

APPENDIX G

Section 28

Outfall 004, February 24, 2008

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Routine Outfall 004

Sampled: 02/24/08
Received: 02/25/08
Issued: 03/17/08 13:17

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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.

LABORATORY ID

IRB2400-01

CLIENT ID

Outfall 004

MATRIX

Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08
Received: 02/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2400-01 (Outfall 004 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	8C04064	0.20	2.0	0.68	1	03/04/08	03/04/08	Ja
Cadmium	EPA 200.8	8C04064	0.11	1.0	ND	1	03/04/08	03/04/08	
Copper	EPA 200.8	8C04064	0.75	2.0	2.3	1	03/04/08	03/04/08	
Lead	EPA 200.8	8C04064	0.30	1.0	1.0	1	03/04/08	03/04/08	
Thallium	EPA 200.8	8C04064	0.20	1.0	ND	1	03/04/08	03/04/08	

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

Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08
Received: 02/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2400-01 (Outfall 004 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8B25123	0.20	2.0	0.58	1	02/25/08	02/26/08	Ja
Cadmium	EPA 200.8-Diss	8B25123	0.11	1.0	ND	1	02/25/08	02/26/08	
Copper	EPA 200.8-Diss	8B25123	0.75	2.0	ND	1	02/25/08	02/26/08	
Lead	EPA 200.8-Diss	8B25123	0.30	1.0	ND	1	02/25/08	02/26/08	
Thallium	EPA 200.8-Diss	8B25123	0.20	1.0	ND	1	02/25/08	02/26/08	

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Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2400-01 (Outfall 004 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8C04046	1.3	4.8	1.9	1	03/04/08	03/04/08	Ja
Chloride	EPA 300.0	8B25042	0.25	0.50	16	1	02/25/08	02/25/08	
Nitrate/Nitrite-N	EPA 300.0	8B25042	0.15	0.26	0.55	1	02/25/08	02/25/08	
Sulfate	EPA 300.0	8B25042	0.20	0.50	11	1	02/25/08	02/25/08	
Total Dissolved Solids	SM2540C	8B27119	10	10	160	1	02/27/08	02/27/08	

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Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08

Received: 02/25/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2400-01 (Outfall 004 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0982	0.050	0.20	ND	1	02/26/08	02/27/08	
Mercury, Total	EPA 245.1	W8B0982	0.050	0.20	0.095	1	02/26/08	02/27/08	J

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08

Received: 02/25/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 004 (IRB2400-01) - Water					
EPA 300.0	2	02/24/2008 10:45	02/25/2008 05:20	02/25/2008 07:00	02/25/2008 09:53
Filtration	1	02/24/2008 10:45	02/25/2008 05:20	02/25/2008 09:45	02/25/2008 10:11

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NPDES - 1174

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

Project ID: Routine Outfall 004

Report Number: IRB2400

Sampled: 02/24/08
 Received: 02/25/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 8C04064 Extracted: 03/04/08											
Blank Analyzed: 03/04/2008 (8C04064-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 03/04/2008 (8C04064-BS1)											
Antimony	84.2	2.0	0.20	ug/l	80.0		105	85-115			
Cadmium	82.8	1.0	0.11	ug/l	80.0		104	85-115			
Copper	77.8	2.0	0.75	ug/l	80.0		97	85-115			
Lead	82.6	1.0	0.30	ug/l	80.0		103	85-115			
Thallium	81.3	1.0	0.20	ug/l	80.0		102	85-115			
Matrix Spike Analyzed: 03/04/2008 (8C04064-MS1) Source: IRB2400-01											
Antimony	84.1	2.0	0.20	ug/l	80.0	0.678	104	70-130			
Cadmium	80.6	1.0	0.11	ug/l	80.0	ND	101	70-130			
Copper	77.3	2.0	0.75	ug/l	80.0	2.28	94	70-130			
Lead	81.6	1.0	0.30	ug/l	80.0	1.02	101	70-130			
Thallium	80.8	1.0	0.20	ug/l	80.0	ND	101	70-130			
Matrix Spike Dup Analyzed: 03/04/2008 (8C04064-MSD1) Source: IRB2400-01											
Antimony	82.7	2.0	0.20	ug/l	80.0	0.678	103	70-130	2	20	
Cadmium	80.3	1.0	0.11	ug/l	80.0	ND	100	70-130	1	20	
Copper	77.3	2.0	0.75	ug/l	80.0	2.28	94	70-130	0	20	
Lead	80.5	1.0	0.30	ug/l	80.0	1.02	99	70-130	1	20	
Thallium	79.8	1.0	0.20	ug/l	80.0	ND	100	70-130	1	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 8B25123 Extracted: 02/25/08											
Blank Analyzed: 02/26/2008 (8B25123-BLK1)											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/26/2008 (8B25123-BS1)											
Antimony	78.6	2.0	0.20	ug/l	80.0		98	85-115			
Cadmium	78.9	1.0	0.11	ug/l	80.0		99	85-115			
Copper	80.6	2.0	0.75	ug/l	80.0		101	85-115			
Lead	83.1	1.0	0.30	ug/l	80.0		104	85-115			
Thallium	79.4	1.0	0.20	ug/l	80.0		99	85-115			
Matrix Spike Analyzed: 02/26/2008 (8B25123-MS1) Source: IRB2107-01											
Antimony	84.6	2.0	0.20	ug/l	80.0	ND	106	70-130			
Cadmium	77.0	1.0	0.11	ug/l	80.0	ND	96	70-130			
Copper	69.6	2.0	0.75	ug/l	80.0	1.17	85	70-130			
Lead	77.8	1.0	0.30	ug/l	80.0	ND	97	70-130			
Thallium	75.2	1.0	0.20	ug/l	80.0	0.230	94	70-130			
Matrix Spike Dup Analyzed: 02/26/2008 (8B25123-MSD1) Source: IRB2107-01											
Antimony	89.1	2.0	0.20	ug/l	80.0	ND	111	70-130	5	20	
Cadmium	82.5	1.0	0.11	ug/l	80.0	ND	103	70-130	7	20	
Copper	71.8	2.0	0.75	ug/l	80.0	1.17	88	70-130	3	20	
Lead	79.1	1.0	0.30	ug/l	80.0	ND	99	70-130	2	20	
Thallium	76.5	1.0	0.20	ug/l	80.0	0.230	95	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: 8B25042 Extracted: 02/25/08											
Blank Analyzed: 02/25/2008 (8B25042-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: 02/25/2008 (8B25042-BS1)											
Chloride	5.09	0.50	0.25	mg/l	5.00		102	90-110			
Sulfate	9.95	0.50	0.20	mg/l	10.0		99	90-110			M-3
Matrix Spike Analyzed: 02/25/2008 (8B25042-MS1) Source: IRB2399-01											
Chloride	20.2	0.50	0.25	mg/l	5.00	15.9	88	80-120			
Matrix Spike Dup Analyzed: 02/25/2008 (8B25042-MSD1) Source: IRB2399-01											
Chloride	20.2	0.50	0.25	mg/l	5.00	15.9	87	80-120	0	20	
Batch: 8B27119 Extracted: 02/27/08											
Blank Analyzed: 02/27/2008 (8B27119-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 02/27/2008 (8B27119-BS1)											
Total Dissolved Solids	980	10	10	mg/l	1000		98	90-110			
Duplicate Analyzed: 02/27/2008 (8B27119-DUP1) Source: IRB2154-02											
Total Dissolved Solids	4760	10	10	mg/l		4760			0	10	
Batch: 8C04046 Extracted: 03/04/08											
Blank Analyzed: 03/04/2008 (8C04046-BLK1)											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							

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Report Number: IRB2400

Sampled: 02/24/08
 Received: 02/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8C04046 Extracted: 03/04/08</u>											
LCS Analyzed: 03/04/2008 (8C04046-BS1)											
Hexane Extractable Material (Oil & Grease)	18.1	5.0	1.4	mg/l	20.2		90	78-114			MNR1
LCS Dup Analyzed: 03/04/2008 (8C04046-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.9	5.0	1.4	mg/l	20.2		94	78-114	4	11	

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METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8B0982 Extracted: 02/26/08											
Blank Analyzed: 02/27/2008 (W8B0982-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 02/27/2008 (W8B0982-BS1)											
Mercury, Dissolved	0.920	0.20	0.050	ug/l	1.00		92	85-115			
Mercury, Total	0.920	0.20	0.050	ug/l	1.00		92	85-115			
Matrix Spike Analyzed: 02/27/2008 (W8B0982-MS1) Source: IRB2400-01											
Mercury, Dissolved	1.95	0.40	0.10	ug/l	2.00	ND	98	70-130			
Mercury, Total	1.95	0.40	0.10	ug/l	2.00	0.0950	93	70-130			
Matrix Spike Analyzed: 02/27/2008 (W8B0982-MS2) Source: 8022633-01											
Mercury, Dissolved	1.91	0.40	0.10	ug/l	2.00	ND	96	70-130			
Mercury, Total	1.91	0.40	0.10	ug/l	2.00	ND	96	70-130			
Matrix Spike Dup Analyzed: 02/27/2008 (W8B0982-MSD1) Source: IRB2400-01											
Mercury, Dissolved	2.00	0.40	0.10	ug/l	2.00	ND	100	70-130	2	20	
Mercury, Total	2.00	0.40	0.10	ug/l	2.00	0.0950	95	70-130	2	20	
Matrix Spike Dup Analyzed: 02/27/2008 (W8B0982-MSD2) Source: 8022633-01											
Mercury, Dissolved	1.93	0.40	0.10	ug/l	2.00	ND	96	70-130	1	20	
Mercury, Total	1.93	0.40	0.10	ug/l	2.00	ND	96	70-130	1	20	

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Sampled: 02/24/08
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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
IRB2400-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	1.90	4.8	15
IRB2400-01	Antimony-200.8	Antimony	ug/l	0.68	2.0	6
IRB2400-01	Cadmium-200.8	Cadmium	ug/l	0.054	1.0	4
IRB2400-01	Chloride - 300.0	Chloride	mg/l	16	0.50	150
IRB2400-01	Copper-200.8	Copper	ug/l	2.28	2.0	14
IRB2400-01	Hg_w 245.1	Mercury, Total	ug/l	0.095	0.20	0.2
IRB2400-01	Lead-200.8	Lead	ug/l	1.02	1.0	5.2
IRB2400-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.55	0.26	10
IRB2400-01	Sulfate-300.0	Sulfate	mg/l	11	0.50	250
IRB2400-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	156	10	850
IRB2400-01	Thallium-200.8	Thallium	ug/l	0.12	1.0	2

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DATA QUALIFIERS AND DEFINITIONS

- J** Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- 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.
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

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Attention: Bronwyn Kelly

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Report Number: IRB2400

Sampled: 02/24/08
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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	Water		
EPA 200.8-Diss	Water	X	X
EPA 200.8	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

Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IRB2400-01

Analysis Performed: Gross Alpha
Samples: IRB2400-01

Analysis Performed: Gross Beta
Samples: IRB2400-01

Analysis Performed: Radium, Combined
Samples: IRB2400-01

Analysis Performed: Strontium 90
Samples: IRB2400-01

Analysis Performed: Tritium
Samples: IRB2400-01

Analysis Performed: Uranium, Combined
Samples: IRB2400-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta
Samples: IRB2400-01

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Report Number: IRB2400

Sampled: 02/24/08

Received: 02/25/08

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Method Performed: EPA 245.1

Samples: IRB2400-01

TestAmerica Irvine

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SUBCONTRACT ORDER

TestAmerica Irvine

IRB2400

8022631

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:

Weck Laboratories, Inc-SUB
14859 E. Clark Avenue
City of Industry, CA 91745
Phone : (626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature: 46 °C

Ice: (Y) / N

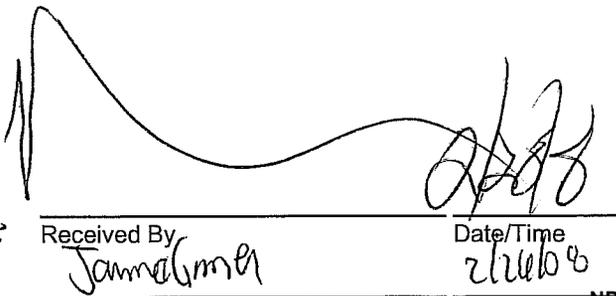
Analysis	Units	Due	Expires	Comments
Sample ID: IRB2400-01	Water			Sampled: 02/24/08 10:45 ph=8.2. temp=47.8
Level 4 Data Package - Wec	N/A	03/05/08	03/23/08 10:45	Out to weck
Mercury - 245.1, Diss -OUT	ug/l	03/05/08	03/23/08 10:45	Boeing, J flags/ Out to Weck
Mercury - 245.1-OUT	ug/l	03/05/08	03/23/08 10:45	Boeing, permit, J flags/ Out to Weck

Containers Supplied:

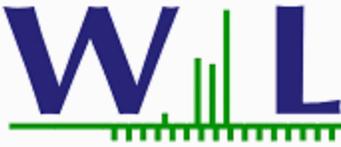
125 mL Poly w/HNO3 250 mL Poly (N)
(M)

Released By 

Date/Time 2/28/08 1205

Received By 

Date/Time 2/28/08 1205



CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Report Date: 02/28/08 07:49
Received Date: 02/26/08 12:05
Turn Around: 6 days

Phone: (949) 261-1022
Fax: (949) 260-3297

Work Order #: 8022631
Client Project: IRB2400

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 02/26/08 12:05 with the Chain of Custody document. The samples were received in good condition. The samples were received at 4.6 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager





Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8022631
Project ID: IRB2400

Date Received: 02/26/08 12:05
Date Reported: 02/28/08 07:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRB2400-01	Client		8022631-01	Water	02/24/08 10:45



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8022631
Project ID: IRB2400

Date Received: 02/26/08 12:05
Date Reported: 02/28/08 07:49

IRB2400-01 8022631-01 (Water)

Date Sampled: 02/24/08 10:45

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Analyst	Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8B0982	02/26/08	02/27/08	jlp	
Mercury, Total	0.095	0.050	ug/l	0.20	1	EPA 245.1	W8B0982	02/26/08	02/27/08	jlp	



Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8022631
Project ID: IRB2400

Date Received: 02/26/08 12:05
Date Reported: 02/28/08 07:49

QUALITY CONTROL SECTION



Weck Laboratories, Inc.
 14859 E. Clark Ave.
 Industry, CA 91745
 Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
 17461 Derian Ave, Suite 100
 Irvine CA, 92614

Report ID: 8022631
 Project ID: IRB2400

Date Received: 02/26/08 12:05
 Date Reported: 02/28/08 07:49

Metals by EPA 200 Series Methods - Quality Control

%REC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-----------------

Batch W8B0982 - EPA 245.1

Blank (W8B0982-BLK1)

Analyzed: 02/27/08

Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							

LCS (W8B0982-BS1)

Analyzed: 02/27/08

Mercury, Dissolved	0.920	0.20	ug/l	1.00		92	85-115			
Mercury, Total	0.920	0.20	ug/l	1.00		92	85-115			

Matrix Spike (W8B0982-MS1)

Source: 8022631-01

Analyzed: 02/27/08

Mercury, Dissolved	1.95	0.40	ug/l	2.00	ND	98	70-130			
Mercury, Total	1.95	0.40	ug/l	2.00	0.0950	93	70-130			

Matrix Spike (W8B0982-MS2)

Source: 8022633-01

Analyzed: 02/27/08

Mercury, Dissolved	1.91	0.40	ug/l	2.00	ND	96	70-130			
Mercury, Total	1.91	0.40	ug/l	2.00	ND	96	70-130			

Matrix Spike Dup (W8B0982-MSD1)

Source: 8022631-01

Analyzed: 02/27/08

Mercury, Dissolved	2.00	0.40	ug/l	2.00	ND	100	70-130	2	20	
Mercury, Total	2.00	0.40	ug/l	2.00	0.0950	95	70-130	2	20	

Matrix Spike Dup (W8B0982-MSD2)

Source: 8022633-01

Analyzed: 02/27/08

Mercury, Dissolved	1.93	0.40	ug/l	2.00	ND	96	70-130	0.9	20	
Mercury, Total	1.93	0.40	ug/l	2.00	ND	96	70-130	0.9	20	



Weck Laboratories, Inc.
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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8022631
Project ID: IRB2400

Date Received: 02/26/08 12:05
Date Reported: 02/28/08 07:49

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



EBERLINE

SERVICES

March 20, 2008

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

Reference: Test America Project Nos. IRB1995, IRB2337, IRB2341, IRB2342, IRB2399
IRB2400, IRB2401, IRB2403
Eberline Services NELAP Cert #01120CA
Eberline Services Reports R802140-8609, R802169-8610, R802170-8611
R802171-8612, R802172-8613, R802173-8614
R802174-8615, R802175-8616

Dear Mr. Doak:

Attached are data reports for eight water samples. The samples were received at Eberline Services on February 22, 26, 2008 under eight separate Test America subcontract orders. The samples were analyzed according to the accompanying Test America Subcontract Order Forms, the requested analyses were: gross alpha/gross beta (EPA 900.0), tritium (H-3, EPA906.0), Sr-90 (EPA905.0), Ra-226 (EPA903.1), Ra-228 (EPA 904.0), total uranium (ASTM D-5174), and gamma spectroscopy (EPA901.1, K-40 and Cs-137 only). The parenthetical G after a nuclide indicates that the result was obtained by gamma spectroscopy; a "U" in the results column indicates that the nuclide was not detected greater than the indicated minimum detectable activity (MDA). The samples were not filtered prior to analysis. The samples were analyzed in batches with common QC samples. Batch quality control samples consisted of LCS's, blank analyses, duplicate analyses, and matrix spike analyses (gross alpha/gross beta, H-3, Ra-226, Total-U only). All samples were batched with QC samples 8609-002, 003, 004, and 005 for all analyses. All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

Please call me if you have any questions concerning this report.

Regards,

Melissa Mannion
Senior Program Manager

MCM/njv

Enclosure: Reports

Analytical Services
2030 Wright Avenue
P.O. Box 4040
Richmond, California 94804-0040
(510) 235-2633 Fax (510) 235-0438
Toll Free (800) 841-5487
www.eberlineservices.com
NPDES - 1192

Eberline Services

ANALYSIS RESULTS

SDG <u>8614</u> Work Order <u>R802173-01</u> Received Date <u>02/26/08</u>	Client <u>TA IRVINE</u> Contract <u>PROJECT# IRB2400</u> Matrix <u>WATER</u>
--	--

Client	Lab						
<u>Sample ID</u>	<u>Sample ID</u>	<u>Collected</u>	<u>Analyzed</u>	<u>Nuclide</u>	<u>Results ± 2σ</u>	<u>Units</u>	<u>MDA</u>
IRB2400-01	8614-001	02/24/08	03/16/08	GrossAlpha	1.22 ± 0.69	pCi/L	0.94
			03/16/08	Gross Beta	0.262 ± 0.53	pCi/L	0.91
			03/10/08	Ra-228	0.138 ± 0.16	pCi/L	0.43
			03/12/08	K-40 (G)	U	pCi/L	36
			03/12/08	Cs-137 (G)	U	pCi/L	1.4
			03/14/08	H-3	-41.9 ± 86	pCi/L	150
			03/14/08	Ra-226	1.44 ± 0.63	pCi/L	0.75
			03/10/08	Sr-90	-0.251 ± 0.32	pCi/L	0.91
			03/05/08	Total U	0.297 ± 0.035	pCi/L	0.023

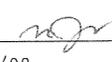
Certified by <u></u> Report Date <u>03/20/08</u> Page 1
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Eberline Services

QC RESULTS

SDG <u>8614</u> Work Order <u>R802173-01</u> Received Date <u>02/26/08</u>	Client <u>TA IRVINE</u> Contract <u>PROJECT# IRB2400</u> Matrix <u>WATER</u>
--	--

SPIKED SAMPLE				ORIGINAL SAMPLE				
Sample ID	Nuclide	Results ± 2σ	MDA	Sample ID	Results ± 2σ	MDA	Added	%Recv
8609-005	GrossAlpha	207 ± 11	2.6	8609-001	3.00 ± 2.0	2.8	164	124
	Gross Beta	148 ± 4.0	2.4		2.91 ± 2.0	3.3	144	101
	H-3	14800 ± 280	150		-40.9 ± 84	140	16000	93
	Ra-226	113 ± 4.4	0.81		-0.003 ± 0.41	0.79	112	101
	Total U	113 ± 14	2.3		1.30 ± 0.15	0.023	113	99

Certified by <u></u> Report Date <u>03/20/08</u> Page 3
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8614

SUBCONTRACT ORDER - PROJECT # IRB2400

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:

Eberline Services - SUB
 2030 Wright Avenue
 Richmond, CA 94804
 Phone : (510) 235-2633
 Fax: (510) 235-0438

 Project Location: California

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

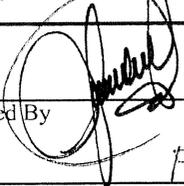
Analysis	Expiration	Comments
Sample ID: IRB2400-01 Water	Sampled: 02/24/08 10:45	ph=8.2. temp=47.8
Gamma Spec-O	02/23/09 10:45	Out to Eberline, K-40 and CS-137 only
Gross Alpha-O	08/22/08 10:45	Out to Eberline
Gross Beta-O	08/22/08 10:45	Out to Eberline
Level 3 Data Package - Out	03/23/08 10:45	
Radium, Combined-O	02/23/09 10:45	Out to Eberline
Strontium 90-O	02/23/09 10:45	Out to Eberline
Tritium-O	02/23/09 10:45	Out to Eberline
Uranium, Combined-O	02/23/09 10:45	Out to Eberline

Containers Supplied:

- 2.5 gal Poly (IRB2400-01J)
- 500 mL Amber (IRB2400-01K)

SAMPLE INTEGRITY:

All containers intact: Yes No Sample labels/COC agree: Yes No Samples Received On Ice: Yes No
 Custody Seals Present: Yes No Samples Preserved Properly: Yes No Samples Received at (temp): _____

Released By:  Date: 2/25/08 Time: 1700 Received By: Fed Ex Date: 2/25/08 Time: 1700
 Released By: FED EX Date: _____ Time: _____ Received By: Alex Kellum Smith Date: 2/26/08 Time: 10:00



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: TEST AMERICA City IRVINE State CA

Date/Time received 2/26/08 10:00 CoC No. IRB2400

Container I.D. No. TEST AMERICA Requested TAT (Days) STAND P.O. Received Yes [] No []

INSPECTION

1. Custody seals on shipping container intact? Yes [] No [] N/A []
2. Custody seals on shipping container dated & signed? Yes [] No [] N/A []
3. Custody seals on sample containers intact? Yes [] No [] N/A []
4. Custody seals on sample containers dated & signed? Yes [] No [] N/A []
5. Packing material is: Wet [] Dry [] N/A []
6. Number of samples in shipping container: 1 Sample Matrix WATER
7. Number of containers per sample: 2 (Or see CoC _____)
8. Samples are in correct container Yes [] No []
9. Paperwork agrees with samples? Yes [] No []
10. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels []
11. Samples are: In good condition [] Leaking [] Broken Container [] Missing []
12. Samples are: Preserved [] Not preserved [] pH 6 Preservative _____
13. Describe any anomalies:

14. Was P.M. notified of any anomalies? Yes [] No [] Date _____
15. Inspected by JR Date 2/26/08 Time: 12:30

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
<u>IRB2400</u>	<u>< 60</u>						

Ion Chamber Ser. No. _____ Calibration date _____
 Alpha Meter Ser. No. _____ Calibration date _____
 Beta/Gamma Meter Ser. No. 100482 Calibration date 9 may 2007

March 14, 2008

Vista Project I.D.: 30302

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

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 26, 2008 under your Project Name "IRB2400". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier
Laboratory Director



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



Section I: Sample Inventory Report

Date Received: 2/26/2008

Vista Lab. ID

Client Sample ID

30302-001

IRB2400-01

SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	9997	Lab Sample:	0-MB001	Date Analyzed DB-5:	10-Mar-08	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	9-Mar-08						
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers	
2,3,7,8-TCDD	ND	0.00000937			IS 13C-2,3,7,8-TCDD	87.0	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000106			13C-1,2,3,7,8-PeCDD	77.8	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000142			13C-1,2,3,4,7,8-HxCDD	82.4	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000142			13C-1,2,3,6,7,8-HxCDD	88.5	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000136			13C-1,2,3,4,6,7,8-HpCDD	81.0	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000250			13C-OCDD	72.3	17 - 157		
OCDD	ND	0.00000890			13C-2,3,7,8-TCDF	85.2	24 - 169		
2,3,7,8-TCDF	ND	0.00000547			13C-1,2,3,7,8-PeCDF	73.1	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000924			13C-2,3,4,7,8-PeCDF	73.2	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000985			13C-1,2,3,4,7,8-HxCDF	82.4	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.00000699			13C-1,2,3,6,7,8-HxCDF	94.2	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.00000669			13C-2,3,4,6,7,8-HxCDF	89.8	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.00000795			13C-1,2,3,7,8,9-HxCDF	83.4	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000107			13C-1,2,3,4,6,7,8-HpCDF	79.0	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000964			13C-1,2,3,4,7,8,9-HpCDF	81.7	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000105			13C-OCDF	72.4	17 - 157		
OCDF	ND	0.00000275			CRS 37Cl-2,3,7,8-TCDD	113	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.00000937			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000167			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000235			c. Method detection limit.				
Total HpCDD	ND	0.00000320			d. Lower control limit - upper control limit.				
Total TCDF	ND	0.00000547							
Total PeCDF	ND	0.00000953							
Total HxCDF	ND	0.00000792							
Total HpCDF	ND	0.00000100							

Analyst: MAS

Approved By: Martha M. Maier 14-Mar-2008 10:42

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	9997	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	9-Mar-08	Date Analyzed DB-5:	10-Mar-08	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.5	6.7 - 15.8	IS 13C-2,3,7,8-TCDD	84.4	25 - 164	
1,2,3,7,8-PeCDD	50.0	50.9	35 - 71	13C-1,2,3,7,8-PeCDD	78.2	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	49.8	35 - 82	13C-1,2,3,4,7,8-HxCDD	77.7	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	50.3	38 - 67	13C-1,2,3,6,7,8-HxCDD	80.5	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	50.3	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	77.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	51.0	35 - 70	13C-OCDD	67.4	17 - 157	
OCDD	100	102	78 - 144	13C-2,3,7,8-TCDF	82.6	24 - 169	
2,3,7,8-TCDF	10.0	9.70	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	72.2	24 - 185	
1,2,3,7,8-PeCDF	50.0	51.5	40 - 67	13C-2,3,4,7,8-PeCDF	73.8	21 - 178	
2,3,4,7,8-PeCDF	50.0	51.5	34 - 80	13C-1,2,3,4,7,8-HxCDF	78.8	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	52.0	36 - 67	13C-1,2,3,6,7,8-HxCDF	82.8	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	52.6	42 - 65	13C-2,3,4,6,7,8-HxCDF	78.7	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	53.6	35 - 78	13C-1,2,3,7,8,9-HxCDF	78.2	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	51.9	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	74.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	52.4	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	75.3	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	52.1	39 - 69	13C-OCDF	67.4	17 - 157	
OCDF	100	103	63 - 170	CRS 37Cl-2,3,7,8-TCDD	107	35 - 197	

Analyst: MAS

Approved By: Martha M. Maier 14-Mar-2008 10:42

Sample ID: IRB2400-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30302-001	Date Received:	26-Feb-08
Project:	IRB2400		Sample Size:	1.02 L	QC Batch No.:	9997	Date Extracted:	9-Mar-08
Date Collected:	24-Feb-08				Date Analyzed DB-5:	10-Mar-08	Date Analyzed DB-225:	NA
Time Collected:	1045							
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000593			IS 13C-2,3,7,8-TCDD	76.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000104			13C-1,2,3,7,8-PeCDD	71.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000334			13C-1,2,3,4,7,8-HxCDD	67.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000337			13C-1,2,3,6,7,8-HxCDD	76.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000322			13C-1,2,3,4,6,7,8-HpCDD	72.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000326				13C-OCDD	66.4	17 - 157	
OCDD	0.000536				13C-2,3,7,8-TCDF	120	24 - 169	
2,3,7,8-TCDF	ND	0.00000108			13C-1,2,3,7,8-PeCDF	100	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000112			13C-2,3,4,7,8-PeCDF	100	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000116			13C-1,2,3,4,7,8-HxCDF	67.2	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000726			13C-1,2,3,6,7,8-HxCDF	82.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000717			13C-2,3,4,6,7,8-HxCDF	73.2	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000844			13C-1,2,3,7,8,9-HxCDF	72.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000108			13C-1,2,3,4,6,7,8-HpCDF	67.9	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.00000409			J	13C-1,2,3,4,7,8,9-HpCDF	68.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000148			13C-OCDF	66.1	17 - 157	
OCDF	0.0000127			J	CRS 37Cl-2,3,7,8-TCDD	113	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000112			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000217			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000559			c. Method detection limit.			
Total HpCDD	0.0000651				d. Lower control limit - upper control limit.			
Total TCDF	ND	0.00000108						
Total PeCDF	ND	0.00000114						
Total HxCDF	0.00000240							
Total HpCDF	0.0000188							

Analyst: MAS

Approved By: Martha M. Maier 14-Mar-2008 10:42

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

30302 2.1°C

SUBCONTRACT ORDER - PROJECT # IRB2400

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Joseph Doak	Vista Analytical Laboratory- SUB 1104 Windfield Way El Dorado Hills, CA 95762 Phone : (916) 673-1520 Fax: (916) 673-0106 Project Location: California

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

Analysis	Expiration		Comments
Sample ID: IRB2400-01	Water	Sampled: 02/24/08 10:45	ph=8.2. temp=47.8
1613-Dioxin-HR-Alta	03/02/08 10:45		J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	03/23/08 10:45		Excel EDD email to pm, Include Std logs for Lvl IV

Containers Supplied:

- 1 L Amber (IRB2400-01C)
- 1 L Amber (IRB2400-01D)

SAMPLE INTEGRITY:

All containers intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Sample labels/COC agree: <input type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received On Ice: <input type="checkbox"/> Yes <input type="checkbox"/> No
Custody Seals Present: <input type="checkbox"/> Yes <input type="checkbox"/> No	Samples Preserved Properly: <input type="checkbox"/> Yes <input type="checkbox"/> No	Samples Received at (temp): _____

<i>Marguerite Aulsebrook</i>	<i>Bethina Benedict</i>	<i>2/26/08</i>	<i>1521</i>
Released By	Received By	Date	Time

Released By	Date	Time	Received By	Date	Time
-------------	------	------	-------------	------	------

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30302

TAT Standard

Samples Arrival:	Date/Time <u>2/26/08 0910</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>2/26/08 1521</u>	Initials: <u>BSB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>E-2</u>
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
		<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
		<input type="checkbox"/> None	
Temp °C	<u>2.1</u>	Time:	<u>0924</u>
		Thermometer ID:	<u>IR-1</u>

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill			
Trk # <u>7992 7799 8726</u>	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Na ₂ S ₂ O ₃ Preservation Documented?			None
	COC	Sample Container	
Shipping Container	Vista	Client	Return
		Retain	Dispose

Comments:

APPENDIX G

Section 29

Outfall 004 - BMP Effectiveness, February 24, 2008

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: BMP Effectiveness
Monitoring Program

Sampled: 02/24/08
Received: 02/25/08
Issued: 03/06/08 13:48

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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	CLIENT ID	MATRIX
IRB2516-01	004 EFF-1	Water
IRB2516-02	004 EFF-2	Water
IRB2516-03	004 EFF-3	Water
IRB2516-04	004 EFF-4	Water
IRB2516-05	004 EFF-5	Water
IRB2516-06	004 EFF-6	Water
IRB2516-07	004 EFF-7	Water
IRB2516-08	004 EFF-8	Water
IRB2516-09	004 EFF-9	Water
IRB2516-10	004 EFF-10	Water
IRB2516-11	004 EFF-11	Water
IRB2516-12	004 EFF-12	Water
IRB2516-13	004 EFF-13	Water
IRB2516-14	004 EFF-14	Water
IRB2516-15	004 EFF-15	Water
IRB2516-16	004 EFF-16	Water
IRB2516-17	004 EFF-17	Water
IRB2516-18	004 EFF-18	Water
IRB2516-19	004 EFF-19	Water
IRB2516-20	004 EFF-20	Water
IRB2516-21	004 EFF-21	Water
IRB2516-22	004 EFF-22	Water
IRB2516-23	004 EFF-23	Water

TestAmerica Irvine

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: IRB2516

Sampled: 02/24/08
Received: 02/25/08

LABORATORY ID

IRB2516-24

CLIENT ID

004 EFF-24

MATRIX

Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2516-01 (004 EFF-1 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-02 (004 EFF-2 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-03 (004 EFF-3 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-04 (004 EFF-4 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-05 (004 EFF-5 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-06 (004 EFF-6 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-07 (004 EFF-7 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-08 (004 EFF-8 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-09 (004 EFF-9 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-10 (004 EFF-10 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

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MWH-Pasadena/Boeing
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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2516-11 (004 EFF-11 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-12 (004 EFF-12 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-13 (004 EFF-13 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-14 (004 EFF-14 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04034	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-15 (004 EFF-15 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-16 (004 EFF-16 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-17 (004 EFF-17 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	0.99	1	03/04/08	03/04/08	
Sample ID: IRB2516-18 (004 EFF-18 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-19 (004 EFF-19 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-20 (004 EFF-20 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	

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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: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2516-21 (004 EFF-21 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-22 (004 EFF-22 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-23 (004 EFF-23 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-24 (004 EFF-24 - Water)									
Reporting Units: g/cc									
Density	Displacement	8C04035	N/A	NA	1.0	1	03/04/08	03/04/08	
Sample ID: IRB2516-01 (004 EFF-1 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	10	1	03/05/08	03/05/08	
Sample ID: IRB2516-02 (004 EFF-2 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	15	1	03/05/08	03/05/08	
Sample ID: IRB2516-03 (004 EFF-3 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	11	1	03/05/08	03/05/08	
Sample ID: IRB2516-04 (004 EFF-4 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	13	1	03/05/08	03/05/08	
Sample ID: IRB2516-05 (004 EFF-5 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	10	1	03/05/08	03/05/08	
Sample ID: IRB2516-06 (004 EFF-6 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	12	1	03/05/08	03/05/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2516-07 (004 EFF-7 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	12	1	03/05/08	03/05/08	
Sample ID: IRB2516-08 (004 EFF-8 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	11	1	03/05/08	03/05/08	
Sample ID: IRB2516-09 (004 EFF-9 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	29	1	03/05/08	03/05/08	
Sample ID: IRB2516-10 (004 EFF-10 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	19	1	03/05/08	03/05/08	
Sample ID: IRB2516-11 (004 EFF-11 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	16	1	03/05/08	03/05/08	
Sample ID: IRB2516-12 (004 EFF-12 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	12	1	03/05/08	03/05/08	
Sample ID: IRB2516-13 (004 EFF-13 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	11	1	03/05/08	03/05/08	
Sample ID: IRB2516-14 (004 EFF-14 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-15 (004 EFF-15 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05051	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-16 (004 EFF-16 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	11	1	03/05/08	03/05/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2516-17 (004 EFF-17 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-18 (004 EFF-18 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-19 (004 EFF-19 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-20 (004 EFF-20 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-21 (004 EFF-21 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-22 (004 EFF-22 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	
Sample ID: IRB2516-23 (004 EFF-23 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	11	1	03/05/08	03/05/08	
Sample ID: IRB2516-24 (004 EFF-24 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C05052	10	10	ND	1	03/05/08	03/05/08	

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: BMP Effectiveness
 Monitoring Program
 Report Number: IRB2516

Sampled: 02/24/08
 Received: 02/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8C04034 Extracted: 03/04/08</u>											
Duplicate Analyzed: 03/04/2008 (8C04034-DUP1)											
Density	0.994	NA	N/A	g/cc		0.992			0	20	
<u>Batch: 8C04035 Extracted: 03/04/08</u>											
Duplicate Analyzed: 03/04/2008 (8C04035-DUP1)											
Density	1.00	NA	N/A	g/cc		1.00			0	20	

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: BMP Effectiveness
Monitoring Program
Report Number: IRB2516

Sampled: 02/24/08
Received: 02/25/08

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

Joseph Doak
Project Manager

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IRB2516 <Page 9 of 10>
NPDES - 1218

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

Project ID: BMP Effectiveness
Monitoring Program
Report Number: IRB2516

Sampled: 02/24/08
Received: 02/25/08

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

Joseph Doak
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.

1802516

CHAIN OF CUSTODY FORM

Test America Version 12/20/07

Client Name/Address:
MWH-Arcadia
 618 Michillinda Avenue, Suite 200
 Arcadia, CA 91007

Project: **Boeing BMP Effectiveness Monitoring Program**

Test America Contact: Joseph Doak
 Project Manager: Bronwyn Kelly
 Sampler: *J. Maniscalco*
R. Anisaca

Phone Number: (626) 568-6691
 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	ANALYSIS REQUIRED	Comments
004 EFF-1	W	500 mL Poly	1	2/24/08-0056	None	1		
004 EFF-2	W	500 mL Poly	1	2/24/08-0156	None	2		
004 EFF-3	W	500 mL Poly	1	2/24/08-0256	None	3		
004 EFF-4	W	500 mL Poly	1	2/24/08-0356	None	4		
004 EFF-5	W	500 mL Poly	1	2/24/08-0456	None	5		
004 EFF-6	W	500 mL Poly	1	2/24/08-0556	None	6		
004 EFF-7	W	500 mL Poly	1	2/24/08-0656	None	7		
004 EFF-8	W	500 mL Poly	1	2/24/08-0756	None	8		
004 EFF-9	W	500 mL Poly	1	2/24/08-0856	None	9		
004 EFF-10	W	500 mL Poly	1	2/24/08-0956	None	10		
004 EFF-11	W	500 mL Poly	1	2/24/08-1056	None	11		
004 EFF-12	W	500 mL Poly	1	2/24/08-1156	None	12		
004 EFF-13	W	500 mL Poly	1	2/24/08-1256	None	13		
004 EFF-14	W	500 mL Poly	1	2/24/08-1356	None	14		
004 EFF-15	W	500 mL Poly	1	2/24/08-1456	None	15		
004 EFF-16	W	500 mL Poly	1	2/24/08-1556	None	16		
004 EFF-17	W	500 mL Poly	1	2/24/08-1656	None	17		
004 EFF-18	W	500 mL Poly	1	2/24/08-1756	None	18		
004 EFF-19	W	500 mL Poly	1	2/24/08-1856	None	19		
004 EFF-20	W	500 mL Poly	1	2/24/08-1956	None	20		
004 EFF-21	W	500 mL Poly	1	2/24/08-2056	None	21		
004 EFF-22	W	500 mL Poly	1	2/24/08-2156	None	22		
004 EFF-23	W	500 mL Poly	1	2/24/08-2256	None	23		
004 EFF-24	W	500 mL Poly	1	2/24/08-2356	None	24		

2/26/08
1435

Suspended Sediment Concentration (SSC, ASTM-D3977-1997)

Relinquished By: *Jim Bin* Date/Time: *2-25-08 1510*

Relinquished By: *Joseph Doak* Date/Time: *2/25/08 1730*

Relinquished By: *Joseph Doak* Date/Time: *2/25/08 1730*

Received By: *Joseph Doak* Date/Time: *2/25/08 1510*

Received By: *Joseph Doak* Date/Time: *2/25/08 1730*

Received By: *Van Bank* Date/Time: *2/25/08 1730*

Turn around Time: (check)
 24 Hours _____ 5 Days _____
 48 Hours _____ 10 Days _____
 72 Hours _____ Normal _____ X

Sample Integrity: (check)
 Intact _____ On Ice: *5.2/3.2*

#138

APPENDIX G

Section 30

Outfall 005, February 1, 2008

MEC^X Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRB0073

Prepared by

MEC^X, LLC
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IRB0073
 Project Manager: B. Kelly
 Matrix: Water
 QC Level: IV
 No. of Samples: 1
 No. of Reanalyses/Dilutions: 1
 Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 005	IRB0073-01	30229-001, 8020449-02, 8693-001	Water	02/01/08 0830	160.2, 200.7, 200.8, 245.1, 525.2, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, 1613, ASTM D-5174
Outfall 005	IRB0073-01 RE	N/A	Water	02/01/08 0830	525.2

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine, Vista, and Eberline within the temperature limits of 4°C ±2°C. The sample was received marginally below the temperature limit at Weck; however, the sample was not noted to be damaged or frozen. According to the case narrative for this SDG, the sample was received intact at all laboratories. The FedEx courier did not relinquish custody of the sample to Eberline. The remaining COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine and Weck, custody seals were not required. Custody seals were intact upon arrival at Eberline and Vista. 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.	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: K. Shadowlight

Date Reviewed: March 22, 2008

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 (8/02)*.

- 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 not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. 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: OCDD was reported in the method blank at 0.00000899 μ /L; however, the concentration of OCDD in the sample exceeded five times the amount in the method blank

and required no qualifications. The method blank had no other target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: 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 any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Any EMPC value was qualified as an estimated nondetect, "UJ." Nondetects are valid to the estimated detection limit (EDL).

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

Reviewed By: P. Meeks

Date Reviewed: March 27, 2008

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 Methods 200.7, 200.8, and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for 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, except for cerium associated with the dissolved metals fraction. The

cerium mass calibration marginally exceeded the control limit; therefore, antimony, lead, and thallium were qualified as estimated in the dissolved metals fraction, "J," for detects and, "UJ," for nondetects.

- 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. All CRI/CRA and check standard recoveries were within the control limits of 70-130%.
- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with all analyses except total antimony. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solutions. No 6010 analytes required qualification as the concentrations of the interferents were not significant. For the 6020 analytes, the reviewer was not able to ascertain if the detections were indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for the dissolved 6010 and 6020 analytes. Matrix spike recoveries are not evaluated when the native concentration exceeds the spiked amount by 4 \times or more. All recoveries and RPDs were within the laboratory-established control limits. Evaluation of mercury method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- 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. Detects reported below 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.

The reviewer noted that calcium was detected at a slightly higher concentration in the dissolved metals sample fraction. The difference between the calcium results is within the sensitivity limits of the analytical instrument and, therefore, the reviewer considered the two results to be equivalent.

- 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. EPA METHOD 525.2 — Pesticides

Reviewed By: P. Meeks

Date Reviewed: April 5, 2008

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^x Data Validation Procedure for Organochlorine Pesticides by GC (DVP-4, Rev. 0)*, *EPA Method 525.2*, and the *National Functional Guidelines for Organic Data Review (02/94)*.

- Holding Times: Both the original sample, Outfall 005 and the re-extracted sample, Outfall 005 RE were pH-adjusted four days after collection. As this exceeded the 24-hour holding time; both diazinon results were rejected, "R." The sample was analyzed within 30 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. For both target compounds, initial calibration average RRFs were ≥ 0.05 and %RSDs $\leq 30\%$. Continuing calibration RRFs were ≥ 0.05 and applicable target compound responses were within the method QC limits of 70-130%.
- 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.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample from this SDG. Evaluation of method accuracy and precision was based on the 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: Three of the four internal standards below the control limit; therefore, the sample was re-extracted at a 2× dilution and reanalyzed with acceptable internal standard recoveries. The reviewer rejected, “R,” the original chlorpyrifos results in Outfall 005 in favor of the reanalysis reported in Outfall 005 RE.
- Compound Identification: Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. 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. Reported nondetects are valid to the reporting limit.
- System Performance: Review of the raw data indicated no problems with system performance.

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: March 28, 2008

The sample listed in Table 1 for this analysis 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 (2/94)*.

- Holding Times: The tritium sample was analyzed within 180 days of collection. Aliquots for gross alpha and gross beta, were prepared within the five-day analytical holding time for unpreserved samples. Aliquots for radium-226, radium-228, strontium-90, total uranium, and gamma spectroscopy were prepared beyond the five-day holding time for unpreserved 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 detector efficiency was less than 20%; therefore, nondetected gross alpha in the sample was qualified as an estimated nondetect, “UJ.” The gross beta detector efficiency was greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The strontium chemical yield was at least 70% and was considered acceptable. The strontium continuing calibration results were within the laboratory control limits. The radium-226 continuing calibration results were within the laboratory-established control limits. The radium-228 tracer, yttrium oxalate, yields were greater than 70%. 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: There were no analytes detected in the method blanks.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established control limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for all analytes except radium-226. All RPDs were within the laboratory-established control limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed for the sample in this SDG for gross alpha, gross beta, tritium, radium-226, and total uranium. The gross alpha recovery was above the control limits; however, gross alpha was not detected in the site sample. All remaining recoveries were within the laboratory-established control limits. 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. 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. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 28, 2008

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 160.2*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time, seven days for TSS, was met.
- Calibration: The balance calibration logs were acceptable.
- Blanks: The method blank had no detect.
- Blank Spikes and Laboratory Control Samples: The recovery was within the laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed for the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: Not applicable to this method.
- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the reporting limit.
- 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.

Sample ID: IRB0073-01 *Outfall 005* **EPA Method 1613**

Client Data		Laboratory Data	
Name: Test America-Irvine, CA	Lab Sample: 30229-001	Date Received: 5-Feb-08	
Project: IRB0073	QC Batch No.: 9953	Date Extracted: 15-Feb-08	
Date Collected: 1-Feb-08	Date Analyzed DB-5: 19-Feb-08	Date Analyzed DB-225: NA	
Time Collected: 0830			

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Aqueous	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000000623		0.997 L		13C-2,3,7,8-TCDD	87.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000755				13C-1,2,3,7,8-PeCDD	78.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000172				13C-1,2,3,4,7,8-HxCDD	81.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000158				13C-1,2,3,6,7,8-HxCDD	80.6	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000158				13C-1,2,3,4,6,7,8-HpCDD	88.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000101				J	13C-OCDD	82.3	17 - 157	
OCDD	0.000165				B	13C-2,3,7,8-TCDF	90.2	24 - 169	
2,3,7,8-TCDF	ND	0.000000565				13C-1,2,3,7,8-PeCDF	77.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000000812				13C-2,3,4,7,8-PeCDF	76.9	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000823				13C-1,2,3,4,7,8-HxCDF	80.0	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000832				13C-1,2,3,6,7,8-HxCDF	79.0	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000902				13C-2,3,4,6,7,8-HxCDF	76.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000101				13C-1,2,3,7,8,9-HxCDF	82.7	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000125				13C-1,2,3,4,6,7,8-HpCDF	77.0	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.00000156				J	13C-1,2,3,4,7,8,9-HpCDF	83.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000113				13C-OCDF	83.2	17 - 157	
OCDF	0.00000310				J	CRS 37Cl-2,3,7,8-TCDD	88.1	35 - 197	

Totals	Conc. (ug/L)	DL ^a	EMPC ^b	Aqueous	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
Total TCDD	ND	0.000000623							
Total PeCDD	ND	0.00000189							
Total HxCDD	ND	0.00000338							
Total HpCDD	0.0000217								
Total TCDF	ND	0.000000565							
Total PeCDF	ND	0.000000817							
Total HxCDF	ND	0.000000859							
Total HpCDF	0.00000391								

Footnotes:
a. Sample specific estimated detection limit.
b. Estimated maximum possible concentration.
c. Method detection limit.
d. Lower control limit - upper control limit.

Analyst: MAS *Level IV* Approved By: William J. Luksemburg 22-Feb-2008 15:49

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

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08
Received: 02/01/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	170	1	02/05/08	02/05/08	
Boron J/DNQ	EPA 200.7	8B05087	0.020	0.050	0.034	1	02/05/08	02/05/08	J
Calcium	EPA 200.7	8B05087	0.050	0.10	54	1	02/05/08	02/05/08	
Iron	EPA 200.7	8B05087	0.015	0.040	3.4	1	02/05/08	02/05/08	
Magnesium	EPA 200.7	8B05087	0.012	0.020	8.1	1	02/05/08	02/05/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08
 Received: 02/01/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: ug/l									
Aluminum	EPA 200.7	8B05087	40	50	3800	1	02/05/08	02/05/08	
Antimony	EPA 200.8	8B05090	0.20	2.0	0.43	1	02/05/08	02/05/08	J
Arsenic	EPA 200.7	8B05087	7.0	10	ND	1	02/05/08	02/05/08	
Beryllium	EPA 200.7	8B05087	0.90	2.0	ND	1	02/05/08	02/05/08	
Cadmium	EPA 200.8	8B05090	0.11	1.0	0.48	1	02/05/08	02/05/08	J
Chromium	EPA 200.7	8B05087	2.0	5.0	4.2	1	02/05/08	02/05/08	J
Copper	EPA 200.8	8B05090	0.75	2.0	3.8	1	02/05/08	02/05/08	
Lead	EPA 200.8	8B05090	0.30	1.0	1.4	1	02/05/08	02/05/08	
Nickel	EPA 200.7	8B05087	2.0	10	15	1	02/05/08	02/05/08	
Selenium	EPA 200.7	8B05087	8.0	10	ND	1	02/05/08	02/05/08	
Silver	EPA 200.7	8B05087	6.0	10	ND	1	02/05/08	02/05/08	
Thallium	EPA 200.8	8B05090	0.20	1.0	ND	1	02/05/08	02/05/08	
Vanadium	EPA 200.7	8B05087	3.0	10	7.2	1	02/05/08	02/05/08	J
Zinc	EPA 200.7	8B05087	6.0	20	25	1	02/05/08	02/05/08	

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

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08

Received: 02/01/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.										
Reporting Units: mg/l										
Boron	J/DNQ	EPA 200.7-Diss	8B05111	0.020	0.050	0.031	1	02/05/08	02/06/08	J
Calcium		EPA 200.7-Diss	8B05111	0.050	0.10	55	1	02/05/08	02/06/08	MHA
Iron	J/DNQ	EPA 200.7-Diss	8B05111	0.015	0.040	0.030	1	02/05/08	02/06/08	J
Magnesium		EPA 200.7-Diss	8B05111	0.012	0.020	7.5	1	02/05/08	02/06/08	
Hardness (as CaCO3)		SM2340B	8B05111	1.0	1.0	170	1	02/05/08	02/06/08	

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 Arcadia, CA 91007
 Attention: Bronwyn Kelly

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08
 Received: 02/01/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: ug/l									
Aluminum	EPA 200.7-Diss	8B05111	40	50	62	1	02/05/08	02/06/08	
Antimony <i>J/4/III, DNQ</i>	EPA 200.8-Diss	8B04144	0.20	2.0	0.30	1	02/04/08	02/05/08	J
Arsenic <i>U</i>	EPA 200.7-Diss	8B05111	7.0	10	ND	1	02/05/08	02/06/08	
Beryllium <i>↓</i>	EPA 200.7-Diss	8B05111	0.90	2.0	ND	1	02/05/08	02/06/08	
Cadmium <i>J/DNQ</i>	EPA 200.8-Diss	8B04144	0.11	1.0	0.22	1	02/04/08	02/05/08	J
Chromium <i>U</i>	EPA 200.7-Diss	8B05111	2.0	5.0	ND	1	02/05/08	02/06/08	
Copper <i>J/DNQ</i>	EPA 200.8-Diss	8B04144	0.75	2.0	1.7	1	02/04/08	02/05/08	J
Lead <i>U/4/III</i>	EPA 200.8-Diss	8B04144	0.30	1.0	ND	1	02/04/08	02/05/08	
Nickel	EPA 200.7-Diss	8B05111	2.0	10	12	1	02/05/08	02/06/08	
Selenium <i>U</i>	EPA 200.7-Diss	8B05111	8.0	10	ND	1	02/05/08	02/06/08	
Silver <i>↓</i>	EPA 200.7-Diss	8B05111	6.0	10	ND	1	02/05/08	02/06/08	
Thallium <i>U/4/III</i>	EPA 200.8-Diss	8B04144	0.20	1.0	ND	1	02/04/08	02/05/08	
Vanadium <i>U</i>	EPA 200.7-Diss	8B05111	3.0	10	ND	1	02/05/08	02/06/08	
Zinc <i>J/DNQ</i>	EPA 200.7-Diss	8B05111	6.0	20	12	1	02/05/08	02/06/08	J

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 005
Report Number: IRB0073

Sampled: 02/01/08
Received: 02/01/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	
Mercury, Total	EPA 245.1	W8B0147	0.050	0.20	ND	1	02/05/08	02/07/08	

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08

Received: 02/01/08

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: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	C8B0516	0.10	1.0	ND	1	02/05/08	02/07/08	N1, P, pHa
Diazinon	EPA 525.2	C8B0516	0.24	0.25	ND	1	02/05/08	02/07/08	
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					97 %				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					112 %				
<i>Surrogate: Perylene-d12 (70-130%)</i>					97 %				

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

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08
Received: 02/01/08

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: IRB0073-01RE1 (Outfall 005 - Water) - cont.									
Reporting Units: ug/l									
Chlorpyrifos U	EPA 525.2	C8B1302	0.21	2.0	ND	2	02/05/08	02/14/08	
Diazinon R/H	EPA 525.2	C8B1302	0.48	0.50	ND	2	02/05/08	02/14/08	H2
<i>Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)</i>					112 %				
<i>Surrogate: Triphenylphosphate (70-130%)</i>					111 %				
<i>Surrogate: Perylene-d12 (70-130%)</i>					93 %				

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Eberline Services

ANALYSIS RESULTS

SDG <u>8693</u>	Client <u>TA IRVINE</u>
Work Order <u>R802024-01</u>	Contract <u>PROJECT# IRB0073</u>
Received Date <u>02/05/08</u>	Matrix <u>WATER</u>

Client	Lab	Sample ID	Collected	Analyzed	Nuclide	Results + 2σ	Units	MDA	
Outfall 005 IRB0073-01	8693-001	02/01/08	02/27/08	02/27/08	GrossAlpha	0.763 ± 0.99	pCi/L	1.3	UJ/R
			02/27/08	02/27/08	Gross Beta	14.2 ± 0.93	pCi/L	0.97	
			02/27/08	02/27/08	Ra-228	0.295 ± 0.19	pCi/L	0.49	UJ/H
			02/23/08	02/23/08	K-40 (G)	24.0 ± 11	pCi/L	8.2	J/H
			02/23/08	02/23/08	Cs-137 (G)	U	pCi/L	0.86	U/H
			02/28/08	02/28/08	H-3	7.12 ± 78	pCi/L	130	U
			03/03/08	03/03/08	Ra-226	0.426 ± 0.44	pCi/L	0.70	UJ/H
			02/18/08	02/18/08	Sr-90	0.026 ± 0.31	pCi/L	0.72	↓
			02/26/08	02/26/08	Total U	0.578 ± 0.064	pCi/L	0.022	J/H

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 Report Date 03/11/08
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MWH-Pasadena/Boeing
 618 Michillinda Avenue, Suite 200
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 Attention: Bronwyn Kelly

Project ID: Annual Outfall 005

Report Number: IRB0073

Sampled: 02/01/08
 Received: 02/01/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0073-01 (Outfall 005 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B11060	1.3	4.8	2.2	1	02/11/08	02/11/08	J
Chloride	EPA 300.0	8B01050	0.25	0.50	13	1	02/01/08	02/01/08	
Fluoride	EPA 300.0	8B01050	0.15	0.50	0.27	1	02/01/08	02/01/08	J
Nitrate/Nitrite-N	EPA 300.0	8B01050	0.15	0.26	0.17	1	02/01/08	02/01/08	J
Sulfate	EPA 300.0	8B01050	4.0	10	140	20	02/01/08	02/01/08	M-3
Total Dissolved Solids	SM2540C	8B07122	10	10	310	1	02/07/08	02/07/08	
Total Suspended Solids	EPA 160.2	8B04128	10	10	55	1	02/04/08	02/04/08	

Analysis not validated

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