5012

10/27/03

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004B 10/24/2003 13:06
Conc Cont LFID & Datetime: WJ24007B 10/24/2003 14:21
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	13194.8	6269280	475.13	-5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.808	4.741	4.875	25.0	12899.8	317614	24.62	-2		15
DCB	16.308	16.292	16.324	25.0	15596.6	393221	25.21	1		15

KMP
10/25/03

DAILY CALIBRATIONS

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004A 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05002A 12/05/2003 13:35
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	6104.9	2900216	475.07	-5		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.792	4.740	4.844	25.0	4817.9	119503	24.80	-1		15
DCB	15.650	15.634	15.666	25.0	8225.7	209378	25.45	2		15

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004B 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05002B 12/05/2003 13:35
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	13194.8	6524541	494.48	-1		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.825	4.758	4.892	25.0	12899.8	342218	26.53	6		15
DCB	16.333	16.317	16.349	25.0	15596.6	360134	23.09	-8		15

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004A 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05014A 12/05/2003 18:37
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	6104.9	3074268	503.58	1		15
SURROGATE	**MINUTES**	**FROM**	**TO**	**TRUECON**	**CF**	**AREA**	**CONC**	**%D**	**QL**	**LIMITS**
TCX	4.783	4.731	4.835	25.0	4817.9	121426	25.20	1		15
DCB	15.642	15.626	15.658	25.0	8225.7	218764	26.59	6		15

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004B 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05014B 12/05/2003 18:37
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	13194.8	6668255	505.37	1		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.817	4.750	4.884	25.0	12899.8	346198	26.84	7		15
DCB	16.317	16.301	16.333	25.0	15596.6	380624	24.40	-2		15

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCTO16 HP-5890
Column : RTX-CLPEST
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004A 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05022A 12/05/2003 21:59
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	6104.9	3073027	503.37	1		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.783	4.731	4.835	25.0	4817.9	120705	25.05	0		15
DCB	15.642	15.626	15.658	25.0	8225.7	216834	26.36	5		15

CONTINUE CALIBRATION
METHOD EPA 8081

Lab Name : EMAX
Instrument ID : GCT016 HP-5890
Column : RTX-CLPESTII
Column size ID : .32MMX30M
Mid Conc Init LFID & Datetime: WJ24004B 10/24/2003 13:06
Conc Cont LFID & Datetime: WL05022B 12/05/2003 21:59
CONC UNIT : PPB

COMPOUND	RT MINUTES	RT WINDOW FROM	RT WINDOW TO	TRUE CONC	SUM CF	RESULT AREA	RESULT CONC	%D	QL	%D LIMITS
CHLORDANE	0.000	0.000	0.000	500.0	13194.8	6658619	504.64	1		15

SURROGATE	MINUTES	FROM	TO	TRUECON	CF	AREA	CONC	%D	QL	LIMITS
TCX	4.817	4.750	4.884	25.0	12899.8	349042	27.06	8		15
DCB	16.317	16.301	16.333	25.0	15596.6	380373	24.39	-2		15

ANALYTICAL LOG

ANALYSIS RUN LOG FOR PESTICIDES

SOP ☐ EMAX-8082 Revision No. 1 ☑ EMAX-8081 Revision No. 4 ☐ EMAX-CLP-PEST ☐

Start Date: 12/5/03 Time: 13:09 Ending Date: 12/5/03 Time: 22:19 Book # A16-008

ANALYTICAL BATCH WP05002

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	WL05.001	IB16J2418				
	2	CCR16J2418				
CRL003W	3	CRL003WB	1		✓	
	4	WL				
	5	WC				
	6	03L007-02				
	7	03				
	8	04				
	9	05				
	10	07				
	11	08				
	12	10	1		✓	
	13	IB16J2419				
	14	CCR16J2419				
CRL003W	15	03L007-11	1		✓	
	16	13				
	17	14				
	18	15				
	19	16				
	20	03L010-03	1		✓	
	21	IB16J2420				
	22	CCR16J2420				

Instrument No: 16

INITIAL CALIBRATION REFERENCE

ICAL ID	Batch	Date
CR16J24	WJ24	10/24/03

Standards

Name	ID	Conc. (ug/L)
Hexane	42282	n/a
Chlordane	SSIC-03-37-2	2000/100

Column	
	1: ☑ RTX CLPEST I ☐
	2: ☐ RTX CLPEST II ☐

Disk Archival

Name	Location

Analyzed By: LB

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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ANALYSIS RUN LOG FOR PESTICIDES

SOP ☐ EMAX-8082 Revision No. 1 ☑ EMAX-8081 Revision No. 4 ☐ EMAX-CLP-PEST ☐

Start Date: 10/24/03 Time: 11:50 Ending Date: 10/25/03 Time: 10:30 Book # A16-008

ANALYTICAL BATCH WJ24023

Preparative Batch	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Notes
	WJ24.001	IB16J2401				
	2	CR16J24 1				
	3	2				
	4	3				
	5	4				
	6	5				
	7	ICR16J24				
	8	ICR 16J24				
CRJ019WS	9	CRJ019WB	1		✓	
	10	WL				
	11	WC				
	12	CRJ020WL				
	13	WC				
	14	MBL- 01				
	15	02				
	16	03				
	17	04				
	18	05				
	19	06				
	20	07				
	21	MBL Ver.-01	1		✓	
	22	IB16J2402				
	23	CR16J2402				
	24	3				
CRJ018WS	25	CRJ018WB	1		✓	
	26	WL	1		✓	
	27	WC	1		✓	

Instrument No: 16

INITIAL CALIBRATION REFERENCE

ICAL ID	Batch	Date
CR16j24	wj24	10/24/03

Standards

Name	ID	Conc. (ug/L)
Hexane	42282	n/a
Chlord. ICAL	SSIC-03-37-2	2000/100
-"- ICV	37-3	

Column 1: ☑ RTX CLPEST I ☐
2: ☑ RTX CLPEST II ☐

Disk Archival

Name	Location

Analyzed By: RC

This page is checked during data review.

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5023

EXTRACTION LOG

EXTRACTION LOG FOR PESTICIDES

SOP ☒ EMAX-3520 Rev. No.: 1 ☐ EMAX-3540 Rev. No.: 0 ☐ EMAX-3545 Rev. No.: 1 ☐ EMAX-3510 Rev. No.: 0 ☐ EMAX-3550 Rev. No.: 1 ☐ EMAX-3580 Rev. No.: 0 ☐ EMAX-CLP-PEST ☐

Matrix: WATER Starting Date: 12-3-03 Time: 15:00 Ending Date: 12/4/03 Time: 9:00 Book # ECP-014

PREPARATION BATCH QL003 W

Sample Prep ID	Lab Sample ID	Sonicator Number	Sample Amount (g/ml)	pH	Extract Volume (ml)	Clean-up [G] [F] [A] [S]	Notes
*01	CRL003-WB	N/A	1050	-	10		
*02	-WL		1050	-	10		
*03	-WC		1050	-	10		
*04	03L007-02		1040	6.28	10		
*05	-03		1040	6.15	10		
*06	-04		1040	6.21	10		
*07	-05		1030	6.13	10		
*08	-07		1030	6.11	10		
*09	-08		1030	6.17	10		
*10	-10		1040	6.09	10		
*11	-11		1030	6.01	10		
*12	-13		1020	5.93	10		
*13	-14		1020	6.12	10		
*14	-15		1020	6.07	10		
*15	-16		1020	6.05	10		
*16	03L010-03		1040	6.31	10		
*17							
*18							
*19							
*20				ML			
*21				12/5/03			
*22							
*23							
*24							
*25							
*26							
*27							
*28							
*29							
*30							

pH meter 210A
SW7A-05-232 = 7.01
SW7A-05-233 = 10.00
slope = 99.1
pH verification
SW7A-05-284 = 8.00

Standards	ID	Amount Added (ml)
Surrogate	SSIC-03-37-1	1-0
LCS/~~MS~~ ~~CHLORDANE~~	SSIC-03-37-3	2-5

Reagent	Lot# / ID
CH_2Cl_2	43183
Hexane	42282
Na_2SO_4	43168328
H_2SO_4	N/A
NaOH	↓
Silica Sand	↓

TUNING

Sonicator #	Reading
	N/A
	↓
	↓
	↓

Concentrator Water Bath Temp.(°C)		TT**
1	35	35
2	35	35
3		
4		
5	60	60

Comments: Test thermometer = T1 TT**

Prepared By: TW Standard Added By: TW
Witnessed By: JV Checked By: ML
Extract Location: SE02-10 Received By: 12/4/03
Disposal Date:

Clean-up Legend :[G]=GPC [A]=Acid [F]=Florisil [S]=Silica

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

SHAW E&I

ALAMEDA POINT, CTO 0107

TOTAL AND DISSOLVED
METALS BY ICP

SDG#: 03L010

7000

CASE NARRATIVE

CLIENT: **SHAW E&I**

PROJECT: **ALAMEDA POINT, CTO 0107**

SDG: **03L010**

METHOD 3010A/6010B
METALS BY ICP

Two (2) water samples were received on 12/03/03 for Metals analysis by Method 3010A/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

   Analysis met holding time criteria.

2. Method Blank

   Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

   Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

   Sample L010-02 was analyzed for serial dilution and post-analytical spike. Serial dilution test was performed at 1:10 dilution and only Ca, Mg and Na were performed at 1:5 dilution. All QC requirements were met with the exception of sodium.

5. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

6. Sample Analysis

   Sample analyses were performed within the QC requirements. All criteria were met with the aforementioned exception.

LAB CHRONICLE
METALS BY ICP

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107

SDG NO. : 03L010
Instrument ID : T-I73

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPL023WB	1	NA	12/13/0317:27	12/08/0309:30	I73L036011	I73L036009	IPL023W	Method Blank
LCS1W	IPL023WL	1	NA	12/13/0317:34	12/08/0309:30	I73L036012	I73L036009	IPL023W	Lab Control Sample (LCS)
LCD1W	IPL023WC	1	NA	12/13/0317:41	12/08/0309:30	I73L036013	I73L036009	IPL023W	LCS Duplicate
D10B-01-102AS	L010-02A	5	NA	12/15/0313:38	12/08/0309:30	I73L037014	I73L037009	IPL023W	Analytical Spike Sample
D10B-01-102DL	L010-02T	50	NA	12/15/0313:52	12/08/0309:30	I73L037016	I73L037009	IPL023W	Diluted Sample
D10B-01-102	L010-02	5	NA	12/15/0314:48	12/08/0309:30	I73L037024	I73L037021	IPL023W	Field Sample
P-16-MWI01-092	L010-03	1	NA	12/15/0315:19	12/08/0309:30	I73L037028	I73L037021	IPL023W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
METALS BY ICP

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
SDG NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	D10B-01-102	Date Analyzed:	12/15/03 14:48
Lab Samp ID:	L010-02	Dilution Factor:	5
Lab File ID:	I73L037024	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L037021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	ND	1000	135
Antimony	223J	500	45
Arsenic	66.9	50	30
Barium	46.3J	50	2.5
Beryllium	ND	10	1.25
Cadmium	7.05J	10	2.5
Calcium^	1570000	25000	5000
Chromium	16.2J	25	6
Cobalt	24.9J	25	7.5
Copper	ND	25	5
Iron	ND	500	100
Lead	ND	25	8.5
Magnesium^	1880000	25000	5000
Manganese	16700	50	5
Molybdenum	ND	200	25
Nickel	ND	50	6
Potassium	18500	2500	500
Selenium	ND	50	16.5
Silver	27.5J	50	8
Sodium^	5920000	25000	5000
Thallium	ND	50	20
Vanadium	ND	50	6.5
Zinc	11.8J	50	7.5

RL: Reporting Limit

^ Analyzed at DF50 on 12/16/03 18:02 | FileID I73L041016

METHOD 3010A/6010B
METALS BY ICP

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
SDG NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	P-16-MWI01-092	Date Analyzed:	12/15/03 15:19
Lab Samp ID:	L010-03	Dilution Factor:	1
Lab File ID:	I73L037028	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L037021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	180J	200	27
Antimony	ND	100	9
Arsenic	22.7	10	6
Barium	12	10	.5
Beryllium	ND	2	.25
Cadmium	ND	2	.5
Calcium	2380	500	100
Chromium	ND	5	1.2
Cobalt	ND	5	1.5
Copper	ND	5	1.0
Iron	276	100	20
Lead	ND	5	1.7
Magnesium	1680	500	100
Manganese	9.73J	10	1.0
Molybdenum	32.6J	40	5
Nickel	4.17J	10	1.2
Potassium	11300	500	100
Selenium	5.44J	10	3.3
Silver	ND	10	1.6
Sodium^	377000	5000	1000
Thallium	ND	10	4
Vanadium	14.2	10	1.3
Zinc	7.45J	10	1.5

RL: Reporting Limit

^ Analyzed at DF10 on 12/16/03 18:16 | FileID I73L041018

METHOD 3010A/6010B
METALS BY ICP

Client	: SHAW E&I	Date Collected:	NA
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/08/03
NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	MBLK1W	Date Analyzed:	12/13/03 17:27
Lab Samp ID:	IPL023WB	Dilution Factor:	1
Lab File ID:	I73L036011	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L036009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	ND	200	27
Antimony	ND	100	9
Arsenic	6.01J	10	6
Barium	ND	10	.5
Beryllium	ND	2	.25
Cadmium	ND	2	.5
Calcium	ND	500	100
Chromium	ND	5	1.2
Cobalt	ND	5	1.5
Copper	ND	5	1.0
Iron	ND	100	20
Lead	ND	5	1.7
Magnesium	ND	500	100
Manganese	ND	10	1.0
Molybdenum	ND	40	5
Nickel	ND	10	1.2
Potassium	ND	500	100
Selenium	ND	10	3.3
Silver	ND	10	1.6
Sodium	ND	500	100
Thallium	ND	10	4
Vanadium	ND	10	1.3
Zinc	ND	10	1.5

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
NO.: 03L010
OD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPL023WB	IPL023WL	IPL023WC		
LAB FILE ID:	I73L036011	I73L036012	I73L036013		
DATIME EXTRCTD:	12/08/0309:30	12/08/0309:30	12/08/0309:30	DATE COLLECTED:	NA
DATIME ANALYZD:	12/13/0317:27	12/13/0317:34	12/13/0317:41	DATE RECEIVED:	12/08/03
PREP. BATCH:	IPL023W	IPL023W	IPL023W		
CALIB. REF:	I73L036009	I73L036009	I73L036009		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	10000	10900	109	10000	11100	111	2	75-125	20
Antimony	ND	5000	5370	107	5000	5460	109	2	75-125	20
Arsenic	6.01J	1000	1070	107	1000	1100	110	3	75-125	20
Barium	ND	1000	957	96	1000	975	97	2	75-125	20
Beryllium	ND	1000	1050	105	1000	1080	108	2	75-125	20
Cadmium	ND	1000	1020	102	1000	1040	104	2	75-125	20
Calcium	ND	50000	54700	109	50000	56100	112	2	75-125	20
Chromium	ND	1000	1040	104	1000	1060	106	2	75-125	20
Cobalt	ND	1000	986	99	1000	1010	101	3	75-125	20
Copper	ND	1000	991	99	1000	1010	101	2	75-125	20
Iron	ND	10000	10800	108	10000	11000	110	2	75-125	20
Lead	ND	1000	1020	102	1000	1040	104	2	75-125	20
Magnesium	ND	50000	55600	111	50000	57100	114	3	75-125	20
Manganese	ND	1000	1000	100	1000	1030	103	2	75-125	20
Molybdenum	ND	1000	995	100	1000	1020	102	2	75-125	20
Nickel	ND	1000	1000	100	1000	1030	103	2	75-125	20
Potassium	ND	50000	57400	115	50000	58500	117	2	75-125	20
Selenium	ND	1000	1080	108	1000	1100	110	2	75-125	20
Silver	ND	1000	1010	101	1000	1030	103	2	75-125	20
Sodium	ND	50000	55100	110	50000	56100	112	2	75-125	20
Thallium	ND	1000	1010	101	1000	1040	104	3	75-125	20
Vanadium	ND	1000	1070	107	1000	1090	109	2	75-125	20
Zinc	ND	1000	1080	108	1000	1100	110	2	75-125	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
NO.: 03L010
HOD: METHOD 3010A/6010B

==========

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	5	5		
SAMPLE ID:	D10B-01-102			
CONTROL NO.:	L010-02	L010-02A		
LAB FILE ID:	I73L037024	I73L037014		
DATIME EXTRCTD:	12/08/0309:30	12/08/0309:30	DATE COLLECTED:	12/02/03
DATIME ANALYZD:	12/15/0314:48	12/15/0313:38	DATE RECEIVED:	12/03/03
PREP. BATCH:	IPL023W	IPL023W		
CALIB. REF:	I73L037021	I73L037009		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Aluminum	ND	50000	50300	101	75-125
Antimony	223J	25000	26200	104	75-125
Arsenic	66.9	5000	5450	108	75-125
Barium	46.3J	5000	4430	88	75-125
Beryllium	ND	5000	5000	100	75-125
Cadmium	7.05J	5000	4810	96	75-125
Calcium^	1570000	2500000	3840000	91	75-125
Chromium	16.2J	5000	4870	97	75-125
Cobalt	24.9J	5000	4750	95	75-125
Copper	ND	5000	4810	96	75-125
Iron	ND	50000	49900	100	75-125
Lead	ND	5000	4950	99	75-125
Magnesium^	1880000	2500000	4240000	94	75-125
Manganese	16700	5000	21700	100	75-125
Molybdenum	ND	5000	4990	100	75-125
Nickel	ND	5000	4780	96	75-125
Potassium^	18500	2500000	2860000	114	75-125
Selenium	ND	5000	5400	108	75-125
Silver	27.5J	5000	5170	103	75-125
Sodium^	5920000	2500000	7370000	58*	75-125
Thallium	ND	5000	4890	98	75-125
Vanadium	ND	5000	5070	101	75-125
Zinc	11.8J	5000	5310	106	75-125

^ L010-02A: Analyzed at DF50 on 12/16/03 18:09 | FileID I73L041017

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
F[illegible] NO.: 03L010
M[illegible]OD: METHOD 3010A/6010B

==========

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	5	50		
SAMPLE ID:	D10B-01-102	D10B-01-102DL		
EMAX SAMP ID:	L010-02	L010-02T		
LAB FILE ID:	I73L037024	I73L037016		
DATE EXTRACTED:	12/08/0309:30	12/08/0309:30	DATE COLLECTED:	12/02/03
DATE ANALYZED:	12/15/0314:48	12/15/0313:52	DATE RECEIVED:	12/03/03
PREP. BATCH:	IPL023W	IPL023W		
CALIB. REF:	I73L037021	I73L037009		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Aluminum	ND	ND	0	10
Antimony	223J	840J	NA	10
Arsenic	66.9	460J	NA	10
Barium	46.3J	33.8J	NA	10
Beryllium	ND	ND	0	10
Cadmium	7.05J	39.4J	NA	10
Calcium^	1570000	1580000	1	10
Chromium	16.2J	69.2J	NA	10
Cobalt	24.9J	116J	NA	10
Copper	ND	ND	0	10
Iron	ND	ND	0	10
Lead	ND	ND	0	10
M[illegible]nesium^	1880000	1860000	1	10
[illegible]anese	16700	17700	6	10
Molybdenum	ND	ND	0	10
Nickel	ND	ND	0	10
Potassium^	18500	14400J	NA	10
Selenium	ND	ND	0	10
Silver	27.5J	179J	NA	10
Sodium^	5920000	7520000	27*	10
Thallium	55.8	ND	NA	10
Vanadium	ND	ND	0	10
Zinc	11.8J	129J	NA	10

^ L010-02T: Analyzed at DF250 on 12/16/03 17:55 | FileID I73L041015

CASE NARRATIVE

CLIENT: SHAW E&I

PROJECT: ALAMEDA POINT, CTO 0107

SDG: 03L010

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Two (2) water samples were received on 12/03/03 for Dissolved Metals analysis by Method 3010A/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

   Analysis met holding time criteria.

2. Method Blank

   Method blank was free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

   Lab control results were within QC limit.

4. Serial Dilution / Post-Analytical Spike

   Sample L010-02 was analyzed for serial dilution and post-analytical spike. Serial dilution test was performed at 1:10 dilution and only Ca, Mg and Na were performed at 1:5 dilution. All QC requirements were met with the exception of sodium.

5. Matrix Spike/Matrix Spike Duplicate

   No MS/MSD sample was designated in this SDG.

6. Sample Analysis

   Sample analyses were performed within the QC requirements. All criteria were met with the aforementioned exception.

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107

SDG NO. : 03L010
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPL023WB	1	NA	12/13/0317:27	12/08/0309:30	I73L036011	I73L036009	IPL023W	Method Blank
LCS1W	IPL023WL	1	NA	12/13/0317:34	12/08/0309:30	I73L036012	I73L036009	IPL023W	Lab Control Sample (LCS)
LCD1W	IPL023WC	1	NA	12/13/0317:41	12/08/0309:30	I73L036013	I73L036009	IPL023W	LCS Duplicate
P-16-MWI01-092	L010-03	1	NA	12/13/0318:10	12/08/0309:30	I73L036017	I73L036009	IPL023W	Field Sample
D10B-01-102AS	L010-02A	5	NA	12/15/0313:38	12/08/0309:30	I73L037014	I73L037009	IPL023W	Analytical Spike Sample
D10B-01-102	L010-02	5	NA	12/15/0313:45	12/08/0309:30	I73L037015	I73L037009	IPL023W	Field Sample
D10B-01-102DL	L010-02T	50	NA	12/15/0313:52	12/08/0309:30	I73L037016	I73L037009	IPL023W	Diluted Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
SDG NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	D10B-01-102	Date Analyzed:	12/15/03 13:45
Lab Samp ID:	L010-02	Dilution Factor:	5
Lab File ID:	I73L037015	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L037009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	ND	1000	135
Antimony	ND	500	45
Arsenic	ND	50	30
Barium	54	50	2.5
Beryllium	ND	10	1.25
Cadmium	ND	10	2.5
Calcium^	1500000	25000	5000
Chromium	ND	25	6
Cobalt	10.2J	25	7.5
Copper	ND	25	5
Iron	ND	500	100
Lead	ND	25	8.5
Magnesium^	1780000	25000	5000
Manganese	17800	50	5
Molybdenum	ND	200	25
Nickel	7.94J	50	6
Potassium	19000	2500	500
Selenium	17.5J	50	16.5
Silver	ND	50	8
Sodium^	5640000	25000	5000
Thallium	ND	50	20
Vanadium	ND	50	6.5
Zinc	ND	50	7.5

RL: Reporting Limit

^ Analyzed at DF50 on 12/16/03 17:34 | FileID I73L041012

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: SHAW E&I	Date Collected:	12/02/03
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/03/03
SDG NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	P-16-MWI01-092	Date Analyzed:	12/13/03 18:10
Lab Samp ID:	L010-03	Dilution Factor:	1
Lab File ID:	I73L036017	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L036009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	ND	200	27
Antimony	ND	100	9
Arsenic	21	10	6
Barium	9.59J	10	.5
Beryllium	ND	2	.25
Cadmium	ND	2	.5
Calcium	2260	500	100
Chromium	ND	5	1.2
Cobalt	ND	5	1.5
Copper	ND	5	1.0
Iron	58.3J	100	20
Lead	ND	5	1.7
Magnesium	1730	500	100
Manganese	8.32J	10	1.0
Molybdenum	30.5J	40	5
Nickel	4.14J	10	1.2
Potassium	11400	500	100
Selenium	ND	10	3.3
Silver	ND	10	1.6
Sodium*	364000	5000	1000
Thallium	ND	10	4
Vanadium	14.1	10	1.3
Zinc	3.47J	10	1.5

RL: Reporting Limit

* Analyzed at DF10 on 12/16/03 17:48 | FileID I73L041014

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: SHAW E&I	Date Collected:	NA
Project	: ALAMEDA POINT, CTO 0107	Date Received:	12/08/03
SDG NO.	: 03L010	Date Extracted:	12/08/03 09:30
Sample ID:	MBLK1W	Date Analyzed:	12/13/03 17:27
Lab Samp ID:	IPL023WB	Dilution Factor:	1
Lab File ID:	I73L036011	Matrix :	WATER
Ext Btch ID:	IPL023W	% Moisture :	NA
Calib. Ref.:	I73L036009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
Aluminum	ND	200	27
Antimony	ND	100	9
Arsenic	6.01J	10	6
Barium	ND	10	.5
Beryllium	ND	2	.25
Cadmium	ND	2	.5
Calcium	ND	500	100
Chromium	ND	5	1.2
Cobalt	ND	5	1.5
Copper	ND	5	1.0
Iron	ND	100	20
Lead	ND	5	1.7
Magnesium	ND	500	100
Manganese	ND	10	1.0
Molybdenum	ND	40	5
Nickel	ND	10	1.2
Potassium	ND	500	100
Selenium	ND	10	3.3
Silver	ND	10	1.6
Sodium	ND	500	100
Thallium	ND	10	4
Vanadium	ND	10	1.3
Zinc	ND	10	1.5

RL: Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
NO.: 03L010
HOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPL023WB	IPL023WL	IPL023WC		
LAB FILE ID:	I73L036011	I73L036012	I73L036013		
DATIME EXTRCTD:	12/08/0309:30	12/08/0309:30	12/08/0309:30	DATE COLLECTED:	NA
DATIME ANALYZD:	12/13/0317:27	12/13/0317:34	12/13/0317:41	DATE RECEIVED:	12/08/03
PREP. BATCH:	IPL023W	IPL023W	IPL023W		
CALIB. REF:	I73L036009	I73L036009	I73L036009		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Aluminum	ND	10000	10900	109	10000	11100	111	2	75-125	20
Antimony	ND	5000	5370	107	5000	5460	109	2	75-125	20
Arsenic	6.01J	1000	1070	107	1000	1100	110	3	75-125	20
Barium	ND	1000	957	96	1000	975	97	2	75-125	20
Beryllium	ND	1000	1050	105	1000	1080	108	2	75-125	20
Cadmium	ND	1000	1020	102	1000	1040	104	2	75-125	20
Calcium	ND	50000	54700	109	50000	56100	112	2	75-125	20
Chromium	ND	1000	1040	104	1000	1060	106	2	75-125	20
Cobalt	ND	1000	986	99	1000	1010	101	3	75-125	20
Copper	ND	1000	991	99	1000	1010	101	2	75-125	20
Iron	ND	10000	10800	108	10000	11000	110	2	75-125	20
Lead	ND	1000	1020	102	1000	1040	104	2	75-125	20
Magnesium	ND	50000	55600	111	50000	57100	114	3	75-125	20
Manganese	ND	1000	1000	100	1000	1030	103	2	75-125	20
Molybdenum	ND	1000	995	100	1000	1020	102	2	75-125	20
Nickel	ND	1000	1000	100	1000	1030	103	2	75-125	20
Potassium	ND	50000	57400	115	50000	58500	117	2	75-125	20
Selenium	ND	1000	1080	108	1000	1100	110	2	75-125	20
Silver	ND	1000	1010	101	1000	1030	103	2	75-125	20
Sodium	ND	50000	55100	110	50000	56100	112	2	75-125	20
Thallium	ND	1000	1010	101	1000	1040	104	3	75-125	20
Vanadium	ND	1000	1070	107	1000	1090	109	2	75-125	20
Zinc	ND	1000	1080	108	1000	1100	110	2	75-125	20

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
JOB NO.: 03L010
METHOD: METHOD 3010A/6010B

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MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 5 5
SAMPLE ID: D10B-01-102
CONTROL NO.: L010-02 L010-02A
LAB FILE ID: I73L037015 I73L037014
DATIME EXTRCTD: 12/08/0309:30 12/08/0309:30 DATE COLLECTED: 12/02/03
DATIME ANALYZD: 12/15/0313:45 12/15/0313:38 DATE RECEIVED: 12/03/03
PREP. BATCH: IPL023W IPL023W
CALIB. REF: I73L037009 I73L037009

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Aluminum	ND	50000	50300	101	75-125
Antimony	ND	25000	26200	105	75-125
Arsenic	ND	5000	5450	109	75-125
Barium	54	5000	4430	88	75-125
Beryllium	ND	5000	5000	100	75-125
Cadmium	ND	5000	4810	96	75-125
Calcium^	1500000	2500000	3840000	94	75-125
Chromium	ND	5000	4870	97	75-125
Cobalt	10.2J	5000	4750	95	75-125
Copper	ND	5000	4810	96	75-125
Iron	ND	50000	49900	100	75-125
Lead	ND	5000	4950	99	75-125
Magnesium^	1780000	2500000	4240000	98	75-125
Manganese	17800	5000	21700	77	75-125
Molybdenum	ND	5000	4990	100	75-125
Nickel	7.94J	5000	4780	95	75-125
Potassium	19000	250000	2790000	111	75-125
Selenium	17.5J	5000	5400	108	75-125
Silver	ND	5000	5170	103	75-125
Sodium^	5640000	2500000	7260000	65*	75-125
Thallium	ND	5000	4890	98	75-125
Vanadium	ND	5000	5070	101	75-125
Zinc	ND	5000	5310	106	75-125

^ L010-02A: Analyzed at DF50 on 12/16/03 17:41 | FileID I73L041013

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
BATCH NO.: 03L010
METHOD: METHOD 3010A/6010B

==========

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	5	50		
SAMPLE ID:	D10B-01-102	D10B-01-102DL		
EMAX SAMP ID:	L010-02	L010-02T		
LAB FILE ID:	I73L037015	I73L037016		
DATE EXTRACTED:	12/08/0309:30	12/08/0309:30	DATE COLLECTED:	12/02/03
DATE ANALYZED:	12/15/0313:45	12/15/0313:52	DATE RECEIVED:	12/03/03
PREP. BATCH:	IPL023W	IPL023W		
CALIB. REF:	I73L037009	I73L037009		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Aluminum	ND	ND	0	10
Antimony	ND	840J	NA	10
Arsenic	ND	460J	NA	10
Barium	54	33.8J	NA	10
Beryllium	ND	ND	0	10
Cadmium	ND	39.4J	NA	10
Calcium^	1500000	1590000	6	10
Chromium	ND	69.2J	NA	10
Cobalt	10.2J	116J	NA	10
Copper	ND	ND	0	10
Iron	ND	ND	0	10
Lead	ND	ND	0	10
Magnesium^	1780000	1890000	6	10
Manganese	17800	17700	1	10
Molybdenum	ND	ND	0	10
Nickel	7.94J	ND	NA	10
Potassium	19000	14400J	NA	10
Selenium	17.5J	ND	NA	10
Silver	ND	179J	NA	10
Sodium^	5640000	7540000	34*	10
Thallium	ND	ND	NA	10
Vanadium	ND	ND	0	10
Zinc	ND	129J	NA	10

^ L010-02T: Analyzed at DF250 on 12/16/03 17:27 | FileID I73L041011

DIGESTION LOG FOR ICP METALS

SOP ☐ EMAX-3005 Rev. No.3 ☑ EMAX-3010 Rev. No. 2 ☐ EMAX-3050 Rev. No. 2 ☐ EMAX-CLP-TAL ☐ Book # EIP-033

Matrix: WATER Start Date: 12-8-03 Time: ~~8:30~~ 9:30 me 12-8-03 Temp: 90°C Ending Date: 12-8-03 Time: 14:40 Temp.: 90°C

BATCH: IPL023-W

Sample Prep ID	Lab Sample ID	Matrix Description: Color	Texture / Clarity	Artifacts	Sample Amount (g | ml)	pH	Extract Volume (ml)	Digestate Description: Color	Clarity
01	IPL023-WB				50	–	50		
02	↓ -WL				50	–	50		
03	↓ -WC				50	–	50		
04	L010-02 TOTAL				50	<2	50		
05	↓ -03 ↓				50	↓	50		
06	L010-02 Diss				50		50		
07	↓ -03 ↓				50		50		
08	L013-01				50		50		
09	L023-01				50		50		
10	↓ -02				50		50		
11	↓ -03				50	↓	50		
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									

12-8-03 MC

Standards	ID	Amount Added (ml)
LCS -1	SMIA-07-27	0.5
LCS -2	SMIA-07-28	0.5
LCS -3	SMIA-07-29	0.5
MS		

Reagent	Lot# / ID	Amount Added (ml)
HNO_3	SWIA-02-1372	1.5+1.5
HCl	SWIA-02-1357	2.5
H_2O_2	N/A	
HNO_3 (1:1)	N/A	

Digestate Location	ICP LAB
Extract Location	

Legend:

Texture	Cs = Coarse	Md = Medium	Fn = Fine
Clarity	Cr = Clear	Cy = Cloudy	Td = Turbid
Artifacts	Rk = rocks	Sl = Shale	Vg=Vegetation
Color	Bu = blue	Bk = Black	Bn = Brown
	Gn = Green	Og = Orange	Rd = Red
	Yw = Yellow	Cl = Colorless	

Comments: cont lot. # 502758

Prepared By: MC Standard Added By: MC

Witnessed By: NT Extracts Received By: RL

Checked By: RL 12/09/03

Date Disposed: Disposed by:

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

7017

TRACE-LOW ICP QC CHECK TABLE

QC	ICV HIGH	ICV	CCV	ICSAB	ICSA
Limit %	95-105	90-110	90-110	80-120	80-120
Comp	ug/L	ug/L	ug/L	ug/L	ug/L
Al	10000	5000	5000	500000	500000
Sb	1000	500	500	1000	0
As	1000	500	500	1000	0
Ba	1000	500	500	500	0
Be	1000	500	500	500	0
B	1000	500	500	500	0
Cd	1000	500	500	1000	0
Ca	50000	30000	30000	500000	500000
Cr	1000	500	500	500	0
Co	1000	500	500	500	0
Cu	1000	500	500	500	0
Fe	10000	5000	5000	200000	200000
Pb	1000	500	500	1000	0
Mg	50000	30000	30000	500000	500000
Mn	1000	500	500	500	0
Mo	1000	500	500	1000	0
Ni	1000	500	500	1000	0
K	50000	30000	30000	100000	0
Se	1000	500	500	1000	0
Ag	1000	500	500	1000	0
Na	50000	30000	30000	100000	0
Sr	1000	500	500	500	0
Tl	1000	500	500	1000	0
Sn	1000	500	500	1000	0
Ti	1000	500	500	1000	0
V	1000	500	500	500	0
Zn	1000	500	500	1000	0

ANALYSIS RUN LOG FOR ICP

SOP ☑ EMAX-6010-Rev. 3 ☐ EMAX-CLP-TAL ☐ Method File: 6010B4 Autosampler Table: ICP1

Matrix: Water/Soil Start Date: 12/13/03 Time: 16:16 End Date: 12/13/03 Time: 19:01 Book# A73-009

ANALYTICAL BATCH* I73L036

	Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
01			S0	1		
02			S2			
03			S5			
04			S8			
05			ICV			
06			ICB			
07			ICSAI			
08			ICSABI			
09			CCV1			
10			CCB1			
11	IPL023W	IPL023WB			W	
12		WL				
13		WC				DISS
14		L010-02A				DISS
15		-02		1		DISS *
16		-02T		5		DISS
17		-03		1		DISS
18		-02T		5		TOTAL
19		-02		1		TOTAL *
20		-02A			W	TOTAL
21		CCV2				
22		CCB2				
23		L010-03			W	TOTAL
24		BLANK				
25	IPL015S	K196-19				

ANALYTICAL BATCH* _____

	Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
26			CCV3	1		
27			CCB3	1		
28						
29						
30						
31						
32						
33						
34						
35						
36						
37			KP			
38						
39			12/15/03			
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						

Instrument No.	73
Std.	ID
S_0	SM1B-07-31-01
S_1	N/A
S_2	SM1B-07-65-02
S_3	N/A
S_4	N/A
S_5	SM1B-07-65-03
S_6	N/A
S_7	N/A
S_8	SM1B-07-65-04
S_9	N/A
ICV	SM1B-07-66-04
ICVH	N/A
CCV	SM1B-07-67-01
ICSA	-65-06
ICSAB	-78-02
CRI	N/A

Comments:

* L010-02 : SATURATED w/ Mg : RERUN @ A DILN

Ca, Mg, Na : Conc HCl; FOR DILN

RUN STOPPED!

Analyzed By: KP

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

7019

SEQUENCE FILE : I73L036

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
I73L036001	S0	16:16	12/13/03	1
I73L036002	S2	16:23	12/13/03	1
I73L036003	S5	16:29	12/13/03	1
I73L036004	S8	16:35	12/13/03	1
I73L036005	ICV	16:41	12/13/03	1
I73L036006	ICB	16:50	12/13/03	1
I73L036007	ICSAI	16:57	12/13/03	1
I73L036008	ICSABI	17:04	12/13/03	1
I73L036009	CCV1	17:13	12/13/03	1
I73L036010	CCB1	17:20	12/13/03	1
I73L036011	IPL023WB	17:27	12/13/03	1
I73L036012	IPL023WL	17:34	12/13/03	1
I73L036013	IPL023WC	17:41	12/13/03	1
I73L036014	L010-02A	17:48	12/13/03	1
I73L036015	L010-02	17:56	12/13/03	1
I73L036016	L010-02T	18:03	12/13/03	5
I73L036017	L010-03	18:10	12/13/03	1
I73L036018	L010-02T	18:17	12/13/03	5
I73L036019	L010-02	18:24	12/13/03	1
I73L036020	L010-02A	18:31	12/13/03	1
I73L036021	CCV2	18:40	12/13/03	1
I73L036022	CCB2	18:47	12/13/03	1
I73L036023	L010-03	18:54	12/13/03	1
I73L036024	BLANK	19:01	12/13/03	1

7020

SDG : 03L-10 UNIT : % ICP CHECK : 1/3L036 DATE : 12/13/03 INST : EMMTI73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	102	105	100	91	99	104	95	104	98	92	94	102	----	97	105	94	94	94	97	101	98	107	89*	95	96	103	100	----	101
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	99	----	----	----	----	----	----	95	----	----	----	96	----	----	105	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSABI	105	111	106	99	105	103	96	101	101	95	103	102	----	99	111	98	97	96	109	109	108	89	89	99	100	104	103	----	109
CCV1	103	101	99	98	100	102	96	104	97	96	98	105	----	98	105	97	101	95	97	102	100	107	99	99	96	102	100	----	101
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPL023WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPL023WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPL023WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	103	102	101	94	100	100	99	106	98	97	94	103	----	100	108	96	100	97	105	101	97	113*	96	101	98	100	100	----	100
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7021

SDG : G32C0 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : I73L036 (WATER) DATE : 12/13/03 INST : EMMI73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-6.51	.313	1.16	.113	-.037	1.74	.103	-1.59	.185	.427	.031	18.5	----	-1.10	5.53	.020	1.17	.961	53.6	2.13	.891	34.8	.008	.609	6.31	.267	.218	----	1.16
ICSAI	----	25.7	5.57	-.515	-.024	2.16	-7.72	----	1.15	.357	-1.83	----	----	.012	----	-.820	2.69	2.07	-506	8.27	1.40	70.1	-2.38	21.2	5.09	-1.05	.820	----	.342
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	-15.1	5.44	-1.78	-.074	-.043	.993	-.036	-.394	-1.20	-.919	-.732	34.1	----	1.09	-4.43	-.007	-.550	.245	28.6	4.85	-.867	26.4	-.072	-1.22	-.334	-.190	-.544	----	1.02
IPL023WB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPL023WL	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
IPL023WC	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	-23.3	4.70	6.06	.317	-.038	6.88	.238	3.38	.583	.715	.097	2.63	----	.415	14.0	.254	.102	1.52	41.0	4.48	.950	4.96	.060	6.42	3.42	.438	1.66	----	1.12
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
BLANK	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

ANALYSIS RUN LOG FOR ICP

SOP ☑ EMAX-6010-Rev. 3 ☐ EMAX-CLP-TAL ☐ Method File: 6010134 Autosampler Table: ICP2

Matrix: Water Start Date: 12/15/03 Time: End Date: 12/15/03 Time: Book# A73-009

ANALYTICAL BATCH* TB LOM

Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
01		S0	1		
02		S2			
03		S5			
04		S8			
05		ICV			
06		ICB			
07		ICSA1			
08		ICSAB1			
09		CCV1			
10		CCB1	↓		
11	IPL023W	L010-02T	250	W	DISS
12		02	50		Na, Ca, Mg, K
13		02A	50		
14		L010-02A	5		ALL EXCEPT: Na, Mg, Ca
15		02	5		ALL
16		02T	50		ALL
17		L010-03	10		Na, K
18		L010-02T	250		TOTAL
19		02	50		Na, Ca, Mg, K
20		02A	50	↓	↓
21		CCV2			*
22		CCB2			TOTAL
23		L010-02T	50		ALL EXCEPT
24		02	5		Na, Ca, Mg, K
25	↓	02A	5		↓

ANALYTICAL BATCH *

Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
26	IPL023W	L010-03	10		K, Na
27	IPL015S	K196-19	1	S	
28	IPL023W	L010-03	1		TOTAL
29		CCV3	1		
30		CCB3	1		
31					
32					
33					
34					
35					
36					
37					
38					
39					
40		KP			
41		12/15/03			
42					
43					
44					
45					
46					
47					
48					
49					
50					

Instrument No.	73
Std.	ID
S_0	SM1B-07-31-01
S_1	N/A
S_2	SM1B-07-65-02
S_3	N/A
S_4	N/A
S_5	SM1B-07-65-03
S_6	N/A
S_7	N/A
S_8	SM1B-07-65-04
S_9	N/A
ICV	SM1B-07-66-04
ICVH	N/A
CCV	SM1B-07-67-01
ICSA	-65-06
ICSAB	-78-02
CRI	N/A

Comments:
* Na high for CCV2

Analyzed By: KP

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

SEQUENCE FILE : I73L037

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
I73L037001	S0	12:01	12/15/03	1
I73L037002	S2	12:08	12/15/03	1
I73L037003	S5	12:15	12/15/03	1
I73L037004	S8	12:20	12/15/03	1
I73L037005	ICV	12:30	12/15/03	1
I73L037006	ICB	12:39	12/15/03	1
I73L037007	ICSAI	12:46	12/15/03	1
I73L037008	ICSABI	12:53	12/15/03	1
I73L037009	CCV1	13:02	12/15/03	1
I73L037010	CCB1	13:09	12/15/03	1
I73L037011	L010-02T	13:16	12/15/03	250
I73L037012	L010-02	13:23	12/15/03	50
I73L037013	L010-02A	13:30	12/15/03	50
I73L037014	L010-02A	13:38	12/15/03	5
I73L037015	L010-02	13:45	12/15/03	5
I73L037016	L010-02T	13:52	12/15/03	50
I73L037017	L010-03	13:59	12/15/03	10
I73L037018	L010-02T	14:06	12/15/03	250
I73L037019	L010-02	14:13	12/15/03	50
I73L037020	L010-02A	14:20	12/15/03	50
I73L037021	CCV2	14:27	12/15/03	1
I73L037022	CCB2	14:34	12/15/03	1
I73L037023	L010-02T	14:41	12/15/03	50
I73L037024	L010-02	14:48	12/15/03	5
I73L037025	L010-02A	14:57	12/15/03	5
I73L037026	L010-03	15:04	12/15/03	10
I73L037027	K196-19	15:12	12/15/03	1
I73L037028	L010-03	15:19	12/15/03	1
I73L037029	CCV3	15:26	12/15/03	1
I73L037030	CCB3	15:33	12/15/03	1

7024

SDG : 032010 UNIT : % ICP CHECK : 173L037 DATE : 12/15/03 INST : EMMI73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	99	103	104	91	101	106	98	100	101	96	94	102	----	99	101	96	97	97	92	104	98	104	88*	98	101	104	101	----	103
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	101	----	----	----	----	----	----	95	----	----	----	100	----	----	104	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSABI	101	111	108	99	106	103	97	94	101	95	104	100	----	100	104	99	97	98	101	112	108	83	90	100	100	105	103	----	111
CCV1	99	102	102	97	101	102	98	98	98	97	99	101	----	99	98	97	101	97	91	102	100	104	99	101	98	102	101	----	102
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	102	103	105	94	103	101	102	104	101	101	95	103	----	104	105	99	104	100	100	105	98	114*	97	105	103	102	102	----	103
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
K196-19	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	97	100	101	91	99	97	97	99	97	97	93	99	----	98	100	95	99	95	94	101	95	107	94	99	98	98	98	----	98
CCB3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

SDG : 03L-10 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : I73L037 (WATER) DATE : 12/15/03 INST : EMAXI73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-3.51	9.92	2.73	-.121	-.065	-.126	.262	.889	.267	.874	-1.05	-6.40	----	.474	-4.92	-.117	2.50	-.209	55.9	.527	1.31	43.0	.159	-1.83	-2.07	-.140	-.633	----	1.93
ICSAI	----	8.61	-4.10	-.483	-.080	5.30	-10.1	----	.169	.282	-1.97	----	----	-10.0	----	-.270	3.63	1.55	-591	3.74	-8.12	51.0	-1.54	23.0	-1.31	-1.53	.682	----	.905
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	-5.64	9.21	2.55	-.170	-.108	-.140	.267	5.49	.163	1.19	-1.21	2.97	----	.383	-7.58	-.155	2.00	-1.01	61.2	4.87	1.66	32.2	.118	-2.14	-2.65	-.235	-1.02	----	.489
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	-30.8	-5.41	-2.62	-.231	-.180	.156	-.244	.270	-1.52	-.884	-1.51	11.7	----	1.13	-6.01	-.116	-.988	-.268	-93.7	5.29	-1.84	-109	-.091	-4.55	-.347	-.097	-1.22	----	2.05
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
K196-19	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB3	-24.6	4.91	-.039	.145	-.098	3.13	.045	-2.45	-1.43	-.738	.096	2.70	----	1.56	6.48	.072	-.920	.106	-5.31	1.77	-.779	-37.9	-.051	.398	2.61	.445	.375	----	1.22

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

ANALYSIS RUN LOG FOR ICP

SOP ☑ EMAX-6010-Rev. 3 ☐ EMAX-CLP-TAL ☐ Method File: 6010B1 Autosampler Table: ICP

Matrix: Water Start Date: 12/16/03 Time: 15:59 End Date: 12/16/03 Time: 18:49 Book# A73-009

ANALYTICAL BATCH* I73L041

Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
01		S0	1		
02		S2			
03		S5			
04		S8			
05		ICV			
06		ICB			
07		ICSAI			
08		ICSABI			
09		CCVI			
10		CCBI			DISS
11	IPL023W	L010-02T	250	W	Na, Ca, Mg, K
12		02	50		
13		02A	50		
14		L010-03	10		K, Na
15		L010-02T	250		TOTAL Na, Ca, Mg, K, Na
16		02	50		
17		02A	50		
18		L010-03	10		K, Na
19	IPL015S	K196-19	1		
20		CCV2			
21		CCB2			
22					
23		KP 12/16/03			
24					
25					

ANALYTICAL BATCH*

Data File Name	Prep. Batch	Lab Sample ID	DF	Matrix	Notes
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36		KP			
37 DIS					
38		12/16/03			
39					
40					
41 Total					
42					
43					
44					
45					
46					
47					
48					
49					
50					

Instrument No.	73
Std.	ID
S_0	SM1B-07-31-01
S_1	N/A
S_2	SM1B-07-65-02
S_3	N/A
S_4	N/A
S_5	SM1B-07-65-03
S_6	N/A
S_7	N/A
S_8	SM1B-07-85-01
S_9	N/A
ICV	SM1B-07-66-04
ICVH	N/A
CCV	SM1B-07-67-01
ICSA	-65-06
ICSAB	-78-02
CRI	

Comments: OK

Analyzed By: KP

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

SEQUENCE FILE : I73L041

4-18	19-33	34-43	44-53	54-63
LFID	LSID	TIME	DATE	DF
I73L041001	S0	15:59	12/16/03	1
I73L041002	S2	16:06	12/16/03	1
I73L041003	S5	16:13	12/16/03	1
I73L041004	S8	16:18	12/16/03	1
I73L041005	ICV	16:34	12/16/03	1
I73L041006	ICB	16:43	12/16/03	1
I73L041007	ICSAI	16:57	12/16/03	1
I73L041008	ICSABI	17:04	12/16/03	1
I73L041009	CCV1	17:13	12/16/03	1
I73L041010	CCB1	17:20	12/16/03	1
I73L041011	L010-02T	17:27	12/16/03	250
I73L041012	L010-02	17:34	12/16/03	50
I73L041013	L010-02A	17:41	12/16/03	50
I73L041014	L010-03	17:48	12/16/03	10
I73L041015	L010-02T	17:55	12/16/03	250
I73L041016	L010-02	18:02	12/16/03	50
I73L041017	L010-02A	18:09	12/16/03	50
I73L041018	L010-03	18:16	12/16/03	10
I73L041019	K196-19	18:25	12/16/03	1
I73L041020	CCV2	18:42	12/16/03	1
I73L041021	CCB2	18:49	12/16/03	1

SDG : 032010 UNIT : % ICP CHECK : 173L041 DATE : 12/16/03 INST : EMAXI73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	101	104	102	91	101	102	98	101	101	96	94	101	----	99	102	96	94	97	93	99	99	106	84*	97	100	100	97	----	99
ICB	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSAI	98	----	----	----	----	----	----	93	----	----	----	98	----	----	102	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICSABI	98	98	101	96	103	97	94	92	99	92	101	98	----	98	100	96	90	94	97	106	106	80	83	94	98	98	96	----	103
CCV1	101	104	100	98	102	99	98	99	100	99	100	101	----	98	99	99	99	97	92	99	101	104	95	99	97	99	98	----	99
CCB1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
K196-19	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	102	105	101	99	103	101	98	101	101	99	101	102	----	100	99	99	100	98	92	101	102	104	96	100	98	99	98	----	100
CCB2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

SDG : 03L10 UNIT : UG/L SUMMARY of CALIBRATION BLANKS : I73L041 (WATER) DATE : 12/16/03 INST : EMMY I73

ANALYTE	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Li	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	Na	Sr	Tl	Sn	Ti	V	U	Zn
S0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
S8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICV	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
ICB	-3.80	4.83	2.62	.071	.008	.182	-.100	-2.30	.693	.176	-.226	-8.52	----	1.62	-6.11	.025	2.34	-.608	31.0	-3.12	.514	22.5	.043	1.66	.829	-.078	-.184	----	1.92
ICSAI	----	46.7	7.35	-.752	-.057	-.251	-8.47	----	3.17	2.47	-3.30	----	----	-4.25	----	-.761	6.07	-.603	-401	-4.33	4.63	93.7	-1.89	17.5	-1.57	-2.00	-2.28	----	-.966
ICSABI	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB1	12.2	31.6	5.60	-.408	-.100	-1.65	.398	3.35	2.99	1.63	-2.53	-50.4	----	.721	-21.3	-.244	4.05	-2.47	171	-3.68	3.89	37.8	.253	1.66	-7.46	-.955	-2.16	----	.665
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02T	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-02A	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
L010-03	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
K196-19	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCV2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
CCB2	14.8	10.3	2.50	-.078	-.002	-.333	.154	-6.61	2.19	.568	-.911	-28.3	----	-.239	-11.9	-.106	.775	-1.74	72.7	-3.47	2.21	33.7	.167	5.63	-1.17	-.220	-.577	----	1.20

QC limit of each parameter are listed in a table attached next to all the ICP check forms
* : Out of QC Limit

7030

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-12-03	~~#4 SMA-04~~ Continued KP 06/23/03	Tl SM1A-04-03-22	1000	0.01	6% HNO3 5% HCl	SM1A-02-040 SM1A-02-1258	1000	0.01	06/23/03	09/23/03	KP	
SM1B-07-13-01	Y Std	Y SM1A-07-01	10,000	0.5	4% HNO3	SM1A-02-040	1000	5	06/23/03	12/23/03	KP	
SM1B-07-13-02	Y Std	↓	↓	↓	↓	↓	↓	↓	06/23/03	12/23/03	KP	
SM1B07.13.03	MRL (S)	Al SM1A 05.01.13	10,000	0.02				0.20	6/27/03	9/27/03	gmc	
	MW/VAFB	Sb SM1A 06.01.20	10,000	0.01				0.10				
		As SM1A 05.01.02	1000	0.05				0.05				
		Ba SM1A 04.03.19	1000	0.01				0.0010				
		Be SM1A 05.02.26	1000	0.01				0.01				
		Cd SM1A 05.02.28	1000	0.005				0.005				
		Cr SM1A 05.02.24	1000	0.01				0.010				
		Co SM1A 05.02.25	1000	0.01	6% HNO3	SM1A 02 2269	1000	0.010				
		Cu SM1A 04.03.24	1000	0.02	5% HCl	SM1A 02 1268		0.02				
		Fe SM1A 05.01.20	10,000	.003				0.03				
		Pb SM1A 04.03.20	1000	0.03				0.03				
		Mn SM1A 06.01.18	1000	0.01				0.01				
		Mo SM1A 05.02.23	1000	0.03				0.03				
		Ni SM1A 05.02.27	1000	0.02				0.02				
		Se SM1A 05.02.22	1000	0.03				0.03				
		Ag SM1A 05.01.11	1000	0.01				0.01				
		Tl SM1A 04.03.22	1000	0.06				0.06	↓	↓	↓	

Reviewed by _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07- 15.01	ICV TRACE	MIX1 SMIA.05.02.29	500	1				0.5	07/01/03	01/01/04	RL	
		MIX2 SMIA.05.02.30	500	1	6% HNO_3	SWIA.02.1240		0.5	↓	↓	↓	
		MIX5B SMIA.05.02.08	5000	10	5% HCl	SWIA.02.1268	1000	50	↓	↓	↓	
		Al SMIA.06.01.03	10,000	0.5				5.0	↓	↓	↓	
		Fe SMIA.06.01.06	10,000	0.5				5.0	07/01/03	01/01/04	RL	
SM1B07.15.02	CCV DOE	EMAX 6A SM1A 07.02	500	1.0				0.50	7/1/03	9/1/03	qwa	
	TRACE LOW	EMAX 6B SM1A07.03	500	1.0				0.50	↓	↓	↓	
		EMAX 4 SM1A07.04	10,000	3.0				30	↓	↓	↓	
		Al SM1A05.01.13	10,000	0.5				5.0	↓	↓	↓	
		Fe SM1A05.01.20	10,000	0.5	6% HNO_3	SWIA02124	1000	5.0	↓	↓	↓	
		Zn SM1A05-01-15	10,000	0.05	5% HCl	SWIA02.1268		0.50	↓	↓	↓	
		Li SM1A04.03.18	1000	0.5				0.50	↓	↓	↓	
		Ca SMA06-01-26	1000	5.0				5.0	↓	↓	↓	
SM1B07.15.03	S1 TRACE-LOW	EMAX 6A SM1A 07.02	500	1.0	6% HNO_3 5% HCl	SWIA021240 SWIA021268	1000	0.5	7/1/03	1/1/04	qwa	
SM1B07.15.04	S3 TRACE-LOW	EMAX 6A SM1A07.02	500	3.0	6% HNO_3 5% HCl	SWIA021240 SWIA021268	1000	1.5	7/1/03	1/1/04	qwa	
A SM1B07.15.05*	S4 TRACE-LOW	EMAX 6B SM1A07.03	500	1.0	6% HNO_3 5% HCl	SWIA021240 SWIA021268	1000	0.50	7/1/03	1/1/04	qwa	
SM1B07.15.06	S6 T-LOW	EMAX 6B SM1A07.03	500	3.0	6% HNO_3 5% HCl	SWIA021240 SWIA021268	1000	1.5	7/1/03	12/1/03	qwa	
		Zn SM1A05.01.15	10,000	0.15				1.5	↓	↓		
A SM1B07.15.05*	S4 CONTD	Zn SM1A05-01-15	10,000	.05	6% HNO_3 5% HCl	SWIA021240 SWIA021268	1000	0.5	7/1/03	1/1/04	qwa	
							qwa 7/1/03					

A SAME BOTTLE

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-16.01	S7 T-LOW	EMAX4 SM1A07-04	10,000	2.5				25.0	7/1/03	12/1/03	gwen	
		Al SM1A05-01.13	10,000	0.5	6% HNO3	SM1A021240	1000	5.0	↓	↓	↓	
		Fe SM1A05-01.20	10,000	0.5	5% HCl	SM1A021268		5.0	↓	↓	↓	
SM1B07.16.02	S8 T-LOW	EMAX4 SM1A07.04	10,000	7.5				75	7/1/03	12/1/03	gwen	
	gwen 7/1/03	Al SM1A05-01.13	10,000	1.5	6% HNO3	SM1A021240	1000	15	↓	↓	↓	
		Fe SM1A05.01.20	10,000	1.5	5% HCl	SM1A021268		15	↓	↓	↓	
SM1B07.16.03	ICV REG	MIX1 SM1A05-02.29	500	2.0				1.0	7/1/03	11/1/03	gwen	
		MIX2 SM1A05-02.30	500	2.0				1.0	↓	↓	↓	
		MIX3B SM1A05-02.08	5000	10.0	6% HNO3	SM1A021240	1000	50	↓	↓	↓	
		Al SM1A06.01.03	10,000	0.5	5% HCl	SM1A021268		5.0	↓	↓	↓	
		Fe SM1A06.01.06	10,000	0.5				5.0	↓	↓	↓	
		Si SM1A05-01.09	1000	5.0				5.0	↓	↓	↓	
SM1B.07.16.04	S1 REG	EMAX4	10,000	5				50				
		Al	10,000	0.5				5				
		Fe	10,000	0.5				5				
SM1B.07.16.05	S2 REG	EMAX4	10,000	7.5				75				
		Al	10,000	.75				7.5				
		Fe	10,000	.75				7.5				
					RL 7/1/03							

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07- 26.01	CCV	EMAXGA SM1A-07-02	500	0.8				0.4	8/1/03	12/1/03	RL	
	TRACE	EMAXGB SM1A-07-03	500	0.8				0.4				
		EMAX4 SM1A-07-04	10,000	4.0	6% HNO3	SW1A-02-1287	1000	40				
		Al SM1A-05-01.13	10,000	0.4	5% HCl	SW1A-02 1285		4.0				
		Fe SM1A-05-01.20	10,000	0.4				4.0				
		~~EMAXGA~~ RL 8/01/03										
SM1B07-26-02	CRDL CLP	CRDL SM1B07-28-01	VARIED	1.0				VARIED	8/2/03	12/2/03	gen	
		Al SM1A05-01-13	10,000	0.04				0.4				
		Ba SM1A04-03-19	1000	0.4				0.4				
		Ca SM1A05-01-14	10,000	1.0				10				
		Fe SM1A05-01-20	10,000	0.02				0.2				
		Mg SM1A05-01-12	10,000	1.0				10				
		K SM1A05-02-10	10,000	1.0	6% HNO3	SW1A02 1287	1000	10				
		Na SM1A06-01-19	10,000	1.0	5% HCl	SW1A02 1285		10				
		B SM1A04-03-21	1000	0.2				0.2				
		Mo SM1A05-02-23	1000	0.1				0.1				
		Li SM1A04-03-18	1000	0.4				0.4				
		U SM1A06-01-26	1000	0.4				0.4				
		Sn SM1A05-01-15	10,000	0.06				0.6				
		Si SM1A06-01-21	1000	0.6				0.6				

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-27.01	ICSAB	Na SM1A06-01-19	10,000	5				100	8/2/03	11/2/03	quen	
COMP	CLP	Sr SM1A06-01-21	1000	0.25				0.5				
		Sn SM1A05-01-15	10,000	0.05			500	1.0				
	quen 8/2/03	Li ~~SM1A04-07-18~~ 05-01-26	1000	0.75	6% HNO_3	SW1A02 1287		1.5				
		U SM1A06-01-26	1000	0.5	5% HCl	SW1A02 1285		1.0				
		Ti SM1A05-01-16	1000	0.5				1.0				
SM1B07-28.01	CRDL	Sb SM1A06-01-20	10,000	1.2				120	8/2/03	11/2/03	quen	
	STD	As SM1A05-01-02	1000	2				20				
		Be SM1A05-02-26	1000	1				10				
	quen 8/2/03	~~Ba~~	~~1000~~	~~40~~				~~400~~ 400	quen 8/2/03			
		Cd SM1A05-02-28	1000	1				10				
		Cr SM1A05-02-24	1000	2				20				
		Co SM1A05-02-25	1000	10	5% HNO_3	SW1A02 1287	100	100				
		Cu SM1A07-10	1000	5				50				
		Pb SM1A07-07	1000	.6				6				
		Mn SM1A06-01-18	1000	3				30				
		Ni SM1A05-02-27	1000	8				80				
		Se SM1A05-02-22	1000	1				10				
		Ag SM1A05-01-11	1000	2				20				
		Tl SM1A07-09	1000	2				20				

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-28.01	CRDL	SM1A07.08	1000	10	5% HNO3	SW1A02 1287	100	100	8/2/03	11/2/03	quan	
CONTD		2n SM1A06.01.17	1000	4				40				
SM1B.07.29.01	CCV	EMAXGA SM1A.07.02	500	0.8				0.4	8/12/03	12/12/03	RL	
	TRACE	EMAXGB SM1A.07.03	500	0.8	6% HNO3	SW1A.02		0.4				
		EMAX4 SM1A.07.04	10,000	4.0	5% HCl	1287 SW1A.02	1000	40				
		Al SM1A.05.01.13	10,000	0.4		1285		4.0				
		Fe SM1A.05.01.20	10,000	0.4				4.0				
SM1B.07.29.02	AS PROFILE	AS SM1A.05.01.02	1000	1.0	5% HNO3	SW1A.02.1287	1000	1.0	8/12/03	1/12/04	RL	
SM1B07.29.03	CCV	EMAXGA SM1A07.02	500	3				1.5	8/13/03	12/13/03	quan	
	REG	EMAXGB SM1A07.03	500	3				1.5				
		EMAX4 SM1A07.04	10,000	7.5	6% HNO3	SW1A02 1287		75				
		Al SM1A05.01.17	10,000	.75	5% HCl	SW1A02 1285	1000	7.5				
		Fe SM1A05.01.20	10,000	.75				7.5				
		Sn SM1A05.01.15	10,000	.75				7.5				
SM1B.07.29.04	S2 TRACE	EMAXGA SM1A.07.02	500	2.0	6% HNO3	SW1A.02 1287	1000	1.0	8/14/03	12/14/03	RL	
		EMAXGB SM1A.07.03	500	2.0	5% HCl	SW1A.02 1285		1.0				
SM1B.07.29.05	S5 TRACE	EMAX4 SM1A.07.04	10,000	10.0	6% HNO3	SW1A.02		100				
		Al SM1A.05.01.13	10,000	1.0	5% HCl	1287 SW1A02	1000	10				
		Fe SM1A.05.01.26	10,000	1.0		1287		10				
					RL 8/14/03							

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
					gwa 8/14/03							
SM1B-07-30-01	MRL (W)	V SM1A 07-08	V 1000	.01	5% 1.HNO3	SW1A 02 1287	1000	.01	8/14/03	12/14/03	gwa	
CONTD	INAAP	In SM1A 06.01.17	1000	.01	5% HCl	SW1A02 1306		.01	↓	↓	↓	
SM1B-07-31-01	90 DOE	DI H_2O	NA	N/A	6% HNO3 5% HCl	SW1A-02-1287 SW1A-02-1306	500	N/A	8/14/03	8/14/04	KP	

Reviewed by _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-45.07	CRDL	Mg SMIA05-01-12	10,000	1				10.0	9/3/03	12/3/03	gwh	
CONTD	CLP DEG	K SMIA05-02-10	10,000	1			1000	10.0				
		Na SMIA06-01-19	10,000	1	6% HNO3	SMIA02 1269		10.0				
		B SMIA07-12	1000	.2	5% HCl	SMIA02 1306		0.2				
		Mo SMIA05-0223	100	.1				0.1				
		U SMIA06-01-26	1000	.4				0.4				
RL 9/3/03 SMIB-07-48-01	CCV LOW	EMAXGA SMIA-07-02	500	0.25				0.25	9/3/03	12 9/3/03 RL 9/3/03	RL	
		EMAXGB SMIA-07-03	500	0.25				0.25				
		EMAX4 SMIA-07-04	10,000	1.25	6% HNO3	SMIA-02-1269	500	25				
		Al SMIA-05-01-13	10,000	0.125	5% HCl	SMIA-02-1306		2.5				
		Fe SMIA-05-01-20	10,000	0.125				2.5				
		Sn SMIA-05-01-15	10,000	0.125				2.5				
SMIB-07-46-02	CCV HIGH	EMAXGA SMIA-07-02	500	0.75				0.75				
		EMAXGB SMIA-07-03	500	0.75				0.75				
		EMAX4 SMIA-07-04	10,000	2.5	6% HNO3	SMIA-02-1269	500	50				
		Al SMIA-05-01-13	10,000	0.375	5% HCl	SMIA-02 1306		7.5				
		Fe SMIA-05-01-20	10,000	0.375				7.5				
		Sn SMIA-05-01-15	10,000	0.375				0.75				
					RL	9/3/03						

Reviewed by _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

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STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-51·01	ICSAB-CLP	Al SM1A07·20	5000/2000	100				500/200	9/16/02	12/16/03	[illegible]	
		Ag SM1A05·01·11	100	0.2				0.2	0.2			
		As SM1A07·16	100	0.10				0.10	0.10			
		Ba SM1A07·11	100	0.5				0.5	0.5			
		Be SM1A05·02·26	100	0.5				0.5	0.5			
		B SM1A07·12	100	0.5				0.5	0.5			
		Cd SM1A05·02·28	100	1.0				1.0	1.0			
		Co SM1A05·02·25	100	0.5	6·1 HNO_3	SM1A02 1195	1000	0.5	0.5			
		Cr SM1A05·02·24	100	0.5	15·1 HCl	SM1A02 1268		0.5	0.5			
		Cu SM1A07·10	100	0.5				0.5	0.5			
		Mn SM1A06·01·18	100	0.5				0.5	0.5			
		Ni SM1A05·02·27	100	1.0				1.0	1.0			
		Pb SM1A07·07	100	0.05				0.05	0.05			
		Sb SM1A06·01·20	10,000	0.06				0.6	0.6			
		Se SM1A05·02·22	100	0.05				0.05	0.05			
		Tl SM1A07·09	100	0.1				0.1	0.1			
		V SM1A07·08	100	0.5				0.5	0.5			
		Zn SM1A06·01·17	100	1.0				1.0	1.0			
		Mo SM1A05·02·23	100	0.5				0.5	0.5			
		K SM1A05·02·10	10,000	12 ~~10~~	[illegible] 9/16/02			120	120			

[illegible] 9/16/03

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07- 5R-01	ICSAB-CLP	Na SM1A06-01-19	10,000	10				100	9/16/03	12/16/03	Quan	
(cont)		Cr SM1A06-01-21	1000	0.5				0.5				
		Sn SM1A05-01-15	10,000	0.1	6% HNO_3	SW1A02 1195	1000	1.0				
		Li SM1A07-13	1000	1.5	5% HCl	SW1A02 1268		1.5				
		U SM1A06-01-26	1000	1.0				1.0				
		Ti SM1A05-01-16	1000	1.0				1.0				

Reviewed by _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

0740

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-53.01	S2 - DOE	EMAX6A SM1A07.02	500	2	6% HNO3 5% HCl	SW1A02-1195 -1268	1000	1.0	9/18/07	3/18/07	quen	
SM1B07.53.02	S5 - DOE	EMAX6B SM1A07.03	500	2	6% HNO3	SW1A02 1195	1000	1.0	9/18/07	12/18/07	quen	
quen 9/15/07 ~~SM1B07.53.03~~	~~S8 - DOE~~	~~EMAX5A~~ SM1A05.01.15	10,000	0.1	5% HCl	SW1A02 1268		1.0	9/18/07	12/18/07	quen	
SM1B07-53.03	S8 - DOE	EMAX4 SM1A07-04	10,000	5.0				50	9/18/07	12/18/07	quen	
		Al SM1A05.01.13	10,000	1.0	6% HNO3	SW1A02 1205		10				
		Fe SM1A05.01.20	1000	1.0	5% HCl	SW1A02 1268	1000	10				
		Li SM1A05.01.26	1000	1.0				1.0				
		U SM1A06.01.26	1000	10.0				10				
SM1B07.53.04	ICV - DOE	MIX1 SM1A05-02-29	500	1.6				0.5	9/18/07	11/18/07	quen	
	TRACE LOW	MIX2 SM1A05-02.30	500	1.0				0.5				
		MIX5 SM1A05-02.08	5000	6	6% HNO3	SW1A02 1195		30				
		Al SM1A06-01.07	10,000	0.5	5% HCl	SW1A02 1268		5				
		Fe SM1A06-01.06	10,000	0.5				5				
		Si SM1A05-01.09	1000	0.5				0.5				
		Li SM1A05-01.24	1000	0.5				0.5				
		U SM1A05-01.25	1000	5.0				5.0				
SM1B07-53-05	ICSA T-LOW	(NTA) SM1A07-20	5000/2000	100	6% HNO3 5% HCl	SW1A02 1195 SW1A02 1268	1000	500/200	9/18/07	3/18/07	quen	

Reviewed by

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07- 05.02	MRL (N) TAL	Ni GMIA05-02-27	1000	0.02				0.02	9/29/03	12/29/03	gwen	
(CONT	KINCHELOE	K GMIA05-02-10	10,000	0.5				5.0				
		Se GMIA05-02-22	1000	0.01				0.01				
		Ag GMIA05-01-11	1000	0.02	6% HNO3	GMIA02 1298		0.02				
		As GMIA06-01-19	10,000	0.10	5% HCl	GMIA02 1319	100	1.0				
		Tl GMIA07-09	1000	0.01				0.01				
		V GMIA07-08	1000	0.01				0.01				
		Zn GMIA06-01-17	1000	0.10				0.10				
SM1B07-56-01	CCV	EMAX CA GMIA07-02	500	1.0				0.5	9/29/03	12/29/03	gwen	
	TRACE LOW	EMAX CB GMIA07-03	500	1.0				0.5				
		EMAX 4 GMIA07-04	10,000	3.0				30				
		Al GMIA05-01-13	10,000	0.5	6% HNO3	GMIA02 1298	1000	5.0				
		Fe GMIA05-01-20	10,000	0.5	5% HCl	GMIA02 1319		5.0				
		Sn GMIA05-01-15	10,000	0.05				0.5 ~~5.0~~	gwen 9/29/03			
		Li GMIA07-13	1000	0.5				0.5				
		U GMIA06-01-26	1000	5.0				5.0				

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-60.01	CCV	EMAX6A SMIA07.02	500	1.0				0.5	10/22/07	12/22/07	gwa	
	TRACE-L	EMAX6B SMIA07.03	500	1.0				0.5				
		EMAX4 SMIA07.04	10,000	3.0				30				
		Al SMIA05.01.13	10,000	0.5	6% HNO3	SWIA02 1282		5.0				
		Fe SMIA05.01.20	10,000	0.5	5% HCl	SWIA02 1306	100	5.0				
		Zn SMIA05.01.15	10,000	.05				0.5				
		Si SMIA07.13	1000	0.5				0.5				
		U SMA06.01.26	1000	5.0				5.0				

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-65-01	ICAL #2	Li	1000	0.5				10				
	ICPMS	B	1000	0.5				10				
		Ti	1000	0.5	1.5 HNO3		50	10				
		Sr	1000	0.5				10				
		Sn	10,000	0.05				10				
SM1B-07-65-02	S2-DOE	Emax 6A SM1A-07-02	500	2	6% HNO3 5% HCl	SW1A-02-1282 SW1A-02-1313	1000	1.0	11/04/03	05/04/04	KP	
SM1B-07-65-03	S5-DOE	Emax 6B SM1A-07-03	500	2	6% HNO3	SW1A-02-1282	1000	1.0	11/04/03	05/04/04	KP	
		Sn SM1A-07-33	10,000	0.1	5% HCl	SW1A-02-1313	↓	↓	↓	↓	↓	
SM1B-07-65-04	S8-DOE	Emax 4 SM1A-07-04	10,000	5.0			1000	50	11/04/03	01/04/04	KP	
		Al SM1A-07-39	10,000	1.0	6% HNO3	SW1A-02-1282		10				
		Fe SM1A-05-01-20	10,000	1.0	5% HCl	SW1A-02-1313		10				
		Li SM1A-07-13	1000	1.0				1.0				
	RL 11/04/03	U SM1A-07-36	1000	10.0				10	↓	↓	↓	
SM1B-07-65-05	EMAX6A CCV	EMAX6A SM1A-07-02	500	1.0				0.5	11/04/03	01/04/04	RL	
	E TRACE	EMAX6B SM1A-07-03	500	1.0	6% HNO3	SW1A-02-1282		0.5				
		EMAX 4 SM1A-07-04	10,000	5.0	5% HCl	SW1A-02-1313	1000	50				
		Al SM1A-07-39	10,000	0.5				5.0				
		Fe SM1A-05-01-20	10,000	0.5				5.0	↓	↓	↓	
SM1B-07-65-06	ICSA FLOW	INTA1 SM1A-07-21	5000/2000	10.0	6% HNO3 5% HCl	SW1A-02-1282 SW1A-02-1313	1000	500/200	11/04/03	05/04/04	KP	
				KP	11/04/03							

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

7044

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-66.01	ICV	MIX 1 SM1A-05-02.29	500	1				0.5	11/04/03	01/04/04	RL	
	TRACE	MIX 2 SM1A-05-02.30	500	1				0.5	↓	↓	↓	
		MIX 5B SM1A-05-02.08	5000	10	6% HNO_3	SW1A-02 1282	1000	50	↓	↓	↓	
		Al SM1A-07-39	10,000	0.5	5% HCl	SW1A-02 1313		5.0	↓	↓	↓	
		Fe SM1A-05-01-20	10,000	0.5				5.0	↓	↓	↓	
SM1B-07-66.02	S3 REG	EMAX4 SM1A-07-04	10,000	10				100	11/04/03	01/04/04	RL	
		Al SM1A-07-39	10,000	1.0				10	↓	↓	↓	
		Fe SM1A-05-01-20	10,000	1.0	6% HNO_3	SW1A-02 1282	1000	10	↓	↓	↓	
SM1B-07-66-03	S6 REG	EMAX6A SM1A-07-02	500	4.0	5% HCl	SW1A-02 1313		2.0	11/04/03	02/04/04	RL	
		EMAX6B SM1A-07-03	500	4.0				2.0	↓	↓	↓	
		Sn SM1A-07-33	10,000	1.0				10.0	↓	↓	↓	
SM1B-07-66-04	ICV-DOE	MIX1 SM1A-05-02-29	500	1.0			1000	0.5	11/05/03	01/23/04 KP 11/05/03	KP	
	TRACE LOW	MIX2 SM1A-05-02-30	500	1.0				0.5	↓	↓	↓	
		MIX5 SM1A-05-02-08	5000	6				30	↓	↓	↓	
		Al SM1A-06-01-03	10,000	0.5	6% HNO_3	SW1A-02 - 1282		5	↓	↓	↓	
		Fe SM1A-06-01-06	10,000	0.5	5% HCl	SW1A-02 - 1313		5	↓	↓	↓	
		Sn SM1A-07-26	1000	0.5				0.5	↓	↓	↓	
		Li SM1A-05-01-24	1000	0.5				0.5	↓	↓	↓	
		U SM1A-05-01-25	1000	5.0				5	11/05/03	01/23/04	KP	
				KP	11/05/03							

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
SM1B-07-67-01	CCV - DOE	EMAX6A SM1A-07-02	500	1.0			1000	0.5	11/06/03	02/03/04	XP	
	TRACE LOW	EMAX6B SMA-07-03	500	1.0				0.5				
		EMAX4 SM1A-07-04	10,000	3.0				30				
		Al SM1A-06-01-03	10,000	0.5	6% HNO3 5% HCl	SM1A-02-1287		0.5.0				
		Fe SM1A-06-01-06	10,000	0.5				5.0				
		Sn SM1A-07-26	1000	0.5		SM1A-02-1313		0.5				
		Li SM1A-05-01-24	1000	0.5				0.5				
		V SM1A-05-01-25	1000	5				5.0				
SM1B.07.67.02	CCV	EMAX6A SM1A-07.02	500	2.0				1.0	11/06/03	02/06/04	RL	
	REG	EMAX6B SM1A.07.03	500	2.0				1.0				
		EMAX4 SM1A.07.04	10,000	5.0	6% HNO_3	SM1A.02 1287		50.0				
		Al SM1A.06.01.03	10,000	0.5	5% HCl	SM1A.02 1313	1000	5.0				
		Fe SM1A.06.01.06	10,000	0.5				5.0				
		Sn SM1A.07.26	10,000	0.5				5.0				
SM1B.07.67.03	MRL (S)	As SM1A.07.16	1,000	0.01				.01	11/06/03	02/06/04	RL	
	INAAP	Pb SM1A.07.07	1,000	0.01				.01				
	TRACE	Se SM1A.05.02.22	1,000	0.01	6% HNO_3	SM1A.02 1287	1000	.01				
		Tl SM1A.07.09	1,000	0.02	5% HCl	SM1A.02 1313		.02				
		Zn SM1A.06.01.17	1,000	0.01				.01				
					RL 11/06/03							

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments PREPARED ON
SM1B-07-78.01	INDL STUDY	AGILENT	MIXED	5					MIXED	~~11/10/03~~ 12/10/03	gwh	11/10/03
	ICP-MS #2	AUX STD	MIXED	5					MIXED	gwh 11/20/03		
		B SM1A07.12	1000	9.95					99.5			
		Ti SM1A 07.32	1000	0.15	1.5% HNO_3	SM1A	←	←	1.5			
		Zn SM1A 06.01.17	1000	.1.5	1% HCl	SM1A		100	1.5			
		MO SM1A 05.02.23	1000	0.5					1.5			
		Al SM1A 07.39	10,000	.5					50			
		Fe SM1A 07.30	10,000	.5					50			
		EMAX4 SM1A 07.04	10000	0.5					50			
SM1B-07-78-02	ICSAB	INTA1 SM1A-07-21	5000/2000	100			1000	500/200	11/21/03	12/31/03	KP	
	Trace-LOW	INTB1 SM1A-06-01-22	mixed	10				mixed				
		Sb SM1A-06-01-20	10,000	0.10				1.0				
		As SM1A-07-16	1000	1.0				1.0				
		B SM1A-07-12	1000	0.5 KP 11/21/03	6% HNO_3			0.5				
		MO SM1A-05-02-23	1000	~~0.1~~ 1.0	5% HCl	SM1A-02-1248		1.0 KP 11/21/03				
		K SM1A-07-35	10,000 KP	~~7.5~~ 10		SM1A-02-1285		~~7.5~~ 100				
		Se SM1A-05-02-22	1000	1.0				1.0 KP 11/21/03				
		Na SM1A-06-01-19	10,000 KP	~~7.5~~ 10 11/21/03				~~7.5~~ 100				
		Sr SM1A-06-01-21	1000	0.5				0.5				
		Tl SM1A-07-09	1000	1.0				1.0			Kp	

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EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR METALS

Method ICP **Book #** SM1B-07

Standard ID	Name	Source	Conc. mg/L	Aliquot ml	Solvent ID	Preservative ID	Final Vol ml	Final Conc mg/L	Prep. on	Expires on	Prep. by	Comments
(cont.) SM1B-07-78-02	ICSAB	Sn SM1A-07-33	1,000	0.10			1000	1.0	11/21/03	12/31/03	KP	
	True-Low	Ti SM1A-05-01-16	1000	1.0	6% HNO3	SW1A-02-1248		1.0				
		Li SM1A-05-01-26	1000	1.5	5% HC	SW1A-02-1285		1.5				
		U SM1A-07-36	1000	1.0				1.0				
SM1B07-78-01	ICV 1	EMAX mix4 SM1A-07-27	100/100	10	1.5 HNO3	SW1A-02 1248	100	100/10	11/21/03	2/21/04	qwa	
	ICPMS	SM1A 07-27			~~1.5 HCl~~							
SM1B07-79-02	ICV 2	EMAX #5 SM1A 07-29	500	20				100				
	ICPMS 2	Al SM1A06-01-03	10000	9	2.0% HNO3	SW1A	100	900				
		Fe SM1A06-01-06	10,000	9				900				
SM1B07-79-03	ICV 3	Sb SM1A05-02-15	1000	1				10				
	ICPMS	B SM1A06-01-05	1000	1				10				
		Mn SM1A05-02-16	1000	1	2.1 HNO3	SW1A	100	10				
		Sr SM1A06-01-10	1000	1				10				
		Sn SM1A07-26	1000	1				10				
		Ti SM1A07-24	1000	1				10				
		U SM1A07-29	1000	1				10				
		Li SM1A05-01-26	1000	1				10				

Reviewed by _____

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

LABORATORY REPORT FOR

SHAW E&I

ALAMEDA POINT, CTO 0107

WET CHEMICAL ANALYSES

SDG#: 03L010

8000

CASE NARRATIVE

CLIENT: SHAW E&I

PROJECT: ALAMEDA POINT, CTO 0107

SDG: 03L010

METHOD 415.1
TOC

Two (2) water samples were received on 12/03/03 for TOC analysis by Method 415.1 in accordance with "Methods for Chemical Analysis of Water and Wastewater", EPA 600/4-79-020 (1983).

1. Holding Time

   Analysis met holding time criteria.

2. Method Blank

   Method blank was free of contamination at reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

   Lab control results were within QC limit.

4. Duplicate

   No duplicate sample was designated in this SDG.

5. Matrix Spike

   No MS sample was designated in this SDG.

6. Sample Analysis

   Sample analyses were performed within the QC requirements. All criteria were met.

METHOD 415.1
TOC

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107
Batch No. : 03L010

Matrix : WATER
Instrument ID : I62

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	OCL007WB	ND	1	NA	1	.433	12/09/0309:29	NA	OCL007-05	OCL007-02	OCL007W	NA	NA
LCS1W	OCL007WL	18.2	1	NA	1	.433	12/09/0309:40	NA	OCL007-06	OCL007-02	OCL007W	NA	NA
LCD1W	OCL007WC	18.5	1	NA	1	.433	12/09/0309:51	NA	OCL007-07	OCL007-02	OCL007W	NA	NA
D10B-01-102	L010-02	1.58	1	NA	1	.433	12/09/0314:54	NA	OCL007-32	OCL007-26	OCL007W	12/02/03	12/03/03
P-16-MWI01-092	L010-03	5.07	1	NA	1	.433	12/09/0315:04	NA	OCL007-33	OCL007-26	OCL007W	12/02/03	12/03/03

RL : Reporting Limit

8002

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
METHOD: METHOD 415.1
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 03L010
SAMPLE ID: LCS1W/LCD1W
CONTROL NO.: OCL007WL/C

DATE RECEIVED: NA
DATE EXTRACTED: NA
DATE ANALYZED: 12/09/03 09:40/09:51

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
TOC	ND	19.6	18.2	93	19.6	18.5	94	2	80-120	20

	Type	Analysis	Sample Name	Sample ID	ObjectID	Origin	Dilution	Result
1	Standard	NPOC	ICAL	TCL09-1	0A-123456-	C:\Program File	1.000	
2	Control	NPOC	ICV	TCL09-2	0A-123456-	C:\Program File	1.000	NPOC:23.94 mg/
3	Unknown	NPOC	ICB	TCL09-3	0A-123456-	C:\Program File	1.000	NPOC:0.1670 m
4	Unknown	NPOC	HCO3/CO3	TCL09-4	0A-123456-	C:\Program File	1.000	NPOC:0.1435 m
5	Unknown	NPOC	OCL007WB	TCL09-5	0A-123456-	C:\Program File	1.000	NPOC:0.1466 m
6	Unknown	NPOC	OCL007WL	TCL09-6	0A-123456-	C:\Program File	1.000	NPOC:18.17 mg/
7	Unknown	NPOC	OCL007WC	TCL09-7	0A-123456-	C:\Program File	1.000	NPOC:18.54 mg/
8	Unknown	NPOC	03 K175-10	TCL09-8	0A-123456-	C:\Program File	1.000	NPOC:179.1 mg/
9	Unknown	NPOC	03 K175-11	TCL09-9	0A-123456-	C:\Program File	1.000	NPOC:141.1 mg/
10	Unknown	NPOC	03 K175-12	TCL09-10	0A-123456-	C:\Program File	1.000	NPOC:49.26 mg/
11	Unknown	NPOC	03 K189-02	TCL09-11	0A-123456-	C:\Program File	1.000	NPOC:7.293 mg/
12	Unknown	NPOC	03 K189-02D	TCL09-12	0A-123456-	C:\Program File	1.000	NPOC:7.412 mg/
13	Unknown	NPOC	03 K189-02M	TCL09-13	0A-123456-	C:\Program File	1.000	NPOC:30.23 mg/
14	Control	NPOC	CCV1	TCL09-14	0A-123456-	C:\Program File	1.000	NPOC:23.71 mg/
15	Unknown	NPOC	CCB1	TCL09-15	0A-123456-	C:\Program File	1.000	NPOC:0.2237 m
16	Unknown	NPOC	03 K189-03	TCL09-16	0A-123456-	C:\Program File	1.000	NPOC:658.1 mg/
17	Unknown	NPOC	03 K189-04	TCL09-17	0A-123456-	C:\Program File	1.000	NPOC:3.624 mg/
18	Unknown	NPOC	03 K189-05	TCL09-18	0A-123456-	C:\Program File	1.000	NPOC:2.087 mg/
19	Unknown	NPOC	03 K189-06	TCL09-19	0A-123456-	C:\Program File	1.000	NPOC:752.5 mg/
20	Unknown	NPOC	03 K189-08	TCL09-20	0A-123456-	C:\Program File	1.000	NPOC:4.566 mg/
21	Unknown	NPOC	03 K189-09	TCL09-21	0A-123456-	C:\Program File	1.000	NPOC:5.434 mg/
22	Unknown	NPOC	03 K189-10	TCL09-22	0A-123456-	C:\Program File	1.000	NPOC:10.99 mg/
23	Unknown	NPOC	03 K189-11	TCL09-23	0A-123456-	C:\Program File	1.000	NPOC:89.70 mg/
24	Unknown	NPOC	03 K189-12	TCL09-24	0A-123456-	C:\Program File	1.000	NPOC:800.3 mg/
25	Unknown	NPOC	03 K189-14	TCL09-25	0A-123456-	C:\Program File	1.000	NPOC:4.936 mg/
26	Control	NPOC	CCV2	TCL09-26	0A-123456-	C:\Program File	1.000	NPOC:23.06 mg/
27	Unknown	NPOC	CCB2	TCL09-27	0A-123456-	C:\Program File	1.000	NPOC:0.1494 m
28	Unknown	NPOC	03 K189-16	TCL09-28	0A-123456-	C:\Program File	1.000	NPOC:2.981 mg/
29	Unknown	NPOC	03 K189-17	TCL09-29	0A-123456-	C:\Program File	1.000	NPOC:13.66 mg/
30	Unknown	NPOC	03 K189-18	TCL09-30	0A-123456-	C:\Program File	1.000	NPOC:33.44 mg/
31	Unknown	NPOC	03 K189-19	TCL09-31	0A-123456-	C:\Program File	1.000	NPOC:9.495 mg/
32	Unknown	NPOC	03 L010-02	TCL09-32	0A-123456-	C:\Program File	1.000	NPOC:1.581 mg/
33	Unknown	NPOC	03 L010-03	TCL09-33	0A-123456-	C:\Program File	1.000	NPOC:5.068 mg/
34	Control	NPOC	CCV3	TCL09-34	0A-123456-	C:\Program File	1.000	NPOC:23.08 mg/
35	Unknown	NPOC	CCB3	TCL09-35	0A-123456-	C:\Program File	1.000	NPOC:0.1641 m
36								
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63								
64								
65								
66								

ND
93%R
95%R

Instr.Information

System	toc
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

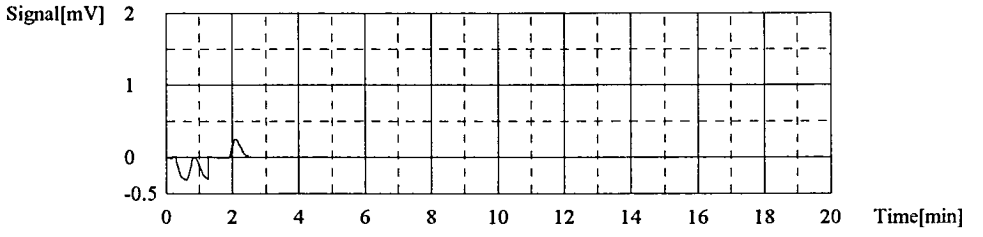
Sample Name:	ICAL
Sample ID:	TCL09-1
Cal. Curve:	50_4151.2003_12_09_07_51_00.cal

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.5273	50uL	1	*******		12/09/03 07:58:32 AM
2	0.3798	50uL	1	*******		12/09/03 07:59:54 AM

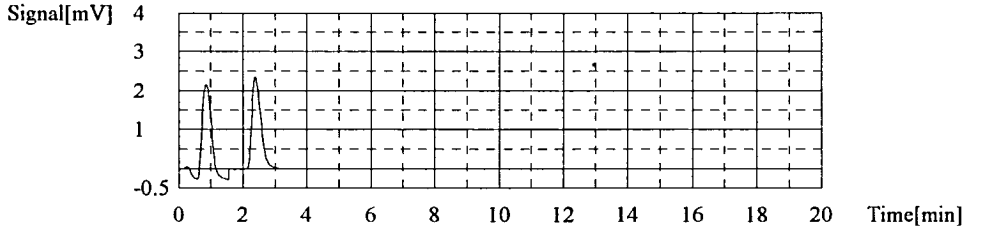
Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	0.4536



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.916	50uL	10	*******		12/09/03 08:08:42 AM
2	4.623	50uL	10	*******		12/09/03 08:10:25 AM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	4.770

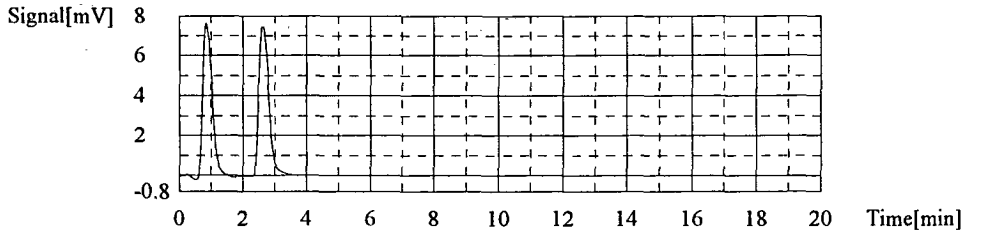


Conc: 5.000mg/L

8005

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	16.63	50uL	2	*******		12/09/03 08:17:31 AM
2	16.60	50uL	2	*******		12/09/03 08:19:29 AM

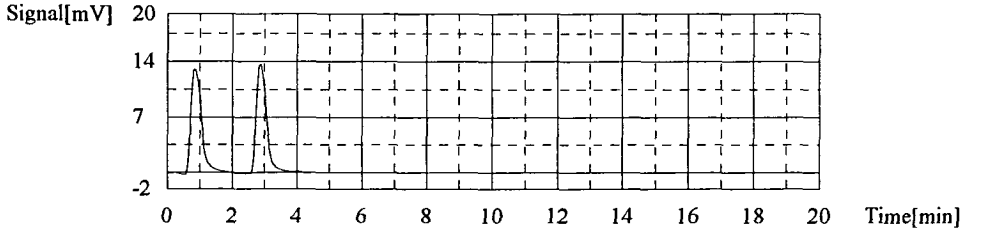
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 16.62



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	30.93	50uL	1	*******		12/09/03 08:26:05 AM
2	31.60	50uL	1	*******		12/09/03 08:28:38 AM

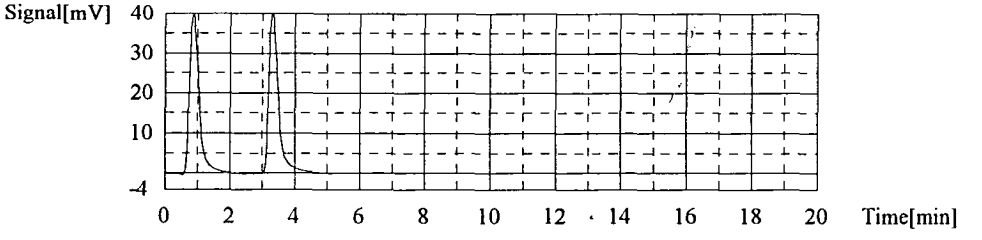
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 31.27



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	85.15	50uL	2	*******		12/09/03 08:38:29 AM
2	86.54	50uL	2	*******		12/09/03 08:41:21 AM

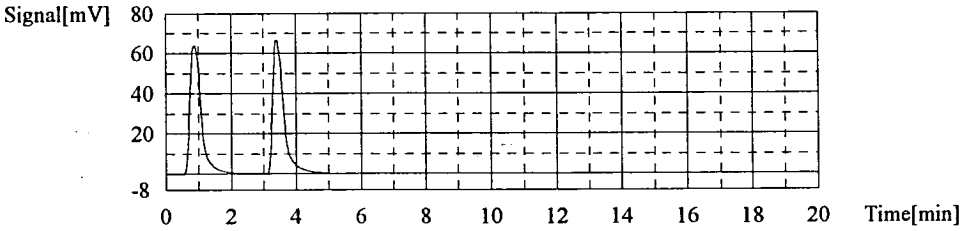
Acid Add. 2.500%
Sp. Time 90.00sec
Mean Area 85.84



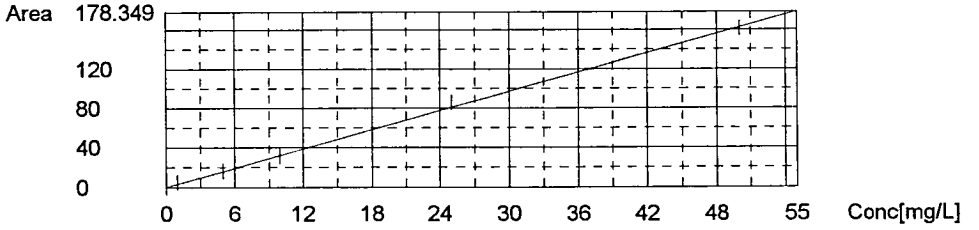
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	157.8	50uL	1	*******		12/09/03 08:48:30 AM
2	165.3	50uL	1	*******		12/09/03 08:51:26 AM

Acid Add.	2.500%
Sp. Time	90.00sec
Mean Area	161.6



Slope:	3.243
Intercept	0.000
r^2	0.998866



Control Sample

Sample Name:	ICV
Sample ID:	TCL09-2
Method:	50_4151.tpl
Chk. Result	Control value: 4.03% / Control within range!

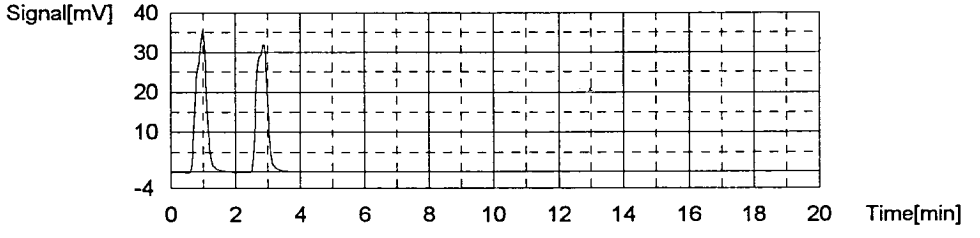
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.94 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.20	24.42mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:00:08 AM
2	76.07	23.46mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:02:11 AM

Mean Area	77.64
Mean Conc.	23.94mg/L



Sample

8007

Sample Name: ICB
Sample ID: TCL09-3
Origin: 50_4151.met
Chk. Result

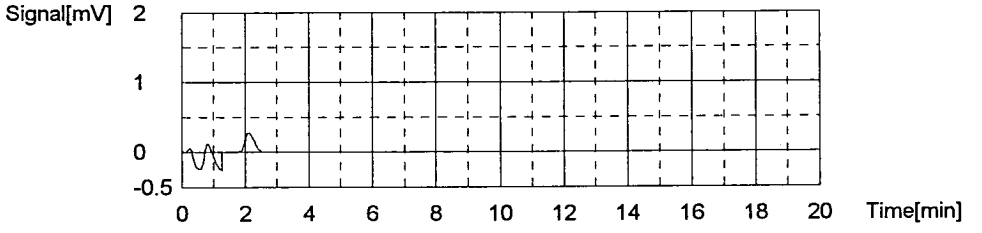
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1670 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6294	0.1941mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:10:00 AM
2	0.4534	0.1398mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:11:23 AM

Mean Area 0.5414
Mean Conc. 0.1670mg/L



Sample

Sample Name: HCO3/CO3
Sample ID: TCL09-4
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1435 mg/L

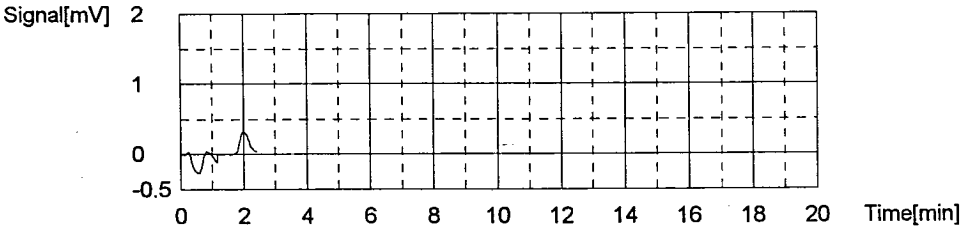
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4175	0.1288mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:19:04 AM
2	0.5133	0.1583mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:20:29 AM

8008

Mean Area 0.4654
Mean Conc. 0.1435mg/L



Sample

Sample Name: OCL007WB
Sample ID: TCL09-5
Origin: 50_4151.met
Chk. Result

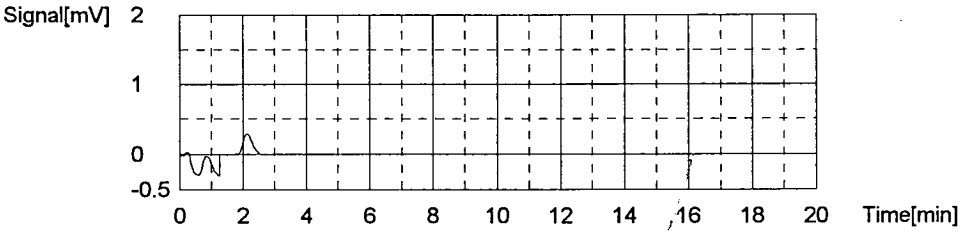
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1466 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4800	0.1480mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:28:16 AM
2	0.4708	0.1452mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:29:40 AM

Mean Area 0.4754
Mean Conc. 0.1466mg/L



Sample

Sample Name: OCL007WL
Sample ID: TCL09-6
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:18.17 mg/L

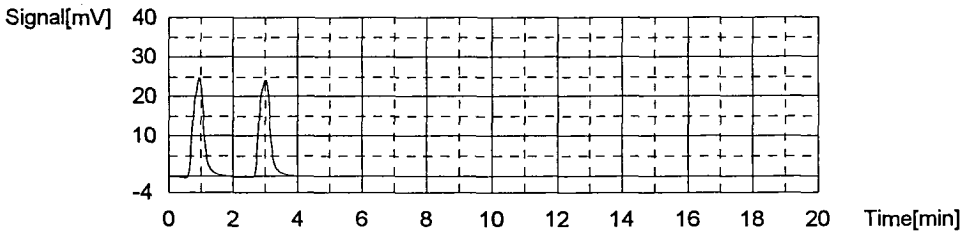
1. Det

8009

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.79	18.13mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:38:15 AM
2	59.06	18.21mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:40:28 AM

Mean Area 58.93
Mean Conc. 18.17mg/L



Sample

Sample Name: OCL007WC
Sample ID: TCL09-7
Origin: 50_4151.met
Chk. Result

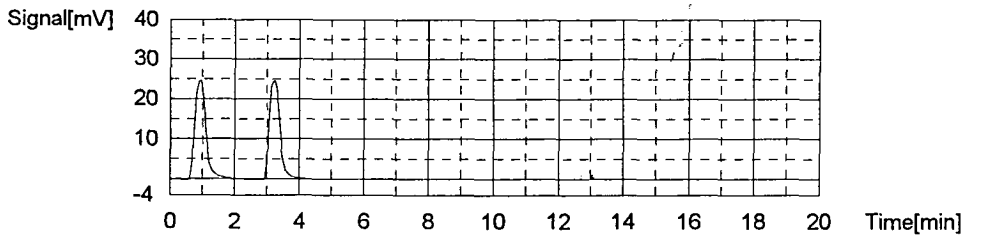
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:18.54 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.00	19.12mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:49:19 AM
2	58.22	17.95mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 09:51:35 AM

Mean Area 60.11
Mean Conc. 18.54mg/L



Sample

8010

Sample Name: 03 K175-10
Sample ID: TCL09-8
Origin: 50_4151.met
Chk. Result

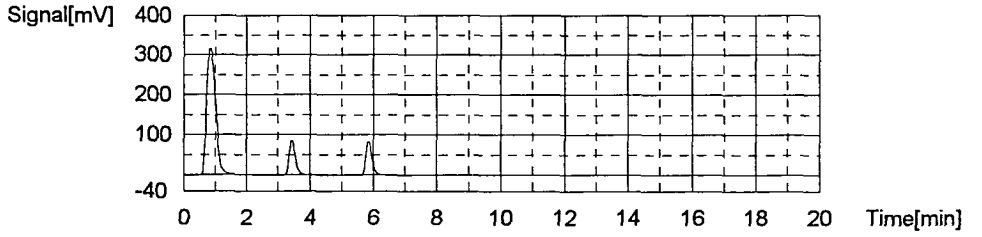
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:179.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	635.9	196.1mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 10:00:46 AM
2	119.2	183.8mg/L	10uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:03:20 AM
3	113.1	174.4mg/L	10uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:08:06 AM

Mean Area 116.2
Mean Conc. 179.1mg/L



Sample

Sample Name: 03 K175-11
Sample ID: TCL09-9
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:141.1 mg/L

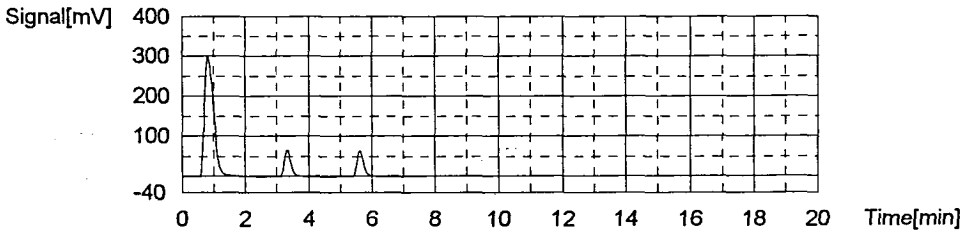
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	604.7	186.5mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 10:17:11 AM
2	91.10	140.5mg/L	10uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:19:39 AM
3	91.91	141.7mg/L	10uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:24:27 AM

8011

Mean Area 91.51
Mean Conc. 141.1mg/L



Sample

Sample Name: 03 K175-12
Sample ID: TCL09-10
Origin: 50_4151.met
Chk. Result

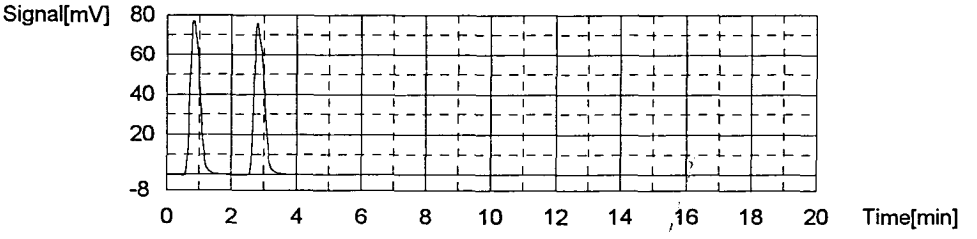
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.26 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.1	49.37mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:32:59 AM
2	159.4	49.16mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:35:09 AM

Mean Area 159.8
Mean Conc. 49.26mg/L



Sample

Sample Name: 03 K189-02
Sample ID: TCL09-11
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.293 mg/L

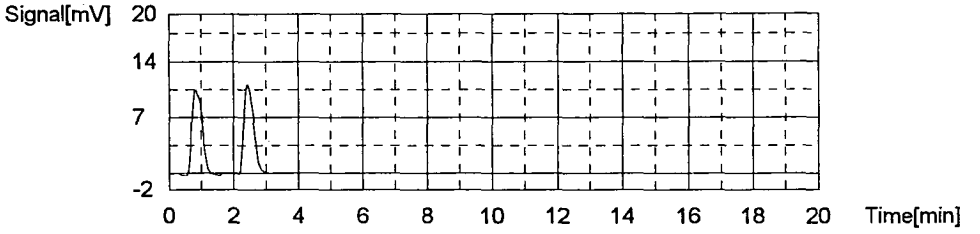
1. Det

8012

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.16	7.451mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:43:17 AM
2	23.14	7.136mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:45:00 AM

Mean Area 23.65
Mean Conc. 7.293mg/L



Sample

Sample Name: 03 K189-02D
Sample ID: TCL09-12
Origin: 50_4151.met
Chk. Result

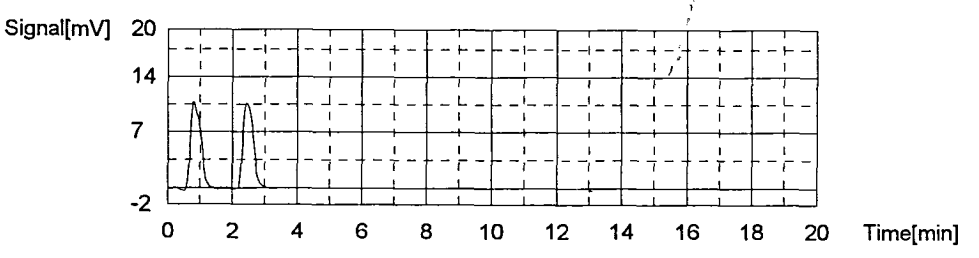
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:7.412 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.42	7.531mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:53:08 AM
2	23.65	7.293mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 10:54:53 AM

Mean Area 24.04
Mean Conc. 7.412mg/L



Sample

Sample Name: 03 K189-02M
Sample ID: TCL09-13
Origin: 50_4151.met
Chk. Result

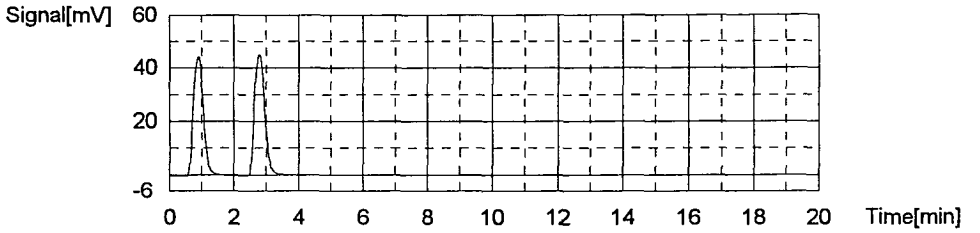
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:30.23 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	96.84	29.86mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:03:20 AM
2	99.20	30.59mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:05:34 AM

Mean Area 98.02
Mean Conc. 30.23mg/L



Control Sample

Sample Name: CCV1
Sample ID: TCL09-14
Method: 50_4151.tpl
Chk. Result Control value: 1.79% / Control within range!

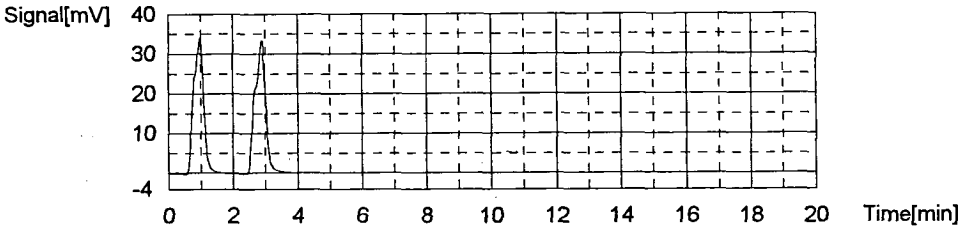
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.71 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.20	23.50mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:14:10 AM
2	77.58	23.92mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:16:23 AM

Mean Area 76.89
Mean Conc. 23.71mg/L



Sample

Sample Name: CCB1
Sample ID: TCL09-15
Origin: 50_4151.met
Chk. Result

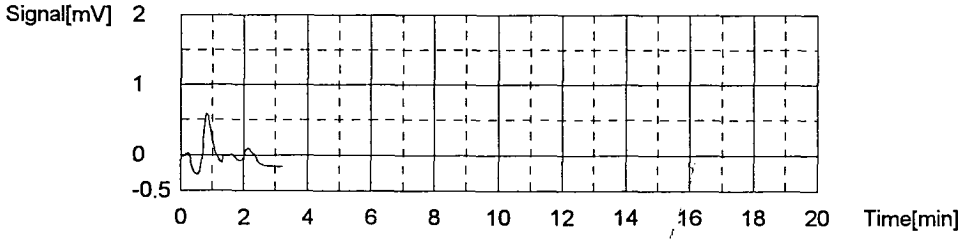
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2237 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.451	0.4475mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:24:15 AM
2	0.000	0.000mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:26:18 AM

Mean Area 0.7255
Mean Conc. 0.2237mg/L



Sample

Sample Name: 03 K189-03
Sample ID: TCL09-16
Origin: 50_4151.met
Chk. Result

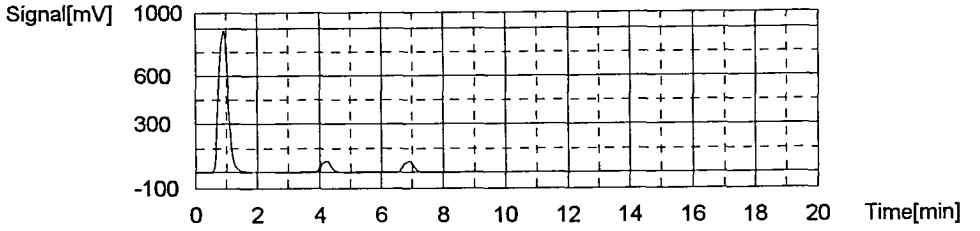
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:658.1 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1957	603.5mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 11:36:13 AM
2	164.4	659.1mg/L	50uL	13		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:44:20 AM
3	163.9	657.1mg/L	50uL	13		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:47:11 AM

Mean Area 164.2
Mean Conc. 658.1mg/L



Sample

Sample Name: 03 K189-04
Sample ID: TCL09-17
Origin: 50_4151.met
Chk. Result

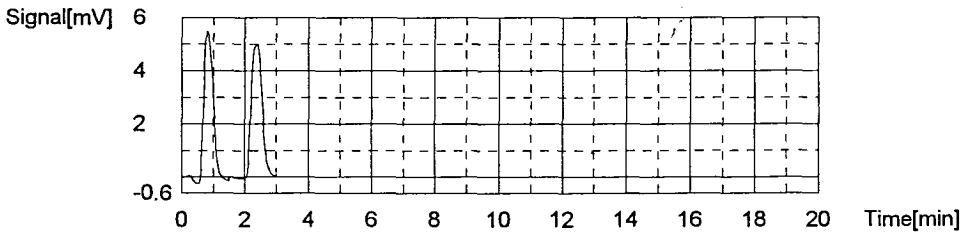
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.624 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.68	3.602mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:55:13 AM
2	11.82	3.645mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 11:56:56 AM

Mean Area 11.75
Mean Conc. 3.624mg/L



Sample

Sample Name: 03 K189-05
Sample ID: TCL09-18
Origin: 50_4151.met
Chk. Result

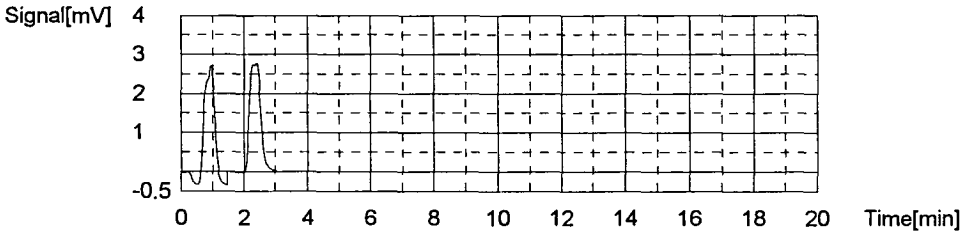
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.087 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.858	2.115mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:04:57 PM
2	6.677	2.059mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:06:37 PM

Mean Area 6.768
Mean Conc. 2.087mg/L



Sample

Sample Name: 03 K189-06
Sample ID: TCL09-19
Origin: 50_4151.met
Chk. Result

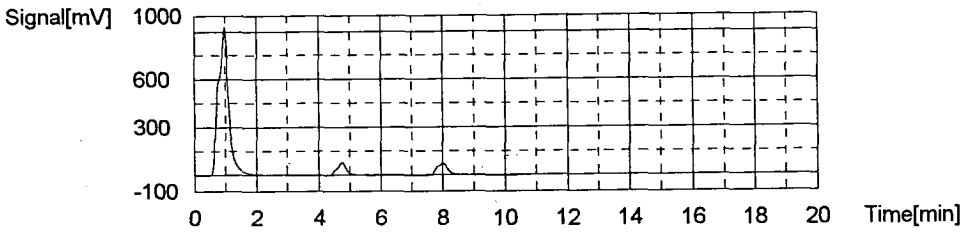
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:752.5 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2163	667.0mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 12:16:57 PM
2	171.5	740.4mg/L	50uL	14		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:25:41 PM
3	177.1	764.6mg/L	50uL	14		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:29:11 PM

Mean Area 174.3
Mean Conc. 752.5mg/L



Sample

Sample Name: 03 K189-08
Sample ID: TCL09-20
Origin: 50_4151.met
Chk. Result

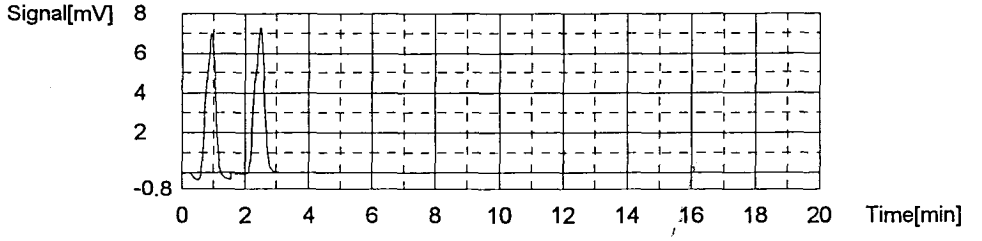
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.566 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.72	4.539mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:37:16 PM
2	14.89	4.592mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:38:58 PM

Mean Area 14.81
Mean Conc. 4.566mg/L



Sample

Sample Name: 03 K189-09
Sample ID: TCL09-21
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.434 mg/L

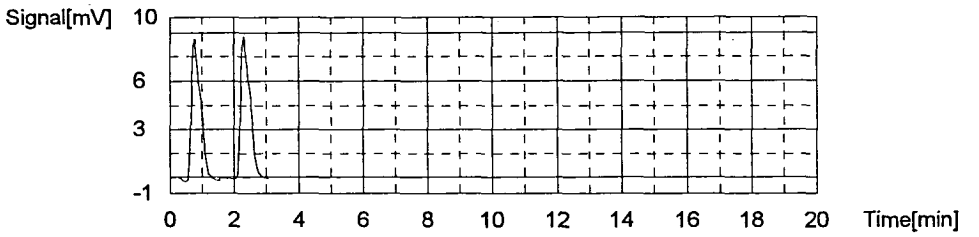
1. Det

8018

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.55	5.412mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:47:03 PM
2	17.69	5.455mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:48:44 PM

Mean Area 17.62
Mean Conc. 5.434mg/L



Sample

Sample Name: 03 K189-10
Sample ID: TCL09-22
Origin: 50_4151.met
Chk. Result

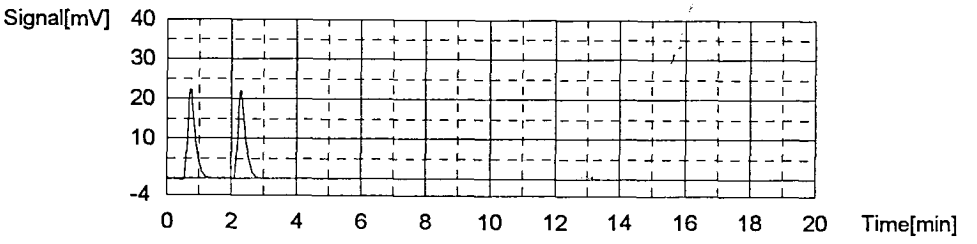
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:10.99 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.89	11.07mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:56:49 PM
2	35.36	10.90mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 12:58:33 PM

Mean Area 35.63
Mean Conc. 10.99mg/L



Sample

8019

Sample Name: 03 K189-11
Sample ID: TCL09-23
Origin: 50_4151.met
Chk. Result

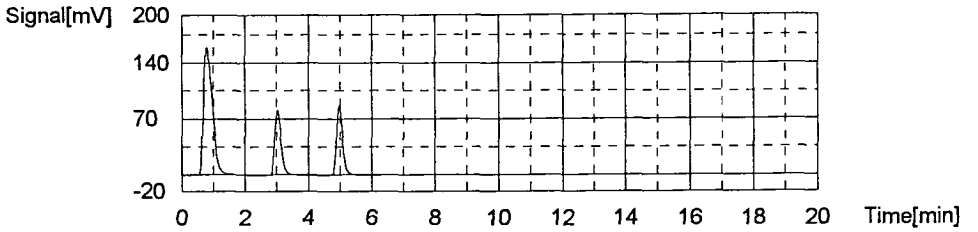
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:89.70 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	316.3	97.54mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 01:07:21 PM
2	116.4	89.74mg/L	20uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:09:30 PM
3	116.3	89.66mg/L	20uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:14:08 PM

Mean Area 116.4
Mean Conc. 89.70mg/L



Sample

Sample Name: 03 K189-12
Sample ID: TCL09-24
Origin: 50_4151.met
Chk. Result

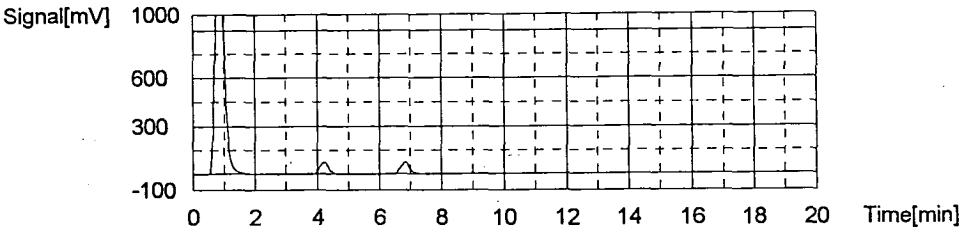
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:800.3 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2656	819.1mg/L	50uL	1	R	50_4151.2003_12_09_07_51_00.cal	12/09/03 01:24:00 PM
2	151.5	794.2mg/L	50uL	17		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:31:57 PM
3	153.8	806.3mg/L	50uL	17		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:34:49 PM

Mean Area 152.7
Mean Conc. 800.3mg/L



Sample

Sample Name: 03 K189-14
Sample ID: TCL09-25
Origin: 50_4151.met
Chk. Result

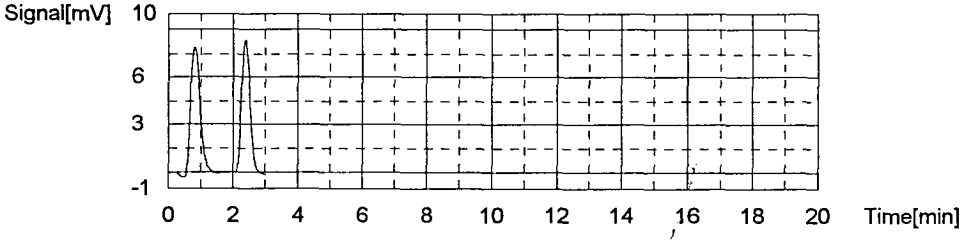
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.936 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.82	5.187mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:42:54 PM
2	15.19	4.684mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:44:35 PM

Mean Area 16.01
Mean Conc. 4.936mg/L



Control Sample

Sample Name: CCV2
Sample ID: TCL09-26
Method: 50_4151.tpl
Chk. Result Control value: 1.38% / Control within range!

Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.06 mg/L

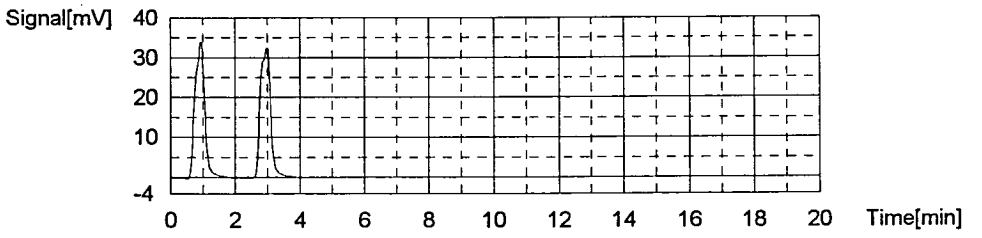
1. Det.

8021

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.25	22.90mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:53:16 PM
2	75.28	23.22mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 01:55:27 PM

Mean Area 74.77
Mean Conc. 23.06mg/L



Sample

Sample Name: CCB2
Sample ID: TCL09-27
Origin: 50_4151.met
Chk. Result

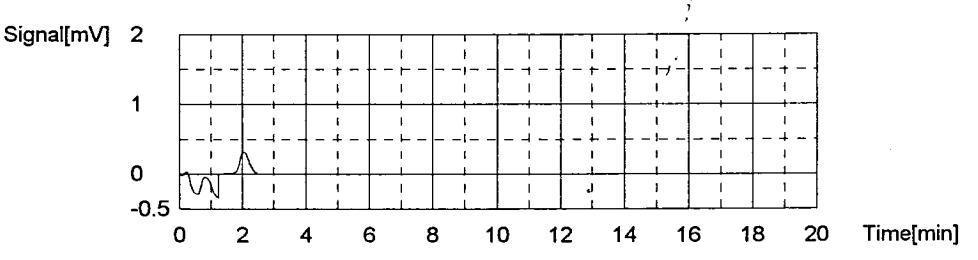
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1494 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4828	0.1489mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:03:13 PM
2	0.4863	0.1500mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:04:36 PM

Mean Area 0.4846
Mean Conc. 0.1494mg/L



Sample

8022

Sample Name: 03 K189-16
Sample ID: TCL09-28
Origin: 50_4151.met
Chk. Result

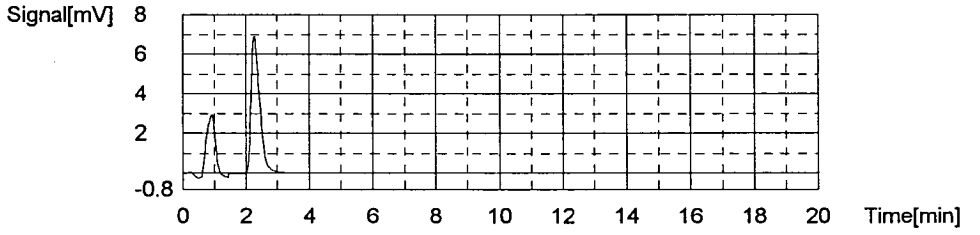
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.981 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.311	1.946mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:12:44 PM
2	13.02	4.015mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:14:39 PM

Mean Area 9.666
Mean Conc. 2.981mg/L



Sample

Sample Name: 03 K189-17
Sample ID: TCL09-29
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:13.66 mg/L

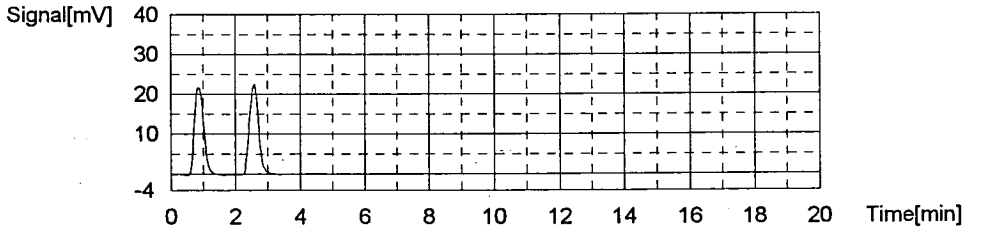
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.14	13.61mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:22:51 PM
2	44.48	13.72mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:24:46 PM

8023

Mean Area 44.31
Mean Conc. 13.66mg/L



Sample

Sample Name: 03 K189-18
Sample ID: TCL09-30
Origin: 50_4151.met
Chk. Result

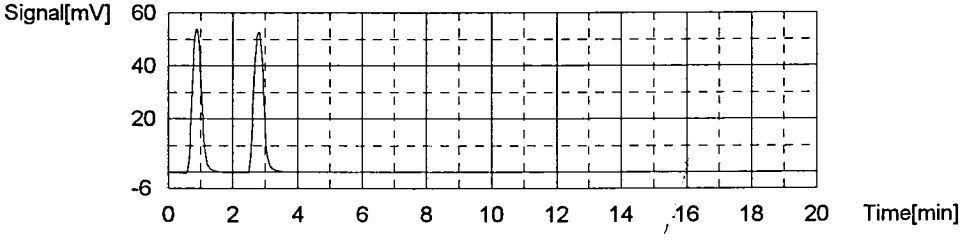
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:33.44 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	107.9	33.27mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:33:13 PM
2	109.0	33.61mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:35:17 PM

Mean Area 108.5
Mean Conc. 33.44mg/L



Sample

Sample Name: 03 K189-19
Sample ID: TCL09-31
Origin: 50_4151.met
Chk. Result

Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:9.495 mg/L

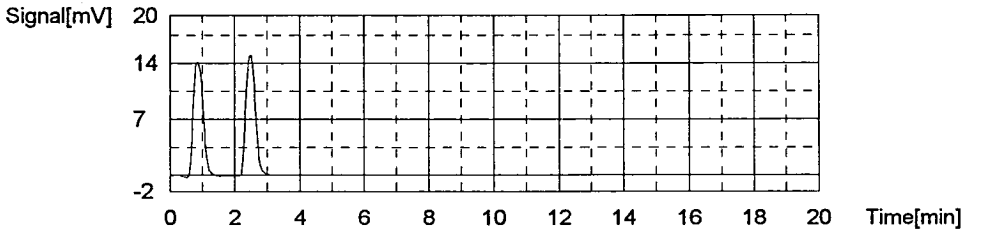
1. Det

8024

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.84	9.511mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:43:25 PM
2	30.74	9.480mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:45:12 PM

Mean Area 30.79
Mean Conc. 9.495mg/L



Sample

Sample Name: 03 L010-02
Sample ID: TCL09-32
Origin: 50_4151.met
Chk. Result

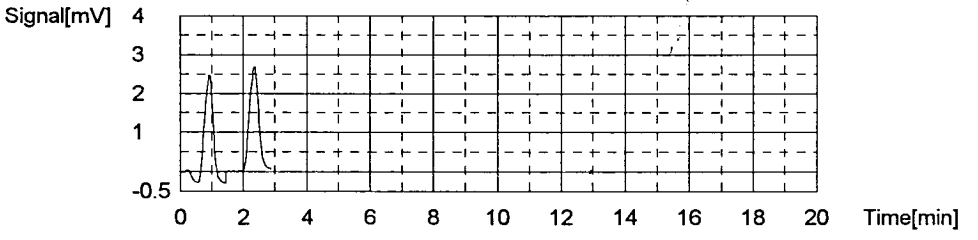
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.581 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.145	1.587mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:53:19 PM
2	5.106	1.575mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 02:54:55 PM

Mean Area 5.126
Mean Conc. 1.581mg/L



Sample

Sample Name: 03 L010-03
Sample ID: TCL09-33
Origin: 50_4151.met
Chk. Result

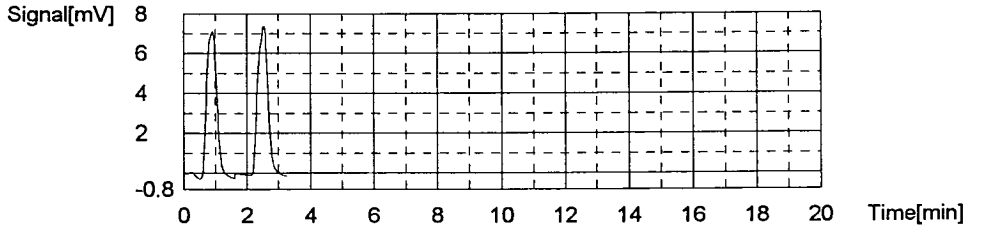
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.068 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.37	5.048mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:03:04 PM
2	16.50	5.088mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:04:51 PM

Mean Area 16.44
Mean Conc. 5.068mg/L



Control Sample

Sample Name: CCV3
Sample ID: TCL09-34
Method: 50_4151.tpl
Chk. Result Control value: 2.73% / Control within range!

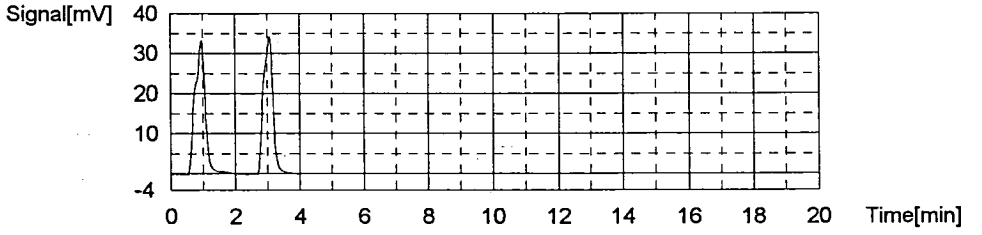
Type	Anal.	Dil.	Result
Control	NPOC	1.000	NPOC:23.08 mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.87	23.40mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:13:38 PM
2	73.83	22.77mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:15:39 PM

Mean Area 74.85
Mean Conc. 23.08mg/L



Sample

Sample Name: CCB3
Sample ID: TCL09-35
Origin: 50_4151.met
Chk. Result

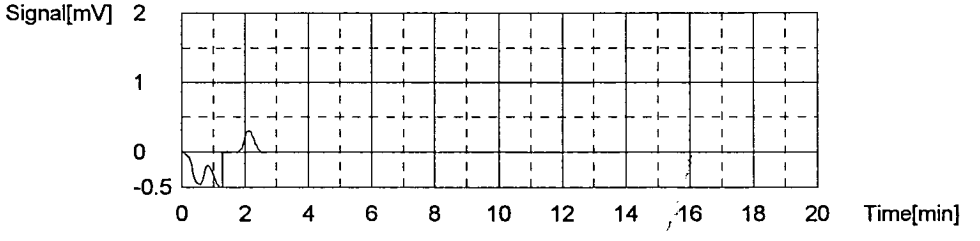
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1641 mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5396	0.1664mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:23:28 PM
2	0.5248	0.1618mg/L	50uL	1		50_4151.2003_12_09_07_51_00.cal	12/09/03 03:24:55 PM

Mean Area 0.5322
Mean Conc. 0.1641mg/L



8027

ANALYSIS RUN LOG FOR TOC

SOP: ☐ EMAX-9060 ☑ EMAX-415.1 ☐ Revision No. 1 Book # A62-004

Start Date 12/9/03 Time 7:58 EndingDate 12/9/03 Time 15:24

Sample Prep. ID	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Run Time	Notes
* 01	OCL007-1	ICAL	1		✓	8:51	NPOC RUN
* 02	-2	ICV				9:02	pH <2
* 03	-3	ICB				9:11	
* 04	-4	HCO3 / CO3				9:20	
* 05	-5	OCL007 WB				9:29	
* 06	-6	WL				9:40	
* 07	-7	WC				9:51	
* 08	-8	03K175-10				10:08	
* 09	-9	-11				10:24	
* 10	-10	03K175-12				10:35	
* 11	-11	03K189-02				10:45	
* 12	-12	-02D				10:54	
* 13	-13	03K189-03M				11:05	
* 14	-14	CCV1				11:16	
* 15	-15	CCB1				11:26	
* 16	-16	03K189-03				11:47	
* 17	-17	-04				11:56	
* 18	-18	-05				12:06	
* 19	-19	-06				12:29	
* 20	-20	-08				12:38	
* 21	-21	-09				12:48	
* 22	-22	-10				12:58	
* 23	-23	-11				13:14	
* 24	-24	-12				13:34	
* 25	-25	03K189-14				13:44	
* 26	-26	CCV2				13:55	
* 27	-27	CCB2				14:04	
* 28	OCL007-28	03K189-16				14:14	

Instrument No.	62
INITIAL CALIBRATION REFERENCE	
Method File	OC L007 W
ICAL ID	SW10B-01-401
ICV ID	SW10B-01-404

STANDARDS

ICAL Level		Conc. (ug/L) mg/L RM 12/9/03
S0	Nanopure	0
S1	SW10B-01-401	1
S2		5
S3		10
S4		25
S5	SW10B-01-401	50
S6		

ICV/LCS	SW10B-01-404/403	25/19.6
CCV	SW10B-01-404	25

Comments:

Analyzed By: RM

This page is checked during data review.

ANALYTICAL BATCH * OC L007 W

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8028

ANALYSIS RUN LOG FOR TOC

SOP: ☐ EMAX-9060 ☑ EMAX-415.1 ☐ Revision No. 1 Book # A62-004

Start Date 12/9/03 Time 7:58 EndingDate 12/9/03 Time 15:24

Sample Prep. ID	Data File Name	Lab Sample ID	DF	Matrix S	Matrix W	Run Time	Notes
*~~29~~01	OCL007-29	03K189 - 17	1		✓	14:24	NPOC RUN
*~~30~~02	-30	- 18				14:35	pH <2
*~~31~~03	-31	03K189 - 19				14:45	
*~~32~~04	-32	03L010 - 02				14:54	
*~~33~~05	-33	- 03				15:04	
*~~34~~06	-34	CCV3				15:15	
*~~35~~07	OCL007-35	CCB3				15:24	
* 08							
* 09							
* 10							
* 11							
* 12							
* 13							
* 14							
* 15							
* 16							
* 17							
* 18							
* 19							
* 20							
* 21							
* 22							
* 23							
* 24							
* 25							
* 26							
* 27							
* 28							RM 12/10/03

ANALYTICAL BATCH * OCL007W

Instrument No.	62
INITIAL CALIBRATION REFERENCE	
Method File	OCL007W
ICAL ID	SW10B-01-401
ICV ID	SW10B-01-404

STANDARDS

ICAL Level		Conc.(ug/L)
S0	same as p. 62/RM	
S1		
S2		
S3		
S4		
S5		
S6		

ICV/LCS		
CCV		

Comments:

Analyzed By: RM

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

8029

STANDARD LOG FOR WET CHEMISTRY

Method TOC Book # SW10B-01

Standard ID	SW10B-01-401 ICAL	Aliquot	1.0 mL / 5.0 mL	Prepared on	12/4/03
Name	TOC - ERA	Solvent ID	Nanopure	Expires on	01/4/04
Source	SW7A - 05-242	Final Volume	100 mL / 100 mL	Prepared by	RM
Concentration	1000 ppm	Final Concentration	10 ppm / 50 ppm	Reviewed by	

Standard ID	SW10B-01-402 ICV/CCV	Aliquot	2.5 mL	Prepared on	12/4/03
Name	KHP - EM	Solvent ID	Nanopure	Expires on	01/4/03
Source	SW10B-01-397	Final Volume	100 mL	Prepared by	RM
Concentration	1000 ppm	Final Concentration	25 ppm	Reviewed by	

Standard ID	SW10B-01-403 LCS	Aliquot	0.5 mL	Prepared on	12/4/03
Name	Demand	Solvent ID	Nanopure	Expires on	01/4/03
Source	SW7A-05-203	Final Volume	100 mL	Prepared by	RM
Concentration	concentrate	Final Concentration	TV: 19.6 mg/L	Reviewed by	

Standard ID	SW10B-01-404	Aliquot	2.5 mL	Prepared on	12/9/03
Name	KHP - EM	Solvent ID	Nanopure	Expires on	01/9/04
Source	SW10B-01-397	Final Volume	100 mL	Prepared by	RM
Concentration	1000 ppm	Final Concentration	25 ppm	Reviewed by	

Standard ID	SW10B-01-405	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	
Concentration		Final Concentration		Reviewed by	

Standard ID	SW10B-01-406	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	
Concentration		Final Concentration		Reviewed by	

Standard ID	SW10B-01-407	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	
Concentration		Final Concentration		Reviewed by	

Standard ID	SW10B-01-408	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	
Concentration		Final Concentration		Reviewed by	

Standard ID	SW10B-01-409	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	
Concentration		Final Concentration		Reviewed by	

Standard ID	SW10B-01-410	Aliquot		Prepared on	
Name		Solvent ID		Expires on	
Source		Final Volume		Prepared by	8030
Concentration		Final Concentration		Reviewed by	

WET CHEM REAGENT PREPARATION LOG

Book # SW7A-05

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	Comments
SW7A-05- 24 1	SILICA (SiO_2)	ERA	24031.5	Wet	4/21/03	LA	12/2005	1 X 100 mL
SW7A-05- 24 2	TOTAL ORGANIC CARBON	ERA	23023	WET	4/21/03	RM	03/2005	1 X 500 mL
SW7A-05- 24 3	Minerals WasteWatR	ERA	P090506	WET	5/7/03	NB	10/2005	6 X 500 mL
SW7A-05- 24 4	WasteWatR Hardness	ERA	P091507	WET	5/7/03	NB	11/2005	6 X 500 mL
SW7A-05- 24 5								
SW7A-05- 24 6								
SW7A-05- 24 7								
SW7A-05- 24 8								
SW7A-05- 24 9	WasteWatR Hardness							
SW7A-05- 25 0	~~WasteWatR Hardness~~	~~ERA~~	~~P091507~~	~~WET~~	~~5/7/03~~	~~NB~~	~~11/2005~~	6 X 500 mL
SW7A-05- 25 1	Minerals WasteWatR	ERA	P090506	WET	5/7/03	NB	10/2005	6 X 500
SW7A-05- 25 2								
SW7A-05- 25 3								
SW7A-05- 25 4								
SW7A-05- 25 5	Minerals WasteWatR	ERA	P090506	WET	5/7/03	NB	10/2005	6X500 mL
SW7A-05- 25 6	Glycerin soln. 50% v/v	VWR	1099	EXT.	5/8/03	RM	4/30/03	1 X 510 mL
SW7A-05- 25 7	Ammonium Molybdate	Mall	3420 X32 06T	WET	5/8/03	RM	5/2013	1 X 125 gm
SW7A-05- 25 8	Sodium fluoroacetate	Aldrich Analytical	R10350 7002	WET	5/19/03	RM	5/7/2006	2 X
SW7A-05- 25 9	Amine-H250	VWR	3125	WET	5/28/03	dc	5/31/06	1 X 500 mL
SW7A-05- 26 0	EDTA 0.01 M	Ricca	130 1286	WET	6/11/03	dc	7/2004	1 X 1 L
SW7A-05- 26 1	IODINE 0.025 N	VWR	2287	WET	6/11/03	dc	3/31/04	1 X 1 L
SW7A-05- 26 2	Amm. Persulfate	JT Baker	906654	WET	6-11-03	dc	3/31/03	1 X 500 gm
SW7A-05- 26 3	Demand	ERA	P093516	WET	6-19-03	dc	1/2006	1 X 10 ml
SW7A-05- 26 4	NUTRIENTS		P093525	WET	6-19-03	dc	1/2005	1 X 10 ml
SW7A-05- 26 5	SULFIDE		P095071	WET	6-19-03	dc	1/2005	1 X 10 ml
SW7A-05- 26 6	PHENOL SOLUTION STD	MALLINCKRODT	H302 Y09788	WET	7-21-03	RM	7/21/04	1 X 100 mL
SW7A-05- 26 7	NOT used							
SW7A-05- 26 8								
SW7A-05- 26 9								
SW7A-05- 27 0	7/21/03							

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Reviewed By: 7/21/03

DataPacK™

Certification

~~SW7A 05-239~~ SW7A-05-242

Total Organic Carbon

Catalog No. 978

Lot No. 23023

Received: 4/21/13 RM

Parameter	Certified Value (mg/L)
TOC	1000

Expiration Date: March 2005.

Preservative: This standard is preserved with 0.5% (v/v) H_2SO_4.

Production Notes: This standard is made from Dextrose.

Standard Preparation Instructions: None required. This standard is ready to dilute and analyze as received.

Storage: Store at 4±2°C.

Traceability Data Summary

Parameter	ERA Lot Number	% Traceability*
TOC	23023	101

This standard was analytically traced to **NIST Standard Reference Material 917a Dextrose.**

*%Traceability = ((% Recovery ERA standard)/(%Recovery NIST standard))*100

CASE NARRATIVE

CLIENT: **SHAW E&I**

PROJECT: **ALAMEDA POINT, CTO 0107**

SDG: **03L010**

METHOD 7196A
HEXAVALENT CHROMIUM

Two (2) water samples were received on 12/03/03 for Hexavalent Chromium analysis by Method 7196A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

   Analysis met holding time criteria.

2. Method Blank

   Method blank was free of contamination at reporting limit.

3. Lab Control Sample

   Lab control result was within QC limit.

4. Duplicate

   Sample L010-02 was analyzed for duplicate. %RPD was within QC limit.

5. Matrix Spike

   Sample L010-02 was spiked. %Recovery was within QC limit.

6. Sample Analysis

   Sample analyses were performed within the QC requirements. All criteria were met.

METHOD 7196A
HEXAVALENT CHROMIUM

Client : SHAW E&I
Project : ALAMEDA POINT, CTO 0107
Batch No. : 03L010

Matrix : WATER
Instrument ID : I70

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	CRL003WB	ND	1	NA	.02	.005	12/03/0309:15	NA	CRL003W-09	CRL003W-07	CRL003W	NA	NA
LCS1W	CRL003WL	.201	1	.201	.02	.005	12/03/0309:16	NA	CRL003W-10	CRL003W-07	CRL003W	NA	NA
D10B-01-102	L010-02	ND	1	NA	.02	.005	12/03/0309:17	NA	CRL003W-11	CRL003W-07	CRL003W	12/02/03	12/03/03
D10B-01-102DUP	L010-02D	ND	1	NA	.02	.005	12/03/0309:18	NA	CRL003W-12	CRL003W-07	CRL003W	12/02/03	12/03/03
D10B-01-102MS	L010-02M	.189	1	.19	.02	.005	12/03/0309:19	NA	CRL003W-13	CRL003W-07	CRL003W	12/02/03	12/03/03
P-16-MWI01-092	L010-03	ND	1	NA	.02	.005	12/03/0309:20	NA	CRL003W-14	CRL003W-07	CRL003W	12/02/03	12/03/03

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
METHOD: METHOD 7196A
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 03L010
SAMPLE ID: LCS1W
CONTROL NO.: CRL003WL

DATE RECEIVED: NA
DATE EXTRACTED: NA
DATE ANALYZED: 12/03/03 09:16

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	LCS RSLT (mg/L)	LCS % REC	QC LIMIT (%)
Hex. Chromium	ND	.20	.201	100	80-120

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EMAX QUALITY CONTROL DATA
MS ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
METHOD: METHOD 7196A
MATRIX: WATER
% MOISTURE: NA

==========

BATCH NO.: 03L010
SAMPLE ID: D10B-01-102MS
CONTROL NO.: L010-02M

DATE RECEIVED: 12/03/03
DATE EXTRACTED: NA
DATE ANALYZED: 12/03/03 09:19

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	MS RSLT (mg/L)	MS % REC	QC LIMIT (%)
Hex. Chromium	ND	.20	.189	95	75-125

EMAX QUALITY CONTROL DATA
DUPLICATE ANALYSIS

CLIENT: SHAW E&I
PROJECT: ALAMEDA POINT, CTO 0107
METHOD: METHOD 7196A
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 03L010
SAMPLE ID: D10B-01-102DUP
CONTROL NO.: L010-02D

DATE RECEIVED: 12/03/03
DATE EXTRACTED: NA
DATE ANALYZED: 12/03/03 09:18

ACCESSION:

PARAMETER	SAMPLE (mg/L)	DUP. SAMPLE (mg/L)	RPD (%)	RPD LIMIT (%)
Hex. Chromium	ND	ND	0	20

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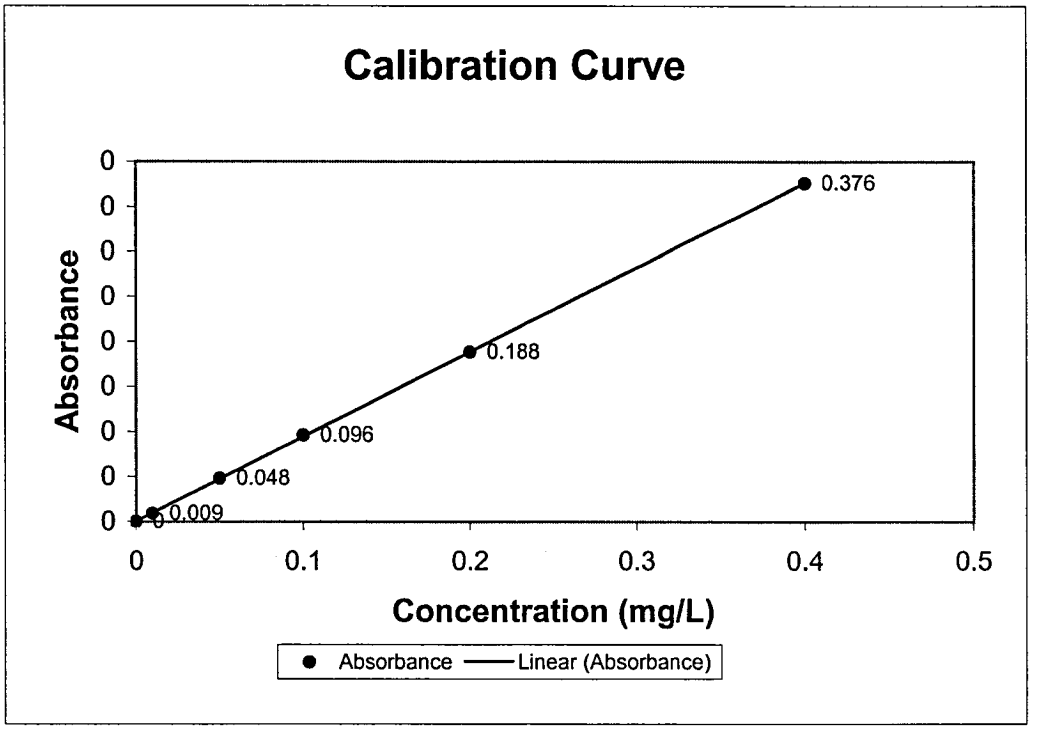
CRGRAPH
12/15/03

Calibration Level	Concentration	Absorbance
1	0	0
2	0.01	0.009
3	0.05	0.048
4	0.1	0.096
5	0.2	0.188
6	0.4	0.376

Calculation	
Slope	0.939284
Intercept	0.000000
R^2 ($\geq$0.995)	0.999961
Comment	Passed
Y(Intercept/Slope)	0.000000
CF(1/Slope)	1.06



Analyzed by: RM

~~L003~~
L010
RM 12/15/03

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ANALYSIS LOG FOR HEXAVALENT CHROMIUM

SOP ☑ EMAX-7196 Revision No. 2 ☐ Book # A70-Cr-001

Starting Date 12/3/03 Time 9:00 Ending Date 12/3/03 Time 9:22

ANALYTICAL BATCH * CR L003 W

	Data File Name	Preparative Batch	Lab Sample ID	Matrix S	Matrix W	Time	Volume Colored (ml)	DF	Absorbance	Notes mg/L
1			S-0		✓	9:00	100	1	0.000	
2			S-0.01			9:01			0.009	
3			S-0.05			9:02			0.048	
4			S-0.10			9:03			0.096	
5			S-0.20			9:04			0.188	
6			S-0.40			9:05			0.376	
7		CRL003W	ICV			9:06			0.095	0.101
8			ICB			9:07			0.000	ND
9			CRL003WB	Turb		9:15			0.000	ND
10			WL			9:16			0.190	0.201
11			L010-02	0.002		9:17			0.002	ND
12			-02D	0.002		9:18			0.002	ND
13			-02M	0.002		9:19			0.180	0.189
14			L010-03	0.004		9:20			0.005	ND
15			CCV1			9:21			0.095	0.101
16			CCB1			9:22			0.000	ND
17										
18										
19										
20										
1										
2										
3										
4										
5										
6										
7										
8										
9										
0										RM 12/3/03

Instrument No: 70	Wavelength: 540 nm	
Standard	ID	Conc. (mg/L)
S_0	Nanopure	0.0
S_1	SW7B-02-786	0.01
S_2		0.05
S_3		0.10
S_4		0.20
S_5	SW7B-02-786	0.40
S_6		
Analytical Spike (10% Pcct)	SW7B-02-787	0.1
LCS	SW7B-02-788	0.2
Reagent	ID	
Diphenyl Carbazide	SW7B-06-033	
Acetone	SW1A-02-1343	
H_2SO_4	SW1A-02-1049	
NaOH	SW7B-06-014	
HNO_3	NA	
Standard Curve		
R	0.99996	
Y	0.0000	
CF	1.06	

Comments: pH adjusted to 2 ± 0.2

Results based on : o Dry Weight o Wet Weight

Analyzed By: RM

This page is checked during data review.

EMAX LABORATORIES, INC. 1835 W. 205th St. Torrance, CA 90501

STANDARD LOG FOR WET CHEMISTRY

Method COLORIMETRIC

Book # SW2B-02

Standard ID	SW2B-02- 781	Aliquot	4.0 mL (3x)	Prepared on	11/18/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	12/18/03
Source	SW2B-02-709	Final Volume	100 mL	Prepared by	RM
Concentration	5 ppm	Final Concentration	0.20 ppm	Reviewed by	

Standard ID	SW2B-02- 782 NH_3N	Aliquot	0.5 mL	Prepared on	12/1/03
Name	Nutrients (Simple)	Solvent ID	Nanopure	Expires on	1/1/04
Source	SW7A-05-168	Final Volume	100	Prepared by	[illegible]
Concentration	Conc	Final Concentration	9.55 mg/L	Reviewed by	

Standard ID	SW2B-02- 783 TKN	Aliquot	0.5 mL (4rep)	Prepared on	12/1/03
Name	Complex Nutrients	Solvent ID	Nanopure	Expires on	1/1/04
Source	SW7A-05-268	Final Volume	100 mL	Prepared by	[illegible]
Concentration	Concentrate	Final Concentration	1.10 mg/L	Reviewed by	

Standard ID	SW2B-02- 784 ICAL	Aliquot	5 mL	Prepared on	12/1/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	6/1/04
Source	SW2B-02-704	Final Volume	500 mL	Prepared by	[illegible]
Concentration	500 mg/L	Final Concentration	5 mg/L	Reviewed by	

Standard ID	SW2B-02- 785 ICV	Aliquot	2.5 mL	Prepared on	12/1/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	6/1/04
Source	SW2B-02-705	Final Volume	250 mL	Prepared by	[illegible]
Concentration	500 mg/L	Final Concentration	5 mg/L	Reviewed by	

Standard ID	SW2B-02- 786	Aliquot	0.2, 1.0, 2.0, 4.0, 8.0 mL (2x)	Prepared on	12/2/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	01/2/04
Source	SW2B-02-708	Final Volume	100 mL	Prepared by	RM
Concentration	5 ppm	Final Concentration	0.01, 0.05, 0.10, 0.20, 0.40 ppm	Reviewed by	

Standard ID	SW2B-02- 787	Aliquot	2.0 mL (2x)	Prepared on	12/2/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	01/2/03
Source	SW2B-02-709	Final Volume	100 mL	Prepared by	RM
Concentration	5 ppm	Final Concentration	0.10 mL	Reviewed by	

Standard ID	SW2B-02- 788	Aliquot	4.0 mL (2x)	Prepared on	12/2/03
Name	$K_2Cr_2O_7$	Solvent ID	Nanopure	Expires on	01/02/04
Source	SW2B-02-709	Final Volume	100 mL	Prepared by	RM
Concentration	5 ppm	Final Concentration	0.20 ppm	Reviewed by	

Standard ID	SW2B-02- 789 Stock	Aliquot	3.819 gr	Prepared on	12/2/03
Name	NH_4Cl	Solvent ID	Nanopure	Expires on	12/2/04
Source	SW7A-06-009	Final Volume	1 L	Prepared by	[illegible]
Concentration	ASSAY	Final Concentration	1000 ppm	Reviewed by	

Standard ID	SW2B-02- 790	Aliquot	1.0 mL	Prepared on	12/2/03
Name	NH_4Cl	Solvent ID	Nanopure	Expires on	6/2/04
Source	SW2B-02-789	Final Volume	100 mL	Prepared by	[illegible]
Concentration	1000 mg/L	Final Concentration	10 mg/L	Reviewed by	

Reviewed By: 8040

REAGENT LOG

Method Reagent Receiving Book # SW7A-04

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	Comments
SW7A-04- 31	Sulfuric Acid	J.T. BAKER	T04058	Wet	11/30/00	TV	11/30/2005	1 X 2.5L *
SW7A-04- 32	Acetic Acid	EM	B21202	Extract.	11/30/00	YK	11/30/2005	
SW7A-04- 33	Sodium sulfite	ALDRICH	07329CI	Extract.	12/1/00	YK	12/1/05	*
SW7A-04- 34	Tetrabutylammonium hydrogensulfate	Aldrich	08230EI	Extract.	12/1/00	YK	12/1/05	
SW7A-04- 35	Hydroxylamine Hydrochloride	Alfa Aesar	K22T04	WET	12/6/00	RZ	12/6/10	4 x 1Kg *
SW7A-04- 36	Tin (II) Chloride	Alfa Aesar	T07T02	WET	12/6/00	RZ		4 x 500 g *
SW7A-04- 37	Potassium peroxydisulfate	Alfa Aesar	T17R12	WET	12/6/00	RZ		4 x 250g
SW7A-04- 38	Potassium permanganate	Alfa Aesar	L03T04	WET	12/6/00	RZ	12/06/10	4 x 500g
SW7A-04- 39	~~Sod~~ Calcium chloride	EM	32121415	Wet	12/6/00	ML	12/6/05	1 x 2.5 Kg
SW7A-04- 40	Potassium hydroxide	EM	34258450	Wet	12/08/00	ML	12/08/05	
SW7A-04- 41	Minerals WasteWatR	ERA	99101	wet	12/18/00	TV	4/03	4 x 500ml
SW7A-04- 42	Hardness WasteWatR	ERA	99108	wet	12/18/00	TV	10/03	4 x 500ml
SW7A-04- 43	EDTA Disodium	Spectrum	PF1129	wet	12/18/00	TV	12/2010	1 x 4L
SW7A-04- 44	Calcium Sol.	"	PL0783	WET	1/09/01	LA	1/15/02	1 x 500 mL
SW7A-04- 45	ERIOCHROME BLACKT	"	PL0769	WET	1/09/01	LA	1/15/02	1 x 100 mL
SW7A-04- 46	Sulfuric Acid	J.T. BAKER	T04058	wet	1/10/01	TV	1/10/05	1 x 2.5L
SW7A-04- 47	Silica Gel	MERCK KGaA	39109038	Ext.	01.16.01	LB	1.16.11	2 x 500g *
SW7A-04- 48	Sulfuric Acid	J.T. BAKER	T04058	Wet	2/1/01	TV	2/1/05	1 x 2.5L *
SW7A-04- 49	Chloride, 1000 mg/L	ERA	14110	IC	02/16/01	HH	11/30/02	125mL *
SW7A-04- 50	Polyseal	Supelco	1200102	WET	2/21/01	[illegible]	11/01	50 caps *
SW7A-04- 51	NaOH 10.0N	VWR	0004119	WET		NB	10/31/01	From SW7A-02 415 1L *
SW7A-04- 52	Mercuric	ERA	99104	wet	2/26/01	[illegible]	5/03	6 x 500 mL
SW7A-04- 53	1,5-Diphenylcarbohydrazide	Spectrum	PK0362	(IC) Wet	03/01/01	HH	03/01/06 06 HH	25g *
SW7A-04- 54	Ammonium Hydroxide	EM	K27757105	wet	03/01/01	HH	03/01/06	500mL *
SW7A-04- 55	Potassium Dichromate	J.T. Baker	T15H32	Wet	03/09/01	HH	03/09/2005	99.9% 125g *
SW7A-04- 56	Buffer solution	VWR	1005	wet	03/14/01	RM	01/31/03	500 mL *
SW7A-04- 57	Sulfuric/A (H_2SO_4)	J.T.Baker	T49030	wet	4/5/01	GL	4/5/05	1 x 2.5L *
SW7A-04- 58	N-methyl-N-nitroso-p-toluenesulfonamine	ALDRICH	12910DI	extr.	4/16/01	YK		2 x 100g
SW7A-04- 59	HexavalentChromium	ERA	35100.1	Wet	05/18/01	HH	11/30/02	1000mg/L 125mL *
SW7A-04- 60	Buffer Soln. pH4.00	J.T Baker	V13507	wet	6/4/01	RM	4/2003	500 mL *

REAGENT LOG

Method Reagent Receiving Book # SW7A-02

Standard ID	Name	Source	Lot #	Location	Rcvd. on	Rcvd. by	Exp. on	Comments
SW7A-02-31	Hydroxylamine Hydrochloride	Alfa	B19J20	WET	7/1/99	RM	7/1/2009	1 X 1kg
SW7A-02-32	Magnesium chloride	Alfa	A27J04	WET	7/2/99	RM	7/2/2009	4 X 2kgs
SW7A-02-33	Sodium Hydroxide	VWR	126700-116303	wet	7/2/99	TV	7/2/2009	1 X 2.5kg
SW7A-02-34	Magnesium Perchlorate	EM	38274917	wet	7/2/99	TV	7/2/2009	2 X 500g
SW7A-02-35	Buffer soln. pH 4.00	Baker	N13578	wet	7/16/99	RM	4/2001	1 X 500ML
SW7A-02-36	Buffer soln pH 10.00	Baker	N13515	wet	7/16/99	RM	4/2001	1 X 500 ML
SW7A-02-37	Buffer soln. pH 7.00	Baker	N18512	wet	7/21/99	RM	05/2009	1 X 500ML
SW7A-02-38	Potassium Permanganate	EM	38341909	wet	7/23/99	MI	7/23/2009	1 X 500g
SW7A-02-39	Polyseed (BOD seed)	InterBio	2099 042	Wet	7/2/99	RM	6/2000	30 capsules
SW7A-02-40	Hydroxylamine Hydrochloride	EM	37208849	wet	7/29/99	RM	7/2009	2 X 1kg.
SW7A-02-41	Hydrous Waste WATR	ERA	9981	wet	8/23/99	RM	1/2001	4 X 500 ML
SW7A-02-42	Demand	ERA	9986	wet	8/23/99	RM	12/2001	2 X 10 vials
SW7A-02-43	Cyanide & Phenol	ERA	9982	wet	8/23/99	RM	10/2001	2 vials
SW7A-02-44	Tin Chloride	ALfa	F14J31	wet	8/23/99	MI	2/2001	2 X 2Kg
SW7A-02-45	Sulfuric Acid	Spectrum	OG0296	wet	8/24/99	RM	8/24/2000	1 X 2.5L RM 8/24/99
SW7A-02-46	Sulfuric Acid	JTBaker	N21028	wet	8/25/99	RM	8/25/2000	4 X 2.5L
SW7A-02-47	Buffer soln - pH 8.0	VWR	9903178	wet	9/10/99	RM	3/31/2001	1 X 500ML
SW7A-02-48	Sodium Bisulfate	Baker	N05095	wet	9/13/99	RM	9/13/2001	4 X 500 gm.
SW7A-02-49	Cyanide Standard	Spectrum	OI0357	wet	9/22/99	TV	9/30/00	1 X 100 ml
SW7A-02-50	CYANIDE STANDARD	SPECPURE	904130F	Wet	10-13-99	RM	10-13-09	1 X 100 ml ~~1 X 1,000 mg/L~~ NP 10-13-4
SW7A-02-51	Tin Chloride	Alfa	~~L15H29~~	wet	10.15.99	MI	10/4/2001	3 X 1Kg
SW7A-02-52	Water	Fisher	G07525 891177	WET	10/15/99	Met	1/15/2000	1 gal
SW7A-02-53	Arrowhead DI	Arrowhead	LA X 10155 IC 1004	WET	10/18/99	Met	1/28/2000	30 X 5 gal
SW7A-02-54	Potassium Dichromate	EM	34132	WET	10/15/99	RM	10/15/2009	1X100gm
SW7A-02-55	Tin chloride	ALfa	G07525	WET	10/21/99	MI	10/4/2001	4 X 1Kg
SW7A-02-56	Xylenol Orange OR	Mallinckrodt	E128-N10606	Wet	10-25-99	TV		1 X 5g
SW7A-02-57	Tetramethylsilane	EM	32056212	wet	10-27-99	RM	10/27/2009	1X ~~5gm~~
SW7A-02-58	Zirconyl Chloride	EM	39252	wet	11-3-99	TV	11-3-2009	1 X 100g.
SW7A-02-59	EDTA (Relogged)	BAKER	D28736	wet	2-19-99	TV	2-19-2004	1 X 500g
SW7A-02-60	Silica	Spectrum	HC0090	WET	9/2/97	Met	3/9/2000	Validated 11/9/99

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