

## **APPENDIX G**

### **Section 2**

Outfall 001, February 16, 2009

Test America Analytical Laboratory Report

## LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project: Annual Outfall 001

Sampled: 02/16/09  
Received: 02/16/09  
Revised: 04/16/09 08:57

NELAP #01108CA California ELAP#2706 CSDLAC #10256 AZ #AZ0671 NV #CA01531

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.  
This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL  
INFORMATION:

This report includes 608 Alpha BHC data from a secondary source for confirmation purposes due to contamination in the primary laboratory. Please see corrective action.

This is a revised report to include compounds in the 625 data that were originally not reported.

**LABORATORY ID**

ISB1786-01  
ISB1786-02

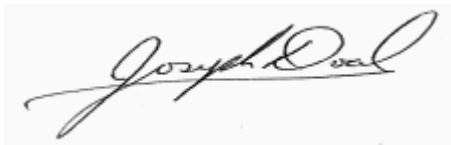
**CLIENT ID**

Outfall 001  
Trip Blanks

**MATRIX**

Water  
Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager

MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## CORRECTIVE ACTION REPORT

Department: Extractions

Date: 02/26/2009

Method: EPA 608

Matrix: Water

QC Batch: 9B20074

### Identification and Definition of Problem:

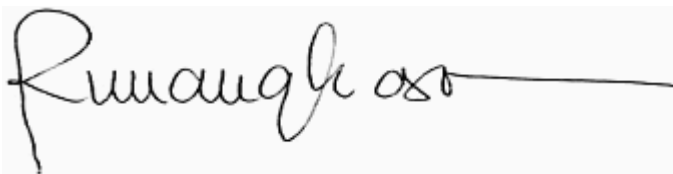
Alpha-BHC was reported as a false positive for samples in batches 9B12048, 9B20074 and 9B23113.

### Determination of the Cause of the Problem:

A cause for the error was due to laboratory/equipment contamination during extraction process.

### Corrective Action Taken:

The rinsing system for glassware using acid rinse has been established to prevent future carry over from contamination. Also glassware has been ordered as immediate response to solve this issue. All samples were re-extracted and re-analyzed to confirm the contamination level. Samples ISB0755-01, ISB0825-01, ISB1699-01 and ISB1703-01 were re-extracted past the method holding time. All other samples were re-extracted within the holding time. Only samples ISB1699-01, ISB1786-01, ISB1787-01 and ISB2105-01 remained as positive hits. Both results are reported with Corrective Action Report.



Quality Assurance Approval:

Rima Angkasa

Date: 03/09/2009 12:36 PM

### TestAmerica Irvine

Joseph Doak  
Project Manager

MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water)</b>									
Reporting Units: mg/l									
DRO (C13 - C28)	EPA 8015B	9B19076	0.047	0.094	ND	0.943	02/19/09	02/20/09	
Surrogate: n-Octacosane (40-125%)					69 %				

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Project Manager

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Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	9B19055	0.025	0.10	ND	1	02/19/09	02/19/09	
Surrogate: 4-BFB (FID) (65-140%)					80 %				

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Arcadia, CA 91007  
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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Benzene	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Bromodichloromethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Bromoform	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Bromomethane	EPA 624	9B17010	0.42	1.0	ND	1	02/17/09	02/17/09	
Carbon tetrachloride	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Chlorobenzene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
Chloroethane	EPA 624	9B17010	0.40	1.0	ND	1	02/17/09	02/17/09	
Chloroform	EPA 624	9B17010	0.33	0.50	ND	1	02/17/09	02/17/09	
Chloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Dibromochloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichlorobenzene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
1,3-Dichlorobenzene	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
1,4-Dichlorobenzene	EPA 624	9B17010	0.37	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloroethane	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethene	EPA 624	9B17010	0.42	0.50	ND	1	02/17/09	02/17/09	
trans-1,2-Dichloroethene	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloropropane	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
cis-1,3-Dichloropropene	EPA 624	9B17010	0.22	0.50	ND	1	02/17/09	02/17/09	L
trans-1,3-Dichloropropene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Ethylbenzene	EPA 624	9B17010	0.25	0.50	ND	1	02/17/09	02/17/09	
Methylene chloride	EPA 624	9B17010	0.95	1.0	ND	1	02/17/09	02/17/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Tetrachloroethene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Toluene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
1,1,1-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,1,2-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Trichloroethene	EPA 624	9B17010	0.26	0.50	ND	1	02/17/09	02/17/09	
Trichlorofluoromethane	EPA 624	9B17010	0.34	0.50	ND	1	02/17/09	02/17/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B17010	0.50	5.0	ND	1	02/17/09	02/17/09	
Vinyl chloride	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Xylenes, Total	EPA 624	9B17010	0.90	1.5	ND	1	02/17/09	02/17/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					89 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					97 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					97 %				

### TestAmerica Irvine

Joseph Doak  
Project Manager

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-02 (Trip Blanks - Water)</b>									
<b>Reporting Units: ug/l</b>									
Benzene	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Bromodichloromethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Bromoform	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Bromomethane	EPA 624	9B17010	0.42	1.0	ND	1	02/17/09	02/17/09	
Carbon tetrachloride	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
Chlorobenzene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
Chloroethane	EPA 624	9B17010	0.40	1.0	ND	1	02/17/09	02/17/09	
Chloroform	EPA 624	9B17010	0.33	0.50	ND	1	02/17/09	02/17/09	
Chloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Dibromochloromethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichlorobenzene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
1,3-Dichlorobenzene	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
1,4-Dichlorobenzene	EPA 624	9B17010	0.37	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethane	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloroethane	EPA 624	9B17010	0.28	0.50	ND	1	02/17/09	02/17/09	
1,1-Dichloroethene	EPA 624	9B17010	0.42	0.50	ND	1	02/17/09	02/17/09	
trans-1,2-Dichloroethene	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,2-Dichloropropane	EPA 624	9B17010	0.35	0.50	ND	1	02/17/09	02/17/09	
cis-1,3-Dichloropropene	EPA 624	9B17010	0.22	0.50	ND	1	02/17/09	02/17/09	L
trans-1,3-Dichloropropene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Ethylbenzene	EPA 624	9B17010	0.25	0.50	ND	1	02/17/09	02/17/09	
Methylene chloride	EPA 624	9B17010	0.95	1.0	ND	1	02/17/09	02/17/09	
1,1,2,2-Tetrachloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Tetrachloroethene	EPA 624	9B17010	0.32	0.50	ND	1	02/17/09	02/17/09	
Toluene	EPA 624	9B17010	0.36	0.50	ND	1	02/17/09	02/17/09	
1,1,1-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
1,1,2-Trichloroethane	EPA 624	9B17010	0.30	0.50	ND	1	02/17/09	02/17/09	
Trichloroethene	EPA 624	9B17010	0.26	0.50	ND	1	02/17/09	02/17/09	
Trichlorofluoromethane	EPA 624	9B17010	0.34	0.50	ND	1	02/17/09	02/17/09	
Trichlorotrifluoroethane (Freon 113)	EPA 624	9B17010	0.50	5.0	ND	1	02/17/09	02/17/09	
Vinyl chloride	EPA 624	9B17010	0.40	0.50	ND	1	02/17/09	02/17/09	
Xylenes, Total	EPA 624	9B17010	0.90	1.5	ND	1	02/17/09	02/17/09	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					87 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					94 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					98 %				

### TestAmerica Irvine

Joseph Doak  
Project Manager

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MWH-Pasadena/Boeing  
 618 Michillinda Avenue, Suite 200  
 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water)</b>									
Reporting Units: ug/l									
Acrolein	EPA 624	9B18010	4.0	5.0	ND	1	02/18/09	02/18/09	C
Acrylonitrile	EPA 624	9B18010	0.70	2.0	ND	1	02/18/09	02/18/09	C
2-Chloroethyl vinyl ether	EPA 624	9B18010	1.8	5.0	ND	1	02/18/09	02/18/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					86 %				
Surrogate: Dibromofluoromethane (80-120%)					94 %				
Surrogate: Toluene-d8 (80-120%)					97 %				
<b>Sample ID: ISB1786-02 (Trip Blanks - Water)</b>									
Reporting Units: ug/l									
Acrolein	EPA 624	9B18010	4.0	5.0	ND	1	02/18/09	02/18/09	C
Acrylonitrile	EPA 624	9B18010	0.70	2.0	ND	1	02/18/09	02/18/09	C
2-Chloroethyl vinyl ether	EPA 624	9B18010	1.8	5.0	ND	1	02/18/09	02/18/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					88 %				
Surrogate: Dibromofluoromethane (80-120%)					93 %				
Surrogate: Toluene-d8 (80-120%)					97 %				

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Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water)</b>									
Reporting Units: ug/l									
Cyclohexane	EPA 624 (MOD.)	9B17010	N/A	2.5	ND	1	02/17/09	02/17/09	
freon 123a	EPA 624 (MOD.)	9B17010	N/A	2.5	ND	1	02/17/09	02/17/09	
<b>Sample ID: ISB1786-02 (Trip Blanks - Water)</b>									
Reporting Units: ug/l									
Cyclohexane	EPA 624 (MOD.)	9B17010	N/A	2.5	ND	1	02/17/09	02/17/09	
freon 123a	EPA 624 (MOD.)	9B17010	N/A	2.5	ND	1	02/17/09	02/17/09	

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Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## 1,4-DIOXANE BY DIRECT INJECTION GCMS - SINGLE ION MONITORING (SIM)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water)</b>									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	9B24008	1.0	2.0	ND	1	02/24/09	02/24/09	
Surrogate: Dibromofluoromethane (80-120%)					99 %				

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Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Acenaphthene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Acenaphthylene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Aniline	EPA 625	9B21046	0.28	9.4	ND	0.943	02/21/09	02/24/09	
Anthracene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Benzidine	EPA 625	9B21046	N/A	4.7	ND	0.943	02/21/09	02/24/09	
Benzo(a)anthracene	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
Benzo(a)pyrene	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
Benzo(b)fluoranthene	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
Benzo(g,h,i)perylene	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
Benzo(k)fluoranthene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Benzoic acid	EPA 625	9B21046	2.8	19	ND	0.943	02/21/09	02/24/09	
Benzyl alcohol	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
4-Bromophenyl phenyl ether	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
<b>Butyl benzyl phthalate</b>	EPA 625	9B21046	0.66	4.7	<b>1.1</b>	0.943	02/21/09	02/24/09	J, B
4-Chloro-3-methylphenol	EPA 625	9B21046	0.19	1.9	ND	0.943	02/21/09	02/24/09	
4-Chloroaniline	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
Bis(2-chloroethoxy)methane	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Bis(2-chloroethyl)ether	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Bis(2-chloroisopropyl)ether	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Bis(2-ethylhexyl)phthalate	EPA 625	9B21046	1.6	4.7	ND	0.943	02/21/09	02/24/09	
2-Chloronaphthalene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
2-Chlorophenol	EPA 625	9B21046	0.19	0.94	ND	0.943	02/21/09	02/24/09	
4-Chlorophenyl phenyl ether	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Chrysene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Dibenz(a,h)anthracene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Dibenzofuran	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Di-n-butyl phthalate	EPA 625	9B21046	0.19	1.9	ND	0.943	02/21/09	02/24/09	
1,2-Dichlorobenzene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
1,3-Dichlorobenzene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
1,4-Dichlorobenzene	EPA 625	9B21046	0.19	0.47	ND	0.943	02/21/09	02/24/09	
3,3'-Dichlorobenzidine	EPA 625	9B21046	N/A	4.7	ND	0.943	02/21/09	02/24/09	
2,4-Dichlorophenol	EPA 625	9B21046	0.19	1.9	ND	0.943	02/21/09	02/24/09	
<b>Diethyl phthalate</b>	EPA 625	9B21046	0.094	0.94	<b>0.11</b>	0.943	02/21/09	02/24/09	J
2,4-Dimethylphenol	EPA 625	9B21046	0.28	1.9	ND	0.943	02/21/09	02/24/09	
Dimethyl phthalate	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
4,6-Dinitro-2-methylphenol	EPA 625	9B21046	0.19	4.7	ND	0.943	02/21/09	02/24/09	
2,4-Dinitrophenol	EPA 625	9B21046	0.85	4.7	ND	0.943	02/21/09	02/24/09	
2,4-Dinitrotoluene	EPA 625	9B21046	0.19	4.7	ND	0.943	02/21/09	02/24/09	
2,6-Dinitrotoluene	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
Di-n-octyl phthalate	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Fluoranthene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Fluorene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Hexachlorobenzene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
Hexachlorobutadiene	EPA 625	9B21046	0.19	1.9	ND	0.943	02/21/09	02/24/09	
Hexachlorocyclopentadiene	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
Hexachloroethane	EPA 625	9B21046	0.19	2.8	ND	0.943	02/21/09	02/24/09	
Indeno(1,2,3-cd)pyrene	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
Isophorone	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
2-Methylnaphthalene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
2-Methylphenol	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
4-Methylphenol	EPA 625	9B21046	0.19	4.7	ND	0.943	02/21/09	02/24/09	
Naphthalene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
2-Nitroaniline	EPA 625	9B21046	0.094	4.7	ND	0.943	02/21/09	02/24/09	
3-Nitroaniline	EPA 625	9B21046	0.19	4.7	ND	0.943	02/21/09	02/24/09	
4-Nitroaniline	EPA 625	9B21046	0.47	4.7	ND	0.943	02/21/09	02/24/09	
Nitrobenzene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
2-Nitrophenol	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
4-Nitrophenol	EPA 625	9B21046	2.4	4.7	ND	0.943	02/21/09	02/24/09	
N-Nitroso-di-n-propylamine	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
N-Nitrosodimethylamine	EPA 625	9B21046	0.094	1.9	ND	0.943	02/21/09	02/24/09	
N-Nitrosodiphenylamine	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
<b>Pentachlorophenol</b>	EPA 625	9B21046	0.094	1.9	<b>1.5</b>	0.943	02/21/09	02/24/09	J
Phenanthrene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
Phenol	EPA 625	9B21046	0.28	0.94	ND	0.943	02/21/09	02/24/09	
Pyrene	EPA 625	9B21046	0.094	0.47	ND	0.943	02/21/09	02/24/09	
1,2,4-Trichlorobenzene	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
2,4,5-Trichlorophenol	EPA 625	9B21046	0.19	1.9	ND	0.943	02/21/09	02/24/09	
2,4,6-Trichlorophenol	EPA 625	9B21046	0.094	0.94	ND	0.943	02/21/09	02/24/09	
Surrogate: 2,4,6-Tribromophenol (40-120%)					74 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					76 %				
Surrogate: 2-Fluorophenol (30-120%)					63 %				
Surrogate: Nitrobenzene-d5 (45-120%)					72 %				
Surrogate: Phenol-d6 (35-120%)					66 %				
Surrogate: Terphenyl-d14 (50-125%)					95 %				

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MWH-Pasadena/Boeing  
 618 Michillinda Avenue, Suite 200  
 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
4,4'-DDE	EPA 608	9B20074	0.0028	0.0047	ND	0.943	02/20/09	02/22/09	
4,4'-DDT	EPA 608	9B20074	0.0038	0.0094	ND	0.943	02/20/09	02/22/09	
Aldrin	EPA 608	9B20074	0.0014	0.0047	ND	0.943	02/20/09	02/22/09	
<b>alpha-BHC</b>	EPA 608	9B20074	0.0024	0.0094	<b>0.023</b>	0.943	02/20/09	02/22/09	N2
beta-BHC	EPA 608	9B20074	0.0038	0.0094	ND	0.943	02/20/09	02/22/09	
delta-BHC	EPA 608	9B20074	0.0033	0.0047	ND	0.943	02/20/09	02/22/09	
Dieldrin	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan I	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan II	EPA 608	9B20074	0.0028	0.0047	ND	0.943	02/20/09	02/22/09	
Endosulfan sulfate	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
Endrin	EPA 608	9B20074	0.0019	0.0047	ND	0.943	02/20/09	02/22/09	
Endrin aldehyde	EPA 608	9B20074	0.0019	0.0094	ND	0.943	02/20/09	02/22/09	C
Endrin ketone	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
gamma-BHC (Lindane)	EPA 608	9B20074	0.0028	0.019	ND	0.943	02/20/09	02/22/09	
Heptachlor	EPA 608	9B20074	0.0028	0.0094	ND	0.943	02/20/09	02/22/09	
Heptachlor epoxide	EPA 608	9B20074	0.0024	0.0047	ND	0.943	02/20/09	02/22/09	
Methoxychlor	EPA 608	9B20074	0.0033	0.0047	ND	0.943	02/20/09	02/22/09	
Chlordane	EPA 608	9B20074	0.038	0.094	ND	0.943	02/20/09	02/22/09	
Toxaphene	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/22/09	
Surrogate: Decachlorobiphenyl (45-120%)					81 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					72 %				

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01RE1 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9B23113	0.0019	0.0047	ND	0.943	02/23/09	02/25/09	
4,4'-DDE	EPA 608	9B23113	0.0028	0.0047	ND	0.943	02/23/09	02/25/09	
4,4'-DDT	EPA 608	9B23113	0.0038	0.0094	ND	0.943	02/23/09	02/25/09	
Aldrin	EPA 608	9B23113	0.0014	0.0047	ND	0.943	02/23/09	02/25/09	
<b>alpha-BHC</b>	EPA 608	9B23113	0.0024	0.0094	<b>0.013</b>	0.943	02/23/09	02/25/09	N2
beta-BHC	EPA 608	9B23113	0.0038	0.0094	ND	0.943	02/23/09	02/25/09	
delta-BHC	EPA 608	9B23113	0.0033	0.0047	ND	0.943	02/23/09	02/25/09	
Dieldrin	EPA 608	9B23113	0.0019	0.0047	ND	0.943	02/23/09	02/25/09	
Endosulfan I	EPA 608	9B23113	0.0019	0.0047	ND	0.943	02/23/09	02/25/09	
Endosulfan II	EPA 608	9B23113	0.0028	0.0047	ND	0.943	02/23/09	02/25/09	
Endosulfan sulfate	EPA 608	9B23113	0.0028	0.0094	ND	0.943	02/23/09	02/25/09	
Endrin	EPA 608	9B23113	0.0019	0.0047	ND	0.943	02/23/09	02/25/09	
Endrin aldehyde	EPA 608	9B23113	0.0019	0.0094	ND	0.943	02/23/09	02/25/09	
Endrin ketone	EPA 608	9B23113	0.0028	0.0094	ND	0.943	02/23/09	02/25/09	
gamma-BHC (Lindane)	EPA 608	9B23113	0.0028	0.019	ND	0.943	02/23/09	02/25/09	
Heptachlor	EPA 608	9B23113	0.0028	0.0094	ND	0.943	02/23/09	02/25/09	
Heptachlor epoxide	EPA 608	9B23113	0.0024	0.0047	ND	0.943	02/23/09	02/25/09	
Methoxychlor	EPA 608	9B23113	0.0033	0.0047	ND	0.943	02/23/09	02/25/09	
Chlordane	EPA 608	9B23113	0.038	0.094	ND	0.943	02/23/09	02/25/09	
Toxaphene	EPA 608	9B23113	0.24	0.47	ND	0.943	02/23/09	02/25/09	
Surrogate: Decachlorobiphenyl (45-120%)					88 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					83 %				

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1221	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1232	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1242	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1248	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1254	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Aroclor 1260	EPA 608	9B20074	0.24	0.47	ND	0.943	02/20/09	02/21/09	
Surrogate: Decachlorobiphenyl (45-120%)					93 %				

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618 Michillinda Avenue, Suite 200  
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Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	9B24074	1.3	4.7	1.9	1	02/24/09	02/24/09	J

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MWH-Pasadena/Boeing  
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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	46	1	02/17/09	02/17/09	
Barium	EPA 200.7	9B17091	0.0060	0.010	0.073	1	02/17/09	02/17/09	
Boron	EPA 200.7	9B17091	0.020	0.050	0.043	1	02/17/09	02/17/09	J
Calcium	EPA 200.7	9B17091	0.050	0.10	11	1	02/17/09	02/17/09	
Iron	EPA 200.7	9B17091	0.015	0.040	8.1	1	02/17/09	02/17/09	
Magnesium	EPA 200.7	9B17091	0.012	0.020	4.6	1	02/17/09	02/17/09	

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## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
Arsenic	EPA 200.7	9B17091	7.0	10	ND	1	02/17/09	02/17/09	
Antimony	EPA 200.8	9B17103	0.20	2.0	<b>0.72</b>	1	02/17/09	02/18/09	J
Beryllium	EPA 200.7	9B17091	0.90	2.0	ND	1	02/17/09	02/17/09	
Chromium	EPA 200.7	9B17091	2.0	5.0	<b>10</b>	1	02/17/09	02/17/09	B
Cobalt	EPA 200.7	9B17091	2.0	10	<b>2.5</b>	1	02/17/09	02/17/09	J
Manganese	EPA 200.7	9B17091	7.0	20	<b>110</b>	1	02/17/09	02/17/09	
Nickel	EPA 200.7	9B17091	2.0	10	<b>7.9</b>	1	02/17/09	02/17/09	B, J
Cadmium	EPA 200.8	9B17103	0.11	1.0	<b>0.14</b>	1	02/17/09	02/18/09	J
Vanadium	EPA 200.7	9B17091	3.0	10	<b>19</b>	1	02/17/09	02/17/09	
Zinc	EPA 200.7	9B17091	6.0	20	<b>37</b>	1	02/17/09	02/17/09	
Copper	EPA 200.8	9B17103	0.75	2.0	<b>6.6</b>	1	02/17/09	02/18/09	
Lead	EPA 200.8	9B17103	0.30	1.0	<b>6.6</b>	1	02/17/09	02/18/09	
Selenium	EPA 200.8	9B17103	0.30	2.0	<b>0.52</b>	1	02/17/09	02/18/09	J
Silver	EPA 200.8	9B17103	0.30	1.0	ND	1	02/17/09	02/18/09	
Thallium	EPA 200.8	9B17103	0.20	1.0	ND	1	02/17/09	02/18/09	

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	37	1	02/17/09	02/23/09	
Barium	EPA 200.7-Diss	9B17100	0.0060	0.010	0.013	1	02/17/09	02/23/09	
Boron	EPA 200.7-Diss	9B17100	0.020	0.050	0.034	1	02/17/09	02/23/09	B, J
Calcium	EPA 200.7-Diss	9B17100	0.050	0.10	9.8	1	02/17/09	02/23/09	
Iron	EPA 200.7-Diss	9B17100	0.015	0.040	0.45	1	02/17/09	02/23/09	
Magnesium	EPA 200.7-Diss	9B17100	0.012	0.020	3.0	1	02/17/09	02/23/09	

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Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
Arsenic	EPA 200.7-Diss	9B17100	7.0	10	ND	1	02/17/09	02/23/09	
<b>Antimony</b>	EPA 200.8-Diss	9B20106	0.20	2.0	<b>1.1</b>	1	02/20/09	02/24/09	J
Beryllium	EPA 200.7-Diss	9B17100	0.90	2.0	ND	1	02/17/09	02/23/09	
Chromium	EPA 200.7-Diss	9B17100	2.0	5.0	ND	1	02/17/09	02/23/09	
Cobalt	EPA 200.7-Diss	9B17100	2.0	10	ND	1	02/17/09	02/23/09	
<b>Manganese</b>	EPA 200.7-Diss	9B17100	7.0	20	<b>12</b>	1	02/17/09	02/23/09	J
Nickel	EPA 200.7-Diss	9B17100	2.0	10	ND	1	02/17/09	02/23/09	
<b>Cadmium</b>	EPA 200.8-Diss	9B20106	0.11	1.0	<b>0.14</b>	1	02/20/09	02/24/09	J
Vanadium	EPA 200.7-Diss	9B17100	3.0	10	ND	1	02/17/09	02/23/09	
<b>Zinc</b>	EPA 200.7-Diss	9B17100	6.0	20	<b>15</b>	1	02/17/09	02/23/09	J
<b>Copper</b>	EPA 200.8-Diss	9B20106	0.75	2.0	<b>2.3</b>	1	02/20/09	02/23/09	
<b>Lead</b>	EPA 200.8-Diss	9B20106	0.30	1.0	<b>0.31</b>	1	02/20/09	02/23/09	J
<b>Selenium</b>	EPA 200.8-Diss	9B20106	0.30	2.0	<b>0.42</b>	1	02/20/09	02/23/09	J
Silver	EPA 200.8-Diss	9B20106	0.30	1.0	ND	1	02/20/09	02/23/09	
Thallium	EPA 200.8-Diss	9B20106	0.20	1.0	ND	1	02/20/09	02/23/09	C

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MWH-Pasadena/Boeing  
 618 Michillinda Avenue, Suite 200  
 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	9B24128	0.50	0.50	<b>0.56</b>	1	02/24/09	02/24/09	
Biochemical Oxygen Demand	SM5210B	9B17161	0.50	2.0	<b>2.4</b>	1	02/17/09	02/22/09	
Chloride	EPA 300.0	9B16057	0.25	0.50	<b>10</b>	1	02/16/09	02/17/09	
Fluoride	SM 4500-F-C	9B17074	0.020	0.10	<b>0.12</b>	1	02/17/09	02/17/09	B
Nitrate-N	EPA 300.0	9B16057	0.060	0.11	<b>1.4</b>	1	02/16/09	02/17/09	
Nitrite-N	EPA 300.0	9B16057	0.090	0.15	ND	1	02/16/09	02/17/09	
Nitrate/Nitrite-N	EPA 300.0	9B16057	0.15	0.26	<b>1.4</b>	1	02/16/09	02/17/09	
Residual Chlorine	EPA 330.5	9B17105	0.10	0.10	ND	1	02/17/09	02/17/09	HFT
Sulfate	EPA 300.0	9B16057	0.20	0.50	<b>9.7</b>	1	02/16/09	02/17/09	
Surfactants (MBAS)	SM5540-C	9B17098	0.025	0.10	<b>0.097</b>	1	02/17/09	02/17/09	J
Total Dissolved Solids	SM2540C	9B18065	10	10	<b>120</b>	1	02/18/09	02/18/09	
Total Organic Carbon	SM5310B	9B23002	0.50	1.0	<b>10</b>	1	02/23/09	02/23/09	
Total Suspended Solids	SM 2540D	9B21068	1.0	10	<b>92</b>	1	02/21/09	02/21/09	

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	9B17065	0.10	0.10	<b>0.20</b>	1	02/17/09	02/17/09	pH

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	9B17067	0.40	10	<b>140</b>	10	02/17/09	02/17/09	

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/l									
Chromium VI	EPA 218.6	9B16073	0.25	1.0	ND	1	02/16/09	02/16/09	
Perchlorate	EPA 314.0	9B17060	0.90	1.0	ND	1	02/17/09	02/17/09	
Total Cyanide	SM4500-CN-C,E	9B17089	2.2	5.0	ND	1	02/17/09	02/17/09	

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Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	9B18054	1.0	1.0	120	1	02/18/09	02/18/09	

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## CFR136A 608

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/L									
alpha-BHC	CFR136A 608	9064381	0.0053	0.05	ND	1	03/05/09	03/10/09	HTV
Surrogate: Decachlorobiphenyl (32-144%)					58 %				
Surrogate: Tetrachloro-m-xylene (52-117%)					90 %				

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/L									
Mercury	MCAWW 245.1	9050174	0.027	0.2	ND	1	02/19/09	02/19/09	

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Report Number: ISB1786

Sampled: 02/16/09

Received: 02/16/09

## MCAWW 245.1-DISS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: ISB1786-01 (Outfall 001 - Water) - cont.</b>									
Reporting Units: ug/L									
Mercury	MCAWW 245.1-DISS	9050182	0.027	0.2	ND	1	02/19/09	02/19/09	

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Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
<b>Sample ID: Outfall 001 (ISB1786-01) - Water</b>					
EPA 180.1	2	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 09:30	02/17/2009 12:55
EPA 218.6	1	02/16/2009 14:00	02/16/2009 20:30	02/16/2009 21:30	02/16/2009 23:28
EPA 300.0	2	02/16/2009 14:00	02/16/2009 20:30	02/16/2009 16:00	02/17/2009 01:50
EPA 330.5	1	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 12:30	02/17/2009 12:30
EPA 624	3	02/16/2009 14:00	02/16/2009 20:30	02/18/2009 00:00	02/18/2009 12:41
Filtration	1	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 00:29	02/17/2009 00:33
SM2540F	2	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 09:45	02/17/2009 09:45
SM5210B	2	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 23:16	02/22/2009 11:00
SM5540-C	2	02/16/2009 14:00	02/16/2009 20:30	02/17/2009 18:19	02/17/2009 22:59
<b>Sample ID: Trip Blanks (ISB1786-02) - Water</b>					
EPA 624	3	02/16/2009 16:15	02/16/2009 20:30	02/18/2009 00:00	02/18/2009 12:11

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Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B19076 Extracted: 02/19/09</b>											
<b>Blank Analyzed: 02/19/2009 (9B19076-BLK1)</b>											
DRO (C13 - C28)	ND	0.10	0.050	mg/l							
EFH (C10 - C28)	ND	0.10	0.050	mg/l							
Surrogate: n-Octacosane	0.106			mg/l	0.200		53	40-125			
<b>LCS Analyzed: 02/19/2009 (9B19076-BS1)</b>											
EFH (C10 - C28)	0.498	0.10	0.050	mg/l	1.00		50	40-115			MNR1
Surrogate: n-Octacosane	0.129			mg/l	0.200		65	40-125			
<b>LCS Dup Analyzed: 02/19/2009 (9B19076-BSD1)</b>											
EFH (C10 - C28)	0.575	0.10	0.050	mg/l	1.00		58	40-115	14	25	
Surrogate: n-Octacosane	0.144			mg/l	0.200		72	40-125			

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Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B19055 Extracted: 02/19/09</b>											
<b>Blank Analyzed: 02/19/2009 (9B19055-BLK1)</b>											
GRO (C4 - C12)	ND	0.10	0.025	mg/l							
Surrogate: 4-BFB (FID)	0.00907			mg/l	0.0100		91	65-140			
<b>LCS Analyzed: 02/19/2009 (9B19055-BS1)</b>											
GRO (C4 - C12)	0.823	0.10	0.025	mg/l	0.800		103	80-120			
Surrogate: 4-BFB (FID)	0.0165			mg/l	0.0100		165	65-140			Z2
<b>Matrix Spike Analyzed: 02/19/2009 (9B19055-MS1) Source: ISB1679-02</b>											
GRO (C4 - C12)	0.329	0.10	0.025	mg/l	0.220	0.0716	117	65-140			
Surrogate: 4-BFB (FID)	0.0126			mg/l	0.0100		126	65-140			
<b>Matrix Spike Dup Analyzed: 02/19/2009 (9B19055-MSD1) Source: ISB1679-02</b>											
GRO (C4 - C12)	0.307	0.10	0.025	mg/l	0.220	0.0716	107	65-140	7	20	
Surrogate: 4-BFB (FID)	0.0112			mg/l	0.0100		112	65-140			

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Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>											
<b>Blank Analyzed: 02/17/2009 (9B17010-BLK1)</b>											
Benzene	ND	0.50	0.28	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
Dibromochloromethane	ND	0.50	0.40	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
1,1-Dichloroethane	ND	0.50	0.40	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.30	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Methylene chloride	ND	1.0	0.95	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.30	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Vinyl chloride	ND	0.50	0.40	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Surrogate: 4-Bromofluorobenzene	22.4			ug/l	25.0		90	80-120			
Surrogate: Dibromofluoromethane	23.9			ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	23.9			ug/l	25.0		96	80-120			

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## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>											
<b>LCS Analyzed: 02/17/2009 (9B17010-BS1)</b>											
Benzene	26.4	0.50	0.28	ug/l	25.0		106	70-120			
Bromodichloromethane	29.0	0.50	0.30	ug/l	25.0		116	70-135			
Bromoform	26.1	0.50	0.40	ug/l	25.0		104	55-130			
Bromomethane	28.1	1.0	0.42	ug/l	25.0		112	65-140			
Carbon tetrachloride	32.2	0.50	0.28	ug/l	25.0		129	65-140			
Chlorobenzene	25.0	0.50	0.36	ug/l	25.0		100	75-120			
Chloroethane	29.0	1.0	0.40	ug/l	25.0		116	60-140			
Chloroform	25.9	0.50	0.33	ug/l	25.0		104	70-130			
Chloromethane	27.8	0.50	0.40	ug/l	25.0		111	50-140			
Dibromochloromethane	28.0	0.50	0.40	ug/l	25.0		112	70-140			
1,2-Dichlorobenzene	24.6	0.50	0.32	ug/l	25.0		98	75-120			
1,3-Dichlorobenzene	25.0	0.50	0.35	ug/l	25.0		100	75-120			
1,4-Dichlorobenzene	22.5	0.50	0.37	ug/l	25.0		90	75-120			
1,1-Dichloroethane	26.9	0.50	0.40	ug/l	25.0		108	70-125			
1,2-Dichloroethane	24.9	0.50	0.28	ug/l	25.0		99	60-140			
1,1-Dichloroethene	25.6	0.50	0.42	ug/l	25.0		103	70-125			
trans-1,2-Dichloroethene	22.0	0.50	0.30	ug/l	25.0		88	70-125			
1,2-Dichloropropane	27.4	0.50	0.35	ug/l	25.0		109	70-125			
cis-1,3-Dichloropropene	32.9	0.50	0.22	ug/l	25.0		132	75-125			L
trans-1,3-Dichloropropene	26.1	0.50	0.32	ug/l	25.0		104	70-125			
Ethylbenzene	26.5	0.50	0.25	ug/l	25.0		106	75-125			
Methylene chloride	25.1	1.0	0.95	ug/l	25.0		101	55-130			
1,1,2,2-Tetrachloroethane	27.9	0.50	0.30	ug/l	25.0		112	55-130			
Tetrachloroethene	26.2	0.50	0.32	ug/l	25.0		105	70-125			
Toluene	27.0	0.50	0.36	ug/l	25.0		108	70-120			
1,1,1-Trichloroethane	28.3	0.50	0.30	ug/l	25.0		113	65-135			
1,1,2-Trichloroethane	26.4	0.50	0.30	ug/l	25.0		106	70-125			
Trichloroethene	25.2	0.50	0.26	ug/l	25.0		101	70-125			
Trichlorofluoromethane	25.8	0.50	0.34	ug/l	25.0		103	65-145			
Vinyl chloride	26.9	0.50	0.40	ug/l	25.0		108	55-135			
Xylenes, Total	79.8	1.5	0.90	ug/l	75.0		106	70-125			
Surrogate: 4-Bromofluorobenzene	23.8			ug/l	25.0		95	80-120			
Surrogate: 4-Bromofluorobenzene	23.8			ug/l	25.0		95	80-120			
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>											
<b>LCS Analyzed: 02/17/2009 (9B17010-BS1)</b>											
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17010-MS1)</b>											
<b>Source: ISB1785-01</b>											
Benzene	27.6	0.50	0.28	ug/l	25.0	0.840	107	65-125			
Bromodichloromethane	31.1	0.50	0.30	ug/l	25.0	1.21	120	70-135			
Bromoform	28.0	0.50	0.40	ug/l	25.0	ND	112	55-135			
Bromomethane	28.6	1.0	0.42	ug/l	25.0	ND	114	55-145			
Carbon tetrachloride	31.0	0.50	0.28	ug/l	25.0	ND	124	65-140			
Chlorobenzene	25.7	0.50	0.36	ug/l	25.0	ND	103	75-125			
Chloroethane	29.0	1.0	0.40	ug/l	25.0	ND	116	55-140			
Chloroform	44.7	0.50	0.33	ug/l	25.0	19.2	102	65-135			
Chloromethane	29.1	0.50	0.40	ug/l	25.0	ND	116	45-145			
Dibromochloromethane	31.1	0.50	0.40	ug/l	25.0	0.980	120	65-140			
1,2-Dichlorobenzene	25.2	0.50	0.32	ug/l	25.0	ND	101	75-125			
1,3-Dichlorobenzene	24.9	0.50	0.35	ug/l	25.0	ND	100	75-125			
1,4-Dichlorobenzene	23.0	0.50	0.37	ug/l	25.0	ND	92	75-125			
1,1-Dichloroethane	28.5	0.50	0.40	ug/l	25.0	ND	114	65-130			
1,2-Dichloroethane	28.9	0.50	0.28	ug/l	25.0	2.41	106	60-140			
1,1-Dichloroethene	26.8	0.50	0.42	ug/l	25.0	ND	107	60-130			
trans-1,2-Dichloroethene	22.7	0.50	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	28.7	0.50	0.35	ug/l	25.0	ND	115	65-130			
cis-1,3-Dichloropropene	34.2	0.50	0.22	ug/l	25.0	ND	137	70-130			M7
trans-1,3-Dichloropropene	28.0	0.50	0.32	ug/l	25.0	ND	112	65-135			
Ethylbenzene	26.8	0.50	0.25	ug/l	25.0	ND	107	65-130			
Methylene chloride	27.2	1.0	0.95	ug/l	25.0	ND	109	50-135			
1,1,2,2-Tetrachloroethane	29.3	0.50	0.30	ug/l	25.0	ND	117	55-135			
Tetrachloroethene	25.5	0.50	0.32	ug/l	25.0	ND	102	65-130			
Toluene	27.3	0.50	0.36	ug/l	25.0	ND	109	70-125			
1,1,1-Trichloroethane	28.4	0.50	0.30	ug/l	25.0	ND	114	65-140			
1,1,2-Trichloroethane	28.4	0.50	0.30	ug/l	25.0	ND	114	65-130			
Trichloroethene	24.6	0.50	0.26	ug/l	25.0	ND	98	65-125			
Trichlorofluoromethane	25.6	0.50	0.34	ug/l	25.0	ND	102	60-145			
Vinyl chloride	27.2	0.50	0.40	ug/l	25.0	ND	109	45-140			
Xylenes, Total	81.5	1.5	0.90	ug/l	75.0	ND	109	60-130			
Surrogate: 4-Bromofluorobenzene	24.7			ug/l	25.0		99	80-120			

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Project Manager

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MWH-Pasadena/Boeing  
 618 Michillinda Avenue, Suite 200  
 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>											
<b>Matrix Spike Analyzed: 02/17/2009 (9B17010-MS1)</b>						<b>Source: ISB1785-01</b>					
Surrogate: 4-Bromofluorobenzene	24.7			ug/l	25.0		99	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	24.3			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	24.3			ug/l	25.0		97	80-120			
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17010-MSD1)</b>						<b>Source: ISB1785-01</b>					
Benzene	27.7	0.50	0.28	ug/l	25.0	0.840	108	65-125	1	20	
Bromodichloromethane	30.2	0.50	0.30	ug/l	25.0	1.21	116	70-135	3	20	
Bromoform	26.4	0.50	0.40	ug/l	25.0	ND	106	55-135	6	25	
Bromomethane	27.5	1.0	0.42	ug/l	25.0	ND	110	55-145	4	25	
Carbon tetrachloride	30.3	0.50	0.28	ug/l	25.0	ND	121	65-140	2	25	
Chlorobenzene	25.2	0.50	0.36	ug/l	25.0	ND	101	75-125	2	20	
Chloroethane	28.7	1.0	0.40	ug/l	25.0	ND	115	55-140	1	25	
Chloroform	43.9	0.50	0.33	ug/l	25.0	19.2	99	65-135	2	20	
Chloromethane	27.8	0.50	0.40	ug/l	25.0	ND	111	45-145	5	25	
Dibromochloromethane	29.3	0.50	0.40	ug/l	25.0	0.980	113	65-140	6	25	
1,2-Dichlorobenzene	24.6	0.50	0.32	ug/l	25.0	ND	98	75-125	2	20	
1,3-Dichlorobenzene	24.8	0.50	0.35	ug/l	25.0	ND	99	75-125	1	20	
1,4-Dichlorobenzene	22.4	0.50	0.37	ug/l	25.0	ND	90	75-125	2	20	
1,1-Dichloroethane	28.1	0.50	0.40	ug/l	25.0	ND	112	65-130	2	20	
1,2-Dichloroethane	27.1	0.50	0.28	ug/l	25.0	2.41	99	60-140	6	20	
1,1-Dichloroethene	26.1	0.50	0.42	ug/l	25.0	ND	104	60-130	3	20	
trans-1,2-Dichloroethene	22.8	0.50	0.30	ug/l	25.0	ND	91	65-130	0	20	
1,2-Dichloropropane	29.4	0.50	0.35	ug/l	25.0	ND	118	65-130	2	20	
cis-1,3-Dichloropropene	34.4	0.50	0.22	ug/l	25.0	ND	137	70-130	0	20	M7
trans-1,3-Dichloropropene	27.5	0.50	0.32	ug/l	25.0	ND	110	65-135	2	25	
Ethylbenzene	25.6	0.50	0.25	ug/l	25.0	ND	103	65-130	4	20	
Methylene chloride	26.5	1.0	0.95	ug/l	25.0	ND	106	50-135	2	20	
1,1,2,2-Tetrachloroethane	28.6	0.50	0.30	ug/l	25.0	ND	114	55-135	2	30	
Tetrachloroethene	25.7	0.50	0.32	ug/l	25.0	ND	103	65-130	1	20	
Toluene	27.6	0.50	0.36	ug/l	25.0	ND	110	70-125	1	20	
1,1,1-Trichloroethane	27.5	0.50	0.30	ug/l	25.0	ND	110	65-140	3	20	
1,1,2-Trichloroethane	27.9	0.50	0.30	ug/l	25.0	ND	112	65-130	2	25	
Trichloroethene	25.0	0.50	0.26	ug/l	25.0	ND	100	65-125	1	20	
Trichlorofluoromethane	24.7	0.50	0.34	ug/l	25.0	ND	99	60-145	4	25	

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>											
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17010-MSD1)</b>					<b>Source: ISB1785-01</b>						
Vinyl chloride	24.3	0.50	0.40	ug/l	25.0	ND	97	45-140	11	30	
Xylenes, Total	78.5	1.5	0.90	ug/l	75.0	ND	105	60-130	4	20	
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			
Surrogate: 4-Bromofluorobenzene	24.3			ug/l	25.0		97	80-120			
Surrogate: Dibromofluoromethane	24.6			ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	24.6			ug/l	25.0		98	80-120			
Surrogate: Toluene-d8	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	24.8			ug/l	25.0		99	80-120			

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## METHOD BLANK/QC DATA

### PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B18010 Extracted: 02/18/09</b>											
<b>Blank Analyzed: 02/18/2009 (9B18010-BLK1)</b>											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	0.70	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	21.7			ug/l	25.0		87	80-120			
Surrogate: Dibromofluoromethane	22.1			ug/l	25.0		89	80-120			
Surrogate: Toluene-d8	23.6			ug/l	25.0		95	80-120			
<b>LCS Analyzed: 02/18/2009 (9B18010-BS1)</b>											
2-Chloroethyl vinyl ether	23.9	5.0	1.8	ug/l	25.0		95	25-170			
Surrogate: 4-Bromofluorobenzene	22.6			ug/l	25.0		90	80-120			
Surrogate: Dibromofluoromethane	23.4			ug/l	25.0		94	80-120			
Surrogate: Toluene-d8	23.7			ug/l	25.0		95	80-120			
<b>Matrix Spike Analyzed: 02/18/2009 (9B18010-MS1) Source: ISB1785-01</b>											
2-Chloroethyl vinyl ether	26.3	5.0	1.8	ug/l	25.0	ND	105	25-170			
Surrogate: 4-Bromofluorobenzene	22.8			ug/l	25.0		91	80-120			
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	24.1			ug/l	25.0		96	80-120			
<b>Matrix Spike Dup Analyzed: 02/18/2009 (9B18010-MSD1) Source: ISB1785-01</b>											
2-Chloroethyl vinyl ether	24.8	5.0	1.8	ug/l	25.0	ND	99	25-170	6	25	
Surrogate: 4-Bromofluorobenzene	22.7			ug/l	25.0		91	80-120			
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	24.2			ug/l	25.0		97	80-120			

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## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17010 Extracted: 02/17/09</b>										
<b>Blank Analyzed: 02/17/2009 (9B17010-BLK1)</b>										
Cyclohexane	ND	2.5	N/A	ug/l						
freon 123a	ND	2.5	N/A	ug/l						

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 Received: 02/16/09

## METHOD BLANK/QC DATA

### 1,4-DIOXANE BY DIRECT INJECTION GCMS - SINGLE ION MONITORING (SIM)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B24008 Extracted: 02/24/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B24008-BLK1)</b>											
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	0.950			ug/l	1.00		95	80-120			
<b>LCS Analyzed: 02/24/2009 (9B24008-BS1)</b>											
1,4-Dioxane	8.99	2.0	1.0	ug/l	10.0		90	70-125			
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101	80-120			
<b>Matrix Spike Analyzed: 02/24/2009 (9B24008-MS1) Source: ISB2307-03</b>											
1,4-Dioxane	29.9	2.0	1.0	ug/l	10.0	20.2	97	70-130			
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	80-120			
<b>Matrix Spike Dup Analyzed: 02/24/2009 (9B24008-MSD1) Source: ISB2307-03</b>											
1,4-Dioxane	30.0	2.0	1.0	ug/l	10.0	20.2	98	70-130	0	30	
Surrogate: Dibromofluoromethane	1.07			ug/l	1.00		107	80-120			

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Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B21046-BLK1)</b>											
Acenaphthene	ND	0.50	0.10	ug/l							
Acenaphthylene	ND	0.50	0.10	ug/l							
Aniline	ND	10	0.30	ug/l							
Anthracene	ND	0.50	0.10	ug/l							
Benzidine	ND	5.0	N/A	ug/l							
Benzo(a)anthracene	ND	5.0	0.10	ug/l							
Benzo(a)pyrene	ND	2.0	0.10	ug/l							
Benzo(b)fluoranthene	ND	2.0	0.10	ug/l							
Benzo(g,h,i)perylene	0.400	5.0	0.10	ug/l							J
Benzo(k)fluoranthene	ND	0.50	0.10	ug/l							
Benzoic acid	ND	20	3.0	ug/l							
Benzyl alcohol	ND	5.0	0.10	ug/l							
4-Bromophenyl phenyl ether	ND	1.0	0.10	ug/l							
Butyl benzyl phthalate	1.04	5.0	0.70	ug/l							J
4-Chloro-3-methylphenol	ND	2.0	0.20	ug/l							
4-Chloroaniline	ND	2.0	0.10	ug/l							
Bis(2-chloroethoxy)methane	ND	0.50	0.10	ug/l							
Bis(2-chloroethyl)ether	ND	0.50	0.10	ug/l							
Bis(2-chloroisopropyl)ether	ND	0.50	0.10	ug/l							
Bis(2-ethylhexyl)phthalate	ND	5.0	1.7	ug/l							
2-Chloronaphthalene	ND	0.50	0.10	ug/l							
2-Chlorophenol	ND	1.0	0.20	ug/l							
4-Chlorophenyl phenyl ether	ND	0.50	0.10	ug/l							
Chrysene	ND	0.50	0.10	ug/l							
Dibenz(a,h)anthracene	ND	0.50	0.10	ug/l							
Dibenzofuran	ND	0.50	0.10	ug/l							
Di-n-butyl phthalate	ND	2.0	0.20	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.20	ug/l							
3,3'-Dichlorobenzidine	ND	5.0	N/A	ug/l							
2,4-Dichlorophenol	ND	2.0	0.20	ug/l							
Diethyl phthalate	ND	1.0	0.10	ug/l							
2,4-Dimethylphenol	ND	2.0	0.30	ug/l							
Dimethyl phthalate	ND	0.50	0.10	ug/l							

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## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B21046-BLK1)</b>											
4,6-Dinitro-2-methylphenol	ND	5.0	0.20	ug/l							
2,4-Dinitrophenol	ND	5.0	0.90	ug/l							
2,4-Dinitrotoluene	ND	5.0	0.20	ug/l							
2,6-Dinitrotoluene	ND	5.0	0.10	ug/l							
Di-n-octyl phthalate	ND	5.0	0.10	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	1.0	0.10	ug/l							
Fluoranthene	ND	0.50	0.10	ug/l							
Fluorene	ND	0.50	0.10	ug/l							
Hexachlorobenzene	ND	1.0	0.10	ug/l							
Hexachlorobutadiene	ND	2.0	0.20	ug/l							
Hexachlorocyclopentadiene	ND	5.0	0.10	ug/l							
Hexachloroethane	ND	3.0	0.20	ug/l							
Indeno(1,2,3-cd)pyrene	0.240	2.0	0.10	ug/l							J
Isophorone	ND	1.0	0.10	ug/l							
2-Methylnaphthalene	ND	1.0	0.10	ug/l							
2-Methylphenol	ND	2.0	0.10	ug/l							
4-Methylphenol	ND	5.0	0.20	ug/l							
Naphthalene	ND	1.0	0.10	ug/l							
2-Nitroaniline	ND	5.0	0.10	ug/l							
3-Nitroaniline	ND	5.0	0.20	ug/l							
4-Nitroaniline	ND	5.0	0.50	ug/l							
Nitrobenzene	ND	1.0	0.10	ug/l							
2-Nitrophenol	ND	2.0	0.10	ug/l							
4-Nitrophenol	ND	5.0	2.5	ug/l							
N-Nitroso-di-n-propylamine	ND	2.0	0.10	ug/l							
N-Nitrosodimethylamine	ND	2.0	0.10	ug/l							
N-Nitrosodiphenylamine	ND	1.0	0.10	ug/l							
Pentachlorophenol	ND	2.0	0.10	ug/l							
Phenanthrene	ND	0.50	0.10	ug/l							
Phenol	ND	1.0	0.30	ug/l							
Pyrene	ND	0.50	0.10	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	0.10	ug/l							
2,4,5-Trichlorophenol	ND	2.0	0.20	ug/l							
2,4,6-Trichlorophenol	ND	1.0	0.10	ug/l							
Surrogate: 2,4,6-Tribromophenol	13.8			ug/l	20.0		69	40-120			

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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B21046-BLK1)</b>											
Surrogate: 2-Fluorobiphenyl	9.04			ug/l	10.0		90	50-120			
Surrogate: 2-Fluorophenol	15.3			ug/l	20.0		76	30-120			
Surrogate: Nitrobenzene-d5	7.86			ug/l	10.0		79	45-120			
Surrogate: Phenol-d6	15.6			ug/l	20.0		78	35-120			
Surrogate: Terphenyl-d14	10.4			ug/l	10.0		104	50-125			
<b>LCS Analyzed: 02/24/2009 (9B21046-BS1)</b>											
Acenaphthene	6.62	0.50	0.10	ug/l	10.0		66	60-120			
Acenaphthylene	6.70	0.50	0.10	ug/l	10.0		67	60-120			
Aniline	8.40	10	0.30	ug/l	10.0		84	35-120			J
Anthracene	7.20	0.50	0.10	ug/l	10.0		72	65-120			
Benzidine	7.98	5.0	N/A	ug/l	10.0		80	30-160			
Benzo(a)anthracene	7.48	5.0	0.10	ug/l	10.0		75	65-120			
Benzo(a)pyrene	8.30	2.0	0.10	ug/l	10.0		83	55-130			
Benzo(b)fluoranthene	7.16	2.0	0.10	ug/l	10.0		72	55-125			
Benzo(g,h,i)perylene	8.96	5.0	0.10	ug/l	10.0		90	45-135			
Benzo(k)fluoranthene	6.86	0.50	0.10	ug/l	10.0		69	50-125			
Benzoic acid	6.80	20	3.0	ug/l	10.0		68	25-120			J
Benzyl alcohol	6.38	5.0	0.10	ug/l	10.0		64	50-120			
4-Bromophenyl phenyl ether	7.76	1.0	0.10	ug/l	10.0		78	60-120			
Butyl benzyl phthalate	7.56	5.0	0.70	ug/l	10.0		76	55-130			
4-Chloro-3-methylphenol	7.62	2.0	0.20	ug/l	10.0		76	60-120			
4-Chloroaniline	6.22	2.0	0.10	ug/l	10.0		62	55-120			
Bis(2-chloroethoxy)methane	6.62	0.50	0.10	ug/l	10.0		66	55-120			
Bis(2-chloroethyl)ether	6.50	0.50	0.10	ug/l	10.0		65	50-120			
Bis(2-chloroisopropyl)ether	6.40	0.50	0.10	ug/l	10.0		64	45-120			
Bis(2-ethylhexyl)phthalate	7.94	5.0	1.7	ug/l	10.0		79	65-130			
2-Chloronaphthalene	6.18	0.50	0.10	ug/l	10.0		62	60-120			
2-Chlorophenol	6.20	1.0	0.20	ug/l	10.0		62	45-120			
4-Chlorophenyl phenyl ether	6.84	0.50	0.10	ug/l	10.0		68	65-120			
Chrysene	7.12	0.50	0.10	ug/l	10.0		71	65-120			
Dibenz(a,h)anthracene	7.86	0.50	0.10	ug/l	10.0		79	50-135			
Dibenzofuran	6.92	0.50	0.10	ug/l	10.0		69	65-120			
Di-n-butyl phthalate	7.70	2.0	0.20	ug/l	10.0		77	60-125			
1,2-Dichlorobenzene	5.46	0.50	0.10	ug/l	10.0		55	40-120			
1,3-Dichlorobenzene	5.04	0.50	0.10	ug/l	10.0		50	35-120			

**TestAmerica Irvine**

Joseph Doak  
Project Manager

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>LCS Analyzed: 02/24/2009 (9B21046-BS1)</b>											<b>MNR1</b>
1,4-Dichlorobenzene	5.18	0.50	0.20	ug/l	10.0		52	35-120			
3,3'-Dichlorobenzidine	5.80	5.0	N/A	ug/l	10.0		58	45-135			
2,4-Dichlorophenol	6.46	2.0	0.20	ug/l	10.0		65	55-120			
Diethyl phthalate	6.80	1.0	0.10	ug/l	10.0		68	55-120			
2,4-Dimethylphenol	5.68	2.0	0.30	ug/l	10.0		57	40-120			
Dimethyl phthalate	7.10	0.50	0.10	ug/l	10.0		71	30-120			
4,6-Dinitro-2-methylphenol	8.12	5.0	0.20	ug/l	10.0		81	45-120			
2,4-Dinitrophenol	7.58	5.0	0.90	ug/l	10.0		76	40-120			
2,4-Dinitrotoluene	6.94	5.0	0.20	ug/l	10.0		69	65-120			
2,6-Dinitrotoluene	6.82	5.0	0.10	ug/l	10.0		68	65-120			
Di-n-octyl phthalate	7.96	5.0	0.10	ug/l	10.0		80	65-135			
1,2-Diphenylhydrazine/Azobenzene	7.22	1.0	0.10	ug/l	10.0		72	60-120			
Fluoranthene	7.46	0.50	0.10	ug/l	10.0		75	60-120			
Fluorene	7.06	0.50	0.10	ug/l	10.0		71	65-120			
Hexachlorobenzene	6.90	1.0	0.10	ug/l	10.0		69	60-120			
Hexachlorobutadiene	4.78	2.0	0.20	ug/l	10.0		48	40-120			
Hexachlorocyclopentadiene	6.26	5.0	0.10	ug/l	10.0		63	25-120			
Hexachloroethane	4.80	3.0	0.20	ug/l	10.0		48	35-120			
Indeno(1,2,3-cd)pyrene	8.22	2.0	0.10	ug/l	10.0		82	45-135			
Isophorone	5.88	1.0	0.10	ug/l	10.0		59	50-120			
2-Methylnaphthalene	6.74	1.0	0.10	ug/l	10.0		67	55-120			
2-Methylphenol	6.30	2.0	0.10	ug/l	10.0		63	50-120			
4-Methylphenol	6.38	5.0	0.20	ug/l	10.0		64	50-120			
Naphthalene	6.02	1.0	0.10	ug/l	10.0		60	55-120			
2-Nitroaniline	7.14	5.0	0.10	ug/l	10.0		71	65-120			
3-Nitroaniline	7.16	5.0	0.20	ug/l	10.0		72	60-120			
4-Nitroaniline	6.96	5.0	0.50	ug/l	10.0		70	55-125			
Nitrobenzene	6.48	1.0	0.10	ug/l	10.0		65	55-120			
2-Nitrophenol	6.20	2.0	0.10	ug/l	10.0		62	50-120			
4-Nitrophenol	7.04	5.0	2.5	ug/l	10.0		70	45-120			
N-Nitroso-di-n-propylamine	6.84	2.0	0.10	ug/l	10.0		68	45-120			
N-Nitrosodimethylamine	6.54	2.0	0.10	ug/l	10.0		65	45-120			
N-Nitrosodiphenylamine	7.80	1.0	0.10	ug/l	10.0		78	60-120			
Pentachlorophenol	7.38	2.0	0.10	ug/l	10.0		74	50-120			
Phenanthrene	6.90	0.50	0.10	ug/l	10.0		69	65-120			

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Project Manager

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>LCS Analyzed: 02/24/2009 (9B21046-BS1)</b>											
Phenol	6.46	1.0	0.30	ug/l	10.0		65	40-120			
Pyrene	7.34	0.50	0.10	ug/l	10.0		73	55-125			
1,2,4-Trichlorobenzene	5.36	1.0	0.10	ug/l	10.0		54	45-120			
2,4,5-Trichlorophenol	7.14	2.0	0.20	ug/l	10.0		71	55-120			
2,4,6-Trichlorophenol	7.28	1.0	0.10	ug/l	10.0		73	55-120			
Surrogate: 2,4,6-Tribromophenol	13.6			ug/l	20.0		68	40-120			
Surrogate: 2-Fluorobiphenyl	6.66			ug/l	10.0		67	50-120			
Surrogate: 2-Fluorophenol	11.8			ug/l	20.0		59	30-120			
Surrogate: Nitrobenzene-d5	6.64			ug/l	10.0		66	45-120			
Surrogate: Phenol-d6	12.4			ug/l	20.0		62	35-120			
Surrogate: Terphenyl-d14	8.10			ug/l	10.0		81	50-125			
<b>LCS Dup Analyzed: 02/24/2009 (9B21046-BSD1)</b>											
Acenaphthene	7.68	0.50	0.10	ug/l	10.0		77	60-120	15	20	
Acenaphthylene	7.72	0.50	0.10	ug/l	10.0		77	60-120	14	20	
Aniline	8.34	10	0.30	ug/l	10.0		83	35-120	1	30	J
Anthracene	8.58	0.50	0.10	ug/l	10.0		86	65-120	17	20	
Benzidine	8.72	5.0	N/A	ug/l	10.0		87	30-160	9	35	
Benzo(a)anthracene	9.10	5.0	0.10	ug/l	10.0		91	65-120	20	20	
Benzo(a)pyrene	9.66	2.0	0.10	ug/l	10.0		97	55-130	15	25	
Benzo(b)fluoranthene	8.76	2.0	0.10	ug/l	10.0		88	55-125	20	25	
Benzo(g,h,i)perylene	9.76	5.0	0.10	ug/l	10.0		98	45-135	9	25	
Benzo(k)fluoranthene	8.24	0.50	0.10	ug/l	10.0		82	50-125	18	20	
Benzoic acid	7.98	20	3.0	ug/l	10.0		80	25-120	16	30	J
Benzyl alcohol	8.12	5.0	0.10	ug/l	10.0		81	50-120	24	20	R-7
4-Bromophenyl phenyl ether	9.08	1.0	0.10	ug/l	10.0		91	60-120	16	25	
Butyl benzyl phthalate	8.86	5.0	0.70	ug/l	10.0		89	55-130	16	20	
4-Chloro-3-methylphenol	8.56	2.0	0.20	ug/l	10.0		86	60-120	12	25	
4-Chloroaniline	8.30	2.0	0.10	ug/l	10.0		83	55-120	29	25	R-7
Bis(2-chloroethoxy)methane	8.32	0.50	0.10	ug/l	10.0		83	55-120	23	20	R-7
Bis(2-chloroethyl)ether	7.74	0.50	0.10	ug/l	10.0		77	50-120	17	20	
Bis(2-chloroisopropyl)ether	7.66	0.50	0.10	ug/l	10.0		77	45-120	18	20	
Bis(2-ethylhexyl)phthalate	9.40	5.0	1.7	ug/l	10.0		94	65-130	17	20	
2-Chloronaphthalene	7.28	0.50	0.10	ug/l	10.0		73	60-120	16	20	
2-Chlorophenol	7.40	1.0	0.20	ug/l	10.0		74	45-120	18	25	
4-Chlorophenyl phenyl ether	8.24	0.50	0.10	ug/l	10.0		82	65-120	19	20	

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Project Manager

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>LCS Dup Analyzed: 02/24/2009 (9B21046-BSD1)</b>											
Chrysene	8.42	0.50	0.10	ug/l	10.0		84	65-120	17	20	
Dibenz(a,h)anthracene	9.22	0.50	0.10	ug/l	10.0		92	50-135	16	25	
Dibenzofuran	8.40	0.50	0.10	ug/l	10.0		84	65-120	19	20	
Di-n-butyl phthalate	9.26	2.0	0.20	ug/l	10.0		93	60-125	18	20	
1,2-Dichlorobenzene	6.46	0.50	0.10	ug/l	10.0		65	40-120	17	25	
1,3-Dichlorobenzene	5.94	0.50	0.10	ug/l	10.0		59	35-120	16	25	
1,4-Dichlorobenzene	5.98	0.50	0.20	ug/l	10.0		60	35-120	14	25	
3,3'-Dichlorobenzidine	7.12	5.0	N/A	ug/l	10.0		71	45-135	20	25	
2,4-Dichlorophenol	7.76	2.0	0.20	ug/l	10.0		78	55-120	18	20	
Diethyl phthalate	8.38	1.0	0.10	ug/l	10.0		84	55-120	21	30	
2,4-Dimethylphenol	7.34	2.0	0.30	ug/l	10.0		73	40-120	25	25	
Dimethyl phthalate	8.68	0.50	0.10	ug/l	10.0		87	30-120	20	30	
4,6-Dinitro-2-methylphenol	9.90	5.0	0.20	ug/l	10.0		99	45-120	20	25	
2,4-Dinitrophenol	9.34	5.0	0.90	ug/l	10.0		93	40-120	21	25	
2,4-Dinitrotoluene	8.52	5.0	0.20	ug/l	10.0		85	65-120	20	20	
2,6-Dinitrotoluene	8.46	5.0	0.10	ug/l	10.0		85	65-120	21	20	R-7
Di-n-octyl phthalate	9.22	5.0	0.10	ug/l	10.0		92	65-135	15	20	
1,2-Diphenylhydrazine/Azobenzene	8.52	1.0	0.10	ug/l	10.0		85	60-120	17	25	
Fluoranthene	8.82	0.50	0.10	ug/l	10.0		88	60-120	17	20	
Fluorene	8.46	0.50	0.10	ug/l	10.0		85	65-120	18	20	
Hexachlorobenzene	8.02	1.0	0.10	ug/l	10.0		80	60-120	15	20	
Hexachlorobutadiene	5.56	2.0	0.20	ug/l	10.0		56	40-120	15	25	
Hexachlorocyclopentadiene	7.52	5.0	0.10	ug/l	10.0		75	25-120	18	30	
Hexachloroethane	5.46	3.0	0.20	ug/l	10.0		55	35-120	13	25	
Indeno(1,2,3-cd)pyrene	9.54	2.0	0.10	ug/l	10.0		95	45-135	15	25	
Isophorone	7.96	1.0	0.10	ug/l	10.0		80	50-120	30	20	R-7
2-Methylnaphthalene	7.94	1.0	0.10	ug/l	10.0		79	55-120	16	20	
2-Methylphenol	7.76	2.0	0.10	ug/l	10.0		78	50-120	21	20	R-7
4-Methylphenol	7.82	5.0	0.20	ug/l	10.0		78	50-120	20	20	
Naphthalene	7.06	1.0	0.10	ug/l	10.0		71	55-120	16	20	
2-Nitroaniline	8.56	5.0	0.10	ug/l	10.0		86	65-120	18	20	
3-Nitroaniline	8.30	5.0	0.20	ug/l	10.0		83	60-120	15	25	
4-Nitroaniline	8.76	5.0	0.50	ug/l	10.0		88	55-125	23	20	R-7
Nitrobenzene	7.66	1.0	0.10	ug/l	10.0		77	55-120	17	25	
2-Nitrophenol	7.36	2.0	0.10	ug/l	10.0		74	50-120	17	25	

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Project Manager

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B21046 Extracted: 02/21/09</b>											
<b>LCS Dup Analyzed: 02/24/2009 (9B21046-BSD1)</b>											
4-Nitrophenol	8.86	5.0	2.5	ug/l	10.0		89	45-120	23	30	
N-Nitroso-di-n-propylamine	8.88	2.0	0.10	ug/l	10.0		89	45-120	26	20	R-7
N-Nitrosodimethylamine	7.60	2.0	0.10	ug/l	10.0		76	45-120	15	20	
N-Nitrosodiphenylamine	9.12	1.0	0.10	ug/l	10.0		91	60-120	16	20	
Pentachlorophenol	8.92	2.0	0.10	ug/l	10.0		89	50-120	19	25	
Phenanthrene	8.18	0.50	0.10	ug/l	10.0		82	65-120	17	20	
Phenol	7.54	1.0	0.30	ug/l	10.0		75	40-120	15	25	
Pyrene	8.76	0.50	0.10	ug/l	10.0		88	55-125	18	25	
1,2,4-Trichlorobenzene	6.38	1.0	0.10	ug/l	10.0		64	45-120	17	20	
2,4,5-Trichlorophenol	8.24	2.0	0.20	ug/l	10.0		82	55-120	14	30	
2,4,6-Trichlorophenol	8.32	1.0	0.10	ug/l	10.0		83	55-120	13	30	
Surrogate: 2,4,6-Tribromophenol	15.9			ug/l	20.0		79	40-120			
Surrogate: 2-Fluorobiphenyl	7.68			ug/l	10.0		77	50-120			
Surrogate: 2-Fluorophenol	13.5			ug/l	20.0		68	30-120			
Surrogate: Nitrobenzene-d5	7.84			ug/l	10.0		78	45-120			
Surrogate: Phenol-d6	14.7			ug/l	20.0		74	35-120			
Surrogate: Terphenyl-d14	9.44			ug/l	10.0		94	50-125			

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B20074 Extracted: 02/20/09</b>											
<b>Blank Analyzed: 02/21/2009 (9B20074-BLK1)</b>											
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	0.00634	0.0050	0.0025	ug/l							B, N2
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.416			ug/l	0.500		83	45-120			
Surrogate: Tetrachloro-m-xylene	0.380			ug/l	0.500		76	35-115			

### LCS Analyzed: 02/20/2009 (9B20074-BS1)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
4,4'-DDD	0.525	0.0050	0.0020	ug/l	0.500		105	55-120			
4,4'-DDE	0.489	0.0050	0.0030	ug/l	0.500		98	50-120			
4,4'-DDT	0.465	0.010	0.0040	ug/l	0.500		93	55-120			
Aldrin	0.424	0.0050	0.0015	ug/l	0.500		85	40-115			
alpha-BHC	0.494	0.0050	0.0025	ug/l	0.500		99	45-115			
beta-BHC	0.482	0.010	0.0040	ug/l	0.500		96	55-115			
delta-BHC	0.500	0.0050	0.0035	ug/l	0.500		100	55-115			
Dieldrin	0.474	0.0050	0.0020	ug/l	0.500		95	55-115			
Endosulfan I	0.438	0.0050	0.0020	ug/l	0.500		88	55-115			
Endosulfan II	0.471	0.0050	0.0030	ug/l	0.500		94	55-120			
Endosulfan sulfate	0.474	0.010	0.0030	ug/l	0.500		95	60-120			
Endrin	0.486	0.0050	0.0020	ug/l	0.500		97	55-115			

MNR1

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MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## METHOD BLANK/QC DATA

### ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B20074 Extracted: 02/20/09</b>											
<b>LCS Analyzed: 02/20/2009 (9B20074-BS1)</b>											
Endrin aldehyde	0.555	0.010	0.0020	ug/l	0.500		111	50-120			MNR1
Endrin ketone	0.452	0.010	0.0030	ug/l	0.500		90	55-120			
gamma-BHC (Lindane)	0.451	0.020	0.0030	ug/l	0.500		90	45-115			
Heptachlor	0.442	0.010	0.0030	ug/l	0.500		88	45-115			
Heptachlor epoxide	0.440	0.0050	0.0025	ug/l	0.500		88	55-115			
Methoxychlor	0.478	0.0050	0.0035	ug/l	0.500		96	60-120			
Surrogate: Decachlorobiphenyl	0.393			ug/l	0.500		79	45-120			
Surrogate: Tetrachloro-m-xylene	0.359			ug/l	0.500		72	35-115			
<b>LCS Dup Analyzed: 02/20/2009 (9B20074-BSD1)</b>											
4,4'-DDD	0.494	0.0050	0.0020	ug/l	0.500		99	55-120	6	30	
4,4'-DDE	0.453	0.0050	0.0030	ug/l	0.500		91	50-120	8	30	
4,4'-DDT	0.438	0.010	0.0040	ug/l	0.500		88	55-120	6	30	
Aldrin	0.396	0.0050	0.0015	ug/l	0.500		79	40-115	7	30	
alpha-BHC	0.454	0.0050	0.0025	ug/l	0.500		91	45-115	9	30	
beta-BHC	0.438	0.010	0.0040	ug/l	0.500		88	55-115	10	30	
delta-BHC	0.472	0.0050	0.0035	ug/l	0.500		94	55-115	6	30	
Dieldrin	0.452	0.0050	0.0020	ug/l	0.500		90	55-115	5	30	
Endosulfan I	0.419	0.0050	0.0020	ug/l	0.500		84	55-115	4	30	
Endosulfan II	0.454	0.0050	0.0030	ug/l	0.500		91	55-120	4	30	
Endosulfan sulfate	0.453	0.010	0.0030	ug/l	0.500		91	60-120	5	30	
Endrin	0.456	0.0050	0.0020	ug/l	0.500		91	55-115	6	30	
Endrin aldehyde	0.469	0.010	0.0020	ug/l	0.500		94	50-120	17	30	
Endrin ketone	0.436	0.010	0.0030	ug/l	0.500		87	55-120	4	30	
gamma-BHC (Lindane)	0.415	0.020	0.0030	ug/l	0.500		83	45-115	8	30	
Heptachlor	0.410	0.010	0.0030	ug/l	0.500		82	45-115	8	30	
Heptachlor epoxide	0.422	0.0050	0.0025	ug/l	0.500		84	55-115	4	30	
Methoxychlor	0.449	0.0050	0.0035	ug/l	0.500		90	60-120	6	30	
Surrogate: Decachlorobiphenyl	0.378			ug/l	0.500		76	45-120			
Surrogate: Tetrachloro-m-xylene	0.338			ug/l	0.500		68	35-115			

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Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B23113 Extracted: 02/23/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B23113-BLK1)</b>											
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.456			ug/l	0.500		91	45-120			
Surrogate: Tetrachloro-m-xylene	0.462			ug/l	0.500		92	35-115			

### LCS Analyzed: 02/24/2009 (9B23113-BS1)

MNR1

4,4'-DDD	0.501	0.0050	0.0020	ug/l	0.500		100	55-120			
4,4'-DDE	0.510	0.0050	0.0030	ug/l	0.500		102	50-120			
4,4'-DDT	0.531	0.010	0.0040	ug/l	0.500		106	55-120			
Aldrin	0.470	0.0050	0.0015	ug/l	0.500		94	40-115			
alpha-BHC	0.534	0.0050	0.0025	ug/l	0.500		107	45-115			
beta-BHC	0.509	0.010	0.0040	ug/l	0.500		102	55-115			
delta-BHC	0.523	0.0050	0.0035	ug/l	0.500		105	55-115			
Dieldrin	0.493	0.0050	0.0020	ug/l	0.500		99	55-115			
Endosulfan I	0.457	0.0050	0.0020	ug/l	0.500		91	55-115			
Endosulfan II	0.492	0.0050	0.0030	ug/l	0.500		98	55-120			
Endosulfan sulfate	0.486	0.010	0.0030	ug/l	0.500		97	60-120			
Endrin	0.498	0.0050	0.0020	ug/l	0.500		100	55-115			

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 Received: 02/16/09

## METHOD BLANK/QC DATA

### ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B23113 Extracted: 02/23/09</b>											
<b>LCS Analyzed: 02/24/2009 (9B23113-BS1)</b>											
Endrin aldehyde	0.522	0.010	0.0020	ug/l	0.500		104	50-120			MNR1
Endrin ketone	0.469	0.010	0.0030	ug/l	0.500		94	55-120			
gamma-BHC (Lindane)	0.485	0.020	0.0030	ug/l	0.500		97	45-115			
Heptachlor	0.501	0.010	0.0030	ug/l	0.500		100	45-115			
Heptachlor epoxide	0.468	0.0050	0.0025	ug/l	0.500		94	55-115			
Methoxychlor	0.527	0.0050	0.0035	ug/l	0.500		105	60-120			
Surrogate: Decachlorobiphenyl	0.439			ug/l	0.500		88	45-120			
Surrogate: Tetrachloro-m-xylene	0.405			ug/l	0.500		81	35-115			
<b>LCS Dup Analyzed: 02/24/2009 (9B23113-BSD1)</b>											
4,4'-DDD	0.506	0.0050	0.0020	ug/l	0.500		101	55-120	1	30	
4,4'-DDE	0.507	0.0050	0.0030	ug/l	0.500		101	50-120	1	30	
4,4'-DDT	0.530	0.010	0.0040	ug/l	0.500		106	55-120	0	30	
Aldrin	0.467	0.0050	0.0015	ug/l	0.500		93	40-115	1	30	
alpha-BHC	0.510	0.0050	0.0025	ug/l	0.500		102	45-115	5	30	
beta-BHC	0.507	0.010	0.0040	ug/l	0.500		101	55-115	0	30	
delta-BHC	0.520	0.0050	0.0035	ug/l	0.500		104	55-115	1	30	
Dieldrin	0.490	0.0050	0.0020	ug/l	0.500		98	55-115	1	30	
Endosulfan I	0.456	0.0050	0.0020	ug/l	0.500		91	55-115	0	30	
Endosulfan II	0.487	0.0050	0.0030	ug/l	0.500		97	55-120	1	30	
Endosulfan sulfate	0.488	0.010	0.0030	ug/l	0.500		98	60-120	0	30	
Endrin	0.496	0.0050	0.0020	ug/l	0.500		99	55-115	0	30	
Endrin aldehyde	0.525	0.010	0.0020	ug/l	0.500		105	50-120	1	30	
Endrin ketone	0.470	0.010	0.0030	ug/l	0.500		94	55-120	0	30	
gamma-BHC (Lindane)	0.482	0.020	0.0030	ug/l	0.500		96	45-115	1	30	
Heptachlor	0.496	0.010	0.0030	ug/l	0.500		99	45-115	1	30	
Heptachlor epoxide	0.465	0.0050	0.0025	ug/l	0.500		93	55-115	1	30	
Methoxychlor	0.532	0.0050	0.0035	ug/l	0.500		106	60-120	1	30	
Surrogate: Decachlorobiphenyl	0.441			ug/l	0.500		88	45-120			
Surrogate: Tetrachloro-m-xylene	0.401			ug/l	0.500		80	35-115			

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Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B20074 Extracted: 02/20/09</b>											
<b>Blank Analyzed: 02/21/2009 (9B20074-BLK1)</b>											
Aroclor 1016	ND	0.50	0.25	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.480			ug/l	0.500		96	45-120			
<b>LCS Analyzed: 02/20/2009 (9B20074-BS2)</b>											
Aroclor 1016	3.62	0.50	0.25	ug/l	4.00		91	50-115			MNR1
Aroclor 1260	3.73	0.50	0.25	ug/l	4.00		93	60-120			
Surrogate: Decachlorobiphenyl	0.476			ug/l	0.500		95	45-120			
<b>LCS Dup Analyzed: 02/20/2009 (9B20074-BSD2)</b>											
Aroclor 1016	3.72	0.50	0.25	ug/l	4.00		93	50-115	3	30	
Aroclor 1260	3.73	0.50	0.25	ug/l	4.00		93	60-120	0	25	
Surrogate: Decachlorobiphenyl	0.476			ug/l	0.500		95	45-120			

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Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B24074 Extracted: 02/24/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B24074-BLK1)</b>											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
<b>LCS Analyzed: 02/24/2009 (9B24074-BS1)</b>											
Hexane Extractable Material (Oil & Grease)	19.2	5.0	1.4	mg/l	20.0		96	78-114			
<b>LCS Dup Analyzed: 02/24/2009 (9B24074-BSD1)</b>											
Hexane Extractable Material (Oil & Grease)	18.8	5.0	1.4	mg/l	20.0		94	78-114	2	11	
<b>Matrix Spike Analyzed: 02/24/2009 (9B24074-MS1)</b>											
Hexane Extractable Material (Oil & Grease)	21.1	4.8	1.3	mg/l	19.1	3.73	90	78-114			

Source: ISB2624-01

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## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17091 Extracted: 02/17/09</b>											
<b>Blank Analyzed: 02/17/2009 (9B17091-BLK1)</b>											
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	4.13	5.0	2.0	ug/l							J
Cobalt	ND	10	2.0	ug/l							
Iron	0.0168	0.040	0.015	mg/l							J
Magnesium	ND	0.020	0.012	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	2.91	10	2.0	ug/l							B, J
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
<b>LCS Analyzed: 02/17/2009 (9B17091-BS1)</b>											
Arsenic	499	10	7.0	ug/l	500		100	85-115			
Barium	0.531	0.010	0.0060	mg/l	0.500		106	85-115			
Beryllium	478	2.0	0.90	ug/l	500		96	85-115			
Boron	0.497	0.050	0.020	mg/l	0.500		99	85-115			
Calcium	2.41	0.10	0.050	mg/l	2.50		96	85-115			
Chromium	477	5.0	2.0	ug/l	500		95	85-115			
Cobalt	461	10	2.0	ug/l	500		92	85-115			
Iron	0.487	0.040	0.015	mg/l	0.500		97	85-115			
Magnesium	2.41	0.020	0.012	mg/l	2.50		97	85-115			
Manganese	475	20	7.0	ug/l	500		95	85-115			
Nickel	486	10	2.0	ug/l	500		97	85-115			
Vanadium	497	10	3.0	ug/l	500		99	85-115			
Zinc	482	20	6.0	ug/l	500		96	85-115			

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## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17091 Extracted: 02/17/09</b>											
<b>Matrix Spike Analyzed: 02/17/2009 (9B17091-MS1)</b>						<b>Source: ISB1812-01</b>					
Arsenic	552	10	7.0	ug/l	500	48.0	101	70-130			
Barium	1.81	0.010	0.0060	mg/l	0.500	1.27	108	70-130			
Beryllium	483	2.0	0.90	ug/l	500	ND	97	70-130			
Boron	2.46	0.050	0.020	mg/l	0.500	1.91	109	70-130			
Calcium	39.5	0.10	0.050	mg/l	2.50	37.3	90	70-130			MHA
Chromium	483	5.0	2.0	ug/l	500	6.42	95	70-130			
Cobalt	467	10	2.0	ug/l	500	ND	93	70-130			
Iron	1.36	0.040	0.015	mg/l	0.500	0.753	122	70-130			
Magnesium	14.0	0.020	0.012	mg/l	2.50	11.5	98	70-130			MHA
Manganese	549	20	7.0	ug/l	500	68.9	96	70-130			
Nickel	487	10	2.0	ug/l	500	9.87	95	70-130			
Vanadium	502	10	3.0	ug/l	500	ND	100	70-130			
Zinc	511	20	6.0	ug/l	500	26.8	97	70-130			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17091-MS2)</b>						<b>Source: ISB1812-02</b>					
Arsenic	494	10	7.0	ug/l	500	ND	99	70-130			
Barium	0.841	0.010	0.0060	mg/l	0.500	0.323	104	70-130			
Beryllium	470	2.0	0.90	ug/l	500	ND	94	70-130			
Boron	1.20	0.050	0.020	mg/l	0.500	0.720	95	70-130			
Calcium	133	0.10	0.050	mg/l	2.50	133	20	70-130			MHA
Chromium	463	5.0	2.0	ug/l	500	4.84	92	70-130			
Cobalt	451	10	2.0	ug/l	500	ND	90	70-130			
Iron	0.961	0.040	0.015	mg/l	0.500	0.487	95	70-130			
Magnesium	35.7	0.020	0.012	mg/l	2.50	33.8	79	70-130			MHA
Manganese	519	20	7.0	ug/l	500	53.2	93	70-130			
Nickel	463	10	2.0	ug/l	500	4.44	92	70-130			
Vanadium	489	10	3.0	ug/l	500	3.53	97	70-130			
Zinc	511	20	6.0	ug/l	500	38.2	95	70-130			

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## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17091 Extracted: 02/17/09</b>											
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17091-MSD1)</b>						<b>Source: ISB1812-01</b>					
Arsenic	545	10	7.0	ug/l	500	48.0	99	70-130	1	20	
Barium	1.78	0.010	0.0060	mg/l	0.500	1.27	101	70-130	2	20	
Beryllium	477	2.0	0.90	ug/l	500	ND	95	70-130	1	20	
Boron	2.40	0.050	0.020	mg/l	0.500	1.91	97	70-130	2	20	
Calcium	39.4	0.10	0.050	mg/l	2.50	37.3	85	70-130	0	20	MHA
Chromium	472	5.0	2.0	ug/l	500	6.42	93	70-130	2	20	
Cobalt	460	10	2.0	ug/l	500	ND	92	70-130	1	20	
Iron	1.25	0.040	0.015	mg/l	0.500	0.753	100	70-130	8	20	
Magnesium	13.8	0.020	0.012	mg/l	2.50	11.5	91	70-130	1	20	MHA
Manganese	541	20	7.0	ug/l	500	68.9	94	70-130	1	20	
Nickel	479	10	2.0	ug/l	500	9.87	94	70-130	2	20	
Vanadium	494	10	3.0	ug/l	500	ND	99	70-130	1	20	
Zinc	505	20	6.0	ug/l	500	26.8	96	70-130	1	20	

**Batch: 9B17103 Extracted: 02/17/09**

**Blank Analyzed: 02/17/2009 (9B17103-BLK1)**

Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							

**LCS Analyzed: 02/17/2009 (9B17103-BS1)**

Antimony	76.1	2.0	0.20	ug/l	80.0		95	85-115			
Cadmium	75.4	1.0	0.11	ug/l	80.0		94	85-115			
Copper	75.3	2.0	0.75	ug/l	80.0		94	85-115			
Lead	76.5	1.0	0.30	ug/l	80.0		96	85-115			
Selenium	76.6	2.0	0.30	ug/l	80.0		96	85-115			
Silver	75.3	1.0	0.30	ug/l	80.0		94	85-115			
Thallium	68.4	1.0	0.20	ug/l	80.0		85	85-115			

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Joseph Doak  
 Project Manager

MWH-Pasadena/Boeing  
 618 Michillinda Avenue, Suite 200  
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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
 Received: 02/16/09

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17103 Extracted: 02/17/09</b>											
<b>Matrix Spike Analyzed: 02/17/2009 (9B17103-MS1)</b>						<b>Source: ISB1211-01</b>					
Antimony	80.5	2.0	0.20	ug/l	80.0	0.249	100	70-130			
Cadmium	75.7	1.0	0.11	ug/l	80.0	ND	95	70-130			
Copper	74.1	2.0	0.75	ug/l	80.0	2.96	89	70-130			
Lead	76.0	1.0	0.30	ug/l	80.0	ND	95	70-130			
Selenium	81.1	2.0	0.30	ug/l	80.0	4.90	95	70-130			
Silver	73.3	1.0	0.30	ug/l	80.0	ND	92	70-130			
Thallium	68.4	1.0	0.20	ug/l	80.0	ND	85	70-130			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17103-MS2)</b>						<b>Source: ISB1480-01</b>					
Antimony	79.8	2.0	0.20	ug/l	80.0	0.319	99	70-130			
Cadmium	75.0	1.0	0.11	ug/l	80.0	ND	94	70-130			
Copper	72.3	2.0	0.75	ug/l	80.0	2.36	87	70-130			
Lead	76.8	1.0	0.30	ug/l	80.0	1.39	94	70-130			
Selenium	76.2	2.0	0.30	ug/l	80.0	1.18	94	70-130			
Silver	72.6	1.0	0.30	ug/l	80.0	ND	91	70-130			
Thallium	67.7	1.0	0.20	ug/l	80.0	ND	85	70-130			
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17103-MSD1)</b>						<b>Source: ISB1211-01</b>					
Antimony	78.4	2.0	0.20	ug/l	80.0	0.249	98	70-130	3	20	
Cadmium	74.3	1.0	0.11	ug/l	80.0	ND	93	70-130	2	20	
Copper	74.2	2.0	0.75	ug/l	80.0	2.96	89	70-130	0	20	
Lead	76.0	1.0	0.30	ug/l	80.0	ND	95	70-130	0	20	
Selenium	81.1	2.0	0.30	ug/l	80.0	4.90	95	70-130	0	20	
Silver	71.9	1.0	0.30	ug/l	80.0	ND	90	70-130	2	20	
Thallium	68.5	1.0	0.20	ug/l	80.0	ND	86	70-130	0	20	

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17100 Extracted: 02/17/09</b>											
<b>Blank Analyzed: 02/18/2009 (9B17100-BLK1)</b>											
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	0.0209	0.050	0.020	mg/l							J
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Cobalt	ND	10	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
<b>LCS Analyzed: 02/18/2009 (9B17100-BS1)</b>											
Arsenic	491	10	7.0	ug/l	500		98	85-115			
Barium	0.534	0.010	0.0060	mg/l	0.500		107	85-115			
Beryllium	483	2.0	0.90	ug/l	500		97	85-115			
Boron	0.501	0.050	0.020	mg/l	0.500		100	85-115			
Calcium	2.46	0.10	0.050	mg/l	2.50		98	85-115			
Chromium	480	5.0	2.0	ug/l	500		96	85-115			
Cobalt	466	10	2.0	ug/l	500		93	85-115			
Iron	0.488	0.040	0.015	mg/l	0.500		98	85-115			
Magnesium	2.43	0.020	0.012	mg/l	2.50		97	85-115			
Manganese	482	20	7.0	ug/l	500		96	85-115			
Nickel	486	10	2.0	ug/l	500		97	85-115			
Vanadium	505	10	3.0	ug/l	500		101	85-115			
Zinc	485	20	6.0	ug/l	500		97	85-115			

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B17100 Extracted: 02/17/09</b>											
<b>Matrix Spike Analyzed: 02/18/2009 (9B17100-MS1)</b>						<b>Source: ISB1574-01</b>					
Arsenic	486	10	7.0	ug/l	500	ND	97	70-130			
Barium	0.590	0.010	0.0060	mg/l	0.500	0.0522	108	70-130			
Beryllium	483	2.0	0.90	ug/l	500	ND	97	70-130			
Boron	0.544	0.050	0.020	mg/l	0.500	0.0587	97	70-130			
Calcium	38.2	0.10	0.050	mg/l	2.50	36.1	86	70-130			
Chromium	475	5.0	2.0	ug/l	500	ND	95	70-130			
Cobalt	465	10	2.0	ug/l	500	ND	93	70-130			
Iron	0.544	0.040	0.015	mg/l	0.500	0.0596	97	70-130			
Magnesium	9.56	0.020	0.012	mg/l	2.50	7.17	96	70-130			
Manganese	496	20	7.0	ug/l	500	17.0	96	70-130			
Nickel	481	10	2.0	ug/l	500	2.85	96	70-130			
Vanadium	501	10	3.0	ug/l	500	ND	100	70-130			
Zinc	531	20	6.0	ug/l	500	50.1	96	70-130			
<b>Matrix Spike Dup Analyzed: 02/18/2009 (9B17100-MSD1)</b>						<b>Source: ISB1574-01</b>					
Arsenic	488	10	7.0	ug/l	500	ND	98	70-130	1	20	
Barium	0.583	0.010	0.0060	mg/l	0.500	0.0522	106	70-130	1	20	
Beryllium	481	2.0	0.90	ug/l	500	ND	96	70-130	0	20	
Boron	0.540	0.050	0.020	mg/l	0.500	0.0587	96	70-130	1	20	
Calcium	38.1	0.10	0.050	mg/l	2.50	36.1	83	70-130	0	20	
Chromium	477	5.0	2.0	ug/l	500	ND	95	70-130	1	20	
Cobalt	463	10	2.0	ug/l	500	ND	93	70-130	0	20	
Iron	0.523	0.040	0.015	mg/l	0.500	0.0596	93	70-130	4	20	
Magnesium	9.55	0.020	0.012	mg/l	2.50	7.17	95	70-130	0	20	
Manganese	494	20	7.0	ug/l	500	17.0	95	70-130	1	20	
Nickel	483	10	2.0	ug/l	500	2.85	96	70-130	1	20	
Vanadium	498	10	3.0	ug/l	500	ND	100	70-130	1	20	
Zinc	529	20	6.0	ug/l	500	50.1	96	70-130	0	20	

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B20106 Extracted: 02/20/09</b>											
<b>Blank Analyzed: 02/23/2009 (9B20106-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
<b>LCS Analyzed: 02/23/2009 (9B20106-BS1)</b>											
Antimony	85.1	2.0	0.20	ug/l	80.0		106	85-115			
Cadmium	83.3	1.0	0.11	ug/l	80.0		104	85-115			
Copper	78.1	2.0	0.75	ug/l	80.0		98	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	76.6	2.0	0.30	ug/l	80.0		96	85-115			
Silver	82.4	1.0	0.30	ug/l	80.0		103	85-115			
Thallium	83.4	1.0	0.20	ug/l	80.0		104	85-115			
<b>Matrix Spike Analyzed: 02/23/2009 (9B20106-MS1) Source: ISB1693-01</b>											
Antimony	85.2	2.0	0.20	ug/l	80.0	0.558	106	70-130			
Cadmium	82.0	1.0	0.11	ug/l	80.0	ND	103	70-130			
Copper	78.5	2.0	0.75	ug/l	80.0	1.32	97	70-130			
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130			
Selenium	74.0	2.0	0.30	ug/l	80.0	ND	92	70-130			
Silver	79.7	1.0	0.30	ug/l	80.0	ND	100	70-130			
Thallium	83.6	1.0	0.20	ug/l	80.0	ND	105	70-130			
<b>Matrix Spike Analyzed: 02/23/2009 (9B20106-MS2) Source: ISB1694-01</b>											
Antimony	87.7	2.0	0.20	ug/l	80.0	0.567	109	70-130			
Cadmium	82.9	1.0	0.11	ug/l	80.0	ND	104	70-130			
Copper	76.3	2.0	0.75	ug/l	80.0	1.12	94	70-130			
Lead	81.7	1.0	0.30	ug/l	80.0	ND	102	70-130			
Selenium	74.5	2.0	0.30	ug/l	80.0	ND	93	70-130			
Silver	80.1	1.0	0.30	ug/l	80.0	ND	100	70-130			
Thallium	81.6	1.0	0.20	ug/l	80.0	ND	102	70-130			

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B20106 Extracted: 02/20/09</b>											
<b>Matrix Spike Dup Analyzed: 02/23/2009 (9B20106-MSD1)</b>						<b>Source: ISB1693-01</b>					
Antimony	88.4	2.0	0.20	ug/l	80.0	0.558	110	70-130	4	20	
Cadmium	84.3	1.0	0.11	ug/l	80.0	ND	105	70-130	3	20	
Copper	78.9	2.0	0.75	ug/l	80.0	1.32	97	70-130	0	20	
Lead	83.6	1.0	0.30	ug/l	80.0	ND	105	70-130	0	20	
Selenium	75.7	2.0	0.30	ug/l	80.0	ND	95	70-130	2	20	
Silver	82.0	1.0	0.30	ug/l	80.0	ND	102	70-130	3	20	
Thallium	83.1	1.0	0.20	ug/l	80.0	ND	104	70-130	1	20	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B16057 Extracted: 02/16/09</b>											
<b>Blank Analyzed: 02/16/2009 (9B16057-BLK1)</b>											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
<b>LCS Analyzed: 02/16/2009 (9B16057-BS1)</b>											
Chloride	4.54	0.50	0.25	mg/l	5.00		91	90-110			M-3
Nitrate-N	1.11	0.11	0.060	mg/l	1.13		98	90-110			
Nitrite-N	1.55	0.15	0.090	mg/l	1.52		102	90-110			
Sulfate	9.13	0.50	0.20	mg/l	10.0		91	90-110			
<b>Matrix Spike Analyzed: 02/16/2009 (9B16057-MS1)</b>											
						<b>Source: ISB1719-03</b>					
Nitrate-N	4.50	0.11	0.060	mg/l	1.13	3.20	115	80-120			
Nitrite-N	2.06	0.15	0.090	mg/l	1.52	ND	136	80-120			MI
Sulfate	16.3	0.50	0.20	mg/l	10.0	5.12	112	80-120			
<b>Matrix Spike Analyzed: 02/17/2009 (9B16057-MS2)</b>											
						<b>Source: ISB1806-01</b>					
Chloride	13.9	0.50	0.25	mg/l	5.00	8.38	111	80-120			
Nitrate-N	1.88	0.11	0.060	mg/l	1.13	0.664	108	80-120			
Nitrite-N	1.70	0.15	0.090	mg/l	1.52	ND	112	80-120			
Sulfate	15.8	0.50	0.20	mg/l	10.0	4.54	113	80-120			
<b>Matrix Spike Dup Analyzed: 02/16/2009 (9B16057-MSD1)</b>											
						<b>Source: ISB1719-03</b>					
Nitrate-N	4.51	0.11	0.060	mg/l	1.13	3.20	116	80-120	0	20	
Nitrite-N	2.07	0.15	0.090	mg/l	1.52	ND	136	80-120	1	20	MI
Sulfate	16.0	0.50	0.20	mg/l	10.0	5.12	109	80-120	2	20	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 9B16073 Extracted: 02/16/09</u></b>											
<b>Blank Analyzed: 02/16/2009 (9B16073-BLK1)</b>											
Chromium VI	ND	1.0	0.25	ug/l							
<b>LCS Analyzed: 02/16/2009 (9B16073-BS1)</b>											
Chromium VI	50.8	1.0	0.25	ug/l	50.0		102	90-110			
<b>Matrix Spike Analyzed: 02/16/2009 (9B16073-MS1)</b>											
						<b>Source: ISB1796-01</b>					
Chromium VI	55.1	1.0	0.25	ug/l	50.0	ND	110	90-110			
<b>Matrix Spike Dup Analyzed: 02/16/2009 (9B16073-MSD1)</b>											
						<b>Source: ISB1796-01</b>					
Chromium VI	57.8	1.0	0.25	ug/l	50.0	ND	116	90-110	5	10	MI
<b><u>Batch: 9B17060 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17060-BLK1)</b>											
Perchlorate	ND	1.0	0.90	ug/l							
<b>LCS Analyzed: 02/17/2009 (9B17060-BS1)</b>											
Perchlorate	23.8	1.0	0.90	ug/l	25.0		95	85-115			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17060-MS1)</b>											
						<b>Source: ISB1802-01</b>					
Perchlorate	23.9	1.0	0.90	ug/l	25.0	ND	96	80-120			
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17060-MSD1)</b>											
						<b>Source: ISB1802-01</b>					
Perchlorate	23.1	1.0	0.90	ug/l	25.0	ND	92	80-120	3	20	
<b><u>Batch: 9B17067 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17067-BLK1)</b>											
Turbidity	ND	1.0	0.040	NTU							

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 9B17067 Extracted: 02/17/09</u></b>											
<b>Duplicate Analyzed: 02/17/2009 (9B17067-DUP1)</b>											
Turbidity	20.2	1.0	0.040	NTU		20.9			3	20	
<b>Duplicate Analyzed: 02/17/2009 (9B17067-DUP2)</b>											
Turbidity	430	20	0.80	NTU		440			2	20	
<b><u>Batch: 9B17074 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17074-BLK1)</b>											
Fluoride	0.0351	0.10	0.020	mg/l							J
<b>LCS Analyzed: 02/17/2009 (9B17074-BS1)</b>											
Fluoride	0.994	0.10	0.020	mg/l	1.00		99	90-110			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17074-MS1)</b>											
Fluoride	0.959	0.10	0.020	mg/l	1.00	0.100	86	80-120			
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17074-MSD1)</b>											
Fluoride	0.911	0.10	0.020	mg/l	1.00	0.100	81	80-120	5	20	
<b><u>Batch: 9B17089 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17089-BLK1)</b>											
Total Cyanide	ND	5.0	2.2	ug/l							
<b>LCS Analyzed: 02/17/2009 (9B17089-BS1)</b>											
Total Cyanide	206	5.0	2.2	ug/l	200		103	90-110			

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 9B17089 Extracted: 02/17/09</u></b>											
<b>Matrix Spike Analyzed: 02/17/2009 (9B17089-MS1)</b>						<b>Source: ISB1786-01</b>					
Total Cyanide	206	5.0	2.2	ug/l	200	ND	103	70-115			
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17089-MSD1)</b>						<b>Source: ISB1786-01</b>					
Total Cyanide	199	5.0	2.2	ug/l	200	ND	99	70-115	4	15	
<b><u>Batch: 9B17098 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17098-BLK1)</b>											
Surfactants (MBAS)	ND	0.10	0.025	mg/l							
<b>LCS Analyzed: 02/17/2009 (9B17098-BS1)</b>											
Surfactants (MBAS)	0.253	0.10	0.025	mg/l	0.250		101	90-110			
<b>Matrix Spike Analyzed: 02/17/2009 (9B17098-MS1)</b>						<b>Source: ISB1834-01</b>					
Surfactants (MBAS)	0.0697	0.10	0.025	mg/l	0.250	ND	28	50-125			M2, J
<b>Matrix Spike Dup Analyzed: 02/17/2009 (9B17098-MSD1)</b>						<b>Source: ISB1834-01</b>					
Surfactants (MBAS)	0.0709	0.10	0.025	mg/l	0.250	ND	28	50-125	2	20	M2, J
<b><u>Batch: 9B17105 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/17/2009 (9B17105-BLK1)</b>											
Residual Chlorine	ND	0.10	0.10	mg/l							
<b>Duplicate Analyzed: 02/17/2009 (9B17105-DUP1)</b>						<b>Source: ISB1785-01</b>					
Residual Chlorine	ND	0.10	0.10	mg/l		ND				20	

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Project Manager



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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

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 Received: 02/16/09

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 9B17161 Extracted: 02/17/09</u></b>											
<b>Blank Analyzed: 02/22/2009 (9B17161-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l							
<b>LCS Analyzed: 02/22/2009 (9B17161-BS1)</b>											
Biochemical Oxygen Demand	178	100	25	mg/l	198		90	85-115			
<b>LCS Dup Analyzed: 02/22/2009 (9B17161-BSD1)</b>											
Biochemical Oxygen Demand	186	100	25	mg/l	198		94	85-115	4	20	
<b><u>Batch: 9B18054 Extracted: 02/18/09</u></b>											
<b>Duplicate Analyzed: 02/18/2009 (9B18054-DUP1)</b>											
Specific Conductance	255	1.0	1.0	umhos/cm		Source: ISB1930-01 257			1	5	
<b>Duplicate Analyzed: 02/18/2009 (9B18054-DUP2)</b>											
Specific Conductance	326	1.0	1.0	umhos/cm		Source: ISB1758-01 324			1	5	
<b>Reference Analyzed: 02/18/2009 (9B18054-SRM1)</b>											
Specific Conductance	982	1.0	1.0	umhos/cm	994		99	90-110			
<b><u>Batch: 9B18065 Extracted: 02/18/09</u></b>											
<b>Blank Analyzed: 02/18/2009 (9B18065-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 02/18/2009 (9B18065-BS1)</b>											
Total Dissolved Solids	982	10	10	mg/l	1000		98	90-110			

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 9B18065 Extracted: 02/18/09</u></b>											
<b>Duplicate Analyzed: 02/18/2009 (9B18065-DUP1)</b>						<b>Source: ISB1930-01</b>					
Total Dissolved Solids	177	10	10	mg/l		172			3	10	
<b><u>Batch: 9B21068 Extracted: 02/21/09</u></b>											
<b>Blank Analyzed: 02/21/2009 (9B21068-BLK1)</b>											
Total Suspended Solids	ND	10	1.0	mg/l							
<b>LCS Analyzed: 02/21/2009 (9B21068-BS1)</b>											
Total Suspended Solids	990	10	1.0	mg/l	1000		99	85-115			
<b>Duplicate Analyzed: 02/21/2009 (9B21068-DUP1)</b>						<b>Source: ISB1750-01</b>					
Total Suspended Solids	105	10	1.0	mg/l		106			1	10	
<b><u>Batch: 9B23002 Extracted: 02/23/09</u></b>											
<b>Blank Analyzed: 02/23/2009 (9B23002-BLK1)</b>											
Total Organic Carbon	ND	1.0	0.50	mg/l							
<b>LCS Analyzed: 02/23/2009 (9B23002-BS1)</b>											
Total Organic Carbon	10.3	1.0	0.50	mg/l	10.0		103	90-110			
<b>Matrix Spike Analyzed: 02/23/2009 (9B23002-MS1)</b>						<b>Source: ISB1665-01</b>					
Total Organic Carbon	10.1	1.0	0.50	mg/l	5.00	5.47	92	80-120			
<b>Matrix Spike Dup Analyzed: 02/23/2009 (9B23002-MSD1)</b>						<b>Source: ISB1665-01</b>					
Total Organic Carbon	10.3	1.0	0.50	mg/l	5.00	5.47	96	80-120	2	20	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9B24128 Extracted: 02/24/09</b>											
<b>Blank Analyzed: 02/24/2009 (9B24128-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
<b>LCS Analyzed: 02/24/2009 (9B24128-BS1)</b>											
Ammonia-N (Distilled)	10.6	0.50	0.50	mg/l	10.0		106	80-115			
<b>Matrix Spike Analyzed: 02/24/2009 (9B24128-MS1)</b>											
						<b>Source: ISB1703-01</b>					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120			
<b>Matrix Spike Dup Analyzed: 02/24/2009 (9B24128-MSD1)</b>											
						<b>Source: ISB1703-01</b>					
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0	0.560	95	70-120	0	15	

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## METHOD BLANK/QC DATA

### CFR136A 608

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9064381 Extracted: 03/05/09</b>											
<b>Blank Analyzed: 03/10/2009 (D9C050000381B)</b>											
alpha-BHC	ND	0.05	0.0053	ug/L				-			
Surrogate: Decachlorobiphenyl	0.19			ug/L	0.2		97	32-144			
Surrogate: Tetrachloro-m-xylene	0.13			ug/L	0.2		65	52-117			
<b>LCS Analyzed: 03/10/2009 (D9C050000381C)</b>											
alpha-BHC	0.479	0.05	0.0053	ug/L	0.5		96	66-115	7	50	
Surrogate: Decachlorobiphenyl	0.201			ug/L	0.2		100	68-122			
Surrogate: Tetrachloro-m-xylene	0.111			ug/L	0.2		55	54-115			
<b>LCS Dup Analyzed: 03/10/2009 (D9C050000381L)</b>											
alpha-BHC	0.514	0.05	0.0053	ug/L	0.5		103	66-115	7	50	
Surrogate: Decachlorobiphenyl	0.204			ug/L	0.2		102	68-122			
Surrogate: Tetrachloro-m-xylene	0.16			ug/L	0.2		80	54-115			

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## METHOD BLANK/QC DATA

### MCAWW 245.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9050174 Extracted: 02/19/09</b>											
<b>Blank Analyzed: 02/19/2009 (D9B190000174B)</b>						<b>Source:</b>					
Mercury	ND	0.2	0.027	ug/L				-			
<b>LCS Analyzed: 02/19/2009 (D9B190000174C)</b>						<b>Source:</b>					
Mercury	4.78	0.2	0.027	ug/L	5		96	90-110			
<b>Matrix Spike Dup Analyzed: 02/19/2009 (D9B190119001D)</b>						<b>Source: D9B190119001</b>					
Mercury	4.29	0.2	0.027	ug/L	5	0.032	85	90-110	0	10	N
<b>Matrix Spike Analyzed: 02/19/2009 (D9B190119001S)</b>						<b>Source: D9B190119001</b>					
Mercury	4.29	0.2	0.027	ug/L	5	0.032	85	90-110	0	10	N

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## METHOD BLANK/QC DATA

### MCAWW 245.1-DISS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9050182 Extracted: 02/19/09</b>											
<b>Blank Analyzed: 02/19/2009 (D9B190000182B)</b>						<b>Source:</b>					
Mercury	ND	0.2	0.027	ug/L				-			
<b>LCS Analyzed: 02/19/2009 (D9B190000182C)</b>						<b>Source:</b>					
Mercury	4.63	0.2	0.027	ug/L	5		93	90-110			
<b>Matrix Spike Dup Analyzed: 02/19/2009 (D9B190119001D)</b>						<b>Source: D9B190119001</b>					
Mercury	4.55	0.2	0.027	ug/L	5	0.03	90	90-110	0	10	
<b>Matrix Spike Analyzed: 02/19/2009 (D9B190119001S)</b>						<b>Source: D9B190119001</b>					
Mercury	4.57	0.2	0.027	ug/L	5	0.03	91	90-110	0	10	

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## Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ISB1786-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	1.90	4.7	10
<b>ISB1786-01</b>	<b>608-Pest Boeing 001/002 Q (LL)</b>	<b>alpha-BHC</b>	<b>ug/l</b>	<b>0.023</b>	<b>0.0094</b>	<b>0.01</b>
ISB1786-01	624-Boeing 001/002 Q (Fr113+X), L1,1-Dichloroethene		ug/l	0	0.50	3.2
ISB1786-01	624-Boeing 001/002 Q (Fr113+X), LTrichloroethene		ug/l	0	0.50	5
ISB1786-01	625+NDMA, LL	2,4,6-Trichlorophenol	ug/l	0	0.94	6.5
ISB1786-01	625+NDMA, LL	2,4-Dinitrotoluene	ug/l	0	4.7	9.1
ISB1786-01	625+NDMA, LL	Bis(2-ethylhexyl)phthalate	ug/l	1.51	4.7	4
ISB1786-01	625+NDMA, LL	N-Nitrosodimethylamine	ug/l	0	1.9	8.1
ISB1786-01	625+NDMA, LL	Pentachlorophenol	ug/l	1.47	1.9	8.2
ISB1786-01	Ammonia-N, Titr 4500NH3-C (w/disAmmonia-N (Distilled)		mg/l	0.56	0.50	2
ISB1786-01	Antimony-200.8	Antimony	ug/l	0.72	2.0	6
ISB1786-01	Arsenic-200.7	Arsenic	ug/l	5.20	10	10
ISB1786-01	Barium-200.7	Barium	mg/l	0.073	0.010	1
ISB1786-01	Beryllium-200.7	Beryllium	ug/l	0.39	2.0	4
ISB1786-01	BOD - SM5210B	Biochemical Oxygen Demand	mg/l	2.41	2.0	20
ISB1786-01	Cadmium-200.8	Cadmium	ug/l	0.14	1.0	2
ISB1786-01	Chloride - 300.0	Chloride	mg/l	10	0.50	150
ISB1786-01	Chlorine, Residual (330.5)	Residual Chlorine	mg/l	0.030	0.10	0.1
ISB1786-01	Chromium VI-218.6	Chromium VI	ug/l	0	1.0	8.1
<b>ISB1786-01</b>	<b>Chromium-200.7</b>	<b>Chromium</b>	<b>ug/l</b>	<b>10</b>	<b>5.0</b>	<b>8.1</b>
ISB1786-01	Copper-200.8	Copper	ug/l	6.61	2.0	7.1
ISB1786-01	Cyanide, Total-4500CN-E (5ppb)	Total Cyanide	ug/l	0	5.0	4.3
ISB1786-01	Fluoride SM4500F,C	Fluoride	mg/l	0.12	0.10	1.6
<b>ISB1786-01</b>	<b>Iron-200.7</b>	<b>Iron</b>	<b>mg/l</b>	<b>8.15</b>	<b>0.040</b>	<b>0.3</b>
<b>ISB1786-01</b>	<b>Lead-200.8</b>	<b>Lead</b>	<b>ug/l</b>	<b>6.56</b>	<b>1.0</b>	<b>2.6</b>
<b>ISB1786-01</b>	<b>Manganese-200.7</b>	<b>Manganese</b>	<b>ug/l</b>	<b>108</b>	<b>20</b>	<b>50</b>
ISB1786-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.097	0.10	0.5
ISB1786-01	Nickel-200.7	Nickel	ug/l	7.90	10	35
ISB1786-01	Nitrate-N, 300.0	Nitrate-N	mg/l	1.39	0.11	8
ISB1786-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
ISB1786-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	1.39	0.26	8
ISB1786-01	Perchlorate 314.0 (1ppb_IC6)	Perchlorate	ug/l	0	1.0	6
ISB1786-01	Selenium-200.8	Selenium	ug/l	0.52	2.0	4.1
<b>ISB1786-01</b>	<b>Settleable Solids - SM2540F</b>	<b>Total Settleable Solids</b>	<b>ml/l</b>	<b>0.20</b>	<b>0.10</b>	<b>0.1</b>
ISB1786-01	Silver-200.8	Silver	ug/l	0.052	1.0	2
ISB1786-01	Sulfate-300.0	Sulfate	mg/l	9.70	0.50	300
ISB1786-01	TDS - SM2540C	Total Dissolved Solids	mg/l	118	10	950

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ISB1786-01	Thallium-200.8	Thallium	ug/l	0.086	1.0	2
<b>ISB1786-01</b>	<b>TSS - SM2540D</b>	<b>Total Suspended Solids</b>	<b>mg/l</b>	<b>92</b>	<b>10</b>	<b>15</b>
ISB1786-01	Zinc-200.7	Zinc	ug/l	37	20	54

### Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ISB1786-01RE1	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	<b>0.013</b>	<b>0.0094</b>	<b>0.01</b>

### Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ISB1786-02	624-Boeing 001/002 Q (Fr113+X), L1,1-Dichloroethene		ug/l	0	0.50	3.2
ISB1786-02	624-Boeing 001/002 Q (Fr113+X), LTrichloroethene		ug/l	0	0.50	5

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## DATA QUALIFIERS AND DEFINITIONS

<b>B</b>	Analyte was detected in the associated Method Blank.
<b>C</b>	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
<b>HFT</b>	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
<b>HTV</b>	Holding Time Violation
<b>J</b>	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
<b>L</b>	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
<b>M1</b>	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
<b>M2</b>	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
<b>M-3</b>	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
<b>M7</b>	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
<b>MHA</b>	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
<b>MNR1</b>	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
<b>N</b>	Spike sample recovery is outside control limits.
<b>N2</b>	See corrective action report.
<b>pH</b>	pH = 5
<b>R-7</b>	LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
<b>Z2</b>	Surrogate recovery was above the acceptance limits. Data not impacted.
<b>ND</b>	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
<b>RPD</b>	Relative Percent Difference

## ADDITIONAL COMMENTS

### For TICs:

All identifications are tentative and concentrations are estimates based upon spectral comparison to the EPA/NIH library.

### For 1,2-Diphenylhydrazine:

The result for 1,2-Diphenylhydrazine is based upon the reading of its breakdown product, Azobenzene.

### For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

### For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

## TestAmerica Irvine

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## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 120.1	Water	X	X
EPA 1664A	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 218.6	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 330.5	Water	X	X
EPA 608	Water	X	X
EPA 624 (MOD.)	Water		X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	X
SM2540C	Water	X	
SM2540F	Water	X	X
SM4500-CN-C,E	Water	X	X
SM4500NH3-C	Water	X	X
SM5210B	Water	X	X
SM5310B	Water	X	X
SM5540-C	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)

### Subcontracted Laboratories

### TestAmerica Irvine

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## Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chronic  
Samples: ISB1786-01

Analysis Performed: Bioassay-Acute 96hr  
Samples: ISB1786-01

Analysis Performed: Level 4 Data Package  
Samples: ISB1786-01

## TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: CFR136A 608  
Samples: ISB1786-01

Method Performed: MCAWW 245.1  
Samples: ISB1786-01

Method Performed: MCAWW 245.1-DISS  
Samples: ISB1786-01

## TestAmerica Irvine

Joseph Doak  
Project Manager

MWH-Pasadena/Boeing  
618 Michillinda Avenue, Suite 200  
Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Annual Outfall 001

Report Number: ISB1786

Sampled: 02/16/09  
Received: 02/16/09

## TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Analysis Performed: Gamma Spec  
Samples: ISB1786-01

Analysis Performed: Gross Alpha  
Samples: ISB1786-01

Analysis Performed: Gross Beta  
Samples: ISB1786-01

Analysis Performed: Level 4 Data Package  
Samples: ISB1786-01

Analysis Performed: Radium, Combined  
Samples: ISB1786-01

Analysis Performed: Strontium 90  
Samples: ISB1786-01

Analysis Performed: Tritium  
Samples: ISB1786-01

Analysis Performed: Uranium, Combined  
Samples: ISB1786-01

## Truesdail Laboratories-SUB California Cert #1237

14201 Franklin Avenue - Tustin, CA 92680

Analysis Performed: Hydrazine  
Samples: ISB1786-01

## Vista Analytical NELAC Cert #02102CA, California Cert #1640, Nevada Cert #CA-413

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta  
Samples: ISB1786-01

Analysis Performed: EDD + Level 4  
Samples: ISB1786-01

## TestAmerica Irvine

Joseph Doak  
Project Manager



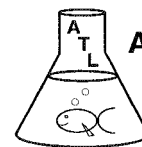


CHAIN OF CUSTODY FORM

Test America Version 12/20/07

Client Name/Address:		Project:		ANALYSIS REQUIRED										Comments					
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Boeing-SSFL NPDES Annual Outfall 001		VOCs 624 + xylenes + Cyclohexane + PP	VOCs 624 +A+A+2CVE	1,4-Dioxane	Total Organic Carbon	Total Residual Chlorine	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	PCBs	8015 - gas	8015 - diesel/jet fuel	Monomethylhydrazine	Acute and Chronic Toxicity	Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Cr, Ni, Se, Ag, Ti, Zn, Co, V, Hardness as CaCO <sub>3</sub>				
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	VOCs 624 + xylenes + Cyclohexane + PP	VOCs 624 +A+A+2CVE	1,4-Dioxane	Total Organic Carbon	Total Residual Chlorine	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	PCBs	8015 - gas	8015 - diesel/jet fuel	Monomethylhydrazine	Acute and Chronic Toxicity	Total Dissolved Metals: Cu, Pb, Hg, B, Ba, Fe, Mn, Sb, As, Be, Cd, Cr, Ni, Se, Ag, Ti, Zn, Co, V, Hardness as CaCO <sub>3</sub>	Comments
Outfall 001	W	VOAs	5	2-16-09 14:06	HCl	14A, 14B, 14C, 14D, 14E	X												
Outfall 001	W	VOAs	3		None	15A, 15B, 15C	X												
Outfall 001	W	VOAs	3		HCl	16A, 16B, 16C		X											
Outfall 001	W	250 ml Glass	1		HCl	17			X										
Outfall 001	W	150 ml Poly	1		None	18				X									TRC Exceeded on 2/3/08
Outfall 001	W	2.5 Gal Cube 500 ml Amber	1		None	19A						X							Unfiltered and unpreserved analysis
Outfall 001	W	1L Amber	1		None	19B							X						
Outfall 001	W	1L Amber	2		None	20A, 20B								X					
Outfall 001	W	VOAs	1		HCl	21A													
Outfall 001	W	VOAs	2		HCl	21B, 21C													
Outfall 001	W	1L Amber	1		None	22A								X					
Outfall 001 Dup	W	1L Amber	1		None	22B								X					
Outfall 001	W	1L Amber	2		None	23A, 23B										X			
Outfall 001	W	1 Gal Cube	2		None	24A, 24B											X		Filter win 24hrs of receipt at lab, Mn and Fe exceeded 2/28/08, 4/15/06, 1/25/06 and 2/3/08 resp.; 2/24/08 Fe exceeded & Mn didn't
Outfall 001	W	1L Poly	1	2-16-09 14:06	None	25													
Trip Blanks	W	VOAs	3		HCl	26A, 26B, 26C	X												
Trip Blanks	W	VOAs	3		None	27A, 27B, 27C		X											
Relinquished By	2-16-09		Date/Time:	Received By <i>Shirley TAI</i> 2/16/09 1615															
Relinquished By	2-16-09		Date/Time:	Received By <i>Shirley TAI</i> 2/16/09 2030															
Relinquished By	2-16-09		Date/Time:	Received By <i>Shirley TAI</i> 2/16/09 2030															

# LABORATORY REPORT



**Aquatic  
Testing  
Laboratories**

**Date:** February 25, 2009

**Client:** TestAmerica, Irvine  
17461 Derian Ave., Suite 100  
Irvine, CA 92614  
Attn: Joseph Doak

*"dedicated to providing quality aquatic toxicity testing"*

4350 Transport Street, Unit 107  
Ventura, CA 93003  
(805) 650-0546 FAX (805) 650-0756  
CA DOHS ELAP Cert. No.: 1775

**Laboratory No.:** A-09021704  
**Sample I.D.:** ISB1786-01 (Outfall 001)

**Sample Control:** The sample was received by ATL within the recommended hold time, chilled and with the chain of custody record attached. Testing conducted on only one sample per client instruction (rain runoff sample).

Date Sampled: 02/16/09  
Date Received: 02/17/09  
Temp. Received: 0.5°C  
Chlorine (TRC): 0.0 mg/l  
Date Tested: 02/17/09 to 02/24/09

**Sample Analysis:** The following analyses were performed on your sample:


Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0),  
*Ceriodaphnia dubia* Survival and Reproduction Test (EPA Method 1002).

Attached are the test data generated from the analysis of your sample.

## Result Summary:

<b>Acute:</b>	<u>Survival</u>	<u>TUa</u>
Fathead Minnow:	100%	0.0
<b>Chronic:</b>	<u>NOEC</u>	<u>TUc</u>
<i>Ceriodaphnia</i> Survival:	100%	1.0
<i>Ceriodaphnia</i> Reproduction:	100%	1.0

**Quality Control:** Reviewed and approved by:

  
Joseph A. LeMay  
Laboratory Director



**FATHEAD MINNOW PERCENT SURVIVAL TEST**  
**EPA Method 2000.0**



Lab No.: A-09021704-001  
 Client/ID: TestAmerica - ISB1786-01

Start Date: 02/17/2009

**TEST SUMMARY**

Species: *Pimephales promelas*.  
 Age: 14 (1-14) days.  
 Regulations: NPDES.  
 Test solution volume: 250 ml.  
 Feeding: prior to renewal at 48 hrs.  
 Number of replicates: 2.  
 Dilution water: Moderately hard reconstituted water.  
 Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.  
 Test type: Static-Renewal.  
 Test Protocol: EPA-821-R-02-012.  
 Endpoints: Percent Survival at 96 hrs.  
 Test chamber: 600 ml beakers.  
 Temperature: 20 +/- 1°C.  
 Number of fish per chamber: 10.  
 QA/QC Batch No.: RT-090203.

**TEST DATA**

		°C	DO	pH	# Dead		Analyst & Time of Readings
					A	B	
INITIAL	Control	20.6	8.8	8.0	0	0	Rv
	100%	19.6	11.3	7.5	0	0	1400
24 Hr	Control	19.7	8.4	7.4	0	0	Rv
	100%	19.8	8.4	6.7	0	0	1300
48 Hr	Control	20.0	7.7	7.3	0	0	Rv
	100%	20.0	7.8	6.8	0	0	1300
Renewal	Control	20.4	8.9	7.7	0	0	Rv
	100%	19.2	11.4	6.3	0	0	1300
72 Hr	Control	19.5	8.0	7.3	0	0	Rv
	100%	19.7	7.9	6.5	0	0	1230
96 Hr	Control	20.2	7.9	7.6	0	0	Rv
	100%	20.4	8.0	6.8	0	0	1400

**Comments:**

Sample as received: Chlorine: 0.0 mg/l; pH: 7.5; Conductivity: 102 umho; Temp: 0.5°C;  
 DO: 11.3 mg/l; Alkalinity: 20 mg/l; Hardness: 40 mg/l; NH<sub>3</sub>-N: 0.3 mg/l.  
 Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No.  
 Control: Alkalinity: 61 mg/l; Hardness: 94 mg/l; Conductivity: 300 umho.  
 Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / No  
 Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.  
 Dissolved Oxygen (DO) readings in mg/l O<sub>2</sub>.

**RESULTS**

Percent Survival In: Control: 100 % 100% Sample: 100 %

# ***CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST***

- *Test and Results Summary*
- *Data Summary and Statistical Analyses*
- *Raw Test Data: Water Quality & Test Organism Measurements*

**CERIODAPHNIA CHRONIC BIOASSAY  
EPA METHOD 1002.0**



Lab No.: A-09021704-001  
Client/ID: Test America - ISB1786-01 (Outfall 001)

Date Tested: 02/17/09 to 02/24/09

**TEST SUMMARY**

Test type: Daily static-renewal.	Endpoints: Survival and Reproduction.
Species: <i>Ceriodaphnia dubia</i> .	Source: In-laboratory culture.
Age: < 24 hrs; all released within 8 hrs.	Food: .1 ml YTC, algae per day.
Test vessel size: 30 ml.	Test solution volume: 15 ml.
Number of test organisms per vessel: 1.	Number of replicates: 10.
Temperature: 25 +/- 1°C.	Photoperiod: 16/8 hrs. light/dark cycle.
Dilution water: Mod. hard reconstituted (MHRW).	Test duration: 7 days.
QA/QC Batch No.: RT-090203.	Statistics: ToxCalc computer program.

**RESULTS SUMMARY**

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	17.4
100% Sample	100%	24.4

\* Sample not statistically significantly less than Control.

**CHRONIC TOXICITY**

Survival NOEC	100%
Survival TUC	1.0
Reproduction NOEC	100%
Reproduction TUC	1.0

**QA/QC TEST ACCEPTABILITY**

Parameter	Result
Control survival ≥80%	Pass (100% survival)
≥15 young per surviving control female	Pass (17.4 young)
≥60% surviving controls had 3 broods	Pass (80% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 14.8%)
Statistically significantly different concentrations relative difference > 13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 2/17/2009 15:00 Test ID: 9021704c Sample ID: ISB1786-01  
 End Date: 2/24/2009 15:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial  
 Sample Date: 2/16/2009 14:00 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia

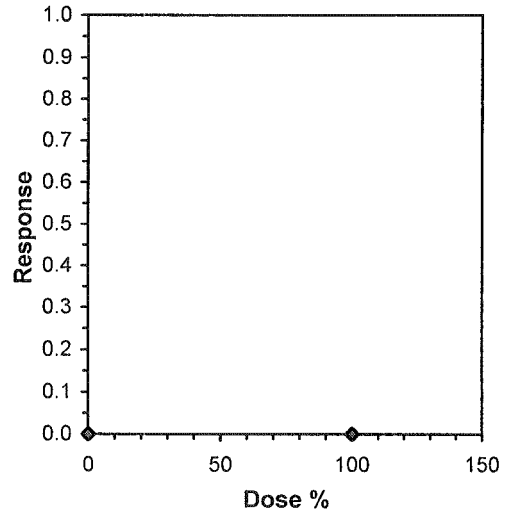
Comments:

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	N-Mean
D-Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs D-Control				

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 2/17/2009 15:00 Test ID: 9021704c Sample ID: ISB1786-01  
 End Date: 2/24/2009 15:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial  
 Sample Date: 2/16/2009 14:00 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia

Comments:

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	27.000	18.000	18.000	11.000	17.000	20.000	16.000	16.000	12.000	19.000
100	27.000	22.000	24.000	25.000	24.000	26.000	22.000	24.000	25.000	25.000

Conc-%	Mean	N-Mean	Transform: Untransformed				Rank Sum	1-Tailed Critical	Isotonic		
			Mean	Min	Max	CV%			N	Mean	N-Mean
D-Control	17.400	1.0000	17.400	11.000	27.000	25.444	10		20.900	1.0000	
100	24.400	1.4023	24.400	22.000	27.000	6.466	10	145.50	82.00	20.900	1.0000

**Auxiliary Tests**

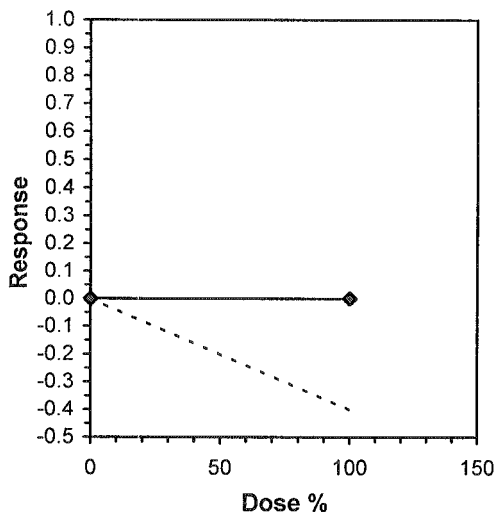
	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.88456	0.905	0.82274	3.85168
F-Test indicates unequal variances (p = 5.12E-03)	7.875	6.54109		

**Hypothesis Test (1-tail, 0.05)**

Wilcoxon Two-Sample Test indicates no significant differences  
 Treatments vs D-Control

**Linear Interpolation (200 Resamples)**

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**CERIODAPHNIA DUBIA CHRONIC BIOASSAY  
EPA METHOD 1002.0 Raw Data Sheet**



Lab No.: A-09021704-001

Client ID: TestAmerica - ISB1786-01

Start Date: 02/17/2009

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Time of Readings:		1500	1400	1400	1500	1500	1500	1500	1600	1600	1500	1500	1600	1600	1500
Control	DO	9.0	9.2	9.2	8.4	8.9	9.3	9.4	9.1	9.6	9.3	8.9	8.8	8.9	8.5
	pH	7.9	7.7	7.7	7.8	7.7	7.8	7.6	7.9	7.6	7.8	7.6	8.0	7.7	7.7
	Temp	25.7	24.5	25.4	24.3	25.5	24.2	25.5	24.4	25.4	24.1	25.4	24.4	25.2	24.2
100%	DO	11.0	9.7	10.4	8.8	10.3	9.6	10.2	9.7	9.7	9.5	9.6	9.0	9.5	9.3
	pH	6.2	7.0	6.4	7.2	6.5	7.2	6.4	7.4	6.3	7.4	6.3	7.3	6.1	7.0
	Temp	25.7	24.4	25.6	24.5	25.6	24.5	25.8	24.4	25.5	24.6	25.3	24.9	25.0	24.6

Additional Parameters	Control	100% Sample
Conductivity (umohms)	300	102
Alkalinity (mg/l CaCO <sub>3</sub> )	61	20
Hardness (mg/l CaCO <sub>3</sub> )	94	40
Ammonia (mg/l NH <sub>3</sub> -N)	<0.1	0.3

Source of Neonates											
Replicate:	A	B	C	D	E	F	G	H	I	J	
Brood ID:	A1	B2	C3	D2	E1	F2	G3	H1	I1	J3	

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	4	4	4	4	0	0	2	3	2	0	3	22	10	Rm
	5	0	0	0	5	4	0	4	5	4	6	28	10	Rm
	6	8	4	6	0	4	6	0	0	0	10	38	10	Rm
	7	15	10	8	6	9	12	9	9	8	0	86	10	Rm
	Total	27	18	18	11	17	20	16	16	12	19	174	10	Rm
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	4	6	4	5	5	4	4	4	4	4	4	44	10	Rm
	5	10	9	10	9	10	10	8	9	11	10	96	10	Rm
	6	0	9	9	11	10	12	10	11	10	11	93	10	Rm
	7	11	0	0	0	0	0	0	0	0	0	11	10	Rm
	Total	27	22	24	25	24	26	22	24	25	25	244	10	Rm

Circled fourth brood not used in statistical analysis.

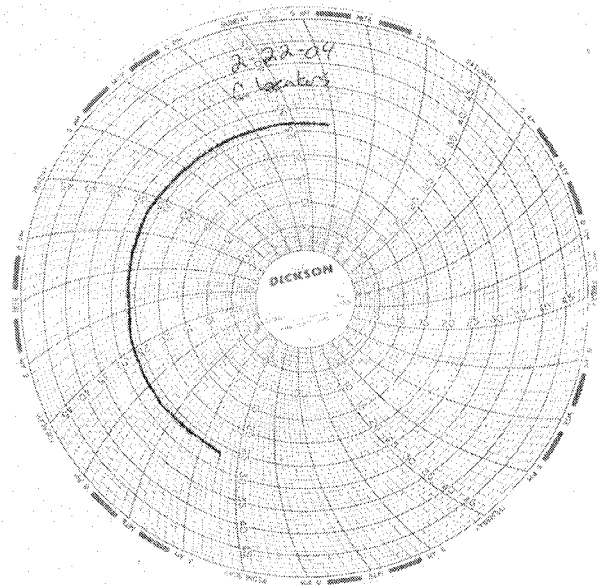
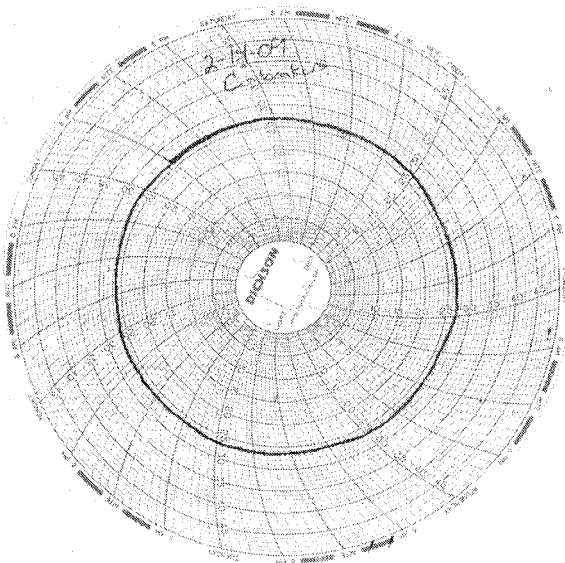
7<sup>th</sup> day only used if <60% of the surviving control females have produced their third brood.

# *Test Temperature Chart*

*Test No: A-090217*

*Date Tested: 02/17/09 to 02/24/09*

*Acceptable Range: 25+/- 1°C*





# ***CHAIN OF CUSTODY***



SUBCONTRACT ORDER

TestAmerica Irvine

ISB1786

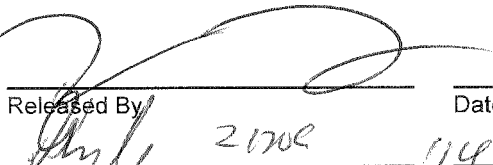
SENDING LABORATORY:

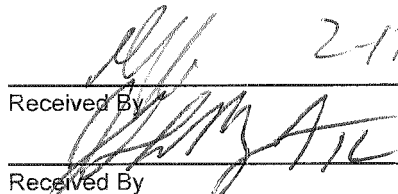
TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak


RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB  
4350 Transport Street, Unit 107  
Ventura, CA 93003  
Phone : (805) 650-0546  
Fax: (805) 650-0756  
Project Location: CA - CALIFORNIA  
Receipt Temperature: 0-5 °C Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
Sample ID: ISB1786-01	Water		Sampled: 02/16/09 14:00	
Bioassay-7 dy Chnrc	N/A	02/25/09	02/18/09 02:00	Cerio, EPA/821-R02-013, Sub to AqTox Labs
Bioassay-Acute 96hr	% Survival	02/25/09	02/18/09 02:00	FH minnow, EPA/821-R02-012, Sub to AqTox Labs
Level 4 Data Package	N/A	02/25/09	03/16/09 14:00	
Containers Supplied:				
1 gal Poly (AU)	1 gal Poly (AV)			

Released By:  Date/Time: 2/17/09 11:42

Received By:  Date/Time: 2-17-09 7:14:05

Received By:  Date/Time: 2-17-09 11:42



***REFERENCE  
TOXICANT  
DATA***

*Fathead Minnow  
Acute Toxicity Test  
Reference  
Toxicant  
Data*

**FATHEAD MINNOW ACUTE**  
**Method 2000.0**  
**Reference Toxicant - SDS**



QA/QC Batch No.: RT-090203

**TEST SUMMARY**

Species: *Pimephales promelas*.  
 Age: 14 days old.  
 Regulations: NPDES.  
 Test chamber volume: 250 ml.  
 Feeding: Prior to renewal at 48 hrs.  
 Temperature: 20 +/- 1°C.  
 Number of replicates: 2.  
 Dilution water: MHSF.

Source: In-lab culture.  
 Test type: Static-Renewal.  
 Test Protocol: EPA-821-R-02-012.  
 Endpoints: LC50 at 96 hrs.  
 Test chamber: 600 ml beakers.  
 Aeration: None.  
 Number of organisms per chamber: 10.  
 Photoperiod: 16/8 hrs light/dark.

**TEST DATA**

Date/Time:	INITIAL			24 Hr					48 Hr				
	<u>2-3-09 1430</u>			<u>2-4-09 1400</u>					<u>2-5-09 1330</u>				
	<u>Rn</u>			<u>Rn</u>					<u>Rn</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>20.7</u>	<u>8.6</u>	<u>7.7</u>	<u>20.2</u>	<u>8.0</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>20.0</u>	<u>7.5</u>	<u>7.9</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>20.7</u>	<u>8.6</u>	<u>7.7</u>	<u>20.2</u>	<u>7.8</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>20.0</u>	<u>7.8</u>	<u>7.7</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.7</u>	<u>20.2</u>	<u>7.5</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.1</u>	<u>8.0</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.8</u>	<u>20.2</u>	<u>7.3</u>	<u>7.3</u>	<u>0</u>	<u>0</u>	<u>20.1</u>	<u>7.8</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
8.0 mg/l	<u>20.7</u>	<u>8.7</u>	<u>7.8</u>	<u>20.1</u>	<u>5.9</u>	<u>7.2</u>	<u>10</u>	<u>10</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Date/Time:	RENEWAL			72 Hr					96 Hr				
	<u>2-5-09 1330</u>			<u>2-6-09 1300</u>					<u>2-7-09 1400</u>				
	<u>Rn</u>			<u>Rn</u>					<u>Rn</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>20.8</u>	<u>8.8</u>	<u>7.7</u>	<u>20.1</u>	<u>6.6</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.6</u>	<u>6.0</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>20.8</u>	<u>8.8</u>	<u>7.7</u>	<u>20.2</u>	<u>6.9</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.2</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>20.8</u>	<u>8.8</u>	<u>7.8</u>	<u>20.1</u>	<u>6.7</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.1</u>	<u>7.3</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>20.8</u>	<u>8.9</u>	<u>7.8</u>	<u>20.2</u>	<u>6.9</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	<u>19.5</u>	<u>6.3</u>	<u>7.3</u>	<u>0</u>	<u>0</u>
8.0 mg/l	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>

Comments: Control: Alkalinity: 70 mg/l; Hardness: 92 mg/l; Conductivity: 312 umho.  
 SDS: Alkalinity: 71 mg/l; Hardness: 93 mg/l; Conductivity: 318 umho.

Concentration-response relationship acceptable? (see attached computer analysis):

Yes (response curve normal)

No (dose interrupted indicated or non-normal)

**Acute Fish Test-96 Hr Survival**

Start Date: 2/3/2009 14:30    Test ID: RT-090203    Sample ID: REF-Ref Toxicant  
 End Date: 2/7/2009 14:00    Lab ID: CAATL-Aquatic Testing Labs    Sample Type: SDS-Sodium dodecyl sulfate  
 Sample Date: 2/3/2009    Protocol: ACUTE-EPA-821-R-02-012    Test Species: PP-Pimephales promelas  
 Comments:

Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	1.0000
8	0.0000	0.0000

Conc-mg/L	Transform: Arcsin Square Root							Number Resp	Total Number
	Mean	N-Mean	Mean	Min	Max	CV%	N		
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

**Auxiliary Tests**

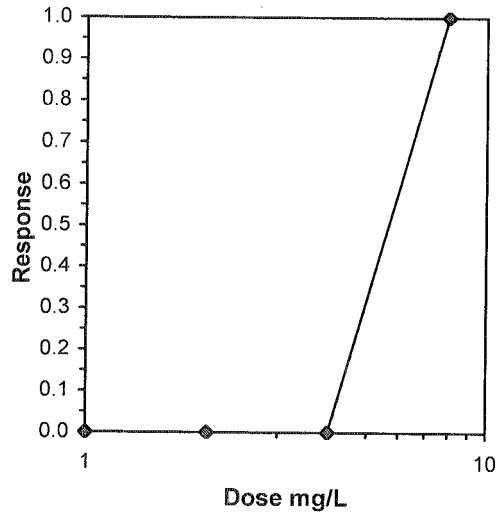
Normality of the data set cannot be confirmed  
 Equality of variance cannot be confirmed

Statistic                      Critical                      Skew                      Kurt

**Graphical Method**

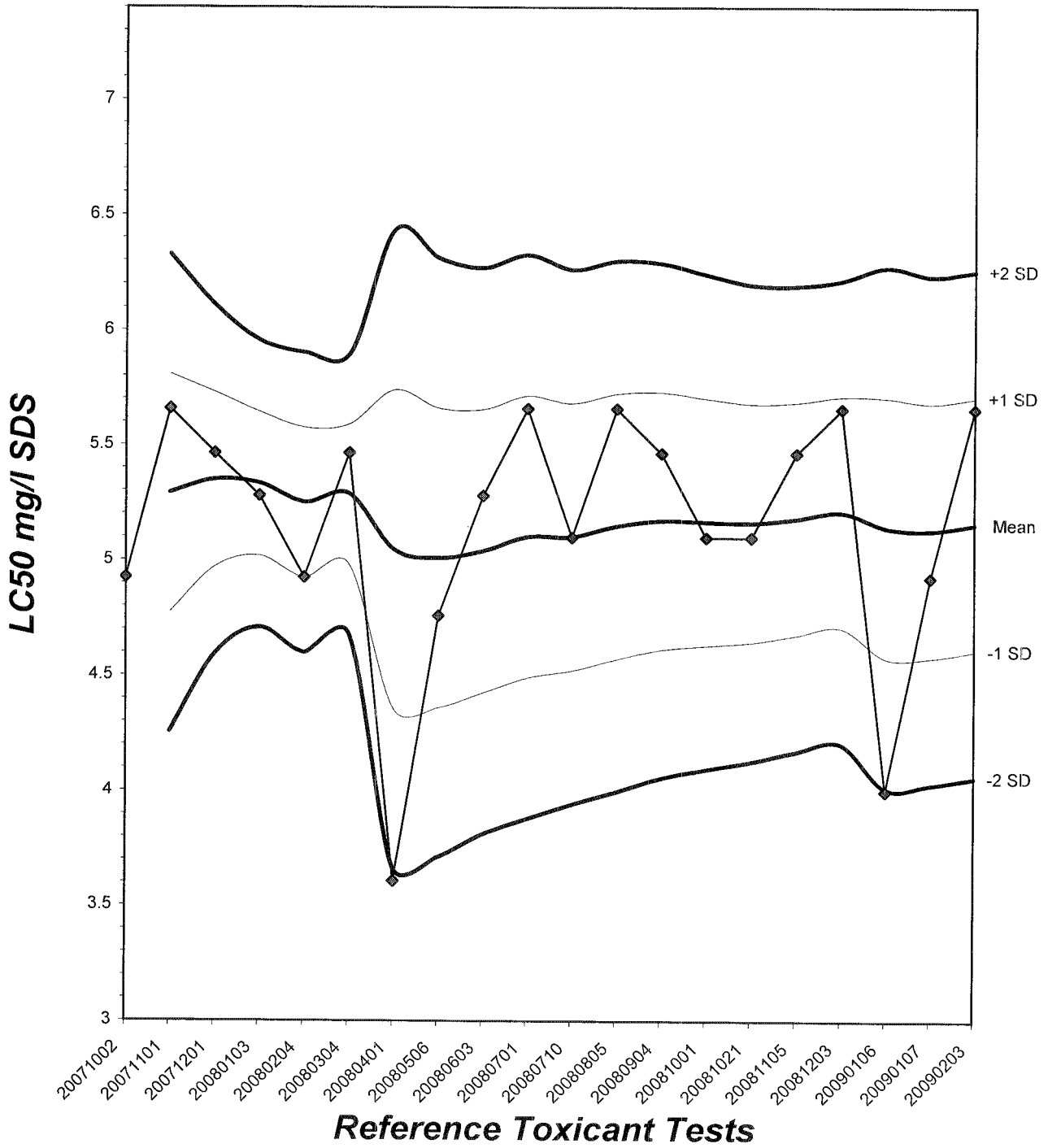
Trim Level    EC50  
 0.0%    5.6569

5.6569



# Fathead Minnow Acute Laboratory Control Chart

CV% = 10.7



# TEST ORGANISM LOG



## FATHEAD MINNOW - LARVAL (*Pimephales promelas*)

QA/QC BATCH NO.: RT-090203

SOURCE: In-Lab Culture

DATE HATCHED: 1-20-09

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: good

# MORTALITIES 48 HOURS PRIOR TO  
TO USE IN TESTING: 0

DATE USED IN LAB: 2-13-09

AVERAGE FISH WEIGHT: 0.006 gm

LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C

Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.

Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.

200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C

250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C

### ACCLIMATION WATER QUALITY:

Temp.: 20.7 °C

pH: 7.7

Ammonia: 401 mg/l NH<sub>3</sub>-N

DO: 8.6 mg/l

Alkalinity: 70 mg/l

Hardness: 92 mg/l

READINGS RECORDED BY: \_\_\_\_\_

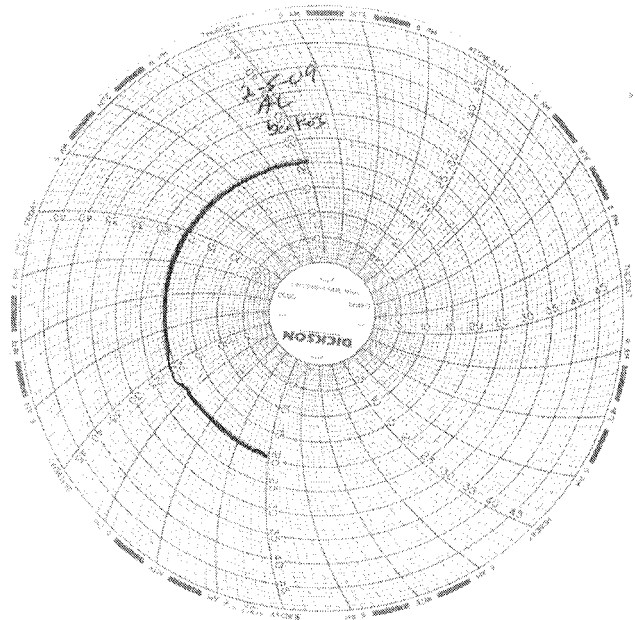
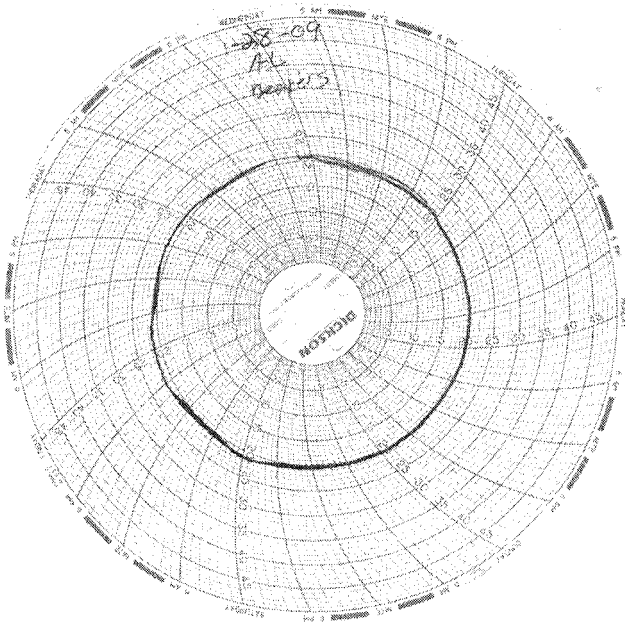
DATE: 2-7-09

# *Test Temperature Chart*

*Test No: RT-090203*

*Date Tested: 02/03/09 to 02/07/09*

*Acceptable Range: 20 $\pm$ 1 $^{\circ}$ C*





*Ceriodaphnia dubia*  
*Chronic Toxicity Test*  
*Reference*  
*Toxicant*  
*Data*

# CERIODAPHNIA CHRONIC BIOASSAY

## EPA METHOD 1002.0 REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-090203

Date Tested: 02/03/09 to 02/10/09

### TEST SUMMARY

Test type: Daily static-renewal.  
 Species: *Ceriodaphnia dubia*.  
 Age: < 24 hrs; all released within 8 hrs.  
 Test vessel size: 30 ml.  
 Number of test organisms per vessel: 1.  
 Temperature: 25 +/- 1°C.  
 Dilution water: Mod. hard reconstituted (MHRW).  
 Reference Toxicant: Sodium chloride (NaCl).

Endpoints: Survival and Reproduction.  
 Source: In-laboratory culture.  
 Food: .1 ml YTC, algae per day.  
 Test solution volume: 20 ml.  
 Number of replicates: 10.  
 Photoperiod: 16/8 hrs. light/dark cycle.  
 Test duration: 7 days.  
 Statistics: ToxCalc computer program.

### RESULTS SUMMARY

Sample Concentration	Percent Survival		Mean Number of Young Per Female	
Control	100%		24.1	
0.25 g/l	100%		25.5	
0.5 g/l	100%		23.5	
1.0 g/l	100%		16.4	*
2.0 g/l	90%		3.5	*
4.0 g/l	0%	*	0	**

\* Statistically significantly less than control at P = 0.05 level  
 \*\* Reproduction data from concentrations greater than survival NOEC are excluded from statistical analysis.

### CHRONIC TOXICITY

Survival LC50	2.6 g/l
Reproduction IC25	0.85 g/l

### QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥ 80%	Pass (100% Survival)
≥ 15 young per surviving control female	Pass (24.1 young)
≥ 60% surviving controls had 3 broods	Pass (90% with 3 broods)
PMSD < 47% for reproduction	Pass (PMSD = 9.6%)
Stat. sig. diff. conc. relative difference > 13%	Pass (Stat. sig. diff. conc. relative difference = 31.9%)
Concentration response relationship acceptable	Pass (Response curve normal)

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 2/3/2009 16:00    Test ID: RT-090203c    Sample ID: REF-Ref Toxicant  
 End Date: 2/10/2009 15:30    Lab ID: CAATL-Aquatic Testing Labs    Sample Type: NACL-Sodium chloride  
 Sample Date: 2/3/2009    Protocol: FWCH 4TH-EPA-821-R-02-0    Test Species: CD-Ceriodaphnia dubia

Comments:

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	0.9000	0.9000	1	9	10	10	0.5000	0.0500	1	10
4	0.0000	0.0000	10	0	10	10			10	10

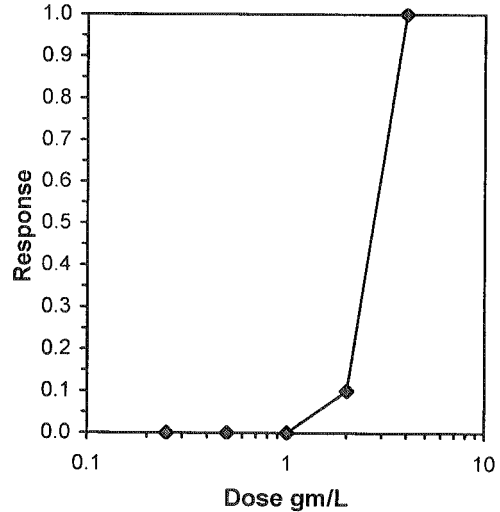
**Hypothesis Test (1-tail, 0.05)**    NOEC    LOEC    ChV    TU

Fisher's Exact Test                      2            4            2.82843

Treatments vs D-Control

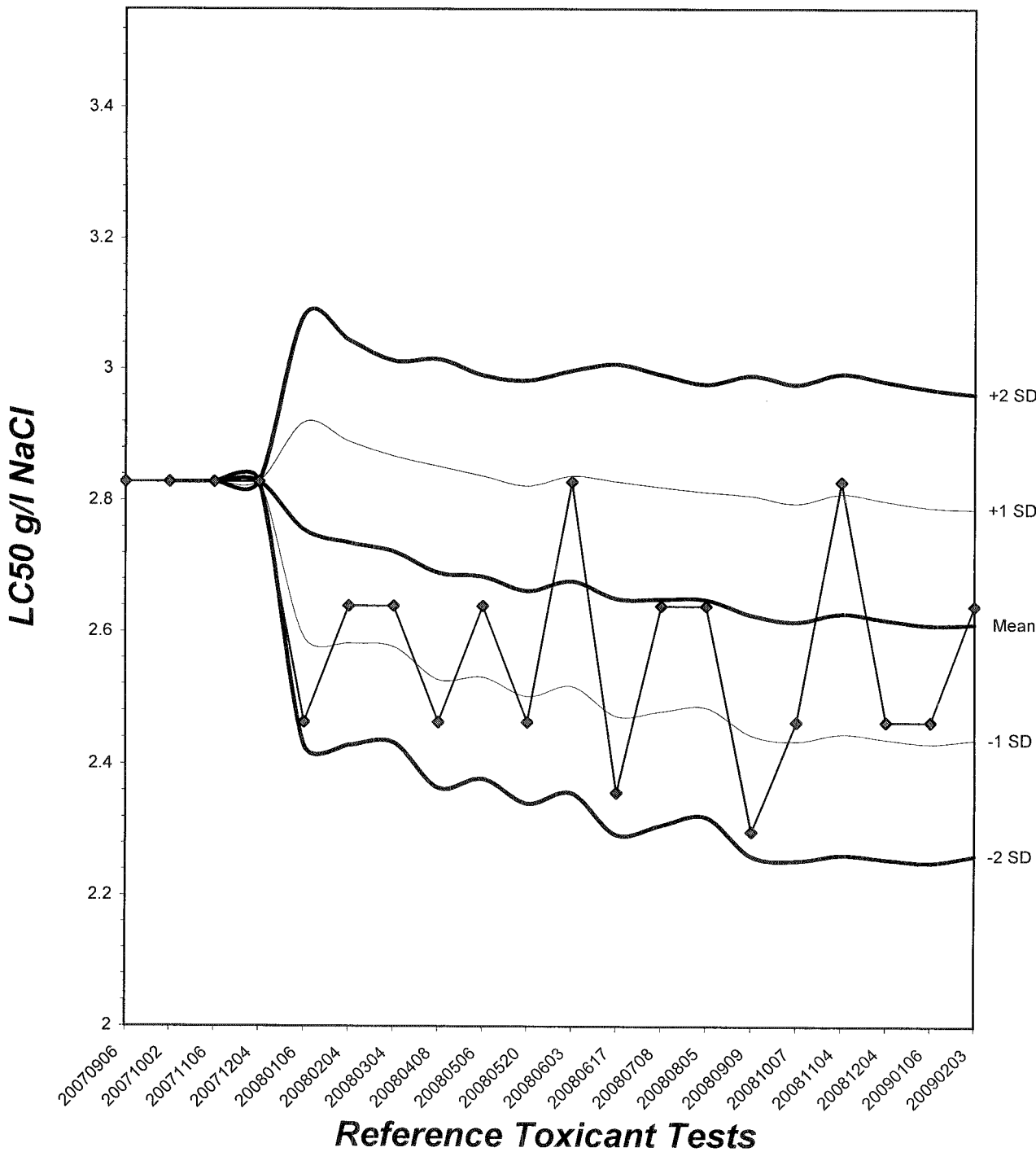
**Trimmed Spearman-Kärber**

Trim Level	EC50	95% CL	
0.0%	2.6390	2.3138	3.0099
5.0%	2.6984	2.2899	3.1798
10.0%	2.7216	2.5094	2.9517
20.0%	2.7216	2.5094	2.9517
Auto-0.0%	2.6390	2.3138	3.0099



# Ceriodaphnia Chronic Survival Laboratory Control Chart

CV% = 6.71



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 2/3/2009 16:00    Test ID: RT-090203c    Sample ID: REF-Ref Toxicant  
 End Date: 2/10/2009 15:30    Lab ID: CAATL-Aquatic Testing Labs    Sample Type: NACL-Sodium chloride  
 Sample Date: 2/3/2009    Protocol: FWCH 4TH-EPA-821-R-02-0    Test Species: CD-Ceriodaphnia dubia

Comments:

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	25.000	19.000	26.000	25.000	24.000	25.000	24.000	25.000	22.000	26.000
0.25	20.000	26.000	29.000	30.000	26.000	25.000	26.000	24.000	25.000	24.000
0.5	26.000	18.000	20.000	22.000	23.000	25.000	27.000	24.000	30.000	20.000
1	10.000	9.000	20.000	21.000	23.000	20.000	10.000	22.000	19.000	10.000
2	2.000	2.000	4.000	2.000	5.000	5.000	2.000	6.000	5.000	2.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-gm/L	Mean	N-Mean	Transform: Untransformed					Rank Sum	1-Tailed Critical	Isotonic	
			Mean	Min	Max	CV%	N			Mean	N-Mean
D-Control	24.100	1.0000	24.100	19.000	26.000	8.846	10			24.800	1.0000
0.25	25.500	1.0581	25.500	20.000	30.000	10.819	10	121.00	76.00	24.800	1.0000
0.5	23.500	0.9751	23.500	18.000	30.000	15.571	10	98.50	76.00	23.500	0.9476
*1	16.400	0.6805	16.400	9.000	23.000	35.578	10	62.00	76.00	16.400	0.6613
*2	3.500	0.1452	3.500	2.000	6.000	47.140	10	55.00	76.00	3.500	0.1411
4	0.000	0.0000	0.000	0.000	0.000	0.000	10			0.000	0.0000

**Auxiliary Tests**

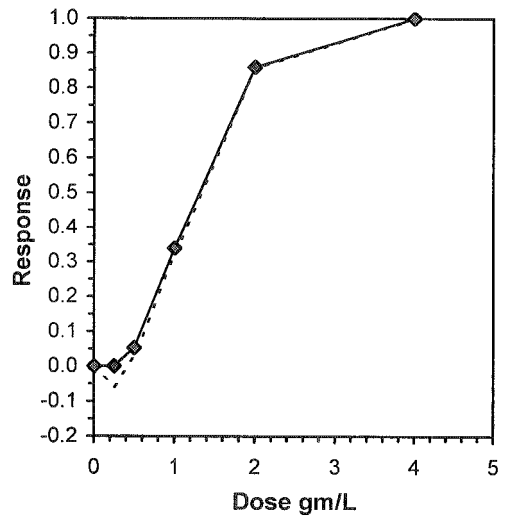
	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.95819	0.947	-0.3265	-0.1582
Bartlett's Test indicates unequal variances (p = 2.14E-03)	16.7726	13.2767		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	0.5	1	0.70711	

Treatments vs D-Control

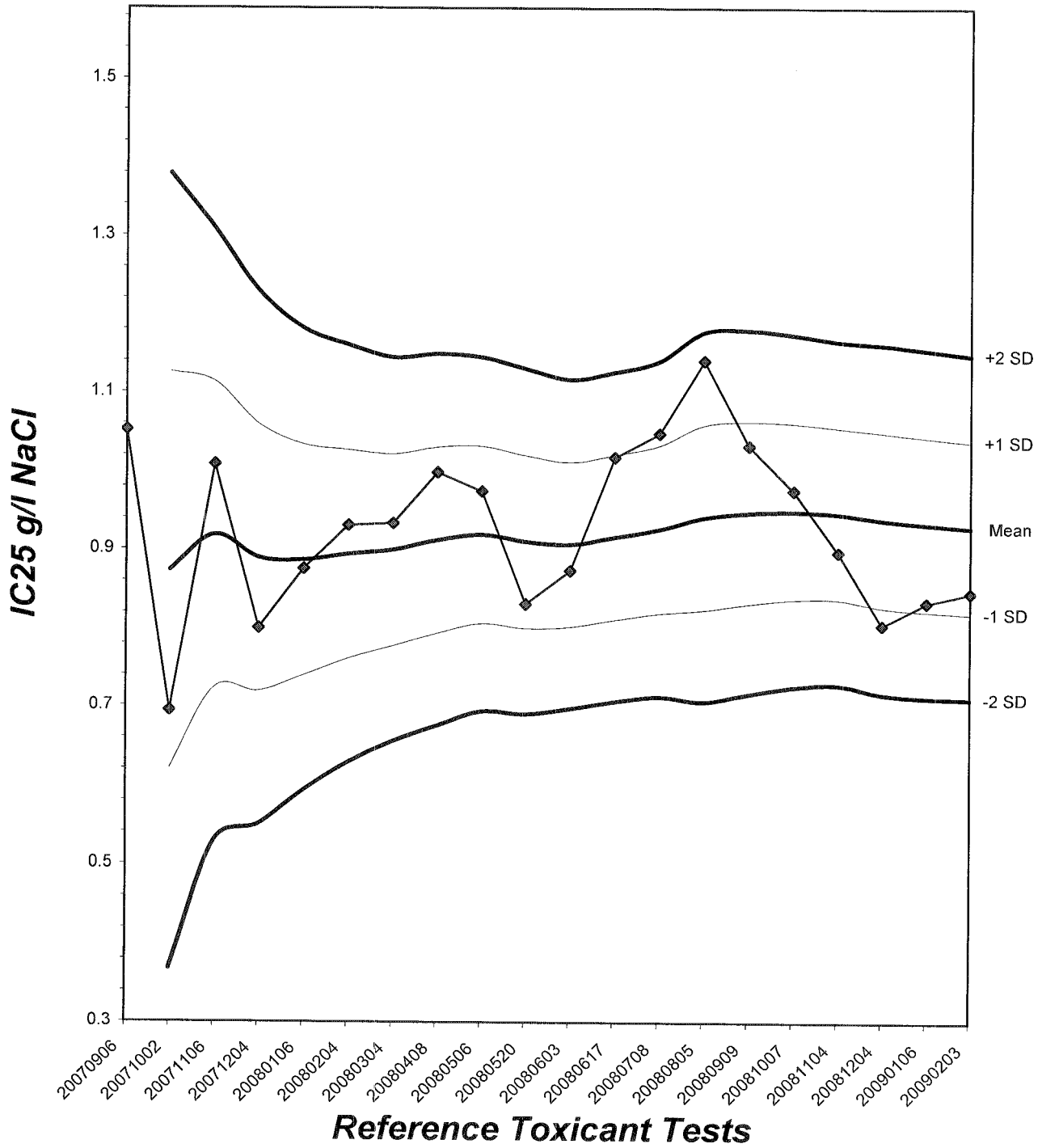
**Linear Interpolation (200 Resamples)**

Point	gm/L	SD	95% CL		Skew
IC05	0.4885	0.0860	0.3398	0.6005	-0.0581
IC10	0.5831	0.0780	0.4322	0.7065	0.2232
IC15	0.6704	0.0835	0.5271	0.8274	0.7408
IC20	0.7577	0.0888	0.6245	0.9501	0.7504
IC25	0.8451	0.0959	0.7133	1.0505	0.6224
IC40	1.1178	0.1068	0.9221	1.2861	-0.1220
IC50	1.3101	0.0961	1.0946	1.4453	-0.6206



# Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 11.8



# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

## Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	RL
	2	0	0	0	0	0	0	0	0	0	0	0	10	RL
	3	3	0	0	5	4	4	3	4	3	4	30	10	RL
	4	8	3	4	7	6	7	0	6	0	7	48	10	RL
	5	0	0	10	<del>10</del>	0	14	7	0	6	0	37	10	RL
	6	14	16	0	13	0	0	0	0	0	15	58	10	RL
	7	13	0	12	0	14	12	14	15	13	0	68	10	RL
	Total	25	19	26	25	24	25	24	25	22	26	241	10	RL
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	10	RL	
	2	0	0	0	0	0	0	0	0	0	0	10	RL	
	3	3	0	0	0	5	0	4	3	0	0	15	10	RL
	4	7	4	3	4	0	3	0	7	4	3	35	10	RL
	5	0	8	11	10	7	12	7	14	7	6	82	10	RL
	6	0	0	15	16	0	0	0	0	0	0	31	10	RL
	7	10	14	0	0	14	10	15	12	14	15	92	10	RL
	Total	20	26	29	30	26	25	26	24	25	24	255	10	RL
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	10	RL	
	2	0	0	0	0	0	0	0	0	0	0	10	RL	
	3	0	0	0	0	4	4	0	4	3	0	15	10	RL
	4	5	6	5	4	0	0	4	0	0	3	27	10	RL
	5	7	0	0	8	6	7	9	6	11	7	61	10	RL
	6	0	0	0	0	0	14	0	0	16	10	40	10	RL
	7	14	12	15	10	13	0	14	14	0	0	92	10	RL
	Total	26	18	20	22	23	25	27	24	30	20	235	10	RL

Circled fourth brood not used in statistical analysis.

7<sup>th</sup> day only used if <60% of the surviving control females have produced their third brood.

# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

## Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials	
		A	B	C	D	E	F	G	H	I	J				
1.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	0	10	R
	2	0	0	0	0	0	0	0	0	0	0	0	0	10	R
	3	0	0	0	0	0	0	0	0	0	0	0	0	10	R
	4	4	3	4	3	2	4	3	2	3	4	4	32	10	R
	5	0	0	0	11	10	7	0	11	0	0	0	53	10	R
	6	6	0	0	0	11	0	7	0	0	6	6	30	10	R
	7	0	6	10	7	0	9	0	9	8	0	0	49	10	R
	Total	10	9	20	21	23	20	10	22	19	6	10	164	10	R
2.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	R	
	2	0	0	0	0	0	0	0	0	0	0	0	10	R	
	3	0	0	0	0	0	0	0	0	0	0	0	10	R	
	4	2	0	0	0	0	0	0	2	3	0	0	7	10	R
	5	0	2	2	0	3	2	2	0	0	0	0	11	10	R
	6	0	0	0	2	0	0	0	4	2	0	0	8	10	R
	7	0	X	2	0	2	3	0	0	0	2	2	9	10	R
	Total	2	2	4	2	5	5	2	6	5	2	2	35	9	R
4.0 g/l	1	X	X	X	X	X	X	X	X	X	X	0	0	R	
	2	-	-	-	-	-	-	-	-	-	-	-	-	R	
	3	-	-	-	-	-	-	-	-	-	-	-	-	R	
	4	-	-	-	-	-	-	-	-	-	-	-	-	R	
	5	-	-	-	-	-	-	-	-	-	-	-	-	R	
	6	-	-	-	-	-	-	-	-	-	-	-	-	R	
	7	-	-	-	-	-	-	-	-	-	-	-	-	R	
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	R

Circled fourth brood not used in statistical analysis.

7<sup>th</sup> day only used if <60% of the surviving control females have produced their third brood.



# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

## Reference Toxicant - NaCl Water Chemistries Raw Data Sheet



QA/QC No.: RT-090203

Start Date: 02/03/2009

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Analyst Initials:		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Jr	Rm	Jr	Rm	Jr
Time of Readings:		1600	1500	1500	1500	1500	1500	1500	1700	1700	1500	1500	1530	1530	1530
Control	DO	8.3	8.8	8.8	9.2	8.4	8.8	8.5	8.7	8.4	8.1	8.3	8.5	8.5	8.4
	pH	7.8	8.1	8.2	8.0	7.7	7.8	7.7	7.8	7.7	7.7	7.7	7.8	7.7	7.8
	Temp	25.0	24.1	24.2	24.0	25.5	24.1	25.5	24.0	25.0	24.1	24.7	24.6	25.0	24.1
0.25 g/l	DO	8.4	8.7	8.8	9.1	8.4	8.7	8.5	8.6	8.4	8.3	8.4	8.2	8.5	8.3
	pH	7.8	8.1	8.2	8.0	7.7	7.8	7.7	7.8	7.7	7.7	7.8	7.8	7.7	7.8
	Temp	25.0	24.2	24.2	24.1	25.5	24.3	25.5	24.2	25.0	24.3	24.8	24.2	24.8	24.4
0.5 g/l	DO	8.4	8.7	8.7	9.1	8.5	8.7	8.4	8.6	8.3	8.2	8.3	8.3	8.4	8.2
	pH	7.8	8.2	8.2	8.0	7.8	7.8	7.7	7.9	7.8	7.7	7.8	7.8	7.7	7.7
	Temp	25.0	24.0	24.2	24.0	25.5	24.1	25.4	24.0	25.0	24.2	24.9	24.4	24.7	24.2
1.0 g/l	DO	8.4	8.8	8.7	9.0	8.5	8.8	8.4	8.7	8.3	8.1	8.4	8.4	8.2	8.3
	pH	7.8	8.2	8.2	8.1	7.8	7.8	7.8	7.9	7.8	7.8	7.9	7.8	7.7	7.7
	Temp	25.0	24.0	24.1	24.3	25.4	24.2	25.3	24.1	25.0	24.3	24.4	24.3	24.6	24.1
2.0 g/l	DO	8.4	8.9	8.7	9.1	8.5	8.9	8.3	8.9	8.3	8.2	8.5	8.2	8.3	8.4
	pH	7.9	8.2	8.2	8.1	7.8	7.9	7.8	7.9	7.8	7.8	7.8	7.8	7.8	7.7
	Temp	24.9	24.3	24.0	24.0	25.3	24.2	25.1	24.2	25.0	24.4	25.0	24.4	24.3	24.4
4.0 g/l	DO	8.5	9.0	-	-	-	-	-	-	-	-	-	-	-	-
	pH	7.9	8.2	-	-	-	-	-	-	-	-	-	-	-	-
	Temp	24.8	24.2	-	-	-	-	-	-	-	-	-	-	-	-

Dissolved Oxygen (DO) readings are in mg/l O<sub>2</sub>; Temperature (Temp) readings are in °C.

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	312	300	305	6420	3350	3500
Alkalinity (mg/l CaCO <sub>3</sub> )	70	60	60	71	64	63
Hardness (mg/l CaCO <sub>3</sub> )	92	93	92	93	93	93

### Source of Neonates

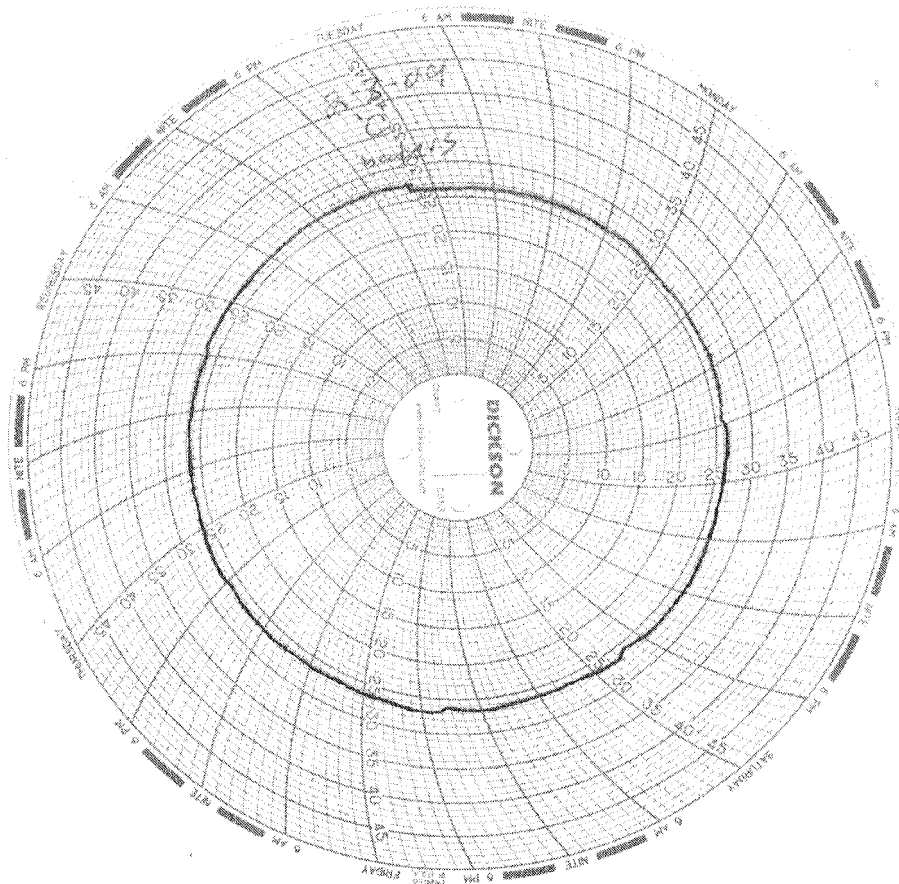
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	A1	B2	C3	D2	E3	F2	G1	H3	I1	J2

# Test Temperature Chart

Test No: **RT-090203**

Date Tested: **02/03/09 to 02/10/09**

Acceptable Range: **25 $\pm$ 1 $^{\circ}$ C**





TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9B190127

Project ISB1786

Joseph Doak  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

TestAmerica Laboratories, Inc.

  
for DiLea Griego  
Project Manager

February 24, 2009

# Table of Contents

## Standard Deliverables with Supporting Documentation

### Report Contents

### Number of Pages

#### Standard Deliverables

*(The Cover Letter and the Report Cover page are considered integral parts of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*

- Table of Contents
- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- Chain-of-Custody

#### Supporting Documentation

*(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.)*

Check below when supporting documentation is present.

- Volatile GC/MS
- Semivolatile GC/MS
- Volatile GC
- Semivolatile GC
- LC/MS or HPLC
- Metals
- General Chemistry
- Subcontracted Data

## Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

## Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on February 18, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

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## Quality Control Summary for Lot D9B190127

### Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 2.6°C.

### Total Mercury –Method 245.1

MS/MSD (Matrix Spike/Matrix Spike Duplicate) analyses were performed on a sample from another client and/or lot. The MS/MSD for method 245.1 exhibited spike compound recoveries below the QC limits for Mercury. The acceptable LCS (Laboratory Control Sample) analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No anomalies were observed.

### Dissolved Mercury –Method 245.1

No anomalies were observed.

# EXECUTIVE SUMMARY - Detection Highlights

D9B190127

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

# METHODS SUMMARY

D9B190127

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

## References:

MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.



# METHOD / ANALYST SUMMARY

D9B190127

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 245.1	Christopher Grisdale	9582

**References:**

MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.

# SAMPLE SUMMARY

D9B190127

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K7EJ8	001	ISB1786-01	02/16/09	14:00

**NOTE (S) :**

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

# QC DATA ASSOCIATION SUMMARY

D9B190127

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 245.1		9050174	9050101
	WATER	MCAWW 245.1		9050182	9050105

# TestAmerica

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## Total Metals

CLP-Like Forms

Lot ID:     D9B190127    

Client:     TestAmerica-Irvine    

Method:     245.1    

Associated Samples:     -001    

Batch:     9050174

Total Metals  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine

SDG No.: D9B190127

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SOW No.: \_\_\_\_\_

Sample ID.

Lab Sample No.

ISB1786-01

D9B190127-001

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YES

If yes-were raw data generated before application of background corrections?

Yes/No NO

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Signature: 

Name: Yongming Ding

Date: 2/24/2009

Title: Analyst V

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050174  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:** ISB1786-01  
**Lab Sample ID:** D9B190127-001  
**Lab WorkOrder:** K7EJ8  
**Date/Time Collected:** 02/16/09 14:00  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 17:46  
**Instrument ID:** 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Total Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.087	101.2	5.000	4.879	97.6	4.931	98.6	CV

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

Total Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	4.924	98.5			CV

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



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

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9B190127

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: \_\_\_\_\_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.19300	96.5					

Comments:

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050174  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9B190000-174B  
**Lab WorkOrder:** K7EN8  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 17:16  
**Instrument ID:** 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

**Total Metals**

-3-

**BLANKS**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3	C	C	C		
Mercury	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	0.027   U	CV	

Comments:

**TestAmerica Irvine**

**Total Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050174  
**MS Sample Aliquot:** 10 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9B190119-001S  
**MS Lab WorkOrder:** K7EHT  
**Date/Time Collected:** 02/16/09 09:30  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 17:23  
**Instrument ID:** 023

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.032	J	4.29		85	N	90 - 110

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050174  
**MSD Sample Aliquot:** 10 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9B190119-001D  
**MSD Lab WorkOrder:** K7EHT  
**Date/Time Collected:** 02/16/09 09:30  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 17:25  
**Instrument ID:** 023

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.032	J	4.29		85	N	0.0		90 - 110	10

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050174  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9B190000-174C  
**Lab WorkOrder:** K7EN8  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 17:18  
**Instrument ID:** 023

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.78	96		90 - 110

**Total Metals**  
-10-  
**DETECTION LIMITS**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

ICP ID Number: \_\_\_\_\_ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number: \_\_\_\_\_

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Total Metals

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Method: CV Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
MB9050174	2/19/2009	10.0	10.0
Check Sample	2/19/2009	10.0	10.0
INTRA-LAB QC	2/19/2009	10.0	10.0
LAB MS	2/19/2009	10.0	10.0
LAB MSD	2/19/2009	10.0	10.0
ISB1786-01	2/19/2009	10.0	10.0

Comments:



Total Metals

-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_

Case No.: \_\_\_\_\_

SAS No.: \_\_\_\_\_

SDG No.: D9B190127

Instrument ID Number: Cetac M7500 Hg

Method: CV

Start Date: 2/19/2009

End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	A L	N T	T L	V L	Z N	C N			
Cal Blank	1.00	15:48																											X		
Std1	1.00	15:50																											X		
Std2	1.00	15:52																											X		
Std3	1.00	15:54																											X		
Std4	1.00	15:57																											X		
Std5	1.00	15:59																											X		
Std6	1.00	16:01																											X		
ICB	1.00	16:04																											X		
ICV	1.00	16:07																											X		
RL	1.00	16:09																											X		
CCV	1.00	17:02																											X		
CCB	1.00	17:04																											X		
ZZZZZZ	1.00	17:07																													
ZZZZZZ	1.00	17:09																													
ZZZZZZ	1.00	17:11																													
ZZZZZZ	1.00	17:14																													
MB9050174	1.00	17:16																											X		
Check Sample	1.00	17:18																											X		
INTRA-LAB QC	1.00	17:21																											X		
LAB MS	1.00	17:23																											X		
LAB MSD	1.00	17:25																											X		
CCV	1.00	17:28																											X		
CCB	1.00	17:30																											X		
ZZZZZZ	1.00	17:32																													
ZZZZZZ	1.00	17:34																													
ZZZZZZ	1.00	17:37																													
ZZZZZZ	1.00	17:39																													
ZZZZZZ	1.00	17:41																													
ZZZZZZ	1.00	17:44																													
ISB1786-01	1.00	17:46																											X		
ZZZZZZ	1.00	17:48																													
ZZZZZZ	1.00	17:51																													
CCV	1.00	17:53																											X		

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



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Dissolved Metals

CLP-Like Forms

Lot ID: D9B190127

Client: TestAmerica-Irvine

Method: 245.1

Associated Samples: -001

Batch: 9050182

Dissolved Metals  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9B190127  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
ISB1786-01 D9B190127-001

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

Comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Signature: *Yongming Ding* Name: Yongming Ding  
Date: 2/24/2009 Title: Analyst V

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050182  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:** ISB1786-01  
**Lab Sample ID:** D9B190127-001  
**Lab WorkOrder:** K7EJ8  
**Date/Time Collected:** 02/16/09 14:00  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 16:46  
**Instrument ID:** 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury	7.000	7.087	101.2	5.000	5.110	102.2	4.974	99.5	CV

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

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	4.879	97.6	5.127	102.5	CV

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

Dissolved Metals

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Mercury				5.000	5.097	101.9			CV

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



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

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9B190127

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source: \_\_\_\_\_

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
	True	Found	%R	Initial		Final		
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.19300	96.5					

Comments:

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050182  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9B190000-182B  
**Lab WorkOrder:** K7EPP  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 16:16  
**Instrument ID:** 023

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.027	0.027	0.20	U

Dissolved Metals

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	2	3	4	5	6		
Mercury	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U	CV	

Comments:

**Dissolved Metals**

-3-

**BLANKS**

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	M
		1	C	2	C	3	C		
Mercury		0.027	U	0.027	U				CV

Comments:

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050182  
**MS Sample Aliquot:** 10 mL  
**MS Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MS Lab Sample ID:** D9B190119-001S  
**MS Lab WorkOrder:** K7EHT  
**Date/Time Collected:** 02/16/09 09:30  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 16:23  
**Instrument ID:** 023

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.030	J	4.57		91		90 - 110

**TestAmerica Irvine**

**Dissolved Metals Analysis Data Sheet**

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050182  
**MSD Sample Aliquot:** 10 mL  
**MSD Dilution Factor:** 1

**Client Sample ID:** LAB MS/MSD  
**MSD Lab Sample ID:** D9B190119-001D  
**MSD Lab WorkOrder:** K7EHT  
**Date/Time Collected:** 02/16/09 09:30  
**Date/Time Received:** 02/18/09 10:15  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 16:25  
**Instrument ID:** 023

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.030	J	4.55		90		0.37		90 - 110	10

## TestAmerica Irvine

### Dissolved Metals Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9B190127  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 245.1  
**Unit:** ug/L  
**QC Batch ID:** 9050182  
**Sample Aliquot:** 10 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9B190000-182C  
**Lab WorkOrder:** K7EPP  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 02/19/09 13:30  
**Date/Time Analyzed:** 02/19/09 20:18  
**Instrument ID:** 023

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.63	93		90 - 110

Dissolved Metals  
-10-  
DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

ICP ID Number: \_\_\_\_\_ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number: \_\_\_\_\_

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Dissolved Metals

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG NO.: D9B190127

Method: CV Prep Method: \_\_\_\_\_

Sample ID	Preparation Date	Initial Volume	Final Volume (mL)
MB9050182	2/19/2009	10.0	10.0
Check Sample	2/19/2009	10.0	10.0
INTRA-LAB QC	2/19/2009	10.0	10.0
LAB MS	2/19/2009	10.0	10.0
LAB MSD	2/19/2009	10.0	10.0
ISB1786-01	2/19/2009	10.0	10.0

Comments:

Dissolved Metals

-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9B190127

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 2/19/2009 End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
Cal Blank	1.00	15:48																										X			
Std1	1.00	15:50																										X			
Std2	1.00	15:52																										X			
Std3	1.00	15:54																										X			
Std4	1.00	15:57																										X			
Std5	1.00	15:59																										X			
Std6	1.00	16:01																										X			
ICB	1.00	16:04																										X			
ICV	1.00	16:07																										X			
RL	1.00	16:09																										X			
CCV	1.00	16:11																										X			
CCB	1.00	16:14																										X			
MB9050182	1.00	16:16																										X			
ZZZZZZ	1.00	16:18																													
INTRA-LAB QC	1.00	16:21																										X			
LAB MS	1.00	16:23																										X			
LAB MSD	1.00	16:25																										X			
ZZZZZZ	1.00	16:27																													
ZZZZZZ	1.00	16:30																													
ZZZZZZ	1.00	16:32																													
ZZZZZZ	1.00	16:34																													
CCV	1.00	16:37																										X			
CCB	1.00	16:39																										X			
ZZZZZZ	1.00	16:41																													
ZZZZZZ	1.00	16:44																													
ISB1786-01	1.00	16:46																										X			
ZZZZZZ	1.00	16:48																													
ZZZZZZ	1.00	16:51																													
ZZZZZZ	1.00	16:53																													
ZZZZZZ	1.00	16:55																													
ZZZZZZ	1.00	16:57																													
ZZZZZZ	1.00	17:00																													
CCV	1.00	17:02																										X			

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

Dissolved Metals

-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: D9B190127

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 2/19/2009 End Date: 2/19/2009

Sample ID.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V L	Z N	C N		
CCB	1.00	17:04																									X		
CCV	1.00	20:14																									X		
CCB	1.00	20:16																									X		
Check Sample	1.00	20:18																									X		
CCV	1.00	20:21																									X		
CCB	1.00	20:23																									X		

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



*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot # D9B190127

**Login Checks:**

*Initials*

N/A Yes No

AB

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

**Labeling and Storage Checks:**

*Initials*

AB

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

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

2.6  
AG  
IRI  
2/18/9

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1786

SENDING LABORATORY:

TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak  
Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Phone : (303) 736-0100  
Fax: (303) 431-7171  
Project Location: CA - CALIFORNIA  
Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
----------	-------	-----	---------	----------------	-------	----------

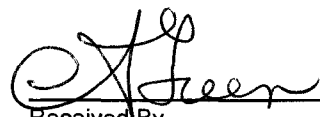
Sample ID: ISB1786-01	Water	Sampled: 02/16/09 14:00				
-----------------------	-------	-------------------------	--	--	--	--

Level 4 + EDD-OUT	N/A	02/25/09	03/16/09 14:00	\$0.00	0%	**LEVEL IV QC, ACCESS 7 EDD**
Mercury - 245.1, Diss -OUT	ug/l	02/25/09	03/16/09 14:00	\$36.00	0%	OUT to Denver, Boeing, J flags
Mercury - 245.1-OUT	ug/l	02/17/09	03/16/09 14:00	\$36.00	100%	OUT to Denver, Boeing, J flags

Containers Supplied:

125 mL Poly (AX)      1 L Poly w/HNO3 (B)

  
 Released By \_\_\_\_\_ Date/Time 02-17-09 16:13

  
 Received By \_\_\_\_\_ Date/Time 2/18/9 10:15

Released By \_\_\_\_\_ Date/Time  
TestAmerica

Received By \_\_\_\_\_ Date/Time  
Page 1 of 1  
NPDES - 215 43

# Metals

## Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9B190127

Client: TA-Irvine-Boeing

Batch(es) #: 9050182 + 9050174

Associated Samples: |

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

Signature/Date: Christopher Grödale 2/20/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9B190127	1	HG	K7EJ81AC	20090219	M2451DS	9050182	090219AA	023
D9B190127	1	HG	K7EJ81AA	20090219	M2451_L	9050174	090219AA	023



# Metals

## Supporting Documentation

Sample Sequence, Instrument Printouts

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9B190121

Client: TA - Irvine - Boeing

Batch(es) #: 9050182 + 9050174

Associated Samples: 1

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

Signature/Date: Christopher Girdale 2/20/09

# *Metals Raw Data RoadMap*

<i>LotID</i>		<i>Metal</i>	<i>WorkOrder</i>	<i>Anal Date</i>	<i>TestDesc</i>	<i>Batch</i>	<i>File Id</i>	<i>Instr</i>
D9B190121	1	HG	K7EH51AC	20090219	M2451DS	9050182	090219AA	023
D9B190121	1	HG	K7EH51AA	20090219	M2451_L	9050174	090219AA	023

**METALS  
PREPARATION LOGS  
CVAA**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

**SUPPLEMENTAL METALS PREP SHEET**

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

**Hg PREP & ANALYSIS - WATERS**

SOP: DEN-MT-0015 QC Batch #: 9050182

Prep Date: 02/19/09	Prep By: CGG	Analysis Date: 02/19/09	Analyst: CGG
---------------------	--------------	-------------------------	--------------

Balance ID: H53865	Thermometer ID: MT 4025
--------------------	-------------------------

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	13:30	93	15:30	93

Purple color persists or black ppt present:  Yes  No If "No", explain in Comments below.

**Digestion Tube Lot # :**

For dissolved mercury only, were samples filtered in the lab?  Yes  No

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

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

Analyst(s) Initials:

**Reagents Used**

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO <sub>3</sub>	JT Baker	G25032		0.25
H <sub>2</sub> SO <sub>4</sub>	Fisher	E49F06		0.5
HCl	JT Baker	G36024		used by instrument
10% SnCl <sub>2</sub>	Fisher	G20637	STD-1027-09	added by instrument
NaCl / NH <sub>2</sub> OH	Fisher	G28617	STD-1026-09	0.6
	Fisher	G06476		
KMnO <sub>4</sub>	Fisher	G10662	STD-0920-09	1.5
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Fisher	083661	STD-0351-09	0.8

**Parent Calibration Stock Standards**

	Lot #	Verification #	Exp. Date
Second Source	A2-HG02056	STD-2364-08	06/01/09
Primary Calibration	H00091	STD-1683-08	05/01/09

**Standards Preparation**

Final digestate volume = 10 ml

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

**Second Source ICV Intermediate Stock Standard Prep**

Standards Log #: STD-0993-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments *Dissolved - 245.1 Boeing*

I certify that all information above is correct and complete.

Signature: *Cris Gradale*

Date: *2/20/09*

REVIEWED BY: *[Signature]*

Date: *2/20/09*

TestAmerica Laboratories, Inc.  
Metals Prep Log/ Batch Summary

*MS*

Prep Date: 02/19/09 *MS*  
Due Date: 02/24/09

Lot	Work Order		Due Date: SDG:	Initial Weight/Volume
D9B190000 Water	K7EPP	B 1	Due Date: SDG:	<u>10 mL</u>
D9B190000 Water	K7EPP	C 2	Due Date: SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT Dissolved	3	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT Dissolved	S 4	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT Dissolved	D 5	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190121 Water	K7EH5 Dissolved	6	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190123 Water	K7EH6 Dissolved	7	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190125 Water	K7EJJ Dissolved	8	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190126 Water	K7EJ6 Dissolved	9	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190127 Water	K7EJ8 Dissolved	10	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190128 Water	K7EJ9 Dissolved	11	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190129 Water	K7EKA Dissolved	12	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190130 Water	K7EKD Dissolved	13	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190131 Water	K7EKE Dissolved	14	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190132 Water	K7EKK Dissolved	15	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190133 Water	K7EKJ Dissolved	16	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190134 Water	K7EKN Dissolved	17	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190135 Water	K7EKM Dissolved	18	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190137 Water	K7EKW Dissolved	19	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190138 Water	K7EKX Dissolved	20	Due Date: 02/24/09 SDG:	<u>10 mL</u>

*MS*  
*2/20/09*



**SUPPLEMENTAL METALS PREP SHEET**

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)



THE LEADER IN ENVIRONMENTAL TESTING  
TestAmerica Denver

**Hg PREP & ANALYSIS - WATERS**

SOP: DEN-MT-0015 QC Batch #: 9050174

Prep Date: 02/19/09	Prep By: CGG	Analysis Date: 02/19/09	Analyst: CGG
---------------------	--------------	-------------------------	--------------

<b>Balance ID:</b> H53865	<b>Thermometer ID:</b> MT 4025
---------------------------	--------------------------------

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	13:30	93	15:30	93

Purple color persists or black ppt present:  Yes  No If "No", explain in Comments below.

**Digestion Tube Lot # :**

For dissolved mercury only, were samples filtered in the lab?  Yes  No

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

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

Analyst(s) Initials: CG

**Reagents Used**

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO <sub>3</sub>	JT Baker	G25032		0.25
H <sub>2</sub> SO <sub>4</sub>	Fisher	E49F06		0.5
HCl	JT Baker	G36024		used by instrument
10% SnCl <sub>2</sub>	Fisher	G20637	STD-1027-09	added by instrument
NaCl / NH <sub>2</sub> OH	Fisher	G28617	STD-1026-09	0.6
	Fisher	G06476		
KMnO <sub>4</sub>	Fisher	G10662	STD-0920-09	1.5
K <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Fisher	083661	STD-0351-09	0.8

**Parent Calibration Stock Standards**

	Lot #	Verification #	Exp. Date
Second Source	A2-HG02056	STD-2364-08	06/01/09
Primary Calibration	H00091	STD-1683-08	05/01/09

**Standards Preparation** Final digestate volume = 10 mls

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

**Second Source ICV Intermediate Stock Standard Prep** Standards Log #: STD-0993-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments Total - 245.1 - Boiling

I certify that all information above is correct and complete.

Signature: Chris Grisdale Date: 2/20/09

REVIEWED BY: L Date: 2/20/09

TestAmerica Laboratories, Inc.  
Metals Prep Log/ Batch Summary

Prep Date: 02/19/09 *CS*  
Due Date: 02/24/09

Lot	Work Order		Due Date:	Initial Weight/Volume
D9B190000 Water	K7EN8	B 1	SDG:	<u>10 mL</u>
D9B190000 Water	K7EN8	C 2	SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT	3	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT	S 4	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190119 Water	K7EHT	D 5	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190121 Water	K7EH5	6	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190123 Water	K7EH6	7	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190125 Water	K7EJJ	8	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190126 Water	K7EJ6	9	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190127 Water	K7EJ8	10	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190128 Water	K7EJ9	11	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190129 Water	K7EKA	12	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190130 Water	K7EKD	13	Due Date: 02/24/09 SDG:	<u>10 mL</u>
<del>D9B190131 Water</del>	<del>K7EKE</del>	<del>14</del>	<del>Due Date: 02/24/09 SDG:</del>	<del>10 mL</del>
D9B190132 Water	K7EKK	15	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190133 Water	K7EKJ	16	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190134 Water	K7EKN	17	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190135 Water	K7EKM	18	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190137 Water	K7EKW	19	Due Date: 02/24/09 SDG:	<u>10 mL</u>
D9B190138 Water	K7EKX	20	Due Date: 02/24/09 SDG:	<u>10 mL</u>

*MA,*  
*No total*  
*Vol. Received*  
*CS 2/18/09*

*✓*  
*2/20/09*



Batch Number: 9050174

TestAmerica Laboratories, Inc.  
Metals Prep Log/ Batch Summary

Prepared By:

OS

Prep Date: 02/19/09 OS

Due Date: 02/24/09

Lot

Work Order

Initial Weight/Volume

**Comments:**

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

**METALS  
SAMPLE DATA  
CVAA**

**TestAmerica**

**THE LEADER IN ENVIRONMENTAL TESTING**

# TestAmerica Denver

## Standards Preparation Logbook Record

Feb-20-2009

Logbook: \\Densvr06\StdsLog\metals.std

### STD1683-08, 1000 mg/L Hg Calibration Stock Standard (Ultra)

Analyst: grisdalec

Vendor: Ultra Scientific (Metals) Lot No.: H00091 Vendor's Expiration Date: 05-01-2009  
Solvent: 2% HN03  
Date Prep./Opened: 04-03-2008 Date Received: 03-31-2008  
Date Expires(1): 04-03-2009 (1 Year)  
Date Expires(2): 05-01-2009 (None)  
Date Verified: 12-31--4714 by 0 (Verification ID: -)

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (%)</u>
Mercuric Nitrate	100.00	100.00

### STD2364-08, Hg Inorganic Ventures ICV 100ppm Std

Analyst: grisdalec

Vendor: Inorganic Ventures Lot No.: A2-HG02056 Vendor's Expiration Date: 06-01-2009  
Solvent: 3.3%HCl  
Date Prep./Opened: 05-01-2008 Date Received: 05-02-2007  
Date Expires(1): 05-01-2009 (1 Year)  
Date Expires(2): 06-01-2009 (None)  
Date Verified: 12-31--4714 by 0 (Verification ID: -)

<u>Component</u>	<u>Initial Conc (mg/L)</u>	<u>Final Conc (mg/L)</u>
Hg	100.00	100.00

### STD0437-09, 10 mg/L Hg Calibration Std

Analyst: wellsld

Solvent: 1% HN03 Lot No.: G02058 Volume (ml): 100.00  
Date Prep./Opened: 01-26-2009  
Date Expires(1): 02-26-2009 (1 Month)  
Date Expires(2): 02-26-2009 (1 Month)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1683-08, 1000 mg/L Hg Calibration Stock Standard (Ultra) Aliquot Amount (ml): 1.0000  
Parent Date Expires(1): 04-03-2009 Parent Date Expires(2): 05-01-2009

<u>Component</u>	<u>Initial Conc (%)</u>	<u>Final Conc (mg/L)</u>
Mercuric Nitrate	100.00	10,000

STD0993-09, Hg Inorganic Ventures ICV 700ppb

Analyst: GRISDALEC

Solvent: 1% HNO3 Lot No.: G02058  
Date Prep./Opened: 02-18-2009  
Date Expires(1): 03-04-2009 (2 Weeks)  
Date Expires(2): 06-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Parent Std No.: STD2364-08, Hg Inorganic Ventures ICV 100ppm Std  
Parent Date Expires(1): 05-01-2009 Parent Date Expires(2): 06-01-2009

Aliquot Amount (ml): 0.7000

Component	Initial Conc (mg/L)	Final Conc (ug/L)
Hg	100.00	700.00

STD1017-09, 100 ppb Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 02-20-2009 (1 Day)  
Date Expires(2): 05-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Parent Std No.: STD0437-09, 10 mg/L Hg Calibration Std  
Parent Date Expires(1): 02-26-2009 Parent Date Expires(2): 02-26-2009

Aliquot Amount (ml): 1.0000

Component	Initial Conc (mg/L)	Final Conc (ug/ml)
Mercuric Nitrate	10,000	100.00

STD1018-09, Blank Daily Hg Calibration Std

Analyst: GRISDALEC

Vendor: Baker Lot No.: G17027  
Solvent: 1% HN03  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 08-19-2009 (6 Months)  
Date Expires(2): 02-19-2010 (1 Year)  
Date Verified: 12-31--4714 by 0 (Verification ID:-)

Component	Initial Conc (%)	Final Conc (%)
Nitric Acid	1.0000	1.0000

STD1019-09, 0.2 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 02-20-2009 (1 Day)  
Date Expires(2): 05-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 0.2000  
 Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	0.2000

STD1020-09, 0.5 ppb Daily Hg Calibration Std Analyst: GRISDALEC  
 Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00  
 Date Prep./Opened: 02-19-2009  
 Date Expires(1): 02-20-2009 (1 Day)  
 Date Expires(2): 05-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 0.5000  
 Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	0.5000

STD1021-09, 1.0 ppb Daily Hg Calibration Std Analyst: GRISDALEC  
 Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00  
 Date Prep./Opened: 02-19-2009  
 Date Expires(1): 02-20-2009 (1 Day)  
 Date Expires(2): 05-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 1.0000  
 Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	1.0000

STD1022-09, 2.0 ppb Daily Hg Calibration Std Analyst: GRISDALEC  
 Solvent: 1% HN03 Lot No.: G17027 Volume (ml): 100.00  
 Date Prep./Opened: 02-19-2009  
 Date Expires(1): 02-20-2009 (1 Day)  
 Date Expires(2): 05-01-2009 (None)  
 Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 2.0000  
 Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	2.0000

STD1023-09, 5.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 02-20-2009 (1 Day)  
Date Expires(2): 05-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std  
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Aliquot Amount (ml): 5.0000

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	5.0000

STD1024-09, 10.0 ppb Daily Hg Calibration Std

Analyst: GRISDALEC

Solvent: 1% HN03 Lot No.: G17027  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 02-20-2009 (1 Day)  
Date Expires(2): 05-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Date Consumed: 12-06-2006

Parent Std No.: STD1017-09, 100 ppb Hg Calibration Std  
Parent Date Expires(1): 02-20-2009 Parent Date Expires(2): 05-01-2009

Aliquot Amount (ml): 10.000

<u>Component</u>	<u>Initial Conc (ug/ml)</u>	<u>Final Conc (ug/ml)</u>
Mercuric Nitrate	100.00	10.000

STD1025-09, Hg Daily ICV 7ppb Calibration Std

Analyst: GRISDALEC

Solvent: 1% HNO3 Lot No.: G17027  
Date Prep./Opened: 02-19-2009  
Date Expires(1): 02-20-2009 (1 Day)  
Date Expires(2): 06-01-2009 (None)  
Date Verified: 12-31--4714 by - (Verification ID: 0)

Volume (ml): 100.00

Parent Std No.: STD0993-09, Hg Inorganic Ventures ICV 700ppb  
Parent Date Expires(1): 03-04-2009 Parent Date Expires(2): 06-01-2009

Aliquot Amount (ml): 1.0000

<u>Component</u>	<u>Initial Conc (ug/L)</u>	<u>Final Conc (ug/L)</u>
Hg	700.00	7.0000

Reviewed By:

Christopher Grisdale 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury)

Instrument: A (023)

Reported: 02/20/09 07:53:42

Sequence: 090219AA Date: 02/19/09 15:48

Analyst: CGG ICV: CAL/CCV:

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
1	Cal Blank				0.00	1.0	0.00	ppb		02/19/09 15:48		<input type="checkbox"/>
2	Std1 = 0.200				0.20	1.0	0.20	ppb	100.0%	02/19/09 15:50		<input type="checkbox"/>
3	Std2 = 0.500				0.50	1.0	0.50	ppb	100.0%	02/19/09 15:52		<input type="checkbox"/>
4	Std3 = 1.00				1.00	1.0	1.00	ppb	100.0%	02/19/09 15:54		<input type="checkbox"/>
5	Std4 = 2.00				2.00	1.0	2.00	ppb	100.0%	02/19/09 15:57		<input type="checkbox"/>
6	Std5 = 5.00				5.00	1.0	5.00	ppb	100.0%	02/19/09 15:59		<input type="checkbox"/>
7	Std6 = 10.0				10.00	1.0	10.00	ppb	100.0%	02/19/09 16:01		<input type="checkbox"/>
8	ICB				-0.00	1.0	-0.00	ppb		02/19/09 16:04		<input type="checkbox"/>
9	ICV = 7.00				7.09	1.0	7.09	ppb	101.2%	02/19/09 16:07		<input type="checkbox"/>
10	RL = 0.200				0.19	1.0	0.19	ppb		02/19/09 16:09		<input type="checkbox"/>
11	CCV = 5.00				5.11	1.0	5.11	ppb	102.2%	02/19/09 16:11		<input type="checkbox"/>
12	CCB				0.00	1.0	0.00	ppb		02/19/09 16:14		<input type="checkbox"/>
13	K7EPPBF D9B190000		9050182		0.00	1.0	0.00	ppb		02/19/09 16:16		<input type="checkbox"/>
14	<del>K7EPPCF D9B190000 = 5.00</del>		<del>9050182</del>		<del>4.37</del>	<del>1.0</del>	<del>4.37</del>	<del>ppb</del>	<del>87.5%</del>	<del>02/19/09 16:16</del>	NA Bad read, see return later.	<input type="checkbox"/>
15	K7EHTF D9B190119-1		9050182	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 16:21		<input type="checkbox"/>
16	K7EHTSF D9B190119-1 = 5.00		9050182	AQUEOUS	4.57	1.0	4.57	ppb		02/19/09 16:23		<input type="checkbox"/>
17	K7EHTDF D9B190119-1 = 5.00		9050182	AQUEOUS	4.55	1.0	4.55	ppb		02/19/09 16:25		<input type="checkbox"/>
18	<del>K7EHTSE D9B190119-1 = 5.00</del>		<del>9050182</del>	<del>AQUEOUS</del>	<del>4.65</del>	<del>1.0</del>	<del>4.65</del>	<del>ppb</del>		<del>02/19/09 16:27</del>		<input type="checkbox"/>
19	<del>K7EHTDF D9B190119-1 = 5.00</del>		<del>9050182</del>	<del>AQUEOUS</del>	<del>4.65</del>	<del>1.0</del>	<del>4.65</del>	<del>ppb</del>		<del>02/19/09 16:27</del>	NA Confirms above	<input type="checkbox"/>
20	K7EH5F D9B190121-1		9050182	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 16:32		<input type="checkbox"/>
21	K7EH6F D9B190123-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:34		<input type="checkbox"/>
22	CCV = 5.00				4.97	1.0	4.97	ppb	99.5%	02/19/09 16:37		<input type="checkbox"/>
23	CCB				0.00	1.0	0.00	ppb		02/19/09 16:39		<input type="checkbox"/>
24	K7EJF D9B190125-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:41		<input type="checkbox"/>
25	K7EJ6F D9B190126-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:44		<input type="checkbox"/>
26	K7EJ8F D9B190127-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:46		<input type="checkbox"/>
27	K7EJ9F D9B190128-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:48		<input type="checkbox"/>
28	K7EKAF D9B190129-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:51		<input type="checkbox"/>
29	K7EKDF D9B190130-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:53		<input type="checkbox"/>
30	K7EKEF D9B190131-1		9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 16:55		<input type="checkbox"/>
31	K7EKKF D9B190132-1		9050182	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 16:57		<input type="checkbox"/>
32	K7EKJ D9B190133-1		<del>9050182</del>	<del>AQUEOUS</del>	0.00	1.0	0.00	ppb		02/19/09 17:00		<input type="checkbox"/>
33	CCV = 5.00				4.88	1.0	4.88	ppb	97.6%	02/19/09 17:02		<input type="checkbox"/>
34	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:04		<input type="checkbox"/>

02/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury)

Instrument: A (023)

Reported: 02/20/09 07:53:42

Sequence: 090219AA

Date: 02/19/09 15:48

Analyst: CGG

ICV:

CAL/CCV:

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
35	K7EKNF	D9B190134-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:07		
36	K7EKMF	D9B190135-1	9050182	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 17:09		
37	K7EKWF	D9B190137-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:11		
38	K7EKXF	D9B190138-1	9050182	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:14		
39	K7EN8B	D9B190000	9050174		0.00	1.0	0.00	ppb		02/19/09 17:16		
40	K7EN8C	D9B190000 = 5.00	9050174		4.78	1.0	4.78	ppb	95.6%	02/19/09 17:18		
41	K7EHT	D9B190119-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 17:21		
42	K7EHTS	D9B190119-1 = 5.00	9050174	AQUEOUS	4.29	1.0	4.29	ppb		02/19/09 17:23		
43	K7EHTD	D9B190119-1 = 5.00	9050174	AQUEOUS	4.29	1.0	4.29	ppb		02/19/09 17:25		
44	CCV	= 5.00			4.93	1.0	4.93	ppb	98.6%	02/19/09 17:28		
45	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:30		
46	K7EHTS	D9B190119-1 = 5.00	9050174	AQUEOUS	4.25	1.0	4.25	ppb		02/19/09 17:32		
47	K7EHTD	D9B190119-1 = 5.00	9050174	AQUEOUS	4.29	1.0	4.29	ppb		02/19/09 17:34		
48	K7EH5	D9B190121-1	9050174	AQUEOUS	0.04	1.0	0.04	ppb		02/19/09 17:37		
49	K7EH6	D9B190123-1	9050174	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 17:39		
50	K7EJJ	D9B190125-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:41		
51	K7EJ6	D9B190126-1	9050174	AQUEOUS	0.04	1.0	0.04	ppb		02/19/09 17:44		
52	K7EJ8	D9B190127-1	9050174	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 17:46		
53	K7EJ9	D9B190128-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:48		
54	K7EKA	D9B190129-1	9050174	AQUEOUS	0.05	1.0	0.05	ppb		02/19/09 17:51		
55	CCV	= 5.00			4.92	1.0	4.92	ppb	98.5%	02/19/09 17:53		
56	CCB				-0.00	1.0	-0.00	ppb		02/19/09 17:55		
57	K7EKD	D9B190130-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 17:57		
58	K7EKK	D9B190132-1	9050174	AQUEOUS	0.11	1.0	0.11	ppb		02/19/09 18:00		
59	K7EKJ	D9B190133-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 18:02		
60	K7EKN	D9B190134-1	9050174	AQUEOUS	0.02	1.0	0.02	ppb		02/19/09 18:04		
61	K7EKM	D9B190135-1	9050174	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 18:07		
62	K7EKW	D9B190137-1	9050174	AQUEOUS	0.07	1.0	0.07	ppb		02/19/09 18:09		
63	K7EKX	D9B190138-1	9050174	AQUEOUS	0.03	1.0	0.03	ppb		02/19/09 18:11		
64	K7EN3B	D9B190000	9050173		-0.00	1.0	-0.00	ppb		02/19/09 18:14		
65	K7EN3C	D9B190000 = 5.00	9050173		4.83	1.0	4.83	ppb	96.6%	02/19/09 18:16		
66	CCV	= 5.00			4.96	1.0	4.96	ppb	99.3%	02/19/09 18:18		
67	CCB				-0.00	1.0	-0.00	ppb		02/19/09 18:20		
68	K7DXC	D9B180282-1	9050173	AQUEOUS	0.16	1.0	0.16	ppb		02/19/09 18:23		

NA Confirms about MS/MSD low. on 2/20/09

JCS 2/20/09



Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury)

Instrument: A (023)

Reported: 02/20/09 07:53:42

Sequence: 090219AA Date: 02/19/09 15:48 Analyst: CGG ICV: CAL/CCV: Comment

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment
69	K7DXCS	D9B180282-1 = 5.00	9050173	AQUEOUS	4.55	1.0	4.55	ppb		02/19/09 18:25	
70	K7DXCD	D9B180282-1 = 5.00	9050173	AQUEOUS	4.91	1.0	4.91	ppb		02/19/09 18:27	
71	K7EF3	D9B190114-1	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:30	
72	K7EGE	D9B190114-3	9050173	AQUEOUS	0.09	1.0	0.09	ppb		02/19/09 18:32	
73	K7EGM	D9B190114-5	9050173	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 18:34	
74	K7EGQ	D9B190114-7	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:37	
75	K7EG3	D9B190114-9	9050173	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 18:39	
76	K7EHD	D9B190114-11	9050173	AQUEOUS	0.80	1.0	0.80	ppb		02/19/09 18:41	
77	CCV	= 5.00			4.97	1.0	4.97	ppb	99.4%	02/19/09 18:44	
78	CCB				0.00	1.0	0.00	ppb		02/19/09 18:46	
79	K7D19BT	D9B180000	9050172		0.00	1.0	0.00	ppb		02/19/09 18:48	
80	K7ENVCT	D9B190000 = 5.00	9050172		4.92	1.0	4.92	ppb	98.4%	02/19/09 18:50	
81	K7A6XT	D9B170257-1	9050172	LEACHATE	0.05	1.0	0.05	ppb		02/19/09 18:53	
82	K7A6XP5T	D9B170257	9050172	LEACHATE	0.01	5.0	0.01	ppb		02/19/09 18:55	
83	K7A6XST	D9B170257-1 = 5.00	9050172	LEACHATE	4.78	1.0	4.78	ppb		02/19/09 18:57	
84	K7A6XDT	D9B170257-1 = 5.00	9050172	LEACHATE	4.19	1.0	4.19	ppb		02/19/09 19:00	
85	K7D2VBT	D9B180000	9050170		0.00	1.0	0.01	ppb		02/19/09 19:02	
86	K7ENRCT	D9B190000 = 5.00	9050170		4.98	1.0	4.98	ppb	99.5%	02/19/09 19:04	
87	K7A62T	D9B170257-2	9050170	LEACHATE	0.00	1.0	0.00	ppb		02/19/09 19:07	
88	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 19:09	
89	CCB				-0.00	1.0	-0.00	ppb		02/19/09 19:11	
90	K7A62P5T	D9B170257	9050170	LEACHATE	0.00	5.0	0.01	ppb		02/19/09 19:14	
91	K7A62ST	D9B170257-2 = 5.00	9050170	LEACHATE	5.27	1.0	5.27	ppb		02/19/09 19:16	
92	K7A62DT	D9B170257-2 = 5.00	9050170	LEACHATE	4.85	1.0	4.85	ppb		02/19/09 19:18	
93	K7EPWBF	D9B190000	9050183		-0.00	1.0	-0.00	ppb		02/19/09 19:21	
94	K7EPWCF	D9B190000 = 5.00	9050183		5.06	1.0	5.06	ppb	101.3%	02/19/09 19:23	
95	K7D51			AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:25	
96	K7D51SF	D9B180302-2 = 5.00	9050183	AQUEOUS	5.21	1.0	5.21	ppb		02/19/09 19:27	
97	K7D51DF	D9B180302-2 = 5.00	9050183	AQUEOUS	5.06	1.0	5.06	ppb		02/19/09 19:30	
98	K7D55F	D9B180302-4 = 5.00	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:32	
99	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 19:34	
100	CCB				0.00	1.0	0.00	ppb		02/19/09 19:37	
101	K7D57F	D9B180302-6	9050183	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 19:39	
102	K7D59F	D9B180302-8	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:41	

jos 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury)

Instrument: A (023)

Reported: 02/20/09 07:53:42

Sequence: 090219AA Date: 02/19/09 15:48 Analyst: CGG ICV: CAL/CCV: Comment

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Q
103	K7D6FF	D9B180302-10	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:44	<input type="checkbox"/>
104	K7D6HF	D9B180302-12	9050183	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 19:46	<input type="checkbox"/>
105	K7D6LF	D9B180302-14	9050183	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 19:48	<input type="checkbox"/>
106	K7EPKB	D9B190000	9050181		-0.00	1.0	-0.00	ppb		02/19/09 19:51	<input type="checkbox"/>
107	K7EPKC	D9B190000 = 5.00	9050181		4.97	1.0	4.97	ppb	99.4%	02/19/09 19:53	<input type="checkbox"/>
108	K7D5W	D9B180302-1	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 19:55	<input type="checkbox"/>
109	K7D5WS	D9B180302-1 = 5.00	9050181	AQUEOUS	4.67	1.0	4.67	ppb		02/19/09 19:57	<input type="checkbox"/>
110	CCV	= 5.00			5.13	1.0	5.13	ppb	102.6%	02/19/09 20:00	<input type="checkbox"/>
111	CCB				-0.00	1.0	-0.00	ppb		02/19/09 20:02	<input type="checkbox"/>
112	K7D5WD	D9B180302-1 = 5.00	9050181	AQUEOUS	4.66	1.0	4.66	ppb		02/19/09 20:04	<input type="checkbox"/>
113	K7D52	D9B180302-3	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 20:07	<input type="checkbox"/>
114	K7D56	D9B180302-5	9050181	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 20:09	<input type="checkbox"/>
115	CCV	= 5.00			5.13	1.0	5.13	ppb	102.5%	02/19/09 20:14	<input type="checkbox"/>
116	CCB				0.00	1.0	0.00	ppb		02/19/09 20:16	<input type="checkbox"/>
117	K7EPPCF	D9B190000 = 5.00	9050182		4.63	1.0	4.63	ppb	92.5%	02/19/09 20:18	<input type="checkbox"/>
118	CCV	= 5.00			5.10	1.0	5.10	ppb	101.9%	02/19/09 20:21	<input type="checkbox"/>
119	CCB				0.00	1.0	0.00	ppb		02/19/09 20:23	<input type="checkbox"/>
120	K7D58	D9B180302-7	9050181	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:25	<input type="checkbox"/>
121	K7D6E	D9B180302-9	9050181	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:28	<input type="checkbox"/>
122	K7D6G	D9B180302-11	9050181	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:30	<input type="checkbox"/>
123	K7D6K	D9B180302-13	9050181	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:32	<input type="checkbox"/>
124	K7EPPB	D9B190000	9050177		-0.00	1.0	-0.00	ppb		02/19/09 20:35	<input type="checkbox"/>
125	K7EPPC	D9B190000 = 5.00	9050177		5.06	1.0	5.06	ppb	101.2%	02/19/09 20:37	<input type="checkbox"/>
126	CCV	= 5.00			5.16	1.0	5.16	ppb	103.2%	02/19/09 20:39	<input type="checkbox"/>
127	CCB				-0.00	1.0	-0.00	ppb		02/19/09 20:42	<input type="checkbox"/>
128	K7C9X	D9B180183-1	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:44	<input type="checkbox"/>
129	K7C9XS	D9B180183-1 = 5.00	9050177	AQUEOUS	4.99	1.0	4.99	ppb		02/19/09 20:46	<input type="checkbox"/>
130	K7C9XD	D9B180183-1 = 5.00	9050177	AQUEOUS	5.03	1.0	5.03	ppb		02/19/09 20:49	<input type="checkbox"/>
131	K7C90	D9B180183-2	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:51	<input type="checkbox"/>
132	K7C91	D9B180183-3	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:53	<input type="checkbox"/>
133	K7C92	D9B180183-4	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 20:55	<input type="checkbox"/>
134	K7C93	D9B180183-5	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 20:58	<input type="checkbox"/>
135	K7C95	D9B180183-7	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:00	<input type="checkbox"/>
136	K7DA9	D9B180189-1	9050177	AQUEOUS	0.08	1.0	0.08	ppb		02/19/09 21:02	<input type="checkbox"/>

OK

Jan 2/20/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury)

Instrument: A (023)

Reported: 02/20/09 07:53:42

Sequence: 090219AA Date: 02/19/09 15:48 Analyst: CGG ICV: CAL/CCV: Comment

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Q
137	CCV	= 5.00			5.03	1.0	5.03	ppb	100.7%	02/19/09 21:05	Q
138	CCB				0.00	1.0	0.00	ppb		02/19/09 21:07	Q
139	K7DQ6	D9B180260-1	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:09	Q
140	K7DRC	D9B180260-2	9050177	AQUEOUS	0.24	1.0	0.24	ppb		02/19/09 21:12	Q
141	K7DRW	D9B180264-1	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:14	Q
142	K7DRX	D9B180264-2	9050177	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:16	Q
143	K7DR0	D9B180264-3	9050177	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:19	Q
144	K7EPHB	D9B190000	9050178		-0.00	1.0	-0.00	ppb		02/19/09 21:21	Q
145	K7EPHC	D9B190000 = 5.00	9050178		5.07	1.0	5.07	ppb	101.4%	02/19/09 21:23	Q
146	K7DCL	D9B180192-1	9050178	AQUEOUS	-0.00	1.0	-0.00	ppb		02/19/09 21:26	Q
147	K7DCLS	D9B180192-1 = 5.00	9050178	AQUEOUS	4.99	1.0	4.99	ppb		02/19/09 21:28	Q
148	CCV	= 5.00			5.11	1.0	5.11	ppb	102.3%	02/19/09 21:30	Q
149	CCB				0.00	1.0	0.00	ppb		02/19/09 21:32	Q
150	K7DCLD	D9B180192-1 = 5.00	9050178	AQUEOUS	5.04	1.0	5.04	ppb		02/19/09 21:35	Q
151	K7DCV	D9B180192-2	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:37	Q
152	K7DCW	D9B180192-3	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:39	Q
153	K7DCX	D9B180192-4	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:42	Q
154	K7DC0	D9B180192-5	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:44	Q
155	K7DC1	D9B180192-6	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:46	Q
156	K7DC5	D9B180192-7	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 21:49	Q
157	CCV	= 5.00			5.11	1.0	5.11	ppb	102.1%	02/19/09 21:51	Q
158	CCB				0.00	1.0	0.00	ppb		02/19/09 21:53	Q
159	K7DC9	D9B180192-8	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:56	Q
160	K7DDD	D9B180192-9	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 21:58	Q
161	K7DDG	D9B180192-10	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:00	Q
162	K7DDL	D9B180192-11	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:03	Q
163	K7DDQ	D9B180192-12	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:05	Q
164	K7DLC	D9B180238-1	9050178	AQUEOUS	0.01	1.0	0.01	ppb		02/19/09 22:07	Q
165	K7DLK	D9B180238-3	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:10	Q
166	K7DLM	D9B180238-5	9050178	AQUEOUS	0.00	1.0	0.01	ppb		02/19/09 22:12	Q
167	K7DLR	D9B180238-7	9050178	AQUEOUS	0.00	1.0	0.00	ppb		02/19/09 22:14	Q
168	CCV	= 5.00			5.11	1.0	5.11	ppb	102.3%	02/19/09 22:17	Q
169	CCB				-0.00	1.0	-0.00	ppb		02/19/09 22:19	Q

Jan 21/20/09

# CETAC Hg Analysis Report

Analyst: grisdalec

Worksheet file: C:\Program Files\QuickTrace\Worksheets\090219AA.wsz

Date Started: 2/19/2009 2:59:16 PM

Comment:

## Results

Sample Name	Type	Date/Time	Conc (ppb)	$\mu$ Abs	%RSD	Flags	Wt.	Vol.	ODF
Cal Blank	STD	02/19/09 03:48:02 pm	0.000	14	18.60	✓	1.00	1.00	1.00
Std1	STD	02/19/09 03:50:20 pm	0.200	1787	0.12	✓	1.00	1.00	1.00
Std2	STD	02/19/09 03:52:38 pm	0.500	4635	0.61	✓	1.00	1.00	1.00
Std3	STD	02/19/09 03:54:57 pm	1.000	9314	0.41	✓	1.00	1.00	1.00
Std4	STD	02/19/09 03:57:16 pm	2.000	18476	0.80	✓	1.00	1.00	1.00
Std5	STD	02/19/09 03:59:36 pm	5.000	45013	0.78	✓	1.00	1.00	1.00
Std6	STD	02/19/09 04:01:57 pm	10.000	91311	0.59	✓	1.00	1.00	1.00

### Calibration

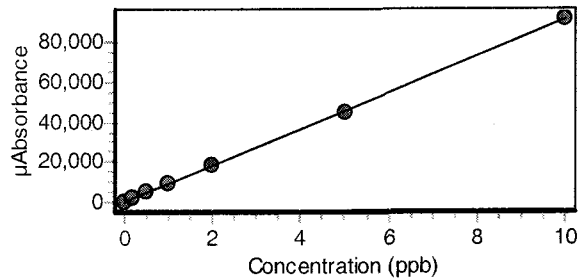
Equation:  $A = 39.070 + 9105.741C$

R2: 0.99993

SEE: 296.9909

Flags:

*Checked  
2/20/09*



ICB ✓	ICB	02/19/09 04:04:55 pm	-0.002	25	14.57	✓	1.00	1.00	1.00
ICV	ICV	02/19/09 04:07:16 pm	7.087	64572	0.59	✓	1.00	1.00	1.00
% Recovery 101.24 ✓									
RL	CRDL	02/19/09 04:09:34 pm	0.193	1799	0.58	✓	1.00	1.00	1.00
% Recovery 96.66 ✓									

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol.	ODF
CCV % Recovery 102.20 ✓	CCV	02/19/09 04:11:54 pm	5.110 ✓	46567	0.20		1.00	1.00	1.00
CCB	CCB	02/19/09 04:14:11 pm	0.000 ✓	42	6.48		1.00	1.00	1.00
K7EPPB	UNK	02/19/09 04:16:28 pm	0.001 ✓	45	4.22		1.00	1.00	1.00
<del>K7EPPC</del>	<del>UNK</del>	<del>02/19/09 04:18:46 pm</del>	<del>4.374</del>	<del>39865</del>	<del>1.13</del>		<del>1.00</del>	<del>1.00</del>	<del>1.00</del>
<i>NA, Bad read see result below. CS 2/20/09</i>									
K7EHT	UNK	02/19/09 04:21:03 pm	0.030	316	1.36		1.00	1.00	1.00
K7EHTS	UNK	02/19/09 04:23:21 pm	4.566 ✓	41619	2.55		1.00	1.00	1.00
K7EHTD	UNK	02/19/09 04:25:40 pm	4.549 ✓	41460	0.52		1.00	1.00	1.00
<del>K7EHTS</del>	<del>UNK</del>	<del>02/19/09 04:27:57 pm</del>	<del>4.652</del>	<del>42398</del>	<del>2.56</del>		<del>1.00</del>	<del>1.00</del>	<del>1.00</del>
<i>NA, Confirms above CS 2/20/09</i>									
<del>K7EHTD</del>	<del>UNK</del>	<del>02/19/09 04:30:16 pm</del>	<del>4.650</del>	<del>42381</del>	<del>1.77</del>		<del>1.00</del>	<del>1.00</del>	<del>1.00</del>
K7EH5	UNK	02/19/09 04:32:34 pm	0.019	208	1.56		1.00	1.00	1.00
K7EH6	UNK	02/19/09 04:34:53 pm	0.010	133	2.27		1.00	1.00	1.00
CCV % Recovery 99.49 ✓	CCV	02/19/09 04:37:13 pm	4.974 ✓	45335	0.38		1.00	1.00	1.00
CCB	CCB	02/19/09 04:39:30 pm	0.000 ✓	43	5.83		1.00	1.00	1.00
K7EJJ	UNK	02/19/09 04:41:49 pm	0.007	102	0.79		1.00	1.00	1.00
K7EJ6	UNK	02/19/09 04:44:09 pm	0.007	104	3.75		1.00	1.00	1.00
K7EJ8	UNK	02/19/09 04:46:28 pm	0.012	149	4.73		1.00	1.00	1.00
K7EJ9	UNK	02/19/09 04:48:48 pm	0.007	99	1.47		1.00	1.00	1.00

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol.
							ODF	
K7EKA	UNK	02/19/09 04:51:08 pm	0.008	109	4.30		1.00	1.00
							1.00	
K7EKD	UNK	02/19/09 04:53:25 pm	0.012	147	1.74		1.00	1.00
							1.00	
K7EKE	UNK	02/19/09 04:55:42 pm	0.010	127	1.45		1.00	1.00
							1.00	
K7EKK	UNK	02/19/09 04:57:59 pm	0.005	87	1.20		1.00	1.00
							1.00	
K7EKJ	UNK	02/19/09 05:00:17 pm	0.004	76	3.46		1.00	1.00
							1.00	
CCV	CCV	02/19/09 05:02:37 pm	4.879 ✓	44465	0.80		1.00	1.00
% Recovery		97.58 ✓					1.00	
CCB	CCB	02/19/09 05:04:54 pm	-0.001 ✓	28	10.33		1.00	1.00
							1.00	
K7EKN	UNK	02/19/09 05:07:12 pm	0.009	118	7.20 s		1.00	1.00
							1.00	
K7EKM	UNK	02/19/09 05:09:30 pm	0.003	64	3.94		1.00	1.00
							1.00	
K7EKW	UNK	02/19/09 05:11:48 pm	0.008	108	2.37		1.00	1.00
							1.00	
K7EKX	UNK	02/19/09 05:14:07 pm	0.010	130	2.53		1.00	1.00
							1.00	
K7EN8B	UNK	02/19/09 05:16:26 pm	0.000 ✓	37	10.65		1.00	1.00
							1.00	
K7ENCC	UNK	02/19/09 05:18:45 pm	4.781 ✓	43578	0.86		1.00	1.00
							1.00	
K7EHT	UNK	02/19/09 05:21:05 pm	0.032	332	0.65		1.00	1.00
							1.00	
K7EHTS	UNK	02/19/09 05:23:25 pm	4.293 ✓	39128	0.81		1.00	1.00
							1.00	
K7EHTD	UNK	02/19/09 05:25:41 pm	4.292 ✓	39125	0.66		1.00	1.00
							1.00	
CCV	CCV	02/19/09 05:28:01 pm	4.931 ✓	44936	0.74		1.00	1.00
% Recovery		98.61 ✓					1.00	

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol. ODF
CCB	CCB	02/19/09 05:30:18 pm	-0.001 ✓	33	10.11		1.00	1.00 1.00
<del>K7EHTS</del>	<del>UNK</del>	<del>02/19/09 05:32:38 pm</del>	<del>4.254</del>	<del>38775</del>	<del>0.99</del>		<del>1.00</del>	<del>1.00</del>
<i>NA, Confirms above results as 2/20/09</i>								
<del>K7EHTD</del>	<del>UNK</del>	<del>02/19/09 05:34:55 pm</del>	<del>4.294</del>	<del>39140</del>	<del>0.61</del>		<del>1.00</del>	<del>1.00</del>
K7EH5	UNK	02/19/09 05:37:12 pm	0.039	390	0.72		1.00	1.00 1.00
K7EH6	UNK	02/19/09 05:39:29 pm	0.013	154	1.58		1.00	1.00 1.00
K7EJJ	UNK	02/19/09 05:41:47 pm	0.045	453	0.64		1.00	1.00 1.00
K7EJ6	UNK	02/19/09 05:44:05 pm	0.043	427	0.22		1.00	1.00 1.00
K7EJ8	UNK	02/19/09 05:46:23 pm	0.022	238	1.12		1.00	1.00 1.00
K7EJ9	UNK	02/19/09 05:48:41 pm	0.054	528	0.58		1.00	1.00 1.00
K7EKA	UNK	02/19/09 05:51:00 pm	0.051	502	0.31		1.00	1.00 1.00
CCV	CCV	02/19/09 05:53:20 pm	4.924 ✓	44873	0.82		1.00	1.00 1.00
% Recovery		98.47 ✓						
CCB	CCB	02/19/09 05:55:37 pm	-0.002 ✓	22	26.75		1.00	1.00 1.00
K7EKD	UNK	02/19/09 05:57:56 pm	0.033	341	0.84		1.00	1.00 1.00
K7EKK	UNK	02/19/09 06:00:15 pm	0.106	1003	0.82		1.00	1.00 1.00
K7EKJ	UNK	02/19/09 06:02:35 pm	0.027	287	0.63		1.00	1.00 1.00
K7EKN	UNK	02/19/09 06:04:55 pm	0.019	208	2.50		1.00	1.00 1.00
K7EKM	UNK	02/19/09 06:07:12 pm	0.000	40	8.88		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol. ODF
K7EKW	UNK	02/19/09 06:09:29 pm	0.071	687	0.46		1.00	1.00 1.00
K7EKX	UNK	02/19/09 06:11:46 pm	0.034	345	1.00		1.00	1.00 1.00
K7EN3B	UNK	02/19/09 06:14:04 pm	-0.002 ✓	18	16.76		1.00	1.00 1.00
K7EN3C	UNK	02/19/09 06:16:22 pm	4.832 ✓	44036	0.35		1.00	1.00 1.00
CCV % Recovery 99.25 ✓	CCV	02/19/09 06:18:42 pm	4.963 ✓	45227	0.80		1.00	1.00 1.00
CCB	CCB	02/19/09 06:20:59 pm	-0.002 ✓	24	10.51		1.00	1.00 1.00
K7DXC	UNK	02/19/09 06:23:17 pm	0.158	1478	0.31		1.00	1.00 1.00
K7DXCS	UNK	02/19/09 06:25:35 pm	4.549 ✓	41463	0.42		1.00	1.00 1.00
K7DXCD	UNK	02/19/09 06:27:54 pm	4.908 ✓	44730	0.75		1.00	1.00 1.00
K7EF3	UNK	02/19/09 06:30:13 pm	-0.003	9	38.34		1.00	1.00 1.00
K7EGE	UNK	02/19/09 06:32:32 pm	0.093	886	0.78		1.00	1.00 1.00
K7EGM	UNK	02/19/09 06:34:52 pm	0.008	116	1.35		1.00	1.00 1.00
K7EGQ	UNK	02/19/09 06:37:12 pm	-0.003	9	23.09		1.00	1.00 1.00
K7EG3	UNK	02/19/09 06:39:30 pm	-0.001	30	14.88		1.00	1.00 1.00
K7EHD	UNK	02/19/09 06:41:47 pm	0.803	7348	0.54		1.00	1.00 1.00
CCV % Recovery 99.44 ✓	CCV	02/19/09 06:44:07 pm	4.972 ✓	45315	0.75		1.00	1.00 1.00
CCB	CCB	02/19/09 06:46:24 pm	0.000 ✓	38	11.14		1.00	1.00 1.00



Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol. ODF
K7D19B	UNK	02/19/09 06:48:42 pm	0.004 ✓	79	3.02		1.00	1.00 1.00
K7ENVC	UNK	02/19/09 06:50:59 pm	4.922 ✓	44856	0.42		1.00	1.00 1.00
K7A6X	UNK	02/19/09 06:53:17 pm	0.049 -	486	0.49		1.00	1.00 1.00
K7A6XP5	UNK	02/19/09 06:55:35 pm	0.014 ✓	168	2.55		1.00	1.00 1.00
K7A6XS	UNK	02/19/09 06:57:54 pm	4.780 ✓	43561	1.25		1.00	1.00 1.00
K7A6XD	UNK	02/19/09 07:00:12 pm	4.189 ✓	38184	0.32		1.00	1.00 1.00
K7D2VB	UNK	02/19/09 07:02:31 pm	0.005 ✓	81	4.30		1.00	1.00 1.00
K7ENRC	UNK	02/19/09 07:04:51 pm	4.976 ✓	45352	1.24		1.00	1.00 1.00
K7A62	UNK	02/19/09 07:07:10 pm	0.004	74	4.95		1.00	1.00 1.00
CCV	CCV	02/19/09 07:09:30 pm	5.097 ✓	46452	0.61		1.00	1.00 1.00
% Recovery		101.94 ✓						
CCB	CCB	02/19/09 07:11:47 pm	-0.001 ✓	33	8.51		1.00	1.00 1.00
K7A62P5	UNK	02/19/09 07:14:07 pm	0.005 -	88	5.26		1.00	1.00 1.00
K7A62S	UNK	02/19/09 07:16:25 pm	5.268 ✓	48011	1.22		1.00	1.00 1.00
K7A62D	UNK	02/19/09 07:18:43 pm	4.851 ✓	44208	0.89		1.00	1.00 1.00
K7EPWB	UNK	02/19/09 07:21:01 pm	-0.004 ✓	3	207.49		1.00	1.00 1.00
K7EPWC	UNK	02/19/09 07:23:19 pm	5.063 ✓	46142	0.66		1.00	1.00 1.00
K7D51	UNK	02/19/09 07:25:37 pm	-0.002	23	12.80		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol.	ODF
K7D51S	UNK	02/19/09 07:27:55 pm	5.210 ✓	47482	0.67		1.00	1.00	1.00
K7D51D	UNK	02/19/09 07:30:14 pm	5.058 ✓	46093	0.75		1.00	1.00	1.00
K7D55	UNK	02/19/09 07:32:32 pm	-0.003	14	25.57		1.00	1.00	1.00
CCV % Recovery 101.94 ✓	CCV	02/19/09 07:34:52 pm	5.097 ✓	46449	0.80		1.00	1.00	1.00
CCB	CCB	02/19/09 07:37:09 pm	0.000 ✓	40	13.91		1.00	1.00	1.00
K7D57	UNK	02/19/09 07:39:28 pm	0.000	39	14.47		1.00	1.00	1.00
K7D59	UNK	02/19/09 07:41:48 pm	-0.002	24	15.86		1.00	1.00	1.00
K7D6F	UNK	02/19/09 07:44:07 pm	-0.001	27	3.96		1.00	1.00	1.00
K7D6H	UNK	02/19/09 07:46:27 pm	-0.002	24	7.75		1.00	1.00	1.00
K7D6L	UNK	02/19/09 07:48:45 pm	0.002	58	4.69		1.00	1.00	1.00
K7EPKB	UNK	02/19/09 07:51:04 pm	-0.002 ✓	24	18.98		1.00	1.00	1.00
K7EPKC	UNK	02/19/09 07:53:22 pm	4.972 ✓	45313	0.50		1.00	1.00	1.00
K7D5W	UNK	02/19/09 07:55:40 pm	0.015	174	0.65		1.00	1.00	1.00
K7D5WS	UNK	02/19/09 07:57:58 pm	4.666 ✓	42523	0.80		1.00	1.00	1.00
CCV % Recovery 102.56 ✓	CCV	02/19/09 08:00:18 pm	5.128 ✓	46731	1.13		1.00	1.00	1.00
CCB	CCB	02/19/09 08:02:35 pm	-0.002 ✓	18	17.35		1.00	1.00	1.00
K7D5WD	UNK	02/19/09 08:04:54 pm	4.655 ✓	42423	0.43		1.00	1.00	1.00

✓ NPDES 2/20/09

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol.
							ODF	
K7D52	UNK	02/19/09 08:07:12 pm	0.008	108	2.06		1.00	1.00
							1.00	
K7D56	UNK	02/19/09 08:09:31 pm	0.011	138	1.50		1.00	1.00
							1.00	
CCV	CCV	02/19/09 08:14:22 pm	5.127 ✓	46728	0.66		1.00	1.00
% Recovery		102.55 ✓					1.00	
CCB	CCB	02/19/09 08:16:39 pm	0.000 ✓	37	5.75		1.00	1.00
							1.00	
K7EPPC	UNK	02/19/09 08:18:56 pm	4.626 ✓	42165	2.04		1.00	1.00
							1.00	
CCV	CCV	02/19/09 08:21:16 pm	5.097 ✓	46453	0.72		1.00	1.00
% Recovery		101.94 ✓					1.00	
CCB	CCB	02/19/09 08:23:33 pm	0.000 ✓	38	10.78		1.00	1.00
							1.00	
K7D58	UNK	02/19/09 08:25:52 pm	-0.002	17	6.63		1.00	1.00
							1.00	
K7D6E	UNK	02/19/09 08:28:11 pm	-0.001	33	9.16		1.00	1.00
							1.00	
K7D6G	UNK	02/19/09 08:30:31 pm	0.001	46	7.28		1.00	1.00
							1.00	
K7D6K	UNK	02/19/09 08:32:51 pm	0.001	45	6.70		1.00	1.00
							1.00	
K7EPFB	UNK	02/19/09 08:35:09 pm	-0.002 ✓	24	10.63		1.00	1.00
							1.00	
K7EPFC	UNK	02/19/09 08:37:28 pm	5.062 ✓	46132	0.91		1.00	1.00
							1.00	
CCV	CCV	02/19/09 08:39:48 pm	5.158 ✓	47006	0.65		1.00	1.00
% Recovery		103.16 ✓					1.00	
CCB	CCB	02/19/09 08:42:05 pm	-0.001 ✓	29	10.40		1.00	1.00
							1.00	
K7C9X	UNK	02/19/09 08:44:23 pm	-0.002	25	8.94		1.00	1.00
							1.00	
K7C9XS	UNK	02/19/09 08:46:42 pm	4.989 ✓	45471	0.90		1.00	1.00
							1.00	

Sample Name	Type	Date/Time	Conc (ppb)	$\mu$ Abs	%RSD	Flags	Wt.	Vol.
							ODF	
K7C9XD	UNK	02/19/09 08:49:00 pm	5.027 ✓	45813	1.26		1.00	1.00
							1.00	
K7C90	UNK	02/19/09 08:51:19 pm	-0.003	9	59.84		1.00	1.00
							1.00	
K7C91	UNK	02/19/09 08:53:37 pm	0.000	41	8.43		1.00	1.00
							1.00	
K7C92	UNK	02/19/09 08:55:56 pm	0.000	36	3.61		1.00	1.00
							1.00	
K7C93	UNK	02/19/09 08:58:15 pm	-0.001	29	16.78		1.00	1.00
							1.00	
K7C95	UNK	02/19/09 09:00:34 pm	-0.001	30	5.00		1.00	1.00
							1.00	
K7DA9	UNK	02/19/09 09:02:54 pm	0.081	781	2.18		1.00	1.00
							1.00	
CCV	CCV	02/19/09 09:05:14 pm	5.035 ✓	45890	0.76		1.00	1.00
% Recovery		100.71 ✓					1.00	
CCB	CCB	02/19/09 09:07:31 pm	0.000 ✓	35	7.19		1.00	1.00
							1.00	
K7DQ6	UNK	02/19/09 09:09:51 pm	0.005	81	2.80		1.00	1.00
							1.00	
K7DRC	UNK	02/19/09 09:12:10 pm	0.242	2246	0.60		1.00	1.00
							1.00	
K7DRW	UNK	02/19/09 09:14:29 pm	-0.001	30	12.33		1.00	1.00
							1.00	
K7DRX	UNK	02/19/09 09:16:47 pm	-0.002	19	10.16		1.00	1.00
							1.00	
K7DR0	UNK	02/19/09 09:19:06 pm	0.000	39	8.64		1.00	1.00
							1.00	
K7EPHB	UNK	02/19/09 09:21:25 pm	-0.003 ✓	11	51.66		1.00	1.00
							1.00	
K7EPHC	UNK	02/19/09 09:23:44 pm	5.070 ✓	46207	0.75		1.00	1.00
							1.00	
K7DCL	UNK	02/19/09 09:26:03 pm	-0.003	16	32.38		1.00	1.00
							1.00	

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt.	Vol. ODF
K7DCLS	UNK	02/19/09 09:28:22 pm	4.995 ✓	45527	1.34		1.00	1.00 1.00
CCV % Recovery 102.25 ✓	CCV	02/19/09 09:30:42 pm	5.113 ✓	46594	1.70		1.00	1.00 1.00
CCB	CCB	02/19/09 09:32:59 pm	0.000 ✓	35	3.49		1.00	1.00 1.00
K7DCLD	UNK	02/19/09 09:35:18 pm	5.042 ✓	45954	0.83		1.00	1.00 1.00
K7DCV	UNK	02/19/09 09:37:37 pm	0.006	97	4.19		1.00	1.00 1.00
K7DCW	UNK	02/19/09 09:39:56 pm	0.005	89	2.05		1.00	1.00 1.00
K7DCX	UNK	02/19/09 09:42:16 pm	0.007	101	3.18		1.00	1.00 1.00
K7DC0	UNK	02/19/09 09:44:35 pm	0.006	96	5.53		1.00	1.00 1.00
K7DC1	UNK	02/19/09 09:46:54 pm	0.006	94	4.57		1.00	1.00 1.00
K7DC5	UNK	02/19/09 09:49:13 pm	0.000	39	2.72		1.00	1.00 1.00
CCV % Recovery 102.12 ✓	CCV	02/19/09 09:51:33 pm	5.106 ✓	46532	0.90		1.00	1.00 1.00
CCB	CCB	02/19/09 09:53:51 pm	0.000 ✓	38	6.18		1.00	1.00 1.00
K7DC9	UNK	02/19/09 09:56:10 pm	0.013	155	1.19		1.00	1.00 1.00
K7DDD	UNK	02/19/09 09:58:29 pm	0.006	93	2.63		1.00	1.00 1.00
K7DDG	UNK	02/19/09 10:00:48 pm	0.003	70	4.21		1.00	1.00 1.00
K7DDL	UNK	02/19/09 10:03:07 pm	0.002	58	4.97		1.00	1.00 1.00
K7DDQ	UNK	02/19/09 10:05:26 pm	0.003	63	2.08		1.00	1.00 1.00

Sample Name	Type	Date/Time	Conc (ppb)	μAbs	%RSD	Flags	Wt. ODF	Vol.
K7DLC	UNK	02/19/09 10:07:45 pm	0.006	90	5.92		1.00 1.00	1.00
K7DLK	UNK	02/19/09 10:10:04 pm	0.003	67	3.64		1.00 1.00	1.00
K7DLM	UNK	02/19/09 10:12:24 pm	0.005	86	1.69		1.00 1.00	1.00
K7DLR	UNK	02/19/09 10:14:44 pm	0.003	65	3.33		1.00 1.00	1.00
CCV % Recovery 102.26 ✓	CCV	02/19/09 10:17:03 pm	5.113 ✓	46599	0.95		1.00 1.00	1.00
CCB	CCB	02/19/09 10:19:20 pm	-0.002 ✓	24	15.52		1.00 1.00	1.00

# Analysis Parameters

## Instrument

### Conditions

Gas flow (mL/min)	Sample Uptake (s)	Rinse (s)	Read delay (s)	Replicates (#)	Replicate time (s)	Pump speed (%)	Wavelength (nm)
100	40.00	90.00	50.00	4	1.50	50	253.65

### Instrumental Zero

Zero before first sample: No

Zero periodically: Yes  
Before each calibration.

### Baseline Correction

#1 Start time (s)	#1 End time (s)	#2 Start time (s)	#2 End time (s)
25.00	29.00		

### Standby Mode

Enabled: Yes

Standby Options: pump slow

### Autodilution

Enabled: Yes

Condition: Saturate

Tube # range: 4:1 - 4:60

If no autodilution tubes remaining continue undiluted

## Calibration

### Settings

Algorithm	Through blank	Weighted fit	Cal. Type	Racalibration rate	Reslope rate	Reslope standard
Linear	No	No	Normal	0	0	N/A

### Limits

Calibration slope		Reslope		Coeff. of Determination
Lower (%)	Upper (%)	Lower (%)	Upper (%)	
20	150	75	125	0.99500

Error action: Flag and continue

## QC

GLP Override: Yes

### QC Tests

**CCB**

Concentration  
(ppb)  
0.2000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

**ICB**

Concentration  
(ppb)  
0.2000

Failure flag: Z

Error action for manually inserted QC: Stop analysis

**CCV**

Concentration (ppb)	Low Limit %	High Limit %
5.0000	80.0000	120.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

**ICV**

Concentration (ppb)	Low Limit %	High Limit %
7.0000	90.0000	110.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

**CRDL**

Concentration (ppb)	Low Limit %	High Limit %
0.2000	70.0000	130.0000

Failure flag: Y

Error action for manually inserted QC: Stop analysis



TestAmerica Laboratories, Inc.

## ANALYTICAL REPORT

MWH-Pasadena / Boeing

Lot D9C050234

Project ISB1786

Joseph Doak  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614

TestAmerica Laboratories, Inc.

*for:*   
DiLea Griego  
Project Manager

March 11, 2009

## Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on March 5, 2009. The results included in this report relate only to the sample in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

This report may include reporting limits (RLs) less than the Denver laboratory's standard reporting limits. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Laboratories, Inc. utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

## Quality Control Summary for Lot D9C050234

### Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 5.1 °C.

Sample ISB1786-01, requesting alpha-BHC by Method 608, was received at the TestAmerica Denver laboratory after the recommended sample holding time had expired. The client was notified on March 9, 2009.

### Alpha-BHC – Method 608

Sample ISB1786-01, requesting alpha-BHC by Method 608, was received at the TestAmerica Denver laboratory after the recommended sample holding time had expired. Please note that the sample result should be considered estimated. The sample has been flagged with "HTV" as appropriate.

The sample ISB1786-01 was observed to have heavy emulsions with methylene chloride during the Method 608 extraction process.

The method required MS/MSD analyses were not performed for QC batch 9064381, due to insufficient sample volume. Method precision and accuracy were verified by the acceptable LCS/LCSD analysis data.

No other anomalies were observed.

## Quality Control Definitions of Qualifiers

Qualifier	Definition
U	Result is less than the method detection limit (MDL).
B	Organics: Method blank contamination. The associated method blank contains the target analyte at a reportable level. Inorganics: Estimated result. Result is less than the RL
J	Organics: Estimated result. Result is less than RL Inorganics: Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentrations exceed the calibration range.
p	Relative Percent Difference (RPD) is outside control limits.
*	Surrogate or Relative Percent Difference (RPD) is outside control limits.
DIL	The concentration is estimated or not reported due to dilution.
COL	More than 40% difference between the primary and confirmation detector results. The lower of the two results is reported.
CHI	More than 40% difference between the primary and confirmation detector results. The higher of the two results is reported.
L	Serial dilution of a digestate in the analytical batch indicates that physical and chemical interferences are present.
a	Spiked analyte recovery is outside stated control limits.
N	Spiked analyte recovery is outside stated control limits.
NC	The recovery and/or RPD were not calculated.
MSB	The recovery and/or RPD were not calculated because the sample amount was greater than four times the spike amount.

# EXECUTIVE SUMMARY - Detection Highlights

D9C050234

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

# METHODS SUMMARY

D9C050234

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Organochlorine Pesticides and PCBs	CFR136A 608	CFR136A 608

## References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

# METHOD / ANALYST SUMMARY

D9C050234

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
CFR136A 608	Dennis Jonsrud	009226

## References:

CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

# SAMPLE SUMMARY

D9C050234

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K74GP	001	ISB1786-01	02/16/09	14:00

**NOTE (S) :**

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

# QC DATA ASSOCIATION SUMMARY

D9C050234

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	CFR136A 608		9064381	



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Semivolatile GC CLP-Like Forms

Lot ID:           D9C050234          

Client:           TestAmerica-Irvine          

Method:           608          

Associated Sample:           001          

Batch:           9064381

## TestAmerica Irvine

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9C050234  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 608  
**Unit:** ug/L  
**QC Batch ID:** 9064381  
**Sample Aliquot:** 1047 mL  
**Dilution Factor:** 1

**Client Sample ID:** ISB1786-01  
**Lab Sample ID:** D9C050234-001  
**Lab WorkOrder:** K74GP1AA  
**Date/Time Collected:** 02/16/09 14:00  
**Date/Time Received:** 03/05/09 09:15  
**Date Leached:**  
**Date/Time Extracted:** 03/05/09 16:00  
**Date/Time Analyzed:** 03/10/09 15:35  
**Instrument ID:** P2

CAS No.	Analyte	Conc.	MDL	RL	Q
319-84-6	alpha-BHC	0.050	0.0053	0.050	U HTV

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	58	32	144	
877-09-8	Tetrachloro-m-xylene	90	52	117	

## TestAmerica Irvine

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9C050234  
**Matrix:** WATER  
**% Moisture:**  
**Basis:** Wet  
**Analysis Method:** 608  
**Unit:** ug/L  
**QC Batch ID:** 9064381  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9C050000-381B  
**Lab WorkOrder:** K74R21AA  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 03/05/09 16:00  
**Date/Time Analyzed:** 03/10/09 17:31  
**Instrument ID:** P2

CAS No.	Analyte	Conc.	MDL	RL	Q
319-84-6	alpha-BHC	0.050	0.0053	0.050	U

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	97	32	144	
877-09-8	Tetrachloro-m-xylene	65	52	117	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

## Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09DM01

Lot/SDG Number: D9C050234

QC Batch ID: 9064381

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
CHECK SAMPLE	K74R21AC	100	55							0
DUPLICATE CHECK	K74R21AD	102	80							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Decachlorobiphenyl	68	122
SRG 2	Tetrachloro-m-xylene	54	115

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

## Surrogate Recovery Summary

Lab Name: TESTAMERICA DENVER

Extraction I09DM01

Lot/SDG Number: D9C050234

QC Batch ID: 9064381

Client ID	Work Order	SRG1	SRG2	SRG3	SRG4	SRG5	SRG6	SRG7	SRG8	TOT OUT
ISB1786-01	K74GP1AA	58	90							0
INTRA-LAB BLANK	K74R21AA	97	65							0

Surrogate Number	Surrogate Name	Lower Control Limit	Upper Control Limit
SRG 1	Decachlorobiphenyl	32	144
SRG 2	Tetrachloro-m-xylene	52	117

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## TestAmerica Irvine

### Analysis Data Sheet

Lab Name: TESTAMERICA DENVER  
Lot/SDG Number: D9C050234  
Matrix: WATER  
% Moisture: N/A  
Basis: Wet  
Analysis Method: 608  
Unit: ug/L  
QC Batch ID: 9064381  
Sample Aliquot: 1000 mL  
Dilution Factor: 1

Client Sample ID:  
Lab Sample ID: D9C050000-381C  
Lab WorkOrder: K74R21AC  
Date/Time Collected:  
Date/Time Received:  
Date Leached:  
Date/Time Extracted: 03/05/09 16:00  
Date/Time Analyzed: 03/10/09 15:02  
Instrument ID: P2

Analyte	True	Found	%Rec	Q	Limits
alpha-BHC	0.500	0.479	96		66 - 115

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	100	68	122	
877-09-8	Tetrachloro-m-xylene	55	54	115	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## TestAmerica Irvine

### Analysis Data Sheet

**Lab Name:** TESTAMERICA DENVER  
**Lot/SDG Number:** D9C050234  
**Matrix:** WATER  
**% Moisture:** N/A  
**Basis:** Wet  
**Analysis Method:** 608  
**Unit:** ug/L  
**QC Batch ID:** 9064381  
**Sample Aliquot:** 1000 mL  
**Dilution Factor:** 1

**Client Sample ID:**  
**Lab Sample ID:** D9C050000-381L  
**Lab WorkOrder:** K74R21AD  
**Date/Time Collected:**  
**Date/Time Received:**  
**Date Leached:**  
**Date/Time Extracted:** 03/05/09 16:00  
**Date/Time Analyzed:** 03/10/09 15:19  
**Instrument ID:** P2

Analyte	True	Found	C	% Rec	Q	RPD	Q	QC Limits	
								% Rec	RPD
alpha-BHC	0.500	0.514		103		6.9		66 - 115	50

CAS No.	Surrogate	% Rec	Lower Limit	Upper Limit	Q
2051-24-3	Decachlorobiphenyl	102	68	122	
877-09-8	Tetrachloro-m-xylene	80	54	115	

## TestAmerica Irvine

### Method Blank Summary

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Lab File ID:</b>	<u>020F2001.</u>
<b>Lot/SDG Number:</b>	<u>D9C050234</u>	<b>Lab Sample ID:</b>	<u>D9C050000-381B</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab Work Order:</b>	<u>K74R21AA</u>
<b>Analysis Method:</b>	<u>608</u>	<b>Date/Time Extracted:</b>	<u>03/05/09 16:00</u>
<b>Extraction Method:</b>	<u>I09DM01</u>	<b>Date/Time Analyzed:</b>	<u>03/10/09 17:31</u>
<b>QC Batch ID:</b>	<u>9064381</u>	<b>Instrument ID:</b>	<u>P2</u>

Client ID	Sample Work Order #	Lab File ID	Date Analyzed	Time Analyzed
ISB1786-01	K74GP1AA	020F2001.	03/10/09	15:35
CHECK SAMPLE	K74R21AC C	018F1801.	03/10/09	15:02
DUPLICATE CHECK	K74R21AD L	019F1901.	03/10/09	15:19



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\P2\_8081\_1.m  
 Last Edit : 02-Mar-2009 07:44 GC\_P2.i

Calibration File Names:  
 Level 1: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\016F1601.D  
 Level 2: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\015F1501.D  
 Level 3: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\014F1401.D  
 Level 4: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\020F2001.D  
 Level 5: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\012F1201.D  
 Level 6: \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\011F1101.D

SEE CALIBRATION HISTORY

Compound	Level						Curve	b	Coefficients		%RSD or R <sup>2</sup>
	4.0000 Level 1	10.0000 Level 2	25.0000 Level 3	50.0000 Level 4	75.0000 Level 5	100.0000 Level 6			m1	m2	
1 Trichlorophenol	+++++	+++++	+++++	+++++	+++++	+++++	LINR	0.000e+000	0.000e+000	29460	0.99986
3 Hexachlorobenzene	134212	315320	749989	1505326	2221704	2928219	WLINR	-0.57439	-1.25	732	0.99939
4 Diallylate	452507	845506	1940628	2669939	3729395	7240854	WLINR			38806	1.46700
5 alpha-BHC	38459	38449	38020	39276	39235	39397	AVRG			33864	0.98721
6 gamma-BHC (Lindane)	34186	33968	33253	34123	33802	33855	AVRG			14467	0.99980
7 beta-BHC	64946	153688	361787	739364	1091642	1450446	WLINR	-0.49998		33053	2.49793
8 delta-BHC	32342	32379	32216	33576	33776	34028	AVRG			1259	1.00000
9 Technical Chlordane(1)	+++++	+++++	+++++	62955	+++++	+++++	LINR	0.000e+000		1162	1.00000
	+++++	+++++	+++++	58110	+++++	+++++	LINR	0.000e+000		3781	1.00000
	+++++	+++++	+++++	189044	+++++	+++++	LINR	0.000e+000		3261	1.00000
	+++++	+++++	+++++	163060	+++++	+++++	LINR	0.000e+000		920	1.00000
	+++++	+++++	+++++	45998	+++++	+++++	LINR	0.000e+000		30990	3.73206
10 Heptachlor	32819	31807	30648	30887	30142	29637	AVRG			30866	2.88235
11 Aldrin	32264	31523	30597	30799	30099	29915	AVRG				

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\Densvrc03\Public\chem\GCS\GC\_P2.i\0301091.b\P2\_8081\_1.m  
 Last Edit : 02-Mar-2009 07:44 GC\_P2.i

Compound	Level						Curve	b	Coefficients		%RSD
	1	2	3	4	5	6			m1	m2	
12 Chlorpyrifos	4.0000	10.0000	25.0000	50.0000	75.0000	100.0000	QUAD	0.27386	0.00007	8.164e-012	1.00000
13 Isodrin	350928	683789	1548966	2071965	2772389	4714063	QUAD	1.69109	0.00003	1.249e-012	1.00000
14 Dicofof	160063	1381603	3283105	4459945	6073476	10678481	QUAD	25.57394	0.00015	1.812e-010	0.99970
15 2,4'-DDE	99724	208446	503473	976783	1260428	1927426	QUAD	0.10517	0.00005	5.968e-012	0.99998
16 Heptachlor epoxide	123604	293941	699497	1395171	2035527	2672820	MINR	-0.58077	27207		0.99958
17 Toxaphene (1)	+++++	+++++	+++++	37454	+++++	+++++	MINR	0.000e+000	187		1.00000
(2)	+++++	+++++	+++++	83236	+++++	+++++	MINR	0.000e+000	416		1.00000
(3)	+++++	+++++	+++++	74322	+++++	+++++	MINR	0.000e+000	372		1.00000
(4)	+++++	+++++	+++++	113409	+++++	+++++	MINR	0.000e+000	567		1.00000
(5)	+++++	+++++	+++++	75900	+++++	+++++	MINR	0.000e+000	380		1.00000
18 gamma-Chlordane	30402	29092	28013	28316	27804	27683	AVRG		28552		3.63098
19 alpha-Chlordane	28848	27639	26588	27234	26574	26290	AVRG		27205		3.51053
20 4,4'-DDE	27474	26840	26695	27107	26744	26723	AVRG		26930		1.13654
21 Endosulfan I	117230	280359	661338	1317755	1916121	2498492	MINR	-0.62477	25635		0.99926
22 2,4'-DDD	79151	163488	637166	843010	1098901	1801327	QUAD	4.30310	0.00002	1.708e-011	0.99926
23 Dieldrin	30507	29301	28409	28695	28027	27690	AVRG		28771		3.52917
24 2,4'-DDT	97562	200953	492354	689423	953494	1721521	QUAD	0.70716	0.00004	7.480e-012	0.99996
25 Endrin	24260	23722	23442	24116	24161	24029	AVRG		23955		1.29923
26 Kepone	160651	324739	1183455	1896076	2844971	5317429	QUAD	43.06482	0.00015	5.356e-012	0.99826
27 4,4'-DDD	137155	279223	648213	1286302	1856127	2521035	MINR	-1.55985	24543		0.99971
28 Chlorobenzilate	149139	273074	565347	756461	1000452	1674856	QUAD	-9.75273	0.00038	1.359e-010	0.99995
29 Endosulfan II	102488	248724	596285	1203007	1752072	2295364	MINR	-0.40663	23438		0.99956

TestAmerica

INITIAL CALIBRATION DATA

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 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_P2.i\0301091.b\P2\_8081\_1.m  
 Last Edit : 02-Mar-2009 07:44 GC\_P2.i

Compound	Level						Curve	b	Coefficients		RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
30 4,4'-DPT	82551	205047	526359	1105132	1657077	2227471	WLINR	0.29983	21930	0.99916	
31 Endrin aldehyde	96914	223803	525128	1029199	1489190	1947693	QCAD	-0.56811	0.00005	2.404e-012	0.99997
32 Methoxychlor	11482	11268	11154	11115	11012	11192	AVRG	-1.74445	11204	1.43337	0.99981
33 Mirex	97660	200201	455139	897482	1287876	1719278	WLINR	-1.05912	17017	22435	0.99970
34 Endosulfan sulfate	112639	253268	591334	1139393	1681628	2253569	WLINR	-0.80117	24783	24783	0.99967
35 Endrin ketone	118411	270453	644910	1279736	1862603	2440068	WLINR	389	0.00036	-7.134e-01	0.99386
37 DBPP	96294	296009	1936888	3720684	7180029	23674613	QUAD				
2 Tetrachloro-m-xylene	121430	291360	695888	1395983	2055736	2714066	WLINR	-0.45887	27395		0.99980
36 Decachlorobiphenyl	90065	205722	483578	959339	1395732	1829166	WLINR	-0.88308	18573		0.99960

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_P2.1\0301091.b\P2\_8081\_1.m  
 Last Edit : 02-Mar-2009 07:44 GC\_P2.1

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

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_P2.i\0301091.b\P2\_8081\_1.m  
 Start Cal Date: 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Last Cal Level: 4  
 Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 4.00000		
01-MAR-2009 19:55	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\016F1601.D
01-MAR-2009 17:59	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\009F0901.D
Cal Level: 2 , Cal Amount: 10.00000		
01-MAR-2009 19:39	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\015F1501.D
01-MAR-2009 17:43	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\008F0801.D
Cal Level: 3 , Cal Amount: 25.00000		
01-MAR-2009 19:22	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\014F1401.D
01-MAR-2009 17:26	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\007F0701.D
Cal Level: 4 , Cal Amount: 50.00000		
01-MAR-2009 21:01	4-CHLORDANE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\020F2001.D
01-MAR-2009 20:28	3-TOXAPHENE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\018F1801.D
01-MAR-2009 19:06	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\013F1301.D
01-MAR-2009 17:10	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\006F0601.D
Cal Level: 5 , Cal Amount: 75.00000		
01-MAR-2009 18:49	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\012F1201.D
01-MAR-2009 16:53	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301091.b\005F0501.D
Cal Level: 6 , Cal Amount: 100.00000		



Report Date : 02-Mar-2009 08:24

Page 1

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\P2\_8081\_2.m  
 Last Edit : 02-Mar-2009 08:24 GC\_P2.i

Calibration File Names:  
 Level 1: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\016F1601.D  
 Level 2: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\015F1501.D  
 Level 3: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\014F1401.D  
 Level 4: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\020F2001.D  
 Level 5: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\012F1201.D  
 Level 6: \\DensSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\011F1101.D

SEE CALIBRATION HISTORY

Compound	Level						Curve	b	Coefficients		OR R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
1 2,4,5-Trichlorophenol	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	1206	0.99982	
3 Diallate	712210	1334778	3112429	4310489	6072249	12317513	WLNR	-92.86073	44885	0.99980	
4 Hexachlorobenzene	213764	492577	1138641	2289049	3394245	4523119	WLNR	-0.78333	59760	1.69146	
5 alpha-BHC	60544	59240	57972	59968	60170	60663	AVRG		51659	2.26906	
6 gamma-BHC (Lindane)	53707	51580	50085	51578	51242	51763	AVRG		22240	0.99963	
7 beta-BHC	110502	251624	573890	1140848	1675716	2224461	WLNR	-1.01027	2008	1.00000	
8 Technical Chlordane (1)	++++	++++	++++	100414	++++	++++	WLNR	0.000e+000	1828	1.00000	
(2)	++++	++++	++++	91398	++++	++++	WLNR	0.000e+000	6047	1.00000	
(3)	++++	++++	++++	302374	++++	++++	WLNR	0.000e+000	5004	1.00000	
(4)	++++	++++	++++	250222	++++	++++	WLNR	0.000e+000	1620	1.00000	
(5)	++++	++++	++++	81023	++++	++++	WLNR	0.000e+000	49672	2.50009	
9 delta-BHC	49732	48447	48041	50016	50454	51352	AVRG		45979	0.99980	
10 Heptachlor	211681	495049	1173814	2360989	3459895	4556908	WLNR	-0.62520	46805	3.42837	
11 Aldrin	49516	47857	45931	46580	45641	45306	AVRG				

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_P2.1\0301092.b\P2\_8081\_2.m  
 Last Edit : 02-Mar-2009 08:24 GC\_P2.1

Compound	Level						Curve	b	Coefficients		RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
12 Chlorpyrifos	559417	1065732	2359366	3145763	4231680	7234064	QUAD	-2.03175	0.00005	3.233e-012	0.99999
13 Dicofof	71336	215694	629783	917497	1330504	2254256	QUAD	38.40601	0.00027	6.925e-011	0.99886
14 Teodrin	1238821	2400688	5423062	7192163	9710358	16956012	QUAD	-2.63196	0.00002	5.125e-013	0.99998
15 Toxaphene (1)	+++++	+++++	+++++	89894	+++++	+++++	LINR	0.000e+000	449		1.00000
(2)	+++++	+++++	+++++	78025	+++++	+++++	LINR	0.000e+000	390		1.00000
(3)	+++++	+++++	+++++	96086	+++++	+++++	LINR	0.000e+000	480		1.00000
(4)	+++++	+++++	+++++	110827	+++++	+++++	LINR	0.000e+000	554		1.00000
(5)	+++++	+++++	+++++	126542	+++++	+++++	LINR	0.000e+000	633		1.00000
16 Heptachlor epoxide	191128	452003	1059220	2125117	3095403	4081431	WLINR	-0.66218	41356	2.278e-012	0.99955
17 gamma-Chlordane	200020	464122	1089835	2197088	3229351	4293745	WLINR	-0.68146	42884		0.99985
18 2,4'-DDE	175306	343282	785376	1023189	1443698	2646810	QUAD	-1.01796	0.00003	3.974e-012	0.99981
19 alpha-Chlordane	189561	441501	1038165	2095612	3085552	4107476	WLINR	-0.64254	40968		0.99985
20 Endosulfan I	184494	427123	989194	1959830	2862393	3761446	WLINR	-0.88732	38132		0.99945
21 4,4'-DDE	195722	453978	1080819	2180777	3169013	4296001	WLINR	-0.61627	42608		0.99975
22 Dieltrin	199363	466494	1105277	2219801	3241846	4277166	WLINR	-0.64339	43215		0.99971
23 2,4'-DDD	153389	297754	665450	888613	1226356	2198937	QUAD	-0.85966	0.00004	4.447e-012	0.99996
24 Endrin	33182	33769	33367	35630	35753	35363	AVRG		34511		3.46392
25 Chlorobenzilate	154364	300710	660190	875594	1204126	2128935	QUAD	-9.30429	0.00036	5.406e-011	0.99994
26 2,4'-DDT	162025	326831	760113	1024778	1418747	2513141	QUAD	0.01063	0.00003	3.974e-012	0.99997
27 Kepone	213845	483266	1859824	2970332	4571877	8715841	QUAD	46.40949	0.00010	1.465e-012	0.99827
28 4,4'-DDD	181259	403538	924690	1844450	2793496	3818646	QUAD	-1.46557	0.00003	6.972e-011	0.99998
29 Endosulfan II	186979	427156	970685	1927505	2765029	3616141	LINR	-2.05456	35796		0.99931



TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Quant Method : ESTD  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\DensVr03\Public\chem\GCS\GC\_P2.1\0301092.b\P2\_8081\_2.m  
 Last Edit : 02-Mar-2009 08:24 GC\_P2.1

Compound	Level						Curve	b	Coefficients		RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
30 4,4'-DDT	110541	278483	728730	1545071	2372591	3223783	QUAD	0.70547	0.00003	-7.466e-01	0.99993
31 Endrin aldehyde	156234	350233	805518	1567524	2266712	2966322	WLINR	-1.22241	30267		0.99909
32 Endosulfan sulfate	163198	368383	864350	1703090	2509219	3338095	WLINR	-0.92237	33302		0.99990
33 Methoxychlor	58763	145502	362126	730312	1134793	1407604	WLINR	-0.03067	14581		0.99923
34 Mirex	126902	286766	652009	1278590	1872856	2466671	WLINR	-1.15710	24879		0.99939
35 Endrin ketone	169539	394610	918686	1832081	2673237	3525738	WLINR	-0.79820	35643		0.99958
37 DBPP	35245	112680	1086899	2407860	5522718	22788630	QUAD	500	0.00046	-1.138e-01	0.98528
2 Tetrachloro-m-xylene	193068	454558	1072873	2159055	3185308	4218632	WLINR	-0.58614	42293		0.99985
36 Decachlorobiphenyl	128324	297912	684299	1350491	1982111	2607533	WLINR	-0.92004	26383		0.99938

TestAmerica

INITIAL CALIBRATION DATA

Start Cal Date : 01-MAR-2009 16:37  
End Cal Date : 01-MAR-2009 21:01  
Quant Method : ESTD  
Target Version : 4.14  
Integrator : FALCON  
Method File : \\DensVr03\Public\chem\GCS\GC\_P2.1\0301092.b\P2\_8081\_2.m  
Last Edit : 02-Mar-2009 08:24 GC\_P2.1

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

Calibration History

Method : \\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\P2\_8081\_2.m  
 Start Cal Date: 01-MAR-2009 16:37  
 End Cal Date : 01-MAR-2009 21:01  
 Last Cal Level: 4  
 Last Cal Type : Initial Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 4.00000		
01-MAR-2009 19:55	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\016F1601.D
01-MAR-2009 17:59	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\009F0901.D
Cal Level: 2 , Cal Amount: 10.00000		
01-MAR-2009 19:39	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\015F1501.D
01-MAR-2009 17:43	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\008F0801.D
Cal Level: 3 , Cal Amount: 25.00000		
01-MAR-2009 19:22	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\014F1401.D
01-MAR-2009 17:26	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\007F0701.D
Cal Level: 4 , Cal Amount: 50.00000		
01-MAR-2009 21:01	4-CHLORDANE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\020F2001.D
01-MAR-2009 20:28	3-TOXAPHENE	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\018F1801.D
01-MAR-2009 19:06	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\013F1301.D
01-MAR-2009 17:10	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\006F0601.D
Cal Level: 5 , Cal Amount: 75.00000		
01-MAR-2009 18:49	1-INDAB	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\012F1201.D
01-MAR-2009 16:53	2-AP9	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\005F0501.D
01-MAR-2009 16:53	1-ALLCOMP	\\DenSvr03\Public\chem\GCS\GC_P2.i\0301092.b\005F0501.D

Cal Level: 6 , Cal Amount: 100.00000

01-MAR-2009 18:33 |1-INDAB  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\011F1101.D  
01-MAR-2009 16:37 |2-AP9  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\004F0401.D

Continuing Calibration  
Ccal Level Mode: GLOBAL LEVEL 4

01-MAR-2009 20:45 |3-TOXAPHENE  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\019F1901.D  
01-MAR-2009 20:12 |1-INDAB  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\017F1701.D  
01-MAR-2009 19:22 |1-INDAB  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\014F1401.D  
01-MAR-2009 18:16 |2-AP9  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\010F1001.D  
01-MAR-2009 17:26 |2-AP9  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\007F0701.D  
01-MAR-2009 15:47 |EVALB  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\002F0201.D  
01-MAR-2009 21:01 |4-CHLORDANE  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\020F2001.D  
01-MAR-2009 20:28 |3-TOXAPHENE  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\018F1801.D  
01-MAR-2009 19:06 |1-INDAB  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\013F1301.D  
01-MAR-2009 17:10 |2-AP9  
\\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\006F0601.D

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
Lab File ID: 017F1701.D  
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:12  
Lab Sample ID: AB SS GSV082908  
Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED	MEASURED		MAX
	CONC.	CONC.	%D	%D
24 Tetrachloro-m-xylene	25.0000	26.6715	6.7	15.0
136 Hexachlorobenzene	25.0000	26.2887	5.2	15.0
2 alpha-BHC	25.0000	25.8249	3.3	15.0
5 gamma-BHC (Lindane)	25.0000	25.9133	3.7	15.0
2 beta-BHC	25.0000	26.0560	4.2	15.0
4 delta-BHC	25.0000	25.3089	1.2	15.0
122 Heptachlor	25.0000	26.3541	5.4	15.0
1 Aldrin	25.0000	25.8074	3.2	15.0
19 Heptachlor epoxide	25.0000	26.5342	6.1	15.0
7 gamma-Chlordane	25.0000	26.0019	4.0	15.0
6 alpha-Chlordane	25.0000	25.6440	2.6	15.0
9 4,4'-DDE	25.0000	25.9259	3.7	15.0
12 Endosulfan I	25.0000	26.6079	6.4	15.0
11 Dieldrin	25.0000	26.1638	4.7	15.0
15 Endrin	25.0000	26.0263	4.1	15.0
8 4,4'-DDD	25.0000	23.9857	4.1	15.0
13 Endosulfan II	25.0000	26.0986	4.4	15.0
10 4,4'-DDT	25.0000	26.1193	4.5	15.0
16 Endrin aldehyde	25.0000	24.0274	3.9	15.0
21 Methoxychlor	25.0000	26.2579	5.0	15.0
22 Mirex	25.0000	26.0332	4.1	15.0
14 Endosulfan sulfate	25.0000	25.4856	1.9	15.0
17 Endrin ketone	25.0000	26.0827	4.3	15.0
23 Decachlorobiphenyl	25.0000	26.2971	5.2	15.0

Average %D = 4.25

Data File: \\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b\017F1701.D  
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
Lab File ID: 017F1701.D  
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:12  
Lab Sample ID: AB SS GSV082908  
Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED	MEASURED	%D	MAX
	CONC.	CONC.		%D
24 Tetrachloro-m-xylene	25.0000	26.5358	6.1	15.0
133 Hexachlorobenzene	25.0000	26.3797	5.5	15.0
2 alpha-BHC	25.0000	25.5723	2.3	15.0
5 gamma-BHC (Lindane)	25.0000	25.6090	2.4	15.0
2 beta-BHC	25.0000	26.6125	6.4	15.0
4 delta-BHC	25.0000	24.9768	0.1	15.0
122 Heptachlor	25.0000	26.8235	7.3	15.0
1 Aldrin	25.0000	25.7949	3.2	15.0
19 Heptachlor epoxide	25.0000	26.3967	5.6	15.0
7 gamma-Chlordane	25.0000	26.2987	5.2	15.0
6 alpha-Chlordane	25.0000	26.0112	4.0	15.0
12 Endosulfan I	25.0000	26.4247	5.7	15.0
9 4,4'-DDE	25.0000	26.1846	4.7	15.0
11 Dieldrin	25.0000	26.4992	6.0	15.0
15 Endrin	25.0000	26.0572	4.2	15.0
8 4,4'-DDD	25.0000	24.3925	2.4	15.0
13 Endosulfan II	25.0000	26.2839	5.1	15.0
10 4,4'-DDT	25.0000	26.5759	6.3	15.0
16 Endrin aldehyde	25.0000	24.3172	2.7	15.0
14 Endosulfan sulfate	25.0000	25.9608	3.8	15.0
21 Methoxychlor	25.0000	27.0792	8.3	15.0
22 Mirex	25.0000	25.9247	3.7	15.0
17 Endrin ketone	25.0000	25.6481	2.6	15.0
23 Decachlorobiphenyl	25.0000	26.0613	4.2	15.0

Average %D = 4.51

Data File: \\DenSvr03\Public\chem\GCS\GC\_P2.i\0301091.b\019F1901.D  
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:45  
Lab Sample ID: TOX SS GSV171708  
Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
108 Toxaphene	200.0000	212.6800	6.3	15.0

Average %D = 6.34

Data File: \\DenSvr03\Public\chem\GCS\GC\_P2.i\0301092.b/019F1901.D  
Report Date: 03/02/2009

CONTINUING CALIBRATION COMPOUNDS  
PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
Lab File ID: 019F1901.D  
Analysis Type: NONE

Injection Date: 01-MAR-2009 20:45  
Lab Sample ID: TOX SS GSV171708  
Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
108 Toxaphene	200.0000	211.1308	5.6	15.0

Average %D = 5.56



CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC P2.i  
 Lab File ID: 016F1601.D  
 Analysis Type: NONE

Injection Date: 10-MAR-2009 14:29  
 Lab Sample ID: AB L4 GSV169908  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	53.5358	7.1	15.0
136 Hexachlorobenzene	50.0000	53.0923	6.2	15.0
2 alpha-BHC	50.0000	54.0570	8.1	15.0
5 gamma-BHC (Lindane)	50.0000	53.6627	7.3	15.0
2 beta-BHC	50.0000	53.6176	7.2	15.0
4 delta-BHC	50.0000	53.6654	7.3	15.0
122 Heptachlor	50.0000	51.3039	2.6	15.0
1 Aldrin	50.0000	53.5924	7.2	15.0
19 Heptachlor epoxide	50.0000	54.0939	8.2	15.0
7 gamma-Chlordane	50.0000	53.3481	6.7	15.0
6 alpha-Chlordane	50.0000	52.7336	5.5	15.0
9 4,4'-DDE	50.0000	52.5718	5.1	15.0
12 Endosulfan I	50.0000	53.7431	7.5	15.0
11 Dieldrin	50.0000	53.3298	6.7	15.0
15 Endrin	50.0000	52.7587	5.5	15.0
8 4,4'-DDD	50.0000	52.3191	4.6	15.0
13 Endosulfan II	50.0000	52.6290	5.3	15.0
10 4,4'-DDT	50.0000	47.9802	4.0	15.0
16 Endrin aldehyde	50.0000	50.8610	1.7	15.0
21 Methoxychlor	50.0000	49.8222	0.4	15.0
22 Mirex	50.0000	53.0556	6.1	15.0
14 Endosulfan sulfate	50.0000	52.3192	4.6	15.0
17 Endrin ketone	50.0000	51.1888	2.4	15.0
23 Decachlorobiphenyl	50.0000	52.4313	4.9	15.0

Average %D = 5.51

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
 Lab File ID: 016F1601.D  
 Analysis Type: NONE

Injection Date: 10-MAR-2009 14:29  
 Lab Sample ID: AB L4 GSV169908  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	54.3042	8.6	15.0
133 Hexachlorobenzene	50.0000	54.0795	8.2	15.0
2 alpha-BHC	50.0000	54.7177	9.4	15.0
5 gamma-BHC (Lindane)	50.0000	54.1352	8.3	15.0
2 beta-BHC	50.0000	53.9489	7.9	15.0
4 delta-BHC	50.0000	54.5054	9.0	15.0
122 Heptachlor	50.0000	53.5298	7.1	15.0
1 Aldrin	50.0000	53.8096	7.6	15.0
19 Heptachlor epoxide	50.0000	54.4949	9.0	15.0
7 gamma-Chlordane	50.0000	55.0893	10.2	15.0
6 alpha-Chlordane	50.0000	55.0699	10.1	15.0
12 Endosulfan I	50.0000	54.5539	9.1	15.0
9 4,4'-DDE	50.0000	52.8274	5.7	15.0
11 Dieldrin	50.0000	54.1695	8.3	15.0
15 Endrin	50.0000	55.3592	10.7	15.0
8 4,4'-DDD	50.0000	52.8275	5.7	15.0
13 Endosulfan II	50.0000	54.3644	8.7	15.0
10 4,4'-DDT	50.0000	47.6081	4.8	15.0
16 Endrin aldehyde	50.0000	51.4820	3.0	15.0
14 Endosulfan sulfate	50.0000	53.6669	7.3	15.0
21 Methoxychlor	50.0000	47.0311	5.9	15.0
22 Mirex	50.0000	54.0496	8.1	15.0
17 Endrin ketone	50.0000	51.7917	3.6	15.0
23 Decachlorobiphenyl	50.0000	54.7324	9.5	15.0

Average %D = 7.74

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
 Lab File ID: 029F2901.D  
 Analysis Type: NONE

Injection Date: 10-MAR-2009 18:04  
 Lab Sample ID: AB L4 GSV169908  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	53.0695	6.1	15.0
136 Hexachlorobenzene	50.0000	52.5226	5.0	15.0
2 alpha-BHC	50.0000	53.6137	7.2	15.0
5 gamma-BHC (Lindane)	50.0000	53.0112	6.0	15.0
2 beta-BHC	50.0000	52.8002	5.6	15.0
4 delta-BHC	50.0000	53.8827	7.8	15.0
122 Heptachlor	50.0000	50.8877	1.8	15.0
1 Aldrin	50.0000	52.5576	5.1	15.0
19 Heptachlor epoxide	50.0000	53.3925	6.8	15.0
7 gamma-Chlordane	50.0000	52.6231	5.2	15.0
6 alpha-Chlordane	50.0000	51.1271	2.3	15.0
9 4,4'-DDE	50.0000	52.3318	4.7	15.0
12 Endosulfan I	50.0000	52.8312	5.7	15.0
11 Dieldrin	50.0000	52.8541	5.7	15.0
15 Endrin	50.0000	52.8107	5.6	15.0
8 4,4'-DDD	50.0000	56.9936	14.0	15.0
13 Endosulfan II	50.0000	52.2502	4.5	15.0
10 4,4'-DDT	50.0000	48.6245	2.8	15.0
16 Endrin aldehyde	50.0000	51.0178	2.0	15.0
21 Methoxychlor	50.0000	49.0409	1.9	15.0
22 Mirex	50.0000	53.0413	6.1	15.0
14 Endosulfan sulfate	50.0000	52.2174	4.4	15.0
17 Endrin ketone	50.0000	51.8307	3.7	15.0
23 Decachlorobiphenyl	50.0000	51.5834	3.2	15.0

Average %D = 5.13

CONTINUING CALIBRATION COMPOUNDS  
 PERCENT DRIFT REPORT

Instrument ID: GC\_P2.i  
 Lab File ID: 029F2901.D  
 Analysis Type: NONE

Injection Date: 10-MAR-2009 18:04  
 Lab Sample ID: AB L4 GSV169908  
 Method File: \\DenSvr03\Public\chem\GCS\GC\_P2.

COMPOUND	EXPECTED CONC.	MEASURED CONC.	%D	MAX %D
24 Tetrachloro-m-xylene	50.0000	53.3451	6.7	15.0
133 Hexachlorobenzene	50.0000	53.2189	6.4	15.0
2 alpha-BHC	50.0000	53.8515	7.7	15.0
5 gamma-BHC (Lindane)	50.0000	53.6214	7.2	15.0
2 beta-BHC	50.0000	53.4074	6.8	15.0
4 delta-BHC	50.0000	54.5957	9.2	15.0
122 Heptachlor	50.0000	52.8311	5.7	15.0
1 Aldrin	50.0000	52.9350	5.9	15.0
19 Heptachlor epoxide	50.0000	53.5502	7.1	15.0
7 gamma-Chlordane	50.0000	54.2622	8.5	15.0
6 alpha-Chlordane	50.0000	54.3043	8.6	15.0
12 Endosulfan I	50.0000	53.7885	7.6	15.0
9 4,4'-DDE	50.0000	51.6937	3.4	15.0
11 Dieldrin	50.0000	53.5732	7.1	15.0
15 Endrin	50.0000	53.7645	7.5	15.0
8 4,4'-DDD	50.0000	52.5936	5.2	15.0
13 Endosulfan II	50.0000	53.8157	7.6	15.0
10 4,4'-DDT	50.0000	48.5946	2.8	15.0
16 Endrin aldehyde	50.0000	51.5650	3.1	15.0
14 Endosulfan sulfate	50.0000	53.4999	7.0	15.0
21 Methoxychlor	50.0000	55.8951	11.8	15.0
22 Mirex	50.0000	53.4651	6.9	15.0
17 Endrin ketone	50.0000	52.3587	4.7	15.0
23 Decachlorobiphenyl	50.0000	53.5999	7.2	15.0

Average %D = 6.74

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
1	Vial 1	PRIMER				
2	Vial 2	EVAL B STD				
3	Vial 3	HEXANE				
4	Vial 4	AP9 L6 GSV186708				
5	Vial 5	AP9 L5 GSV186808				
6	Vial 6	AP9 L4 GSV186908				
7	Vial 7	AP9 L3 GSV187008				
8	Vial 8	AP9 L2 GSV187108				
9	Vial 9	AP9 L1 GSV187208				
10	Vial 10	AP9 SS GSV153308				
11	Vial 11	AB L6 GSV169708				
12	Vial 12	AB L5 GSV169808				
13	Vial 13	AB L4 GSV169908				
14	Vial 14	AB L3 GSV170008				
15	Vial 15	AB L2 GSV170108				
16	Vial 16	AB L1 GSV170208				
17	Vial 17	AB SS GSV082908				
18	Vial 18	TOX L1 GSV186408				
19	Vial 19	TOX SS GSV171708				
20	Vial 20	CHL L1 GSV171808				
21	Vial 21	K7QT81AC,LCS				
22	Vial 22	K7QT81AD,LCSD				
23	Vial 23	K7DA92A5,189-1				
24	Vial 24	K7DCV2AW,192-2				
25	Vial 25	K7DCW2AW,192-3				
26	Vial 26	K7DCX2AW,192-4				
27	Vial 27	K7DC12AW,192-6				
28	Vial 28	K7DLC2AD,238-1				
29	Vial 29	K7QT81AA,BLK				
30	Vial 30	AP9 L4 GSV186908				
31	Vial 31	AB L4 GSV169908				
32	Vial 32	TOX L1 GSV186408				
33	Vial 33	K7PXQ1AC,LCS				
34	Vial 34	K7PXQ1AD,LCSD				
35	Vial 35	K7PXQ1AE,LCStox				
36	Vial 36	K7PXQ1AF,LCSDtox				
37	Vial 37	K7AFD2AC,169-1				
38	Vial 38	K7AFD2AC,169-2				
39	Vial 39	K7PXQ1AA,BLK				
40	Vial 40	AP9 L4 GSV186908				
41	Vial 41	AB L4 GSV169908				
42	Vial 42	TOX L1 GSV186408				
43	Vial 43	K7LR01AC,LCS				
44	Vial 44	K7GEC1AD,360-1				
45	Vial 45	K7GEH1AP,360-2				
46	Vial 46	K7GEK1AP,360-3				
47	Vial 47	K7GEQ1AP,360-4				
48	Vial 48	K7GER1AP,360-5				
49	Vial 49	K7GER1CM,360-5MS				
50	Vial 50	K7GER1CN,360-5SD				
51	Vial 51	K7GET1AP,360-6				
52	Vial 52	K7GEV1AP,360-7				
53	Vial 53	AP9 L4 GSV186908				
54	Vial 54	AB L4 GSV169908				
55	Vial 55	TOX L1 GSV186408				
56	Vial 56	K7GEW1AP,360-8				
57	Vial 57	K7GEX1AP,360-9				
58	Vial 58	K7GE01AP,360-10				

Sequence: C:\HPCHEM\2\SEQUENCE\2030109.S

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
====	=====	=====	=====	=====	=====	=====
59	Vial 59	K7LR01AA,BLK				
60	Vial 60	AP9 L4 GSV186908				
61	Vial 61	AB L4 GSV169908				
62	Vial 62	TOX L1 GSV186408				
63	Vial 63	AB L1 GSV170208				
64	Vial 99	HEXANE				
65	Vial 100	HEXANE				

Sequence Table (Back Injector):

No entries - empty table!

Sequence Table (Front Injector):

Quantification Part:

Line	Location	SampleName	SampleAmount	ISTDAmt	Multiplier	Dilution
1	Vial 1	PRIMER				
2	Vial 2	EVAL B STD				
3	Vial 3	HEXANE				
4	Vial 4	AP9 L4 GSV186908				
5	Vial 5	AB L4 GSV169908				
6	Vial 6	TOX L1 GSV186408				
7	Vial 7	K7GER2AP,360-5				5
8	Vial 8	K7GEX2AP,360-9				
9	Vial 9	K7GE02AP,360-10				
10	Vial 10	K73EP1AC,LCS				
11	Vial 11	K73EP1AD,LCS				
12	Vial 12	K70831A1,267-1				
13	Vial 13	K70831A1,267-1MS				
14	Vial 14	K73EP1AA,BLK				
15	Vial 15	AP9 L4 GSV186908				
16	Vial 16	AB L4 GSV169908				
17	Vial 17	TOX L1 GSV186408				
18	Vial 18	K74R21AC,LCS				
19	Vial 19	K74R21AD,LCS				
20	Vial 20	K74GP1AA,234-1				
21	Vial 21	K74G61AA,236-1				
22	Vial 22	K74HV1AA,239-1				
23	Vial 23	K74JC1AA,244-1				
24	Vial 24	K74JL1AA,247-1				
25	Vial 25	K74KE1AA,252-1				
26	Vial 26	K74KF1AA,251-1				
27	Vial 27	K74R21AA,BLK				
28	Vial 28	AP9 L4 GSV186908				
29	Vial 29	AB L4 GSV169908				
30	Vial 30	TOX L1 GSV186408				
31	Vial 31	K73F01AC,LCS				
32	Vial 32	K73F01AD,LCStox				
33	Vial 33	K73F01AE,LCSdtax				
34	Vial 34	K72891AA,305-1				
35	Vial 35	K72891AA,305-1MS				
36	Vial 36	K72891AA,305-1SD				
37	Vial 37	K73F01AA,BLK				
38	Vial 38	AP9 L4 GSV186908				
39	Vial 39	AB L4 GSV169908				
40	Vial 40	TOX L1 GSV186408				
41	Vial 41	K7VKT1AC,LCS				
42	Vial 42	K7TJD1AC,280-3				10
43	Vial 43	K7TJD1AE,280-3MS				10
44	Vial 44	K7TJD1AF,280-3SD				10
45	Vial 45	K7VKT1AA,BLK				
46	Vial 46	AP9 L4 GSV186908				
47	Vial 47	AB L4 GSV169908				
48	Vial 48	TOX L1 GSV186408				
49	Vial 49	AB L1 GSV170208				
50	Vial 99	HEXANE				
51	Vial 100	HEXANE				

Sequence Table (Back Injector):

No entries - empty table!

*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot #: D9C050234 Date/Time Received: 3/5/09 0915  
 Company Name & Sampling Site: TA Irvine

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

Quote #: 72743

Special Instructions: Set A to 3/11  
& R to 3/12

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

**Unpacking Checks:**

Cooler #(s): \_\_\_\_\_  
 Temperatures (°C): 5.1° \_\_\_\_\_

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



*TestAmerica Denver*  
**Sample Receiving Checklist**

Lot # D9C050234

**Login Checks:**

Initials

N/A Yes No

JB

- 19. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DV-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 20. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 21. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 22. Were special log in instructions read and followed?
- 23. Were AFCEE metals logged for refrigerated storage?
- 24. Were tests logged checked against the COC? Which samples were confirmed? 1
- 25. Was a Rush form completed for quick TAT?
- 26. Was a Short Hold form completed for any short holds?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

**Labeling and Storage Checks:**

Initials

JM

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

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

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**SUBCONTRACT ORDER**

**TestAmerica Irvine**

**ISB1786**


**SENDING LABORATORY:**

TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak  
Client: MWH-Pasadena/Boeing

**RECEIVING LABORATORY:**

TestAmerica Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Phone: (303) 736-0100  
Fax: (303) 431-7171  
Project Location: CA - CALIFORNIA  
Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
<b>Sample ID: ISB1786-01</b>						
<b>Water</b>						
Sampled: 02/16/09 14:00						
608-Out	ug/l	03/06/09	02/23/09 14:00	\$0.00	75%	Alpha BHC ONLY, Low Level. Jflags, Boeing, Denver
Level 4 + EDD-OUT	N/A	02/25/09	03/16/09 14:00	\$0.00	0%	**LEVEL IV QC, ACCESS 7 EDD**
Mercury - 245.1, Diss -OUT	ug/l	02/25/09	03/16/09 14:00	\$36.00	0%	OUT to Denver, Boeing, J flags
Mercury - 245.1-OUT	ug/l	02/17/09	03/16/09 14:00	\$36.00	100%	OUT to Denver, Boeing, J flags
<b>Containers Supplied:</b>						
1 L Amber (AL)	125 mL Poly (AX)	<del>1 L Poly w/HNOS (B)</del>				

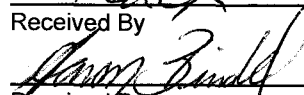
 3/4/09 17:00

Released By \_\_\_\_\_ Date/Time \_\_\_\_\_

FedEx 3/4/09 17:00

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

Released By \_\_\_\_\_ Date/Time \_\_\_\_\_

 3/5/09 09:15

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## ANALYTICAL REPORT

PROJECT NO. BOEING NPDES

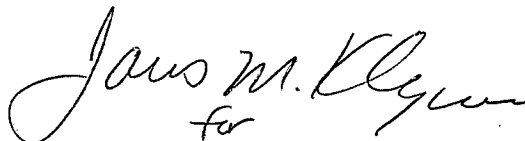
SSFL MWH-Pasadena/Boeing

Lot #: F9B180223

Joseph Doak

TestAmerica Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

  
for  
Sherryl Adam  
Project Manager

March 17, 2009

**Case Narrative**  
**LOT NUMBER: F9B180223**

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on February 18, 2009. This sample is associated with your SSFL MWH-Pasadena/Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

**Observations/Nonconformances**

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

There were no observations or non-conformances associated with this project.

**METHODS SUMMARY**

F9B180223

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by Distillation & LSC	EPA 906.0 MOD	
Radium-226 by GFPC	EPA 903.0 MOD	EPA 903.0
Radium-228 by GFPC	EPA 904 MOD	EPA 904
Strontium 90 by GFPC	EPA 905 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

**References:**

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

**SAMPLE SUMMARY**

F9B180223

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K7DJX	001	ISB1786-01	02/16/09	14:00

**NOTE(S) :**

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

## TestAmerica Irvine

Client Sample ID: ISB1786-01

## Radiochemistry

Lab Sample ID: F9B180223-001  
 Work Order: K7DJX  
 Matrix: WATER

Date Collected: 02/16/09 1400  
 Date Received: 02/18/09 0930

Parameter	Result	Qual	Total Uncert. (2 $\sigma$ +/-)	RL	mdc	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Cesium 137	2.6	U	9.8	20.0	18	02/27/09	03/15/09
Potassium 40	-80	U	1600		300	02/27/09	03/15/09
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	5.5		1.6	3.0	1.1	02/24/09	03/03/09
Gross Beta	4.9		1.1	4.0	1.2	02/24/09	03/03/09
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	-50	U	170	500	300	03/07/09	03/13/09
<b>SR-90 BY GFPC EPA-905 MOD</b>							
Strontium 90	0.06	U	0.28	3.00	0.49	02/18/09	02/28/09
<b>Total Uranium by KPA ASTM 5174-91</b>							
Total Uranium	0.547	J	0.066	1.35	0.42	02/19/09	03/08/09
<b>Radium 226 by EPA 903.0 MOD</b>							
Radium (226)	0.31	J	0.17	1.00	0.22	02/18/09	03/13/09
<b>Radium 228 by GFPC EPA 904 MOD</b>							
Radium 228	0.17	U	0.35	1.00	0.58	02/18/09	03/13/09

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

J Result is greater than sample detection limit but less than stated reporting limit.

U Result is less than the sample detection limit.

## METHOD BLANK REPORT

## Radiochemistry

Client Lot ID: F9B180223  
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 $\sigma$ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
TRITIUM (Distill) by EPA 906.0 MOD Tritium	290	U	pCi/L 200	Batch # 9066052 500	Yld % 300	03/07/09	F9C070000-052B 03/13/09
Radium 226 by EPA 903.0 MOD Radium (226)	-0.02	U	pCi/L 0.10	Batch # 9049439 1.00	Yld % 99 0.21	02/18/09	F9B180000-439B 03/13/09
Radium 228 by GFPC EPA 904 MOD Radium 228	-0.11	U	pCi/L 0.24	Batch # 9049441 1.00	Yld % 89 0.44	02/18/09	F9B180000-441B 03/13/09
SR-90 BY GFPC EPA-905 MOD Strontium 90	-0.06	U	pCi/L 0.25	Batch # 9049442 3.00	Yld % 73 0.46	02/18/09	F9B180000-442B 02/28/09
Total Uranium by KPA ASTM 5174-91 Total Uranium	0.124	U	pCi/L 0.015	Batch # 9050413 0.677	Yld % 0.21	02/19/09	F9B190000-413B 03/08/09
Gross Alpha/Beta EPA 900 Gross Alpha Gross Beta	-0.13 -0.71	U U	pCi/L 0.47 0.61	Batch # 9050133 3.00 4.00	Yld % 0.99 1.2	02/24/09 02/24/09	F9B190000-133B 03/04/09 03/04/09
Gamma Cs-137 & Hits by EPA 901.1 MOD Cesium 137 Potassium 40	4.7 -1	U U	pCi/L 9.8 150	Batch # 9058211 20.0	Yld % 17 280	02/27/09 02/27/09	F9B270000-211B 03/13/09 03/13/09

## NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only  
 Bold results are greater than the MDC.

U Result is less than the sample detection limit.



## Laboratory Control Sample Report

## Radiochemistry

Client Lot ID: F9B180223  
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 $\sigma$ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
<b>Gross Alpha/Beta EPA 900</b>							
Gross Beta	67.6	56.3	4.9	1		83	F9B190000-133C (73 - 122)
	Batch #:	9050133				Analysis Date:	03/04/09
<b>Gross Alpha/Beta EPA 900</b>							
Gross Alpha	49.4	53.2	6.0	1.6		108	F9B190000-133C (73 - 136)
	Batch #:	9050133				Analysis Date:	03/04/09
<b>Total Uranium by KPA ASTM 5174-91</b>							
Total Uranium	27.1	29.7	3.5	0.2		110	F9B190000-413C (90 - 118)
	Batch #:	9050413				Analysis Date:	03/08/09
<b>Total Uranium by KPA ASTM 5174-91</b>							
Total Uranium	5.42	5.86	0.61	0.21		108	F9B190000-413C (90 - 118)
	Batch #:	9050413				Analysis Date:	03/08/09
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>							
Americium 241	141000	137000	11000	500		97	F9B270000-211C (90 - 110)
Cesium 137	53100	51600	3000	200		97	(90 - 110)
Cobalt 60	87900	85500	4800	200		97	(90 - 110)
	Batch #:	9058211				Analysis Date:	03/13/09
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>							
Tritium	4770	4330	460	300		91	F9C070000-052C (77 - 110)
	Batch #:	9066052				Analysis Date:	03/13/09

## NOTE(S)

MDC is determined by instrument performance only  
 Calculations are performed before rounding to avoid round-off error in calculated results

## Laboratory Control Sample/LCS Duplicate Report

## Radiochemistry

Client Lot ID: F9B180223

Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 $\sigma$ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
Radium 226 by EPA	903.0 MOD	pCi/L	903.0 MOD			F9B180000-439C	
Radium (226)	11.3	13.0	1.3	92	115	(52 - 150)	
Spk 2	11.3	11.2	1.2	96	99	(52 - 150) 15 %RPD	
	Batch #:	9049439		Analysis Date:	03/13/09		
Radium 228 by GFPC EPA	904 MOD	pCi/L	904 MOD			F9B180000-441C	
Radium 228	7.20	8.01	0.93	82	111	(64 - 140)	
Spk 2	7.20	8.65	0.97	84	120	(64 - 140) 8 %RPD	
	Batch #:	9049441		Analysis Date:	03/13/09		
SR-90 BY GFPC EPA-905	MOD	pCi/L	905 MOD			F9B180000-442C	
Strontium 90	6.97	8.15	0.94	68	117	(78 - 146)	
Spk 2	6.97	8.20	0.94	69	118	(78 - 146) 0.5 %RPD	
	Batch #:	9049442		Analysis Date:	02/28/09		

## NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F9B180223  
 Matrix: WATER

Date Sampled: 02/13/09  
 Date Received: 02/17/09

Parameter	SAMPLE		Total	DUPLICATE		Total	QC Sample ID	
	Result		Uncert. (2σ +/-)	Result		Uncert. (2σ +/-)	% Yld	Precision
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F9B170209-001	
Cesium 137	-0.9	U	7.9	-3.1	U	9.9	112	%RPD
Potassium 40	-60	U	680	-90	U	3500	35	%RPD
	Batch #:		9058211 (Sample)	9058211 (Duplicate)				
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			F9B180215-001	
Tritium	230	U	190	170	U	190	31	%RPD
	Batch #:		9066052 (Sample)	9066052 (Duplicate)				
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F9B200166-001	
Gross Alpha	1.86	J	0.97	1.9	J	1.0	4	%RPD
Gross Beta	4.2		1.2	4.1		1.2	3	%RPD
	Batch #:		9050133 (Sample)	9050133 (Duplicate)				

NOTE(S)

Data are incomplete without the case narrative.  
 Calculations are performed before rounding to avoid round-off error in calculated results

- J Result is greater than sample detection limit but less than stated reporting limit.
- U Result is less than the sample detection limit.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F9B170209  
 Matrix: WATER

Date Sampled: 02/13/09 1525  
 Date Received: 02/17/09 0900

Parameter	Spike Amount	SPIKE Result	Total Uncert. (2σ +/-)	Spike Yld	SAMPLE Result	Total Uncert. (2σ +/-)	QC Sample ID		QC Control Limits
							% Yld	%Rec	
Total Uranium by KPA ASTM 5			pCi/L	5174-91		F9B170209-001			
Total Uranium	27.1	30.1	3.6		0.435 J	0.051		110	(90 - 121)
Spk2	27.1	29.8	3.6		0.435 J	0.051		108	(90 - 121)
						Precision:		1	%RPD
Batch #:		9050413		Analysis date:		03/08/09			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

J Result is greater than sample detection limit but less than stated reporting

## MATRIX SPIKE REPORT

## Radiochemistry

Client Lot Id: F9B180218  
 Matrix: WATER

Date Sampled: 02/16/09  
 Date Received: 02/18/09

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2σ +/-)	QC Sample ID		QC Control Limits
							%YLD	%REC	
TRITIUM (Distill) by EPA	906.0	MOD	pCi/L		906.0	MOD			F9B180218-001
Tritium	4770	4280	450		300	200		83	(47 - 150)
	Batch #:	9066052		Analysis Date:	03/13/09				
Gross Alpha/Beta EPA	900		pCi/L		900.0	MOD			F9B200166-001
Gross Beta	67.5	73.3	6.2		4.2	1.2		102	(66 - 147)
	Batch #:	9050133		Analysis Date:	03/04/09				
Gross Alpha/Beta EPA	900		pCi/L		900.0	MOD			F9B200166-001
Gross Alpha	49.4	39.8	5.0		1.86	0.97		77	(44 - 150)
	Batch #:	9050133		Analysis Date:	03/04/09				

## NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

*cut 331*

**SUBCONTRACT ORDER**

**TestAmerica Irvine  
ISB1786**

**SENDING LABORATORY:**

TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak  
Client: MWH-Pasadena/Boeing

**RECEIVING LABORATORY:**

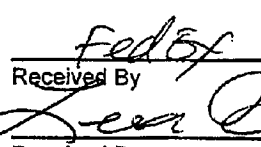
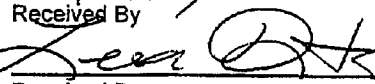
TestAmerica St. Louis  
13715 Rider Trail North  
Earth City, MO 63045  
Phone : (314) 298-8566  
Fax: (314) 298-8757  
Project Location: CA - CALIFORNIA  
Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
<b>Sample ID: ISB1786-01</b>						
	<b>Water</b>	<b>Sampled: 02/16/09 14:00</b>				
Gamma Spec-O	pCi/L	02/25/09	02/16/10 14:00	\$250.00	0%	Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	02/25/09	08/15/09 14:00	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	02/25/09	08/15/09 14:00	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	02/25/09	03/16/09 14:00	\$0.00	0%	
Radium, Combined-O	pCi/L	02/25/09	02/16/10 14:00	\$238.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	02/25/09	02/16/10 14:00	\$155.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	02/25/09	02/16/10 14:00	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	02/25/09	02/16/10 14:00	\$120.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!

**Containers Supplied:**

2.5 gal Poly (AJ)      500 mL Amber (AK)

  
Released By \_\_\_\_\_ Date/Time 2/17/09 17:00

  
Received By \_\_\_\_\_ Date/Time 2/17/09 17:00  
  
Received By \_\_\_\_\_ Date/Time 2-18-09 09:30

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9B180215  
219  
222  
223  
224

227  
228  
230  
225

## CONDITION UPON RECEIPT FORM

Client: TA Irvine

Quote No: 81594

COC/RFA No: See Below

Initiated By: UD

Date: 2-18-09  
2-18-08:40

Time: 0930

### Shipping Information

Shipper:  FedEx  UPS  DHL  Courier  Client  Other: \_\_\_\_\_

Multiple Packages:  Y  N

Shipping # (s):\*

Sample Temperature (s):\*\*

1. <u>7903 4985 0273</u>	6. _____	1. <u>4</u>	6. _____
2. <u>7973 4020 4448</u>	7. _____	2. <u>3</u>	7. _____
3. <u>7903 4985 0332</u>	8. _____	3. <u>4</u>	8. _____
4. <u>7903 4985 0240</u>	9. _____	4. <u>2</u>	9. _____
5. <u>7973 4020 4253</u>	10. _____	5. <u>3</u>	10. _____

\*Numbered shipping lines correspond to Numbered Sample Temp lines

\*\*Sample must be received at 4°C ± 2°C. If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests-Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1. <input checked="" type="radio"/> N	Are there custody seals present on the cooler?	8. Y <input checked="" type="radio"/> N	Are there custody seals present on bottles?
2. Y <input checked="" type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. Y N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> N	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. Y N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input checked="" type="radio"/> N N/A	Was Internal <input checked="" type="radio"/> COC/Workshare received?
7. <input checked="" type="radio"/> N	Is sample volume sufficient for analysis?	14. <input checked="" type="radio"/> N N/A	Was pH taken by original TestAmerica lab?

<sup>1</sup> For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes: 15B1796

1787

1802

1786

1785

1839

1834

1808

1834

### Corrective Action:

Client Contact Name: \_\_\_\_\_

Informed by: \_\_\_\_\_

Sample(s) processed "as is"

Sample(s) on hold until: \_\_\_\_\_

If released, notify: \_\_\_\_\_

Project Management Review: Sheryl A. Adams

Date: 2-19-09

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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ADMIN-0004, REVISED 10/21/08 \\slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

# TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1937

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008  
(714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

**Client:** TestAmerica Analytical  
17461 Derfan Avenue, Suite 100  
Irvine, CA 92614-5817

## REPORT


**Attention:** Joseph Doak  
**Sample:** Water / 1 Sample  
**Project Name:** ISB1786  
**P.O. Number:** 2294262  
**Method Number:** 8315 (Modified)  
**Investigation:** Hydrazines

**Laboratory No:** 981797  
**Report Date:** February 20, 2009  
**Sampling Date:** February 16, 2009  
**Receiving Date:** February 17, 2009  
**Extraction Date:** February 18, 2009  
**Analysis Date:** February 19, 2009  
**Units:** µg/L  
**Reported By:** JS

## Analytical Results

Sample ID	Sample Description	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
708023-MB	Method Blank	100	1	ND	ND	ND	None
981797	ISB1786-01	100	1	ND	ND	ND	None
MDL				1.70	1.42	0.60	
PQL				5.0	5.0	1.00	
Sample Reporting Limits							
				5.0	5.0	1.00	

Note: Results based on detector #1 (UV=365nm) data.

  
Linda Saetern, Project Manager  
Analytical Services, Truesdail Laboratories, Inc.

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.



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 (714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

**Client:** TestAmerica Analytical  
 17461 Derian Avenue, Suite 100  
 Irvine, CA 92614-5817

**Client Contact:** Joseph Doak

**Sample:** Water / 1 Sample

**P.O. Number:** 2294262

**Method Number:** 8315 (Modified)

**Investigation:** Hydrazines

**Run Batch No.:** Extraction: 4766; Analysis: 649

**QC Lab. No.:** 708023

**Project Lab. No.:** 981797

**Spiked Sample ID:** 981794

**Report Date:** February 20, 2009

**Sampling Date:** February 16, 2009

**Receiving Date:** February 17, 2009

**Extraction Date:** February 18, 2009

**Analysis Date:** February 19, 2009

**Reported By:** JS

## Quality Control/Quality Assurance Calibration Report

Parameter	ICV			Control Limits	Flag
	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery		
Monomethyl Hydrazine	25.0	24.2	96.9	85-115	PASS
u-Dimethyl Hydrazine	25.0	26.2	105	85-115	PASS
Hydrazine	5.0	5.24	105	85-115	PASS


Parameter	QCS			Control Limits	Flag
	Theoretical Value (ug/L)	Measured Value (ug/L)	Percent Recovery		
Monomethyl Hydrazine	50.0	47.3	94.6	85-115	PASS
u-Dimethyl Hydrazine	50.0	49.5	99.0	85-115	PASS
Hydrazine	10.0	9.05	90.5	85-115	PASS

## Quality Control/Quality Assurance Spikes Report

Parameter	LCS/LCSD				Percent Recovery (%)	LCS/LCSD RPD	LCS/Flag	Control Limits
	Spiked Conc. ug/L	Recovered Concentration LCS	MB LCS	MB LCS				
Monomethyl Hydrazine	50.0	49.2	51.2	0.0	98.5	102	4.00%	PASS 20 50-150
u-Dimethyl Hydrazine	50.0	52.1	54.9	0.0	104	110	5.12%	PASS 20 50-150
Hydrazine	10.0	9.07	9.90	0.0	90.7	99.0	8.74%	PASS 20 50-150

Parameter	MS/MSD				Percent Recovery (%)	MS/MSD RPD	MS/Flag	Accuracy Control Limits
	Recovered Concentration MS	MSD Sample	MS MSD	MSD				
Monomethyl Hydrazine	33.4	32.7	0.00	66.8%	65.4%	2.10%	PASS	20 50-150
u-Dimethyl Hydrazine	48.1	46.5	0.00	96.1%	93.0%	3.25%	PASS	20 50-150
Hydrazine	6.88	6.54	0.00	68.8%	65.4%	5.12%	PASS	20 50-150

Note: Results based on detector #1 (UV=365nm) data.

  
 Linda Saetlem, Project Manager  
 Analytical Services, Truesdail Laboratories, Inc.

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

March 07, 2009

**Vista Project I.D.: 31438**

Mr. Joseph Doak  
Test America-Irvine, CA  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614


Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 18, 2009 under your Project Name "ISB1786". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Vista's current certifications, and copies of the raw data (if requested).

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com). Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha M. Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAC for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista Analytical Laboratory.*



**Section I: Sample Inventory Report**

**Date Received: 2/18/2009**

**Vista Lab. ID**

**Client Sample ID**

31438-001

ISB1786-01

## SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	1907	Lab Sample:	0-MB001	Date Analyzed DB-5:	24-Feb-09	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	21-Feb-09						
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers	
2,3,7,8-TCDD	ND	0.000000484			<b>IS</b> 13C-2,3,7,8-TCDD	84.7	25 - 164		
1,2,3,7,8-PeCDD	ND	0.000000938			13C-1,2,3,7,8-PeCDD	76.5	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000107			13C-1,2,3,4,7,8-HxCDD	82.7	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000110			13C-1,2,3,6,7,8-HxCDD	79.3	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000105			13C-1,2,3,4,6,7,8-HpCDD	83.7	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000347			13C-OCDD	74.0	17 - 157		
OCDD	ND	0.00000193			13C-2,3,7,8-TCDF	93.7	24 - 169		
2,3,7,8-TCDF	ND	0.000000369			13C-1,2,3,7,8-PeCDF	80.7	24 - 185		
1,2,3,7,8-PeCDF	ND	0.000000467			13C-2,3,4,7,8-PeCDF	79.8	21 - 178		
2,3,4,7,8-PeCDF	ND	0.000000467			13C-1,2,3,4,7,8-HxCDF	83.9	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000652			13C-1,2,3,6,7,8-HxCDF	80.2	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000635			13C-2,3,4,6,7,8-HxCDF	83.8	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000697			13C-1,2,3,7,8,9-HxCDF	81.6	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000100			13C-1,2,3,4,6,7,8-HpCDF	80.1	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000223			13C-1,2,3,4,7,8,9-HpCDF	85.3	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000241			13C-OCDF	69.3	17 - 157		
OCDF	ND	0.00000157			<b>CRS</b> 37Cl-2,3,7,8-TCDD	90.8	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.000000484			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.000000938			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000107			c. Method detection limit.				
Total HpCDD	ND	0.00000347			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000369							
Total PeCDF	ND	0.000000467							
Total HxCDF	ND	0.000000746							
Total HpCDF	ND	0.00000232							

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:50

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	1907	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	21-Feb-09	Date Analyzed DB-5:	24-Feb-09	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	86.0	25 - 164	
1,2,3,7,8-PeCDD	50.0	52.1	35 - 71	13C-1,2,3,7,8-PeCDD	78.7	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	51.0	35 - 82	13C-1,2,3,4,7,8-HxCDD	84.9	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	50.0	38 - 67	13C-1,2,3,6,7,8-HxCDD	81.1	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	49.9	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	79.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	50.9	35 - 70	13C-OCDD	71.0	17 - 157	
OCDD	100	102	78 - 144	13C-2,3,7,8-TCDF	90.8	24 - 169	
2,3,7,8-TCDF	10.0	10.2	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	83.2	24 - 185	
1,2,3,7,8-PeCDF	50.0	50.9	40 - 67	13C-2,3,4,7,8-PeCDF	81.4	21 - 178	
2,3,4,7,8-PeCDF	50.0	50.9	34 - 80	13C-1,2,3,4,7,8-HxCDF	84.8	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.9	36 - 67	13C-1,2,3,6,7,8-HxCDF	81.8	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	51.5	42 - 65	13C-2,3,4,6,7,8-HxCDF	84.2	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.1	35 - 78	13C-1,2,3,7,8,9-HxCDF	81.1	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.3	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	51.0	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	81.1	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	50.6	39 - 69	13C-OCDF	67.5	17 - 157	
OCDF	100	105	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	90.9	35 - 197	

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:50

Sample ID: <b>ISB1786-01</b>					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	31438-001	Date Received:	18-Feb-09
Project:	ISB1786		Sample Size:	1.04 L	QC Batch No.:	1907	Date Extracted:	21-Feb-09
Date Collected:	16-Feb-09				Date Analyzed DB-5:	24-Feb-09	Date Analyzed DB-225:	NA
Time Collected:	1400							
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000671			<b>IS</b> 13C-2,3,7,8-TCDD	84.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000147			13C-1,2,3,7,8-PeCDD	76.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000312			13C-1,2,3,4,7,8-HxCDD	80.2	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000328			13C-1,2,3,6,7,8-HxCDD	77.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000309			13C-1,2,3,4,6,7,8-HpCDD	75.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000667				13C-OCDD	66.2	17 - 157	
OCDD	0.000643				13C-2,3,7,8-TCDF	93.4	24 - 169	
2,3,7,8-TCDF	ND	0.00000676			13C-1,2,3,7,8-PeCDF	80.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000841			13C-2,3,4,7,8-PeCDF	80.8	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000908			13C-1,2,3,4,7,8-HxCDF	84.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000157			13C-1,2,3,6,7,8-HxCDF	76.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000167			13C-2,3,4,6,7,8-HxCDF	82.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000180			13C-1,2,3,7,8,9-HxCDF	76.5	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000263			13C-1,2,3,4,6,7,8-HpCDF	77.9	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000119			J	13C-1,2,3,4,7,8,9-HpCDF	73.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000305			13C-OCDF	59.6	17 - 157	
OCDF	0.0000412			J	<b>CRS</b> 37Cl-2,3,7,8-TCDD	90.1	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000671			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000147			b. Estimated maximum possible concentration.			
Total HxCDD	0.0000114				c. Method detection limit.			
Total HpCDD	0.000146				d. Lower control limit - upper control limit.			
Total TCDF	ND	0.00000676						
Total PeCDF	0.00000342							
Total HxCDF	0.0000139							
Total HpCDF	0.0000350							

Analyst: JMH

Approved By: Martha M. Maier 07-Mar-2009 08:50

## APPENDIX



## DATA QUALIFIERS & ABBREVIATIONS

<b>B</b>	<b>This compound was also detected in the method blank.</b>
<b>D</b>	<b>Dilution</b>
<b>E</b>	<b>The amount detected is above the High Calibration Limit.</b>
<b>P</b>	<b>The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.</b>
<b>H</b>	<b>The signal-to-noise ratio is greater than 10:1.</b>
<b>I</b>	<b>Chemical Interference</b>
<b>J</b>	<b>The amount detected is below the Low Calibration Limit.</b>
<b>*</b>	<b>See Cover Letter</b>
<b>Conc.</b>	<b>Concentration</b>
<b>DL</b>	<b>Sample-specific estimated detection limit</b>
<b>MDL</b>	<b>The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.</b>
<b>EMPC</b>	<b>Estimated Maximum Possible Concentration</b>
<b>NA</b>	<b>Not applicable</b>
<b>RL</b>	<b>Reporting Limit – concentrations that correspond to low calibration point</b>
<b>ND</b>	<b>Not Detected</b>
<b>TEQ</b>	<b>Toxic Equivalency</b>

**Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.**

## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

ISB1786

3438

SENDING LABORATORY:

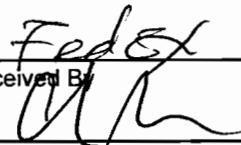
TestAmerica Irvine  
17461 Derian Avenue. Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB  
1104 Windfield Way  
El Dorado Hills, CA 95762  
Phone : (916) 673-1520  
Fax: (916) 673-0106  
Project Location: CA - CALIFORNIA  
Receipt Temperature: 2.5 °C Ice: (Y) N

Analysis	Units	Due	Expires	Comments
<b>Sample ID: ISB1786-01</b>				
	<b>Water</b>			Sampled: 02/16/09 14:00
1613-Dioxin-HR-Alta	ug/l	02/25/09	02/23/09 14:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	N/A	02/25/09	03/16/09 14:00	Excel EDD email to pm, Include Std logs for Lvl IV
<i>Containers Supplied:</i>				
1 L Amber (E)		1 L Amber (F)		

 2/17/09 17:00  
Released By \_\_\_\_\_ Date/Time \_\_\_\_\_

Fedex 2/17/09 17:00  
  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

**SAMPLE LOG-IN CHECKLIST**



31438

Vista Project #:

TAT unspecified

<b>Samples Arrival:</b>	<b>Date/Time:</b> 2/18/09 0950	<b>Initials:</b> CV	<b>Location:</b> WRS2
			<b>Shelf/Rack:</b> N/A
<b>Logged In:</b>	<b>Date/Time:</b> 2/18/09 1459	<b>Initials:</b> CV	<b>Location:</b> WRS2
			<b>Shelf/Rack:</b> C4
<b>Delivered By:</b>	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
<b>Preservation:</b>	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
<b>Temp °C:</b> 23°	<b>Time:</b> 0956	<b>Thermometer ID:</b> IR-1	

	YES	NO	NA
Adequate Sample Volume Received? (A & B bottles)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trk # 7975 4681 8451			
Sample Container Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> None
	<input type="checkbox"/> COC	<input type="checkbox"/> Sample Container	
Shipping Container	<input type="checkbox"/> Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain
		<input checked="" type="checkbox"/> Return	<input type="checkbox"/> Dispose

Comments: