

APPENDIX G

Section 51

Outfall 010 – February 5 & 6, 2010

Test America Analytical Laboratory Report

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LABORATORY REPORT

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

Project: Annual Outfall 010
Annual Outfall 010

Sampled: 02/05/10-02/06/10
Received: 02/05/10
Revised: 04/09/10 15:09

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 of Custody, 1 page, is included and is 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: WATER, 1613B, Dioxins/Furans with Totals

Sample: 1

Some analytes are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

Some analytes in this sample and the associated method blank have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

There are no other anomalies associated with this project.

Final revised report to provide corrected units, .pdf file for Radchem and PP metals omitted from original issue.

LABORATORY ID

ITB0784-01
ITB0784-02
ITB0886-01

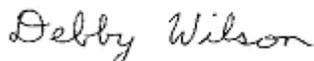
CLIENT ID

Outfall 010
Trip Blanks
Outfall 010

MATRIX

Water
Water
Water

Reviewed By:



TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0784-01 (Outfall 010 - Water)					Sampled: 02/05/10				
Reporting Units: ug/l									
Benzene	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
Bromodichloromethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Bromoform	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Bromomethane	EPA 624	10B0785	0.42	1.0	ND	1	02/07/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	C, L
Chlorobenzene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
Chloroethane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Chloroform	EPA 624	10B0785	0.33	0.50	ND	1	02/07/10	02/08/10	
Chloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Dibromochloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0785	0.37	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0785	0.42	0.50	ND	1	02/07/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0785	0.22	0.50	ND	1	02/07/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Ethylbenzene	EPA 624	10B0785	0.25	0.50	ND	1	02/07/10	02/08/10	
Methylene chloride	EPA 624	10B0785	0.95	1.0	ND	1	02/07/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Tetrachloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Toluene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Trichloroethene	EPA 624	10B0785	0.26	0.50	ND	1	02/07/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0785	0.34	0.50	ND	1	02/07/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0785	0.50	5.0	ND	1	02/07/10	02/08/10	
Vinyl chloride	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Xylenes, Total	EPA 624	10B0785	0.90	1.5	ND	1	02/07/10	02/08/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					<i>106 %</i>				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					<i>111 %</i>				
<i>Surrogate: Toluene-d8 (80-120%)</i>					<i>109 %</i>				

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0784-02 (Trip Blanks - Water)					Sampled: 02/05/10				
Reporting Units: ug/l									
Benzene	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
Bromodichloromethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Bromoform	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Bromomethane	EPA 624	10B0785	0.42	1.0	ND	1	02/07/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	C, L
Chlorobenzene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
Chloroethane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Chloroform	EPA 624	10B0785	0.33	0.50	ND	1	02/07/10	02/08/10	
Chloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Dibromochloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0785	0.37	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0785	0.42	0.50	ND	1	02/07/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0785	0.22	0.50	ND	1	02/07/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Ethylbenzene	EPA 624	10B0785	0.25	0.50	ND	1	02/07/10	02/08/10	
Methylene chloride	EPA 624	10B0785	0.95	1.0	ND	1	02/07/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Tetrachloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Toluene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Trichloroethene	EPA 624	10B0785	0.26	0.50	ND	1	02/07/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0785	0.34	0.50	ND	1	02/07/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0785	0.50	5.0	ND	1	02/07/10	02/08/10	
Vinyl chloride	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Xylenes, Total	EPA 624	10B0785	0.90	1.5	ND	1	02/07/10	02/08/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					<i>105 %</i>				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					<i>110 %</i>				
<i>Surrogate: Toluene-d8 (80-120%)</i>					<i>109 %</i>				

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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 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0784-01 (Outfall 010 - Water)					Sampled: 02/05/10				
Reporting Units: ug/l									
Acrolein	EPA 624	10B0831	4.0	5.0	ND	1	02/08/10	02/08/10	
Acrylonitrile	EPA 624	10B0831	1.2	2.0	ND	1	02/08/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0831	1.8	5.0	ND	1	02/08/10	02/08/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					96 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					106 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					108 %				
Sample ID: ITB0784-02 (Trip Blanks - Water)					Sampled: 02/05/10				
Reporting Units: ug/l									
Acrolein	EPA 624	10B0831	4.0	5.0	ND	1	02/08/10	02/08/10	
Acrylonitrile	EPA 624	10B0831	1.2	2.0	ND	1	02/08/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0831	1.8	5.0	ND	1	02/08/10	02/08/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					95 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					105 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					108 %				

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/l									
Acenaphthene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Acenaphthylene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Aniline	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
Anthracene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Benzidine	EPA 625	10B1328	9.4	19	ND	0.943	02/11/10	02/14/10	
Benzo(a)anthracene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Benzo(a)pyrene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Benzo(b)fluoranthene	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
Benzo(g,h,i)perylene	EPA 625	10B1328	3.8	9.4	ND	0.943	02/11/10	02/14/10	
Benzo(k)fluoranthene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Benzoic acid	EPA 625	10B1328	9.4	19	ND	0.943	02/11/10	02/14/10	
Benzyl alcohol	EPA 625	10B1328	3.3	19	ND	0.943	02/11/10	02/14/10	C
4-Bromophenyl phenyl ether	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Butyl benzyl phthalate	EPA 625	10B1328	3.8	19	ND	0.943	02/11/10	02/14/10	
4-Chloro-3-methylphenol	EPA 625	10B1328	2.4	19	ND	0.943	02/11/10	02/14/10	
4-Chloroaniline	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
Bis(2-chloroethoxy)methane	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Bis(2-chloroethyl)ether	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Bis(2-chloroisopropyl)ether	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Bis(2-ethylhexyl)phthalate	EPA 625	10B1328	3.8	47	ND	0.943	02/11/10	02/14/10	
2-Chloronaphthalene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
2-Chlorophenol	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
4-Chlorophenyl phenyl ether	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Chrysene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
Dibenz(a,h)anthracene	EPA 625	10B1328	2.8	19	ND	0.943	02/11/10	02/14/10	
Dibenzofuran	EPA 625	10B1328	3.8	9.4	ND	0.943	02/11/10	02/14/10	
Di-n-butyl phthalate	EPA 625	10B1328	2.8	19	ND	0.943	02/11/10	02/14/10	
1,2-Dichlorobenzene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
1,3-Dichlorobenzene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
1,4-Dichlorobenzene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
3,3'-Dichlorobenzidine	EPA 625	10B1328	7.1	19	ND	0.943	02/11/10	02/14/10	
2,4-Dichlorophenol	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
Diethyl phthalate	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
2,4-Dimethylphenol	EPA 625	10B1328	3.3	19	ND	0.943	02/11/10	02/14/10	
Dimethyl phthalate	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
4,6-Dinitro-2-methylphenol	EPA 625	10B1328	3.8	19	ND	0.943	02/11/10	02/14/10	
2,4-Dinitrophenol	EPA 625	10B1328	7.5	19	ND	0.943	02/11/10	02/14/10	
2,4-Dinitrotoluene	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
2,6-Dinitrotoluene	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
Di-n-octyl phthalate	EPA 625	10B1328	3.3	19	ND	0.943	02/11/10	02/14/10	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	10B1328	2.4	19	ND	0.943	02/11/10	02/14/10	

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Sample ID: ITB0886-01 (Outfall 010 - Water) - cont.					Sampled: 02/06/10				
Reporting Units: ug/l									
Fluoranthene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Fluorene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Hexachlorobenzene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Hexachlorobutadiene	EPA 625	10B1328	3.8	9.4	ND	0.943	02/11/10	02/14/10	
Hexachlorocyclopentadiene	EPA 625	10B1328	4.7	19	ND	0.943	02/11/10	02/14/10	C, L
Hexachloroethane	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
Indeno(1,2,3-cd)pyrene	EPA 625	10B1328	3.3	19	ND	0.943	02/11/10	02/14/10	
Isophorone	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
2-Methylnaphthalene	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
2-Methylphenol	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
4-Methylphenol	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
Naphthalene	EPA 625	10B1328	2.8	9.4	ND	0.943	02/11/10	02/14/10	
2-Nitroaniline	EPA 625	10B1328	1.9	19	ND	0.943	02/11/10	02/14/10	
3-Nitroaniline	EPA 625	10B1328	2.8	19	ND	0.943	02/11/10	02/14/10	
4-Nitroaniline	EPA 625	10B1328	3.8	19	ND	0.943	02/11/10	02/14/10	
Nitrobenzene	EPA 625	10B1328	2.8	19	ND	0.943	02/11/10	02/14/10	
2-Nitrophenol	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
4-Nitrophenol	EPA 625	10B1328	5.2	19	ND	0.943	02/11/10	02/14/10	
N-Nitroso-di-n-propylamine	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
N-Nitrosodimethylamine	EPA 625	10B1328	2.4	19	ND	0.943	02/11/10	02/14/10	
N-Nitrosodiphenylamine	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
Pentachlorophenol	EPA 625	10B1328	3.3	19	ND	0.943	02/11/10	02/14/10	
Phenanthrene	EPA 625	10B1328	3.3	9.4	ND	0.943	02/11/10	02/14/10	
Phenol	EPA 625	10B1328	1.9	9.4	ND	0.943	02/11/10	02/14/10	
Pyrene	EPA 625	10B1328	3.8	9.4	ND	0.943	02/11/10	02/14/10	
1,2,4-Trichlorobenzene	EPA 625	10B1328	2.4	9.4	ND	0.943	02/11/10	02/14/10	
2,4,5-Trichlorophenol	EPA 625	10B1328	2.8	19	ND	0.943	02/11/10	02/14/10	
2,4,6-Trichlorophenol	EPA 625	10B1328	4.2	19	ND	0.943	02/11/10	02/14/10	
Surrogate: 2,4,6-Tribromophenol (40-120%)					81 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					77 %				
Surrogate: 2-Fluorophenol (30-120%)					61 %				
Surrogate: Nitrobenzene-d5 (45-120%)					76 %				
Surrogate: Phenol-d6 (35-120%)					73 %				
Surrogate: Terphenyl-d14 (50-125%)					86 %				

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

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	10B0759	N/A	1.0	ND	1	02/06/10	02/09/10	
Diazinon	EPA 525.2	10B0759	N/A	0.25	ND	1	02/06/10	02/09/10	
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					<i>101 %</i>				
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					<i>101 %</i>				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					<i>109 %</i>				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					<i>109 %</i>				
<i>Surrogate: Perylene-d12 (70-130%)</i>					<i>110 %</i>				
<i>Surrogate: Perylene-d12 (70-130%)</i>					<i>110 %</i>				

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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/l									
4,4'-DDD	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	C
4,4'-DDE	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
4,4'-DDT	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
Aldrin	EPA 608	10B1291	0.0014	0.0047	ND	0.943	02/11/10	02/13/10	
alpha-BHC	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
beta-BHC	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
delta-BHC	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Dieldrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan I	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan II	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan sulfate	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	C
Endrin aldehyde	EPA 608	10B1291	0.0019	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin ketone	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
gamma-BHC (Lindane)	EPA 608	10B1291	0.0028	0.019	ND	0.943	02/11/10	02/13/10	
Heptachlor	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	C
Heptachlor epoxide	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
Methoxychlor	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Chlordane	EPA 608	10B1291	0.038	0.094	ND	0.943	02/11/10	02/13/10	
Toxaphene	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/13/10	
<i>Surrogate: Decachlorobiphenyl (45-120%)</i>					72 %				
<i>Surrogate: Tetrachloro-m-xylene (35-115%)</i>					52 %				

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Sampled: 02/05/10-02/06/10
 Received: 02/05/10

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water) - cont.					Sampled: 02/06/10				
Reporting Units: ug/l									
Aroclor 1016	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1221	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1232	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1242	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1248	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1254	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1260	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
<i>Surrogate: Decachlorobiphenyl (45-120%)</i>					76 %				

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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0784-01 (Outfall 010 - Water)					Sampled: 02/05/10				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10B1778	1.4	4.8	ND	1	02/15/10	02/15/10	

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ITB0784 <Page 10 of 69>

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Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	89	1	02/15/10	02/16/10	
Boron	EPA 200.7	10B1839	0.020	0.050	0.047	1	02/15/10	02/16/10	J
Calcium	EPA 200.7	10B1839	0.050	0.10	30	1	02/15/10	02/16/10	MHA
Iron	EPA 200.7	10B1839	0.015	0.040	0.74	1	02/15/10	02/16/10	
Magnesium	EPA 200.7	10B1839	0.012	0.020	3.7	1	02/15/10	02/16/10	
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/l									
Aluminum	EPA 200.7	10B1839	40	50	770	1	02/15/10	02/17/10	
Mercury	EPA 245.1	10B1942	0.10	0.20	ND	1	02/16/10	02/16/10	
Arsenic	EPA 200.7	10B1839	7.0	10	ND	1	02/15/10	02/16/10	
Antimony	EPA 200.8	10B1598	0.30	2.0	ND	1	02/12/10	02/15/10	
Beryllium	EPA 200.7	10B1839	0.90	2.0	ND	1	02/15/10	02/16/10	
Chromium	EPA 200.7	10B1839	2.0	5.0	ND	1	02/15/10	02/16/10	
Nickel	EPA 200.7	10B1839	2.0	10	ND	1	02/15/10	02/16/10	
Selenium	EPA 200.7	10B1839	8.0	10	ND	1	02/15/10	02/16/10	
Silver	EPA 200.7	10B1839	6.0	10	ND	1	02/15/10	02/16/10	
Cadmium	EPA 200.8	10B1598	0.10	1.0	ND	1	02/12/10	02/15/10	
Vanadium	EPA 200.7	10B1839	3.0	10	4.6	1	02/15/10	02/16/10	J
Zinc	EPA 200.7	10B1839	6.0	20	8.7	1	02/15/10	02/16/10	J
Copper	EPA 200.8	10B1598	0.50	2.0	4.4	1	02/12/10	02/15/10	
Lead	EPA 200.8	10B1598	0.20	1.0	1.9	1	02/12/10	02/15/10	
Thallium	EPA 200.8	10B1598	0.20	1.0	ND	1	02/12/10	02/15/10	C

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Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B-Diss	[CALC]	N/A	0.33	72	1	02/15/10	02/16/10	
Boron	EPA 200.7-Diss	10B1846	0.020	0.050	0.056	1	02/15/10	02/16/10	B
Calcium	EPA 200.7-Diss	10B1846	0.050	0.10	24	1	02/15/10	02/16/10	
Iron	EPA 200.7-Diss	10B1846	0.015	0.040	0.081	1	02/15/10	02/16/10	B
Magnesium	EPA 200.7-Diss	10B1846	0.012	0.020	2.8	1	02/15/10	02/16/10	
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/l									
Aluminum	EPA 200.7-Diss	10B1846	40	50	81	1	02/15/10	02/16/10	
Mercury	EPA 245.1-Diss	10B1953	0.10	0.20	ND	1	02/16/10	02/16/10	
Arsenic	EPA 200.7-Diss	10B1846	7.0	10	ND	1	02/15/10	02/16/10	
Antimony	EPA 200.8-Diss	10B1845	0.30	2.0	0.57	1	02/15/10	02/17/10	J
Beryllium	EPA 200.7-Diss	10B1846	0.90	2.0	ND	1	02/15/10	02/16/10	
Chromium	EPA 200.7-Diss	10B1846	2.0	5.0	ND	1	02/15/10	02/16/10	
Nickel	EPA 200.7-Diss	10B1846	2.0	10	ND	1	02/15/10	02/16/10	
Selenium	EPA 200.7-Diss	10B1846	8.0	10	ND	1	02/15/10	02/16/10	
Silver	EPA 200.7-Diss	10B1846	6.0	10	ND	1	02/15/10	02/16/10	
Cadmium	EPA 200.8-Diss	10B1845	0.10	1.0	ND	1	02/15/10	02/17/10	
Vanadium	EPA 200.7-Diss	10B1846	3.0	10	ND	1	02/15/10	02/16/10	
Zinc	EPA 200.7-Diss	10B1846	6.0	20	13	1	02/15/10	02/16/10	J
Copper	EPA 200.8-Diss	10B2106	0.50	2.0	1.4	1	02/17/10	02/17/10	J
Lead	EPA 200.8-Diss	10B1845	0.20	1.0	ND	1	02/15/10	02/17/10	
Thallium	EPA 200.8-Diss	10B1845	0.20	1.0	ND	1	02/15/10	02/17/10	

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Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

DISSOLVED INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0784-01 (Outfall 010 - Water)					Sampled: 02/05/10				
Reporting Units: mg/l									
Chromium VI	EPA 218.6	10B0683	0.00025	0.0010	ND	1	02/05/10	02/05/10	

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ITB0784 <Page 13 of 69>

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Project ID: Annual Outfall 010
 Annual Outfall 010
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Sampled: 02/05/10-02/06/10
 Received: 02/05/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: mg/l									
Chloride	EPA 300.0	10B0807	0.25	0.50	7.3	1	02/07/10	02/07/10	
Total Cyanide	SM4500CN-E	10B1250	0.0022	0.0050	ND	1	02/10/10	02/10/10	
Fluoride	SM 4500-F-C	10B1111	0.020	0.10	0.20	1	02/10/10	02/10/10	B
Nitrate/Nitrite-N	EPA 300.0	10B0807	0.15	0.26	0.59	1	02/07/10	02/07/10	
Sulfate	EPA 300.0	10B0807	0.20	0.50	7.4	1	02/07/10	02/07/10	
Total Dissolved Solids	SM2540C	10B1487	1.0	10	160	1	02/12/10	02/12/10	
Total Suspended Solids	SM 2540D	10B1607	1.0	10	73	1	02/12/10	02/12/10	

Sample ID: ITB0886-01 (Outfall 010 - Water)

Sampled: 02/06/10

Reporting Units: ug/l

Perchlorate	EPA 314.0	10B1658	0.90	4.0	ND	1	02/13/10	02/13/10	
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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	53280	0.21	0.693	0.422	1	02/23/10	02/26/10	Jb

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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	43108	1.4	3	2.7	1	02/10/10	02/18/10	Jb
Gross Beta	EPA 900.0 MOD	43108	1	4	5.8	1	02/10/10	02/18/10	

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ITB0784 <Page 16 of 69>

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Annual Outfall 010
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Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	42136	11	20	4.3	1	02/11/10	02/19/10	U
Potassium 40	EPA 901.1 MOD	42136	250	NA	-60	1	02/11/10	02/19/10	U

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ITB0784 <Page 17 of 69>

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Project ID: Annual Outfall 010
Annual Outfall 010
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Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	41160	0.25	1	0.2	1	02/10/10	02/26/10	U

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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01RE1 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	60257	0.41	1	0.04	1	03/01/10	03/05/10	U

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Annual Outfall 010
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Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	41162	0.4	3	0.08	1	02/10/10	02/19/10	U

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Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	49035	90	500	1060	1	02/18/10	02/18/10	

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Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01 (Outfall 010 - Water)					Sampled: 02/06/10				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	48124	0.0000018	0.00005	0.00014	1.01	02/17/10	02/19/10	Ba
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	48124	0.0000088	0.00005	0.000038	1.01	02/17/10	02/19/10	J, Ba
2,3,7,8-TCDF	EPA-5 1613B	48124	0.0000035	0.00001	0.000017	1.01	02/17/10	02/19/10	J
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	48124	0.0000015	0.00005	0.000008	1.01	02/17/10	02/19/10	J, Q
1,2,3,4,7,8-HxCDD	EPA-5 1613B	48124	0.0000044	0.00005	0.000044	1.01	02/17/10	02/19/10	J
1,2,3,4,7,8-HxCDF	EPA-5 1613B	48124	0.0000048	0.00005	0.000053	1.01	02/17/10	02/19/10	J
1,2,3,6,7,8-HxCDD	EPA-5 1613B	48124	0.0000037	0.00005	0.000067	1.01	02/17/10	02/19/10	J
1,2,3,6,7,8-HxCDF	EPA-5 1613B	48124	0.0000004	0.00005	0.000036	1.01	02/17/10	02/19/10	J, Q
1,2,3,7,8,9-HxCDD	EPA-5 1613B	48124	0.0000034	0.00005	0.000045	1.01	02/17/10	02/19/10	J
1,2,3,7,8,9-HxCDF	EPA-5 1613B	48124	0.0000054	0.00005	0.000003	1.01	02/17/10	02/19/10	J, Q
1,2,3,7,8-PeCDD	EPA-5 1613B	48124	0.0000064	0.00005	0.000003	1.01	02/17/10	02/19/10	J, Q
1,2,3,7,8-PeCDF	EPA-5 1613B	48124	0.0000049	0.00005	0.000031	1.01	02/17/10	02/19/10	J
2,3,4,6,7,8-HxCDF	EPA-5 1613B	48124	0.0000004	0.00005	0.000034	1.01	02/17/10	02/19/10	J
2,3,4,7,8-PeCDF	EPA-5 1613B	48124	0.0000059	0.00005	0.000035	1.01	02/17/10	02/19/10	J
2,3,7,8-TCDD	EPA-5 1613B	48124	0.0000004	0.00001	0.000011	1.01	02/17/10	02/19/10	J, Q
OCDD	EPA-5 1613B	48124	0.0000029	0.0001	0.0014	1.01	02/17/10	02/19/10	Ba
OCDF	EPA-5 1613B	48124	0.0000019	0.0001	0.00038	1.01	02/17/10	02/19/10	Ba
Total HpCDD	EPA-5 1613B	48124	0.0000018	0.00005	0.00026	1.01	02/17/10	02/19/10	Ba
Total HpCDF	EPA-5 1613B	48124	0.0000088	0.00005	0.00023	1.01	02/17/10	02/19/10	J, Q, Ba
Total HxCDD	EPA-5 1613B	48124	0.0000034	0.00005	0.000025	1.01	02/17/10	02/19/10	J
Total HxCDF	EPA-5 1613B	48124	0.0000004	0.00005	0.000035	1.01	02/17/10	02/19/10	J, Q
Total PeCDD	EPA-5 1613B	48124	0.0000064	0.00005	0.000003	1.01	02/17/10	02/19/10	J, Q
Total PeCDF	EPA-5 1613B	48124	0.0000049	0.00005	0.000066	1.01	02/17/10	02/19/10	J
Total TCDD	EPA-5 1613B	48124	0.0000004	0.00001	0.000011	1.01	02/17/10	02/19/10	J, Q
Total TCDF	EPA-5 1613B	48124	0.0000035	0.00001	0.000017	1.01	02/17/10	02/19/10	J

Surrogate: 13C-2,3,7,8-TCDF (24-169%)	72 %
Surrogate: 37Cl-2,3,7,8-TCDD (35-197%)	89 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)	98 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)	91 %
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)	86 %
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)	94 %
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)	91 %
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)	98 %
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)	93 %
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)	89 %
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)	90 %
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)	86 %
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)	100 %
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)	83 %
Surrogate: 13C-2,3,7,8-TCDD (25-164%)	80 %
Surrogate: 13C-OCDD (17-157%)	100 %

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Debby Wilson For Heather Clark
Project Manager

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

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0886-01RE1 (Outfall 010 - Water) - cont.					Sampled: 02/06/10				
Reporting Units: ug/L									
2,3,7,8-TCDF	EPA-5 1613B	48124	0.000002	0.00001	ND	1.01	02/17/10	02/19/10	
<i>Surrogate: 13C-2,3,7,8-TCDF (24-169%)</i>					95 %				
<i>Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)</i>					94 %				

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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 010 (ITB0784-01) - Water					
EPA 218.6	1	02/05/2010 13:40	02/05/2010 19:20	02/05/2010 22:45	02/05/2010 23:45
EPA 624	3	02/05/2010 13:40	02/05/2010 19:20	02/08/2010 00:00	02/08/2010 12:17
Sample ID: Trip Blanks (ITB0784-02) - Water					
EPA 624	3	02/05/2010 13:40	02/05/2010 19:20	02/08/2010 00:00	02/08/2010 12:47
Sample ID: Outfall 010 (ITB0886-01) - Water					
EPA 300.0	2	02/06/2010 11:15	02/06/2010 17:00	02/07/2010 18:15	02/07/2010 19:21
EPA 525.2	1	02/06/2010 11:15	02/06/2010 17:00	02/06/2010 18:40	02/09/2010 17:44

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ITB0784 <Page 24 of 69>

MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-BLK1)											
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							
cis-1,2-Dichloroethene	ND	0.50	0.32	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	26.2			ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	23.9			ug/l	25.0		96	80-120			

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-BLK1)											
Surrogate: Toluene-d8	27.0			ug/l	25.0		108	80-120			
LCS Analyzed: 02/07/2010 (10B0785-BS1)											
Benzene	24.1	0.50	0.28	ug/l	25.0		96	70-120			
Bromodichloromethane	28.8	0.50	0.30	ug/l	25.0		115	70-135			
Bromoform	22.2	0.50	0.40	ug/l	25.0		89	55-130			
Bromomethane	30.3	1.0	0.42	ug/l	25.0		121	65-140			
Carbon tetrachloride	39.8	0.50	0.28	ug/l	25.0		159	65-140			L
Chlorobenzene	25.9	0.50	0.36	ug/l	25.0		104	75-120			
Chloroethane	27.2	1.0	0.40	ug/l	25.0		109	60-140			
Chloroform	25.5	0.50	0.33	ug/l	25.0		102	70-130			
Chloromethane	28.2	0.50	0.40	ug/l	25.0		113	50-140			
Dibromochloromethane	25.7	0.50	0.40	ug/l	25.0		103	70-140			
1,2-Dichlorobenzene	26.1	0.50	0.32	ug/l	25.0		104	75-120			
1,3-Dichlorobenzene	27.0	0.50	0.35	ug/l	25.0		108	75-120			
1,4-Dichlorobenzene	26.6	0.50	0.37	ug/l	25.0		107	75-120			
1,1-Dichloroethane	25.1	0.50	0.40	ug/l	25.0		100	70-125			
1,2-Dichloroethane	25.5	0.50	0.28	ug/l	25.0		102	60-140			
1,1-Dichloroethene	26.8	0.50	0.42	ug/l	25.0		107	70-125			
cis-1,2-Dichloroethene	25.6	0.50	0.32	ug/l	25.0		102	70-125			
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0		102	70-125			
1,2-Dichloropropane	22.8	0.50	0.35	ug/l	25.0		91	70-125			
cis-1,3-Dichloropropene	30.0	0.50	0.22	ug/l	25.0		120	75-125			
trans-1,3-Dichloropropene	23.0	0.50	0.32	ug/l	25.0		92	70-125			
Ethylbenzene	28.4	0.50	0.25	ug/l	25.0		114	75-125			
Methylene chloride	21.2	1.0	0.95	ug/l	25.0		85	55-130			
1,1,2,2-Tetrachloroethane	22.6	0.50	0.30	ug/l	25.0		90	55-130			
Tetrachloroethene	28.9	0.50	0.32	ug/l	25.0		116	70-125			
Toluene	25.5	0.50	0.36	ug/l	25.0		102	70-120			
1,1,1-Trichloroethane	31.7	0.50	0.30	ug/l	25.0		127	65-135			
1,1,2-Trichloroethane	22.6	0.50	0.30	ug/l	25.0		91	70-125			
Trichloroethene	28.0	0.50	0.26	ug/l	25.0		112	70-125			
Trichlorofluoromethane	31.6	0.50	0.34	ug/l	25.0		126	65-145			
Vinyl chloride	30.9	0.50	0.40	ug/l	25.0		124	55-135			
Xylenes, Total	79.7	1.5	0.90	ug/l	75.0		106	70-125			
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			

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Debby Wilson For Heather Clark
Project Manager

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B0785 Extracted: 02/07/10											
LCS Analyzed: 02/07/2010 (10B0785-BS1)											
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.3			ug/l	25.0		109	80-120			
Matrix Spike Analyzed: 02/07/2010 (10B0785-MS1)											
Source: ITB0302-01											
Benzene	21.5	0.50	0.28	ug/l	25.0	ND	86	65-125			
Bromodichloromethane	26.4	0.50	0.30	ug/l	25.0	ND	106	70-135			
Bromoform	19.7	0.50	0.40	ug/l	25.0	ND	79	55-135			
Bromomethane	26.9	1.0	0.42	ug/l	25.0	ND	108	55-145			
Carbon tetrachloride	35.7	0.50	0.28	ug/l	25.0	ND	143	65-140			M7
Chlorobenzene	23.7	0.50	0.36	ug/l	25.0	ND	95	75-125			
Chloroethane	24.5	1.0	0.40	ug/l	25.0	ND	98	55-140			
Chloroform	23.0	0.50	0.33	ug/l	25.0	ND	92	65-135			
Chloromethane	25.6	0.50	0.40	ug/l	25.0	ND	103	45-145			
Dibromochloromethane	23.2	0.50	0.40	ug/l	25.0	ND	93	65-140			
1,2-Dichlorobenzene	23.4	0.50	0.32	ug/l	25.0	ND	94	75-125			
1,3-Dichlorobenzene	24.0	0.50	0.35	ug/l	25.0	ND	96	75-125			
1,4-Dichlorobenzene	24.0	0.50	0.37	ug/l	25.0	ND	96	75-125			
1,1-Dichloroethane	22.7	0.50	0.40	ug/l	25.0	ND	91	65-130			
1,2-Dichloroethane	23.4	0.50	0.28	ug/l	25.0	ND	93	60-140			
1,1-Dichloroethene	25.0	0.50	0.42	ug/l	25.0	0.470	98	60-130			
cis-1,2-Dichloroethene	23.1	0.50	0.32	ug/l	25.0	ND	93	65-130			
trans-1,2-Dichloroethene	22.8	0.50	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	20.3	0.50	0.35	ug/l	25.0	ND	81	65-130			
cis-1,3-Dichloropropene	26.6	0.50	0.22	ug/l	25.0	ND	106	70-130			
trans-1,3-Dichloropropene	21.0	0.50	0.32	ug/l	25.0	ND	84	65-135			
Ethylbenzene	25.6	0.50	0.25	ug/l	25.0	ND	103	65-130			
Methylene chloride	18.6	1.0	0.95	ug/l	25.0	ND	74	50-135			
1,1,2,2-Tetrachloroethane	19.8	0.50	0.30	ug/l	25.0	ND	79	55-135			
Tetrachloroethene	29.3	0.50	0.32	ug/l	25.0	3.33	104	65-130			
Toluene	23.0	0.50	0.36	ug/l	25.0	ND	92	70-125			
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	115	65-140			
1,1,2-Trichloroethane	20.7	0.50	0.30	ug/l	25.0	ND	83	65-130			
Trichloroethene	26.5	0.50	0.26	ug/l	25.0	1.63	100	65-125			
Trichlorofluoromethane	29.1	0.50	0.34	ug/l	25.0	ND	116	60-145			
Vinyl chloride	28.1	0.50	0.40	ug/l	25.0	ND	112	45-140			
Xylenes, Total	71.7	1.5	0.90	ug/l	75.0	ND	96	60-130			

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Project Manager

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B0785 Extracted: 02/07/10											
Matrix Spike Analyzed: 02/07/2010 (10B0785-MS1)						Source: ITB0302-01					
Surrogate: 4-Bromofluorobenzene	28.7			ug/l	25.0		115	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	27.1			ug/l	25.0		108	80-120			
Matrix Spike Dup Analyzed: 02/07/2010 (10B0785-MSD1)						Source: ITB0302-01					
Benzene	24.4	0.50	0.28	ug/l	25.0	ND	98	65-125	13	20	
Bromodichloromethane	29.7	0.50	0.30	ug/l	25.0	ND	119	70-135	12	20	
Bromoform	23.7	0.50	0.40	ug/l	25.0	ND	95	55-135	18	25	
Bromomethane	29.8	1.0	0.42	ug/l	25.0	ND	119	55-145	10	25	
Carbon tetrachloride	39.9	0.50	0.28	ug/l	25.0	ND	160	65-140	11	25	M7
Chlorobenzene	26.9	0.50	0.36	ug/l	25.0	ND	108	75-125	13	20	
Chloroethane	27.2	1.0	0.40	ug/l	25.0	ND	109	55-140	11	25	
Chloroform	25.8	0.50	0.33	ug/l	25.0	ND	103	65-135	11	20	
Chloromethane	28.8	0.50	0.40	ug/l	25.0	ND	115	45-145	12	25	
Dibromochloromethane	27.2	0.50	0.40	ug/l	25.0	ND	109	65-140	16	25	
1,2-Dichlorobenzene	26.6	0.50	0.32	ug/l	25.0	ND	106	75-125	13	20	
1,3-Dichlorobenzene	27.4	0.50	0.35	ug/l	25.0	ND	109	75-125	13	20	
1,4-Dichlorobenzene	26.9	0.50	0.37	ug/l	25.0	ND	108	75-125	11	20	
1,1-Dichloroethane	25.2	0.50	0.40	ug/l	25.0	ND	101	65-130	10	20	
1,2-Dichloroethane	26.8	0.50	0.28	ug/l	25.0	ND	107	60-140	14	20	
1,1-Dichloroethene	27.6	0.50	0.42	ug/l	25.0	0.470	108	60-130	10	20	
cis-1,2-Dichloroethene	26.0	0.50	0.32	ug/l	25.0	ND	104	65-130	12	20	
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0	ND	102	65-130	11	20	
1,2-Dichloropropane	23.5	0.50	0.35	ug/l	25.0	ND	94	65-130	15	20	
cis-1,3-Dichloropropene	30.8	0.50	0.22	ug/l	25.0	ND	123	70-130	15	20	
trans-1,3-Dichloropropene	24.5	0.50	0.32	ug/l	25.0	ND	98	65-135	16	25	
Ethylbenzene	29.0	0.50	0.25	ug/l	25.0	ND	116	65-130	12	20	
Methylene chloride	21.4	1.0	0.95	ug/l	25.0	ND	85	50-135	14	20	
1,1,2,2-Tetrachloroethane	24.3	0.50	0.30	ug/l	25.0	ND	97	55-135	20	30	
Tetrachloroethene	32.2	0.50	0.32	ug/l	25.0	3.33	115	65-130	9	20	
Toluene	26.0	0.50	0.36	ug/l	25.0	ND	104	70-125	12	20	
1,1,1-Trichloroethane	31.6	0.50	0.30	ug/l	25.0	ND	126	65-140	10	20	
1,1,2-Trichloroethane	23.6	0.50	0.30	ug/l	25.0	ND	95	65-130	13	25	
Trichloroethene	30.2	0.50	0.26	ug/l	25.0	1.63	114	65-125	13	20	
Trichlorofluoromethane	32.0	0.50	0.34	ug/l	25.0	ND	128	60-145	10	25	
Vinyl chloride	31.2	0.50	0.40	ug/l	25.0	ND	125	45-140	11	30	

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Project Manager

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

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

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
Batch: 10B0785 Extracted: 02/07/10											
Matrix Spike Dup Analyzed: 02/07/2010 (10B0785-MSD1)						Source: ITB0302-01					
Xylenes, Total	80.9	1.5	0.90	ug/l	75.0	ND	108	60-130	12	20	
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.4			ug/l	25.0		109	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
Batch: 10B0831 Extracted: 02/08/10											
Blank Analyzed: 02/08/2010 (10B0831-BLK1)											
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	1.2	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	23.4			ug/l	25.0		94	80-120			
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
LCS Analyzed: 02/08/2010 (10B0831-BS1)											
2-Chloroethyl vinyl ether	12.9	5.0	1.8	ug/l	25.0		52	25-170			
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		102	80-120			
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106	80-120			
Matrix Spike Analyzed: 02/08/2010 (10B0831-MS1) Source: ITA2535-01RE1											
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170			M13
Surrogate: 4-Bromofluorobenzene	27.5			ug/l	25.0		110	80-120			
Surrogate: Dibromofluoromethane	26.5			ug/l	25.0		106	80-120			
Surrogate: Toluene-d8	26.4			ug/l	25.0		106	80-120			
Matrix Spike Dup Analyzed: 02/08/2010 (10B0831-MSD1) Source: ITA2535-01RE1											
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170		25	M13
Surrogate: 4-Bromofluorobenzene	27.6			ug/l	25.0		110	80-120			
Surrogate: Dibromofluoromethane	26.2			ug/l	25.0		105	80-120			
Surrogate: Toluene-d8	26.7			ug/l	25.0		107	80-120			

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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
Batch: 10B1328 Extracted: 02/11/10											
Blank Analyzed: 02/13/2010 (10B1328-BLK1)											
Acenaphthene	ND	10	3.0	ug/l							
Acenaphthylene	ND	10	3.0	ug/l							
Aniline	ND	10	3.5	ug/l							
Anthracene	ND	10	2.5	ug/l							
Benzidine	ND	20	10	ug/l							
Benzo(a)anthracene	ND	10	2.5	ug/l							
Benzo(a)pyrene	ND	10	3.0	ug/l							
Benzo(b)fluoranthene	ND	10	2.0	ug/l							
Benzo(g,h,i)perylene	ND	10	4.0	ug/l							
Benzo(k)fluoranthene	ND	10	2.5	ug/l							
Benzoic acid	ND	20	10	ug/l							
Benzyl alcohol	ND	20	3.5	ug/l							
4-Bromophenyl phenyl ether	ND	10	3.0	ug/l							
Butyl benzyl phthalate	ND	20	4.0	ug/l							
4-Chloro-3-methylphenol	ND	20	2.5	ug/l							
4-Chloroaniline	ND	10	2.0	ug/l							
Bis(2-chloroethoxy)methane	ND	10	3.0	ug/l							
Bis(2-chloroethyl)ether	ND	10	3.0	ug/l							
Bis(2-chloroisopropyl)ether	ND	10	2.5	ug/l							
Bis(2-ethylhexyl)phthalate	ND	50	4.0	ug/l							
2-Chloronaphthalene	ND	10	3.0	ug/l							
2-Chlorophenol	ND	10	3.0	ug/l							
4-Chlorophenyl phenyl ether	ND	10	2.5	ug/l							
Chrysene	ND	10	2.5	ug/l							
Dibenz(a,h)anthracene	ND	20	3.0	ug/l							
Dibenzofuran	ND	10	4.0	ug/l							
Di-n-butyl phthalate	ND	20	3.0	ug/l							
1,2-Dichlorobenzene	ND	10	3.0	ug/l							
1,3-Dichlorobenzene	ND	10	3.0	ug/l							
1,4-Dichlorobenzene	ND	10	2.5	ug/l							
3,3'-Dichlorobenzidine	ND	20	7.5	ug/l							
2,4-Dichlorophenol	ND	10	3.5	ug/l							
Diethyl phthalate	ND	10	3.5	ug/l							
2,4-Dimethylphenol	ND	20	3.5	ug/l							
Dimethyl phthalate	ND	10	2.5	ug/l							

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Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B1328 Extracted: 02/11/10											
Blank Analyzed: 02/13/2010 (10B1328-BLK1)											
4,6-Dinitro-2-methylphenol	ND	20	4.0	ug/l							
2,4-Dinitrophenol	ND	20	8.0	ug/l							
2,4-Dinitrotoluene	ND	10	3.5	ug/l							
2,6-Dinitrotoluene	ND	10	2.0	ug/l							
Di-n-octyl phthalate	ND	20	3.5	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	2.5	ug/l							
Fluoranthene	ND	10	3.0	ug/l							
Fluorene	ND	10	3.0	ug/l							
Hexachlorobenzene	ND	10	3.0	ug/l							
Hexachlorobutadiene	ND	10	4.0	ug/l							
Hexachlorocyclopentadiene	ND	20	5.0	ug/l							
Hexachloroethane	ND	10	3.5	ug/l							
Indeno(1,2,3-cd)pyrene	ND	20	3.5	ug/l							
Isophorone	ND	10	3.0	ug/l							
2-Methylnaphthalene	ND	10	2.0	ug/l							
2-Methylphenol	ND	10	3.0	ug/l							
4-Methylphenol	ND	10	3.0	ug/l							
Naphthalene	ND	10	3.0	ug/l							
2-Nitroaniline	ND	20	2.0	ug/l							
3-Nitroaniline	ND	20	3.0	ug/l							
4-Nitroaniline	ND	20	4.0	ug/l							
Nitrobenzene	ND	20	3.0	ug/l							
2-Nitrophenol	ND	10	3.5	ug/l							
4-Nitrophenol	ND	20	5.5	ug/l							
N-Nitroso-di-n-propylamine	ND	10	3.5	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
N-Nitrosodiphenylamine	ND	10	2.0	ug/l							
Pentachlorophenol	ND	20	3.5	ug/l							
Phenanthrene	ND	10	3.5	ug/l							
Phenol	ND	10	2.0	ug/l							
Pyrene	ND	10	4.0	ug/l							
1,2,4-Trichlorobenzene	ND	10	2.5	ug/l							
2,4,5-Trichlorophenol	ND	20	3.0	ug/l							
2,4,6-Trichlorophenol	ND	20	4.5	ug/l							
Surrogate: 2,4,6-Tribromophenol	149			ug/l	200		74	40-120			

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Sampled: 02/05/10-02/06/10
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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 Limit	Data Qualifiers
Batch: 10B1328 Extracted: 02/11/10											
Blank Analyzed: 02/13/2010 (10B1328-BLK1)											
Surrogate: 2-Fluorobiphenyl	74.1			ug/l	100		74	50-120			
Surrogate: 2-Fluorophenol	119			ug/l	200		60	30-120			
Surrogate: Nitrobenzene-d5	69.8			ug/l	100		70	45-120			
Surrogate: Phenol-d6	127			ug/l	200		64	35-120			
Surrogate: Terphenyl-d14	79.8			ug/l	100		80	50-125			
LCS Analyzed: 02/13/2010 (10B1328-BS1)											
Acenaphthene	78.5	10	3.0	ug/l	100		78	60-120			MNR1
Acenaphthylene	79.4	10	3.0	ug/l	100		79	60-120			
Aniline	77.9	10	3.5	ug/l	100		78	35-120			
Anthracene	79.0	10	2.5	ug/l	100		79	65-120			
Benzidine	117	20	10	ug/l	100		117	30-160			
Benzo(a)anthracene	79.0	10	2.5	ug/l	100		79	65-120			
Benzo(a)pyrene	84.2	10	3.0	ug/l	100		84	55-130			
Benzo(b)fluoranthene	86.5	10	2.0	ug/l	100		87	55-125			
Benzo(g,h,i)perylene	87.8	10	4.0	ug/l	100		88	45-135			
Benzo(k)fluoranthene	83.7	10	2.5	ug/l	100		84	50-125			
Benzoic acid	55.7	20	10	ug/l	100		56	25-120			
Benzyl alcohol	98.3	20	3.5	ug/l	100		98	50-120			
4-Bromophenyl phenyl ether	80.0	10	3.0	ug/l	100		80	60-120			
Butyl benzyl phthalate	88.8	20	4.0	ug/l	100		89	55-130			
4-Chloro-3-methylphenol	75.5	20	2.5	ug/l	100		75	60-120			
4-Chloroaniline	79.5	10	2.0	ug/l	100		80	55-120			
Bis(2-chloroethoxy)methane	80.3	10	3.0	ug/l	100		80	55-120			
Bis(2-chloroethyl)ether	75.3	10	3.0	ug/l	100		75	50-120			
Bis(2-chloroisopropyl)ether	83.4	10	2.5	ug/l	100		83	45-120			
Bis(2-ethylhexyl)phthalate	88.8	50	4.0	ug/l	100		89	65-130			
2-Chloronaphthalene	77.6	10	3.0	ug/l	100		78	60-120			
2-Chlorophenol	69.4	10	3.0	ug/l	100		69	45-120			
4-Chlorophenyl phenyl ether	75.7	10	2.5	ug/l	100		76	65-120			
Chrysene	82.7	10	2.5	ug/l	100		83	65-120			
Dibenz(a,h)anthracene	88.1	20	3.0	ug/l	100		88	50-135			
Dibenzofuran	78.4	10	4.0	ug/l	100		78	65-120			
Di-n-butyl phthalate	81.0	20	3.0	ug/l	100		81	60-125			
1,2-Dichlorobenzene	63.5	10	3.0	ug/l	100		63	40-120			
1,3-Dichlorobenzene	62.3	10	3.0	ug/l	100		62	35-120			

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Sampled: 02/05/10-02/06/10
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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 Limit	Data Qualifiers
Batch: 10B1328 Extracted: 02/11/10											
LCS Analyzed: 02/13/2010 (10B1328-BS1)											
1,4-Dichlorobenzene	62.5	10	2.5	ug/l	100		63	35-120			MNR1
3,3'-Dichlorobenzidine	76.1	20	7.5	ug/l	100		76	45-135			
2,4-Dichlorophenol	76.2	10	3.5	ug/l	100		76	55-120			
Diethyl phthalate	76.5	10	3.5	ug/l	100		76	55-120			
2,4-Dimethylphenol	66.8	20	3.5	ug/l	100		67	40-120			
Dimethyl phthalate	77.7	10	2.5	ug/l	100		78	30-120			
4,6-Dinitro-2-methylphenol	93.8	20	4.0	ug/l	100		94	45-120			
2,4-Dinitrophenol	89.0	20	8.0	ug/l	100		89	40-120			
2,4-Dinitrotoluene	80.4	10	3.5	ug/l	100		80	65-120			
2,6-Dinitrotoluene	79.3	10	2.0	ug/l	100		79	65-120			
Di-n-octyl phthalate	90.4	20	3.5	ug/l	100		90	65-135			
1,2-Diphenylhydrazine/Azobenzene	87.4	20	2.5	ug/l	100		87	60-120			
Fluoranthene	78.7	10	3.0	ug/l	100		79	60-120			
Fluorene	75.9	10	3.0	ug/l	100		76	65-120			
Hexachlorobenzene	76.7	10	3.0	ug/l	100		77	60-120			
Hexachlorobutadiene	64.6	10	4.0	ug/l	100		65	40-120			
Hexachlorocyclopentadiene	127	20	5.0	ug/l	100		127	25-120			L
Hexachloroethane	58.7	10	3.5	ug/l	100		59	35-120			
Indeno(1,2,3-cd)pyrene	84.1	20	3.5	ug/l	100		84	45-135			
Isophorone	83.0	10	3.0	ug/l	100		83	50-120			
2-Methylnaphthalene	73.4	10	2.0	ug/l	100		73	55-120			
2-Methylphenol	69.6	10	3.0	ug/l	100		70	50-120			
4-Methylphenol	72.2	10	3.0	ug/l	100		72	50-120			
Naphthalene	75.9	10	3.0	ug/l	100		76	55-120			
2-Nitroaniline	83.3	20	2.0	ug/l	100		83	65-120			
3-Nitroaniline	83.1	20	3.0	ug/l	100		83	60-120			
4-Nitroaniline	81.9	20	4.0	ug/l	100		82	55-125			
Nitrobenzene	78.8	20	3.0	ug/l	100		79	55-120			
2-Nitrophenol	77.0	10	3.5	ug/l	100		77	50-120			
4-Nitrophenol	68.4	20	5.5	ug/l	100		68	45-120			
N-Nitroso-di-n-propylamine	77.6	10	3.5	ug/l	100		78	45-120			
N-Nitrosodimethylamine	78.9	20	2.5	ug/l	100		79	45-120			
N-Nitrosodiphenylamine	86.7	10	2.0	ug/l	100		87	60-120			
Pentachlorophenol	77.5	20	3.5	ug/l	100		78	50-120			
Phenanthrene	79.5	10	3.5	ug/l	100		79	65-120			

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Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B1328 Extracted: 02/11/10											
LCS Analyzed: 02/13/2010 (10B1328-BS1)											
Phenol	70.9	10	2.0	ug/l	100		71	40-120			
Pyrene	81.0	10	4.0	ug/l	100		81	55-125			
1,2,4-Trichlorobenzene	69.8	10	2.5	ug/l	100		70	45-120			
2,4,5-Trichlorophenol	78.0	20	3.0	ug/l	100		78	55-120			
2,4,6-Trichlorophenol	80.1	20	4.5	ug/l	100		80	55-120			
Surrogate: 2,4,6-Tribromophenol	165			ug/l	200		83	40-120			
Surrogate: 2-Fluorobiphenyl	80.0			ug/l	100		80	50-120			
Surrogate: 2-Fluorophenol	127			ug/l	200		63	30-120			
Surrogate: Nitrobenzene-d5	78.3			ug/l	100		78	45-120			
Surrogate: Phenol-d6	140			ug/l	200		70	35-120			
Surrogate: Terphenyl-d14	81.1			ug/l	100		81	50-125			
LCS Dup Analyzed: 02/13/2010 (10B1328-BSD1)											
Acenaphthene	86.0	10	3.0	ug/l	100		86	60-120	9	20	
Acenaphthylene	87.9	10	3.0	ug/l	100		88	60-120	10	20	
Aniline	75.7	10	3.5	ug/l	100		76	35-120	3	30	
Anthracene	85.4	10	2.5	ug/l	100		85	65-120	8	20	
Benzidine	81.0	20	10	ug/l	100		81	30-160	36	35	R-7
Benzo(a)anthracene	84.7	10	2.5	ug/l	100		85	65-120	7	20	
Benzo(a)pyrene	89.9	10	3.0	ug/l	100		90	55-130	7	25	
Benzo(b)fluoranthene	91.0	10	2.0	ug/l	100		91	55-125	5	25	
Benzo(g,h,i)perylene	95.1	10	4.0	ug/l	100		95	45-135	8	25	
Benzo(k)fluoranthene	90.4	10	2.5	ug/l	100		90	50-125	8	20	
Benzoic acid	81.8	20	10	ug/l	100		82	25-120	38	30	R-7
Benzyl alcohol	113	20	3.5	ug/l	100		113	50-120	14	20	
4-Bromophenyl phenyl ether	86.4	10	3.0	ug/l	100		86	60-120	8	25	
Butyl benzyl phthalate	91.8	20	4.0	ug/l	100		92	55-130	3	20	
4-Chloro-3-methylphenol	85.3	20	2.5	ug/l	100		85	60-120	12	25	
4-Chloroaniline	87.9	10	2.0	ug/l	100		88	55-120	10	25	
Bis(2-chloroethoxy)methane	91.1	10	3.0	ug/l	100		91	55-120	13	20	
Bis(2-chloroethyl)ether	86.4	10	3.0	ug/l	100		86	50-120	14	20	
Bis(2-chloroisopropyl)ether	97.5	10	2.5	ug/l	100		97	45-120	16	20	
Bis(2-ethylhexyl)phthalate	96.0	50	4.0	ug/l	100		96	65-130	8	20	
2-Chloronaphthalene	87.2	10	3.0	ug/l	100		87	60-120	12	20	
2-Chlorophenol	76.8	10	3.0	ug/l	100		77	45-120	10	25	
4-Chlorophenyl phenyl ether	83.4	10	2.5	ug/l	100		83	65-120	10	20	

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Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

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
Batch: 10B1328 Extracted: 02/11/10											
LCS Dup Analyzed: 02/13/2010 (10B1328-BSD1)											
Chrysene	87.8	10	2.5	ug/l	100		88	65-120	6	20	
Dibenz(a,h)anthracene	93.8	20	3.0	ug/l	100		94	50-135	6	25	
Dibenzofuran	87.1	10	4.0	ug/l	100		87	65-120	11	20	
Di-n-butyl phthalate	86.8	20	3.0	ug/l	100		87	60-125	7	20	
1,2-Dichlorobenzene	73.1	10	3.0	ug/l	100		73	40-120	14	25	
1,3-Dichlorobenzene	71.0	10	3.0	ug/l	100		71	35-120	13	25	
1,4-Dichlorobenzene	71.6	10	2.5	ug/l	100		72	35-120	14	25	
3,3'-Dichlorobenzidine	81.3	20	7.5	ug/l	100		81	45-135	7	25	
2,4-Dichlorophenol	83.7	10	3.5	ug/l	100		84	55-120	9	20	
Diethyl phthalate	84.2	10	3.5	ug/l	100		84	55-120	10	30	
2,4-Dimethylphenol	74.1	20	3.5	ug/l	100		74	40-120	10	25	
Dimethyl phthalate	85.4	10	2.5	ug/l	100		85	30-120	9	30	
4,6-Dinitro-2-methylphenol	100	20	4.0	ug/l	100		100	45-120	6	25	
2,4-Dinitrophenol	95.9	20	8.0	ug/l	100		96	40-120	8	25	
2,4-Dinitrotoluene	88.3	10	3.5	ug/l	100		88	65-120	9	20	
2,6-Dinitrotoluene	87.5	10	2.0	ug/l	100		87	65-120	10	20	
Di-n-octyl phthalate	96.5	20	3.5	ug/l	100		96	65-135	7	20	
1,2-Diphenylhydrazine/Azobenzene	97.0	20	2.5	ug/l	100		97	60-120	10	25	
Fluoranthene	84.6	10	3.0	ug/l	100		85	60-120	7	20	
Fluorene	84.3	10	3.0	ug/l	100		84	65-120	11	20	
Hexachlorobenzene	83.1	10	3.0	ug/l	100		83	60-120	8	20	
Hexachlorobutadiene	73.4	10	4.0	ug/l	100		73	40-120	13	25	
Hexachlorocyclopentadiene	137	20	5.0	ug/l	100		137	25-120	7	30	L
Hexachloroethane	67.7	10	3.5	ug/l	100		68	35-120	14	25	
Indeno(1,2,3-cd)pyrene	91.5	20	3.5	ug/l	100		92	45-135	8	25	
Isophorone	94.0	10	3.0	ug/l	100		94	50-120	12	20	
2-Methylnaphthalene	84.8	10	2.0	ug/l	100		85	55-120	14	20	
2-Methylphenol	79.8	10	3.0	ug/l	100		80	50-120	14	20	
4-Methylphenol	82.6	10	3.0	ug/l	100		83	50-120	13	20	
Naphthalene	85.6	10	3.0	ug/l	100		86	55-120	12	20	
2-Nitroaniline	93.7	20	2.0	ug/l	100		94	65-120	12	20	
3-Nitroaniline	91.9	20	3.0	ug/l	100		92	60-120	10	25	
4-Nitroaniline	92.1	20	4.0	ug/l	100		92	55-125	12	20	
Nitrobenzene	89.3	20	3.0	ug/l	100		89	55-120	12	25	
2-Nitrophenol	86.7	10	3.5	ug/l	100		87	50-120	12	25	

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 Received: 02/05/10

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
Batch: 10B1328 Extracted: 02/11/10											
LCS Dup Analyzed: 02/13/2010 (10B1328-BSD1)											
4-Nitrophenol	74.0	20	5.5	ug/l	100	74	74	45-120	8	30	
N-Nitroso-di-n-propylamine	90.2	10	3.5	ug/l	100	90	90	45-120	15	20	
N-Nitrosodimethylamine	82.9	20	2.5	ug/l	100	83	83	45-120	5	20	
N-Nitrosodiphenylamine	94.9	10	2.0	ug/l	100	95	95	60-120	9	20	
Pentachlorophenol	84.5	20	3.5	ug/l	100	84	84	50-120	9	25	
Phenanthrene	85.6	10	3.5	ug/l	100	86	86	65-120	7	20	
Phenol	77.9	10	2.0	ug/l	100	78	78	40-120	9	25	
Pyrene	85.5	10	4.0	ug/l	100	86	86	55-125	5	25	
1,2,4-Trichlorobenzene	79.3	10	2.5	ug/l	100	79	79	45-120	13	20	
2,4,5-Trichlorophenol	85.4	20	3.0	ug/l	100	85	85	55-120	9	30	
2,4,6-Trichlorophenol	87.4	20	4.5	ug/l	100	87	87	55-120	9	30	
Surrogate: 2,4,6-Tribromophenol	178			ug/l	200	89	89	40-120			
Surrogate: 2-Fluorobiphenyl	87.7			ug/l	100	88	88	50-120			
Surrogate: 2-Fluorophenol	128			ug/l	200	64	64	30-120			
Surrogate: Nitrobenzene-d5	88.7			ug/l	100	89	89	45-120			
Surrogate: Phenol-d6	152			ug/l	200	76	76	35-120			
Surrogate: Terphenyl-d14	87.2			ug/l	100	87	87	50-125			

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METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0759 Extracted: 02/06/10											
Blank Analyzed: 02/09/2010 (10B0759-BLK1)											
Chlorpyrifos	ND	1.0	N/A	ug/l							
Diazinon	ND	0.25	0.10	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.24			ug/l	5.00		105	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	5.24			ug/l	5.00		105	70-130			
Surrogate: Triphenylphosphate	5.34			ug/l	5.00		107	70-130			
Surrogate: Triphenylphosphate	5.34			ug/l	5.00		107	70-130			
Surrogate: Perylene-d12	4.61			ug/l	5.00		92	70-130			
Surrogate: Perylene-d12	4.61			ug/l	5.00		92	70-130			
LCS Analyzed: 02/09/2010 (10B0759-BS1)											
Chlorpyrifos	5.29	1.0	0.010	ug/l	5.00		106	70-130			
Diazinon	4.98	0.25	0.10	ug/l	5.00		100	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.21			ug/l	5.00		84	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.21			ug/l	5.00		84	70-130			
Surrogate: Triphenylphosphate	5.22			ug/l	5.00		104	70-130			
Surrogate: Triphenylphosphate	5.22			ug/l	5.00		104	70-130			
Surrogate: Perylene-d12	5.26			ug/l	5.00		105	70-130			
Surrogate: Perylene-d12	5.26			ug/l	5.00		105	70-130			
LCS Dup Analyzed: 02/09/2010 (10B0759-BSD1)											
Chlorpyrifos	5.08	1.0	0.010	ug/l	5.00		102	70-130	4	30	
Diazinon	4.81	0.25	0.10	ug/l	5.00		96	70-130	3	30	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.90			ug/l	5.00		98	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	4.90			ug/l	5.00		98	70-130			
Surrogate: Triphenylphosphate	4.87			ug/l	5.00		97	70-130			
Surrogate: Triphenylphosphate	4.87			ug/l	5.00		97	70-130			
Surrogate: Perylene-d12	4.89			ug/l	5.00		98	70-130			
Surrogate: Perylene-d12	4.89			ug/l	5.00		98	70-130			

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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
Batch: 10B1291 Extracted: 02/11/10											
Blank Analyzed: 02/12/2010 (10B1291-BLK1)											
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	0.387			ug/l	0.500		77	45-120			
Surrogate: Tetrachloro-m-xylene	0.240			ug/l	0.500		48	35-115			

LCS Analyzed: 02/12/2010 (10B1291-BS1)

4,4'-DDD	0.464	0.0050	0.0020	ug/l	0.500		93	55-120			
4,4'-DDE	0.418	0.0050	0.0030	ug/l	0.500		84	50-120			
4,4'-DDT	0.450	0.010	0.0040	ug/l	0.500		90	55-120			
Aldrin	0.374	0.0050	0.0015	ug/l	0.500		75	40-115			
alpha-BHC	0.369	0.0050	0.0025	ug/l	0.500		74	45-115			
beta-BHC	0.361	0.010	0.0040	ug/l	0.500		72	55-115			
delta-BHC	0.404	0.0050	0.0035	ug/l	0.500		81	55-115			
Dieldrin	0.434	0.0050	0.0020	ug/l	0.500		87	55-115			
Endosulfan I	0.423	0.0050	0.0020	ug/l	0.500		85	55-115			
Endosulfan II	0.464	0.0050	0.0030	ug/l	0.500		93	55-120			
Endosulfan sulfate	0.431	0.010	0.0030	ug/l	0.500		86	60-120			
Endrin	0.477	0.0050	0.0020	ug/l	0.500		95	55-115			

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ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1291 Extracted: 02/11/10											
LCS Analyzed: 02/12/2010 (10B1291-BS1)											
Endrin aldehyde	0.393	0.010	0.0020	ug/l	0.500		79	50-120			
Endrin ketone	0.454	0.010	0.0030	ug/l	0.500		91	55-120			
gamma-BHC (Lindane)	0.381	0.020	0.0030	ug/l	0.500		76	45-115			
Heptachlor	0.415	0.010	0.0030	ug/l	0.500		83	45-115			
Heptachlor epoxide	0.407	0.0050	0.0025	ug/l	0.500		81	55-115			
Methoxychlor	0.485	0.0050	0.0035	ug/l	0.500		97	60-120			
Surrogate: Decachlorobiphenyl	0.394			ug/l	0.500		79	45-120			
Surrogate: Tetrachloro-m-xylene	0.339			ug/l	0.500		68	35-115			
Matrix Spike Analyzed: 02/12/2010 (10B1291-MS1)											
Source: ITB0602-01											
4,4'-DDD	0.362	0.019	0.0075	ug/l	0.472	ND	77	50-125			
4,4'-DDE	0.530	0.019	0.011	ug/l	0.472	ND	112	45-125			
4,4'-DDT	0.402	0.038	0.015	ug/l	0.472	ND	85	50-125			
Aldrin	0.386	0.019	0.0057	ug/l	0.472	ND	82	35-120			
alpha-BHC	0.372	0.019	0.0094	ug/l	0.472	ND	79	40-120			
beta-BHC	0.186	0.038	0.015	ug/l	0.472	ND	39	50-120			M2
delta-BHC	0.314	0.019	0.013	ug/l	0.472	ND	67	50-120			
Dieldrin	0.390	0.019	0.0075	ug/l	0.472	ND	83	50-120			
Endosulfan I	0.475	0.019	0.0075	ug/l	0.472	ND	101	50-120			
Endosulfan II	0.390	0.019	0.011	ug/l	0.472	ND	83	50-125			
Endosulfan sulfate	0.333	0.038	0.011	ug/l	0.472	ND	71	55-125			
Endrin	0.413	0.019	0.0075	ug/l	0.472	ND	88	50-120			
Endrin aldehyde	0.190	0.038	0.0075	ug/l	0.472	ND	40	45-125			M2
Endrin ketone	0.342	0.038	0.011	ug/l	0.472	ND	72	50-125			
gamma-BHC (Lindane)	0.371	0.075	0.011	ug/l	0.472	ND	79	40-120			
Heptachlor	0.452	0.038	0.011	ug/l	0.472	ND	96	40-120			
Heptachlor epoxide	0.450	0.019	0.0094	ug/l	0.472	ND	95	50-120			
Methoxychlor	0.447	0.019	0.013	ug/l	0.472	ND	95	55-125			
Surrogate: Decachlorobiphenyl	0.418			ug/l	0.472		89	45-120			
Surrogate: Tetrachloro-m-xylene	0.220			ug/l	0.472		47	35-115			

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1291 Extracted: 02/11/10											
Matrix Spike Dup Analyzed: 02/12/2010 (10B1291-MSD1)					Source: ITB0602-01						
4,4'-DDD	0.364	0.019	0.0075	ug/l	0.472	ND	77	50-125	0.5	30	
4,4'-DDE	0.527	0.019	0.011	ug/l	0.472	ND	112	45-125	0.7	30	
4,4'-DDT	0.396	0.038	0.015	ug/l	0.472	ND	84	50-125	1	30	
Aldrin	0.384	0.019	0.0057	ug/l	0.472	ND	81	35-120	0.6	30	
alpha-BHC	0.367	0.019	0.0094	ug/l	0.472	ND	78	40-120	1	30	
beta-BHC	0.196	0.038	0.015	ug/l	0.472	ND	42	50-120	5	30	M2
delta-BHC	0.313	0.019	0.013	ug/l	0.472	ND	66	50-120	0.2	30	
Dieldrin	0.387	0.019	0.0075	ug/l	0.472	ND	82	50-120	0.7	30	
Endosulfan I	0.471	0.019	0.0075	ug/l	0.472	ND	100	50-120	1	30	
Endosulfan II	0.393	0.019	0.011	ug/l	0.472	ND	83	50-125	0.7	30	
Endosulfan sulfate	0.346	0.038	0.011	ug/l	0.472	ND	73	55-125	4	30	
Endrin	0.409	0.019	0.0075	ug/l	0.472	ND	87	50-120	1	30	
Endrin aldehyde	0.197	0.038	0.0075	ug/l	0.472	ND	42	45-125	4	30	M2
Endrin ketone	0.338	0.038	0.011	ug/l	0.472	ND	72	50-125	1	30	
gamma-BHC (Lindane)	0.368	0.075	0.011	ug/l	0.472	ND	78	40-120	0.6	30	
Heptachlor	0.441	0.038	0.011	ug/l	0.472	ND	93	40-120	3	30	
Heptachlor epoxide	0.447	0.019	0.0094	ug/l	0.472	ND	95	50-120	0.7	30	
Methoxychlor	0.442	0.019	0.013	ug/l	0.472	ND	94	55-125	1	30	
Surrogate: Decachlorobiphenyl	0.407			ug/l	0.472		86	45-120			
Surrogate: Tetrachloro-m-xylene	0.264			ug/l	0.472		56	35-115			

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METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 10B1291 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1291-BLK1)											
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	0.422			ug/l	0.500		84	45-120			
LCS Analyzed: 02/11/2010 (10B1291-BS2)											
Aroclor 1016	2.94	0.50	0.25	ug/l	4.00		74	50-115			
Aroclor 1260	3.60	0.50	0.25	ug/l	4.00		90	60-120			
Surrogate: Decachlorobiphenyl	0.432			ug/l	0.500		86	45-120			
Matrix Spike Analyzed: 02/11/2010 (10B1291-MS2)											
						Source: ITB0602-01					
Aroclor 1016	4.30	0.47	0.24	ug/l	3.77	ND	114	45-120			
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125			
Surrogate: Decachlorobiphenyl	0.388			ug/l	0.472		82	45-120			
Matrix Spike Dup Analyzed: 02/11/2010 (10B1291-MSD2)											
						Source: ITB0602-01					
Aroclor 1016	4.36	0.47	0.24	ug/l	3.77	ND	116	45-120	1	30	
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125	0.2	25	
Surrogate: Decachlorobiphenyl	0.383			ug/l	0.472		81	45-120			

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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
Batch: 10B1778 Extracted: 02/15/10											
Blank Analyzed: 02/15/2010 (10B1778-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/15/2010 (10B1778-BS1)											
Hexane Extractable Material (Oil & Grease)	20.9	5.0	1.4	mg/l	20.0		104	78-114			MNR1
LCS Dup Analyzed: 02/15/2010 (10B1778-BSD1)											
Hexane Extractable Material (Oil & Grease)	20.5	5.0	1.4	mg/l	20.0		102	78-114	2	11	

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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 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1598 Extracted: 02/12/10											
Blank Analyzed: 02/15/2010 (10B1598-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/15/2010 (10B1598-BS1)											
Antimony	82.5	2.0	0.30	ug/l	80.0		103	85-115			
Cadmium	82.4	1.0	0.10	ug/l	80.0		103	85-115			
Copper	81.0	2.0	0.50	ug/l	80.0		101	85-115			
Lead	84.3	1.0	0.20	ug/l	80.0		105	85-115			
Thallium	81.6	1.0	0.20	ug/l	80.0		102	85-115			
Matrix Spike Analyzed: 02/15/2010 (10B1598-MS1) Source: ITB0888-01											
Antimony	83.1	2.0	0.30	ug/l	80.0	ND	104	70-130			
Cadmium	79.9	1.0	0.10	ug/l	80.0	ND	100	70-130			
Copper	80.3	2.0	0.50	ug/l	80.0	1.68	98	70-130			
Lead	77.4	1.0	0.20	ug/l	80.0	0.398	96	70-130			
Thallium	79.3	1.0	0.20	ug/l	80.0	ND	99	70-130			
Matrix Spike Analyzed: 02/15/2010 (10B1598-MS2) Source: ITB0900-02											
Antimony	82.9	2.0	0.30	ug/l	80.0	ND	104	70-130			
Cadmium	81.1	1.0	0.10	ug/l	80.0	ND	101	70-130			
Copper	84.1	2.0	0.50	ug/l	80.0	1.41	103	70-130			
Lead	78.7	1.0	0.20	ug/l	80.0	0.252	98	70-130			
Thallium	82.9	1.0	0.20	ug/l	80.0	ND	104	70-130			
Matrix Spike Dup Analyzed: 02/15/2010 (10B1598-MSD1) Source: ITB0888-01											
Antimony	84.1	2.0	0.30	ug/l	80.0	ND	105	70-130	1	20	
Cadmium	80.8	1.0	0.10	ug/l	80.0	ND	101	70-130	1	20	
Copper	82.7	2.0	0.50	ug/l	80.0	1.68	101	70-130	3	20	
Lead	79.1	1.0	0.20	ug/l	80.0	0.398	98	70-130	2	20	
Thallium	80.5	1.0	0.20	ug/l	80.0	ND	101	70-130	1	20	

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 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

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
Batch: 10B1839 Extracted: 02/15/10											
Blank Analyzed: 02/16/2010-02/17/2010 (10B1839-BLK1)											
Aluminum	ND	50	40	ug/l							
Arsenic	ND	10	7.0	ug/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	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Nickel	ND	10	2.0	ug/l							
Selenium	ND	10	8.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

LCS Analyzed: 02/16/2010-02/17/2010 (10B1839-BS1)

Aluminum	453	50	40	ug/l	500		91	85-115			
Arsenic	536	10	7.0	ug/l	500		107	85-115			
Beryllium	519	2.0	0.90	ug/l	500		104	85-115			
Boron	0.518	0.050	0.020	mg/l	0.500		104	85-115			
Calcium	2.60	0.10	0.050	mg/l	2.50		104	85-115			
Chromium	501	5.0	2.0	ug/l	500		100	85-115			
Iron	0.516	0.040	0.015	mg/l	0.500		103	85-115			
Magnesium	2.55	0.020	0.012	mg/l	2.50		102	85-115			
Nickel	505	10	2.0	ug/l	500		101	85-115			
Selenium	525	10	8.0	ug/l	500		105	85-115			
Silver	251	10	6.0	ug/l	250		101	85-115			
Vanadium	499	10	3.0	ug/l	500		100	85-115			
Zinc	502	20	6.0	ug/l	500		100	85-115			

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Received: 02/05/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1839 Extracted: 02/15/10											
Matrix Spike Analyzed: 02/16/2010-02/17/2010 (10B1839-MS1)						Source: ITB0993-01					
Aluminum	496	50	40	ug/l	500	ND	99	70-130			
Arsenic	552	10	7.0	ug/l	500	ND	110	70-130			
Beryllium	525	2.0	0.90	ug/l	500	ND	105	70-130			
Boron	0.713	0.050	0.020	mg/l	0.500	0.183	106	70-130			
Calcium	145	0.10	0.050	mg/l	2.50	142	139	70-130			MHA
Chromium	509	5.0	2.0	ug/l	500	ND	102	70-130			
Iron	0.709	0.040	0.015	mg/l	0.500	0.189	104	70-130			
Magnesium	55.8	0.020	0.012	mg/l	2.50	53.8	82	70-130			MHA
Nickel	513	10	2.0	ug/l	500	8.89	101	70-130			
Selenium	277	10	8.0	ug/l	500	27.6	50	70-130			M2
Silver	255	10	6.0	ug/l	250	ND	102	70-130			
Vanadium	503	10	3.0	ug/l	500	ND	101	70-130			
Zinc	532	20	6.0	ug/l	500	22.6	102	70-130			

Matrix Spike Analyzed: 02/16/2010 (10B1839-MS2)						Source: ITB0886-01					
Aluminum	1420	50	40	ug/l	500	768	130	70-130			
Arsenic	529	10	7.0	ug/l	500	ND	106	70-130			
Beryllium	524	2.0	0.90	ug/l	500	ND	105	70-130			
Boron	0.576	0.050	0.020	mg/l	0.500	0.0474	106	70-130			
Calcium	32.3	0.10	0.050	mg/l	2.50	29.8	100	70-130			MHA
Chromium	503	5.0	2.0	ug/l	500	ND	101	70-130			
Iron	1.26	0.040	0.015	mg/l	0.500	0.739	105	70-130			
Magnesium	6.20	0.020	0.012	mg/l	2.50	3.65	102	70-130			
Nickel	504	10	2.0	ug/l	500	ND	101	70-130			
Selenium	523	10	8.0	ug/l	500	ND	105	70-130			
Silver	257	10	6.0	ug/l	250	ND	103	70-130			
Vanadium	507	10	3.0	ug/l	500	4.63	100	70-130			
Zinc	517	20	6.0	ug/l	500	8.73	102	70-130			

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Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1839 Extracted: 02/15/10											
Matrix Spike Dup Analyzed: 02/16/2010 (10B1839-MSD1)						Source: ITB0993-01					
Aluminum	546	50	40	ug/l	500	ND	109	70-130	10	20	
Arsenic	562	10	7.0	ug/l	500	ND	112	70-130	2	20	
Beryllium	536	2.0	0.90	ug/l	500	ND	107	70-130	2	20	
Boron	0.719	0.050	0.020	mg/l	0.500	0.183	107	70-130	0.9	20	
Calcium	146	0.10	0.050	mg/l	2.50	142	195	70-130	1	20	MHA
Chromium	519	5.0	2.0	ug/l	500	ND	104	70-130	2	20	
Iron	0.721	0.040	0.015	mg/l	0.500	0.189	106	70-130	2	20	
Magnesium	56.4	0.020	0.012	mg/l	2.50	53.8	103	70-130	0.9	20	MHA
Nickel	524	10	2.0	ug/l	500	8.89	103	70-130	2	20	
Selenium	275	10	8.0	ug/l	500	27.6	49	70-130	0.9	20	M2
Silver	257	10	6.0	ug/l	250	ND	103	70-130	1	20	
Vanadium	514	10	3.0	ug/l	500	ND	103	70-130	2	20	
Zinc	542	20	6.0	ug/l	500	22.6	104	70-130	2	20	

Batch: 10B1942 Extracted: 02/16/10

Blank Analyzed: 02/16/2010 (10B1942-BLK1)

Mercury	ND	0.20	0.10	ug/l							
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LCS Analyzed: 02/16/2010 (10B1942-BS1)

Mercury	7.96	0.20	0.10	ug/l	8.00		100	85-115			
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Matrix Spike Analyzed: 02/16/2010 (10B1942-MS1)

Source: ITB0974-01

Mercury	7.91	0.20	0.10	ug/l	8.00	ND	99	70-130			
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Matrix Spike Dup Analyzed: 02/16/2010 (10B1942-MSD1)

Source: ITB0974-01

Mercury	7.91	0.20	0.10	ug/l	8.00	ND	99	70-130	0.03	20	
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MWH-Pasadena/Boeing
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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1845 Extracted: 02/15/10											
Blank Analyzed: 02/16/2010 (10B1845-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/16/2010 (10B1845-BS1)											
Antimony	81.7	2.0	0.30	ug/l	80.0		102	85-115			
Cadmium	81.8	1.0	0.10	ug/l	80.0		102	85-115			
Lead	84.1	1.0	0.20	ug/l	80.0		105	85-115			
Thallium	87.0	1.0	0.20	ug/l	80.0		109	85-115			
Matrix Spike Analyzed: 02/16/2010 (10B1845-MS1) Source: ITB1082-03											
Antimony	82.8	20	3.0	ug/l	80.0	ND	103	70-130			
Cadmium	81.7	10	1.0	ug/l	80.0	1.14	101	70-130			
Lead	74.3	10	2.0	ug/l	80.0	ND	93	70-130			
Thallium	78.4	10	2.0	ug/l	80.0	ND	98	70-130			
Matrix Spike Analyzed: 02/16/2010 (10B1845-MS2) Source: ITB0888-01											
Antimony	86.1	2.0	0.30	ug/l	80.0	ND	108	70-130			
Cadmium	83.4	1.0	0.10	ug/l	80.0	ND	104	70-130			
Lead	78.5	1.0	0.20	ug/l	80.0	ND	98	70-130			
Thallium	85.5	1.0	0.20	ug/l	80.0	ND	107	70-130			
Matrix Spike Dup Analyzed: 02/16/2010 (10B1845-MSD1) Source: ITB1082-03											
Antimony	85.7	20	3.0	ug/l	80.0	ND	107	70-130	4	20	
Cadmium	84.8	10	1.0	ug/l	80.0	1.14	105	70-130	4	20	
Lead	76.5	10	2.0	ug/l	80.0	ND	96	70-130	3	20	
Thallium	80.8	10	2.0	ug/l	80.0	ND	101	70-130	3	20	

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Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

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 Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1846 Extracted: 02/15/10											
Blank Analyzed: 02/16/2010 (10B1846-BLK1)											
Aluminum	ND	50	40	ug/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	0.0453	0.050	0.020	mg/l							J
Calcium	0.0573	0.10	0.050	mg/l							J
Chromium	ND	5.0	2.0	ug/l							
Iron	0.0219	0.040	0.015	mg/l							J
Magnesium	0.0150	0.020	0.012	mg/l							J
Nickel	ND	10	2.0	ug/l							
Selenium	ND	10	8.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							

LCS Analyzed: 02/16/2010 (10B1846-BS1)

Aluminum	510	50	40	ug/l	500		102	85-115			
Arsenic	521	10	7.0	ug/l	500		104	85-115			
Beryllium	486	2.0	0.90	ug/l	500		97	85-115			
Boron	0.521	0.050	0.020	mg/l	0.500		104	85-115			
Calcium	2.42	0.10	0.050	mg/l	2.50		97	85-115			
Chromium	509	5.0	2.0	ug/l	500		102	85-115			
Iron	0.499	0.040	0.015	mg/l	0.500		100	85-115			
Magnesium	2.42	0.020	0.012	mg/l	2.50		97	85-115			
Nickel	480	10	2.0	ug/l	500		96	85-115			
Selenium	491	10	8.0	ug/l	500		98	85-115			
Silver	218	10	6.0	ug/l	250		87	85-115			
Vanadium	489	10	3.0	ug/l	500		98	85-115			
Zinc	499	20	6.0	ug/l	500		100	85-115			

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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 Limit	Data Qualifiers
Batch: 10B1846 Extracted: 02/15/10											
Matrix Spike Analyzed: 02/16/2010 (10B1846-MS1)					Source: ITB0895-01						
Aluminum	519	50	40	ug/l	500	ND	104	70-130			
Arsenic	543	10	7.0	ug/l	500	ND	109	70-130			
Beryllium	503	2.0	0.90	ug/l	500	ND	101	70-130			
Boron	0.617	0.050	0.020	mg/l	0.500	0.110	102	70-130			
Calcium	28.3	0.10	0.050	mg/l	2.50	24.7	144	70-130			MHA
Chromium	533	5.0	2.0	ug/l	500	ND	107	70-130			
Iron	0.567	0.040	0.015	mg/l	0.500	ND	113	70-130			
Magnesium	7.76	0.020	0.012	mg/l	2.50	4.98	111	70-130			
Nickel	488	10	2.0	ug/l	500	ND	98	70-130			
Selenium	499	10	8.0	ug/l	500	ND	100	70-130			
Silver	231	10	6.0	ug/l	250	ND	92	70-130			
Vanadium	500	10	3.0	ug/l	500	ND	100	70-130			
Zinc	523	20	6.0	ug/l	500	12.7	102	70-130			
Matrix Spike Analyzed: 02/16/2010 (10B1846-MS2)					Source: ITB0887-04						
Aluminum	1660	50	40	ug/l	500	761	179	70-130			MI
Arsenic	510	10	7.0	ug/l	500	ND	102	70-130			
Beryllium	481	2.0	0.90	ug/l	500	ND	96	70-130			
Boron	0.549	0.050	0.020	mg/l	0.500	0.0701	96	70-130			
Calcium	13.1	0.10	0.050	mg/l	2.50	11.0	84	70-130			MHA
Chromium	502	5.0	2.0	ug/l	500	ND	100	70-130			
Iron	1.16	0.040	0.015	mg/l	0.500	0.642	104	70-130			
Magnesium	5.35	0.020	0.012	mg/l	2.50	3.23	85	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Selenium	482	10	8.0	ug/l	500	ND	96	70-130			
Silver	234	10	6.0	ug/l	250	ND	93	70-130			
Vanadium	486	10	3.0	ug/l	500	ND	97	70-130			
Zinc	497	20	6.0	ug/l	500	10.3	97	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
Batch: 10B1846 Extracted: 02/15/10											
Matrix Spike Dup Analyzed: 02/16/2010 (10B1846-MSD1)						Source: ITB0895-01					
Aluminum	497	50	40	ug/l	500	ND	99	70-130	4	20	
Arsenic	534	10	7.0	ug/l	500	ND	107	70-130	2	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	5	20	
Boron	0.599	0.050	0.020	mg/l	0.500	0.110	98	70-130	3	20	
Calcium	27.1	0.10	0.050	mg/l	2.50	24.7	96	70-130	4	20	MHA
Chromium	510	5.0	2.0	ug/l	500	ND	102	70-130	4	20	
Iron	0.509	0.040	0.015	mg/l	0.500	ND	102	70-130	11	20	
Magnesium	7.37	0.020	0.012	mg/l	2.50	4.98	96	70-130	5	20	
Nickel	472	10	2.0	ug/l	500	ND	94	70-130	3	20	
Selenium	494	10	8.0	ug/l	500	ND	99	70-130	1	20	
Silver	222	10	6.0	ug/l	250	ND	89	70-130	4	20	
Vanadium	480	10	3.0	ug/l	500	ND	96	70-130	4	20	
Zinc	510	20	6.0	ug/l	500	12.7	99	70-130	3	20	

Batch: 10B1953 Extracted: 02/16/10

Blank Analyzed: 02/16/2010 (10B1953-BLK1)

Mercury	ND	0.20	0.10	ug/l							
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LCS Analyzed: 02/16/2010 (10B1953-BS1)

Mercury	8.15	0.20	0.10	ug/l	8.00		102	85-115			
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Matrix Spike Analyzed: 02/16/2010 (10B1953-MS1)

Source: ITB0907-01

Mercury	7.43	0.20	0.10	ug/l	8.00	ND	93	70-130			
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Matrix Spike Dup Analyzed: 02/16/2010 (10B1953-MSD1)

Source: ITB0907-01

Mercury	7.66	0.20	0.10	ug/l	8.00	ND	96	70-130	3	20	
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 Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B2106 Extracted: 02/17/10											
Blank Analyzed: 02/17/2010 (10B2106-BLK1)											
Copper	ND	2.0	0.50	ug/l							
LCS Analyzed: 02/17/2010 (10B2106-BS1)											
Copper	77.6	2.0	0.50	ug/l	80.0		97	85-115			
Matrix Spike Analyzed: 02/17/2010 (10B2106-MS1)											
						Source: ITB1775-07					
Copper	76.0	2.0	0.50	ug/l	80.0	2.19	92	70-130			
Matrix Spike Dup Analyzed: 02/17/2010 (10B2106-MSD1)											
						Source: ITB1775-07					
Copper	77.2	2.0	0.50	ug/l	80.0	2.19	94	70-130	2	20	

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

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0683 Extracted: 02/05/10											
Blank Analyzed: 02/05/2010 (10B0683-BLK1)											
Chromium VI	ND	0.0010	0.00025	mg/l							
LCS Analyzed: 02/05/2010 (10B0683-BS1)											
Chromium VI	0.00510	0.0010	0.00025	mg/l	0.00500		102	90-110			
Matrix Spike Analyzed: 02/05/2010 (10B0683-MS1) Source: ITB0773-01											
Chromium VI	0.00472	0.0010	0.00025	mg/l	0.00500	ND	94	90-110			
Matrix Spike Dup Analyzed: 02/05/2010 (10B0683-MSD1) Source: ITB0773-01											
Chromium VI	0.00534	0.0010	0.00025	mg/l	0.00500	ND	107	90-110	12	10	R-3

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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
Batch: 10B0807 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0807-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/07/2010 (10B0807-BS1)											
Chloride	4.79	0.50	0.25	mg/l	5.00		96	90-110			
Sulfate	9.92	0.50	0.20	mg/l	10.0		99	90-110			
Matrix Spike Analyzed: 02/07/2010 (10B0807-MS1) Source: ITB0887-04											
Chloride	9.87	0.50	0.25	mg/l	5.00	4.64	105	80-120			
Sulfate	19.0	0.50	0.20	mg/l	10.0	8.79	102	80-120			
Matrix Spike Analyzed: 02/07/2010 (10B0807-MS2) Source: ITB0886-01											
Chloride	12.1	0.50	0.25	mg/l	5.00	7.33	96	80-120			C8
Sulfate	16.1	0.50	0.20	mg/l	10.0	7.37	88	80-120			C8
Matrix Spike Dup Analyzed: 02/07/2010 (10B0807-MSD1) Source: ITB0887-04											
Chloride	9.84	0.50	0.25	mg/l	5.00	4.64	104	80-120	0.3	20	
Sulfate	19.0	0.50	0.20	mg/l	10.0	8.79	102	80-120	0.03	20	
Batch: 10B1111 Extracted: 02/10/10											
Blank Analyzed: 02/10/2010 (10B1111-BLK1)											
Fluoride	0.0333	0.10	0.020	mg/l							J
LCS Analyzed: 02/10/2010 (10B1111-BS1)											
Fluoride	1.03	0.10	0.020	mg/l	1.00		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
Batch: 10B1111 Extracted: 02/10/10											
Matrix Spike Analyzed: 02/10/2010 (10B1111-MS1)						Source: ITB0532-05					
Fluoride	1.19	0.10	0.020	mg/l	1.00	0.129	107	80-120			
Matrix Spike Dup Analyzed: 02/10/2010 (10B1111-MSD1)						Source: ITB0532-05					
Fluoride	1.18	0.10	0.020	mg/l	1.00	0.129	105	80-120	2	20	
Batch: 10B1250 Extracted: 02/10/10											
Blank Analyzed: 02/10/2010 (10B1250-BLK1)											
Total Cyanide	ND	0.0050	0.0022	mg/l							
LCS Analyzed: 02/10/2010 (10B1250-BS1)											
Total Cyanide	0.190	0.0050	0.0022	mg/l	0.200		95	90-110			
Matrix Spike Analyzed: 02/10/2010 (10B1250-MS1)						Source: ITB0359-02					
Total Cyanide	0.187	0.0050	0.0022	mg/l	0.200	ND	94	70-115			
Matrix Spike Dup Analyzed: 02/10/2010 (10B1250-MSD1)						Source: ITB0359-02					
Total Cyanide	0.182	0.0050	0.0022	mg/l	0.200	ND	91	70-115	3	15	
Batch: 10B1487 Extracted: 02/12/10											
Blank Analyzed: 02/12/2010 (10B1487-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/12/2010 (10B1487-BS1)											
Total Dissolved Solids	1010	10	1.0	mg/l	1000		101	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
Batch: 10B1487 Extracted: 02/12/10											
Duplicate Analyzed: 02/12/2010 (10B1487-DUP1)						Source: ITB1082-01					
Total Dissolved Solids	2140	10	1.0	mg/l		2150			0.7	10	
Batch: 10B1607 Extracted: 02/12/10											
Blank Analyzed: 02/12/2010 (10B1607-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/12/2010 (10B1607-BS1)											
Total Suspended Solids	990	10	1.0	mg/l	1000		99	85-115			
Duplicate Analyzed: 02/12/2010 (10B1607-DUP1)						Source: ITB0863-01					
Total Suspended Solids	14.0	10	1.0	mg/l		14.0			0	10	
Batch: 10B1658 Extracted: 02/13/10											
Blank Analyzed: 02/13/2010 (10B1658-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 02/13/2010 (10B1658-BS1)											
Perchlorate	24.4	4.0	0.90	ug/l	25.0		98	85-115			
Matrix Spike Analyzed: 02/13/2010 (10B1658-MS1)						Source: ITB1511-01					
Perchlorate	24.6	4.0	0.90	ug/l	25.0	1.91	91	80-120			
Matrix Spike Dup Analyzed: 02/13/2010 (10B1658-MSD1)						Source: ITB1511-01					
Perchlorate	24.7	4.0	0.90	ug/l	25.0	1.91	91	80-120	0.2	20	

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METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 53280 Extracted: 02/23/10											
Matrix Spike Dup Analyzed: 02/26/2010 (F0B090470001D)						Source: F0B090470001					
Total Uranium	30	1.4	0.4	pCi/L	27.7	0.566	106	62-150	1	20	
Matrix Spike Analyzed: 02/26/2010 (F0B090470001S)						Source: F0B090470001					
Total Uranium	29.7	1.4	0.4	pCi/L	27.7	0.566	105	62-150			
Blank Analyzed: 02/26/2010 (F0B220000280B)						Source:					
Total Uranium	0.046	0.693	0.21	pCi/L				-			U
LCS Analyzed: 02/26/2010 (F0B220000280C)						Source:					
Total Uranium	30.2	0.7	0.2	pCi/L	27.7		109	90-120			

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METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 43108 Extracted: 02/10/10											
Matrix Spike Analyzed: 02/18/2010 (F0B090470001S)						Source: F0B090470001					
Gross Alpha	47.2	3	1	pCi/L	49.4	2	91	35-150			
Gross Beta	79	4	1.5	pCi/L	68.0	3.9	110	54-150			
Duplicate Analyzed: 02/18/2010 (F0B090470001X)						Source: F0B090470001					
Gross Alpha	0.84	3	0.94	pCi/L		2		-			U
Gross Beta	3.2	4	1.5	pCi/L		3.9		-			Jb
Blank Analyzed: 02/19/2010 (F0B120000108B)						Source:					
Gross Alpha	-0.28	2	0.87	pCi/L				-			U
Gross Beta	-0.23	4	1.1	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B120000108C)						Source:					
Gross Alpha	34.8	3	1.2	pCi/L	49.4		70	62-134			
Gross Beta	71.6	4	1	pCi/L	68.0		105	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 42136 Extracted: 02/11/10											
Duplicate Analyzed: 02/19/2010 (F0B090470001X)						Source: F0B090470001					
Cesium 137	1.2	20	14	pCi/L		-2.9		-			U
Potassium 40	-50	NA	200	pCi/L		-100		-			U
Blank Analyzed: 02/19/2010 (F0B110000136B)						Source:					
Cesium 137	1.8	20	14	pCi/L				-			U
Potassium 40	-80	NA	210	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B110000136C)						Source:					
Americium 241	140000	NA	500	pCi/L	141000		99	87-110			
Cobalt 60	88000	NA	200	pCi/L	87900		100	89-110			
Cesium 137	52900	20	200	pCi/L	53100		100	90-110			

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METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 41160 Extracted: 02/10/10											
Duplicate Analyzed: 02/26/2010 (F0B090467001X)						Source: F0B090467001					
Radium (226)	0.07	1	0.29	pCi/L		0.089	-				U
Blank Analyzed: 02/26/2010 (F0B100000160B)						Source:					
Radium (226)	0.092	1	0.14	pCi/L			-				U
LCS Analyzed: 02/26/2010 (F0B100000160C)						Source:					
Radium (226)	10.4	1	0.2	pCi/L	11.3		93	68-136			

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METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 60257 Extracted: 03/01/10											
Blank Analyzed: 03/05/2010 (F0C010000257B)											
Radium 228	0.08	1	0.39	pCi/L				-			U
LCS Analyzed: 03/05/2010 (F0C010000257C)											
Radium 228	6.23	1	0.39	pCi/L	6.40		97	60-142			
LCS Dup Analyzed: 03/05/2010 (F0C010000257L)											
Radium 228	6.35	1	0.4	pCi/L	6.40		99	60-142	2	40	

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METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 41162 Extracted: 02/10/10											
Duplicate Analyzed: 02/19/2010 (F0B090475001X)						Source: F0B090475001					
Strontium 90	-0.15	3	0.42	pCi/L		-0.05		-			U
Blank Analyzed: 02/19/2010 (F0B100000162B)						Source:					
Strontium 90	-0.15	3	0.38	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B100000162C)						Source:					
Strontium 90	6.82	3	0.34	pCi/L	6.80		100	80-130			

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METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 49035 Extracted: 02/18/10											
Duplicate Analyzed: 02/18/2010 (F0B090470001X)						Source: F0B090470001					
Tritium	80	500	92	pCi/L		114		-			U
Matrix Spike Analyzed: 02/18/2010 (F0B090473001S)						Source: F0B090473001					
Tritium	4650	500	90	pCi/L	4530	122	100	62-147			
Blank Analyzed: 02/18/2010 (F0B180000035B)						Source:					
Tritium	165	500	95	pCi/L				-			Jb
LCS Analyzed: 02/18/2010 (F0B180000035C)						Source:					
Tritium	4440	500	90	pCi/L	4530		98	85-112			

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 48124 Extracted: 02/17/10											
Blank Analyzed: 02/18/2010 (G0B170000124B)						Source:					
1,2,3,4,6,7,8-HpCDD	2.3e-006	0.00005	0.0000011	ug/L				-			J, Q
1,2,3,4,6,7,8-HpCDF	6e-007	0.00005	0.0000004	ug/L				-			J, Q
2,3,7,8-TCDF	ND	0.00001	0.00000047	ug/L				-			
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.00000069	ug/L				-			
1,2,3,4,7,8-HxCDD	ND	0.00005	0.0000006	ug/L				-			
1,2,3,4,7,8-HxCDF	ND	0.00005	0.00000036	ug/L				-			
1,2,3,6,7,8-HxCDD	ND	0.00005	0.0000005	ug/L				-			
1,2,3,6,7,8-HxCDF	ND	0.00005	0.00000031	ug/L				-			
1,2,3,7,8,9-HxCDD	ND	0.00005	0.00000046	ug/L				-			
1,2,3,7,8,9-HxCDF	ND	0.00005	0.0000004	ug/L				-			
1,2,3,7,8-PeCDD	ND	0.00005	0.00000057	ug/L				-			
1,2,3,7,8-PeCDF	ND	0.00005	0.00000044	ug/L				-			
2,3,4,6,7,8-HxCDF	ND	0.00005	0.00000031	ug/L				-			
2,3,4,7,8-PeCDF	ND	0.00005	0.00000052	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.00000046	ug/L				-			
OCDD	2.3e-005	0.0001	0.00000084	ug/L				-			J
OCDF	7.2e-007	0.0001	0.0000008	ug/L				-			J, Q
Total HpCDD	1.3e-005	0.00005	0.0000011	ug/L				-			J, Q
Total HpCDF	1.1e-006	0.00005	0.0000004	ug/L				-			J, Q
Total HxCDD	ND	0.00005	0.00000046	ug/L				-			
Total HxCDF	ND	0.00005	0.00000031	ug/L				-			
Total PeCDD	ND	0.00005	0.00000057	ug/L				-			
Total PeCDF	ND	0.00005	0.00000016	ug/L				-			
Total TCDD	ND	0.00001	0.00000046	ug/L				-			
Total TCDF	ND	0.00001	0.00000047	ug/L				-			
Surrogate: 13C-2,3,7,8-TCDF	0.0013			ug/L	0.00200		63	24-169			
Surrogate: 37Cl-2,3,7,8-TCDD	0.00072			ug/L	0.000800		90	35-197			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.0018			ug/L	0.00200		92	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.0017			ug/L	0.00200		86	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0016			ug/L	0.00200		79	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.0017			ug/L	0.00200		87	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.0016			ug/L	0.00200		82	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.0017			ug/L	0.00200		86	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.0017			ug/L	0.00200		86	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.0016			ug/L	0.00200		81	29-147			

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	RPD Limits	RPD RPD	Data Qualifiers
Batch: 48124 Extracted: 02/17/10										
Blank Analyzed: 02/18/2010 (G0B170000124B)					Source:					
Surrogate: 13C-1,2,3,7,8-PeCDD	0.0016			ug/L	0.00200		80	25-181		
Surrogate: 13C-1,2,3,7,8-PeCDF	0.0015			ug/L	0.00200		75	24-185		
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0018			ug/L	0.00200		90	28-136		
Surrogate: 13C-2,3,4,7,8-PeCDF	0.0015			ug/L	0.00200		74	21-178		
Surrogate: 13C-2,3,7,8-TCDD	0.0014			ug/L	0.00200		71	25-164		
Surrogate: 13C-OCDD	0.0039			ug/L	0.00400		98	17-157		
LCS Analyzed: 02/19/2010 (G0B170000124C)					Source:					
1,2,3,4,6,7,8-HpCDD	0.00111	0.00005	0.0000021	ug/L	0.00100		111	70-140		Ba
1,2,3,4,6,7,8-HpCDF	0.00113	0.00005	0.0000023	ug/L	0.00100		113	82-122		Ba
2,3,7,8-TCDF	0.000222	0.00001	0.00000048	ug/L	0.000200		111	75-158		
1,2,3,4,7,8,9-HpCDF	0.00125	0.00005	0.0000004	ug/L	0.00100		125	78-138		
1,2,3,4,7,8-HxCDD	0.00128	0.00005	0.0000013	ug/L	0.00100		128	70-164		
1,2,3,4,7,8-HxCDF	0.00119	0.00005	0.0000019	ug/L	0.00100		119	72-134		
1,2,3,6,7,8-HxCDD	0.00109	0.00005	0.0000011	ug/L	0.00100		109	76-134		
1,2,3,6,7,8-HxCDF	0.00114	0.00005	0.0000017	ug/L	0.00100		114	84-130		
1,2,3,7,8,9-HxCDD	0.00102	0.00005	0.00000097	ug/L	0.00100		102	64-162		
1,2,3,7,8,9-HxCDF	0.00118	0.00005	0.0000022	ug/L	0.00100		118	78-130		
1,2,3,7,8-PeCDD	0.00112	0.00005	0.0000013	ug/L	0.00100		112	70-142		
1,2,3,7,8-PeCDF	0.00114	0.00005	0.0000014	ug/L	0.00100		114	80-134		
2,3,4,6,7,8-HxCDF	0.00116	0.00005	0.0000016	ug/L	0.00100		116	70-156		
2,3,4,7,8-PeCDF	0.00115	0.00005	0.0000016	ug/L	0.00100		115	68-160		
2,3,7,8-TCDD	0.000231	0.00001	0.00000063	ug/L	0.000200		115	67-158		
OCDD	0.00222	0.0001	0.0000034	ug/L	0.00200		111	78-144		Ba
OCDF	0.0021	0.0001	0.0000025	ug/L	0.00200		105	63-170		Ba
Surrogate: 13C-2,3,7,8-TCDF	0.00139			ug/L	0.00200		70	22-152		
Surrogate: 37Cl4-2,3,7,8-TCDD	0.000723			ug/L	0.000800		90	31-191		
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00186			ug/L	0.00200		93	26-166		
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00176			ug/L	0.00200		88	21-158		
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0016			ug/L	0.00200		80	20-186		
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00179			ug/L	0.00200		89	21-193		
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00175			ug/L	0.00200		87	19-202		
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00189			ug/L	0.00200		94	25-163		
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00177			ug/L	0.00200		89	21-159		
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00171			ug/L	0.00200		85	17-205		
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00174			ug/L	0.00200		87	21-227		

TestAmerica Irvine

Debby Wilson For Heather Clark
 Project Manager

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

Project ID: Annual Outfall 010
 Annual Outfall 010
 Report Number: ITB0784

Sampled: 02/05/10-02/06/10
 Received: 02/05/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 48124 Extracted: 02/17/10											
LCS Analyzed: 02/19/2010 (G0B170000124C)											
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00161			ug/L	0.00200		81	21-192			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00192			ug/L	0.00200		96	22-176			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00158			ug/L	0.00200		79	13-328			
Surrogate: 13C-2,3,7,8-TCDD	0.00151			ug/L	0.00200		76	20-175			
Surrogate: 13C-OCDD	0.00383			ug/L	0.00400		96	13-199			

TestAmerica Irvine

Debby Wilson For Heather Clark
 Project Manager

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
Ba	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
C8	Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
J	Estimated result. Result is less than the reporting limit.
Jb	Result is greater than sample detection limit but less than stated reporting limit.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M13	The sample spiked had a pH of less than 2. 2-Chloroethylvinylether degrades under acidic conditions.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
Q	Estimated maximum possible concentration (EMPC).
R-3	The RPD exceeded the acceptance limit due to sample matrix effects.
R-7	LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.
U	Result is less than the sample detection limit.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

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

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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ITB0784 <Page 67 of 69>

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	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 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 525.2	Water		
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	X
SM2540C	Water	X	
SM4500CN-E	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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-Acute 96hr

Samples: ITB0784-01

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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

Project ID: Annual Outfall 010
Annual Outfall 010
Report Number: ITB0784

Sampled: 02/05/10-02/06/10
Received: 02/05/10

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITB0886-01

Method Performed: EPA 900.0 MOD
Samples: ITB0886-01

Method Performed: EPA 901.1 MOD
Samples: ITB0886-01

Method Performed: EPA 903.0 MOD
Samples: ITB0886-01

Method Performed: EPA 904 MOD
Samples: ITB0886-01RE1

Method Performed: EPA 905 MOD
Samples: ITB0886-01

Method Performed: EPA 906.0 MOD
Samples: ITB0886-01

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: ITB0886-01, ITB0886-01RE1

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

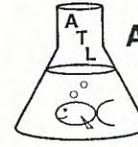
ITB0784

Client Name/Address: MW+Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak		Project: Boeing-SSFL NPDES Annual Outfall 010 GRAB Stormwater at Building 203		Project Manager: Bronwyn Kelly Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		Field readings: (Log in and include in report Temp and pH) Temp °F = 52.0 pH = 7.0 Time of readings = 1340 Comments: 2/5/10							
Sampler: Dawson		Oil & Grease (1664-HEM) X		VOCs 624, Xylenes + PP X		VOCs 624 +A+A+2CVE X		Cr (M) (218.6) X		Acute Toxicity X		ANALYSIS REQUIRED	
Sample Description	Sample Matrix	Container Type	# of Cont	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (M) (218.6)	Acute Toxicity	Field readings:	
Outfall 010	W	1L Amber	2	2/5/10 1340	HCl	1A, 1B	X	X	X	X	X	Temp °F = 52.0 pH = 7.0 Time of readings = 1340 Comments: 2/5/10	
Outfall 010	W	VOAs	3		HCl	2A, 2B, 2C		X					
Outfall 010	W	VOAs	3		None	3A, 3B, 3C		X					
Trip Blanks	W	VOAs	3		HCl	4A, 4B, 4C		X					
Trip Blanks	W	VOAs	3		None	5A, 5B, 5C		X					
Outfall 010	W	500 mL Poly	1	2/5/10 1340	None	6 1		X					
Outfall 010	W	1 Gal Cube	1	2/5/10 1340	None	7 1		X					
These Samples are the Grab Portion of Outfall 010 for this storm event. Composite samples will follow and are to be added to this work order.													
Relinquished By: Joseph Doak Date/Time: 2-5-10 15:30				Received By: [Signature] Date/Time: 2-5-10 15:30				Turn-around time: (Check) 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 10 Day <input type="checkbox"/>		Sample integrity: (Check) Inact: <input type="checkbox"/> On Ice: <input checked="" type="checkbox"/>		NPOES Level IV: <input checked="" type="checkbox"/>	
Relinquished By: [Signature] Date/Time: 2-5-10 19:20				Received By: [Signature] Date/Time: 2-5-10 19:20				Data Requirements: (Check) No Level IV: <input type="checkbox"/> All Level IV: <input type="checkbox"/>		NPOES Level IV: <input checked="" type="checkbox"/>		NPOES Level IV: <input checked="" type="checkbox"/>	
Relinquished By: [Signature] Date/Time: 2-5-10 19:20				Received By: [Signature] Date/Time: 2-5-10 19:20				Data Requirements: (Check) No Level IV: <input type="checkbox"/> All Level IV: <input type="checkbox"/>		NPOES Level IV: <input checked="" type="checkbox"/>		NPOES Level IV: <input checked="" type="checkbox"/>	

2-1 M251

✓

LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"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

Date: February 10, 2010
Client: Test America - Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Joseph Doak

Laboratory No.: A-10020603-001
Sample ID.: ITB0784-01

Sample Control: The sample was received by ATL in a chilled state, within the recommended hold time and with the chain of custody record attached.

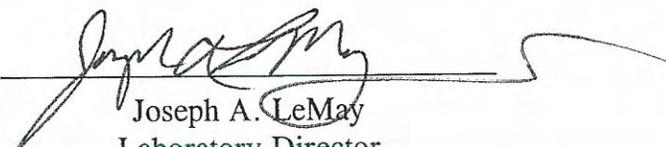
Date Sampled: 02/05/10
Date Received: 02/06/10
Temp. Received: 1.0°C
Chlorine (TRC): 0.0 mg/l
Date Tested: 02/06/10 to 02/10/10

Sample Analysis: The following analyses were performed on your sample:
Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).
Attached are the test data generated from the analysis of your sample.

Result Summary:

<u>Sample ID.</u>	<u>Results</u>
ITB0784-01	100% Survival (TUa = 0.0)

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0



Lab No.: A-10020603-001
 Client/ID: TestAmerica ITB0784-01

Start Date: 02/06/2010

TEST SUMMARY

Species: *Pimephales promelas*.
 Age: 11 (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-100202.

TEST DATA

		°C	DO	pH	# Dead		Analyst & Time of Readings
					A	B	
INITIAL	Control	<u>20.5</u>	<u>8.8</u>	<u>7.8</u>	<u>0</u>	<u>0</u>	<u>Rv</u> <u>1200</u>
	100%	<u>20.4</u>	<u>9.1</u>	<u>7.1</u>	<u>0</u>	<u>0</u>	
24 Hr	Control	<u>19.6</u>	<u>8.4</u>	<u>7.8</u>	<u>0</u>	<u>0</u>	<u>Z</u> <u>1200</u>
	100%	<u>19.7</u>	<u>8.3</u>	<u>7.8</u>	<u>0</u>	<u>0</u>	
48 Hr	Control	<u>19.6</u>	<u>8.2</u>	<u>7.6</u>	<u>0</u>	<u>0</u>	<u>Z</u> <u>1200</u>
	100%	<u>19.6</u>	<u>8.4</u>	<u>7.8</u>	<u>0</u>	<u>0</u>	
Renewal	Control	<u>19.9</u>	<u>8.5</u>	<u>7.6</u>	<u>0</u>	<u>0</u>	<u>Z</u> <u>1200</u>
	100%	<u>20.2</u>	<u>9.1</u>	<u>7.1</u>	<u>0</u>	<u>0</u>	
72 Hr	Control	<u>19.8</u>	<u>8.3</u>	<u>7.7</u>	<u>0</u>	<u>0</u>	<u>Rv</u> <u>1200</u>
	100%	<u>19.10</u>	<u>7.6</u>	<u>7.8</u>	<u>0</u>	<u>0</u>	
96 Hr	Control	<u>20.2</u>	<u>6.7</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>Rv</u> <u>1300</u>
	100%	<u>19.9</u>	<u>6.0</u>	<u>7.5</u>	<u>0</u>	<u>0</u>	

Comments:

Sample as received: Chlorine: 0.0 mg/l; pH: 7.1; Conductivity: 295 umho; Temp: 1.0°C;
 DO: 9.1 mg/l; Alkalinity: 124 mg/l; Hardness: 104 mg/l; NH₃-N: 0.4 mg/l.
 Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No
 Control: Alkalinity: 69 mg/l; Hardness: 94 mg/l; Conductivity: 330 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 O₂.

RESULTS

Percent Survival In:	Control: <u>100</u> %	100% Sample: <u>100</u> %
----------------------	-----------------------	---------------------------

SUBCONTRACT ORDER
TestAmerica Irvine

ITB0784

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: 1.0 °C Ice: (Y) / N

Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

Analysis	Units	Expires	Comments
Sample ID: ITB0784-01 (Outfall 010 - Water)			
Bioassay-Acute 96hr	% Survival	02/07/10 01:40	FH minnow, EPA/821-R02-012, Sub to Aquatic Testing
Level 4 Data Package - Out	N/A	03/05/10 13:40	
Containers Supplied: 1 gal Poly (J)			

[Signature] 2-6-10 9:00
Released By Date/Time
[Signature] 2-6-10 11:22
Released By Date/Time

[Signature] 2-6-10 9:00
Received By Date/Time
[Signature] 2-6-10 11:22
Received By Date/Time Page 1 of 1



***REFERENCE
TOXICANT
DATA***

FATHEAD MINNOW ACUTE
Method 2000.0
Reference Toxicant - SDS



QA/QC Batch No.: RT-100202

TEST SUMMARY

Species: *Pimephales promelas*.
 Age: 13 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>2-2-10 1200</u>			<u>2-3-10 1300</u>					<u>2-4-10 1200</u>				
	<u>Ru</u>			<u>Ru</u>					<u>Ru</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>19.6</u>	<u>8.4</u>	<u>7.6</u>	<u>19.4</u>	<u>7.9</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>19.2</u>	<u>7.1</u>	<u>7.9</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>19.6</u>	<u>8.5</u>	<u>7.6</u>	<u>19.2</u>	<u>8.0</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>19.2</u>	<u>7.3</u>	<u>7.7</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>19.6</u>	<u>8.5</u>	<u>7.7</u>	<u>19.1</u>	<u>8.0</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>19.1</u>	<u>7.2</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>19.6</u>	<u>8.5</u>	<u>7.7</u>	<u>19.1</u>	<u>7.6</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>19.1</u>	<u>7.2</u>	<u>7.6</u>	<u>0</u>	<u>0</u>
8.0 mg/l	<u>19.6</u>	<u>8.6</u>	<u>7.7</u>	<u>19.0</u>	<u>6.8</u>	<u>7.3</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>2-4-10 1200</u>			<u>2-5-10 1200</u>					<u>2-6-10 1130</u>				
	<u>Ru</u>			<u>Ru</u>					<u>Ru</u>				
	°C	DO	pH	°C	DO	pH	# Dead		°C	DO	pH	# Dead	
A							B	A				B	
Control	<u>19.5</u>	<u>8.8</u>	<u>7.8</u>	<u>19.5</u>	<u>7.4</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.6</u>	<u>6.3</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
1.0 mg/l	<u>19.5</u>	<u>8.8</u>	<u>7.8</u>	<u>19.4</u>	<u>7.4</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.6</u>	<u>6.6</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
2.0 mg/l	<u>19.5</u>	<u>8.9</u>	<u>7.8</u>	<u>19.2</u>	<u>7.4</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.6</u>	<u>6.5</u>	<u>7.4</u>	<u>0</u>	<u>0</u>
4.0 mg/l	<u>19.5</u>	<u>8.9</u>	<u>7.8</u>	<u>19.2</u>	<u>7.3</u>	<u>7.4</u>	<u>0</u>	<u>0</u>	<u>20.5</u>	<u>6.4</u>	<u>7.4</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: 69 mg/l; Hardness: 94 mg/l; Conductivity: 330 umho.
 SDS: Alkalinity: 68 mg/l; Hardness: 94 mg/l; Conductivity: 333 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: 2/2/2010 12:00 Test ID: RT100202f Sample ID: REF-Ref Toxicant
 End Date: 2/6/2010 11:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: SDS-Sodium dodecyl sulfate
 Sample Date: 2/2/2010 Protocol: ACUTE-EPA-821-R-02-012 Test Species: PP-Pimephales promelas
 Comments:

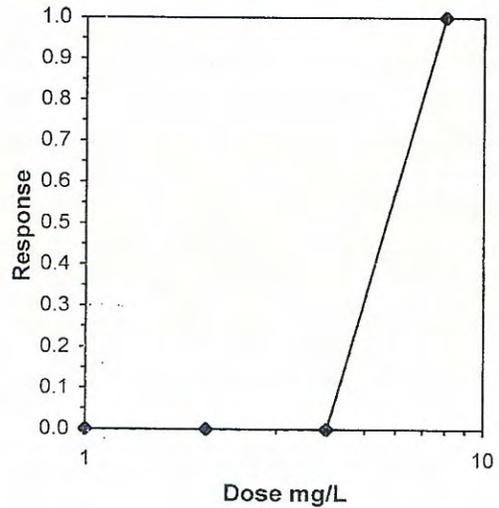
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	1.0000
8	0.0000	0.0000

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	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

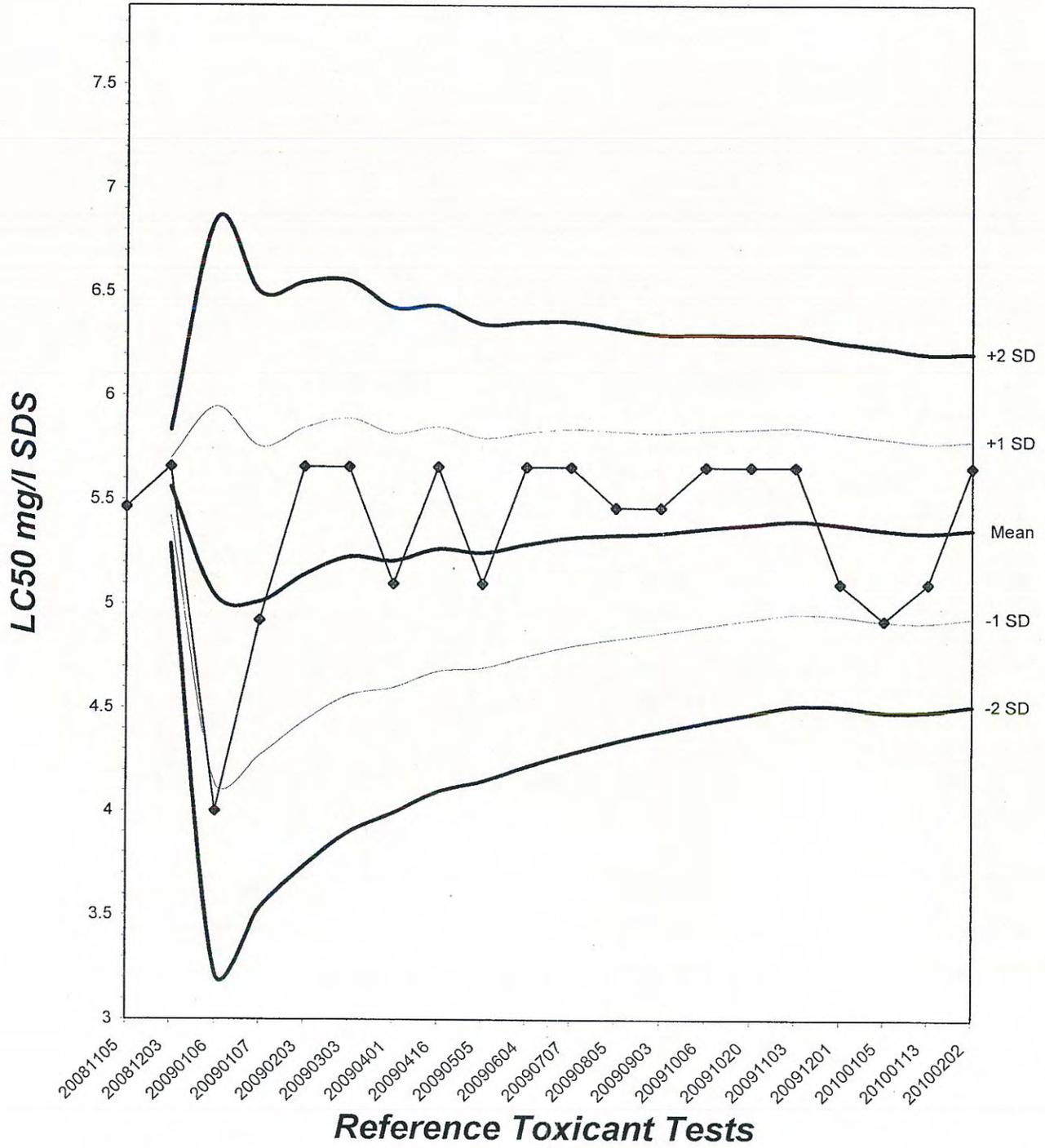
Trim Level		EC50	Graphical Method
0.0%	5.6569		

5.6569



Fathead Minnow Acute Laboratory Control Chart

CV% = 7.91



TEST ORGANISM LOG



FATHEAD MINNOW - LARVAL (*Pimephales promelas*)

QA/QC BATCH NO.: RT-100202

SOURCE: In-Lab Culture

DATE HATCHED: 1-20-10

APPROXIMATE QUANTITY: 400

GENERAL APPEARANCE: good

MORTALITIES 48 HOURS PRIOR TO
TO USE IN TESTING: 0

DATE USED IN LAB: 1/5/10

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.: 19.6°C

pH: 7.6

Ammonia: 10.1 mg/l NH₃-N

DO: 8.4 mg/l

Alkalinity: 69 mg/l

Hardness: 94 mg/l

READINGS RECORDED BY: _____

DATE: _____

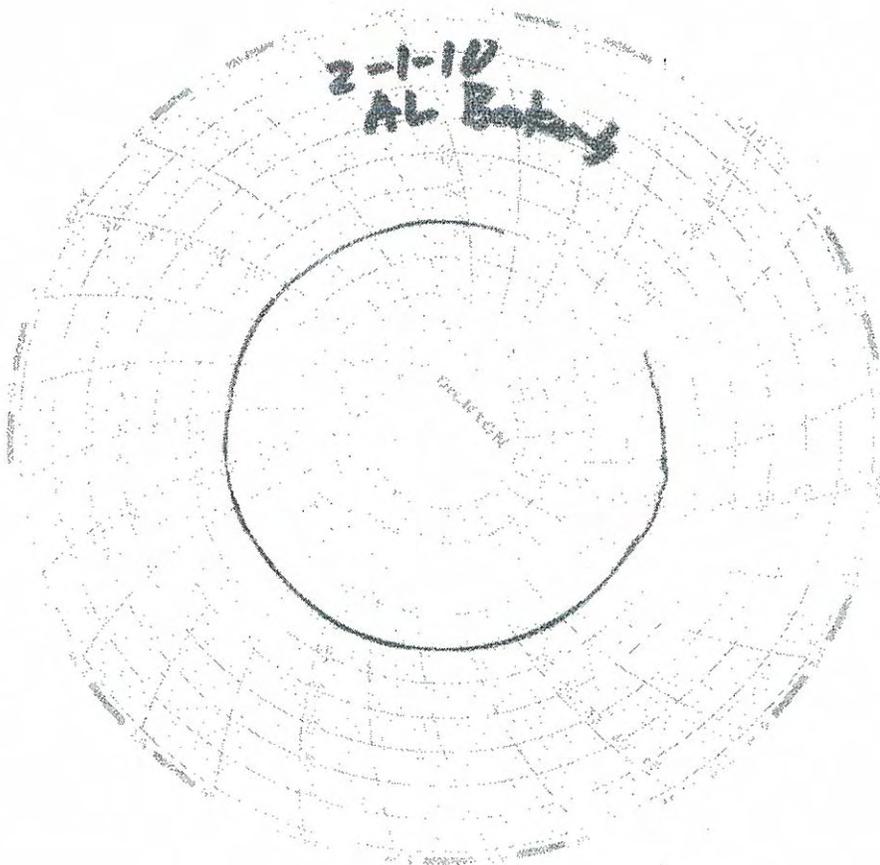
2-3-10

Test Temperature Chart

Test No: RT-100202

Date Tested: 02/02/10 to 02/06/10

Acceptable Range: 20+/- 1°C



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. ITB0886

MWH-Pasadena Boeing

Lot #: F0B090478

Joseph Doak

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

TESTAMERICA LABORATORIES, INC.


Kay Clay
Project Manager

March 17, 2010

Case Narrative
LOT NUMBER: F0B090478
Revised 03-17-10

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on February 9, 2010. This sample is associated with your 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. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

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

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.

Report revised to report the KPA uranium results in pCi/L.

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 are no observations or nonconformances associated with the analysis in this lot.

cut
122

FOB090478

SUBCONTRACT ORDER

TestAmerica Irvine

ITB0886

Revised

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:

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Phone: (314) 298-8566
Fax: (314) 298-8757

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: ITB0886-01	Water	Sampled:02/06/10 11:15	[REDACTED]	
Gamma Spec-O	02/17/10 12:00	02/06/11 11:15		Out St Louis, k-40 and cs-137 only, DO NOT FILTER!
Level 4 Data Package	02/17/10 12:00	03/06/10 11:15		
Uranium, Combined-O	02/17/10 12:00	02/06/11 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
Radium, Combined-O	02/17/10 12:00	02/06/11 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	02/17/10 12:00	02/06/11 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	02/17/10 12:00	02/06/11 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	02/17/10 12:00	08/05/10 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
Gross Alpha-O	02/17/10 12:00	08/05/10 11:15		Out St Louis, Boeing permit, DO NOT FILTER!
<i>Containers Supplied:</i>				
2.5 gal Poly (K)	500 mL Amber (L)			

Released By	Date	Received By	Date
		<i>[Signature]</i>	2.9.10 1100
Released By	Date	Received By	Date

SUBCONTRACT ORDER

TestAmerica Irvine

ITB0886

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

Sample ID: ITB0886-01 (Outfall 010 - Water)

Sampled: 02/06/10 11:15

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Gross Alpha-O	pCi/L	02/17/10	08/05/10 11:15	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	02/17/10	08/05/10 11:15	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package	N/A	02/17/10	03/06/10 11:15	\$0.00	0%	
Radium, Combined-O	pCi/L	02/17/10	02/06/11 11:15	\$200.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	02/17/10	02/06/11 11:15	\$140.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	02/17/10	02/06/11 11:15	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	02/17/10	02/06/11 11:15	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!

Containers Supplied:

2.5 gal Poly (K) 500 mL Amber (L)

Lucrecia Fritos ^{2/8/10} 17:00
Released By Date/Time

Felix ^{2/8/10 17:00}
Received By Date/Time

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): FOB 090467, 481 498
470, 482 489
473, 484 491
475, 485 494
476, 486 495

CONDITION UPON RECEIPT FORM

Client: TA Irvine

Quote No: 77435 55044

COC/RFA No: below

122

Initiated By: EV Date: 2-9-10 Time: 1100

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*	Sample Temperature (s):**
1. <u>4289 2133 2309 MRS</u>	1. <u>ambient</u>
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	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"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8. <input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2. <input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3. <input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4. <input checked="" type="radio"/> Y <input type="radio"/> N <u>5/9/10</u>	Sample received with Chain of Custody?	11. <input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5. <input checked="" type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. <input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. <input type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was Internal COC/Workshare received?
7. <input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14. <input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was pH taken by original TestAmerica lab?

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

Notes: ITB 0887 ITB 0773

95	36	
88 <u>sw 2.9.10</u>	47	<u>Revised chains were not relinquished for Boeing project</u>
94	98	
88	99	
92	0800	
<u>86</u>	0590	
85	0602	<u>c-o-c reads 1254</u>
96		

Corrective Action:

Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____ If released, notify: _____
 Project Management Review: Jaymak Pohl Date: 2-15-10

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.

METHODS SUMMARY

FOB090478

<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	
Radium-228 by GFPC	EPA 904 MOD	
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

FOB090478

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u>	<u>SAMP</u>
				<u>DATE</u>	<u>TIME</u>
LVF4Q	001	ITB0886-01		02/06/10	11:15

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: ITB0886-01

Radiochemistry

Lab Sample ID: FOB090478-001
 Work Order: LVF4Q
 Matrix: WATER

Date Collected: 02/06/10 1115
 Date Received: 02/09/10 1100

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 0042136	Yld %
Cesium 137	4.3	U	6.8	20.0	11	02/11/10	02/19/10
Potassium 40	-60	U	250		250	02/11/10	02/19/10
Gross Alpha/Beta EPA 900				pCi/L		Batch # 0043108	Yld %
Gross Alpha	2.7	J	1.3	3.0	1.4	02/10/10	02/18/10
Gross Beta	5.8		1.1	4.0	1	02/10/10	02/18/10
SR-90 BY GFPC EPA-905 MOD				pCi/L		Batch # 0041162	Yld % 72
Strontium 90	0.08	U	0.24	3.00	0.40	02/10/10	02/19/10
TRITIUM (Distill) by EPA 906.0 MOD				pCi/L		Batch # 0049035	Yld %
Tritium	1060		200	500	90	02/18/10	02/18/10
Total Uranium by KPA ASTM 5174-91				pCi/L		Batch # 0053280	Yld %
Total Uranium	0.422	J	0.047	0.693	0.21	02/23/10	02/26/10
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 0041160	Yld % 51
Radium (226)	0.20	U	0.17	1.00	0.25	02/10/10	02/26/10
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 0060257	Yld % 83
Radium 228	0.04	U	0.24	1.00	0.41	03/01/10	03/05/10

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: FOB090478
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Radium 228 by GFPC EPA 904 MOD							
Radium 228	0.08	U	0.23	1.00	0.39	03/01/10	FOC010000-257B 03/05/10
Radium 226 by EPA 903.0 MOD							
Radium (226)	0.092	U	0.095	1.00	0.14	02/10/10	FOB100000-160B 02/26/10
SR-90 BY GFPC EPA-905 MOD							
Strontium 90	-0.15	U	0.20	3.00	0.38	02/10/10	FOB100000-162B 02/19/10
Gamma Cs-137 & Hits by EPA 901.1 MOD							
Cesium 137	1.8	U	7.7	20.0	14	02/11/10	FOB110000-136B 02/19/10
Potassium 40	-80	U	620		210	02/11/10	02/19/10
Gross Alpha/Beta EPA 900							
Gross Alpha	-0.28	U	0.35	2.00	0.87	02/10/10	FOB120000-108B 02/19/10
Gross Beta	-0.23	U	0.62	4.00	1.1	02/10/10	02/19/10
TRITIUM (Distill) by EPA 906.0 MOD							
Tritium	165	J	85	500	95	02/18/10	FOB180000-035B 02/18/10
Total Uranium by KPA ASTM 5174-91							
Total Uranium	0.0460	U	0.0057	0.693	0.21	02/23/10	FOB220000-280B 02/26/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using 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

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: FOB090478
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD			FOB100000-160C
Radium (226)	11.3	10.4	1.1	0.2	97	93	(68 - 136)
	Batch #:	0041160		Analysis Date:	02/26/10		
SR-90 BY GFPC EPA-905 MOD			pCi/L	905 MOD			FOB100000-162C
Strontium 90	6.80	6.82	0.77	0.34	83	100	(80 - 130)
	Batch #:	0041162		Analysis Date:	02/19/10		
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			FOB110000-136C
Americium 241	141000	140000	11000	500		99	(87 - 110)
Cesium 137	53100	52900	3000	200		100	(90 - 110)
Cobalt 60	87900	88000	5000	200		100	(89 - 110)
	Batch #:	0042136		Analysis Date:	02/19/10		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			FOB120000-108C
Gross Beta	68.0	71.6	6.0	1		105	(58 - 133)
	Batch #:	0043108		Analysis Date:	02/19/10		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			FOB120000-108C
Gross Alpha	49.4	34.8	4.3	1.2		70	(62 - 134)
	Batch #:	0043108		Analysis Date:	02/19/10		
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			FOB180000-035C
Tritium	4530	4440	460	90		98	(85 - 112)
	Batch #:	0049035		Analysis Date:	02/18/10		
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			FOB220000-280C
Total Uranium	27.7	30.2	3.6	0.2		109	(90 - 120)
	Batch #:	0053280		Analysis Date:	02/26/10		
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			FOB220000-280C
Total Uranium	5.54	5.97	0.61	0.21		108	(90 - 120)
	Batch #:	0053280		Analysis Date:	02/26/10		

NOTE (S)

MDC is determined by instrument performance only

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: FOB090478
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	% Yld	% Rec	QC Control Limits	Lab Sample ID Precision
Radium 228 by GFPC EPA 904 MOD		pCi/L	904 MOD			F0C010000-257C	
Radium 228	6.40	6.23	0.74	87	97	(60 - 142)	
Spk 2	6.40	6.35	0.77	84	99	(60 - 142)	2 %RPD
Batch #: 0060257				Analysis Date: 03/05/10			

NOTE (S)

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

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: FOB090473
 Matrix: WATER

Date Sampled: 02/05/10
 Date Received: 02/09/10

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		FOB090473-001		
Tritium	4530	4650	470		122	77		100	(62 - 147)
	Batch #: 0049035				Analysis Date: 02/18/10				
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD		FOB090470-001		
Gross Alpha	49.4	47.2	5.2		2.00	0.88		91	(35 - 150)
	Batch #: 0043108				Analysis Date: 02/18/10				
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD		FOB090470-001		
Gross Beta	68.0	79.0	6.6		3.9	1.2		110	(54 - 150)
	Batch #: 0043108				Analysis Date: 02/18/10				

NOTE (S)

Data are incomplete without the case narrative.

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: FOB090470
 Matrix: WATER

Date Sampled: 02/07/10 1143
 Date Received: 02/09/10 1100

Parameter	Spike Amount	SPIKE Result	Total Uncert. (2 σ +/-)	Spike Yld	SAMPLE Result	Total Uncert. (2 σ +/-)	QC Sample ID		QC Control Limits
							% Yld	%Rec	
Total Uranium by KPA ASTM 5			pCi/L	5174-91			FOB090470-001		
Total Uranium	27.7	29.7	3.1		0.566 J	0.068		105	(62 - 150)
Spk2	27.7	30.0	3.1		0.566 J	0.068		106	(62 - 150)
						Precision:		1	%RPD
		Batch #:	0053280	Analysis date:	02/26/10				

NOTE (S)

Data are incomplete without the case narrative.

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

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: FOB090478
 Matrix: WATER

Date Sampled: 02/05/10
 Date Received: 02/09/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2 σ +/-)	% Yld	QC Sample ID	
									Precision
Radium 226 by EPA 903.0 MOD					pCi/L	903.0 MOD		FOB090467-001	
Radium (226)	0.089	U	0.098	92	0.07	U	0.16	92	31 %RPD
	Batch #:		0041160	(Sample)	0041160	(Duplicate)			
Gamma Cs-137 & Hits by EPA 901.1 MOD					pCi/L	901.1 MOD		FOB090470-001	
Cesium 137	-2.9	U	9.0		1.2	U	7.8		479 %RPD
Potassium 40	-100	U	43000		-50	U	230		93 %RPD
	Batch #:		0042136	(Sample)	0042136	(Duplicate)			
Gross Alpha/Beta EPA 900					pCi/L	900.0 MOD		FOB090470-001	
Gross Alpha	2.00	J	0.88		0.84	U	0.66		82 %RPD
Gross Beta	3.9	J	1.2		3.2	J	1.1		20 %RPD
	Batch #:		0043108	(Sample)	0043108	(Duplicate)			
TRITIUM (Distill) by EPA 906.0 MOD					pCi/L	906.0 MOD		FOB090470-001	
Tritium	114	J	75		80	U	66		35 %RPD
	Batch #:		0049035	(Sample)	0049035	(Duplicate)			
SR-90 BY GFPC EPA-905 MOD					pCi/L	905 MOD		FOB090475-001	
Strontium 90	-0.05	U	0.23	72	-0.15	U	0.23	69	97 %RPD
	Batch #:		0041162	(Sample)	0041162	(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.

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APPENDIX G

Section 52

Outfall 010 – BMP Effectiveness February 6, 2010

Test America Analytical Laboratory Report

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LABORATORY REPORT

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

Project: BMP Effectiveness
Monitoring Program

Sampled: 02/06/10
Received: 02/10/10
Issued: 02/19/10 17:21

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 3°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

LABORATORY ID

ITB1362-01

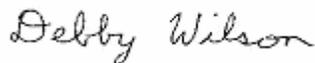
CLIENT ID

010 EFF-1

MATRIX

Water

Reviewed By:



TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: BMP Effectiveness
Monitoring Program
Report Number: ITB1362

Sampled: 02/06/10
Received: 02/10/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB1362-01 (010 EFF-1 - Water)									
Reporting Units: g/cc									
Density	Displacement	10B2266	N/A	NA	1.0	1	02/18/10	02/18/10	
Sample ID: ITB1362-01 (010 EFF-1 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	10B2268	10	10	74	1	02/06/10	02/06/10	

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: BMP Effectiveness
Monitoring Program
Report Number: ITB1362

Sampled: 02/06/10
Received: 02/10/10

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B2266 Extracted: 02/18/10											
Duplicate Analyzed: 02/18/2010 (10B2266-DUP1)						Source: ITB1559-01					
Density	1.00	NA	N/A	g/cc		1.00			0.06	20	

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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ITB1362 <Page 3 of 5>

MWH-Pasadena/Boeing
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Monitoring Program
Report Number: ITB1362

Sampled: 02/06/10
Received: 02/10/10

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

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Project Manager

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ITB1362 <Page 4 of 5>

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Report Number: ITB1362

Sampled: 02/06/10
Received: 02/10/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
ASTM D3977	Water		
Displacement	Water		

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

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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APPENDIX G

Section 53

Outfall 010 – February 27 & 28, 2010

MEC^X Data Validation Report

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DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITB2836

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: ITB2836
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 2
 No. of Reanalyses/Dilutions: 0
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 010 (Comp)	ITB2836-02	G0C020513-001, FOC020465-001	Water	2/28/2010 3:00:00 AM	ASTM 5174-91, 245.1, 245.1 (Diss), 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD

II. Sample Management

No anomalies were observed regarding sample management. A portion of the samples in several SDGs were received at ambient temperature at TestAmerica-St. Louis; however, the reviewer was unable to determine if the sample in ITB2836 was received at ambient temperature. Due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at TA-West Sacramento and TestAmerica-St. Louis. As the samples were couriered to TestAmerica-Irvine, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: April 2, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (9/05)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed with the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 16 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had a detect between the EDL and the RL for total PeCDD reported as an EMPC. The sample result for total PeCDD was also comprised of the same EMPC peak as the method blank total, and was therefore qualified as nondetected, "U," at the level of the EMPC.

- Blank Spikes and Laboratory Control Samples: OPR recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. The EMPC qualified as nondetected for method blank contamination was not further qualified as an EMPC. Total PeCDF and total HxCDF were each comprised only of EMPC peaks, and were therefore qualified as estimated nondetects, "UJ." Any detects reported below the EDL, or between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. The result for total HpCDF was above the RL and was therefore not qualified as estimated. Nondetects are valid to the EDL.

B. EPA METHOD 245.1—Mercury

Reviewed By: P. Meeks

Date Reviewed: April 6, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Method 245.1*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding time, 28 days for mercury, was met.
- Tuning: Not applicable to this analysis.
- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 85-115%. CRDL/CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to this analysis.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: April 7, 2010

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (10/04)*.

- **Holding Times:** Aliquots for gross alpha and gross beta and total uranium were prepared beyond the five-day holding time for unpreserved aqueous samples; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The tritium sample was analyzed within 180 days of collection. Aliquots for the remaining analytes were prepared within the five-day analytical holding time for unpreserved samples.
- **Calibration:** The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha detector efficiency was less than 20%; therefore, the nondetected result for gross alpha was qualified as estimated, "UJ." The remaining detector efficiencies were greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- **Blanks:** Tritium, and total uranium were detected in the method blanks at 163 and 0.315 pCi/L, respectively; therefore, the detects for these analytes were qualified as nondetected, "U," at the reporting limits. Radium-228 was also detected in the method blank but was not detected in the site sample. There were no other analytes detected in the method blanks or the KPA CCBs.
- **Blank Spikes and Laboratory Control Samples:** The recoveries and RPDs (radium-226, radium-228, strontium-90) were within laboratory-established control limits.
- **Laboratory Duplicates:** No laboratory duplicate analyses were performed on the sample in this SDG.
- **Matrix Spike/Matrix Spike Duplicate:** A matrix spike analysis was performed on the sample in this SDG for tritium. The recovery was within the laboratory-established control limit. Method accuracy for the remaining analytes was evaluated based on the LCS results.
- **Sample Result Verification:** An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA.

The reviewer noted that the total uranium preparation log was not signed as reviewed.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms ITB2836

Analysis Method ASTM 5174-91

Sample Name Outfall 010 (Comp) Matrix Type: WATER Validation Level: IV

Lab Sample Name: ITB2836-02 Sample Date: 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	ND	0.693	0.21	pCi/L	Jb	UJ	B, H

Analysis Method EPA 245.1

Sample Name Outfall 010 (Comp) Matrix Type: Water Validation Level: IV

Lab Sample Name: ITB2836-02 Sample Date: 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/l		U	

Analysis Method EPA 245.1-Diss

Sample Name Outfall 010 (Comp) Matrix Type: Water Validation Level: IV

Lab Sample Name: ITB2836-02 Sample Date: 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/l		U	

Analysis Method EPA 900.0 MOD

Sample Name Outfall 010 (Comp) Matrix Type: WATER Validation Level: IV

Lab Sample Name: ITB2836-02 Sample Date: 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	1.9	3	2.3	pCi/L	U	UJ	H, C
Gross Beta	12587-47-2	4.5	4	1.3	pCi/L		J	H

Analysis Method EPA 901.1 MOD

Sample Name Outfall 010 (Comp) Matrix Type: WATER Validation Level: IV

Lab Sample Name: ITB2836-02 Sample Date: 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	0.4	20	15	pCi/L	U	U	
Potassium 40	13966-00-2	-50	0	250	pCi/L	U	U	

Analysis Method *EPA 903.0 MOD*

Sample Name	Outfall 010 (Comp)	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB2836-02	Sample Date:	2/28/2010 3:00:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.16	1	0.18	pCi/L	U	U	

Analysis Method *EPA 904 MOD*

Sample Name	Outfall 010 (Comp)	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB2836-02	Sample Date:	2/28/2010 3:00:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	-0.01	1	0.62	pCi/L	U	U	

Analysis Method *EPA 905 MOD*

Sample Name	Outfall 010 (Comp)	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB2836-02	Sample Date:	2/28/2010 3:00:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium 90	10098-97-2	0.08	3	0.44	pCi/L	U	U	

Analysis Method *EPA 906.0 MOD*

Sample Name	Outfall 010 (Comp)	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB2836-02	Sample Date:	2/28/2010 3:00:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	ND	500	130	pCi/L	Jb	U	B

Analysis Method *EPA-5 1613B*

Sample Name Outfall 010 (Comp) **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: ITB2836-02 **Sample Date:** 2/28/2010 3:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	9e-005	0.000047	0.000027	ug/L			
1,2,3,4,6,7,8-HpCDF	67562-39-4	1.9e-005	0.000047	0.0000075	ug/L	J	J	DNQ
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000047	0.00001	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000047	0.000011	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000047	0.000004	ug/L		U	
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000047	0.0000092	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000047	0.0000035	ug/L		U	
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.000047	0.0000079	ug/L		U	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000047	0.0000038	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000047	0.0000077	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000047	0.0000036	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000047	0.000034	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000047	0.0000045	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.0000094	0.0000035	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.0000094	0.000002	ug/L		U	
OCDD	3268-87-9	0.00096	0.000094	0.000032	ug/L			
OCDF	39001-02-0	0.00021	0.000094	0.000014	ug/L			
Total HpCDD	37871-00-4	0.00015	0.00015	0.000027	ug/L	Q	J	*III
Total HpCDF	38998-75-3	0.00011	0.000047	0.0000075	ug/L	J		
Total HxCDD	34465-46-8	ND	0.000047	0.0000079	ug/L		U	
Total HxCDF	55684-94-1	ND	7.6e-006	0.0000034	ug/L	J, Q	UJ	*III
Total PeCDD	36088-22-9	ND	1.3e-005	0.0000077	ug/L	J, Q, Ba	U	B
Total PeCDF	30402-15-4	ND	5.2e-006	0.0000028	ug/L	J, Q	UJ	*III
Total TCDD	41903-57-5	ND	0.0000094	0.0000035	ug/L		U	
Total TCDF	55722-27-5	ND	0.0000094	0.000002	ug/L		U	

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APPENDIX G

Section 54

Outfall 010 – February 27 & 28, 2010

Test America Analytical Laboratory Report

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LABORATORY REPORT

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

Project: Routine Outfall 010

Sampled: 02/27/10-02/28/10
Received: 02/27/10
Issued: 03/24/10 14:14

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, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.*

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

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

ADDITIONAL INFORMATION: WATER, 1613B, Dioxins/Furans with Totals

Some analytes in this sample and the associated method blank have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Some analytes are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

Complete final report.

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

LABORATORY ID

ITB2836-01

ITB2836-02

CLIENT ID

Outfall 010

Outfall 010 (Comp)

MATRIX

Water

Water

Reviewed By:



TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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ITB2836 <Page 2 of 37>

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-01 (Outfall 010 - Water)					Sampled: 02/27/10				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10C1221	1.3	4.8	ND	1	03/10/10	03/10/10	

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: ug/l									
Mercury	EPA 245.1	10C0382	0.10	0.20	ND	1	03/03/10	03/03/10	
Antimony	EPA 200.8	10C0076	0.30	2.0	0.43	1	03/01/10	03/03/10	Ja
Cadmium	EPA 200.8	10C0076	0.10	1.0	0.19	1	03/01/10	03/03/10	Ja
Copper	EPA 200.8	10C0076	0.50	2.0	5.4	1	03/01/10	03/02/10	B
Lead	EPA 200.8	10C0076	0.20	1.0	2.2	1	03/01/10	03/02/10	
Thallium	EPA 200.8	10C0076	0.20	1.0	ND	1	03/01/10	03/02/10	

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	10C0102	0.10	0.20	ND	1	03/01/10	03/01/10	
Antimony	EPA 200.8-Diss	10C0170	0.30	2.0	0.42	1	03/02/10	03/03/10	Ja
Cadmium	EPA 200.8-Diss	10C0170	0.10	1.0	ND	1	03/02/10	03/02/10	C
Copper	EPA 200.8-Diss	10C0170	0.50	2.0	1.3	1	03/02/10	03/02/10	Ja
Lead	EPA 200.8-Diss	10C0170	0.20	1.0	ND	1	03/02/10	03/02/10	
Thallium	EPA 200.8-Diss	10C0170	0.20	1.0	ND	1	03/02/10	03/02/10	

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: mg/l									
Chloride	EPA 300.0	10B3357	0.25	0.50	12	1	02/28/10	02/28/10	M1
Nitrate/Nitrite-N	EPA 300.0	10B3357	0.15	0.26	0.80	1	02/28/10	02/28/10	
Sulfate	EPA 300.0	10B3357	0.20	0.50	11	1	02/28/10	02/28/10	
Total Dissolved Solids	SM2540C	10C0449	1.0	10	180	1	03/04/10	03/04/10	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	64219	0.000027	0.000047	9e-005	0.94	03/05/10	03/09/10	
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	64219	0.0000075	0.000047	1.9e-005	0.94	03/05/10	03/09/10	J
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	64219	0.00001	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,4,7,8-HxCDD	EPA-5 1613B	64219	0.000011	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,4,7,8-HxCDF	EPA-5 1613B	64219	0.000004	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,6,7,8-HxCDD	EPA-5 1613B	64219	0.0000092	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,6,7,8-HxCDF	EPA-5 1613B	64219	0.0000035	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,7,8,9-HxCDD	EPA-5 1613B	64219	0.0000079	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,7,8,9-HxCDF	EPA-5 1613B	64219	0.0000038	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,7,8-PeCDD	EPA-5 1613B	64219	0.0000077	0.000047	ND	0.94	03/05/10	03/09/10	
1,2,3,7,8-PeCDF	EPA-5 1613B	64219	0.0000036	0.000047	ND	0.94	03/05/10	03/09/10	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	64219	0.000034	0.000047	ND	0.94	03/05/10	03/09/10	
2,3,4,7,8-PeCDF	EPA-5 1613B	64219	0.0000045	0.000047	ND	0.94	03/05/10	03/09/10	
2,3,7,8-TCDD	EPA-5 1613B	64219	0.0000035	0.0000094	ND	0.94	03/05/10	03/09/10	
2,3,7,8-TCDF	EPA-5 1613B	64219	0.000002	0.0000094	ND	0.94	03/05/10	03/09/10	
OCDD	EPA-5 1613B	64219	0.000032	0.000094	0.00096	0.94	03/05/10	03/09/10	
OCDF	EPA-5 1613B	64219	0.000014	0.000094	0.00021	0.94	03/05/10	03/09/10	
Total HpCDD	EPA-5 1613B	64219	0.000027	0.000047	0.00015	0.94	03/05/10	03/09/10	Q
Total HpCDF	EPA-5 1613B	64219	0.0000075	0.000047	0.00011	0.94	03/05/10	03/09/10	J
Total HxCDD	EPA-5 1613B	64219	0.0000079	0.000047	ND	0.94	03/05/10	03/09/10	
Total HxCDF	EPA-5 1613B	64219	0.0000034	0.000047	7.6e-006	0.94	03/05/10	03/09/10	J, Q
Total PeCDD	EPA-5 1613B	64219	0.0000077	0.000047	1.3e-005	0.94	03/05/10	03/09/10	J, Q, Ba
Total PeCDF	EPA-5 1613B	64219	0.0000028	0.000047	5.2e-006	0.94	03/05/10	03/09/10	J, Q
Total TCDD	EPA-5 1613B	64219	0.0000035	0.0000094	ND	0.94	03/05/10	03/09/10	
Total TCDF	EPA-5 1613B	64219	0.000002	0.0000094	ND	0.94	03/05/10	03/09/10	

Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)	45 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)	46 %
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)	42 %
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)	46 %
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)	49 %
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)	53 %
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)	49 %
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)	44 %
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)	42 %
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)	40 %
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)	51 %
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)	40 %
Surrogate: 13C-2,3,7,8-TCDD (25-164%)	45 %
Surrogate: 13C-2,3,7,8-TCDF (24-169%)	40 %
Surrogate: 13C-OCDD (17-157%)	43 %
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)	84 %

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Kathleen A. Robb For Heather Clark
Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	67296	0.21	0.693	0.528	1	03/10/10	03/12/10	Jb

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	68099	2.3	3	1.9	1	03/09/10	03/14/10	U
Gross Beta	EPA 900.0 MOD	68099	1.3	4	4.5	1	03/09/10	03/14/10	

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Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	61272	15	20	0.4	1	03/02/10	03/17/10	U
Potassium 40	EPA 901.1 MOD	61272	250	NA	-50	1	03/02/10	03/17/10	U

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Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	61258	0.18	1	0.16	1	03/02/10	03/18/10	U

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Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	61259	0.62	1	-0.01	1	03/02/10	03/18/10	U

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Received: 02/27/10

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	61262	0.44	3	0.08	1	03/02/10	03/11/10	U

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Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)					Sampled: 02/28/10				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	67136	130	500	130	1	03/08/10	03/09/10	Jb

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Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 010 (Comp) (ITB2836-02) - Water					
EPA 300.0	2	02/28/2010 03:00	02/27/2010 17:25	02/28/2010 17:45	02/28/2010 19:52
Filtration	1	02/28/2010 03:00	02/27/2010 17:25	02/28/2010 15:00	02/28/2010 15:00

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

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
Batch: 10C1221 Extracted: 03/10/10											
Blank Analyzed: 03/10/2010 (10C1221-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 03/10/2010 (10C1221-BS1)											
Hexane Extractable Material (Oil & Grease)	19.3	5.0	1.4	mg/l	20.0		96	78-114			MNR1
LCS Dup Analyzed: 03/10/2010 (10C1221-BSD1)											
Hexane Extractable Material (Oil & Grease)	19.6	5.0	1.4	mg/l	20.0		98	78-114	2	11	

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C0076 Extracted: 03/01/10											
Blank Analyzed: 03/02/2010-03/03/2010 (10C0076-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	0.606	2.0	0.50	ug/l							Ja
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 03/02/2010-03/03/2010 (10C0076-BS1)											
Antimony	77.6	2.0	0.30	ug/l	80.0		97	85-115			
Cadmium	79.1	1.0	0.10	ug/l	80.0		99	85-115			
Copper	86.5	2.0	0.50	ug/l	80.0		108	85-115			
Lead	82.4	1.0	0.20	ug/l	80.0		103	85-115			
Thallium	84.7	1.0	0.20	ug/l	80.0		106	85-115			
Matrix Spike Analyzed: 03/02/2010-03/03/2010 (10C0076-MS1)						Source: ITB2772-01					
Antimony	77.9	2.0	0.30	ug/l	80.0	0.463	97	70-130			
Cadmium	75.8	1.0	0.10	ug/l	80.0	0.142	95	70-130			
Copper	85.5	2.0	0.50	ug/l	80.0	2.38	104	70-130			
Lead	81.1	1.0	0.20	ug/l	80.0	0.372	101	70-130			
Thallium	84.3	1.0	0.20	ug/l	80.0	ND	105	70-130			
Matrix Spike Analyzed: 03/02/2010-03/03/2010 (10C0076-MS2)						Source: ITB2772-06					
Antimony	79.4	2.0	0.30	ug/l	80.0	0.471	99	70-130			
Cadmium	76.6	1.0	0.10	ug/l	80.0	ND	96	70-130			
Copper	86.3	2.0	0.50	ug/l	80.0	2.90	104	70-130			
Lead	77.6	1.0	0.20	ug/l	80.0	0.300	97	70-130			
Thallium	81.3	1.0	0.20	ug/l	80.0	ND	102	70-130			
Matrix Spike Dup Analyzed: 03/02/2010-03/03/2010 (10C0076-MSD1)						Source: ITB2772-01					
Antimony	79.5	2.0	0.30	ug/l	80.0	0.463	99	70-130	2	20	
Cadmium	77.4	1.0	0.10	ug/l	80.0	0.142	97	70-130	2	20	
Copper	85.6	2.0	0.50	ug/l	80.0	2.38	104	70-130	0.2	20	
Lead	77.7	1.0	0.20	ug/l	80.0	0.372	97	70-130	4	20	
Thallium	80.9	1.0	0.20	ug/l	80.0	ND	101	70-130	4	20	

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Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C0382 Extracted: 03/03/10											
Blank Analyzed: 03/03/2010 (10C0382-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/03/2010 (10C0382-BS1)											
Mercury	7.92	0.20	0.10	ug/l	8.00		99	85-115			
Matrix Spike Analyzed: 03/03/2010 (10C0382-MS1)											
						Source: ITB2842-01					
Mercury	7.64	0.20	0.10	ug/l	8.00	ND	96	70-130			
Matrix Spike Dup Analyzed: 03/03/2010 (10C0382-MSD1)											
						Source: ITB2842-01					
Mercury	7.71	0.20	0.10	ug/l	8.00	ND	96	70-130	0.9	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 Limit	Data Qualifiers
<u>Batch: 10C0102 Extracted: 03/01/10</u>											
Blank Analyzed: 03/01/2010 (10C0102-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 03/01/2010 (10C0102-BS1)											
Mercury	8.33	0.20	0.10	ug/l	8.00		104	85-115			
Matrix Spike Analyzed: 03/01/2010 (10C0102-MS1)											
						Source: ITB2742-01					
Mercury	7.92	0.20	0.10	ug/l	8.00	ND	99	70-130			
Matrix Spike Dup Analyzed: 03/01/2010 (10C0102-MSD1)											
						Source: ITB2742-01					
Mercury	7.89	0.20	0.10	ug/l	8.00	ND	99	70-130	0.5	20	
<u>Batch: 10C0170 Extracted: 03/02/10</u>											
Blank Analyzed: 03/02/2010-03/03/2010 (10C0170-BLK1)											
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 03/02/2010-03/03/2010 (10C0170-BS1)											
Antimony	78.7	2.0	0.30	ug/l	80.0		98	85-115			
Cadmium	78.9	1.0	0.10	ug/l	80.0		99	85-115			
Copper	81.1	2.0	0.50	ug/l	80.0		101	85-115			
Lead	79.7	1.0	0.20	ug/l	80.0		100	85-115			
Thallium	82.1	1.0	0.20	ug/l	80.0		103	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
Batch: 10C0170 Extracted: 03/02/10											
Matrix Spike Analyzed: 03/02/2010-03/03/2010 (10C0170-MS1)						Source: ITB2772-06					
Antimony	80.3	2.0	0.30	ug/l	80.0	0.432	100	70-130			
Cadmium	92.3	1.0	0.10	ug/l	80.0	ND	115	70-130			
Copper	82.5	2.0	0.50	ug/l	80.0	1.33	101	70-130			
Lead	77.7	1.0	0.20	ug/l	80.0	ND	97	70-130			
Thallium	79.7	1.0	0.20	ug/l	80.0	ND	100	70-130			
Matrix Spike Dup Analyzed: 03/02/2010-03/03/2010 (10C0170-MSD1)						Source: ITB2772-06					
Antimony	80.3	2.0	0.30	ug/l	80.0	0.432	100	70-130	0.02	20	
Cadmium	93.8	1.0	0.10	ug/l	80.0	ND	117	70-130	2	20	
Copper	83.0	2.0	0.50	ug/l	80.0	1.33	102	70-130	0.7	20	
Lead	78.1	1.0	0.20	ug/l	80.0	ND	98	70-130	0.5	20	
Thallium	81.2	1.0	0.20	ug/l	80.0	ND	102	70-130	2	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
Batch: 10B3357 Extracted: 02/28/10											
Blank Analyzed: 02/28/2010 (10B3357-BLK1)											
Chloride	ND	0.50	0.25	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/28/2010 (10B3357-BS1)											
Chloride	4.92	0.50	0.25	mg/l	5.00		98	90-110			
Sulfate	10.5	0.50	0.20	mg/l	10.0		105	90-110			
Matrix Spike Analyzed: 02/28/2010 (10B3357-MS1)											
						Source: ITB2835-02					
Chloride	9.18	0.50	0.25	mg/l	5.00	3.82	107	80-120			
Sulfate	16.6	0.50	0.20	mg/l	10.0	5.52	110	80-120			
Matrix Spike Analyzed: 03/01/2010 (10B3357-MS2)											
						Source: ITB2836-02					
Chloride	17.7	0.50	0.25	mg/l	5.00	11.6	121	80-120			MI
Sulfate	21.7	0.50	0.20	mg/l	10.0	11.0	107	80-120			
Matrix Spike Dup Analyzed: 02/28/2010 (10B3357-MSD1)											
						Source: ITB2835-02					
Chloride	9.08	0.50	0.25	mg/l	5.00	3.82	105	80-120	1	20	
Sulfate	17.6	0.50	0.20	mg/l	10.0	5.52	120	80-120	6	20	
Batch: 10C0449 Extracted: 03/04/10											
Blank Analyzed: 03/04/2010 (10C0449-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 03/04/2010 (10C0449-BS1)											
Total Dissolved Solids	1000	10	1.0	mg/l	1000		100	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
Batch: 10C0449 Extracted: 03/04/10											
Duplicate Analyzed: 03/04/2010 (10C0449-DUP1)											
Total Dissolved Solids	1480	20	2.0	mg/l		1500			1	10	

Source: ITB2775-01

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 64219 Extracted: 03/05/10											
Blank Analyzed: 03/09/2010 (G0C050000219B)						Source:					
1,2,3,4,6,7,8-HpCDD	ND	0.00005	0.000016	ug/L				-			
1,2,3,4,6,7,8-HpCDF	ND	0.00005	0.0000034	ug/L				-			
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.0000055	ug/L				-			
1,2,3,4,7,8-HxCDD	ND	0.00005	0.0000048	ug/L				-			
1,2,3,4,7,8-HxCDF	ND	0.00005	0.0000025	ug/L				-			
1,2,3,6,7,8-HxCDD	ND	0.00005	0.0000048	ug/L				-			
1,2,3,6,7,8-HxCDF	ND	0.00005	0.0000022	ug/L				-			
1,2,3,7,8,9-HxCDD	ND	0.00005	0.0000039	ug/L				-			
1,2,3,7,8,9-HxCDF	ND	0.00005	0.0000022	ug/L				-			
1,2,3,7,8-PeCDD	ND	0.00005	0.000004	ug/L				-			
1,2,3,7,8-PeCDF	ND	0.00005	0.0000031	ug/L				-			
2,3,4,6,7,8-HxCDF	ND	0.00005	0.000002	ug/L				-			
2,3,4,7,8-PeCDF	ND	0.00005	0.0000036	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.0000022	ug/L				-			
2,3,7,8-TCDF	ND	0.00001	0.0000016	ug/L				-			
OCDD	ND	0.0001	0.000017	ug/L				-			
OCDF	ND	0.0001	0.0000083	ug/L				-			
Total HpCDD	ND	0.00005	0.000016	ug/L				-			
Total HpCDF	ND	0.00005	0.0000034	ug/L				-			
Total HxCDD	ND	0.00005	0.0000039	ug/L				-			
Total HxCDF	ND	0.00005	0.000002	ug/L				-			
Total PeCDD	1e-005	0.00005	0.000004	ug/L				-			J, Q
Total PeCDF	ND	0.00005	0.0000022	ug/L				-			
Total TCDD	ND	0.00001	0.0000022	ug/L				-			
Total TCDF	ND	0.00001	0.0000016	ug/L				-			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.0012			ug/L	0.002		61	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.0015			ug/L	0.002		73	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0011			ug/L	0.002		57	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.0013			ug/L	0.002		67	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.0013			ug/L	0.002		66	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.0015			ug/L	0.002		76	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.0014			ug/L	0.002		72	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.0014			ug/L	0.002		69	29-147			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.001			ug/L	0.002		50	25-181			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.0098			ug/L	0.002		49	24-185			

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 64219 Extracted: 03/05/10											
Blank Analyzed: 03/09/2010 (G0C050000219B)						Source:					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0015			ug/L	0.002		73	28-136			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00095			ug/L	0.002		48	21-178			
Surrogate: 13C-2,3,7,8-TCDD	0.00094			ug/L	0.002		47	25-164			
Surrogate: 13C-2,3,7,8-TCDF	0.00081			ug/L	0.002		40	24-169			
Surrogate: 13C-OCDD	0.0021			ug/L	0.004		52	17-157			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.00069			ug/L	0.0008		87	35-197			
LCS Analyzed: 03/09/2010 (G0C050000219C)						Source:					
1,2,3,4,6,7,8-HpCDD	0.000991	0.00005	0.00002	ug/L	0.001		99	70-140			
1,2,3,4,6,7,8-HpCDF	0.000953	0.00005	0.0000068	ug/L	0.001		95	82-122			
1,2,3,4,7,8,9-HpCDF	0.000998	0.00005	0.0000096	ug/L	0.001		100	78-138			
1,2,3,4,7,8-HxCDD	0.00105	0.00005	0.0000063	ug/L	0.001		105	70-164			
1,2,3,4,7,8-HxCDF	0.000993	0.00005	0.0000042	ug/L	0.001		99	72-134			
1,2,3,6,7,8-HxCDD	0.00101	0.00005	0.0000059	ug/L	0.001		101	76-134			
1,2,3,6,7,8-HxCDF	0.00102	0.00005	0.0000036	ug/L	0.001		102	84-130			
1,2,3,7,8,9-HxCDD	0.000988	0.00005	0.0000048	ug/L	0.001		99	64-162			
1,2,3,7,8,9-HxCDF	0.00102	0.00005	0.0000036	ug/L	0.001		102	78-130			
1,2,3,7,8-PeCDD	0.000934	0.00005	0.0000075	ug/L	0.001		93	70-142			
1,2,3,7,8-PeCDF	0.00101	0.00005	0.0000034	ug/L	0.001		101	80-134			
2,3,4,6,7,8-HxCDF	0.000967	0.00005	0.0000033	ug/L	0.001		97	70-156			
2,3,4,7,8-PeCDF	0.00102	0.00005	0.0000037	ug/L	0.001		102	68-160			
2,3,7,8-TCDD	0.000183	0.00001	0.000002	ug/L	0.0002		91	67-158			
2,3,7,8-TCDF	0.000199	0.00001	0.0000017	ug/L	0.0002		100	75-158			
OCDD	0.00196	0.0001	0.000025	ug/L	0.002		98	78-144			
OCDF	0.00191	0.0001	0.000013	ug/L	0.002		95	63-170			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00141			ug/L	0.002		71	26-166			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00153			ug/L	0.002		76	21-158			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.00133			ug/L	0.002		67	20-186			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00138			ug/L	0.002		69	21-193			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00148			ug/L	0.002		74	19-202			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00164			ug/L	0.002		82	25-163			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00155			ug/L	0.002		77	21-159			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00145			ug/L	0.002		72	17-205			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00123			ug/L	0.002		61	21-227			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00122			ug/L	0.002		61	21-192			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00165			ug/L	0.002		82	22-176			

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METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 64219 Extracted: 03/05/10											
LCS Analyzed: 03/09/2010 (G0C050000219C)						Source:					
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00125			ug/L	0.002		63	13-328			
Surrogate: 13C-2,3,7,8-TCDD	0.00107			ug/L	0.002		53	20-175			
Surrogate: 13C-2,3,7,8-TCDF	0.000951			ug/L	0.002		48	22-152			
Surrogate: 13C-OCDD	0.00238			ug/L	0.004		59	13-199			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.000717			ug/L	0.0008		90	31-191			
LCS Dup Analyzed: 03/09/2010 (G0C050000219L)						Source:					
1,2,3,4,6,7,8-HpCDD	0.00111	0.00005	0.000022	ug/L	0.001		111	70-140	11	50	
1,2,3,4,6,7,8-HpCDF	0.00104	0.00005	0.000087	ug/L	0.001		104	82-122	8.7	50	
1,2,3,4,7,8,9-HpCDF	0.00105	0.00005	0.000013	ug/L	0.001		105	78-138	4.8	50	
1,2,3,4,7,8-HxCDD	0.001	0.00005	0.0000071	ug/L	0.001		100	70-164	5	50	
1,2,3,4,7,8-HxCDF	0.00104	0.00005	0.0000064	ug/L	0.001		104	72-134	4.8	50	
1,2,3,6,7,8-HxCDD	0.00101	0.00005	0.0000068	ug/L	0.001		101	76-134	0.27	50	
1,2,3,6,7,8-HxCDF	0.00106	0.00005	0.0000055	ug/L	0.001		106	84-130	3.8	50	
1,2,3,7,8,9-HxCDD	0.00095	0.00005	0.0000055	ug/L	0.001		95	64-162	3.9	50	
1,2,3,7,8,9-HxCDF	0.00105	0.00005	0.0000058	ug/L	0.001		105	78-130	2.8	50	
1,2,3,7,8-PeCDD	0.000991	0.00005	0.0000075	ug/L	0.001		99	70-142	6	50	
1,2,3,7,8-PeCDF	0.00105	0.00005	0.0000058	ug/L	0.001		105	80-134	3.6	50	
2,3,4,6,7,8-HxCDF	0.001	0.00005	0.0000052	ug/L	0.001		100	70-156	3.6	50	
2,3,4,7,8-PeCDF	0.00105	0.00005	0.0000066	ug/L	0.001		105	68-160	3.2	50	
2,3,7,8-TCDD	0.000186	0.00001	0.0000023	ug/L	0.0002		93	67-158	1.7	50	
2,3,7,8-TCDF	0.000212	0.00001	0.000002	ug/L	0.0002		106	75-158	6.2	50	
OCDD	0.00229	0.0001	0.000041	ug/L	0.002		115	78-144	16	50	
OCDF	0.00217	0.0001	0.000021	ug/L	0.002		108	63-170	13	50	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.001			ug/L	0.002		50	26-166			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00119			ug/L	0.002		59	21-158			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.001			ug/L	0.002		50	20-186			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00113			ug/L	0.002		56	21-193			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00117			ug/L	0.002		59	19-202			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00127			ug/L	0.002		64	25-163			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00122			ug/L	0.002		61	21-159			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00113			ug/L	0.002		57	17-205			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.000927			ug/L	0.002		46	21-227			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.000872			ug/L	0.002		44	21-192			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00127			ug/L	0.002		64	22-176			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.000905			ug/L	0.002		45	13-328			

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 64219 Extracted: 03/05/10											
LCS Dup Analyzed: 03/09/2010 (G0C050000219L)											
Surrogate: 13C-2,3,7,8-TCDD	0.000855			ug/L	0.002		43	20-175			
Surrogate: 13C-2,3,7,8-TCDF	0.000762			ug/L	0.002		38	22-152			
Surrogate: 13C-OCDD	0.00168			ug/L	0.004		42	13-199			
Surrogate: 37C14-2,3,7,8-TCDD	0.000666			ug/L	0.0008		83	31-191			

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Kathleen A. Robb For Heather Clark
 Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 67296 Extracted: 03/10/10											
Matrix Spike Dup Analyzed: 03/12/2010 (F0B230452001D)						Source: F0B230452001					
Total Uranium	26.9	0.7	0.2	pCi/L	27.7	0.677	95	62-150	4	20	
Matrix Spike Analyzed: 03/12/2010 (F0B230452001S)						Source: F0B230452001					
Total Uranium	28.1	0.7	0.2	pCi/L	27.7	0.677	99	62-150			
Blank Analyzed: 03/12/2010 (F0C080000296B)						Source:					
Total Uranium	0.315	0.693	0.21	pCi/L				-			Jb
LCS Analyzed: 03/12/2010 (F0C080000296C)						Source:					
Total Uranium	28.6	0.7	0.2	pCi/L	27.7		103	90-120			

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 618 Michillinda Avenue, Suite 200
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Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 68099 Extracted: 03/09/10											
Matrix Spike Analyzed: 03/14/2010 (F0C020462001S)						Source: F0C020462001					
Gross Alpha	47.1	3	1.1	pCi/L	49.4	2.1	91	35-150			
Gross Beta	74.2	4	1	pCi/L	68	1.5	107	54-150			
Duplicate Analyzed: 03/18/2010 (F0C020462001X)						Source: F0C020462001					
Gross Alpha	1.89	3	1.1	pCi/L		2.1		-			Jb
Gross Beta	1.52	4	0.94	pCi/L		1.5		-			Jb
Blank Analyzed: 03/15/2010 (F0C090000099B)						Source:					
Gross Alpha	0.66	2	0.85	pCi/L				-			U
Gross Beta	0.69	4	1	pCi/L				-			U
LCS Analyzed: 03/15/2010 (F0C090000099C)						Source:					
Gross Alpha	51.5	3	1	pCi/L	49.4		104	62-134			
Gross Beta	63.9	4	0.8	pCi/L	68		94	58-133			

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Kathleen A. Robb For Heather Clark
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 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 61272 Extracted: 03/02/10											
Blank Analyzed: 03/16/2010 (F0C020000272B)											
Cesium 137	1.4	20	12	pCi/L							U
Potassium 40	-60	NA	220	pCi/L							U
LCS Analyzed: 03/17/2010 (F0C020000272C)											
Americium 241	146000	NA	600	pCi/L	141000		103	87-110			
Cobalt 60	85500	NA	200	pCi/L	87900		97	89-110			
Cesium 137	52300	20	300	pCi/L	53100		98	90-110			
Duplicate Analyzed: 03/17/2010 (F0C020462001X)											
Cesium 137	1.6	20	16	pCi/L		-1.6					U
Potassium 40	-80	NA	200	pCi/L		-80					U

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 61258 Extracted: 03/02/10											
Blank Analyzed: 03/18/2010 (F0C020000258B)											
Radium (226)	0.079	1	0.15	pCi/L				-			U
LCS Analyzed: 03/18/2010 (F0C020000258C)											
Radium (226)	12.4	1	0.1	pCi/L	11.3		110	68-136			
LCS Dup Analyzed: 03/18/2010 (F0C020000258L)											
Radium (226)	12	1	0.1	pCi/L	11.3		107	68-136	3	40	

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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 61259 Extracted: 03/02/10											
Blank Analyzed: 03/18/2010 (F0C020000259B)											
Radium 228	0.47	1	0.3	pCi/L				-			Jb
LCS Analyzed: 03/18/2010 (F0C020000259C)											
Radium 228	6.04	1	0.42	pCi/L	6.37		95	60-142			
LCS Dup Analyzed: 03/18/2010 (F0C020000259L)											
Radium 228	6	1	0.33	pCi/L	6.37		94	60-142	0.5	40	

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Kathleen A. Robb For Heather Clark
 Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 61262 Extracted: 03/02/10											
Blank Analyzed: 03/11/2010 (F0C020000262B)											
Strontium 90	0.15	3	0.37	pCi/L				-			U
LCS Analyzed: 03/11/2010 (F0C020000262C)											
Strontium 90	6.99	3	0.33	pCi/L	6.79		103	80-130			
LCS Dup Analyzed: 03/11/2010 (F0C020000262L)											
Strontium 90	6.53	3	0.35	pCi/L	6.79		96	80-130	7	40	

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 Project Manager

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 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
 Received: 02/27/10

METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 67136 Extracted: 03/08/10											
Duplicate Analyzed: 03/09/2010 (F0C020462001X)						Source: F0C020462001					
Tritium	86	500	130	pCi/L		49	-				U
Matrix Spike Analyzed: 03/09/2010 (F0C020465001S)						Source: ITB2836-02					
Tritium	4260	500	130	pCi/L	4520	130	92	62-147			
Blank Analyzed: 03/09/2010 (F0C080000136B)						Source:					
Tritium	163	500	130	pCi/L							Jb
LCS Analyzed: 03/09/2010 (F0C080000136C)						Source:					
Tritium	4700	500	130	pCi/L	4520		104	85-112			

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Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ITB2836-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0	4.8	15

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits appear in bold on this page.

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
ITB2836-02	Antimony-200.8	Antimony	ug/l	0.43	2.0	6
ITB2836-02	Cadmium-200.8	Cadmium	ug/l	0.19	1.0	4
ITB2836-02	Chloride - 300.0	Chloride	mg/l	12	0.50	150
ITB2836-02	Copper-200.8	Copper	ug/l	5.37	2.0	14
ITB2836-02	Lead-200.8	Lead	ug/l	2.16	1.0	5.2
ITB2836-02	Nitrogen, NO3+NO2 -N EPA 300.0	Nitrate/Nitrite-N	mg/l	0.80	0.26	10
ITB2836-02	Sulfate-300.0	Sulfate	mg/l	11	0.50	250
ITB2836-02	TDS - SM2540C	Total Dissolved Solids	mg/l	175	10	850
ITB2836-02	Thallium-200.8	Thallium	ug/l	0.054	1.0	2

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Project Manager

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618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
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Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- Ba** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- C** Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- J** Estimated result. Result is less than the reporting limit.
- Ja** 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.
- Jb** Result is greater than sample detection limit but less than stated reporting limit.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- Q** Estimated maximum possible concentration (EMPC).
- U** Result is less than the sample detection limit.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 1664A	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
Filtration	Water	N/A	N/A
SM2540C	Water	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

Subcontracted Laboratories

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITB2836-02

Method Performed: EPA 900.0 MOD
Samples: ITB2836-02

Method Performed: EPA 901.1 MOD
Samples: ITB2836-02

Method Performed: EPA 903.0 MOD
Samples: ITB2836-02

Method Performed: EPA 904 MOD
Samples: ITB2836-02

Method Performed: EPA 905 MOD
Samples: ITB2836-02

Method Performed: EPA 906.0 MOD
Samples: ITB2836-02

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager

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

Project ID: Routine Outfall 010

Report Number: ITB2836

Sampled: 02/27/10-02/28/10
Received: 02/27/10

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: ITB2836-02

TestAmerica Irvine

Kathleen A. Robb For Heather Clark
Project Manager



TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. ITB2836

MWH-Pasadena Boeing

Lot #: F0C020465

Joseph Doak

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

TESTAMERICA LABORATORIES, INC.

A handwritten signature in cursive script that reads "Kay Clay".

Kay Clay
Project Manager

March 23, 2010

Case Narrative
LOT NUMBER: F0C020465

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on March 2, 2010. This sample is associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements, except as noted on the following page.

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. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

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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 nonconformances or observations noted with any analysis on this lot.

METHODS SUMMARY

FOC020465

<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	
Radium-228 by GFPC	EPA 904 MOD	
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

F0C020465

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LV7MV	001	ITB2836-02	02/28/10	03:00

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: ITB2836-02

Radiochemistry

Lab Sample ID: F0C020465-001
 Work Order: LV7MV
 Matrix: WATER

Date Collected: 02/28/10 0300
 Date Received: 03/02/10 0915

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD							
				pCi/L		Batch # 0061272	Yld %
Cesium 137	0.4	U	7.7	20.0	15	03/02/10	03/17/10
Potassium 40	-50	U	310		250	03/02/10	03/17/10
Gross Alpha/Beta EPA 900							
				pCi/L		Batch # 0068099	Yld %
Gross Alpha	1.9	U	1.5	3.0	2.3	03/09/10	03/14/10
Gross Beta	4.5		1.1	4.0	1.3	03/09/10	03/14/10
SR-90 BY GFPC EPA-905 MOD							
				pCi/L		Batch # 0061262	Yld % 61
Strontium 90	0.08	U	0.25	3.00	0.44	03/02/10	03/11/10
TRITIUM (Distill) by EPA 906.0 MOD							
				pCi/L		Batch # 0067136	Yld %
Tritium	130	J	92	500	130	03/08/10	03/09/10
Total Uranium by KPA ASTM 5174-91							
				pCi/L		Batch # 0067296	Yld %
Total Uranium	0.528	J	0.062	0.693	0.21	03/10/10	03/12/10
Radium 226 by EPA 903.0 MOD							
				pCi/L		Batch # 0061258	Yld % 59
Radium (226)	0.16	U	0.13	1.00	0.18	03/02/10	03/18/10
Radium 228 by GFPC EPA 904 MOD							
				pCi/L		Batch # 0061259	Yld % 56
Radium 228	-0.01	U	0.35	1.00	0.62	03/02/10	03/18/10

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: FOC020465
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	0061258	Yld %	102 FOC020000-258B
Radium (226)	0.079	U	0.096	1.00	0.15	03/02/10	03/18/10
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	0061259	Yld %	98 FOC020000-259B
Radium 228	0.47	J	0.22	1.00	0.30	03/02/10	03/18/10
SR-90 BY GFPC EPA-905 MOD			pCi/L	Batch #	0061262	Yld %	76 FOC020000-262B
Strontium 90	0.15	U	0.22	3.00	0.37	03/02/10	03/11/10
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	0061272	Yld %	FOC020000-272B
Cesium 137	1.4	U	6.8	20.0	12	03/02/10	03/16/10
Potassium 40	-60	U	270		220	03/02/10	03/16/10
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	Batch #	0067136	Yld %	FOC080000-136B
Tritium	163	J	99	500	130	03/08/10	03/09/10
Gross Alpha/Beta EPA 900			pCi/L	Batch #	0068099	Yld %	FOC090000-099B
Gross Alpha	0.66	U	0.59	2.00	0.85	03/09/10	03/15/10
Gross Beta	0.69	U	0.65	4.00	1.0	03/09/10	03/15/10
Total Uranium by KPA ASTM 5174-91			pCi/L	Batch #	0067296	Yld %	FOC080000-296B
Total Uranium	0.315	J	0.039	0.693	0.21	03/10/10	03/12/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using 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.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0C020465
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F0C020000-272C
Americium 241	141000	146000	11000	600		103	(87 - 110)
Cesium 137	53100	52300	3000	300		98	(90 - 110)
Cobalt 60	87900	85500	4800	200		97	(89 - 110)
	Batch #:	0061272				Analysis Date:	03/17/10
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			F0C080000-136C
Tritium	4520	4700	480	130		104	(85 - 112)
	Batch #:	0067136				Analysis Date:	03/09/10
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			F0C080000-296C
Total Uranium	27.7	28.6	3.5	0.2		103	(90 - 120)
	Batch #:	0067296				Analysis Date:	03/12/10
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			F0C080000-296C
Total Uranium	5.54	5.62	0.58	0.21		101	(90 - 120)
	Batch #:	0067296				Analysis Date:	03/12/10
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0C090000-099C
Gross Beta	68.0	63.9	5.4	0.8		94	(58 - 133)
	Batch #:	0068099				Analysis Date:	03/15/10
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0C090000-099C
Gross Alpha	49.4	51.5	5.8	1.0		104	(62 - 134)
	Batch #:	0068099				Analysis Date:	03/15/10

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: F0C020465
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
Radium 226 by EPA	903.0 MOD	pCi/L	903.0 MOD			F0C020000-258C	
Radium (226)	11.3	12.4	1.2	104	110	(68 - 136)	
Spk 2	11.3	12.0	1.2	105	107	(68 - 136) 3 %RPD	
	Batch #:	0061258		Analysis Date: 03/18/10			
Radium 228 by GFPC EPA	904 MOD	pCi/L	904 MOD			F0C020000-259C	
Radium 228	6.37	6.04	0.73	99	95	(60 - 142)	
Spk 2	6.37	6.00	0.71	103	94	(60 - 142) 0.5 %RPD	
	Batch #:	0061259		Analysis Date: 03/18/10			
SR-90 BY GFPC EPA	905 MOD	pCi/L	905 MOD			F0C020000-262C	
Strontium 90	6.79	6.99	0.80	77	103	(80 - 130)	
Spk 2	6.79	6.53	0.76	77	96	(80 - 130) 7 %RPD	
	Batch #:	0061262		Analysis Date: 03/11/10			

NOTE(S)

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

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: FOC020462
 Matrix: WATER

Date Sampled: 02/26/10
 Date Received: 03/02/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2 σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID		QC Control Limits
							%YLD	%REC	
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			FOC020462-001		
Gross Alpha	49.4	47.1	5.5		2.1	1.2		91	(35 - 150)
	Batch #:	0068099		Analysis Date:		03/14/10			
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			FOC020462-001		
Gross Beta	68.0	74.2	6.2		1.50	0.79		107	(54 - 150)
	Batch #:	0068099		Analysis Date:		03/14/10			
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			FOC020465-001		
Tritium	4520	4260	450		130	92		92	(62 - 147)
	Batch #:	0067136		Analysis Date:		03/09/10			

NOTE(S)

Data are incomplete without the case narrative.

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: FOB230452
 Matrix: WATER

Date Sampled: 02/20/10 1349
 Date Received: 02/23/10 0910

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		FOB230452-001			
Total Uranium	27.7	28.1	3.4	0.677	J	0.074	99		(62 - 150)
Spk2	27.7	26.9	3.3	0.677	J	0.074	95		(62 - 150)
							Precision:	4	%RPD
Batch #:			0067296	Analysis date:		03/12/10			

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

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0C020465
 Matrix: WATER

Date Sampled: 02/26/10
 Date Received: 03/02/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ +/-)	% Yld	QC Sample ID	
									Precision
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	901.1 MOD			F0C020462-001	
Cesium 137	-1.6	U	6.8		1.6	U	8.4	5730	%RPD
Potassium 40	-80	U	440		-80	U	3300	2	%RPD
	Batch #:		0061272 (Sample)		0061272 (Duplicate)				
TRITIUM (Distill) by EPA 906.0 MOD				pCi/L	906.0 MOD			F0C020462-001	
Tritium	49	U	79		86	U	84	55	%RPD
	Batch #:		0067136 (Sample)		0067136 (Duplicate)				
Gross Alpha/Beta EPA 900				pCi/L	900.0 MOD			F0C020462-001	
Gross Alpha	2.1	J	1.2		1.89	J	0.97	9	%RPD
Gross Beta	1.50	J	0.79		1.52	J	0.70	1	%RPD
	Batch #:		0068099 (Sample)		0068099 (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.

F0C020465

Cent 304

SUBCONTRACT ORDER
TestAmerica Irvine

ITB2836

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
----------	-------	-----	---------	----------------	-------	----------

Sample ID: ITB2836-02 (Outfall 010 (Comp) - Water)

Sampled: 02/28/10 03:00

Gamma Spec-O.	mg/kg	03/10/10	02/28/11 03:00	\$200.00	50%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER!
Gross Alpha-O	pCi/L	03/10/10	08/27/10 03:00	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	03/10/10	08/27/10 03:00	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	03/10/10	03/28/10 03:00	\$0.00	0%	
Radium 226-O	pCi/L	03/10/10	02/28/11 03:00	\$88.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Radium 228-O	pCi/L	03/10/10	02/28/11 03:00	\$84.00	0%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	03/10/10	02/28/11 03:00	\$140.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	03/10/10	02/28/11 03:00	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	03/10/10	02/28/11 03:00	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!

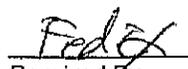
Containers Supplied:

2.5 gal Poly (H) 500 mL Amber (I)

 3/1/10 17:00

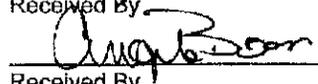
Released By

Date/Time

 3/1/10 17:00

Received By

Date/Time

 3/2/10 9:15

Received By

Date/Time

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): FOC020457; 468

460
462
465
466

CONDITION UPON RECEIPT FORM

Client: TA Irvine

Quote No: 77635; 85044

COC/RFA No: Below

304

Initiated By: AB

Date: 3-2-10

Time: 9:15

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*			Sample Temperature (s):**		
1.	<u>4289 2133 5249</u>	6.	1.	<u>5</u>	6.
2.	<u>5043</u>	7.	2.	<u>ambient</u>	7.
3.	<u>5032</u>	8.	3.	<u>↓</u>	8.
4.	<u>5054</u>	9.	4.		9.
5.		10.	5.		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"/> Y <input type="radio"/> N	Are there custody seals present on the cooler?	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Are there custody seals present on bottles?
2.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Do custody seals on cooler appear to be tampered with?	9.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Do custody seals on bottles appear to be tampered with?
3.	<input checked="" type="radio"/> Y <input type="radio"/> N	Were contents of cooler frisked after opening, but before unpacking?	10.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was sample received with proper pH? (If not, make note below)
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?	11.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	<input checked="" type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	Was sample received broken?	13.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was Internal COC/Workshare received?
7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Is sample volume sufficient for analysis?	14.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Was pH taken by original TestAmerica lab?

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

Notes: COC- ITB 2701 - TAT 3/9/10 per KC

2802827

2837

2835

2829

2751

2766

28310

AB 3-2-10
did not receive COC w/ WS w/ COC

Corrective Action:

Client Contact Name: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____
Project Management Review: Jaymata Pohl

Informed by: _____

If released, notify: _____
Date: 3-4-10

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.

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

APPENDIX G

Section 55

Outfall 010 – BMP Effectiveness February 28, 2010

Test America Analytical Laboratory Report

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LABORATORY REPORT

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

Project: BMP Effectiveness 2009
Effectiveness Monitoring Program

Sampled: 02/28/10
Received: 03/04/10
Issued: 03/17/10 07:36

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 of Custody, 1 page, is included and is an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID

ITC0583-01

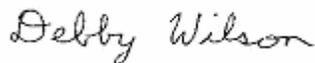
CLIENT ID

010 EFF-1

MATRIX

Water

Reviewed By:



TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

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

Project ID: BMP Effectiveness 2009
Effectiveness Monitoring Program
Report Number: ITC0583

Sampled: 02/28/10
Received: 03/04/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITC0583-01 (010 EFF-1 - Water)									
Reporting Units: g/cc									
Density	Displacement	10C1826	N/A	NA	1.0	1	03/15/10	03/15/10	
Sample ID: ITC0583-01 (010 EFF-1 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	10C1828	10	10	45	1	03/15/10	03/15/10	

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

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

Project ID: BMP Effectiveness 2009
Effectiveness Monitoring Program
Report Number: ITC0583

Sampled: 02/28/10
Received: 03/04/10

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10C1826 Extracted: 03/15/10										
Duplicate Analyzed: 03/15/2010 (10C1826-DUP1)										
Density	0.996	NA	N/A	g/cc		Source: ITC0583-01 0.996		0.05	20	

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ITC0583 <Page 3 of 5>

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

Project ID: BMP Effectiveness 2009
Effectiveness Monitoring Program
Report Number: ITC0583

Sampled: 02/28/10
Received: 03/04/10

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD Relative Percent Difference

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

ITC0583 <Page 4 of 5>

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

Project ID: BMP Effectiveness 2009
Effectiveness Monitoring Program
Report Number: ITC0583

Sampled: 02/28/10
Received: 03/04/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
ASTM D3977	Water		
Displacement	Water		

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

TestAmerica Irvine

Debby Wilson For Heather Clark
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

APPENDIX G

Section 56

Outfall 011 – January 20 & 21, 2010

MEC^X Data Validation Report

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DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITA1668

Prepared by

MEC^x, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: ITA1668
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 2
 No. of Reanalyses/Dilutions: 0
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 011 (Comp)	ITA1668-03	F0A230219-001, G0A230491-001	WATER	1/21/2010 2:06:00 PM	ASTM 5174-91, 180.1, 200.7, 200.7 (Diss), 200.8, 200.8 (Diss), 245.1, 245.1-Diss, 900.0 MOD, 901.1 MOD, 906.0 MOD, 1613B, SM 2540D
Outfall 011 (Comp)	ITA1668-03	F0C150464-001	WATER	1/21/2010 2:06:00 PM	903.0 MOD, 904 MOD, 905 MOD
Outfall 011 (Grab)	ITA1668-01	N/A	Water	1/20/2010 4:40:00 PM	120.1, SM2450F

II. Sample Management

No anomalies were observed regarding sample management. The temperature upon receipt at TestAmerica-St. Louis was noted to be ambient; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratory within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon receipt at TestAmerica-St. Louis and TestAmerica-West Sacramento. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: March 7, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (9/05)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed with the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 16 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had detects between the EDL and the RL for more than half of all compounds, including all of the HxCDD isomers and total HxCDD, 1,2,3,6,7,8-HpCDD and total HpCDD, OCDD, total HxCDF and all of the HxCDF isomers except 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF and total HpCDF, and OCDF. Although the laboratory "B" qualifier was not present on either detect, the sample results for 1,2,3,4,6,7,8-HpCDF and

OCDF were qualified as nondetected, "U," at the RL. Method blank detects for 1,2,3,4,6,7,8-HpCDD, total HpCDD, and OCDD were insufficient to qualify sample results. The result for total HpCDF was qualified as estimated, "J," as only a portion of the total result was considered method blank contamination. There were no other sample detects for the method blank contaminants.

- Blank Spikes and Laboratory Control Samples: OPR recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of blank spike results. The result for total TCDD was reported below the EDL by the laboratory based on retention time and signal to noise ratio. Any total results reported as EMPCs or including EMPCs were qualified as estimated, "J." Any detects reported below the EDL, or between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Total HpCDF was not flagged as a "J" value by the laboratory although the result was reported below the RL. The reviewer flagged the data as "J" with the appropriate "DNQ" code. Nondetects are valid to the EDL.

B. EPA METHODS 200.7, 200.8, and 245.1—Metals and Mercury

Reviewed By: P, Meeks

Date Reviewed: February 25, 2010

The sample listed in Table 1 for these analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 200.7, 200.8, 245.1*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times, six months for ICP-MS and ICP metals and 28 days for mercury, were met.
- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were $\leq 5\%$, and all masses of interest were calibrated to ≤ 0.1 amu and ≤ 0.9 amu at 10% peak height.
- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. CRDL/CRI recoveries were within the control limits of 70-130%.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: ICSA/B recoveries were within the method established control limits of 80-120% for both ICP and ICP-MS. All analytes were detected in the ICSA for ICP-MS; however, the reviewer could not determine if the detects were low level contamination from the standard.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the dissolved aliquot for mercury and on the total aliquot to ICP-MS. The recoveries and RPDs were within laboratory-established QC limits.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: All sample internal standard intensities were within 60-125% of the internal standard intensities measured in the initial calibration. Copper and zinc were not bracketed by a lower mass internal standard; therefore, copper and zinc detected in the sample were qualified as estimated, "J."
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: March 10 & April 19, 2010

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (10/04)*.

- Holding Times: The tritium sample was analyzed within 180 days of collection. The aliquots for radium-226, radium-228, and strontium-90 were prepared more than 3x beyond the five-day holding time for unpreserved samples; therefore, nondetected radium-228 and strontium-90 were rejected, “R,” and radium-226 in the sample was qualified as estimated, “J.” The aliquot for total uranium was prepared beyond the five-day holding time for unpreserved samples; therefore, nondetected total uranium in the sample was qualified as estimated, “UJ.” Aliquots for the remaining analytes were prepared within the five-day analytical holding time for unpreserved samples.
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, the detects for these analytes were qualified as estimated, “J.” The remaining detector efficiencies were greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: Tritium was detected in the method blank but was not detected in the site sample. There were no other analytes detected in the method blanks or KPA CCBs.

- Blank Spikes and Laboratory Control Samples: The recoveries and RPDs for radium-226, radium-228, and strontium-90, were within laboratory-established control limits.
- Laboratory Duplicates: A laboratory duplicate analysis was performed on the sample in this SDG for gamma spectroscopy. No analytes were detected in either sample.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on the LCS results.
- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 10, 2010

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 120.1, 180.1, SM2540D, SM2450F*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times were met.
- Calibration: Calibration criteria were met. The conductivity and turbidity calibration check sample recoveries were within 90-110%.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-

- established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
 - Matrix Spike/Matrix Spike Duplicate: Not applicable to these analyses.
 - Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-”; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

Turbidity was analyzed at a 10x dilution in order to report the result within the linear range of the calibration.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms ITA1668

Analysis Method *ASTM 5174-91*

Sample Name Outfall 011 (Comp) **Matrix Type:** WATER **Validation Level:** IV
Lab Sample Name: ITA1668-03 **Sample Date:** 1/21/2010 2:06:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	0.104	0.693	0.21	pCi/L	U	UJ	H

Analysis Method *EPA 120.1*

Sample Name Outfall 011 (Grab) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: ITA1668-01 **Sample Date:** 1/20/2010 4:40:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	NA	170	1.0	1.0	uS/cm			

Analysis Method *EPA 180.1*

Sample Name Outfall 011 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: ITA1668-03 **Sample Date:** 1/21/2010 2:06:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	140	10	0.40	NTU			

Analysis Method *EPA 200.7*

Sample Name Outfall 011 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: ITA1668-03 **Sample Date:** 1/21/2010 2:06:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Iron	7439-89-6	9.7	0.040	0.015	mg/l			

Analysis Method *EPA 200.7-Diss*

Sample Name Outfall 011 (Comp) **Matrix Type:** Water **Validation Level:** IV
Lab Sample Name: ITA1668-03 **Sample Date:** 1/21/2010 2:06:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Iron	7439-89-6	0.16	0.040	0.015	mg/l			

Analysis Method *EPA 200.8*

Sample Name	Outfall 011 (Comp)	Matrix Type:	Water	Validation Level:	IV
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM		

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	0.10	1.0	0.10	ug/l	Ja	J	DNQ
Copper	7440-50-8	8.7	2.0	0.50	ug/l		J	*III
Lead	7439-92-1	5.7	1.0	0.20	ug/l			
Manganese	7439-96-5	140	1.0	0.70	ug/l			
Selenium	7782-49-2	ND	2.0	0.50	ug/l		U	
Zinc	7440-66-6	32	20	5.0	ug/l		J	*III

Analysis Method *EPA 200.8-Diss*

Sample Name	Outfall 011 (Comp)	Matrix Type:	Water	Validation Level:	IV
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM		

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	ND	1.0	0.10	ug/l		U	
Copper	7440-50-8	1.5	2.0	0.50	ug/l	Ja	J	DNQ, *III
Lead	7439-92-1	ND	1.0	0.20	ug/l		U	
Manganese	7439-96-5	1.5	1.0	0.70	ug/l			
Selenium	7782-49-2	ND	2.0	0.50	ug/l		U	
Zinc	7440-66-6	6.2	20	5.0	ug/l	Ja	J	DNQ, *III

Analysis Method *EPA 245.1*

Sample Name	Outfall 011 (Comp)	Matrix Type:	Water	Validation Level:	IV
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM		

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	0.12	0.20	0.10	ug/l	Ja	J	DNQ

Analysis Method *EPA 245.1-Diss*

Sample Name	Outfall 011 (Comp)	Matrix Type:	Water	Validation Level:	IV
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM		

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/l		U	

Analysis Method *EPA 900.0 MOD*

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	3.5	3	1.3	pCi/L		J	C
Gross Beta	12587-47-2	15.2	4	1.5	pCi/L			

Analysis Method *EPA 901.1 MOD*

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	0	20	14	pCi/L	U	U	
Potassium 40	13966-00-2	-40	0	270	pCi/L	U	U	

Analysis Method *EPA 903.0 MOD*

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.19	1	0.16	pCi/L	J	J	H,C,DNQ

Analysis Method *EPA 904 MOD*

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	0.27	1	0.46	pCi/L	U	R	H

Analysis Method *EPA 905 MOD*

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium 90	10098-97-2	0.07	3	0.55	pCi/L	U	R	H

Analysis Method EPA 906.0 MOD

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER		Validation Level:	V		
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	43	500	150	pCi/L	U	U	

Analysis Method EPA-5 1613B

Sample Name	Outfall 011 (Comp)	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	5.1e-005	0.000048	0.000011	ug/L			
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	7.8e-006	0.0000056	ug/L	J, Q	U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000048	0.0000086	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000048	0.0000077	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000048	0.0000059	ug/L		U	
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000048	0.0000068	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000048	0.0000051	ug/L		U	
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.000048	0.0000058	ug/L		U	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000048	0.0000058	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000048	0.0000078	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000048	0.0000063	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000048	0.0000049	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000048	0.0000081	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.0000095	0.0000031	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.0000095	0.0000035	ug/L		U	
OCDD	3268-87-9	0.00053	0.000095	0.000017	ug/L	B		
OCDF	39001-02-0	ND	0.000095	0.000014	ug/L	J	U	B
Total HpCDD	37871-00-4	0.00012	0.000048	0.000011	ug/L		J	*III
Total HpCDF	38998-75-3	2.3e-005	0.000048	0.0000056	ug/L		J	B, DNQ
Total HxCDD	34465-46-8	ND	0.000048	0.0000058	ug/L		U	
Total HxCDF	55684-94-1	ND	0.000048	0.0000049	ug/L		U	
Total PeCDD	36088-22-9	ND	0.000048	0.0000078	ug/L		U	
Total PeCDF	30402-15-4	ND	0.000048	0.0000063	ug/L		U	
Total TCDD	41903-57-5	1.8e-006	1.8e-006	0.0000031	ug/L	J, Q	J	*III, DNQ
Total TCDF	55722-27-5	4.2e-006	4.2e-006	0.0000035	ug/L	J, Q	J	*III, DNQ

Analysis Method SM 2540D

Sample Name	Outfall 011 (Comp)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITA1668-03	Sample Date:	1/21/2010 2:06:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	TSS	280	10	1.0	mg/l			

Analysis Method SM2540F

Sample Name	Outfall 011 (Grab)	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITA1668-01	Sample Date:	1/20/2010 4:40:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Settleable Solids	Set Solids	0.10	0.10	0.10	ml/l			

APPENDIX G

Section 57

Outfall 011 – January 20 & 21, 2010

Test America Analytical Laboratory Report

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LABORATORY REPORT

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

Project: Routine Outfall 011
Routine Outfall 011

Sampled: 01/20/10-01/21/10
Received: 01/20/10
Revised: 04/20/10 15:23

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:

Final revised report to provide corrected units and merged .pdf file for Radchem.

Revised report to include reanalysis of radium 226 and 228 and strontium.

Revised report to correct conductivity results.

LABORATORY ID

ITA1668-01

ITA1668-02

ITA1668-03

CLIENT ID

Outfall 011 (Grab)

Trip Blank

Outfall 011 (Comp)

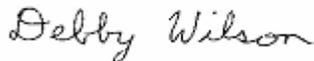
MATRIX

Water

Water

Water

Reviewed By:



TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-01 (Outfall 011 (Grab) - Water)					Sampled: 01/20/10				
Reporting Units: ug/l									
Benzene	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/27/10	
Carbon tetrachloride	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/27/10	
Chloroform	EPA 624	10A2385	0.33	0.50	ND	1	01/26/10	01/27/10	
1,1-Dichloroethane	EPA 624	10A2385	0.40	0.50	ND	1	01/26/10	01/27/10	
1,2-Dichloroethane	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/27/10	
1,1-Dichloroethene	EPA 624	10A2385	0.42	0.50	ND	1	01/26/10	01/27/10	
Ethylbenzene	EPA 624	10A2385	0.25	0.50	ND	1	01/26/10	01/27/10	
Tetrachloroethene	EPA 624	10A2385	0.32	0.50	ND	1	01/26/10	01/27/10	
Toluene	EPA 624	10A2385	0.36	0.50	ND	1	01/26/10	01/27/10	
1,1,1-Trichloroethane	EPA 624	10A2385	0.30	0.50	ND	1	01/26/10	01/27/10	
1,1,2-Trichloroethane	EPA 624	10A2385	0.30	0.50	ND	1	01/26/10	01/27/10	
Trichloroethene	EPA 624	10A2385	0.26	0.50	ND	1	01/26/10	01/27/10	
Trichlorofluoromethane	EPA 624	10A2385	0.34	0.50	ND	1	01/26/10	01/27/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10A2385	0.50	5.0	ND	1	01/26/10	01/27/10	
Vinyl chloride	EPA 624	10A2385	0.40	0.50	ND	1	01/26/10	01/27/10	
Xylenes, Total	EPA 624	10A2385	0.90	1.5	ND	1	01/26/10	01/27/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					98 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					97 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					105 %				

Sample ID: ITA1668-02 (Trip Blank - Water)					Sampled: 01/20/10				
Reporting Units: ug/l									
Benzene	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/26/10	
Carbon tetrachloride	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/26/10	
Chloroform	EPA 624	10A2385	0.33	0.50	ND	1	01/26/10	01/26/10	
1,1-Dichloroethane	EPA 624	10A2385	0.40	0.50	ND	1	01/26/10	01/26/10	
1,2-Dichloroethane	EPA 624	10A2385	0.28	0.50	ND	1	01/26/10	01/26/10	
1,1-Dichloroethene	EPA 624	10A2385	0.42	0.50	ND	1	01/26/10	01/26/10	
Ethylbenzene	EPA 624	10A2385	0.25	0.50	ND	1	01/26/10	01/26/10	
Tetrachloroethene	EPA 624	10A2385	0.32	0.50	ND	1	01/26/10	01/26/10	
Toluene	EPA 624	10A2385	0.36	0.50	ND	1	01/26/10	01/26/10	
1,1,1-Trichloroethane	EPA 624	10A2385	0.30	0.50	ND	1	01/26/10	01/26/10	
1,1,2-Trichloroethane	EPA 624	10A2385	0.30	0.50	ND	1	01/26/10	01/26/10	
Trichloroethene	EPA 624	10A2385	0.26	0.50	ND	1	01/26/10	01/26/10	
Trichlorofluoromethane	EPA 624	10A2385	0.34	0.50	ND	1	01/26/10	01/26/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10A2385	0.50	5.0	ND	1	01/26/10	01/26/10	
Vinyl chloride	EPA 624	10A2385	0.40	0.50	ND	1	01/26/10	01/26/10	
Xylenes, Total	EPA 624	10A2385	0.90	1.5	ND	1	01/26/10	01/26/10	
<i>Surrogate: 4-Bromofluorobenzene (80-120%)</i>					97 %				
<i>Surrogate: Dibromofluoromethane (80-120%)</i>					94 %				
<i>Surrogate: Toluene-d8 (80-120%)</i>					104 %				

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 011
 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

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
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/l									
Bis(2-ethylhexyl)phthalate	EPA 625	10A2234	1.6	4.7	ND	0.943	01/24/10	01/26/10	
2,4-Dinitrotoluene	EPA 625	10A2234	0.19	8.5	ND	0.943	01/24/10	01/26/10	
N-Nitrosodimethylamine	EPA 625	10A2234	0.094	7.5	ND	0.943	01/24/10	01/26/10	
Pentachlorophenol	EPA 625	10A2234	0.094	7.5	ND	0.943	01/24/10	01/26/10	
2,4,6-Trichlorophenol	EPA 625	10A2234	0.094	5.7	ND	0.943	01/24/10	01/26/10	
<i>Surrogate: 2,4,6-Tribromophenol (40-120%)</i>					92 %				
<i>Surrogate: 2-Fluorobiphenyl (50-120%)</i>					73 %				
<i>Surrogate: 2-Fluorophenol (30-120%)</i>					70 %				
<i>Surrogate: Nitrobenzene-d5 (45-120%)</i>					77 %				
<i>Surrogate: Phenol-d6 (35-120%)</i>					72 %				
<i>Surrogate: Terphenyl-d14 (50-125%)</i>					95 %				

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Sampled: 01/20/10-01/21/10
 Received: 01/20/10

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/l									
alpha-BHC	EPA 608	10A2246	0.0024	0.0095	ND	0.952	01/25/10	01/27/10	
<i>Surrogate: Decachlorobiphenyl (45-120%)</i>					83 %				
<i>Surrogate: Tetrachloro-m-xylene (35-115%)</i>					51 %				

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-01 (Outfall 011 (Grab) - Water)					Sampled: 01/20/10				
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	10A2946	1.3	4.8	ND	1	01/29/10	01/29/10	

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Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: mg/l									
Iron	EPA 200.7	10A2110	0.015	0.040	9.7	1	01/22/10	01/22/10	
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/l									
Mercury	EPA 245.1	10A2154	0.10	0.20	0.12	1	01/22/10	01/22/10	Ja
Cadmium	EPA 200.8	10A2119	0.10	1.0	0.10	1	01/22/10	01/22/10	Ja
Copper	EPA 200.8	10A2119	0.50	2.0	8.7	1	01/22/10	01/22/10	
Lead	EPA 200.8	10A2119	0.20	1.0	5.7	1	01/22/10	01/22/10	
Manganese	EPA 200.8	10A2119	0.70	1.0	140	1	01/22/10	01/22/10	
Selenium	EPA 200.8	10A2119	0.50	2.0	ND	1	01/22/10	01/22/10	
Zinc	EPA 200.8	10A2119	5.0	20	32	1	01/22/10	01/22/10	

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 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: mg/l									
Iron	EPA 200.7-Diss	10A2355	0.015	0.040	0.16	1	01/25/10	01/29/10	
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/l									
Mercury	EPA 245.1-Diss	10A2309	0.10	0.20	ND	1	01/25/10	01/25/10	
Cadmium	EPA 200.8-Diss	10A2339	0.10	1.0	ND	1	01/25/10	01/27/10	
Copper	EPA 200.8-Diss	10A2339	0.50	2.0	1.5	1	01/25/10	01/27/10	Ja
Lead	EPA 200.8-Diss	10A2339	0.20	1.0	ND	1	01/25/10	01/27/10	
Manganese	EPA 200.8-Diss	10A2339	0.70	1.0	1.5	1	01/25/10	01/27/10	
Selenium	EPA 200.8-Diss	10A2339	0.50	2.0	ND	1	01/25/10	01/27/10	
Zinc	EPA 200.8-Diss	10A2339	5.0	20	6.2	1	01/25/10	01/27/10	Ja

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Sampled: 01/20/10-01/21/10
 Received: 01/20/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	10A2181	0.50	0.50	ND	1	01/22/10	01/22/10	
Biochemical Oxygen Demand	SM5210B	10A2158	0.50	2.0	1.6	1	01/22/10	01/27/10	Ja
Chloride	EPA 300.0	10A1961	0.25	0.50	11	1	01/21/10	01/21/10	
Nitrate-N	EPA 300.0	10A1961	0.060	0.11	0.46	1	01/21/10	01/21/10	
Nitrite-N	EPA 300.0	10A1961	0.090	0.15	ND	1	01/21/10	01/21/10	
Nitrate/Nitrite-N	EPA 300.0	10A1961	0.15	0.26	0.48	1	01/21/10	01/21/10	
Sulfate	EPA 300.0	10A1961	0.20	0.50	3.2	1	01/21/10	01/21/10	
Surfactants (MBAS)	SM5540-C	10A2051	0.025	0.10	ND	1	01/21/10	01/21/10	
Total Dissolved Solids	SM2540C	10A2072	1.0	10	120	1	01/22/10	01/22/10	
Total Suspended Solids	SM 2540D	10A2763	1.0	10	280	1	01/28/10	01/28/10	

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Project ID: Routine Outfall 011
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 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-01 (Outfall 011 (Grab) - Water)					Sampled: 01/20/10				
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	10A1987	0.10	0.10	0.10	1	01/21/10	01/21/10	
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: NTU									
Turbidity	EPA 180.1	10A2133	0.40	10	140	10	01/22/10	01/22/10	
Sample ID: ITA1668-01 (Outfall 011 (Grab) - Water)					Sampled: 01/20/10				
Reporting Units: ug/l									
Total Cyanide	SM4500CN-E	10A2193	2.2	5.0	ND	1	01/22/10	01/22/10	
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/l									
Perchlorate	EPA 314.0	10A2101	0.90	4.0	ND	1	01/22/10	01/22/10	
Sample ID: ITA1668-01 (Outfall 011 (Grab) - Water)					Sampled: 01/20/10				
Reporting Units: umhos/cm @ 25C									
Specific Conductance	EPA 120.1	10A2068	1.0	1.0	170	1	01/22/10	01/22/10	

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Total Uranium	ASTM 5174-91	35029	0.21	0.693	0.104	1	02/04/10	02/08/10	U

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Project ID: Routine Outfall 011
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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	25415	1.3	3	3.5	1	01/25/10	01/29/10	
Gross Beta	EPA 900.0 MOD	25415	1.5	4	15.2	1	01/25/10	01/29/10	

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Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	25131	14	20	ND	1	01/25/10	02/06/10	U
Potassium 40	EPA 901.1 MOD	25131	270	NA	-40	1	01/25/10	02/06/10	U

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Tritium	EPA 906.0 MOD	28080	150	500	43	1	01/28/10	01/29/10	U

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Radium (226)	EPA 903.0 MOD	75096	0.16	1	0.19	1	03/16/10	04/08/10	Jb

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Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Radium 228	EPA 904 MOD	75097	0.46	1	0.27	1	03/16/10	04/08/10	U

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Project ID: Routine Outfall 011
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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	75098	0.55	3	0.07	1	03/16/10	03/26/10	U

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water)					Sampled: 01/21/10				
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	26267	0.000011	0.000048	5.1e-005	0.95	01/26/10	02/02/10	
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	26267	0.0000056	0.000048	7.8e-006	0.95	01/26/10	02/02/10	J, Q
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	26267	0.0000086	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,4,7,8-HxCDD	EPA-5 1613B	26267	0.0000077	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,4,7,8-HxCDF	EPA-5 1613B	26267	0.0000059	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,6,7,8-HxCDD	EPA-5 1613B	26267	0.0000068	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,6,7,8-HxCDF	EPA-5 1613B	26267	0.0000051	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,7,8,9-HxCDD	EPA-5 1613B	26267	0.0000058	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,7,8,9-HxCDF	EPA-5 1613B	26267	0.0000058	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,7,8-PeCDD	EPA-5 1613B	26267	0.0000078	0.000048	ND	0.95	01/26/10	02/02/10	
1,2,3,7,8-PeCDF	EPA-5 1613B	26267	0.0000063	0.000048	ND	0.95	01/26/10	02/02/10	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	26267	0.0000049	0.000048	ND	0.95	01/26/10	02/02/10	
2,3,4,7,8-PeCDF	EPA-5 1613B	26267	0.0000081	0.000048	ND	0.95	01/26/10	02/02/10	
2,3,7,8-TCDD	EPA-5 1613B	26267	0.0000031	0.0000095	ND	0.95	01/26/10	02/02/10	
2,3,7,8-TCDF	EPA-5 1613B	26267	0.0000035	0.0000095	ND	0.95	01/26/10	02/02/10	
OCDD	EPA-5 1613B	26267	0.000017	0.000095	0.00053	0.95	01/26/10	02/02/10	B
OCDF	EPA-5 1613B	26267	0.000014	0.000095	2.3e-005	0.95	01/26/10	02/02/10	J
Total HpCDD	EPA-5 1613B	26267	0.000011	0.000048	0.00012	0.95	01/26/10	02/02/10	
Total HpCDF	EPA-5 1613B	26267	0.0000056	0.000048	2.3e-005	0.95	01/26/10	02/02/10	
Total HxCDD	EPA-5 1613B	26267	0.0000058	0.000048	ND	0.95	01/26/10	02/02/10	
Total HxCDF	EPA-5 1613B	26267	0.0000049	0.000048	ND	0.95	01/26/10	02/02/10	
Total PeCDD	EPA-5 1613B	26267	0.0000078	0.000048	ND	0.95	01/26/10	02/02/10	
Total PeCDF	EPA-5 1613B	26267	0.0000063	0.000048	ND	0.95	01/26/10	02/02/10	
Total TCDD	EPA-5 1613B	26267	0.0000031	0.0000095	1.8e-006	0.95	01/26/10	02/02/10	J, Q
Total TCDF	EPA-5 1613B	26267	0.0000035	0.0000095	4.2e-006	0.95	01/26/10	02/02/10	J, Q

Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)	58 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)	68 %
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)	61 %
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)	53 %
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)	57 %
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)	68 %
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)	58 %
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)	57 %
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)	51 %
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)	52 %
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)	62 %
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)	50 %
Surrogate: 13C-2,3,7,8-TCDD (25-164%)	54 %
Surrogate: 13C-2,3,7,8-TCDF (24-169%)	49 %
Surrogate: 13C-OCDD (17-157%)	58 %
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)	98 %

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Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 011 (Grab) (ITA1668-01) - Water					
SM2540F	2	01/20/2010 16:40	01/20/2010 20:30	01/21/2010 10:22	01/21/2010 12:45
Sample ID: Outfall 011 (Comp) (ITA1668-03) - Water					
EPA 180.1	2	01/21/2010 14:06	01/20/2010 20:30	01/22/2010 12:15	01/22/2010 12:15
EPA 300.0	2	01/21/2010 14:06	01/20/2010 20:30	01/21/2010 15:00	01/21/2010 21:06
SM5210B	2	01/21/2010 14:06	01/20/2010 20:30	01/22/2010 16:00	01/27/2010 09:20
SM5540-C	2	01/21/2010 14:06	01/20/2010 20:30	01/21/2010 20:00	01/21/2010 20:50

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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: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

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
Batch: 10A2385 Extracted: 01/26/10											
Blank Analyzed: 01/26/2010 (10A2385-BLK1)											
Benzene	ND	0.50	0.28	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chloroform	ND	0.50	0.33	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							
1,2-Dichloro-1,1,2-trifluoroethane	ND	2.0	1.1	ug/l							
Ethylbenzene	ND	0.50	0.25	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							
Cyclohexane	ND	1.0	0.40	ug/l							
Surrogate: 4-Bromofluorobenzene	24.6			ug/l	25.0		98	80-120			
Surrogate: Dibromofluoromethane	24.0			ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	26.2			ug/l	25.0		105	80-120			

LCS Analyzed: 01/26/2010 (10A2385-BS1)

Benzene	24.8	0.50	0.28	ug/l	25.0		99	70-120			
Carbon tetrachloride	25.5	0.50	0.28	ug/l	25.0		102	65-140			
Chloroform	23.8	0.50	0.33	ug/l	25.0		95	70-130			
1,1-Dichloroethane	23.3	0.50	0.40	ug/l	25.0		93	70-125			
1,2-Dichloroethane	23.9	0.50	0.28	ug/l	25.0		96	60-140			
1,1-Dichloroethene	24.4	0.50	0.42	ug/l	25.0		97	70-125			
Ethylbenzene	26.4	0.50	0.25	ug/l	25.0		105	75-125			
Tetrachloroethene	26.4	0.50	0.32	ug/l	25.0		106	70-125			
Toluene	26.0	0.50	0.36	ug/l	25.0		104	70-120			
1,1,1-Trichloroethane	24.6	0.50	0.30	ug/l	25.0		98	65-135			
1,1,2-Trichloroethane	25.0	0.50	0.30	ug/l	25.0		100	70-125			
Trichloroethene	26.1	0.50	0.26	ug/l	25.0		104	70-125			
Trichlorofluoromethane	25.0	0.50	0.34	ug/l	25.0		100	65-145			

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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
Batch: 10A2385 Extracted: 01/26/10											
LCS Analyzed: 01/26/2010 (10A2385-BS1)											
Vinyl chloride	19.0	0.50	0.40	ug/l	25.0		76	55-135			
Xylenes, Total	81.6	1.5	0.90	ug/l	75.0		109	70-125			
Surrogate: 4-Bromofluorobenzene	25.1			ug/l	25.0		100	80-120			
Surrogate: Dibromofluoromethane	24.3			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	26.2			ug/l	25.0		105	80-120			
LCS Dup Analyzed: 01/26/2010 (10A2385-BSD1)											
Benzene	25.0	0.50	0.28	ug/l	25.0		100	70-120	1	20	
Carbon tetrachloride	25.8	0.50	0.28	ug/l	25.0		103	65-140	1	25	
Chloroform	23.6	0.50	0.33	ug/l	25.0		94	70-130	0.8	20	
1,1-Dichloroethane	23.3	0.50	0.40	ug/l	25.0		93	70-125	0.1	20	
1,2-Dichloroethane	24.5	0.50	0.28	ug/l	25.0		98	60-140	2	20	
1,1-Dichloroethane	24.5	0.50	0.42	ug/l	25.0		98	70-125	0.5	20	
Ethylbenzene	26.8	0.50	0.25	ug/l	25.0		107	75-125	2	20	
Tetrachloroethene	26.3	0.50	0.32	ug/l	25.0		105	70-125	0.3	20	
Toluene	26.3	0.50	0.36	ug/l	25.0		105	70-120	1	20	
1,1,1-Trichloroethane	24.5	0.50	0.30	ug/l	25.0		98	65-135	0.3	20	
1,1,2-Trichloroethane	26.2	0.50	0.30	ug/l	25.0		105	70-125	4	20	
Trichloroethene	26.5	0.50	0.26	ug/l	25.0		106	70-125	2	20	
Trichlorofluoromethane	25.1	0.50	0.34	ug/l	25.0		101	65-145	0.4	20	
Vinyl chloride	18.8	0.50	0.40	ug/l	25.0		75	55-135	1	30	
Xylenes, Total	83.3	1.5	0.90	ug/l	75.0		111	70-125	2	20	
Surrogate: 4-Bromofluorobenzene	25.4			ug/l	25.0		101	80-120			
Surrogate: Dibromofluoromethane	24.2			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	26.1			ug/l	25.0		104	80-120			
Matrix Spike Analyzed: 01/26/2010 (10A2385-MS1)											
						Source: ITA1330-01					
Benzene	25.1	0.50	0.28	ug/l	25.0	ND	101	65-125			
Carbon tetrachloride	25.0	0.50	0.28	ug/l	25.0	ND	100	65-140			
Chloroform	24.7	0.50	0.33	ug/l	25.0	ND	99	65-135			
1,1-Dichloroethane	24.6	0.50	0.40	ug/l	25.0	ND	99	65-130			
1,2-Dichloroethane	25.2	0.50	0.28	ug/l	25.0	ND	101	60-140			
1,1-Dichloroethane	25.3	0.50	0.42	ug/l	25.0	ND	101	60-130			
Ethylbenzene	27.3	0.50	0.25	ug/l	25.0	ND	109	65-130			
Tetrachloroethene	26.3	0.50	0.32	ug/l	25.0	ND	105	65-130			
Toluene	26.4	0.50	0.36	ug/l	25.0	ND	106	70-125			

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Project Manager

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Routine Outfall 011
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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
Batch: 10A2385 Extracted: 01/26/10											
Matrix Spike Analyzed: 01/26/2010 (10A2385-MS1)					Source: ITA1330-01						
1,1,1-Trichloroethane	24.9	0.50	0.30	ug/l	25.0	ND	100	65-140			
1,1,2-Trichloroethane	26.6	0.50	0.30	ug/l	25.0	ND	106	65-130			
Trichloroethene	26.0	0.50	0.26	ug/l	25.0	ND	104	65-125			
Trichlorofluoromethane	26.0	0.50	0.34	ug/l	25.0	ND	104	60-145			
Vinyl chloride	20.3	0.50	0.40	ug/l	25.0	ND	81	45-140			
Xylenes, Total	84.4	1.5	0.90	ug/l	75.0	ND	113	60-130			
Surrogate: 4-Bromofluorobenzene	26.3			ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	25.3			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	26.0			ug/l	25.0		104	80-120			
Matrix Spike Dup Analyzed: 01/27/2010 (10A2385-MSD1)					Source: ITA1330-01						
Benzene	22.8	0.50	0.28	ug/l	25.0	ND	91	65-125	10	20	
Carbon tetrachloride	23.1	0.50	0.28	ug/l	25.0	ND	92	65-140	8	25	
Chloroform	22.3	0.50	0.33	ug/l	25.0	ND	89	65-135	10	20	
1,1-Dichloroethane	21.8	0.50	0.40	ug/l	25.0	ND	87	65-130	12	20	
1,2-Dichloroethane	22.8	0.50	0.28	ug/l	25.0	ND	91	60-140	10	20	
1,1-Dichloroethene	22.5	0.50	0.42	ug/l	25.0	ND	90	60-130	11	20	
Ethylbenzene	24.0	0.50	0.25	ug/l	25.0	ND	96	65-130	13	20	
Tetrachloroethene	23.5	0.50	0.32	ug/l	25.0	ND	94	65-130	11	20	
Toluene	23.7	0.50	0.36	ug/l	25.0	ND	95	70-125	11	20	
1,1,1-Trichloroethane	22.5	0.50	0.30	ug/l	25.0	ND	90	65-140	10	20	
1,1,2-Trichloroethane	24.0	0.50	0.30	ug/l	25.0	ND	96	65-130	10	25	
Trichloroethene	23.5	0.50	0.26	ug/l	25.0	ND	94	65-125	10	20	
Trichlorofluoromethane	22.9	0.50	0.34	ug/l	25.0	ND	92	60-145	13	25	
Vinyl chloride	17.0	0.50	0.40	ug/l	25.0	ND	68	45-140	18	30	
Xylenes, Total	74.4	1.5	0.90	ug/l	75.0	ND	99	60-130	13	20	
Surrogate: 4-Bromofluorobenzene	25.9			ug/l	25.0		104	80-120			
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	26.2			ug/l	25.0		105	80-120			

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Project Manager

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Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

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
Batch: 10A2234 Extracted: 01/24/10											
Blank Analyzed: 01/26/2010 (10A2234-BLK1)											
Bis(2-ethylhexyl)phthalate	ND	5.0	1.7	ug/l							
2,4-Dinitrotoluene	ND	9.0	0.20	ug/l							
N-Nitrosodimethylamine	0.360	8.0	0.10	ug/l							Ja
Pentachlorophenol	ND	8.0	0.10	ug/l							
2,4,6-Trichlorophenol	ND	6.0	0.10	ug/l							
Surrogate: 2,4,6-Tribromophenol	18.8			ug/l	20.0		94	40-120			
Surrogate: 2-Fluorobiphenyl	8.06			ug/l	10.0		81	50-120			
Surrogate: 2-Fluorophenol	14.5			ug/l	20.0		73	30-120			
Surrogate: Nitrobenzene-d5	8.28			ug/l	10.0		83	45-120			
Surrogate: Phenol-d6	14.5			ug/l	20.0		72	35-120			
Surrogate: Terphenyl-d14	9.54			ug/l	10.0		95	50-125			
LCS Analyzed: 01/26/2010 (10A2234-BS1)											
Bis(2-ethylhexyl)phthalate	12.5	5.0	1.7	ug/l	10.0		125	65-130			
2,4-Dinitrotoluene	9.74	9.0	0.20	ug/l	10.0		97	65-120			
N-Nitrosodimethylamine	9.04	8.0	0.10	ug/l	10.0		90	45-120			
Pentachlorophenol	10.4	8.0	0.10	ug/l	10.0		104	50-120			
2,4,6-Trichlorophenol	9.84	6.0	0.10	ug/l	10.0		98	55-120			
Surrogate: 2,4,6-Tribromophenol	21.3			ug/l	20.0		106	40-120			
Surrogate: 2-Fluorobiphenyl	8.82			ug/l	10.0		88	50-120			
Surrogate: 2-Fluorophenol	15.2			ug/l	20.0		76	30-120			
Surrogate: Nitrobenzene-d5	9.18			ug/l	10.0		92	45-120			
Surrogate: Phenol-d6	16.6			ug/l	20.0		83	35-120			
Surrogate: Terphenyl-d14	10.5			ug/l	10.0		105	50-125			
LCS Dup Analyzed: 01/26/2010 (10A2234-BSD1)											
Bis(2-ethylhexyl)phthalate	11.7	5.0	1.7	ug/l	10.0		117	65-130	7	20	
2,4-Dinitrotoluene	8.84	9.0	0.20	ug/l	10.0		88	65-120	10	20	Ja
N-Nitrosodimethylamine	8.12	8.0	0.10	ug/l	10.0		81	45-120	11	20	
Pentachlorophenol	9.14	8.0	0.10	ug/l	10.0		91	50-120	13	25	
2,4,6-Trichlorophenol	8.78	6.0	0.10	ug/l	10.0		88	55-120	11	30	
Surrogate: 2,4,6-Tribromophenol	19.2			ug/l	20.0		96	40-120			
Surrogate: 2-Fluorobiphenyl	7.68			ug/l	10.0		77	50-120			
Surrogate: 2-Fluorophenol	13.3			ug/l	20.0		66	30-120			
Surrogate: Nitrobenzene-d5	7.82			ug/l	10.0		78	45-120			
Surrogate: Phenol-d6	14.6			ug/l	20.0		73	35-120			

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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 Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2234 Extracted: 01/24/10											
LCS Dup Analyzed: 01/26/2010 (10A2234-BSD1)											
Surrogate: Terphenyl-d14	9.42			ug/l	10.0		94	50-125			

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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
Batch: 10A2246 Extracted: 01/25/10											
Blank Analyzed: 01/26/2010 (10A2246-BLK1)											
alpha-BHC	ND	0.010	0.0025	ug/l							
Surrogate: Decachlorobiphenyl	0.425			ug/l	0.500		85	45-120			
Surrogate: Tetrachloro-m-xylene	0.320			ug/l	0.500		64	35-115			
LCS Analyzed: 01/26/2010 (10A2246-BS1)											
alpha-BHC	0.311	0.010	0.0025	ug/l	0.500		62	45-115			MNR1
Surrogate: Decachlorobiphenyl	0.447			ug/l	0.500		89	45-120			
Surrogate: Tetrachloro-m-xylene	0.302			ug/l	0.500		60	35-115			
LCS Dup Analyzed: 01/26/2010 (10A2246-BSD1)											
alpha-BHC	0.308	0.010	0.0025	ug/l	0.500		62	45-115	0.9	30	
Surrogate: Decachlorobiphenyl	0.460			ug/l	0.500		92	45-120			
Surrogate: Tetrachloro-m-xylene	0.321			ug/l	0.500		64	35-115			

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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
Batch: 10A2946 Extracted: 01/29/10											
Blank Analyzed: 01/29/2010 (10A2946-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 01/29/2010 (10A2946-BS1)											
Hexane Extractable Material (Oil & Grease)	20.1	5.0	1.4	mg/l	20.0		100	78-114			MNR1
LCS Dup Analyzed: 01/29/2010 (10A2946-BSD1)											
Hexane Extractable Material (Oil & Grease)	20.2	5.0	1.4	mg/l	20.0		101	78-114	0.5	11	

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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
<u>Batch: 10A2110 Extracted: 01/22/10</u>											
Blank Analyzed: 01/22/2010 (10A2110-BLK1)											
Iron	ND	0.040	0.015	mg/l							
LCS Analyzed: 01/22/2010 (10A2110-BS1)											
Iron	0.480	0.040	0.015	mg/l	0.500		96	85-115			
Matrix Spike Analyzed: 01/22/2010 (10A2110-MS1)											
						Source: ITA1597-01					
Iron	1.33	0.040	0.015	mg/l	0.500	0.741	117	70-130			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2110-MSD1)											
						Source: ITA1597-01					
Iron	1.55	0.040	0.015	mg/l	0.500	0.741	163	70-130	16	20	MI
<u>Batch: 10A2119 Extracted: 01/22/10</u>											
Blank Analyzed: 01/22/2010 (10A2119-BLK1)											
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Manganese	ND	1.0	0.70	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Zinc	ND	20	5.0	ug/l							
LCS Analyzed: 01/22/2010 (10A2119-BS1)											
Cadmium	77.8	1.0	0.10	ug/l	80.0		97	85-115			
Copper	82.7	2.0	0.50	ug/l	80.0		103	85-115			
Lead	86.2	1.0	0.20	ug/l	80.0		108	85-115			
Manganese	82.7	1.0	0.70	ug/l	80.0		103	85-115			
Selenium	83.0	2.0	0.50	ug/l	80.0		104	85-115			
Zinc	81.3	20	5.0	ug/l	80.0		102	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
Batch: 10A2119 Extracted: 01/22/10											
Matrix Spike Analyzed: 01/22/2010 (10A2119-MS1)						Source: ITA1668-03					
Cadmium	71.7	1.0	0.10	ug/l	80.0	0.105	90	70-130			
Copper	87.9	2.0	0.50	ug/l	80.0	8.72	99	70-130			
Lead	91.7	1.0	0.20	ug/l	80.0	5.71	108	70-130			
Manganese	227	1.0	0.70	ug/l	80.0	141	107	70-130			
Selenium	73.2	2.0	0.50	ug/l	80.0	ND	92	70-130			
Zinc	114	20	5.0	ug/l	80.0	32.4	102	70-130			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2119-MSD1)						Source: ITA1668-03					
Cadmium	71.3	1.0	0.10	ug/l	80.0	0.105	89	70-130	0.6	20	
Copper	87.7	2.0	0.50	ug/l	80.0	8.72	99	70-130	0.3	20	
Lead	91.3	1.0	0.20	ug/l	80.0	5.71	107	70-130	0.4	20	
Manganese	233	1.0	0.70	ug/l	80.0	141	115	70-130	3	20	
Selenium	74.4	2.0	0.50	ug/l	80.0	ND	93	70-130	2	20	
Zinc	112	20	5.0	ug/l	80.0	32.4	100	70-130	1	20	
Batch: 10A2154 Extracted: 01/22/10											
Blank Analyzed: 01/22/2010 (10A2154-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 01/22/2010 (10A2154-BS1)											
Mercury	8.41	0.20	0.10	ug/l	8.00		105	85-115			
Matrix Spike Analyzed: 01/22/2010 (10A2154-MS1)						Source: ITA1659-02					
Mercury	8.44	0.20	0.10	ug/l	8.00	ND	105	70-130			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2154-MSD1)						Source: ITA1659-02					
Mercury	8.23	0.20	0.10	ug/l	8.00	ND	103	70-130	3	20	

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Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 10A2309 Extracted: 01/25/10</u>											
Blank Analyzed: 01/25/2010 (10A2309-BLK1)											
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 01/25/2010 (10A2309-BS1)											
Mercury	8.01	0.20	0.10	ug/l	8.00		100	85-115			
Matrix Spike Analyzed: 01/25/2010 (10A2309-MS1)											
						Source: ITA1668-03					
Mercury	8.13	0.20	0.10	ug/l	8.00	ND	102	70-130			
Matrix Spike Dup Analyzed: 01/25/2010 (10A2309-MSD1)											
						Source: ITA1668-03					
Mercury	8.11	0.20	0.10	ug/l	8.00	ND	101	70-130	0.2	20	
<u>Batch: 10A2339 Extracted: 01/25/10</u>											
Blank Analyzed: 01/27/2010 (10A2339-BLK1)											
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Manganese	ND	1.0	0.70	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Zinc	ND	20	5.0	ug/l							
LCS Analyzed: 01/27/2010 (10A2339-BS1)											
Cadmium	70.4	1.0	0.10	ug/l	80.0		88	85-115			
Copper	77.2	2.0	0.50	ug/l	80.0		97	85-115			
Lead	75.6	1.0	0.20	ug/l	80.0		94	85-115			
Manganese	76.4	1.0	0.70	ug/l	80.0		95	85-115			
Selenium	71.8	2.0	0.50	ug/l	80.0		90	85-115			
Zinc	76.0	20	5.0	ug/l	80.0		95	85-115			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2339 Extracted: 01/25/10											
Matrix Spike Analyzed: 01/27/2010 (10A2339-MS1)						Source: ITA1331-03					
Cadmium	73.7	1.0	0.10	ug/l	80.0	0.186	92	70-130			
Copper	75.9	2.0	0.50	ug/l	80.0	2.12	92	70-130			
Lead	70.1	1.0	0.20	ug/l	80.0	0.235	87	70-130			
Manganese	129	1.0	0.70	ug/l	80.0	53.4	95	70-130			
Selenium	77.1	2.0	0.50	ug/l	80.0	ND	96	70-130			
Zinc	72.6	20	5.0	ug/l	80.0	ND	91	70-130			
Matrix Spike Analyzed: 01/27/2010 (10A2339-MS2)						Source: ITA1674-01RE1					
Cadmium	77.4	1.0	0.10	ug/l	80.0	0.292	96	70-130			
Copper	80.4	2.0	0.50	ug/l	80.0	3.70	96	70-130			
Lead	70.1	1.0	0.20	ug/l	80.0	0.423	87	70-130			
Manganese	86.3	1.0	0.70	ug/l	80.0	11.1	94	70-130			
Selenium	77.5	2.0	0.50	ug/l	80.0	ND	97	70-130			
Zinc	84.0	20	5.0	ug/l	80.0	11.5	91	70-130			
Matrix Spike Dup Analyzed: 01/27/2010 (10A2339-MSD1)						Source: ITA1331-03					
Cadmium	75.7	1.0	0.10	ug/l	80.0	0.186	94	70-130	3	20	
Copper	76.2	2.0	0.50	ug/l	80.0	2.12	93	70-130	0.4	20	
Lead	69.8	1.0	0.20	ug/l	80.0	0.235	87	70-130	0.4	20	
Manganese	131	1.0	0.70	ug/l	80.0	53.4	97	70-130	2	20	
Selenium	77.0	2.0	0.50	ug/l	80.0	ND	96	70-130	0.03	20	
Zinc	72.2	20	5.0	ug/l	80.0	ND	90	70-130	0.5	20	

Batch: 10A2355 Extracted: 01/25/10

Blank Analyzed: 01/27/2010 (10A2355-BLK1)

Iron	ND	0.040	0.015	mg/l
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 Received: 01/20/10

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2355 Extracted: 01/25/10											
LCS Analyzed: 01/27/2010 (10A2355-BS1)											
Iron	0.501	0.040	0.015	mg/l	0.500		100	85-115			
Matrix Spike Analyzed: 01/27/2010 (10A2355-MS1)											
						Source: ITA1813-01					
Iron	0.616	0.040	0.015	mg/l	0.500	0.114	100	70-130			
Matrix Spike Analyzed: 01/27/2010 (10A2355-MS2)											
						Source: ITA1954-01					
Iron	0.661	0.040	0.015	mg/l	0.500	0.147	103	70-130			
Matrix Spike Dup Analyzed: 01/27/2010 (10A2355-MSD1)											
						Source: ITA1813-01					
Iron	0.602	0.040	0.015	mg/l	0.500	0.114	97	70-130	2	20	

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 10A1961 Extracted: 01/21/10											
Blank Analyzed: 01/21/2010 (10A1961-BLK1)											
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							
LCS Analyzed: 01/21/2010 (10A1961-BS1)											
Chloride	4.89	0.50	0.25	mg/l	5.00		98	90-110			
Nitrate-N	1.09	0.11	0.060	mg/l	1.13		96	90-110			
Nitrite-N	1.49	0.15	0.090	mg/l	1.52		98	90-110			
Sulfate	9.88	0.50	0.20	mg/l	10.0		99	90-110			
Matrix Spike Analyzed: 01/21/2010 (10A1961-MS1) Source: ITA1718-16											
Chloride	29.7	0.50	0.25	mg/l	5.00	24.8	98	80-120			MHA
Nitrate-N	1.55	0.11	0.060	mg/l	1.13	0.451	97	80-120			
Nitrite-N	1.65	0.15	0.090	mg/l	1.52	ND	109	80-120			
Sulfate	35.1	0.50	0.20	mg/l	10.0	25.2	99	80-120			
Matrix Spike Analyzed: 01/21/2010 (10A1961-MS2) Source: ITA1797-01											
Chloride	17.1	0.50	0.25	mg/l	5.00	12.0	103	80-120			
Nitrate-N	1.35	0.11	0.060	mg/l	1.13	0.187	103	80-120			
Nitrite-N	1.62	0.15	0.090	mg/l	1.52	0.0918	100	80-120			
Sulfate	12.1	0.50	0.20	mg/l	10.0	2.16	99	80-120			
Matrix Spike Dup Analyzed: 01/21/2010 (10A1961-MSD1) Source: ITA1718-16											
Chloride	29.8	0.50	0.25	mg/l	5.00	24.8	100	80-120	0.3	20	MHA
Nitrate-N	1.56	0.11	0.060	mg/l	1.13	0.451	99	80-120	0.9	20	
Nitrite-N	1.66	0.15	0.090	mg/l	1.52	ND	109	80-120	0.6	20	
Sulfate	35.3	0.50	0.20	mg/l	10.0	25.2	101	80-120	0.5	20	

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Report Number: ITA1668

Sampled: 01/20/10-01/21/10
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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 10A2051 Extracted: 01/21/10</u>											
Blank Analyzed: 01/21/2010 (10A2051-BLK1)											
Surfactants (MBAS)	ND	0.10	0.050	mg/l							
LCS Analyzed: 01/21/2010 (10A2051-BS1)											
Surfactants (MBAS)	0.257	0.10	0.050	mg/l	0.250		103	90-110			
Matrix Spike Analyzed: 01/21/2010 (10A2051-MS1)											
Surfactants (MBAS)	0.190	0.10	0.050	mg/l	0.250	ND	76	50-125			
Matrix Spike Dup Analyzed: 01/21/2010 (10A2051-MSD1)											
Surfactants (MBAS)	0.179	0.10	0.050	mg/l	0.250	ND	72	50-125	6	20	
<u>Batch: 10A2068 Extracted: 01/22/10</u>											
Blank Analyzed: 01/22/2010 (10A2068-BLK1)											
Specific Conductance	ND	1.0		1.0umhos/cm @ 25C							
LCS Analyzed: 01/22/2010 (10A2068-BS1)											
Specific Conductance	1450	1.0		1.0umhos/cm @ 25C	410		103	90-110			
Duplicate Analyzed: 01/22/2010 (10A2068-DUP1)											
Specific Conductance	288	1.0		1.0umhos/cm @ 25C		287			0.3	5	
<u>Batch: 10A2072 Extracted: 01/22/10</u>											
Blank Analyzed: 01/22/2010 (10A2072-BLK1)											
Total Dissolved Solids	ND	10	1.0	mg/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2072 Extracted: 01/22/10											
LCS Analyzed: 01/22/2010 (10A2072-BS1)											
Total Dissolved Solids	1010	10	1.0	mg/l	1000		101	90-110			
Duplicate Analyzed: 01/22/2010 (10A2072-DUP1)											
Total Dissolved Solids	151	10	1.0	mg/l		152			0.7	10	
Batch: 10A2101 Extracted: 01/22/10											
Blank Analyzed: 01/22/2010 (10A2101-BLK1)											
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 01/22/2010 (10A2101-BS1)											
Perchlorate	26.6	4.0	0.90	ug/l	25.0		106	85-115			
Matrix Spike Analyzed: 01/22/2010 (10A2101-MS1)											
Perchlorate	24.4	4.0	0.90	ug/l	25.0	ND	98	80-120			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2101-MSD1)											
Perchlorate	25.3	4.0	0.90	ug/l	25.0	ND	101	80-120	4	20	
Batch: 10A2133 Extracted: 01/22/10											
Blank Analyzed: 01/22/2010 (10A2133-BLK1)											
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 01/22/2010 (10A2133-DUP1)											
Turbidity	4.38	1.0	0.040	NTU		4.42			0.9	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10A2158 Extracted: 01/22/10											
Blank Analyzed: 01/27/2010 (10A2158-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l							
LCS Analyzed: 01/27/2010 (10A2158-BS1)											
Biochemical Oxygen Demand	206	100	25	mg/l	198		104	85-115			
LCS Dup Analyzed: 01/27/2010 (10A2158-BSD1)											
Biochemical Oxygen Demand	210	100	25	mg/l	198		106	85-115	2	20	
Batch: 10A2181 Extracted: 01/22/10											
Blank Analyzed: 01/22/2010 (10A2181-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
LCS Analyzed: 01/22/2010 (10A2181-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.50	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 01/22/2010 (10A2181-MS1)											
Ammonia-N (Distilled)	9.80	0.50	0.50	mg/l	10.0	ND	98	70-120			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2181-MSD1)											
Ammonia-N (Distilled)	9.80	0.50	0.50	mg/l	10.0	ND	98	70-120	0	15	
Batch: 10A2193 Extracted: 01/22/10											
Blank Analyzed: 01/22/2010 (10A2193-BLK1)											
Total Cyanide	ND	5.0	2.2	ug/l							

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 10A2193 Extracted: 01/22/10</u>											
LCS Analyzed: 01/22/2010 (10A2193-BS1)											
Total Cyanide	200	5.0	2.2	ug/l	200		100	90-110			
Matrix Spike Analyzed: 01/22/2010 (10A2193-MS1)											
						Source: ITA1694-04					
Total Cyanide	192	5.0	2.2	ug/l	200	ND	96	70-115			
Matrix Spike Dup Analyzed: 01/22/2010 (10A2193-MSD1)											
						Source: ITA1694-04					
Total Cyanide	191	5.0	2.2	ug/l	200	ND	95	70-115	0.7	15	
<u>Batch: 10A2763 Extracted: 01/28/10</u>											
Blank Analyzed: 01/28/2010 (10A2763-BLK1)											
Total Suspended Solids	ND	10	1.0	mg/l							
LCS Analyzed: 01/28/2010 (10A2763-BS1)											
Total Suspended Solids	989	10	1.0	mg/l	1000		99	85-115			
Duplicate Analyzed: 01/28/2010 (10A2763-DUP1)											
						Source: ITA1764-01					
Total Suspended Solids	4.00	10	1.0	mg/l		4.00			0	10	Ja

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Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

ASTM 5174-91

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 35029 Extracted: 02/04/10											
Matrix Spike Dup Analyzed: 02/08/2010 (F0A200486001D)						Source: F0A200486001					
Total Uranium	29.2	0.7	0.2	pCi/L	27.7	-0.0334	105	62-150	2	20	
Matrix Spike Analyzed: 02/08/2010 (F0A200486001S)						Source: F0A200486001					
Total Uranium	28.8	0.7	0.2	pCi/L	27.7	-0.0334	104	62-150			
Blank Analyzed: 02/08/2010 (F0B040000029B)						Source:					
Total Uranium	-0.0623	0.693	0.21	pCi/L				-			U
LCS Analyzed: 02/08/2010 (F0B040000029C)						Source:					
Total Uranium	5.67	0.69	0.21	pCi/L	5.54		102	90-120			

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 Routine Outfall 011
 Report Number: ITA1668

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METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25415 Extracted: 01/25/10											
Matrix Spike Analyzed: 01/29/2010 (F0A200486001S)						Source: F0A200486001					
Gross Alpha	6.9	3	1	pCi/L	49.4	0.98	12	35-150			a
Gross Beta	10	4	1.6	pCi/L	68.1	0.83	14	54-150			a
Duplicate Analyzed: 01/29/2010 (F0A200486001X)						Source: F0A200486001					
Gross Alpha	0.71	3	1.4	pCi/L		0.98		-			Jb
Gross Beta	1.6	4	1.6	pCi/L		0.83		-			Jb
Blank Analyzed: 01/29/2010 (F0A250000415B)						Source:					
Gross Alpha	-0.03	3	0.71	pCi/L				-			U
Gross Beta	-0.26	4	1.5	pCi/L				-			U
LCS Analyzed: 01/29/2010 (F0A250000415C)						Source:					
Gross Alpha	45.4	3	0.9	pCi/L	49.4		92	62-134			
Gross Beta	73.4	4	1.6	pCi/L	68.1		108	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 25131 Extracted: 01/25/10											
Duplicate Analyzed: 02/06/2010 (F0A230419001X)						Source: ITA1668-03					
Cesium 137	0.5	20	9.6	pCi/L		0		-			U
Potassium 40	-100	NA	200	pCi/L		-40		-			U
Blank Analyzed: 02/06/2010 (F0A250000131B)						Source:					
Cesium 137	0.8	20	14	pCi/L				-			U
Potassium 40	-100	NA	270	pCi/L				-			U
LCS Analyzed: 02/12/2010 (F0A250000131C)						Source:					
Americium 241	143000	NA	500	pCi/L	141000		101	87-110			
Cobalt 60	83500	NA	200	pCi/L	87900		95	89-110			
Cesium 137	50900	20	200	pCi/L	53100		96	90-110			

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 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 28080 Extracted: 01/28/10											
Duplicate Analyzed: 01/29/2010 (F0A200486001X)						Source: F0A200486001					
Tritium	-49	500	140	pCi/L		99	-				U
Matrix Spike Analyzed: 01/29/2010 (F0A200494001S)						Source: F0A200494001					
Tritium	4350	500	140	pCi/L	4540	64	94	62-147			
Blank Analyzed: 01/28/2010 (F0A280000080B)						Source:					
Tritium	250	500	140	pCi/L							Jb
LCS Analyzed: 01/28/2010 (F0A280000080C)						Source:					
Tritium	4680	500	140	pCi/L	4540		103	85-112			

TestAmerica Irvine

Debby Wilson For Joseph Doak
 Project Manager

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

Project ID: Routine Outfall 011
 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 75096 Extracted: 03/16/10											
Blank Analyzed: 04/08/2010 (F0C160000096B)						Source:					
Radium (226)	0.13	1	0.17	pCi/L				-			U
LCS Analyzed: 04/08/2010 (F0C160000096C)						Source:					
Radium (226)	10.2	1	0.2	pCi/L	11.3		91	68-136			
LCS Dup Analyzed: 04/08/2010 (F0C160000096L)						Source:					
Radium (226)	11	1	0.2	pCi/L	11.3		98	68-136	8	40	

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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: Routine Outfall 011
 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

EPA 904 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 75097 Extracted: 03/16/10											
Blank Analyzed: 04/08/2010 (F0C160000097B)											
Radium 228	0.04	1	0.39	pCi/L				-			U
LCS Analyzed: 04/08/2010 (F0C160000097C)											
Radium 228	5.58	1	0.36	pCi/L	6.33		88	60-142			
LCS Dup Analyzed: 04/08/2010 (F0C160000097L)											
Radium 228	6	1	0.34	pCi/L	6.33		95	60-142	7	40	

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

Project ID: Routine Outfall 011
 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

EPA 905 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 75098 Extracted: 03/16/10											
Blank Analyzed: 03/26/2010 (F0C16000098B)											
Strontium 90	0.03	3	0.37	pCi/L				-			U
LCS Analyzed: 03/26/2010 (F0C16000098C)											
Strontium 90	6.42	3	0.4	pCi/L	6.78		95	80-130			
LCS Dup Analyzed: 03/26/2010 (F0C16000098L)											
Strontium 90	6.86	3	0.39	pCi/L	6.78		101	80-130	7	40	

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

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 26267 Extracted: 01/26/10											
Blank Analyzed: 02/02/2010 (G0A260000267B)						Source:					
1,2,3,4,6,7,8-HpCDD	7.9e-006	0.00005	0.000056	ug/L				-			J
1,2,3,4,6,7,8-HpCDF	6.9e-006	0.00005	0.000044	ug/L				-			J
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.000071	ug/L				-			
1,2,3,4,7,8-HxCDD	4.6e-006	0.00005	0.000048	ug/L				-			J
1,2,3,4,7,8-HxCDF	ND	0.00005	0.000039	ug/L				-			
1,2,3,6,7,8-HxCDD	6.5e-006	0.00005	0.000041	ug/L				-			J
1,2,3,6,7,8-HxCDF	5.7e-006	0.00005	0.000034	ug/L				-			J
1,2,3,7,8,9-HxCDD	2.7e-006	0.00005	0.000033	ug/L				-			J, Q
1,2,3,7,8,9-HxCDF	2.2e-006	0.00005	0.000036	ug/L				-			J, Q
1,2,3,7,8-PeCDD	ND	0.00005	0.000067	ug/L				-			
1,2,3,7,8-PeCDF	ND	0.00005	0.000038	ug/L				-			
2,3,4,6,7,8-HxCDF	6e-006	0.00005	0.000031	ug/L				-			J, Q
2,3,4,7,8-PeCDF	ND	0.00005	0.000042	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.000027	ug/L				-			
2,3,7,8-TCDF	ND	0.00001	0.000002	ug/L				-			
OCDD	2e-005	0.0001	0.000089	ug/L				-			J, Q
OCDF	1.6e-005	0.0001	0.000089	ug/L				-			J
Total HpCDD	7.9e-006	0.00005	0.000056	ug/L				-			J
Total HpCDF	6.9e-006	0.00005	0.000044	ug/L				-			J
Total HxCDD	1.4e-005	0.00005	0.000035	ug/L				-			J, Q
Total HxCDF	1.4e-005	0.00005	0.000031	ug/L				-			J, Q
Total PeCDD	ND	0.00005	0.000067	ug/L				-			
Total PeCDF	ND	0.00005	0.000026	ug/L				-			
Total TCDD	ND	0.00001	0.000027	ug/L				-			
Total TCDF	ND	0.00001	0.000002	ug/L				-			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.0018			ug/L	0.00200		91	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.0021			ug/L	0.00200		104	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0019			ug/L	0.00200		93	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.0017			ug/L	0.00200		83	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.0015			ug/L	0.00200		77	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.0018			ug/L	0.00200		88	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.0017			ug/L	0.00200		85	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.0017			ug/L	0.00200		85	29-147			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.0013			ug/L	0.00200		65	25-181			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.0013			ug/L	0.00200		66	24-185			

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 26267 Extracted: 01/26/10											
Blank Analyzed: 02/02/2010 (G0A260000267B)											
Source:											
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0019			ug/L	0.00200		93	28-136			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.0014			ug/L	0.00200		69	21-178			
Surrogate: 13C-2,3,7,8-TCDD	0.0012			ug/L	0.00200		61	25-164			
Surrogate: 13C-2,3,7,8-TCDF	0.0012			ug/L	0.00200		60	24-169			
Surrogate: 13C-OCDD	0.0036			ug/L	0.00400		89	17-157			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.00077			ug/L	0.000800		96	35-197			
LCS Analyzed: 02/02/2010 (G0A260000267C)											
Source:											
1,2,3,4,6,7,8-HpCDD	0.00102	0.00005	0.0000092	ug/L	0.00100		102	70-140			
1,2,3,4,6,7,8-HpCDF	0.00108	0.00005	0.0000073	ug/L	0.00100		108	82-122			
1,2,3,4,7,8,9-HpCDF	0.00111	0.00005	0.0000012	ug/L	0.00100		111	78-138			
1,2,3,4,7,8-HxCDD	0.00103	0.00005	0.0000078	ug/L	0.00100		103	70-164			
1,2,3,4,7,8-HxCDF	0.00114	0.00005	0.0000051	ug/L	0.00100		114	72-134			
1,2,3,6,7,8-HxCDD	0.000964	0.00005	0.0000063	ug/L	0.00100		96	76-134			
1,2,3,6,7,8-HxCDF	0.00102	0.00005	0.0000045	ug/L	0.00100		102	84-130			
1,2,3,7,8,9-HxCDD	0.000912	0.00005	0.0000055	ug/L	0.00100		91	64-162			
1,2,3,7,8,9-HxCDF	0.00102	0.00005	0.0000046	ug/L	0.00100		102	78-130			
1,2,3,7,8-PeCDD	0.000999	0.00005	0.0000085	ug/L	0.00100		100	70-142			
1,2,3,7,8-PeCDF	0.00104	0.00005	0.0000054	ug/L	0.00100		104	80-134			
2,3,4,6,7,8-HxCDF	0.00104	0.00005	0.0000004	ug/L	0.00100		104	70-156			
2,3,4,7,8-PeCDF	0.00106	0.00005	0.0000006	ug/L	0.00100		106	68-160			
2,3,7,8-TCDD	0.000175	0.00001	0.0000038	ug/L	0.000200		88	67-158			
2,3,7,8-TCDF	0.0002	0.00001	0.0000027	ug/L	0.000200		100	75-158			
OCDD	0.002	0.0001	0.0000021	ug/L	0.00200		100	78-144			
OCDF	0.00214	0.0001	0.000001	ug/L	0.00200		107	63-170			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00169			ug/L	0.00200		84	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00191			ug/L	0.00200		96	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.00165			ug/L	0.00200		83	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00133			ug/L	0.00200		66	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00139			ug/L	0.00200		69	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00175			ug/L	0.00200		88	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00162			ug/L	0.00200		81	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00161			ug/L	0.00200		80	29-147			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00124			ug/L	0.00200		62	25-181			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00123			ug/L	0.00200		62	24-185			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00171			ug/L	0.00200		86	28-136			

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: Routine Outfall 011
 Routine Outfall 011
 Report Number: ITA1668

Sampled: 01/20/10-01/21/10
 Received: 01/20/10

METHOD BLANK/QC DATA

EPA-5 1613B

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 26267 Extracted: 01/26/10											
LCS Analyzed: 02/02/2010 (G0A260000267C)											
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00127			ug/L	0.00200		63	21-178			
Surrogate: 13C-2,3,7,8-TCDD	0.00116			ug/L	0.00200		58	25-164			
Surrogate: 13C-2,3,7,8-TCDF	0.00112			ug/L	0.00200		56	24-169			
Surrogate: 13C-OCDD	0.00318			ug/L	0.00400		80	17-157			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.000752			ug/L	0.000800		94	35-197			

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618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

DATA QUALIFIERS AND DEFINITIONS

- a** Spiked analyte outside of stated QC limits.
- B** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- J** Estimated result. Result is less than the reporting limit.
- Ja** 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.
- Jb** Result is greater than sample detection limit but less than stated reporting limit.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- Q** Estimated maximum possible concentration (EMPC).
- U** Result is less than the sample detection limit.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
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 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM 2540D	Water	X	X
SM2540C	Water	X	
SM2540F	Water	X	X
SM4500CN-E	Water	X	X
SM4500NH3-C	Water	X	X
SM5210B	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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnrc

Samples: ITA1668-03

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

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

Project ID: Routine Outfall 011
Routine Outfall 011
Report Number: ITA1668

Sampled: 01/20/10-01/21/10
Received: 01/20/10

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91
Samples: ITA1668-03

Method Performed: EPA 900.0 MOD
Samples: ITA1668-03

Method Performed: EPA 901.1 MOD
Samples: ITA1668-03

Method Performed: EPA 903.0 MOD
Samples: ITA1668-03

Method Performed: EPA 904 MOD
Samples: ITA1668-03

Method Performed: EPA 905 MOD
Samples: ITA1668-03

Method Performed: EPA 906.0 MOD
Samples: ITA1668-03

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B
Samples: ITA1668-03

TestAmerica Irvine

Debby Wilson For Joseph Doak
Project Manager

Client Name/Address: MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES Quarterly Outfall 011 COMPOSITE <i>CRAB</i>	
Test America Contact: Joseph Doak		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515	
Project Manager: Bronwyn Kelly EMILY ALFANO Sampler: MEG HANU (HELL)		ANALYSIS REQUIRED Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	
Sample Description	Container Type	Sample Matrix	Preservative
Outfall 011	1L Poly	W	HNO ₃
Outfall 011 Dup	1L Poly	W	HNO ₃
Outfall 011	1L Amber	W	None
Outfall 011	1L Poly	W	None
Outfall 011	500 mL Poly	W	None
Outfall 011	500 mL Poly	W	None
Outfall 011	500 mL Poly	W	None
Outfall 011	500 mL Poly	W	None
Outfall 011	500 mL Poly	W	H ₂ SO ₄
Outfall 011	1L Amber	W	None
Outfall 011	1L Amber	W	None
Outfall 011	2.5 Gal Cube	W	None
Outfall 011	500 mL Amber	W	None
Outfall 011	1 Gal Cube	W	None
Outfall 011	1L Poly	W	None

TCDD (and all congeners)	Se, Zn, Fe, Mn	Total Recoverable Metals: Cu, Pb, Hg, Cd	BOD ₅ (20 degrees C)	Surfactants (MBAS)	Cl ₂ , SO ₄ , NO ₃ +NO ₂ -N, Perchlorate	Nitrate-N, Nitrite-N	Turbidity, TDS, TSS	Ammonia-N (350.2)	Alpha BHC (608) + Pesticides + PP	2,4,6-TCP, 2,4-Dinitrotoluene, Bis(2-ethylhexyl)phthalate, NDMA, PCP (SVOCs)	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Total Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, Fe, Mn	Comments
		X												24 TAT <i>hold</i>
		X												24 TAT <i>hold</i>
			X											<i>hold</i>
					X									→
					X									24 TAT <i>hold</i>
					X									24 TAT <i>hold</i>
								X						<i>hold</i>
									X					→
										X				Unfiltered and unpreserved analysis <i>hold</i>
											X			Test only if first or second rain event of the year <i>hold</i>
												X		Filter w/in 24hrs of receipt at lab <i>hold</i>

COC Page 2 of 2 lists the composite samples for Outfall 011 for this storm event.

These must be added to the same work order for COC Page 1 of 2 for Outfall 011 for the same event.

Relinquished By	Date/Time	Received By	Date/Time
<i>Christy</i>	1-20-10 16:40	<i>Christy</i>	1-20-10 16:40
Relinquished By	Date/Time	Received By	Date/Time
<i>Christy</i>	1-20-10 20:30	<i>Christy</i>	1-20-10 20:30
Relinquished By	Date/Time	Received By	Date/Time

Turn-around time: (Check)
 24 Hour: _____
 5 Day: _____
 72 Hour: _____
 10 Day: _____

On test: *4.5*

Sample integrity: (Check) _____
 In tact: _____

Data Requirements: (Check)
 All Level IV: _____
 NPDES Level IV:

01/20/10
01/20/10

LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"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

Date: January 29, 2010

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

Laboratory No.: A-10012203-001
Sample I.D.: ITA1668-03 (Outfall 011)

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: 01/21/10
Date Received: 01/22/10
Temp. Received: 1.7°C
Chlorine (TRC): 0.0 mg/l
Date Tested: 01/22/10 to 01/29/10

Sample Analysis: The following analyses were performed on your sample:
Ceriodaphnia dubia Survival and Reproduction Test (EPA Method 1002).
Attached are the test data generated from the analysis of your sample.

Result Summary:

	<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

**CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0**



Lab No.: A-10012203-001
Client/ID: Test America - ITA1668-03 (Outfall 011)

Date Tested: 01/22/10 to 01/29/10

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).
QA/QC Batch No.: RT-100119.

Endpoints: Survival and Reproduction.
Source: In-laboratory culture.
Food: .1 ml YTC, algae per day.
Test solution volume: 15 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%	23.7
100% Sample	100%	30.0
* 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 (23.7 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 8.4%)
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

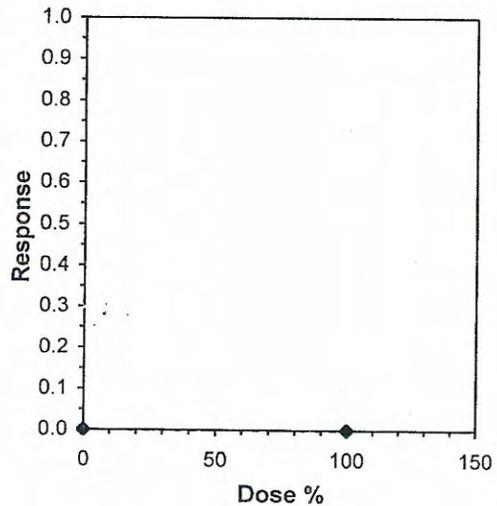
Start Date: 1/22/2010 14:30 Test ID: 10012203c Sample ID: Outfall 011
 End Date: 1/29/2010 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial
 Sample Date: 1/21/2010 14:06 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

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 1-Tailed		Isotonic	
							Exact P	Critical	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				

Point	%	SD	Linear Interpolation (200 Resamples)	
			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: 1/22/2010 14:30 Test ID: 10012203c Sample ID: Outfall 011
 End Date: 1/29/2010 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial
 Sample Date: 1/21/2010 14:06 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	22.000	23.000	22.000	23.000	28.000	22.000	23.000	21.000	27.000
100	33.000	36.000	28.000	27.000	30.000	29.000	31.000	30.000	28.000	28.000

Conc-%	Mean	N-Mean	Transform: Untransformed					Rank Sum	1-Tailed Critical	Isotonic	
			Mean	Min	Max	CV%	N			Mean	N-Mean
D-Control	23.700	1.0000	23.700	21.000	28.000	10.152	10			26.850	1.0000
100	30.000	1.2658	30.000	27.000	36.000	9.162	10	152.00	82.00	26.850	1.0000

Auxiliary Tests

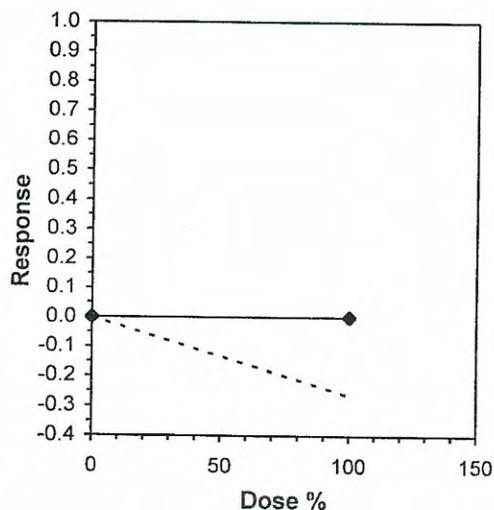
	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.88354	0.905	1.04564	0.21304
F-Test indicates equal variances (p = 0.70)	1.30518	6.54109		

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-10012203-001

Client ID: TestAmerica - ITA1668-03 Outfall 011

Start Date: 01/22/2010

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr												
Analyst Initials:		Rm	Rm												
Time of Readings:		1430	1530	1530	1400	1400	1400	1400	1500	1500	1500	1500	1400	1400	1400
Control	DO	9.3	8.4	8.3	8.2	8.2	7.9	8.2	8.3	8.6	8.1	8.6	8.4	8.8	8.3
	pH	7.7	7.8	7.7	7.8	7.7	7.8	7.7	7.6	7.7	7.8	7.7	7.6	7.6	7.7
	Temp	25.4	25.5	25.7	24.2	24.4	24.5	25.3	25.5	24.8	25.3	25.8	25.4	25.7	25.0
100%	DO	9.9	7.8	8.7	8.4	8.9	7.0	9.4	8.2	10.6	8.3	10.4	8.3	10.6	8.5
	pH	7.1	7.3	7.2	7.4	7.2	7.5	7.4	7.6	7.2	7.5	7.2	7.3	7.1	7.3
	Temp	25.5	25.8	24.6	24.3	24.3	24.6	25.0	25.5	25.1	25.3	24.9	25.4	24.4	25.0

Additional Parameters	Control	100% Sample
Conductivity (umohms)	330	150
Alkalinity (mg/l CaCO ₃)	74	48
Hardness (mg/l CaCO ₃)	89	42
Ammonia (mg/l NH ₃ -N)	<0.1	0.2

Source of Neonates										
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	4B	6B	4C	4D	4E	6F	6G	5H	6I	6J

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	
	3	3	4	0	3	3	4	0	3	3	0	23	10	
	4	0	0	4	0	0	0	4	0	0	5	13	10	
	5	11	7	8	2	6	8	0	7	6	8	68	10	
	6	0	0	0	0	14	16	8	0	0	0	38	10	
	7	12	11	11	12	0	0	10	13	12	14	95	10	
	Total	26	22	23	22	23	28	22	23	21	27	237	10	
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	
	3	6	8	4	4	4	4	4	4	0	5	43	10	
	4	0	12	7	8	9	9	8	9	4	0	66	10	
	5	12	16	17	15	17	0	0	17	10	6	110	10	
	6	0	15	0	17	0	16	19	0	0	17	52	10	
	7	15	0	12	0	11	0	10	15	14	0	79	10	
	Total	33	36	28	27	30	29	31	30	28	27	300	10	

Circled fourth brood not used in statistical analysis.

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

SUBCONTRACT ORDER

TestAmerica Irvine

ITA1668

SENDING LABORATORY:

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

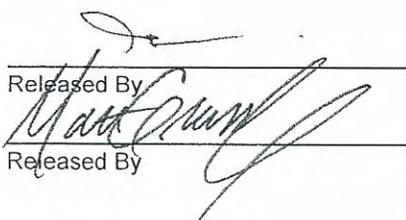
RECEIVING LABORATORY:

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: 17 °C

Ice: Y / N

Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

Analysis	Units	Expires	Comments
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water) Sampled: 01/21/10 14:06			
Bioassay-7 dy Chrnict	N/A	01/23/10 02:06	Cerio, EPA/821-R02-013, Sub to Aquatic testing
Containers Supplied: 1 gal Poly (T)			

Released By 

1-22-10/7:30
Date/Time
1-22-10/11:35
Date/Time

Received By 

1-22-10/7:30
Date/Time
1-22-10 11:35
Date/Time



Ceriodaphnia dubia
Chronic Toxicity Test
Reference
Toxicant
Data

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-100119

Date Tested: 01/19/10 to 01/26/10

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%		23.4	
0.25 g/l	100%		25.0	
0.5 g/l	100%		24.3	
1.0 g/l	100%		13.7	*
2.0 g/l	100%		2.7	*
4.0 g/l	0%	*	0	**

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

CHRONIC TOXICITY

Survival LC50	2.8 g/l
Reproduction IC25	0.79 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% Survival)
≥15 young per surviving control female	Pass (23.4 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD <47% for reproduction	Pass (PMSD = 9.5%)
Stat. sig. diff. conc. relative difference >13%	Pass (Stat. sig. diff. conc. Relative difference = 41.5%)
Concentration response relationship acceptable	Pass (Response curve normal)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/19/2010 14:00 Test ID: RT100119c Sample ID: REF-Ref Toxicant
 End Date: 1/26/2010 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 1/19/2010 Protocol: FWCH EPA 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	1.0000	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

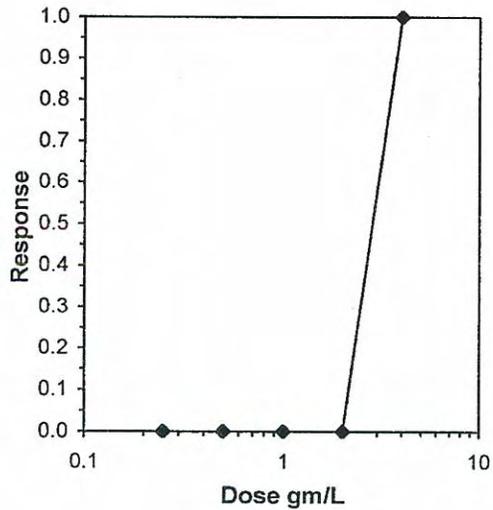
Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	1.0000	1.0000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

Graphical Method

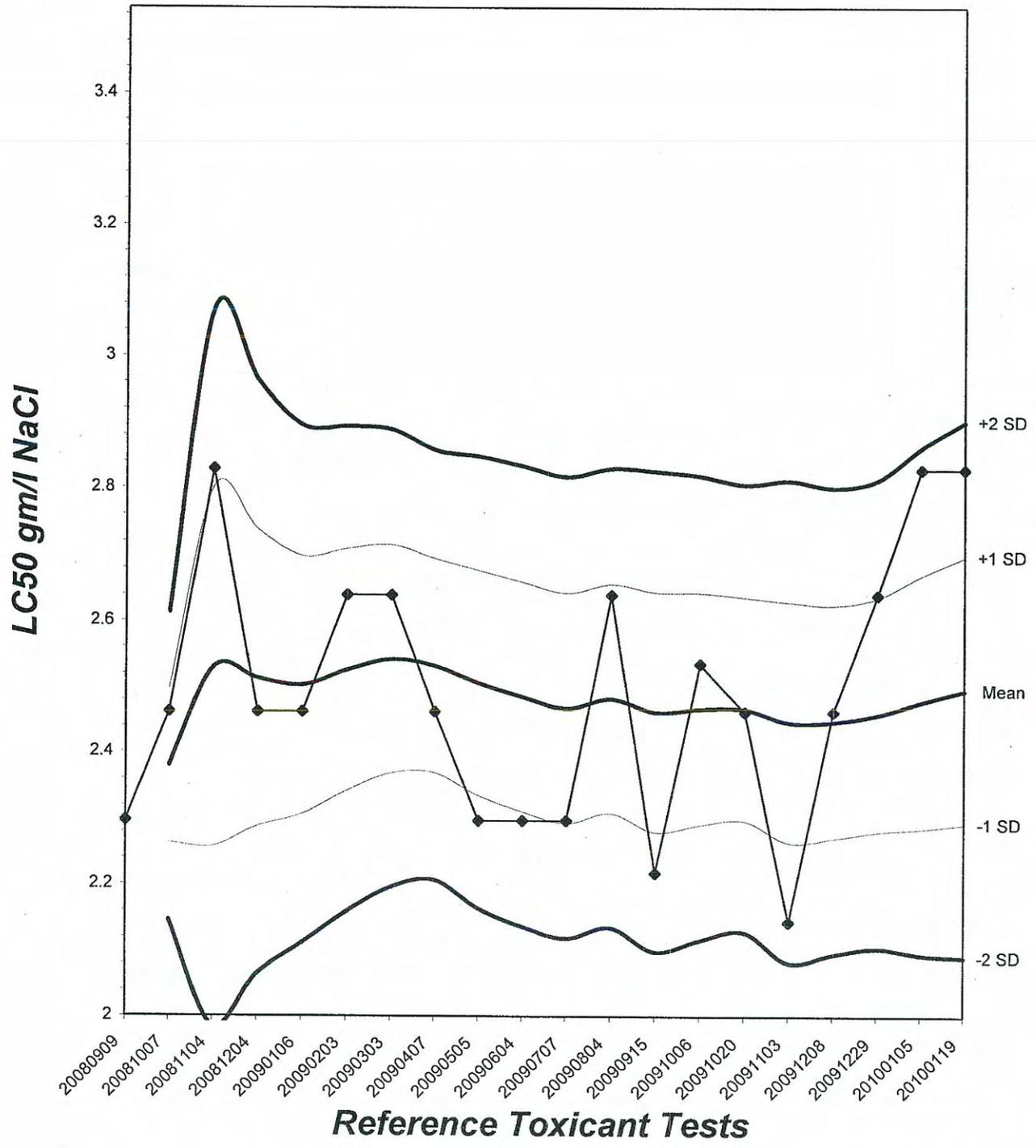
Trim Level	EC50
0.0%	2.8284

2.8284



Ceriodaphnia Chronic Survival Laboratory Control Chart

CV% = 8.13



Ceriodaphnia Survival and Reproduction Test-Reproduction

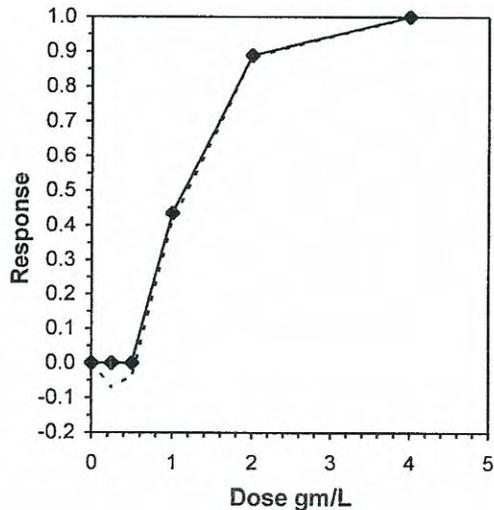
Start Date: 1/19/2010 14:00 Test ID: RT100119c Sample ID: REF-Ref Toxicant
 End Date: 1/26/2010 14:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 1/19/2010 Protocol: FWCH EPA Test Species: CD-Ceriodaphnia dubia
 Comments:

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	23.000	25.000	21.000	24.000	23.000	25.000	25.000	21.000	22.000	25.000
0.25	23.000	26.000	27.000	24.000	24.000	25.000	27.000	22.000	28.000	24.000
0.5	22.000	26.000	25.000	26.000	24.000	22.000	26.000	23.000	25.000	24.000
1	17.000	14.000	10.000	14.000	14.000	12.000	8.000	20.000	13.000	15.000
2	0.000	2.000	3.000	5.000	3.000	3.000	7.000	0.000	2.000	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					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
D-Control	23.400	1.0000	23.400	21.000	25.000	7.037	10				24.233	1.0000	
0.25	25.000	1.0684	25.000	22.000	28.000	7.775	10	-1.608	2.223	2.212	24.233	1.0000	
0.5	24.300	1.0385	24.300	22.000	26.000	6.449	10	-0.905	2.223	2.212	24.233	1.0000	
*1	13.700	0.5855	13.700	8.000	20.000	24.585	10	9.750	2.223	2.212	13.700	0.5653	
*2	2.700	0.1154	2.700	0.000	7.000	78.178	10	20.807	2.223	2.212	2.700	0.1114	
4	0.000	0.0000	0.000	0.000	0.000	0.000	10				0.000	0.0000	

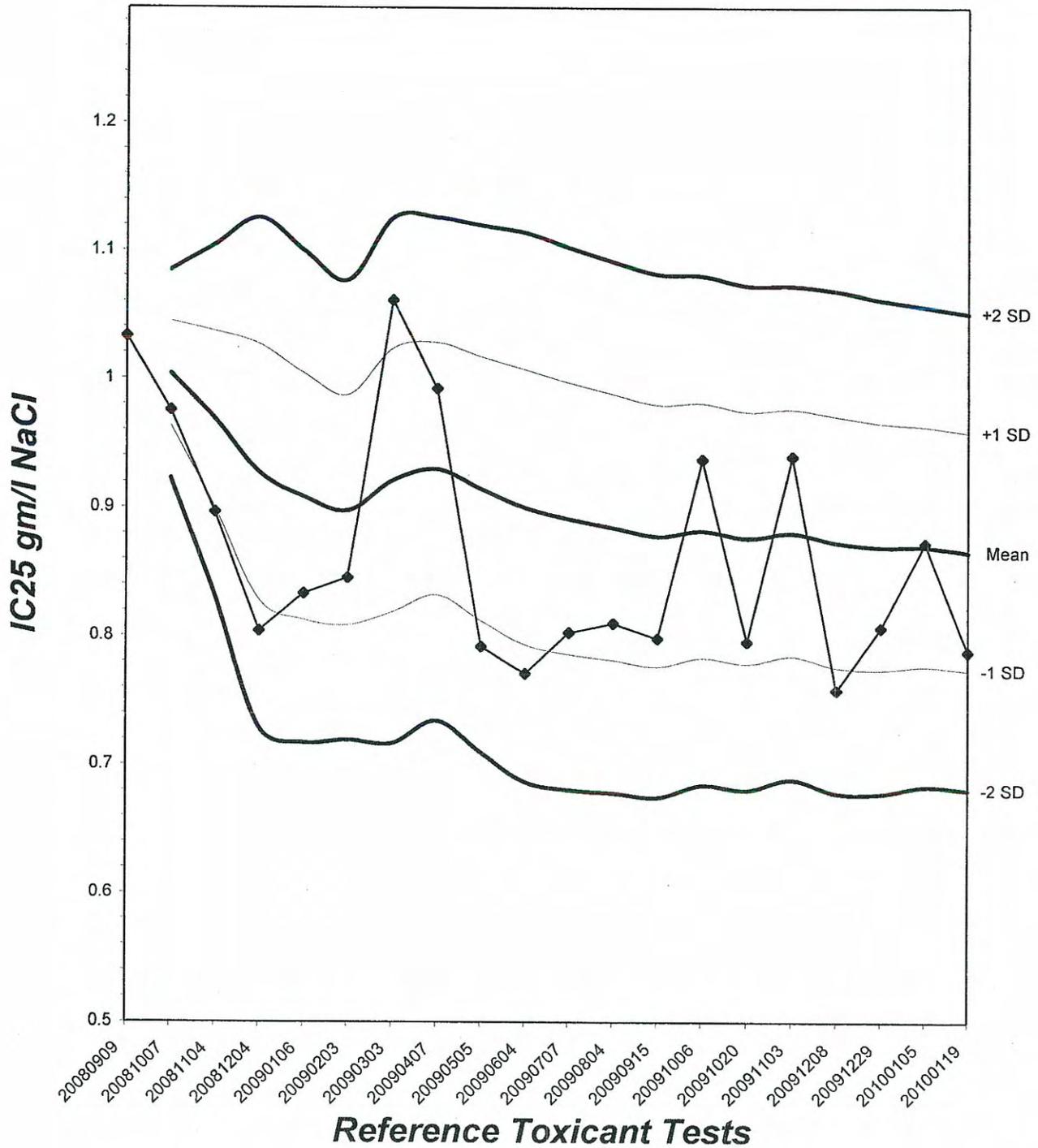
Auxiliary Tests		Statistic	Critical	Skew	Kurt					
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)		0.98781	0.947	0.1743	1.07344					
Bartlett's Test indicates equal variances (p = 0.12)		7.30799	13.2767							
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test	0.5	1	0.70711		2.21194	0.09453	925.67	4.94889	2.0E-27	4, 45

Point	gm/L	SD	Linear Interpolation (200 Resamples)		
			95% CL	Skew	
IC05	0.5575	0.0143	0.5110	0.5655	-2.0775
IC10	0.6150	0.0146	0.5755	0.6311	-0.4724
IC15	0.6725	0.0178	0.6297	0.6978	0.1744
IC20	0.7301	0.0222	0.6808	0.7720	0.4277
IC25	0.7876	0.0272	0.7293	0.8440	0.5197
IC40	0.9601	0.0466	0.8758	1.0814	0.8653
IC50	1.1439	0.0763	0.9761	1.2715	-0.1589



Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 10.7



CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-100119

Start Date: 01/19/2010

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	[Signature]
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	0	0	0	0	0	10	
	4	3	4	3	5	3	4	4	3	3	4	36	10	
	5	6	9	0	0	0	0	8	7	9	8	47	10	
	6	14	0	8	7	8	7	13	0	0	0	57	10	
	7	0	17	10	12	12	14	0	11	10	13	94	10	
	Total	23	25	21	24	23	25	25	21	22	25	234	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	10	[Signature]	
	2	0	0	0	0	0	0	0	0	0	0	10		
	3	0	0	0	0	0	0	0	4	0	4	10		
	4	3	4	5	5	3	4	4	3	0	4	43		10
	5	8	0	0	0	0	7	8	7	9	8	47		10
	6	0	8	10	7	8	0	0	0	15	0	48		10
	7	12	14	12	12	13	14	15	12	0	12	116		10
	Total	23	26	27	24	24	25	27	22	28	24	226		10
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	10	[Signature]	
	2	0	0	0	0	0	0	0	0	0	0	10		
	3	0	0	0	0	0	0	0	0	0	0	10		
	4	3	4	5	4	3	3	4	3	3	4	36		10
	5	7	8	0	0	0	0	0	8	9	9	41		10
	6	0	14	7	8	9	9	10	12	0	0	69		10
	7	12	0	13	14	12	10	12	0	13	11	97		10
	Total	22	26	25	26	24	22	26	23	25	24	243		10

Circled fourth brood not used in statistical analysis.

7th 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-100119

Start Date: 01/19/2010

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	10	R
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	0	3	0	2	5	10	
	4	3	2	4	3	3	2	3	0	4	0	24	10	
	5	6	0	0	0	0	0	0	7	0	6	19	10	
	6	0	5	6	4	3	4	5	0	0	0	27	10	
	7	8	7	0	7	8	6	0	10	9	7	62	10	
	Total	17	14	10	14	14	12	8	20	13	15	137	10	
2.0 g/l	1	0	0	0	0	0	0	0	0	0	0	10	R	
	2	0	0	0	0	0	0	0	0	0	0	10		
	3	0	0	0	0	0	0	0	0	0	0	10		
	4	0	0	0	0	0	0	0	0	0	0	10		
	5	0	2	3	2	0	3	0	0	0	2	12		10
	6	0	0	0	0	3	0	3	0	0	0	6		10
	7	0	0	0	3	0	0	4	0	2	0	9		10
	Total	0	2	3	5	3	3	7	0	2	2	27		10
4.0 g/l	1	X	X	X	X	X	X	X	X	X	0	0	R	
	2	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	-	-	-	-	-	-	-	-		
	6	-	-	-	-	-	-	-	-	-	-	-		
	7	-	-	-	-	-	-	-	-	-	-	-		
	Total	0	0	0	0	0	0	0	0	0	0	0		0

Circled fourth brood not used in statistical analysis.

7th 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-100119

Start Date: 01/19/2010

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final												
Analyst Initials:		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Jr	Rm	Rm	Rm	Rm
Time of Readings:		1400	1400	1400	1430	1430	1330	1330	1500	1500	1330	1400	1400	1400	1400
Control	DO	9.1	8.3	8.0	8.1	9.0	8.0	9.3	8.0	8.3	8.0	8.3	8.2	8.2	8.0
	pH	7.8	8.0	8.0	7.8	7.7	7.9	7.7	7.9	7.7	8.0	7.6	8.0	7.7	7.6
	Temp	25.3	25.3	25.4	25.0	25.0	25.0	25.4	24.8	25.7	24.7	25.0	24.4	24.9	24.2
0.25 g/l	DO	9.1	8.3	8.0	8.0	9.0	8.0	9.2	8.0	8.3	8.1	8.5	8.0	8.2	8.2
	pH	7.8	8.0	8.0	7.8	7.7	7.9	7.7	7.9	7.7	8.0	7.7	8.0	7.9	7.9
	Temp	25.3	25.4	25.4	25.1	25.0	25.1	25.4	25.1	25.7	24.2	25.2	24.7	25.0	24.3
0.5 g/l	DO	9.0	8.2	8.0	8.0	8.9	8.1	9.2	8.0	8.3	8.2	8.5	8.3	8.3	8.3
	pH	7.7	8.0	8.0	7.8	7.7	7.9	7.7	7.9	7.7	8.1	7.8	8.0	7.9	8.0
	Temp	25.3	25.4	25.5	25.2	25.0	25.1	25.4	25.3	25.7	24.3	25.9	24.5	24.9	24.5
1.0 g/l	DO	9.0	8.3	8.0	8.0	8.7	8.1	9.3	8.0	8.3	8.1	8.6	8.1	8.3	8.3
	pH	7.7	8.1	8.0	7.8	7.7	7.9	7.7	7.9	7.7	8.0	7.9	7.9	7.8	7.9
	Temp	25.3	25.5	25.5	25.1	25.1	25.1	25.5	25.3	25.8	24.5	24.8	24.7	25.0	24.3
2.0 g/l	DO	8.9	8.3	7.9	8.1	8.5	8.3	9.3	8.0	8.2	8.1	8.6	8.0	8.2	8.2
	pH	7.7	8.1	8.0	7.8	7.7	7.9	7.7	7.9	7.6	7.9	7.7	7.9	7.8	7.9
	Temp	25.2	25.5	25.6	25.1	25.1	25.2	25.5	25.3	25.9	24.2	24.7	24.2	25.1	24.5
4.0 g/l	DO	8.7	8.4	-	-	-	-	-	-	-	-	-	-	-	-
	pH	7.7	8.1	-	-	-	-	-	-	-	-	-	-	-	-
	Temp	25.2	25.5	-	-	-	-	-	-	-	-	-	-	-	-

Dissolved Oxygen (DO) readings are in mg/l O₂; 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)	345	340	330	16800	3710	3650
Alkalinity (mg/l CaCO ₃)	72	72	74	72	73	74
Hardness (mg/l CaCO ₃)	92	93	89	92	92	90

Source of Neonates

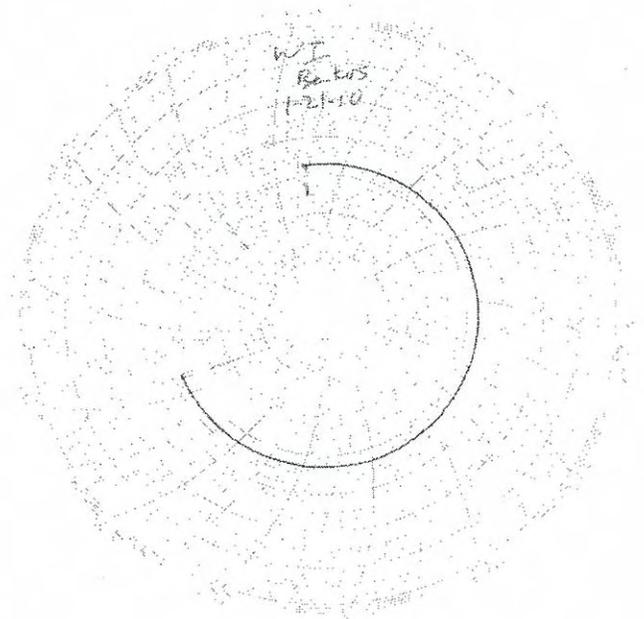
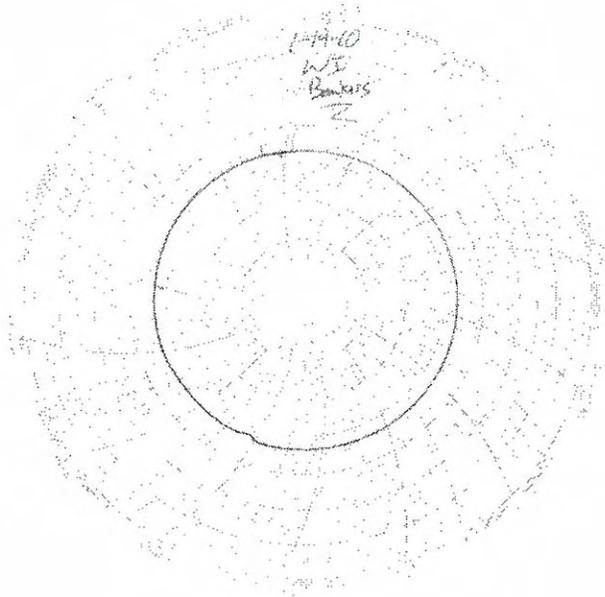
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	2A	3A	1B	2B	3B	1C	2C	2D	1E	2F

Test Temperature Chart

Test No: RT-100122

Date Tested: 01/19/10 to 01/26/10

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





TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. ITA1668

MWH-Pasadena Boeing

Lot #: F0C150464

Debbie Wilson

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

TESTAMERICA LABORATORIES, INC.

A handwritten signature in black ink, appearing to read "L. Fussner", is positioned above the printed name and title.

Lynn Fussner
Project Manager

April 9, 2010

ANALYTICAL REPORT

PROJECT NO. ITA1668

MWH-Pasadena Boeing

Lot #: F0A230419

Debbie Wilson

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

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

April 9, 2010

Case Narrative
LOT NUMBER: F0C150464-ITA1668

This report contains the analytical results for the two samples received under chain of custody by TestAmerica St. Louis between January 23, 2010 and March 15, 2010. These samples are associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements, except as noted below.

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. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

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

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.

Radium-226 by GFPC (EPA 903.0 MOD)

There was insufficient sample volume to perform MS/MSD analysis. A LCS/LCSD was performed to demonstrate accuracy and replicate precision.

Affected Samples:

F0A230419 (1): ITA1668-03

Radium-228 by GFPC (EPA 904 MOD)

There was insufficient sample volume to perform MS/MSD analysis. A LCS/LCSD was performed to demonstrate accuracy and replicate precision.

Affected Samples:

F0A230419 (1): ITA1668-03

Gross Alpha/Beta (EPA 900.0 MOD)

The gross alpha and beta matrix spike are outside lower control limits due to possible matrix interference. Method performance is demonstrated by acceptable LCS recovery.

Affected Samples:

F0A230419 (1): ITA1668-03

METHODS SUMMARY

ITA1668

<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	
Radium-228 by GFPC	EPA 904 MOD	
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

ITA1668 : FOA230419

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LTM4P	001	ITA1668-03	01/21/10	14:06

NOTE(S) :

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

(Continued on next page)

SAMPLE SUMMARY

ITA1668 : F0C150464

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
LWNF3	001	ITA1668-03	01/21/10	14:06

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: ITA1668-03

Radiochemistry

Lab Sample ID: FOA230419-001
 Work Order: LTM4P
 Matrix: WATER

Date Collected: 01/21/10 1406
 Date Received: 01/23/10 0945

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD							
				pCi/L		Batch # 0025131	Yld %
Cesium 137	0.0	U	6.8	20.0	14	01/25/10	02/06/10
Potassium 40	-40	U	280		270	01/25/10	02/06/10
Gross Alpha/Beta EPA 900							
				pCi/L		Batch # 0025415	Yld %
Gross Alpha	3.5		1.3	3.0	1.3	01/25/10	01/29/10
Gross Beta	15.2		1.9	4.0	1.5	01/25/10	01/29/10
TRITIUM (Distill) by EPA 906.0 MOD							
				pCi/L		Batch # 0028080	Yld %
Tritium	43	U	84	500	150	01/28/10	01/29/10
Total Uranium by KPA ASTM 5174-91							
				pCi/L		Batch # 0035029	Yld %
Total Uranium	0.104	U	0.012	0.693	0.21	02/04/10	02/08/10

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

U Result is less than the sample detection limit.

TestAmerica Irvine

Client Sample ID: ITA1668-03

Radiochemistry

Lab Sample ID: FOC150464-001
 Work Order: LWNF3
 Matrix: WATER

Date Collected: 01/21/10 1406
 Date Received: 01/23/10 0945

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	mdc	Prep Date	Analysis Date
SR-90 BY GFPC Strontium 90	EPA-905 MOD 0.07	U	0.32	pCi/L 3.00	Batch # 0075098 0.55	03/16/10	Yld % 60 03/26/10
Radium 226 by Radium (226)	EPA 903.0 MOD 0.19	J	0.13	pCi/L 1.00	Batch # 0075096 0.16	03/16/10	Yld % 85 04/08/10
Radium 228 by GFPC Radium 228	EPA 904 MOD 0.27	U	0.29	pCi/L 1.00	Batch # 0075097 0.46	03/16/10	Yld % 86 04/08/10

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: ITA1668
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ +/-)	RL	MDC	Prep Date	Lab Sample ID Analysis Date
Total Uranium by KPA ASTM 5174-91							
Total Uranium	-0.0623	U	0.0075	0.693	0.21	02/04/10	FOB040000-029B
Gamma Cs-137 & Hits by EPA 901.1 MOD							
Cesium 137	0.8	U	7.4	20.0	14	01/25/10	FOA250000-131B
Potassium 40	-100	U	800		270	01/25/10	02/06/10
Gross Alpha/Beta EPA 900							
Gross Alpha	-0.03	U	0.34	3.00	0.71	01/25/10	FOA250000-415B
Gross Beta	-0.26	U	0.86	4.00	1.5	01/25/10	01/29/10
TRITIUM (Distill) by EPA 906.0 MOD							
Tritium	250	J	120	500	140	01/28/10	FOA280000-080B
Radium 226 by EPA 903.0 MOD							
Radium (226)	0.13	U	0.12	1.00	0.17	03/16/10	FOC160000-096B
Radium 228 by GFPC EPA 904 MOD							
Radium 228	0.04	U	0.22	1.00	0.39	03/16/10	FOC160000-097B
SR-90 BY GFPC EPA-905 MOD							
Strontium 90	0.03	U	0.21	3.00	0.37	03/16/10	FOC160000-098B

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using 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.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: ITA1668
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	MDC	% Yld	% Rec	Lab Sample ID QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F0A250000-131C
Americium 241	141000	143000	11000	500		101	(87 - 110)
Cesium 137	53100	50900	2900	200		96	(90 - 110)
Cobalt 60	87900	83500	4700	200		95	(89 - 110)
	Batch #:	0025131				Analysis Date:	02/12/10
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0A250000-415C
Gross Beta	68.1	73.4	6.2	1.6		108	(58 - 133)
	Batch #:	0025415				Analysis Date:	01/29/10
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0A250000-415C
Gross Alpha	49.4	45.4	5.0	0.9		92	(62 - 134)
	Batch #:	0025415				Analysis Date:	01/29/10
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L	906.0 MOD			F0A280000-080C
Tritium	4540	4680	480	140		103	(85 - 112)
	Batch #:	0028080				Analysis Date:	01/28/10
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			F0B040000-029C
Total Uranium	27.7	29.2	3.5	0.2	-	105	(90 - 120)
	Batch #:	0035029				Analysis Date:	02/08/10
Total Uranium by KPA ASTM 5174-91			pCi/L	5174-91			F0B040000-029C
Total Uranium	5.54	5.67	0.59	0.21		102	(90 - 120)
	Batch #:	0035029				Analysis Date:	02/08/10

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: ITA1668
 Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ +/-)	% Yld	% Rec	Lab Sample ID	
						QC Control Limits	Precision
Radium 226 by EPA	903.0 MOD		pCi/L	903.0 MOD			F0C160000-096C
Radium (226)	11.3	10.2	1.1	107	91	(68 - 136)	
Spk 2	11.3	11.0	1.1	107	98	(68 - 136)	8 %RPD
	Batch #:	0075096		Analysis Date:	04/08/10		
Radium 228 by GFPC EPA	904 MOD		pCi/L	904 MOD			F0C160000-097C
Radium 228	6.33	5.58	0.66	103	88	(60 - 142)	
Spk 2	6.33	6.00	0.70	104	95	(60 - 142)	7 %RPD
	Batch #:	0075097		Analysis Date:	04/08/10		
SR-90 BY GFPC EPA-905	MOD		pCi/L	905 MOD			F0C160000-098C
Strontium 90	6.78	6.42	0.77	86	95	(80 - 130)	
Spk 2	6.78	6.86	0.81	83	101	(80 - 130)	7 %RPD
	Batch #:	0075098		Analysis Date:	03/26/10		

NOTE(S)

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

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: FOA200486
 Matrix: WATER

Date Sampled: 01/18/10
 Date Received: 01/20/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2σ +/-)	QC Sample ID		QC Control Limits
							%YLD	%REC	
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD				FOA200486-001
Gross Beta	68.1	10.0	1.6		0.83	0.99	14	a	(54 - 150)
	Batch #:	0025415			Analysis Date:	01/29/10			
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD				FOA200486-001
Gross Alpha	49.4	6.9	1.6		0.98	0.70	12	a	(35 - 150)
	Batch #:	0025415			Analysis Date:	01/29/10			
TRITIUM (Distill) by EPA 906.0 MOD			pCi/L		906.0 MOD				FOA200494-001
Tritium	4540	4350	460		64	88	94		(62 - 147)
	Batch #:	0028080			Analysis Date:	01/29/10			

NOTE (S)

Data are incomplete without the case narrative.

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

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: FOA200486
 Matrix: WATER

Date Sampled: 01/18/10 0730
 Date Received: 01/20/10 0915

Parameter	Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result	Total Uncert. (2 σ+/-)	QC Sample ID		QC Control Limits
							% Yld	%Rec	
Total Uranium by KPA ASTM 5			pCi/L	5174-91		FOA200486-001			
Total Uranium	27.7	28.8	3.4		-0.0334 U	0.0040	104		(62 - 150)
Spk2	27.7	29.2	3.5		-0.0334 U	0.0040	105		(62 - 150)
							Precision:	2	%RPD
Batch #:			0035029	Analysis date:		02/08/10			

NOTE(S)

Data are incomplete without the case narrative.

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

U Result is less than the sample detection limit.

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: ITA1668
 Matrix: WATER

Date Sampled: 01/18/10
 Date Received: 01/20/10

Parameter	SAMPLE Result		Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID	
								Precision	
Gross Alpha/Beta EPA 900					900.0 MOD			FOA200486-001	
Gross Alpha	0.98	J	0.70		0.71 J	0.85		32	%RPD
Gross Beta	0.83	U	0.99		1.6 J	1.0		62	%RPD
	Batch #:		0025415 (Sample)		0025415 (Duplicate)				
TRITIUM (Distill) by EPA 906.0 MOD					906.0 MOD			FOA200486-001	
Tritium	99	U	94		-49 U	64		586	%RPD
	Batch #:		0028080 (Sample)		0028080 (Duplicate)				
Gamma Cs-137 & Hits by EPA 901.1 MOD					901.1 MOD			FOA230419-001	
Cesium 137	0.0	U	6.8		0.5 U	5.1		200	%RPD
Potassium 40	-40	U	280		-100 U	10000		98	%RPD
	Batch #:		0025131 (Sample)		0025131 (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.



REANALYSIS / SUB-CONTRACT / CLIENT RETURN FORM

Request Initiated by: clay
 Request Date: 03-15-10
 Quote Number: 85044
 Client Number: _____
 SDG Number: _____

Request is for (check one):

- Return to Client – (Client FedEx #)
- Reanalysis
- Sub-Contract Sample
- Additional Analysis

New Lot (check one):

- Yes
- No

Old Lot Number: F0A230419

Client ID	Sampled date/time*	Shelf Location	Line item from quote (include Rad Screen if required)
SEE ATTACHED			Ra226, Ra228 and Sr 90

* or attach original Chain of Custody

Due Date for New Login:

Analytical 4-5-10	Report 4-6-10
----------------------	------------------

For Sub-Contract or Return to Client ONLY

Shipping Address: _____

 Contact Person: _____
 Phone Number: _____

Project Manager Signature: _____

DO NOT HAVE LAB PULL ORIGINAL SAMPLE

Completed by: [Signature] Date: 3.15.10

New Login Lot Number: F0C150464 (place copy of this form in old file)

SUBCONTRACT ORDER
TestAmerica Irvine
ITA1668

CAR 245

FOA230419

SENDING LABORATORY:

TestAmerica Irvine
17461 Derlan 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	Expres	Interlab Price	Surch	Comments
Sample ID: ITA1668-03 (Outfall 011 (Comp) - Water) Sampled: 01/21/10 14:06						
✓ Gamma Spec-O ✓	mg/kg	02/01/10	01/21/11 14:06	\$200.00	50%	Out St Louis, K-40 and CS-137 only, DO NOT FILTER!
✓ Gross Alpha-O ✓	pCi/L	02/01/10	07/20/10 14:06	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
✓ Gross Beta-O ✓	pCi/L	02/01/10	07/20/10 14:06	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	02/01/10	02/18/10 14:06	\$0.00	0%	
✓ Radium, Combined-O ✓	pCi/L	02/01/10	01/21/11 14:06	\$200.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
✓ Strontium 90-O ✓	pCi/L	02/01/10	01/21/11 14:06	\$140.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
✓ Tritium-O ✓	pCi/L	02/01/10	01/21/11 14:06	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
✓ Uranium, Combined-O ✓	pCi/L	02/01/10	01/21/11 14:06	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (R)	500 mL Amber (S)					

Released By _____ Date/Time 1/22/10 17:00

Received By *Fedtz* Date/Time 1/22/10 17:00

Released By _____ Date/Time _____

Received By *Nicholas Jensen* Date/Time 1/22/10 09:45



Lot #(s): FOA 230419

CONDITION UPON RECEIPT FORM.

Client: TA IRVINE
 Quote No: 85044
 COC/RFA No: ITA 1668

Initiated By: NO Date: 1/23/10 Time: 0945

Shipping Information

Shipper: FedEx UPS . DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):* _____ Sample Temperature (s):**

1. <u>4289 2132 9622</u>	6. _____	1. <u>Subjct</u>	6. _____
2. _____	7. _____	2. _____	7. _____
3. _____	8. _____	3. _____	8. _____
4. _____	9. _____	4. _____	9. _____
5. _____	10. _____	5. _____	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. <u>(Y)</u> N	Are there custody seals present on the cooler?	8. Y <u>(N)</u>	Are there custody seals present on bottles?
2. Y <u>(N)</u> N/A	Do custody seals on cooler appear to be tampered with?	9. Y N <u>(N/A)</u>	Do custody seals on bottles appear to be tampered with?
3. <u>(Y)</u> N	Were contents of cooler frisked after opening, but before unpacking?	10. Y N <u>(N/A)</u>	Was sample received with proper pH? (If not, make note below)
4. <u>(Y)</u> N	Sample received with Chain of Custody?	11. <u>(Y)</u> N	Sample received in proper containers?
5. <u>(Y)</u> N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12. Y N <u>(N/A)</u>	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. Y <u>(N)</u>	Was sample received broken?	13. <u>(Y)</u> N N/A	Was Internal COC/Workshare received?
7. <u>(Y)</u> N	Is sample volume sufficient for analysis?	14. <u>(Y)</u> N <u>(N/A)</u>	Was pH taken by original TestAmerica lab?

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

Notes:

Corrective Action:
 Client Contact Name: _____ Informed by: _____
 Sample(s) processed "as is"
 Sample(s) on hold until: _____
 Project Management Review: Jaymak Pohl If released, notify: _____
 Date: 1-28-10

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.
 ADMIN-0004, REVISED 10/21/08 \Slsrv01\QA\FORMS\ST-LOUIS\ADMIN\Adrah004 rev11.doc

APPENDIX G

Section 58

Outfall 011 – February 6 & 7, 2010

MEC^X Data Validation Report

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DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITB0891/ITB0896

Prepared by

MECX, LP
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: ITB0891/ITB0896
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 2
 No. of Reanalyses/Dilutions: 1
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 011	ITB0896-01	987715, GOB100425-001,	WATER	2/7/2010 11:43:00 AM	ASTM 5174-91, 180.1, 200.7, 200.7 (Diss), 245.1, 245.1 (Diss), 625, 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 905 MOD, 906.0 MOD, 8315M, SM2340B, SM2340B (Diss), SM5310B
Outfall 011	ITB0896-01RE		Water	2/7/2010 11:43:00 AM	904 MOD
Outfall 011 (Grab)	ITB0891-01		Water	2/6/2010 2:45:00 PM	120.1

II. Sample Management

No anomalies were observed regarding sample management. The samples were received at ambient temperature at TestAmerica-St. Louis; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at TestAmerica-St. Louis and TestAmerica-West Sacramento. As the sample was couriered to the remaining laboratories, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: March 27, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (9/05)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed with the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 16 native compounds (calibration by isotope dilution) and $\leq 35\%$ for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had detects between the EDL and the RL for 1,2,3,4,6,7,8-HpCDD and total HpCDD, OCDD, 1,2,3,4,6,7,8-HpCDF and total HpCDF, and OCDF. Most detects in the method blank did not meet ratio criteria and were reported as EMPCs; however, due to the extent of contamination present in the method blank, it was the reviewer's professional opinion that those results be utilized to qualify applicable sample

results. Isomers present in the sample between the EDLs and RLs were qualified as nondetected, "U," at the levels of contamination. The sample result for total HpCDD was qualified as nondetected, "U," as both peaks comprising the total were present in the method blank. Total HpCDF included one peak not present in the method blank, and was qualified as estimated, "J," as only a portion of the total was considered method blank contamination. The method blank concentration for OCDD was insufficient to qualify the sample result.

- Blank Spikes and Laboratory Control Samples: OPR recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. The EMPCs qualified as nondetected for method blank contamination were not further qualified as EMPCs. Any remaining isomers reported as EMPCs were qualified as estimated and nondetected, "UJ," at the level of the EMPC. Any total results reported as EMPCs or including EMPCs were qualified as estimated, "J." Any detects reported below the EDL, or between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHOD 8315M—Hydrazines and Formaldehyde

Reviewed By: P. Meeks

Date Reviewed: March 28, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Method 8315M*, and the *National Functional Guidelines for Organic Data Review (10/99)*.

- Holding Times: Extraction and analytical holding times were met. The sample was derivitized within 28 days of collection and analyzed within three days of derivitization.
- Calibration: Calibration criteria were met. The initial calibration r^2 values were ≥ 0.995 . The ICV, CCV and QCS recoveries were within 85-115%.
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy and precision were evaluated based on LCS/LCSD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibrations and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

C. EPA METHODS 200.7 and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: March 28, 2010

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 200.7, 245.1*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.
- Tuning: No applicable to these analyses.
- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP and ICP-MS metals and 85-115% for mercury. The dissolved nickel 5 ppb CRDL was recovered below the control limit; therefore, dissolved nickel detected in the sample was qualified as estimated, "J." The remaining CRDL/CRI recoveries were within the control limits of 70-130%.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Recoveries were within the method-established control limits. Boron was reported in both ISCA's but the concentration of the primary interferent, iron, was not sufficient to cause matrix interference in the sample. There were no target compounds present in the ICSA solution at concentrations indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: Recoveries and the dissolved RPDs were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the total 200.7 analytes. Recoveries and RPDs were within laboratory-established QC limits. Method accuracy for mercury was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: No applicable to these analyses.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.

Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
- Field Duplicates: There were no field duplicate samples identified for this SDG.

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: April 1, 2010

The sample listed in Table 1 for these analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (10/04)*.

- Holding Times: Aliquots for total uranium and radium-228 were prepared beyond 3x the five-day holding time for unpreserved samples; therefore, detects for these analytes were qualified as estimated, "J." The tritium aliquot was prepared and analyzed within 180 days of collection. Aliquots for the remaining analytes were prepared within the five-day holding time for unpreserved aqueous samples; therefore, results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects.
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The remaining detector efficiencies were greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The strontium chemical yield was less than 40%; therefore, nondetected strontium-90 in the sample was qualified as estimated, "UJ." All remaining chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: Tritium was detected in the method blank at 165 pCi/L; therefore, tritium detected in the sample was qualified as nondetected, "U." There were no other analytes detected in the method blanks or the KPA CCBs.
- Blank Spikes and Laboratory Control Samples: The recoveries and radium-228 RPD were within laboratory-established control limits.

- **Laboratory Duplicates:** Laboratory duplicate analyses were performed on the sample in this SDG for cesium-137, potassium-40, gross alpha, gross beta, and tritium. All RPDs were within the laboratory-established control limits or within \pm error.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed for the sample in this SDG for total uranium and matrix spike analyses were performed for gross alpha and gross beta. All recoveries were within the laboratory-established control limits. Method accuracy for the remaining methods was evaluated based on the LCS results.
- **Sample Result Verification:** An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - **Field Blanks and Equipment Rinsates:** This SDG had no identified field blank or equipment rinsate samples.
 - **Field Duplicates:** There were no field duplicate samples identified for this SDG.

E. EPA METHOD 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: P. Meeks

Date Reviewed: March 27, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 625*, and the *National Functional Guidelines for Organic Data Review (2/99)*.

- **Holding Times:** Extraction and analytical holding times were met. The unpreserved water sample was extracted within seven days of collection and analyzed within 40 days of extraction.
- **GC/MS Tuning:** A DFTPP tune was not required for this analytical sequence because all analyses were run in SIM mode.
- **Calibration:** Calibration criteria were met. The initial calibration RRF and the continuing calibration RF was <0.05 for 4,6-dinitro-2-methylphenol; therefore, the nondetected result for the analyte was rejected, "R." The r^2 value for benzoic acid was less than the control

limit; therefore, the nondetected result for benzoic acid was qualified as estimated, "UJ." The remaining initial calibration average RRFs were ≥ 0.05 , the %RSDs $\leq 35\%$, and the remaining r^2 values were ≥ 0.995 . The second source ICV had %Ds above 20% for 2,4-dinitrophenol, n-nitrosodiphenylamine, and pentachlorophenol; therefore, the nondetected results for these compound were qualified as estimated, "UJ." The ICV RRFs were ≥ 0.05 and the remaining ICV and CCV %Ds $\leq 20\%$.

- Blanks: n-Nitrosodimethylamine was detected in the method blank but was not detected in the site sample. There were no other target compound detects above the MDL in the method blank.
- Blank Spikes and Laboratory Control Samples: In the LCSD only the following compounds were either not recovered or were recovered $< 10\%$: aniline, benzidine, 3,3'-dichlorobenzidine, hexachlorocyclopentadiene, 4-chloroaniline, and 3-nitroaniline. The RPDs for aniline, benzidine, 3,3'-dichlorobenzidine, 4-chloroaniline, 4-nitroaniline, and 3-nitroaniline; therefore, the nondetected results for these analytes were qualified as estimated, "UJ." The remaining recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Surrogate recoveries in the base/neutral fraction were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on a sample from this SDG. Evaluation of method accuracy and precision was based on LCS/LCSD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and ± 30 seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for SVOC compounds by Method 8270C-SIM. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and

the laboratory MDLs. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 28, 2010

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 120.1, 180.1, and SM5310B*, and the *National Functional Guidelines for Inorganic Data Review (7/02)*.

- Holding Times: The analytical holding times were met.
- Calibration: Calibration criteria were met. TOC initial calibration r^2 value was ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110%. The turbidity check standard results were considered acceptable.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based

on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
- Field Duplicates: There were no field duplicate samples identified for this SDG.

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1580

Client: Test America - Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

REPORT

Laboratory No: 987715
Report Date: February 11, 2010
Sampling Date: February 7, 2010
Receiving Date: February 8, 2010
Extraction Date: February 8, 2010
Analysis Date: February 9, 2010
Units: µg/L
Reported By: JS

Attention: Joseph Doak
Sample: Water / 1 Sample
Project Name: ITB0896
Project Number: ITB0896
Method Number: EPA 8315 (Modified)
Investigation: Hydrazines

Analytical Results

Sample ID	Sample Description	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
708690-MB	Method Blank	100	1	ND	ND	ND	None
987715 Outfall 011	ITB0896-01	100	1	ND	ND	ND	None
MDL				0.857	1.42	0.452	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

is Analysis not validated

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

LEVEL IV

PM 3/2/10

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.

Validated Sample Result Forms ITB0891/ITB0896

Analysis Method *ASTM 5174-91*

Sample Name Outfall 011 **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ITB0896-01 **Sample Date:** 2/7/2010 11:43:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	0.566	1.39	0.43	pCi/L		J	H, DNQ

Analysis Method *EPA 120.1*

Sample Name Outfall 011 (Grab) **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0891-01 **Sample Date:** 2/6/2010 2:45:00 PM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	NA	140	1.0	1.0	umhos/c			

Analysis Method *EPA 180.1*

Sample Name Outfall 011 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ITB0896-01 **Sample Date:** 2/7/2010 11:43:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	36	1.0	0.040	NTU			

Analysis Method EPA 200.7

Sample Name		Outfall 011		Matrix Type:		Water		Validation Level:		IV	
Lab Sample Name:		ITB0896-01		Sample Date:		2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes			
Arsenic	7440-38-2	ND	10	7.0	ug/l		U				
Barium	7440-39-3	0.026	0.010	0.0060	mg/l						
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U				
Boron	7440-42-8	ND	0.050	0.020	mg/l		U				
Calcium	7440-70-2	16	0.10	0.050	mg/l	MHA					
Chromium	7440-47-3	ND	5.0	2.0	ug/l		U				
Cobalt	7440-48-4	ND	10	2.0	ug/l		U				
Iron	7439-89-6	2.0	0.040	0.015	mg/l						
Magnesium	7439-95-4	3.1	0.020	0.012	mg/l						
Manganese	7439-96-5	120	20	7.0	ug/l						
Nickel	7440-02-0	2.1	10	2.0	ug/l	J	J	DNQ			
Vanadium	7440-62-2	4.5	10	3.0	ug/l	J	J	DNQ			
Zinc	7440-66-6	17	20	6.0	ug/l	J	J	DNQ			

Analysis Method EPA 200.7-Diss

Sample Name		Outfall 011		Matrix Type:		Water		Validation Level:		IV	
Lab Sample Name:		ITB0896-01		Sample Date:		2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes			
Arsenic	7440-38-2	ND	10	7.0	ug/l	C	U				
Barium	7440-39-3	0.016	0.010	0.0060	mg/l						
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U				
Boron	7440-42-8	ND	0.050	0.020	mg/l		U				
Calcium	7440-70-2	16	0.10	0.050	mg/l						
Cobalt	7440-48-4	ND	10	2.0	ug/l		U				
Iron	7439-89-6	0.20	0.040	0.015	mg/l						
Magnesium	7439-95-4	2.7	0.020	0.012	mg/l						
Manganese	7439-96-5	75	20	7.0	ug/l						
Nickel	7440-02-0	2.9	10	2.0	ug/l	J	J	R, DNQ			
Vanadium	7440-62-2	ND	10	3.0	ug/l		U				
Zinc	7440-66-6	10	20	6.0	ug/l	J	J	DNQ			

Analysis Method *EPA 245.1*

Sample Name	Outfall 011	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U	

Analysis Method *EPA 245.1-Diss*

Sample Name	Outfall 011	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U	

Analysis Method EPA 625

Sample Name Outfall 011 Matrix Type: Water Validation Level: IV
 Lab Sample Name: ITB0896-01 Sample Date: 2/7/2010 11:43:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,4-Trichlorobenzene	120-82-1	ND	0.94	0.094	ug/l		U	
1,2-Dichlorobenzene	95-50-1	ND	0.47	0.094	ug/l		U	
1,2-Diphenylhydrazine/Azobenzene	103-33-3	ND	0.94	0.094	ug/l		U	
1,3-Dichlorobenzene	541-73-1	ND	0.47	0.094	ug/l		U	
1,4-Dichlorobenzene	106-46-7	ND	0.47	0.19	ug/l		U	
2,4,5-Trichlorophenol	95-95-4	ND	1.9	0.19	ug/l		U	
2,4,6-Trichlorophenol	88-06-2	ND	0.94	0.094	ug/l		U	
2,4-Dichlorophenol	120-83-2	ND	1.9	0.19	ug/l		U	
2,4-Dimethylphenol	105-67-9	ND	1.9	0.28	ug/l		U	
2,4-Dinitrophenol	51-28-5	ND	4.7	0.85	ug/l		UJ	C
2,4-Dinitrotoluene	121-14-2	ND	4.7	0.19	ug/l		U	
2,6-Dinitrotoluene	606-20-2	ND	4.7	0.094	ug/l		U	
2-Chloronaphthalene	91-58-7	ND	0.47	0.094	ug/l		U	
2-Chlorophenol	95-57-8	ND	0.94	0.19	ug/l		U	
2-Methylnaphthalene	91-57-6	ND	0.94	0.094	ug/l		U	
2-Methylphenol	95-48-7	ND	1.9	0.094	ug/l		U	
2-Nitroaniline	88-74-4	ND	4.7	0.094	ug/l		U	
2-Nitrophenol	88-75-5	ND	1.9	0.094	ug/l		U	
3,3'-Dichlorobenzidine	91-94-1	ND	4.7	4.7	ug/l	L2	UJ	*III
3-Nitroaniline	99-09-2	ND	4.7	0.19	ug/l	L2	UJ	*III
4,6-Dinitro-2-methylphenol	534-52-1	ND	4.7	0.19	ug/l		R	R
4-Bromophenyl phenyl ether	101-55-3	ND	0.94	0.094	ug/l		U	
4-Chloro-3-methylphenol	59-50-7	ND	1.9	0.19	ug/l		U	
4-Chloroaniline	106-47-8	ND	1.9	0.094	ug/l	L2	UJ	*III
4-Chlorophenyl phenyl ether	7005-72-3	ND	0.47	0.094	ug/l		U	
4-Methylphenol	106-44-5	ND	4.7	0.19	ug/l		U	
4-Nitroaniline	100-01-6	ND	4.7	0.47	ug/l	L2	UJ	*III
4-Nitrophenol	100-02-7	ND	4.7	2.4	ug/l		U	
Acenaphthene	83-32-9	ND	0.47	0.094	ug/l		U	
Acenaphthylene	208-96-8	ND	0.47	0.094	ug/l		U	
Aniline	62-53-3	ND	9.4	0.28	ug/l	L2	UJ	*III
Anthracene	120-12-7	ND	0.47	0.094	ug/l		U	
Benzidine	92-87-5	ND	4.7	4.7	ug/l	L2	UJ	*III
Benzo(a)anthracene	56-55-3	ND	4.7	0.094	ug/l		U	
Benzo(a)pyrene	50-32-8	ND	1.9	0.094	ug/l		U	

Analysis Method *EPA 625*

Benzo(b)fluoranthene	205-99-2	ND	1.9	0.094	ug/l		U	
Benzo(g,h,i)perylene	191-24-2	ND	4.7	0.094	ug/l		U	
Benzo(k)fluoranthene	207-08-9	ND	0.47	0.094	ug/l		U	
Benzoic acid	65-85-0	ND	19	2.8	ug/l		UJ	C
Benzyl alcohol	100-51-6	ND	4.7	0.094	ug/l		U	
Bis(2-chloroethoxy)methane	111-91-1	ND	0.47	0.094	ug/l		U	
Bis(2-chloroethyl)ether	111-44-4	ND	0.47	0.094	ug/l		U	
Bis(2-chloroisopropyl)ether	108-60-1	ND	0.47	0.094	ug/l		U	
Bis(2-ethylhexyl)phthalate	117-81-7	ND	4.7	1.6	ug/l		U	
Butyl benzyl phthalate	85-68-7	ND	4.7	0.66	ug/l		U	
Chrysene	218-01-9	ND	0.47	0.094	ug/l		U	
Dibenz(a,h)anthracene	53-70-3	ND	0.47	0.094	ug/l		U	
Dibenzofuran	132-64-9	ND	0.47	0.094	ug/l		U	
Diethyl phthalate	84-66-2	0.15	0.94	0.094	ug/l	J	J	DNQ
Dimethyl phthalate	131-11-3	ND	0.47	0.094	ug/l		U	
Di-n-butyl phthalate	84-74-2	ND	1.9	0.19	ug/l		U	
Di-n-octyl phthalate	117-84-0	ND	4.7	0.094	ug/l		U	
Fluoranthene	206-44-0	ND	0.47	0.094	ug/l		U	
Fluorene	86-73-7	ND	0.47	0.094	ug/l		U	
Hexachlorobenzene	118-74-1	ND	0.94	0.094	ug/l		U	
Hexachlorobutadiene	87-68-3	ND	1.9	0.19	ug/l		U	
Hexachlorocyclopentadiene	77-47-4	ND	4.7	0.094	ug/l		UJ	*III
Hexachloroethane	67-72-1	ND	2.8	0.19	ug/l		U	
Indeno(1,2,3-cd)pyrene	193-39-5	ND	1.9	0.094	ug/l		U	
Isophorone	78-59-1	ND	0.94	0.094	ug/l		U	
Naphthalene	91-20-3	ND	0.94	0.094	ug/l		U	
Nitrobenzene	98-95-3	ND	0.94	0.094	ug/l		U	
N-Nitrosodimethylamine	62-75-9	ND	1.9	0.094	ug/l		U	
N-Nitroso-di-n-propylamine	621-64-7	ND	1.9	0.094	ug/l		U	
N-Nitrosodiphenylamine	86-30-6	ND	0.94	0.094	ug/l		UJ	C
Pentachlorophenol	87-86-5	ND	1.9	0.094	ug/l		UJ	C
Phenanthrene	85-01-8	ND	0.47	0.094	ug/l		U	
Phenol	108-95-2	ND	0.94	0.28	ug/l		U	
Pyrene	129-00-0	ND	0.47	0.094	ug/l		U	

Analysis Method *EPA 900.0 MOD*

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	2	3	0.93	pCi/L	Jb	J	C, DNQ
Gross Beta	12587-47-2	3.9	4	1.6	pCi/L	Jb	J	DNQ

Analysis Method *EPA 901.1 MOD*

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	-2.9	20	16	pCi/L	U	U	
Potassium 40	13966-00-2	-100	0	300	pCi/L	U	U	

Analysis Method *EPA 903.0 MOD*

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.1	1	0.2	pCi/L	U	UJ	C

Analysis Method *EPA 904 MOD*

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01RE1	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	0.33	1	0.31	pCi/L	Jb	J	H, DNQ

Analysis Method *EPA 905 MOD*

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium 90	10098-97-2	-2	3	4.3	pCi/L	U	UJ	C

Analysis Method EPA 906.0 MOD

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	ND	500	94	pCi/L	Jb	U	B

Analysis Method EPA-5 1613B

Sample Name	Outfall 011	Matrix Type:	WATER		Validation Level:	IV		
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	0.000049	0.0000009	ug/L	J, Ba	U	B
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.000049	0.0000005	ug/L	J, Ba	U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	0.000002	0.000049	0.0000009	ug/L	J	J	DNQ
1,2,3,4,7,8-HxCDD	39227-28-6	0.000002	0.000049	0.0000005	ug/L	J	J	DNQ
1,2,3,4,7,8-HxCDF	70648-26-9	0.000002	0.000049	0.0000006	ug/L	J	J	DNQ
1,2,3,6,7,8-HxCDD	57653-85-7	0.000002	0.000049	0.0000004	ug/L	J	J	DNQ
1,2,3,6,7,8-HxCDF	57117-44-9	0.000002	0.000049	0.0000005	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.0000017	0.0000004	ug/L	J, Q	UJ	*III
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.0000016	0.0000006	ug/L	J, Q	UJ	*III
1,2,3,7,8-PeCDD	40321-76-4	0.000002	0.000049	0.0000008	ug/L	J	J	DNQ
1,2,3,7,8-PeCDF	57117-41-6	0.000001	0.000049	0.0000005	ug/L	J	J	DNQ
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.0000015	0.0000005	ug/L	J, Q	UJ	*III
2,3,4,7,8-PeCDF	57117-31-4	ND	0.0000022	0.0000006	ug/L	J, Q	UJ	*III
2,3,7,8-TCDD	1746-01-6	ND	0.0000099	0.0000005	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.0000099	0.0000004	ug/L		U	
OCDD	3268-87-9	0.00023	0.000099	0.0000024	ug/L	Ba		
OCDF	39001-02-0	ND	0.000026	0.0000008	ug/L	J, Q, Ba	U	B
Total HpCDD	37871-00-4	ND	0.000056	0.0000009	ug/L	Ba	U	B
Total HpCDF	38998-75-3	0.000032	0.000049	0.0000005	ug/L	J, Ba	J	B, DNQ, *III
Total HxCDD	34465-46-8	0.000008	0.0000084	0.0000004	ug/L	J, Q	J	DNQ, *III
Total HxCDF	55684-94-1	0.000014	0.000014	0.0000005	ug/L	J, Q	J	DNQ, *III
Total PeCDD	36088-22-9	0.000002	0.000049	0.0000008	ug/L	J	J	DNQ
Total PeCDF	30402-15-4	0.000004	0.0000043	0.0000004	ug/L	J, Q	J	DNQ, *III
Total TCDD	41903-57-5	ND	0.0000099	0.0000005	ug/L		U	
Total TCDF	55722-27-5	ND	0.0000099	0.0000004	ug/L		U	

Analysis Method SM2340B

Sample Name	Outfall 011	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3		53	0.33	0.17	mg/l			

Analysis Method SM2340B-Diss

Sample Name	Outfall 011	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3		52	0.33	0.17	mg/l			

Analysis Method SM5310B

Sample Name	Outfall 011	Matrix Type:	Water	Validation Level:	IV			
Lab Sample Name:	ITB0896-01	Sample Date:	2/7/2010 11:43:00 AM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Organic Carbon	TOC	10	1.0	0.50	mg/l			

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