APPENDIX G

Section 43

Outfall 006 – BMP Effectiveness, February 21-22, 2008

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

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

Project: BMP Effectiveness
Monitoring Program

Sampled: 02/22/08
Received: 02/22/08
Issued: 03/06/08 13:36

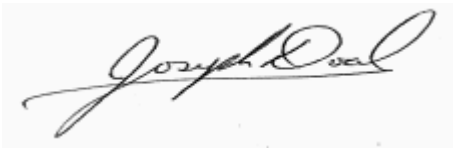
NELAP #01108CA California ELAP#1197 CSDLAC #10256

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
IRB2353-01	006 EFF-1	Water
IRB2353-02	006 EFF-2	Water
IRB2353-03	006 EFF-3	Water
IRB2353-04	006 EFF-4	Water
IRB2353-05	006 EFF-5	Water
IRB2353-06	006 EFF-6	Water
IRB2353-07	006 EFF-7	Water
IRB2353-08	006 EFF-8	Water
IRB2353-09	006 EFF-9	Water
IRB2353-10	006 EFF-10	Water
IRB2353-11	006 EFF-11	Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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Attention: Bronwyn Kelly

Project ID: BMP Effectiveness Monitoring Program
Report Number: IRB2353

Sampled: 02/22/08
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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2353-01 (006 EFF-1 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-02 (006 EFF-2 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-03 (006 EFF-3 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-04 (006 EFF-4 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-05 (006 EFF-5 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-06 (006 EFF-6 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-07 (006 EFF-7 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**0.99**	1	02/27/08	02/27/08	
Sample ID: IRB2353-08 (006 EFF-8 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-09 (006 EFF-9 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-10 (006 EFF-10 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	

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Attention: Bronwyn Kelly

Project ID: BMP Effectiveness Monitoring Program
Report Number: IRB2353

Sampled: 02/22/08
Received: 02/22/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2353-11 (006 EFF-11 - Water)									
Reporting Units: g/cc									
Density	Displacement	8B27078	N/A	NA	**1.0**	1	02/27/08	02/27/08	
Sample ID: IRB2353-01 (006 EFF-1 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	**28**	1	03/03/08	03/04/08	
Sample ID: IRB2353-02 (006 EFF-2 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	**26**	1	03/03/08	03/04/08	
Sample ID: IRB2353-03 (006 EFF-3 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	**13**	1	03/03/08	03/04/08	
Sample ID: IRB2353-04 (006 EFF-4 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	**11**	1	03/03/08	03/04/08	
Sample ID: IRB2353-05 (006 EFF-5 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	
Sample ID: IRB2353-06 (006 EFF-6 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	
Sample ID: IRB2353-07 (006 EFF-7 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	
Sample ID: IRB2353-08 (006 EFF-8 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	
Sample ID: IRB2353-09 (006 EFF-9 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	

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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB2353-10 (006 EFF-10 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	
Sample ID: IRB2353-11 (006 EFF-11 - Water)									
Reporting Units: mg/l									
Sediment	ASTM D3977	8C03103	10	10	ND	1	03/03/08	03/04/08	

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Report Number: IRB2353

Sampled: 02/22/08
Received: 02/22/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B27078 Extracted: 02/27/08											
Duplicate Analyzed: 02/27/2008 (8B27078-DUP1)						**Source: IRB1863-05**					
Density	0.994	NA	N/A	g/cc		0.990			0	20	

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MWH-Pasadena/Boeing	Project ID: BMP Effectiveness Monitoring Program	
618 Michillinda Avenue, Suite 200		Sampled: 02/22/08
Arcadia, CA 91007	Report Number: IRB2353	Received: 02/22/08
Attention: Bronwyn Kelly		

DATA QUALIFIERS AND DEFINITIONS

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

RPD Relative Percent Difference

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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

IRB2353

Test America Version 12/20/07 — CHAIN OF CUSTODY FORM

IRB2353

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

Test America Contact: Joseph Doak

Project Manager: Bronwyn Kelly

Sampler: MARISCAL, J.
Barrows, R.

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

Project: **Boeing BMP Effectiveness Monitoring Program**

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Suspended Sediment Concentration (SSC ASTM-D3977-1997)	Comments
006 EFF-1	W	500 mL Poly	1	2/22/08-0156	None	1	X	
006 EFF-2	W	500 mL Poly	1	2/22/08-0256	None	2	X	
006 EFF-3	W	500 mL Poly	1	2/22/08-0356	None	3	X	
006 EFF-4	W	500 mL Poly	1	2/22/08-0456	None	4	X	
006 EFF-5	W	500 mL Poly	1	2/22/08-0556	None	5	X	
006 EFF-6	W	500 mL Poly	1	2/22/08-0656	None	6	X	
006 EFF-7	W	500 mL Poly	1	2/22/08-0756	None	7	X	
006 EFF-8	W	500 mL Poly	1	2/22/08-0856	None	8	X	
006 EFF-9	W	500 mL Poly	1	2/22/08-0956	None	9	X	
006 EFF-10	W	500 mL Poly	1	2/22/08-1056	None	10	X	
006 EFF-11	W	500 mL Poly	1	2/22/08-1156	None	11	X	
006 EFF-12	W	500 mL Poly	1		None	12	X	
006 EFF-13	W	500 mL Poly	1		None	13	X	
006 EFF-14	W	500 mL Poly	1		None	14	X	
006 EFF-15	W	500 mL Poly	1		None	15	X	
006 EFF-16	W	500 mL Poly	1		None	16	X	
006 EFF-17	W	500 mL Poly	1		None	17	X	
006 EFF-18	W	500 mL Poly	1		None	18	X	
006 EFF-19	W	500 mL Poly	1		None	19	X	
006 EFF-20	W	500 mL Poly	1		None	20	X	
006 EFF-21	W	500 mL Poly	1		None	21	X	
006 EFF-22	W	500 mL Poly	1		None	22	X	
006 EFF-23	W	500 mL Poly	1		None	23	X	
006 EFF-24	W	500 mL Poly	1		None	24	X	

d/12/08

Relinquished By	Date/Time:	Received By	Date/Time:
Rob Barrows	2-22-08 1400	L De Long	2/22/08 1400
L De Long	2/22/08 1905		
		Received By	Date/Time: 2/22/08 1905

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

Sample Integrity: (check)
Intact X On Ice: X (6.2/4.7)

NPDES - 1709

APPENDIX G

Section 44

Outfall 007, January 25, 2008

MEC^{X} Data Validation Reports

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA2499

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:	IRA2499
Project Manager:	B. Kelly
Matrix:	Soil
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 007	IRA2499-01	30209-001, 8012808-01, 8689-01	Water	01/25/08 1355	245.1, 200.8, 900.0, 901.1, 903.1, 904.0, 905.0, 906.0, 1613, ASTM D-5174

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Eberline within the temperature limits of 4°C ±2°C. The sample was received below the temperature limit at Vista; however, the sample was not noted to have been frozen. The sample was received above the temperature limit at Weck; however, mercury is not considered volatile. According to the case narrative for this SDG, the sample was received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at Eberline and Vista. No custody seals were present upon receipt at Weck. 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 1, 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: Total HpCDD was detected in the method blank above the EDL. The result in the sample was qualified as estimated, "J," as a portion of the reported total HpCDD was

considered to be method blank contamination. 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. Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: March 7, 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 200.8 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 ≤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.

- Blanks: There were no applicable detects in the method blanks or CCBs.

- Interference Check Samples: ICSA/B analyses were performed in association with the metals analyses. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solution; however, the reviewer was not able to ascertain if the detection was 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 not performed on the sample in this SDG. Evaluation of 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 antimony was detected at a slightly higher concentration in the dissolved metals sample fraction. The difference between the antimony 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. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: March 5, 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. The aliquots for radium-226, radium-228, strontium-90, gamma spectroscopy, and total uranium were prepared beyond the five-day holding time for unpreserved samples; therefore, these results 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 internal spike efficiency to default efficiency ratios was near 1, indicating that quenching did not occur.

  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 cell efficiencies were determined in September 2006. The radium-226 continuing calibration results were within the laboratory-established control limits. The radium-228 calibration utilized actinium-228 and was verified in February 2001. The radium-228 tracer, yttrium oxalate yields were greater than 70%.

  The gamma spectroscopy geometry-specific, detector efficiencies were determined in September 1999 and February 2007. All analytes were determined at the maximum photopeak energy.

  The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: There were no analytes detected in the method blank.

- Blank Spikes and Laboratory Control Samples: The recoveries 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: 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. 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.

Sample ID: IRA2499-01 Outfall 0087 — **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30209-001	Date Received:	29-Jan-08
Project:	IRA2499	Sample Size:	1.00 L	QC Batch No.:	9921	Date Extracted:	2-Feb-08
Date Collected:	25-Jan-08			Date Analyzed DB-5:	7-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	1355						

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
2,3,7,8-TCDD	ND	0.00000115			IS 13C-2,3,7,8-TCDD	79.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000899			13C-1,2,3,7,8-PeCDD	76.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000241			13C-1,2,3,4,7,8-HxCDD	72.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000249			13C-1,2,3,6,7,8-HxCDD	75.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000235			13C-1,2,3,4,6,7,8-HpCDD	85.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000106			J	13C-OCDD	79.5	17 - 157	
OCDD	0.000126				13C-2,3,7,8-TCDF	90.1	24 - 169	
2,3,7,8-TCDF	ND	0.000000958			13C-1,2,3,7,8-PeCDF	91.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000103			13C-2,3,4,7,8-PeCDF	83.0	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000117			13C-1,2,3,4,7,8-HxCDF	81.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000709			13C-1,2,3,6,7,8-HxCDF	72.8	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000793			13C-2,3,4,6,7,8-HxCDF	68.7	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000949			13C-1,2,3,7,8,9-HxCDF	75.1	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000115			13C-1,2,3,4,6,7,8-HpCDF	70.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000288			13C-1,2,3,4,7,8,9-HpCDF	78.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000102			13C-OCDF	85.1	17 - 157	
OCDF	0.00000849			J	CRS 37Cl-2,3,7,8-TCDD	76.5	35 - 197	

Totals				
Total TCDD	ND	0.00000115		
Total PeCDD	ND	0.00000157		
Total HxCDD	ND	0.00000468		
Total HpCDD	0.0000299			B
Total TCDF	ND	0.000000958		
Total PeCDF	ND	0.00000110		
Total HxCDF	ND	0.00000173		
Total HpCDF	0.00000324			

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 pm 4/11/08 Approved By: William J. Luksemburg 08-Feb-2008 12:17

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

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2499-01 (Outfall 007 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	8A28076	0.20	2.0	**2.1**	1	01/28/08	01/28/08	
Cadmium J/DNQ	EPA 200.8	8A28076	0.11	1.0	**0.12**	1	01/28/08	01/28/08	J
Copper	EPA 200.8	8A28076	0.75	2.0	**2.0**	1	01/28/08	01/28/08	
Lead	EPA 200.8	8A28076	0.30	1.0	**2.3**	1	01/28/08	01/28/08	
Thallium U	EPA 200.8	8A28076	0.20	1.0	ND	1	01/28/08	01/28/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2499-01 (Outfall 007 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8A25156	0.20	2.0	**2.3**	1	01/25/08	01/26/08	
Cadmium	EPA 200.8-Diss	8A25156	0.11	1.0	ND	1	01/25/08	01/26/08	
Copper	EPA 200.8-Diss	8A25156	0.75	2.0	ND	1	01/25/08	01/26/08	
Lead	EPA 200.8-Diss	8A25156	0.30	1.0	ND	1	01/25/08	01/26/08	
Thallium	EPA 200.8-Diss	8A25156	0.20	1.0	ND	1	01/25/08	01/28/08	

LEVEL IV

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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: IRA2499-01 (Outfall 007 - Water) - cont.										
Reporting Units: ug/l										
Mercury, Dissolved	U	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	
Mercury, Total	U	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	

LEVEL IV

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Joseph Doak
Project Manager

Eberline Services

ANALYSIS RESULTS

SDG	8689	Client	TA IRVINE
Work Order	R801172-01	Contract	PROJECT# IRA2499
Received Date	01/29/08	Matrix	WATER

Client Sample ID	Lab Sample ID	Collected	Analyzed	Nuclide	Results ± 2σ	Units	MDA	
Outfall 008								
IRA2499-01	8689-001	01/25/08	02/15/08	GrossAlpha	1.37 ± 0.98	pCi/L	1.4	UJ/R
			02/15/08	Gross Beta	10.9 ± 0.87	pCi/L	0.94	
			02/20/08	Ra-228	0.079 ± 0.27	pCi/L	0.62	UJ/H
			02/14/08	K-40 (G)	U	pCi/L	47	↓
			02/14/08	Cs-137 (G)	U	pCi/L	1.8	U
			02/21/08	H-3	-16.1 ± 93	pCi/L	160	
			02/20/08	Ra-226	0.281 ± 0.46	pCi/L	0.80	UJ/H
			02/14/08	Sr-90	0.026 ± 0.39	pCi/L	0.91	↓
			02/19/08	Total U	0.140 ± 0.018	pCi/L	0.022	J/H

LEVEL IV

Certified by _____

Report Date 02/27/08

Page 1

APPENDIX G

Section 45

Outfall 007, January 25, 2008

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

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

Project: Routine Outfall 007

Sampled: 01/25/08
Received: 01/25/08
Issued: 02/28/08 09:31

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.

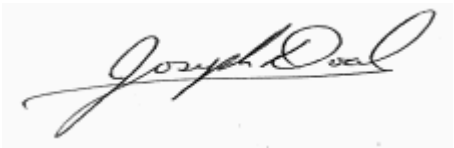
SAMPLE CROSS REFERENCE

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

ADDITIONAL INFORMATION: This is a final report to include all subcontract data.

LABORATORY ID	CLIENT ID	MATRIX
IRA2499-01	Outfall 007	Water

Reviewed By:



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

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2499-01 (Outfall 007 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	8A28076	0.20	2.0	**2.1**	1	01/28/08	01/28/08	
Cadmium	EPA 200.8	8A28076	0.11	1.0	**0.12**	1	01/28/08	01/28/08	J
Copper	EPA 200.8	8A28076	0.75	2.0	**2.0**	1	01/28/08	01/28/08	
Lead	EPA 200.8	8A28076	0.30	1.0	**2.3**	1	01/28/08	01/28/08	
Thallium	EPA 200.8	8A28076	0.20	1.0	ND	1	01/28/08	01/28/08	

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Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2499-01 (Outfall 007 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8A25156	0.20	2.0	**2.3**	1	01/25/08	01/26/08	
Cadmium	EPA 200.8-Diss	8A25156	0.11	1.0	ND	1	01/25/08	01/26/08	
Copper	EPA 200.8-Diss	8A25156	0.75	2.0	ND	1	01/25/08	01/26/08	
Lead	EPA 200.8-Diss	8A25156	0.30	1.0	ND	1	01/25/08	01/26/08	
Thallium	EPA 200.8-Diss	8A25156	0.20	1.0	ND	1	01/25/08	01/28/08	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2499-01 (Outfall 007 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B04061	1.3	4.8	ND	1	02/04/08	02/04/08	
Chloride	EPA 300.0	8A25053	0.25	0.50	**13**	1	01/25/08	01/25/08	
Nitrate/Nitrite-N	EPA 300.0	8A25053	0.15	0.26	ND	1	01/25/08	01/25/08	
Sulfate	EPA 300.0	8A25053	0.20	0.50	**15**	1	01/25/08	01/25/08	
Total Dissolved Solids	SM2540C	8A31077	10	10	**160**	1	01/31/08	01/31/08	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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: IRA2499-01 (Outfall 007 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	
Mercury, Total	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 007 (IRA2499-01) - Water					
EPA 300.0	2	01/25/2008 13:55	01/25/2008 18:20	01/25/2008 19:00	01/25/2008 20:35

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A28076 Extracted: 01/28/08											
Blank Analyzed: 01/28/2008 (8A28076-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: 01/28/2008 (8A28076-BS1)											
Antimony	83.1	2.0	0.20	ug/l	80.0		104	85-115			
Cadmium	82.2	1.0	0.11	ug/l	80.0		103	85-115			
Copper	83.7	2.0	0.75	ug/l	80.0		105	85-115			
Lead	82.0	1.0	0.30	ug/l	80.0		102	85-115			
Thallium	81.4	1.0	0.20	ug/l	80.0		102	85-115			
Matrix Spike Analyzed: 01/28/2008 (8A28076-MS1)						**Source: IRA2324-01**					
Antimony	83.5	2.0	0.20	ug/l	80.0	ND	104	70-130			
Cadmium	81.0	1.0	0.11	ug/l	80.0	ND	101	70-130			
Copper	85.4	2.0	0.75	ug/l	80.0	2.97	103	70-130			
Lead	81.3	1.0	0.30	ug/l	80.0	0.484	101	70-130			
Thallium	83.7	1.0	0.20	ug/l	80.0	ND	105	70-130			
Matrix Spike Analyzed: 01/28/2008 (8A28076-MS2)						**Source: IRA2432-04**					
Antimony	87.0	2.0	0.20	ug/l	80.0	ND	109	70-130			
Cadmium	78.5	1.0	0.11	ug/l	80.0	ND	98	70-130			
Copper	80.3	2.0	0.75	ug/l	80.0	1.94	98	70-130			
Lead	80.4	1.0	0.30	ug/l	80.0	0.376	100	70-130			
Thallium	81.2	1.0	0.20	ug/l	80.0	ND	102	70-130			
Matrix Spike Dup Analyzed: 01/28/2008 (8A28076-MSD1)						**Source: IRA2324-01**					
Antimony	83.3	2.0	0.20	ug/l	80.0	ND	104	70-130	0	20	
Cadmium	80.8	1.0	0.11	ug/l	80.0	ND	101	70-130	0	20	
Copper	84.6	2.0	0.75	ug/l	80.0	2.97	102	70-130	1	20	
Lead	81.9	1.0	0.30	ug/l	80.0	0.484	102	70-130	1	20	
Thallium	83.5	1.0	0.20	ug/l	80.0	ND	104	70-130	0	20	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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: 8A25156 Extracted: 01/25/08											
Blank Analyzed: 01/26/2008-01/28/2008 (8A25156-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: 01/26/2008-01/28/2008 (8A25156-BS1)											
Antimony	80.7	2.0	0.20	ug/l	80.0		101	85-115			
Cadmium	80.4	1.0	0.11	ug/l	80.0		101	85-115			
Copper	80.8	2.0	0.75	ug/l	80.0		101	85-115			
Lead	84.6	1.0	0.30	ug/l	80.0		106	85-115			
Thallium	77.6	1.0	0.20	ug/l	80.0		97	85-115			
Matrix Spike Analyzed: 01/26/2008-01/28/2008 (8A25156-MS1)						**Source: IRA2497-01**					
Antimony	85.0	2.0	0.20	ug/l	80.0	0.221	106	70-130			
Cadmium	83.4	1.0	0.11	ug/l	80.0	ND	104	70-130			
Copper	85.3	2.0	0.75	ug/l	80.0	2.94	103	70-130			
Lead	84.7	1.0	0.30	ug/l	80.0	0.920	105	70-130			
Thallium	76.5	1.0	0.20	ug/l	80.0	ND	96	70-130			
Matrix Spike Dup Analyzed: 01/26/2008-01/28/2008 (8A25156-MSD1)						**Source: IRA2497-01**					
Antimony	83.0	2.0	0.20	ug/l	80.0	0.221	103	70-130	2	20	
Cadmium	83.4	1.0	0.11	ug/l	80.0	ND	104	70-130	0	20	
Copper	83.7	2.0	0.75	ug/l	80.0	2.94	101	70-130	2	20	
Lead	86.0	1.0	0.30	ug/l	80.0	0.920	106	70-130	2	20	
Thallium	77.3	1.0	0.20	ug/l	80.0	ND	97	70-130	1	20	

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Project Manager

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25053 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25053-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: 01/25/2008 (8A25053-BS1)											
Chloride	4.93	0.50	0.25	mg/l	5.00		99	90-110			
Sulfate	10.2	0.50	0.20	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 01/25/2008 (8A25053-MS1)						**Source: IRA2375-01**					
Chloride	9.73	0.50	0.25	mg/l	5.00	4.99	95	80-120			
Sulfate	25.6	0.50	0.20	mg/l	10.0	15.9	96	80-120			
Matrix Spike Analyzed: 01/25/2008 (8A25053-MS2)						**Source: IRA2478-01**					
Chloride	12.3	0.50	0.25	mg/l	5.00	7.60	95	80-120			
Sulfate	19.9	0.50	0.20	mg/l	10.0	9.44	104	80-120			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25053-MSD1)						**Source: IRA2375-01**					
Chloride	9.76	0.50	0.25	mg/l	5.00	4.99	95	80-120	0	20	
Sulfate	25.7	0.50	0.20	mg/l	10.0	15.9	98	80-120	1	20	
Batch: 8A31077 Extracted: 01/31/08											
Blank Analyzed: 01/31/2008 (8A31077-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 01/31/2008 (8A31077-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			

TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

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

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A31077 Extracted: 01/31/08											
Duplicate Analyzed: 01/31/2008 (8A31077-DUP1)						**Source: IRA2619-03**					
Total Dissolved Solids	ND	10	10	mg/l		ND				10	
Batch: 8B04061 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04061-BLK1)											
Hexane Extractable Material (Oil & Grease)	1.40	5.0	1.4	mg/l							*J*
LCS Analyzed: 02/04/2008 (8B04061-BS1)											**MNR1**
Hexane Extractable Material (Oil & Grease)	19.5	5.0	1.4	mg/l	20.2		97	78-114			
LCS Dup Analyzed: 02/04/2008 (8B04061-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.2	5.0	1.4	mg/l	20.2		90	78-114	7	11	

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Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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: W8A1053 Extracted: 01/30/08											
Blank Analyzed: 01/31/2008 (W8A1053-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 01/31/2008 (W8A1053-BS1)											
Mercury, Dissolved	0.930	0.20	0.050	ug/l	1.00		93	85-115			
Mercury, Total	0.930	0.20	0.050	ug/l	1.00		93	85-115			
Matrix Spike Analyzed: 01/31/2008 (W8A1053-MS1)						**Source: 8012822-01**					
Mercury, Dissolved	1.38	0.20	0.050	ug/l	1.00	0.431	95	70-130			
Mercury, Total	1.38	0.20	0.050	ug/l	1.00	0.431	95	70-130			
Matrix Spike Analyzed: 01/31/2008 (W8A1053-MS2)						**Source: 8012822-02**					
Mercury, Dissolved	1.37	0.20	0.050	ug/l	1.00	0.426	94	70-130			
Mercury, Total	1.37	0.20	0.050	ug/l	1.00	0.426	94	70-130			
Matrix Spike Dup Analyzed: 01/31/2008 (W8A1053-MSD1)						**Source: 8012822-01**					
Mercury, Dissolved	1.35	0.20	0.050	ug/l	1.00	0.431	92	70-130	2	20	
Mercury, Total	1.35	0.20	0.050	ug/l	1.00	0.431	92	70-130	2	20	
Matrix Spike Dup Analyzed: 01/31/2008 (W8A1053-MSD2)						**Source: 8012822-02**					
Mercury, Dissolved	1.40	0.20	0.050	ug/l	1.00	0.426	97	70-130	2	20	
Mercury, Total	1.40	0.20	0.050	ug/l	1.00	0.426	97	70-130	2	20	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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
IRA2499-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.48	4.8	15
IRA2499-01	Antimony-200.8	Antimony	ug/l	2.13	2.0	6
IRA2499-01	Cadmium-200.8	Cadmium	ug/l	0.12	1.0	4
IRA2499-01	Chloride - 300.0	Chloride	mg/l	13	0.50	150
IRA2499-01	Copper-200.8	Copper	ug/l	2.03	2.0	14
IRA2499-01	Hg_w 245.1	Mercury, Total	ug/l	0.027	0.20	0.13
IRA2499-01	Lead-200.8	Lead	ug/l	2.27	1.0	5.2
IRA2499-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.078	0.26	10
IRA2499-01	Sulfate-300.0	Sulfate	mg/l	15	0.50	250
IRA2499-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	162	10	850
IRA2499-01	Thallium-200.8	Thallium	ug/l	0.011	1.0	2

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Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

DATA QUALIFIERS AND DEFINITIONS

J	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.
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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MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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
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

Aquatic Testing Laboratories-SUB *California Cert #1775*
4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnic
Samples: IRA2499-01

Eberline Services - SUB
2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IRA2499-01

Analysis Performed: Gross Alpha
Samples: IRA2499-01

Analysis Performed: Gross Beta
Samples: IRA2499-01

Analysis Performed: Radium, Combined
Samples: IRA2499-01

Analysis Performed: Strontium 90
Samples: IRA2499-01

Analysis Performed: Tritium
Samples: IRA2499-01

Analysis Performed: Uranium, Combined
Samples: IRA2499-01

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Routine Outfall 007
Report Number: IRA2499

Sampled: 01/25/08
Received: 01/25/08

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: IRA2499-01

Weck Laboratories, Inc

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

Method Performed: EPA 245.1
Samples: IRA2499-01

TestAmerica Irvine

Joseph Doak
Project Manager

IRA2499

Test America Version 12/20/07 CHAIN OF CUSTODY FORM IRA2499 Page 1 of 1

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Routine Outfall 007** Stormwater at Building 100
Project Manager: Bronwyn Kelly Sampler: R BANAGA	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Oil & Grease (1664-HEM)	Cl, SO_4, NO_3+NO_2-N	TDS	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Total Dissolved Metals: Sb Cd, Cu, Pb, Hg, Tl	Comments
Outfall 007	W	1L Poly	1	1-25-08 13:55	HNO_3	1A	X								
Outfall 007-Dup	W	1L Poly	1		HNO_3	1B	X								
Outfall 007	W	1L Amber	2		None	2A, 2B		X							
Outfall 007	W	1L Amber	2		HCl	3A, 3B			X						
Outfall 007	W	500 ml Poly	2		None	4A, 4B				X					
Outfall 007	W	500 ml Poly	1		None	5					X				
Outfall 007	W	2.5 Gal Cube 500 ml Amber	1 1		None None	6A 6B						X			Unfiltered and unpreserved analysis
Outfall 007	W	1 Gal Poly	1		None	7							X		**Only test if second rain event of the year**
Outfall 007	W	1L Poly	1	1-25-08 13:55	None	8								X	Filter w/in 24hrs of receipt at lab

Field readings:
Temp = 8.3°C = 46.9°F
pH = 7.3
Time of readings = 13:55

Relinquished By	Date/Time:	Received By	Date/Time:
[signature] 1-25-08	1510	[signature] TAT	1/25/08 1510
[signature] TAT	1/25/08 1820		
		[signature]	1/25/08 1812

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

Sample Integrity: (check)
Intact X On Ice: 4.4/2.4

A.P. 1920 1/25/08

NPDES - 1742

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 3, 2008

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

Laboratory No.: A-08012606-001
Sample ID.: IRA2499-01 (Outfall 007)

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

Date Sampled:	01/25/08
Date Received:	01/26/08
Temp. Received:	6°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	01/26/08 to 02/02/08

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:

Chronic:	**NOEC**	**TUc**
Ceriodaphnia Survival:	100%	1.0
Ceriodaphnia Reproduction:	100%	1.0

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0

Aquatic Testing Laboratories

Lab No.: A-08012606-001
Client/ID: Test America – Outfall 007

Date Tested: 01/26/08 to 02/02/08

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-080106.

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%	24.8
100% Sample	100%	24.8
Sample not statistically significantly less than Control for either endpoint.		

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 (24.8 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 = 7.5%)
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:	1/26/2008 15:30	Test ID:	8012606	Sample ID:	OUTFALL 007
End Date:	2/2/2008 14:30	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	EFF2-Industrial
Sample Date:	1/25/2008 13:55	Protocol:	EPA-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

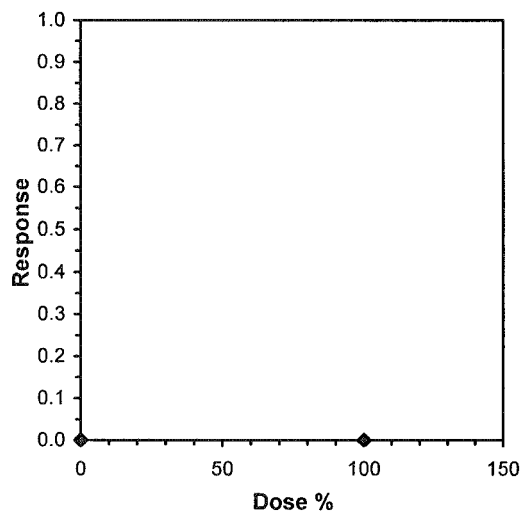
Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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

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

Linear Interpolation (200 Resamples)

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



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/26/2008 15:30	Test ID:	8012606	Sample ID:	OUTFALL 007
End Date:	2/2/2008 14:30	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	EFF2-Industrial
Sample Date:	1/25/2008 13:55	Protocol:	EPA-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

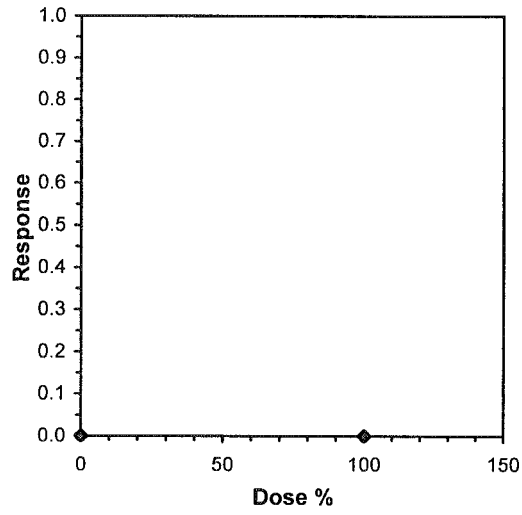
Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	22.000	24.000	26.000	24.000	25.000	26.000	27.000	26.000	22.000
100	24.000	21.000	31.000	22.000	23.000	25.000	26.000	27.000	26.000	23.000

			Transform: Untransformed					1-Tailed			Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
D-Control	24.800	1.0000	24.800	22.000	27.000	7.061	10				24.800	1.0000
100	24.800	1.0000	24.800	21.000	31.000	11.687	10	0.000	1.734	1.857	24.800	1.0000

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.92895		0.905		0.62865	1.240655
F-Test indicates equal variances (p = 0.15)	2.73913		6.541086			
Hypothesis Test (1-tail, 0.05)	**MSDu**	**MSDp**	**MSB**	**MSE**	**F-Prob**	**df**
Homoscedastic t Test indicates no significant differences	1.856878	0.074874	0	5.733333	1	1, 18
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

Aquatic Testing Laboratories

Lab No.: A-08012606-001
Client ID: TestAmerica - IRA2499-01 (Outfall 007)
Start Date: 01/26/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:															
Time of Readings:		1530	1430	1430	1500	1500	1500	1500	1500	1500	1600	1600	1500	1500	1430
Control	DO	8.0	7.8	7.7	8.1	7.9	7.7	8.9	8.2	8.1	7.9	9.2	7.8	8.0	8.2
	pH	7.8	7.6	7.4	7.6	7.8	8.0	8.0	7.9	7.8	7.9	7.7	7.8	7.6	7.6
	Temp	25.4	24.7	25.1	24.4	25.0	24.6	24.6	24.8	24.6	24.5	25.1	24.7	25.0	24.3
100%	DO	11.3	7.9	10.1	8.2	9.6	7.8	10.0	8.5	10.4	8.3	9.9	8.4	11.8	8.5
	pH	7.1	7.4	7.1	7.5	7.1	7.6	7.1	7.7	7.1	7.6	7.1	7.6	7.0	7.4
	Temp	24.5	24.6	24.9	24.2	24.7	24.8	24.5	24.5	25.1	24.4	25.0	24.8	24.6	24.4

Additional Parameters	Control	100% Sample
Conductivity (umohms)	290	210
Alkalinity (mg/l $CaCO_3$)	66	74
Hardness (mg/l $CaCO_3$)	98	74
Ammonia (mg/l NH_3-N)	<0.2	0.7

Source of Neonates										
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	B1	E1	G2	H2	F3	J3	A6	C5	G4	I5

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	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	4	3	5	3	4	3	4	0	4	0	11	10	
	4	0	0	0	0	0	0	0	5	0	4	28	10	
	5	8	7	9	9	8	7	8	9	9	8	82	10	
	6	14	12	10	0	0	15	0	0	0	0	51	10	
	7	0	0	0	14	12	0	14	13	13	10	76	10	
	Total	26	22	24	26	24	25	26	27	26	22	248	10	
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	3	4	3	3	0	13	10	
	4	3	4	4	3	4	0	0	0	0	4	22	10	
	5	9	7	10	8	9	10	6	10	7	9	85	10	
	6	12	10	0	11	10	12	16	14	0	10	95	10	
	7	0	0	17	0	(11)	0	0	0	16	0	33	10	
	Total	24	21	31	22	23	25	26	27	26	23	248	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

IRA2499

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:

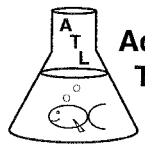
Aquatic Testing Laboratories-SUB
4350 Transport Street, Unit 107
Ventura, CA 93003
Phone :(805) 650-0546
Fax: (805) 650-0756
Project Location: California
Receipt Temperature: 6 °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2499-01	**Water**		Sampled: **01/25/08 13:55**	**pH=7.3, temp=46**
Bioassay-7 dy Chrnic	N/A	02/05/08	01/27/08 01:55	Cerio, EPA/821-R02-013, Sub to Aquatic testing
EDD + Level 4	N/A	02/05/08	02/22/08 13:55	Excel EDD email to pm,Include Std logs for Lvl IV

Containers Supplied:
1 gal Poly (L)

Released By	11/26/08 Date/Time	Received By	11/26/08 1255 Date/Time
Released By	11/26/08 1445 Date/Time	Received By	1-26-08 1445 Date/Time

NPDES - 1748



Aquatic
Testing
Laboratories

REFERENCE TOXICANT DATA

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl

Aquatic Testing Laboratories

QA/QC Batch No.: RT-080106

Date Tested: 01/06/08 to 01/12/08

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: 6 days.
Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival		Mean Number of Young Per Female	
Control	100%		20.5	
0.25 g/l	100%		19.5	
0.5 g/l	100%		19.5	
1.0 g/l	100%		14.0	*
2.0 g/l	80%		3.2	*
4.0 g/l	0%	*	0	**

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

CHRONIC TOXICITY

Survival LC50	2.5 g/l
Reproduction IC25	0.88 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% Survival)
≥15 young per surviving control female	Pass (20.5 young)
≥60% surviving controls had 3 broods	Pass (90% with 3 broods)
PMSD <47% for reproduction	Pass (PMSD = 19.1%)
Stat. sig. diff. conc. relative difference >13%	Pass (Stat. sig. diff. conc. = 31.7%)
Concentration response relationship acceptable	Pass (Response curve normal)

Ceriodaphnia Survival and Reproduction Test-Survival Day 6

Start Date:	1/6/2008 13:00	Test ID:	RT-080106c	Sample ID:	REF-Ref Toxicant
End Date:	1/12/2008 13:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	NACL-Sodium chloride
Sample Date:	1/6/2008	Protocol:	FWCH-EPA-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

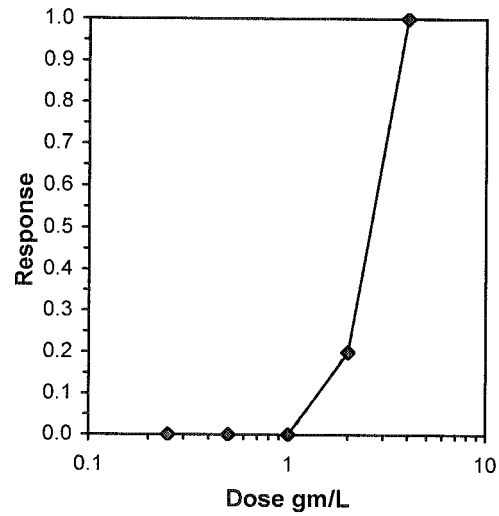
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000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

Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	0.8000	0.8000	2	8	10	10	0.2368	0.0500	2	10
4	0.0000	0.0000	10	0	10	10			10	10

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	2	4	2.82843	
Treatments vs D-Control				

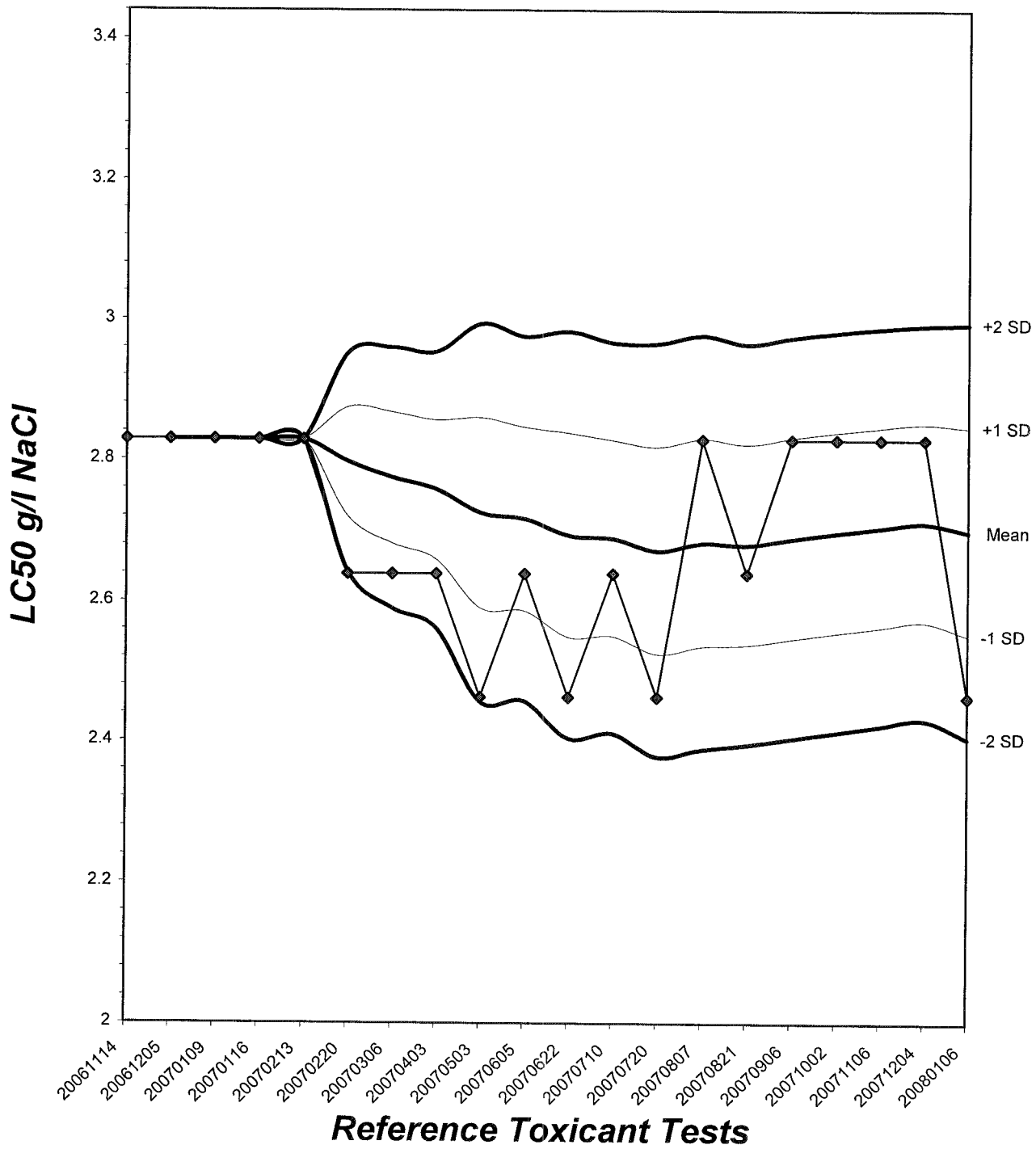
Trimmed Spearman-Karber

Trim Level	EC50	95% CL	
0.0%	2.4623	2.0663	2.9342
5.0%	2.5108	2.0545	3.0683
10.0%	2.5519	1.9976	3.2599
20.0%	2.5937	2.2616	2.9745
Auto-0.0%	2.4623	2.0663	2.9342



Ceriodaphnia dubia Chronic Survival Laboratory Control Chart

CV% = 5.46



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/6/2008 13:00	Test ID:	RT-080106c	Sample ID:	REF-Ref Toxicant
End Date:	1/12/2008 13:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	NACL-Sodium chloride
Sample Date:	1/6/2008	Protocol:	FWCH-EPA-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	23.000	11.000	21.000	21.000	23.000	20.000	19.000	22.000	20.000	25.000
0.25	12.000	24.000	19.000	22.000	9.000	20.000	21.000	21.000	22.000	25.000
0.5	21.000	19.000	21.000	22.000	16.000	12.000	22.000	21.000	22.000	19.000
1	19.000	9.000	9.000	19.000	14.000	10.000	16.000	17.000	19.000	8.000
2	8.000	2.000	2.000	5.000	4.000	3.000	3.000	5.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

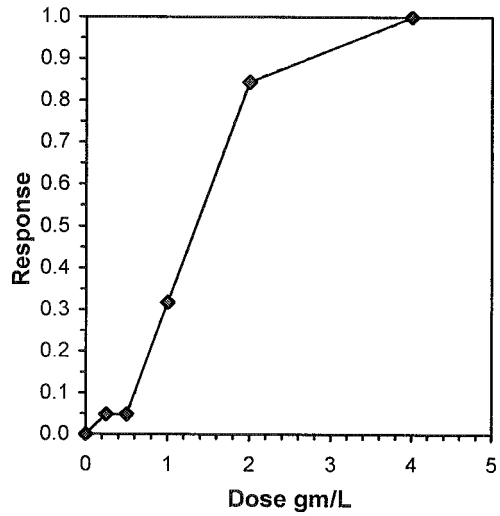
			Transform: Untransformed					Rank	1-Tailed	Isotonic	
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
D-Control	20.500	1.0000	20.500	11.000	25.000	18.432	10			20.500	1.0000
0.25	19.500	0.9512	19.500	9.000	25.000	26.177	10	102.00	76.00	19.500	0.9512
0.5	19.500	0.9512	19.500	12.000	22.000	16.617	10	94.50	76.00	19.500	0.9512
*1	14.000	0.6829	14.000	8.000	19.000	32.819	10	62.50	76.00	14.000	0.6829
*2	3.200	0.1561	3.200	0.000	8.000	76.263	10	55.00	76.00	3.200	0.1561
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 non-normal distribution (p <= 0.05)	0.91281	0.947	-0.9793	0.67912
Bartlett's Test indicates equal variances (p = 0.25)	5.39	13.2767		

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

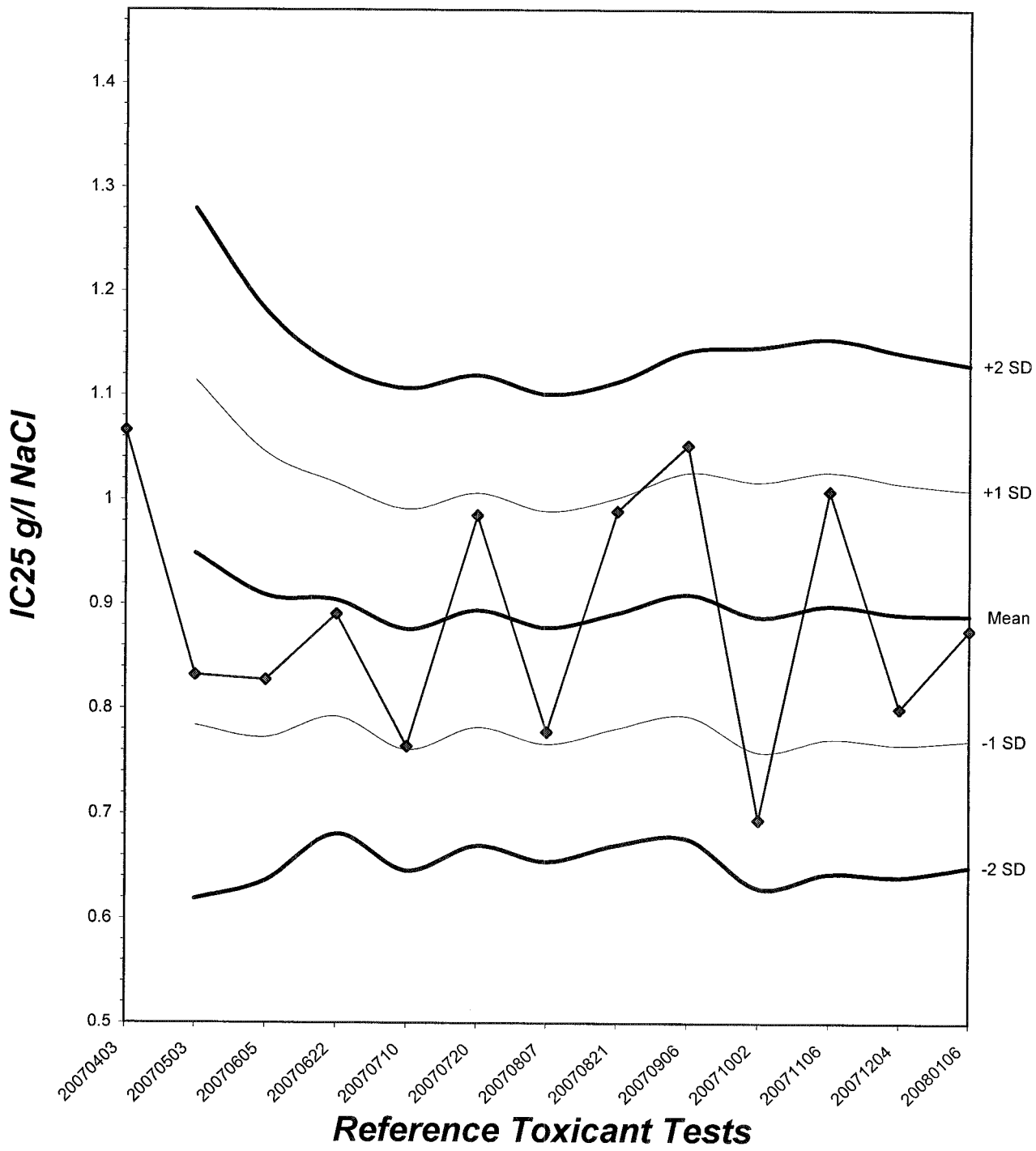
Linear Interpolation (200 Resamples)

Point	gm/L	SD	95% CL		Skew
IC05	0.5023	0.1876	0.0809	0.6178	-0.0659
IC10	0.5955	0.1768	0.1617	0.7497	-0.5184
IC15	0.6886	0.1424	0.2426	0.9253	-0.5389
IC20	0.7818	0.1259	0.4995	1.0352	0.2728
IC25	0.8750	0.1224	0.6413	1.1094	0.3153
IC40	1.1574	0.1139	0.9216	1.3331	-0.0890
IC50	1.3472	0.0972	1.1197	1.4847	-0.4227



Ceriodaphnia dubia Chronic Reproduction Laboratory Control Chart

CV% = 13.5



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-080106

Start Date: 01/06/2008

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	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	2	0	0	0	3	0	3	0	8	10	
	4	4	3	0	4	3	2	0	2	0	3	21	10	
	5	9	8	7	7	6	7	6	7	6	7	70	10	
	6	10	0	12	10	14	11	10	13	11	15	106	10	
	7	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	23	11	21	21	23	20	19	22	20	25	205	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	3	0	2	0	0	3	0	11	10	
	4	4	0	2	0	3	6	4	2	0	3	24	10	
	5	8	8	7	5	6	0	7	6	7	8	62	10	
	6	0	13	10	14	0	12	10	13	12	14	98	10	
	7	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	12	24	19	22	9	20	21	21	22	25	195	10	
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	2	0	2	0	0	0	3	2	0	0	9	10	
	4	0	3	0	3	4	3	0	0	3	3	19	10	
	5	9	6	7	7	0	9	8	7	7	6	66	10	
	6	10	10	12	12	12	0	11	12	12	10	101	10	
	7	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total	21	19	21	22	16	12	22	21	22	19	195	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

Aquatic Testing Laboratories

QA/QC No.: RT-080106

Start Date: 01/06/2008

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	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	3	0	0	2	0	5	10	
	4	3	2	2	3	0	0	3	2	0	2	17	10	
	5	5	7	7	4	5	7	5	4	7	6	57	10	
	6	11	0	0	12	9	0	8	11	10	0	61	10	
	7	–	–	–	–	–	–	–	–	–	–	–	–	–
	Total	19	9	9	19	14	10	16	17	19	8	140	10	
2.0 g/l	1	0	0	0	0	0	0	0	0	X	0	0	9	
	2	0	0	0	0	0	0	0	0	–	0	0	9	
	3	0	0	0	0	0	0	0	0	–	0	0	9	
	4	2	0	2	3	0	0	0	2	–	0	9	9	
	5	3	0	0	2	2	3	3	0	–	0	13	9	
	6	3	2	0	0	2	0	0	3	–	X	10	8	
	7	–	–	–	–	–	–	–	–	–	–	–	–	–
	Total	8	2	2	5	4	3	3	5	0	0	32	8	
4.0 g/l	1	X	X	X	X	X	X	X	X	X	X	0	0	
	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

Aquatic Testing Laboratories

QA/QC No.: RT-080106

Start Date: 01/06/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Analyst Initials:		JL	JL	JL	JL	JL	JL	JL	JL	JL	JL	JL	JL	—	—
Time of Readings:		1330	1330	1330	1330	1330	1230	1230	1300	1300	1300	1300	1300	—	—
Control	DO	7.6	7.2	7.4	7.7	7.4	7.6	7.4	7.5	8.2	7.8	7.9	7.7	—	—
	pH	7.6	7.4	7.4	7.3	7.3	7.2	7.2	7.7	7.5	7.6	7.9	7.6	—	—
	Temp	24.3	25.1	25.4	24.8	24.1	24.5	24.9	25.1	24.4	25.0	24.6	25.1	—	—
0.25 g/l	DO	7.5	7.3	7.5	7.5	7.5	7.7	7.3	7.4	8.2	7.8	7.9	7.7	—	—
	pH	7.6	7.3	7.4	7.4	7.4	7.2	7.3	7.4	7.6	7.5	7.6	7.7	—	—
	Temp	24.4	25.2	25.3	24.5	24.2	24.5	24.7	25.0	24.4	25.1	24.6	25.1	—	—
0.5 g/l	DO	7.4	7.2	7.4	7.6	7.4	7.5	7.4	7.6	8.5	7.6	8.0	7.8	—	—
	pH	7.5	7.3	7.4	7.4	7.4	7.2	7.3	7.5	7.6	7.5	7.7	7.7	—	—
	Temp	24.3	25.1	25.3	24.5	24.1	25.2	24.6	24.5	24.4	24.5	24.4	24.5	—	—
1.0 g/l	DO	7.5	7.2	7.6	7.7	7.3	7.8	7.4	7.4	8.4	7.8	7.7	7.7	—	—
	pH	7.5	7.3	7.6	7.5	7.4	7.2	7.3	7.5	7.6	7.6	7.4	7.6	—	—
	Temp	24.4	25.2	25.1	24.7	24.2	25.2	24.6	25.0	24.4	24.9	24.6	25.0	—	—
2.0 g/l	DO	7.4	7.4	7.6	7.5	7.4	7.8	7.2	7.6	8.2	7.6	7.6	7.7	—	—
	pH	7.5	7.4	7.6	7.6	7.4	7.3	7.2	7.6	7.5	7.6	7.9	7.6	—	—
	Temp	24.5	25.1	25.0	24.6	24.2	25.3	24.8	25.2	24.4	24.8	24.6	25.1	—	—
4.0 g/l	DO	7.5	7.8	—	—	—	—	—	—	—	—	—	—	—	—
	pH	7.6	7.8	—	—	—	—	—	—	—	—	—	—	—	—
	Temp	24.3	24.6	—	—	—	—	—	—	—	—	—	—	—	—

Dissolved Oxygen (DO) readings are in mg/l O_2; 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)	350	348	305	6400	3100	3210
Alkalinity (mg/l $CaCO_3$)	66	65	63	65	66	64
Hardness (mg/l $CaCO_3$)	98	92	98	98	92	98

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

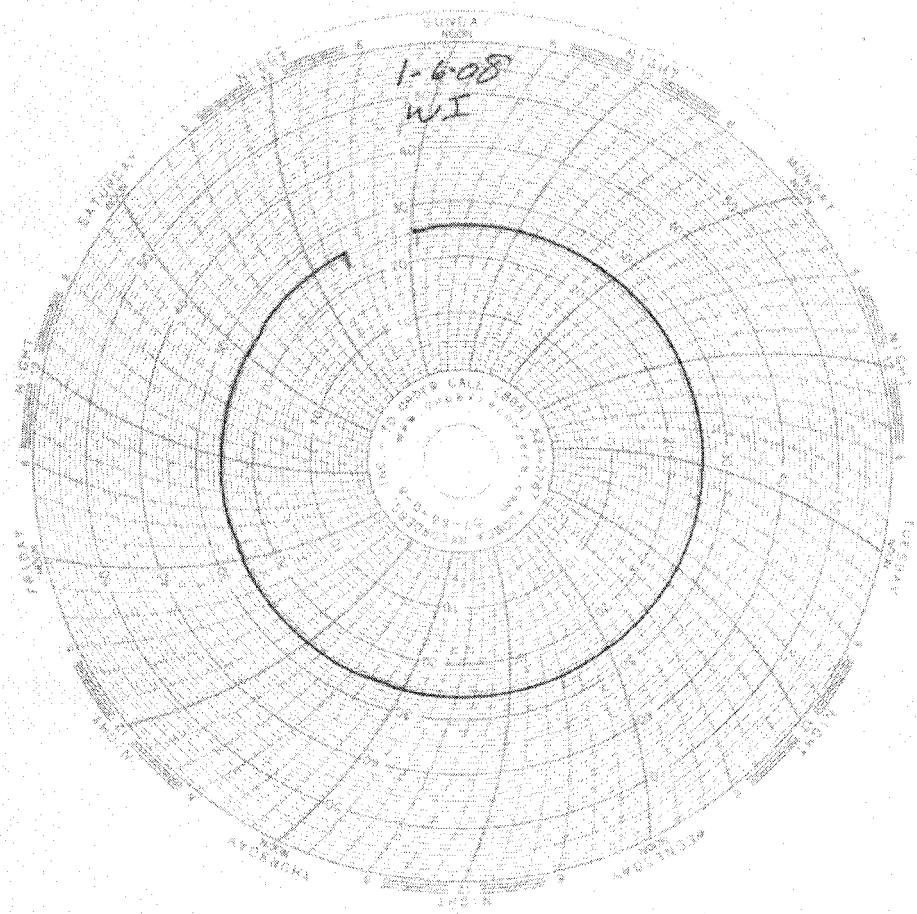
Aquatic Testing Laboratories

Laboratory Temperature Chart

QA/QC Batch No: RT-080106

Date Tested: 01/06/08 to 01/12/08

Acceptable Range: 25+/- 1°C



EBERLINE
SERVICES

February 27 2008

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

Reference: Eberline Services NELAP Cert #01120CA
Test America Project Nos. IRA2496, IRA2497, IRA2499, IRA2500
IRA2506, IRA2565
Eberline Services Reports R801170-8687, R801171-8688, R801172-8689
R801173-8690, R801174-8691, R801175-8692

Dear Mr. Doak:

Enclosed are results from the analyses of six water samples received on January 29, 2008. 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. All samples were batched with QC samples 8687-002, 003, 004, and 005, except for total uranium analysis; the QC samples for total-U analysis are 8682-002, 003, 004, and 005. 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 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

Melissa Mannion
Senior Program Manager

MCM/njv

Enclosure: Reports/CoC's

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

Eberline Services

ANALYSIS RESULTS

SDG 8689 Client TA IRVINE
Work Order R801172-01 Contract PROJECT# IRA2499
Received Date 01/29/08 Matrix WATER

Client Sample ID	Lab Sample ID	Collected	Analyzed	Nuclide	Results ± 2σ	Units	MDA
IRA2499-01	8689-001	01/25/08	02/15/08	GrossAlpha	1.37 ± 0.98	pCi/L	1.4
			02/15/08	Gross Beta	10.9 ± 0.87	pCi/L	0.94
			02/20/08	Ra-228	0.079 ± 0.27	pCi/L	0.62
			02/14/08	K-40 (G)	U	pCi/L	47
			02/14/08	Cs-137 (G)	U	pCi/L	1.8
			02/21/08	H-3	-16.1 ± 93	pCi/L	160
			02/20/08	Ra-226	0.281 ± 0.46	pCi/L	0.80
			02/14/08	Sr-90	0.026 ± 0.39	pCi/L	0.91
			02/19/08	Total U	0.140 ± 0.018	pCi/L	0.022

Certified by
Report Date 02/27/08

Eberline Services

QC RESULTS

SDG 8689 | Client TA IRVINE
Work Order R801172-01 | Contract PROJECT# IRA2499
Received Date 01/29/08 | Matrix WATER

Lab Sample ID	Nuclide	Results	Units	Amount Added	MDA	Evaluation
LCS						
8682-002	GrossAlpha	10.6 ± 0.84	pCi/Smpl	10.1	0.29	105% recovery
	Gross Beta	9.49 ± 0.38	pCi/Smpl	9.39	0.29	101% recovery
	Ra-228	8.69 ± 0.54	pCi/Smpl	8.73	0.75	100% recovery
	Co-60 (G)	223 ± 11	pCi/Smpl	226	7.0	99% recovery
	Cs-137 (G)	253 ± 11	pCi/Smpl	236	8.1	107% recovery
	Am-241 (G)	215 ± 37	pCi/Smpl	252	47	85% recovery
	H-3	228 ± 14	pCi/Smpl	240	16	95% recovery
	Ra-226	5.92 ± 0.27	pCi/Smpl	5.58	0.085	106% recovery
	Sr-90	9.45 ± 0.73	pCi/Smpl	9.40	0.32	101% recovery
	Total U	1.06 ± 0.12	pCi/Smpl	1.13	0.004	94% recovery
BLANK						
8682-003	GrossAlpha	0.006 ± 0.13	pCi/Smpl	NA	0.25	<MDA
	Gross Beta	-0.090 ± 0.27	pCi/Smpl	NA	0.44	<MDA
	Ra-228	-0.089 ± 0.33	pCi/Smpl	NA	0.78	<MDA
	K-40 (G)	U	pCi/Smpl	NA	190	<MDA
	Cs-137 (G)	U	pCi/Smpl	NA	7.4	<MDA
	H-3	-4.88 ± 9.0	pCi/Smpl	NA	15	<MDA
	Ra-226	-0.014 ± 0.026	pCi/Smpl	NA	0.071	<MDA
	Sr-90	0.078 ± 0.24	pCi/Smpl	NA	0.54	<MDA
	Total U	0.00E 00 ± 1.9E-04	pCi/Smpl	NA	4.4E-04	<MDA
LCS						
8687-002	GrossAlpha	13.1 ± 0.92	pCi/Smpl	11.2	0.23	117% recovery
	Gross Beta	11.4 ± 0.46	pCi/Smpl	11.3	0.44	101% recovery
	Ra-228	10.3 ± 0.62	pCi/Smpl	9.87	0.85	104% recovery
	Co-60 (G)	504 ± 11	pCi/Smpl	525	6.4	96% recovery
	Cs-137 (G)	586 ± 10	pCi/Smpl	566	6.9	104% recovery
	Am-241 (G)	602 ± 20	pCi/Smpl	610	23	99% recovery
	H-3	250 ± 15	pCi/Smpl	263	16	95% recovery
	Ra-226	5.35 ± 0.25	pCi/Smpl	5.58	0.082	96% recovery
	Sr-90	10.7 ± 0.79	pCi/Smpl	10.3	0.34	104% recovery
BLANK						
8687-003	GrossAlpha	0.023 ± 0.14	pCi/Smpl	NA	0.25	<MDA
	Gross Beta	-0.044 ± 0.15	pCi/Smpl	NA	0.26	<MDA
	Ra-228	-0.313 ± 0.39	pCi/Smpl	NA	1.1	<MDA

Certified by _____
Report Date 02/27/08

Eberline Services

SDG 8689 | Client TA IRVINE
Work Order R801172-01 | Contract PR0JECT# IRA2499
Received Date 01/29/08 | Matrix WATER

K-40 (G)	U	pCi/Smpl	NA	26	<MDA
Cs-137 (G)	U	pCi/Smpl	NA	2.2	<MDA
H-3	-7.14 ± 9.0	pCi/Smpl	NA	16	<MDA
Ra-226	-0.013 ± 0.036	pCi/Smpl	NA	0.081	<MDA
Sr-90	0.036 ± 0.20	pCi/Smpl	NA	0.45	<MDA

DUPLICATES

Sample ID	Nuclide	Results ± 2σ	MDA
8682-004	GrossAlpha	3.13 ± 2.1	2.2
	Gross Beta	42.1 ± 2.3	2.1
	Ra-228	0.070 ± 0.15	0.42
	K-40 (G)	42.6 ± 18	9.6
	Cs-137 (G)	U	0.92
	H-3	-73.7 ± 92	160
	Ra-226	0.111 ± 0.44	0.80
	Sr-90	-0.108 ± 0.44	1.1
	Total U	2.88 ± 0.32	0.022
8687-004	GrossAlpha	2.52 ± 1.2	1.5
	Gross Beta	4.02 ± 1.0	1.5
	Ra-228	0.123 ± 0.17	0.47
	K-40 (G)	U	35
	Cs-137 (G)	U	1.5
	H-3	-114 ± 91	160
	Ra-226	-0.221 ± 0.37	0.81
	Sr-90	-0.019 ± 0.24	0.58

ORIGINALS

Sample ID	Results ± 2σ	MDA	RPD	3σ (Tot)	Eval
8682-001	2.52 ± 2.0	2.4	22	160	satis.
	42.3 ± 2.4	2.4	0	44	satis.
	0.145 ± 0.17	0.44	-	0	satis.
	36.0 ± 19	13	17	102	satis.
	U	1.1	-	0	satis.
	-62.4 ± 94	160	-	0	satis.
	-0.149 ± 0.46	0.96	-	0	satis.
	0.032 ± 0.30	0.58	-	0	satis.
	2.75 ± 0.30	0.022	5	30	satis.
8687-001	2.21 ± 1.1	1.4	13	112	satis.
	4.33 ± 1.0	1.5	7	66	satis.
	0.159 ± 0.19	0.49	-	0	satis.
	U	12	-	0	satis.
	U	0.53	-	0	satis.
	-77.4 ± 91	160	-	0	satis.
	0.047 ± 0.45	0.83	-	0	satis.
	0.076 ± 0.32	0.68	-	0	satis.

SPIKED SAMPLE

Sample ID	Nuclide	Results ± 2σ	MDA
8682-005	GrossAlpha	225 ± 12	2.5
	Gross Beta	192 ± 4.5	2.4
	H-3	15800 ± 310	160
	Ra-226	124 ± 4.7	0.94
	Total U	120 ± 15	2.2
8687-005	GrossAlpha	153 ± 7.3	1.3
	Gross Beta	107 ± 2.7	1.3
	H-3	14900 ± 300	160
	Ra-226	134 ± 4.9	0.85

ORIGINAL SAMPLE

Sample ID	Results ± 2σ	MDA	Added	%Recv
8682-001	2.52 ± 2.0	2.4	163	136
	42.3 ± 2.4	2.4	145	103
	-62.4 ± 94	160	16000	99
	-0.149 ± 0.46	0.96	112	111
	2.75 ± 0.30	0.022	113	104
8687-001	2.21 ± 1.1	1.4	114	132
	4.33 ± 1.0	1.5	103	100
	-77.4 ± 91	160	16000	94
	0.047 ± 0.45	0.83	123	109

Certified by
Report Date 02/27/08

SUBCONTRACT ORDER

TestAmerica Irvine

8629

IRA2499

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
Receipt Temperature: 6 °C Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2499-01	**Water**		Sampled: **01/25/08 13:55**	**pH=7.3, temp=46**
Gamma Spec-O	mg/kg	02/05/08	01/24/09 13:55	Boeing, permit, J flags, K-40 and CS-137 only
Gross Alpha-O	pCi/L	02/05/08	07/23/08 13:55	Boeing, permit, J flags
Gross Beta-O	pCi/L	02/05/08	07/23/08 13:55	Boeing, permit, J flags
Level 4 Data Package	N/A	02/05/08	02/22/08 13:55	
Radium, Combined-O	pCi/L	02/05/08	01/24/09 13:55	Boeing, permit, J flags
Strontium 90-O	pCi/L	02/05/08	01/24/09 13:55	Boeing, permit, J flags
Tritium-O	pCi/L	02/05/08	01/24/09 13:55	Boeing, permit, J flags
Uranium, Combined-O	pCi/L	02/05/08	01/24/09 13:55	Boeing, permit, J flags

Containers Supplied:
2.5 gal Poly (J) 500 mL Amber (K)

1/28/08 1700		FedEx 1/28/08 17:00	
Released By	Date/Time	Received By	Date/Time
		01/29/08 10:15	
Released By	Date/Time	Received By	Date/Time

NPDES - 1763

EBERLINE

RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

1/29/08

Client: WEST AMERICA City: IRVINE State: CA

Date/Time received: 01/29/08 10:15 CoC No: IRA 2499

Container/E No: ICE CHEST Requested TAT (Days): _____ P.C. Received: Yes [ ] No [ ]

INSPECTION

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

14 Was P.M. notified of any anomalies? Yes [ ] No [ ] Date: _____

15 Inspected by: _____ Date: 01/29/08 Time: 10:30

Customer Sample No	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe
IRA 2499-1	<60						

Ion Chamber Ser. No: _____ Calibration date: _____

Alpha Meter Ser. No: _____ Calibration date: _____

Beta/Gamma Meter Ser. No: 100482 Calibration date: 09MAY07

Vista
Analytical Laboratory

February 09, 2008

Vista Project I.D.: 30209

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 January 29, 2008 under your Project Name "IRA2499". 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

ACCREDITED IN ACCORDANCE WITH nelac

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: **1/29/2008**

Vista Lab. ID	Client Sample ID
30209-001	IRA2499-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous | QC Batch No.: 9921 | Lab Sample: 0-MB001

Sample Size: 1.00 L | Date Extracted: 2-Feb-08 | Date Analyzed DB-5: 6-Feb-08 | Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.00000165		
1,2,3,7,8-PeCDD	ND	0.00000120		
1,2,3,4,7,8-HxCDD	ND	0.00000316		
1,2,3,6,7,8-HxCDD	ND	0.00000300		
1,2,3,7,8,9-HxCDD	ND	0.00000295		
1,2,3,4,6,7,8-HpCDD	ND	0.00000197		
OCDD	ND	0.00000682		
2,3,7,8-TCDF	ND	0.000000988		
1,2,3,7,8-PeCDF	ND	0.00000123		
2,3,4,7,8-PeCDF	ND	0.00000151		
1,2,3,4,7,8-HxCDF	ND	0.000000596		
1,2,3,6,7,8-HxCDF	ND	0.000000816		
2,3,4,6,7,8-HxCDF	ND	0.000000976		
1,2,3,7,8,9-HxCDF	ND	0.00000111		
1,2,3,4,6,7,8-HpCDF	ND	0.00000146		
1,2,3,4,7,8,9-HpCDF	ND	0.00000154		
OCDF	ND	0.00000455		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	73.6	25 - 164	
	13C-1,2,3,7,8-PeCDD	76.1	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	74.4	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	73.5	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	77.2	23 - 140	
	13C-OCDD	65.9	17 - 157	
	13C-2,3,7,8-TCDF	72.7	24 - 169	
	13C-1,2,3,7,8-PeCDF	80.3	24 - 185	
	13C-2,3,4,7,8-PeCDF	66.6	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	95.5	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	77.3	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	67.6	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	76.1	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	72.0	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	75.2	26 - 138	
	13C-OCDF	71.7	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	77.0	35 - 197	

Totals		
Total TCDD	ND	0.00000165
Total PeCDD	ND	0.00000209
Total HxCDD	ND	0.00000304
Total HpCDD	0.00000138	
Total TCDF	ND	0.000000988
Total PeCDF	ND	0.00000136
Total HxCDF	ND	0.000000843
Total HpCDF	ND	0.00000150

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

Approved By: William J. Luksemburg 08-Feb-2008 12:17

OPR Results **EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9921	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	2-Feb-08	Date Analyzed DB-5:	6-Feb-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	11.2	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	77.8	25 - 164	
1,2,3,7,8-PeCDD	50.0	55.0	35 - 71		13C-1,2,3,7,8-PeCDD	74.8	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	54.7	35 - 82		13C-1,2,3,4,7,8-HxCDD	74.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	54.1	38 - 67		13C-1,2,3,6,7,8-HxCDD	75.4	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	54.8	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	80.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	54.0	35 - 70		13C-OCDD	71.4	17 - 157	
OCDD	100	113	78 - 144		13C-2,3,7,8-TCDF	77.3	24 - 169	
2,3,7,8-TCDF	10.0	10.7	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	73.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	55.0	40 - 67		13C-2,3,4,7,8-PeCDF	66.3	21 - 178	
2,3,4,7,8-PeCDF	50.0	55.4	34 - 80		13C-1,2,3,4,7,8-HxCDF	90.2	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	54.4	36 - 67		13C-1,2,3,6,7,8-HxCDF	73.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	56.0	42 - 65		13C-2,3,4,6,7,8-HxCDF	69.8	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	56.1	35 - 78		13C-1,2,3,7,8,9-HxCDF	74.7	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	55.4	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	71.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	55.5	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	55.7	39 - 69		13C-OCDF	72.9	17 - 157	
OCDF	100	106	63 - 170	CRS	37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:17

Sample ID: **IRA2499-01** **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30209-001	Date Received:	29-Jan-08
Project:	IRA2499	Sample Size:	1.00 L	QC Batch No.:	9921	Date Extracted:	2-Feb-08
Date Collected:	25-Jan-08			Date Analyzed DB-5:	7-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	1355						

Analyte	Conc. (ug/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.00000115		
1,2,3,7,8-PeCDD	ND	0.000000899		
1,2,3,4,7,8-HxCDD	ND	0.00000241		
1,2,3,6,7,8-HxCDD	ND	0.00000249		
1,2,3,7,8,9-HxCDD	ND	0.00000235		
1,2,3,4,6,7,8-HpCDD	0.0000106			J
OCDD	0.000126			
2,3,7,8-TCDF	ND	0.000000958		
1,2,3,7,8-PeCDF	ND	0.00000103		
2,3,4,7,8-PeCDF	ND	0.00000117		
1,2,3,4,7,8-HxCDF	ND	0.000000709		
1,2,3,6,7,8-HxCDF	ND	0.000000793		
2,3,4,6,7,8-HxCDF	ND	0.000000949		
1,2,3,7,8,9-HxCDF	ND	0.00000115		
1,2,3,4,6,7,8-HpCDF	ND	0.00000288		
1,2,3,4,7,8,9-HpCDF	ND	0.00000102		
OCDF	0.00000849			J

Labeled Standard		%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	79.3	25 - 164	
	13C-1,2,3,7,8-PeCDD	76.1	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	72.3	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	75.8	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	85.8	23 - 140	
	13C-OCDD	79.5	17 - 157	
	13C-2,3,7,8-TCDF	90.1	24 - 169	
	13C-1,2,3,7,8-PeCDF	91.9	24 - 185	
	13C-2,3,4,7,8-PeCDF	83.0	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	81.6	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	72.8	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	68.7	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	75.1	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	70.2	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	78.9	26 - 138	
	13C-OCDF	85.1	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	76.5	35 - 197	

Totals				
Total TCDD	ND	0.00000115		
Total PeCDD	ND	0.00000157		
Total HxCDD	ND	0.00000468		
Total HpCDD	0.0000299			B
Total TCDF	ND	0.000000958		
Total PeCDF	ND	0.00000110		
Total HxCDF	ND	0.00000173		
Total HpCDF	0.00000324			

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

Approved By: William J. Luksemburg 08-Feb-2008 12:17

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

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2499 30209 1.8°C

SENDING LABORATORY:

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

RECEIVING LABORATORY:

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

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2499-01	**Water**		Sampled: **01/25/08 13:55**	**pH=7.3, temp=46**
1613-Dioxin-HR-Alta	ug/l	02/05/08	02/01/08 13:55	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Level 4 Data Package - Out	N/A	02/05/08	02/22/08 13:55	

Containers Supplied:
1 L Hev Amber (C), (D)

Released By	Date/Time	Received By	Date/Time
		Bettina L Benedict	1/29/08 1335
Released By	Date/Time	Received By	Date/Time

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 30209 TAT unspecified

Samples Arrival:	**Date/Time** 1/29/08 0905	**Initials:** YBB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 1/29/08 1337	**Initials:** YBB	**Location:** WR-2 **Shelf/Rack:** C 2

Delivered By:	(FedEx)	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C 1.8°C	**Time:** 0911	**Thermometer ID:** IR-1				

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill / Trk # 7904 34539950	✓		
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?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	(None)		
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2499

8012808

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:_____°C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2499-01	**Water**		Sampled: **01/25/08 13:55**	**pH=7.3, temp=46**
Level 4 Data Package - Wec	N/A	02/05/08	02/22/08 13:55	
Mercury - 245.1, Diss -OUT	mg/l	02/05/08	02/22/08 13:55	
Mercury - 245.1-OUT	mg/l	02/05/08	02/22/08 13:55	Boeing, permit, J flags
Containers Supplied:				
125 mL Poly w/HNO3 (N)	125 mL Poly (O)			

Released By 01/28/08 0700 Date/Time — Received By TAI 01/28/08 0700 Date/Time

Released By TAI 01/28/08 845 Date/Time — Received By 01/28/08 Date/Time

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

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

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

Report Date: 02/04/08 10:41
Received Date: 01/28/08 08:45
Turn Around: 6 days

Work Order #: 8012808

Client Project: IRA2499

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 01/28/08 08:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 7.9 °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: 8012808
Project ID: IRA2499

Date Received: 01/28/08 08:45
Date Reported: 02/04/08 10:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA2499-01	Client		8012808-01	Water	01/25/08 13:55

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: 8012808
Project ID: IRA2499

Date Received: 01/28/08 08:45
Date Reported: 02/04/08 10:41

IRA2499-01 8012808-01 (Water) Date Sampled: 01/25/08 13:55

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1053	01/30/08	01/31/08	jlp	
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1053	01/30/08	01/31/08	jlp	

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Phone 626.336.2139 Fax 626.336.2634

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

Report ID: 8012808
Project ID: IRA2499

Date Received: 01/28/08 08:45
Date Reported: 02/04/08 10:41

QUALITY CONTROL SECTION

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

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

Report ID: 8012808
Project ID: IRA2499

Date Received: 01/28/08 08:45
Date Reported: 02/04/08 10:41

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W8A1053 - EPA 245.1										
Blank (W8A1053-BLK1)				Analyzed: 01/31/08						
Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							
LCS (W8A1053-BS1)				Analyzed: 01/31/08						
Mercury, Dissolved	0.930	0.20	ug/l	1.00		93	85-115			
Mercury, Total	0.930	0.20	ug/l	1.00		93	85-115			
Matrix Spike (W8A1053-MS1)	**Source: 8012822-01**			Analyzed: 01/31/08						
Mercury, Dissolved	1.38	0.20	ug/l	1.00	0.431	95	70-130			
Mercury, Total	1.38	0.20	ug/l	1.00	0.431	95	70-130			
Matrix Spike (W8A1053-MS2)	**Source: 8012822-02**			Analyzed: 01/31/08						
Mercury, Dissolved	1.37	0.20	ug/l	1.00	0.426	94	70-130			
Mercury, Total	1.37	0.20	ug/l	1.00	0.426	94	70-130			
Matrix Spike Dup (W8A1053-MSD1)	**Source: 8012822-01**			Analyzed: 01/31/08						
Mercury, Dissolved	1.35	0.20	ug/l	1.00	0.431	92	70-130	2	20	
Mercury, Total	1.35	0.20	ug/l	1.00	0.431	92	70-130	2	20	
Matrix Spike Dup (W8A1053-MSD2)	**Source: 8012822-02**			Analyzed: 01/31/08						
Mercury, Dissolved	1.40	0.20	ug/l	1.00	0.426	97	70-130	2	20	
Mercury, Total	1.40	0.20	ug/l	1.00	0.426	97	70-130	2	20	

Weck Laboratories, Inc
Kim G Tu, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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TestAmerica, Inc. - Irvine
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Irvine CA, 92614

Report ID: 8012808
Project ID: IRA2499

Date Received: 01/28/08 08:45
Date Reported: 02/04/08 10:41

Notes and Definitions

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.

Weck Laboratories, Inc
Kim G Tu, Project Manager

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APPENDIX G

Section 46

Outfall 008, January 25, 2008

MEC^{X} Data Validation Reports

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA2497

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:	IRA2497
Project Manager:	B. Kelly
Matrix:	Soil
QC Level:	IV
No. of Samples:	1
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 008	IRA2497-01	30206-001, 8012812-01, 8688-01	Water	01/25/08 1045	245.1, 200.8, 900.0, 901.1, 903.1, 904.0, 905.0, 906.0, 1613, ASTM D-5174

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Eberline within the temperature limits of 4°C ±2°C. The sample was received below the temperature limit at Vista; however, the sample was not noted to have been frozen. The sample was received above the temperature limit at Weck; however, mercury is not considered volatile. According to the case narrative for this SDG, the sample was received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at Eberline and Vista. No custody seals were present upon receipt at Weck. 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 1, 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: Total HpCDD was detected in the method blank above the EDL. The result in the sample was qualified as estimated, "J," as a portion of the reported total HpCDD was

considered to be method blank contamination. 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 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: March 7, 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 200.8 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 ≤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.

- Blanks: There were no applicable detects in the method blanks or CCBs.

- Interference Check Samples: ICSA/B analyses were performed in association with the metals analyses. Recoveries were within the method-established control limits. Most analytes were reported in the 6020 ICSA solution; however, the reviewer was not able to ascertain if the detection was 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 total metals analyses only. All recoveries and RPDs were within the laboratory-established control limits. Evaluation of the 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.

- 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 3, 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. The aliquots for radium-226, radium-228, strontium-90, gamma spectroscopy, and total uranium were prepared beyond the five-day holding time for unpreserved samples; therefore, these results 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, gross alpha detected in the sample was qualified as an estimated detect, "J." 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 internal spike efficiency to default efficiency ratios was near 1, indicating that quenching did not occur.

  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 cell efficiencies were determined in September 2006. The radium-226 continuing calibration results were within the laboratory-established control limits. The radium-228 calibration utilized actinium-228 and was verified in February 2001. The radium-228 tracer, yttrium oxalate yields were greater than 70%.

  The gamma spectroscopy geometry-specific, detector efficiencies were determined in September 1999 and February 2007. All analytes were determined at the maximum photopeak energy.

  The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: There were no analytes detected in the method blank.

- Blank Spikes and Laboratory Control Samples: The recoveries 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: 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. 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.

Sample ID: IRA2497-01 Outfall 008 **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30206-001	Date Received:	29-Jan-08
Project:	IRA2497	Sample Size:	1.00 L	QC Batch No.:	9921	Date Extracted:	2-Feb-08
Date Collected:	25-Jan-08			Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	1045						

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000952		
1,2,3,7,8-PeCDD	ND	0.00000271		
1,2,3,4,7,8-HxCDD	ND	0.00000277		
1,2,3,6,7,8-HxCDD	ND	0.00000295		
1,2,3,7,8,9-HxCDD	ND	0.00000345		
1,2,3,4,6,7,8-HpCDD	ND		0.0000110	
OCDD	0.000113			
2,3,7,8-TCDF	ND	0.000000926		
1,2,3,7,8-PeCDF	ND	0.00000137		
2,3,4,7,8-PeCDF	ND	0.00000155		
1,2,3,4,7,8-HxCDF	ND	0.00000112		
1,2,3,6,7,8-HxCDF	ND	0.00000137		
2,3,4,6,7,8-HxCDF	ND	0.00000121		
1,2,3,7,8,9-HxCDF	ND	0.000000749		
1,2,3,4,6,7,8-HpCDF	0.00000454			J
1,2,3,4,7,8,9-HpCDF	ND	0.00000142		
OCDF	ND		0.00000624	

Totals				
Total TCDD	ND	0.000000952		
Total PeCDD	ND	0.00000104		
Total HxCDD	ND		0.00000132	
Total HpCDD	0.0000207		0.0000317	B
Total TCDF	ND	0.00000125		
Total PeCDF	ND		0.00000109	
Total HxCDF	ND		0.00000149	
Total HpCDF	0.00000454		0.00000809	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	89.9	25 - 164	
	13C-1,2,3,7,8-PeCDD	83.5	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	84.4	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	84.5	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	89.7	23 - 140	
	13C-OCDD	75.6	17 - 157	
	13C-2,3,7,8-TCDF	63.6	24 - 169	
	13C-1,2,3,7,8-PeCDF	61.0	24 - 185	
	13C-2,3,4,7,8-PeCDF	54.9	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	96.9	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	82.2	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	79.4	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	84.3	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	79.0	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	84.0	26 - 138	
	13C-OCDF	82.2	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	91.5	35 - 197	

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 08-Feb-2008 12:16

NPDES - 1794

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

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

Project ID: Routine Outfall 008
Report Number: IRA2497

Sampled: 01/25/08
Received: 01/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2497-01 (Outfall 008 - Water)									
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8	8A28076	0.20	2.0	**0.30**	1	01/28/08	01/28/08	J
Cadmium U	EPA 200.8	8A28076	0.11	1.0	ND	1	01/28/08	01/28/08	
Copper	EPA 200.8	8A28076	0.75	2.0	**5.0**	1	01/28/08	01/28/08	
Lead	EPA 200.8	8A28076	0.30	1.0	**6.3**	1	01/28/08	01/28/08	
Selenium J/DNQ	EPA 200.8	8A28076	0.30	2.0	**0.32**	1	01/28/08	01/28/08	J
Thallium U	EPA 200.8	8A28076	0.20	1.0	ND	1	01/28/08	01/28/08	
Zinc J/DNQ	EPA 200.8	8A28076	2.5	20	**19**	1	01/28/08	01/28/08	J

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: Routine Outfall 008
Report Number: IRA2497

Sampled: 01/25/08
Received: 01/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2497-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8-Diss	8A25156	0.20	2.0	**0.22**	1	01/25/08	01/26/08	J
Cadmium U	EPA 200.8-Diss	8A25156	0.11	1.0	ND	1	01/25/08	01/26/08	
Copper	EPA 200.8-Diss	8A25156	0.75	2.0	**2.9**	1	01/25/08	01/26/08	
Lead J/DNQ	EPA 200.8-Diss	8A25156	0.30	1.0	**0.92**	1	01/25/08	01/26/08	J
Selenium U	EPA 200.8-Diss	8A25156	0.30	2.0	ND	1	01/25/08	01/26/08	
Thallium U	EPA 200.8-Diss	8A25156	0.20	1.0	ND	1	01/25/08	01/28/08	
Zinc J/DNQ	EPA 200.8-Diss	8A25156	2.5	20	**8.4**	1	01/25/08	01/26/08	J

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Sampled: 01/25/08
Received: 01/25/08

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: IRA2497-01 (Outfall 008 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved U	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	
Mercury, Total U	EPA 245.1	W8A1053	0.050	0.20	ND	1	01/30/08	01/31/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

Eberline Services

ANALYSIS RESULTS

SDG 8688 Client TA IRVINE
Work Order R801171-01 Contract PROJECT# IRA2497
Received Date 01/29/08 Matrix WATER

Client Sample ID	Lab Sample ID	Collected	Analyzed	Nuclide	Results ± 2σ	Units	MDA	
Outfall 008								
IRA2497-01	8688-001	01/25/08	02/15/08	GrossAlpha	2.20 ± 0.68	pCi/L	0.60	J/R
			02/15/08	Gross Beta	4.86 ± 0.68	pCi/L	0.88	
			02/20/08	Ra-228	0 ± 0.20	pCi/L	0.53	UJ/H
			02/12/08	K-40 (G)	U	pCi/L	20	↓
			02/12/08	Cs-137 (G)	U	pCi/L	0.87	↓
			02/21/08	H-3	-45.9 ± 93	pCi/L	160	U
			02/20/08	Ra-226	-0.023 ± 0.40	pCi/L	0.76	UJ/H
			02/14/08	Sr-90	-0.139 ± 0.35	pCi/L	0.86	↓
			02/19/08	Total U	0.196 ± 0.024	pCi/L	0.022	J/H

LEVEL IV

Certified by
Report Date 02/27/08
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