

## **APPENDIX G**

### **Section 5**

Outfall 006, December 19, 2007

MEC<sup>X</sup> Data Validation Reports



# DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IQL2125

Prepared by

MEC<sup>X</sup>, 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: IQL2128  
 Project Manager: B. Kelly  
 Matrix: Soil  
 QC Level: IV  
 No. of Samples: 1  
 No. of Reanalyses/Dilutions: 0  
 Laboratory: TestAmerica-Irvine, Weck, Vista

**Table 1. Sample Identification**

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 006	IQL2125-01	7122005-01, 30103-001	Water	12/19/07 1000	160.2, 245.1, 300.0, 413.1, 900.0, 1613, 6020, SM2540C

**II. Sample Management**

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Weck within the temperature limits of 4°C ±2°C. The sample was received below the temperature limits at Vista; however, the sample was not noted to have been frozen. 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 Vista and Weck. If necessary, the client ID was added to the sample result summary by the reviewer.

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### Data Qualifier Reference Table

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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.

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### 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.**

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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.

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### III. Method Analyses

#### A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight

Date Reviewed: January 15, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>X</sup> 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 TCDF was reported in the method blank at a concentration of 0.00000139 µg/l; however, total TCDF was not reported in site sample Outfall 006. 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. An EMPC value for 1,2,3,4,6,7,8-HpCDD was qualified as an estimated nondetect, “UJ.” Nondetects are valid to the estimated detection limit (EDL).

## **B. EPA METHODS 245.1, 6020—Metals and Mercury**

Reviewed By: P. Meeks

Date Reviewed: January 15, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 245.1 and 6020*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.



- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were  $\leq 5\%$ , and all masses of interest were calibrated to  $\leq 0.1$  amu and  $\leq 0.9$  amu at 10% peak height.
- Calibration: Calibration criteria were met. Mercury initial calibration  $r^2$  values were  $\geq 0.995$  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 dissolved metals analyses only. Recoveries were within the method-established control limits. All 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 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 CCV analyzed prior to the sample and the CCB analyzed after the sample both had all internal standard recoveries below the control limit; however, as the sample internal standard recoveries were acceptable, no qualifications were applied. The remaining 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. EPA METHOD 900.0 — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: January 17, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *EPA Method 900.0* and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding time for gross beta was exceeded by one day. The gross beta result was qualified as estimated, "J."
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability. The gross beta detector efficiency was greater than 20%.
- Blanks: Gross beta was not detected above the MDA in the method blank.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratory-established control limits.
- Laboratory Duplicates: Duplicate analysis was performed for the sample in this SDG. The RPD was within the laboratory-established control limit.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed for the sample in this SDG. The recovery was within the laboratory-established control limits.
- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample result and MDA 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.

## D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: January 15, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>X</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *Standard Methods 160.2, 300.0, 413.1, SM2540C* and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: All holding times, 28 days for chloride, sulfate, and oil and grease, seven days for TSS and TDS, and 48 hours for nitrate/nitrite, were met.
- Calibration: Calibration criteria were met. Initial calibration  $r^2$  values were  $\geq 0.995$  and all initial and continuing calibration recoveries were within 90-110%.
- Blanks: There were no applicable detects in the method blanks or CCBs.
- Blank Spikes and Laboratory Control Samples: All recoveries and the oil and grease RPD were within the laboratory-established control limits. A nitrate/nitrite LCS recovery was not listed by the laboratory, but during the review of the raw data, the reviewer noted an acceptable recovery.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: The sample results were verified against the raw data. No transcription or calculation errors were noted. In order to report chloride and sulfate within the linear range of the calibrations, chloride and sulfate were analyzed at 20 $\times$  dilutions.
- 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:** IQL2125-01 *Outfall 006* **EPA Method 1613**

Client Data		Sample Data		Laboratory Data	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30103-001
Project:	IQL2125	Sample Size:	1.01 L	QC Batch No.:	9806
Date Collected:	19-Dec-07			Date Analyzed DB-5:	25-Dec-07
Time Collected:	1000			Date Analyzed DB-225:	NA
				Date Received:	21-Dec-07
				Date Extracted:	23-Dec-07
				Date Analyzed DB-225:	NA

Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000661			IS 13C-2,3,7,8-TCDD	85.6	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000895			13C-1,2,3,7,8-PeCDD	82.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000124			13C-1,2,3,4,7,8-HxCDD	70.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000140			13C-1,2,3,6,7,8-HxCDD	61.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000132			13C-1,2,3,4,6,7,8-HpCDD	65.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.0000176	0.00000207		13C-OCDD	58.9	17 - 157	
OCDD	0.0000176			J	13C-2,3,7,8-TCDF	82.4	24 - 169	
2,3,7,8-TCDF	ND	0.00000133			13C-1,2,3,7,8-PeCDF	93.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000827			13C-2,3,4,7,8-PeCDF	88.7	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000901			13C-1,2,3,4,7,8-HxCDF	71.0	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000499			13C-1,2,3,6,7,8-HxCDF	60.1	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000541			13C-2,3,4,6,7,8-HxCDF	63.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000599			13C-1,2,3,7,8,9-HxCDF	61.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000921			13C-1,2,3,4,6,7,8-HpCDF	57.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000760			13C-1,2,3,4,7,8,9-HpCDF	57.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000101			13C-OCDF	52.0	17 - 157	
OCDF	ND	0.00000152			CRS 37Cl-2,3,7,8-TCDD	97.9	35 - 197	

**Totals**

Total TCDD	ND	0.00000661						
Total PeCDD	ND	0.00000895						
Total HxCDD	ND	0.00000132						
Total HpCDD	0.00000416		0.00000623					
Total TCDF	ND	0.00000133						
Total PeCDF	ND	0.00000863						
Total HxCDF	ND	0.00000621						
Total HpCDF	ND	0.00000866						

**Footnotes**

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

Analyst: JMH *Level IV* Approved By: Martha M. Maier 26-Dec-2007 13:46

# 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 006

Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQL2125-01 (Outfall 006 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	7L20116	0.20	2.0	0.42	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8	7L20116	0.11	1.0	0.12	1	12/20/07	12/20/07	J
Copper	EPA 200.8	7L20116	0.75	2.0	0.84	1	12/20/07	12/20/07	J
Lead	EPA 200.8	7L20116	0.10	1.0	0.42	1	12/20/07	12/20/07	J
Thallium	EPA 200.8	7L20116	0.15	1.0	ND	1	12/20/07	12/20/07	J

J/DNQ  
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U

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 006  
Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	7L20140	0.20	2.0	0.45	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8-Diss	7L20140	0.11	1.0	0.12	1	12/20/07	12/20/07	J
Copper	EPA 200.8-Diss	7L20140	0.75	2.0	ND	1	12/20/07	12/20/07	
Lead	EPA 200.8-Diss	7L20140	0.10	1.0	ND	1	12/20/07	12/20/07	
Thallium	EPA 200.8-Diss	7L20140	0.15	1.0	ND	1	12/20/07	12/20/07	

J/DNQ  
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U  
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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 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

### 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: IQL2125-01 (Outfall 006 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	
Mercury, Total	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	

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Joseph Doak  
Project Manager

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Eberline Services

ANALYSIS RESULTS

SDG <u>8674</u>	Client <u>TA IRVINE</u>
Work Order <u>R712148-01</u>	Contract <u>PROJECT# IQL2125</u>
Received Date <u>12/24/07</u>	Matrix <u>WATER</u>

Client	Lab						
<u>Sample ID</u>	<u>Sample ID</u>	<u>Collected</u>	<u>Analyzed</u>	<u>Nuclide</u>	<u>Results + 2σ</u>	<u>Units</u>	<u>MDA</u>
IQL2125-01 <i>J/H</i>	8674-001	12/19/07	12/28/07	Gross Beta	19.4 ± 2.1	pCi/L	2.1

LEVEL IV

Certified by <u><i>WJ</i></u>
Report Date <u>01/02/08</u>
Page 1



# 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 006

Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.									
Reporting Units: mg/l									
Chloride	EPA 300.0	7L19047	5.0	10	210	20	12/19/07	12/20/07	
Nitrate/Nitrite-N	EPA 300.0	7L19047	0.15	0.26	0.35	1	12/19/07	12/20/07	
Oil & Grease	EPA 413.1	7L21125	1.1	4.7	ND	1	12/22/07	12/26/07	
Sulfate	EPA 300.0	7L19047	4.0	10	60	20	12/19/07	12/20/07	
Total Dissolved Solids	SM2540C	7L21099	10	10	670	1	12/21/07	12/21/07	
Total Suspended Solids	EPA 160.2	7L20129	10	10	ND	1	12/20/07	12/20/07	

LEVEL IV

TestAmerica Irvine

Joseph Doak  
Project Manager

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## **APPENDIX G**

### **Section 6**

Outfall 006, December 19, 2007

Test America Analytical Laboratory Report

## LABORATORY REPORT

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

Project: Routine Outfall 006

Sampled: 12/19/07  
Received: 12/19/07  
Revised: 12/28/07 16:49

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.

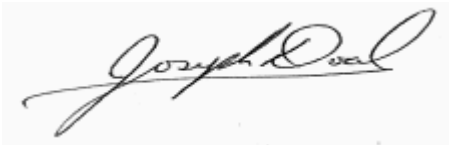
ADDITIONAL INFORMATION: This report was revised to correct project number from Annual Outfall 006 to Routine Outfall 006.

**LABORATORY ID**  
IQL2125-01

**CLIENT ID**  
Outfall 006

**MATRIX**  
Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	7L20116	0.20	2.0	<b>0.42</b>	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8	7L20116	0.11	1.0	<b>0.12</b>	1	12/20/07	12/20/07	J
Copper	EPA 200.8	7L20116	0.75	2.0	<b>0.84</b>	1	12/20/07	12/20/07	J
Lead	EPA 200.8	7L20116	0.10	1.0	<b>0.42</b>	1	12/20/07	12/20/07	J
Thallium	EPA 200.8	7L20116	0.15	1.0	ND	1	12/20/07	12/20/07	

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

Project ID: Routine Outfall 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Antimony	EPA 200.8-Diss	7L20140	0.20	2.0	<b>0.45</b>	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8-Diss	7L20140	0.11	1.0	<b>0.12</b>	1	12/20/07	12/20/07	J
Copper	EPA 200.8-Diss	7L20140	0.75	2.0	ND	1	12/20/07	12/20/07	
Lead	EPA 200.8-Diss	7L20140	0.10	1.0	ND	1	12/20/07	12/20/07	
Thallium	EPA 200.8-Diss	7L20140	0.15	1.0	ND	1	12/20/07	12/20/07	

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Sampled: 12/19/07

Received: 12/19/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.</b>									
Reporting Units: mg/l									
Chloride	EPA 300.0	7L19047	5.0	10	<b>210</b>	20	12/19/07	12/20/07	
Nitrate/Nitrite-N	EPA 300.0	7L19047	0.15	0.26	<b>0.35</b>	1	12/19/07	12/20/07	
Oil & Grease	EPA 413.1	7L21125	1.1	4.7	ND	1	12/22/07	12/26/07	
Sulfate	EPA 300.0	7L19047	4.0	10	<b>60</b>	20	12/19/07	12/20/07	
Total Dissolved Solids	SM2540C	7L21099	10	10	<b>670</b>	1	12/21/07	12/21/07	
Total Suspended Solids	EPA 160.2	7L20129	10	10	ND	1	12/20/07	12/20/07	

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Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Mercury, Dissolved	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	
Mercury, Total	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	

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Project ID: Routine Outfall 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
2,3,7,8-TCDD	1613-Dioxin-HR Alta	9806	N/A	4.95	ND	1	12/23/07	12/25/07	
1,2,3,7,8-PeCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,4,7,8-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,6,7,8-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,7,8,9-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,4,6,7,8-HpCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
<b>OCDD</b>	1613-Dioxin-HR Alta	9806	N/A	49.5	<b>0.0000176</b>	1	12/23/07	12/25/07	Ja
2,3,7,8-TCDF	1613-Dioxin-HR Alta	9806	N/A	4.95	ND	1	12/23/07	12/25/07	
1,2,3,7,8-PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
2,3,4,7,8-PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,4,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,6,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
2,3,4,6,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,7,8,9-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,4,6,7,8-HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
1,2,3,4,7,8,9-HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
OCDF	1613-Dioxin-HR Alta	9806	N/A	49.5	ND	1	12/23/07	12/25/07	
Total TCDD	1613-Dioxin-HR Alta	9806	N/A	4.95	ND	1	12/23/07	12/25/07	
Total PeCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
Total HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
<b>Total HpCDD</b>	1613-Dioxin-HR Alta	9806	N/A	24.8	<b>0.00000416</b>	1	12/23/07	12/25/07	
Total TCDF	1613-Dioxin-HR Alta	9806	N/A	4.95	ND	1	12/23/07	12/25/07	
Total PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
Total HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
Total HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.8	ND	1	12/23/07	12/25/07	
<i>Surrogate: 13C-2,3,7,8-TCDD (25-164%)</i>					85.6 %				
<i>Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)</i>					82.3 %				
<i>Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)</i>					70 %				
<i>Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)</i>					61.7 %				
<i>Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)</i>					65.5 %				
<i>Surrogate: 13C-OCDD (17-157%)</i>					58.9 %				
<i>Surrogate: 13C-2,3,7,8-TCDF (24-169%)</i>					82.4 %				
<i>Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)</i>					93.9 %				
<i>Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)</i>					88.7 %				
<i>Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)</i>					71 %				
<i>Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)</i>					60.1 %				
<i>Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)</i>					63.8 %				
<i>Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)</i>					61.4 %				
<i>Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)</i>					57.1 %				
<i>Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)</i>					57.2 %				
<i>Surrogate: 13C-OCDF (17-157%)</i>					52 %				

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

Project ID: Routine Outfall 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2125-01 (Outfall 006 - Water) - cont.</b>									
Reporting Units: ug/L									
Surrogate: 37Cl-2,3,7,8-TCDD (35-197%)					97.9 %				

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Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## SHORT HOLD TIME DETAIL REPORT

	<b>Hold Time (in days)</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>	<b>Date/Time Extracted</b>	<b>Date/Time Analyzed</b>
<b>Sample ID: Outfall 006 (IQL2125-01) - Water</b> EPA 300.0	2	12/19/2007 10:00	12/19/2007 19:10	12/19/2007 20:00	12/20/2007 03:48

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 006  
Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L20116 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20116-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 12/20/2007 (7L20116-BS1)</b>											
Antimony	84.5	2.0	0.20	ug/l	80.0		106	85-115			
Cadmium	84.5	1.0	0.11	ug/l	80.0		106	85-115			
Copper	85.1	2.0	0.75	ug/l	80.0		106	85-115			
Lead	84.6	1.0	0.10	ug/l	80.0		106	85-115			
Thallium	86.6	1.0	0.15	ug/l	80.0		108	85-115			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20116-MS1) Source: IQL2190-01</b>											
Antimony	80.0	2.0	0.20	ug/l	80.0	0.268	100	70-130			
Cadmium	78.8	1.0	0.11	ug/l	80.0	0.576	98	70-130			
Copper	102	2.0	0.75	ug/l	80.0	21.3	101	70-130			
Lead	103	1.0	0.10	ug/l	80.0	23.3	100	70-130			
Thallium	82.8	1.0	0.15	ug/l	80.0	ND	103	70-130			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20116-MS2) Source: IQL2059-01</b>											
Antimony	82.3	2.0	0.20	ug/l	80.0	1.68	101	70-130			
Cadmium	78.8	1.0	0.11	ug/l	80.0	0.396	98	70-130			
Copper	101	2.0	0.75	ug/l	80.0	19.1	102	70-130			
Lead	85.1	1.0	0.10	ug/l	80.0	3.19	102	70-130			
Thallium	82.3	1.0	0.15	ug/l	80.0	ND	103	70-130			
<b>Matrix Spike Dup Analyzed: 12/20/2007 (7L20116-MSD1) Source: IQL2190-01</b>											
Antimony	79.3	2.0	0.20	ug/l	80.0	0.268	99	70-130	1	20	
Cadmium	78.6	1.0	0.11	ug/l	80.0	0.576	98	70-130	0	20	
Copper	101	2.0	0.75	ug/l	80.0	21.3	100	70-130	1	20	
Lead	104	1.0	0.10	ug/l	80.0	23.3	101	70-130	1	20	
Thallium	83.5	1.0	0.15	ug/l	80.0	ND	104	70-130	1	20	

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L20140 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20140-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 12/20/2007 (7L20140-BS1)</b>											
Antimony	80.2	2.0	0.20	ug/l	80.0		100	85-115			
Cadmium	78.5	1.0	0.11	ug/l	80.0		98	85-115			
Copper	75.0	2.0	0.75	ug/l	80.0		94	85-115			
Lead	79.6	1.0	0.10	ug/l	80.0		100	85-115			
Thallium	81.8	1.0	0.15	ug/l	80.0		102	85-115			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20140-MS1)</b>											
						<b>Source: IQL2118-01</b>					
Antimony	81.3	2.0	0.20	ug/l	80.0	0.742	101	70-130			
Cadmium	75.0	1.0	0.11	ug/l	80.0	ND	94	70-130			
Copper	73.9	2.0	0.75	ug/l	80.0	2.16	90	70-130			
Lead	76.2	1.0	0.10	ug/l	80.0	0.118	95	70-130			
Thallium	78.3	1.0	0.15	ug/l	80.0	ND	98	70-130			
<b>Matrix Spike Dup Analyzed: 12/20/2007 (7L20140-MSD1)</b>											
						<b>Source: IQL2118-01</b>					
Antimony	81.5	2.0	0.20	ug/l	80.0	0.742	101	70-130	0	20	
Cadmium	75.2	1.0	0.11	ug/l	80.0	ND	94	70-130	0	20	
Copper	73.8	2.0	0.75	ug/l	80.0	2.16	90	70-130	0	20	
Lead	76.0	1.0	0.10	ug/l	80.0	0.118	95	70-130	0	20	
Thallium	78.3	1.0	0.15	ug/l	80.0	ND	98	70-130	0	20	

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Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L19047 Extracted: 12/19/07</b>											
<b>Blank Analyzed: 12/19/2007 (7L19047-BLK1)</b>											
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							
<b>LCS Analyzed: 12/19/2007 (7L19047-BS1)</b>											
Chloride	5.10	0.50	0.25	mg/l	5.00		102	90-110			
Sulfate	9.75	0.50	0.20	mg/l	10.0		98	90-110			
<b>Matrix Spike Analyzed: 12/19/2007 (7L19047-MS1)</b>											
						<b>Source: IQL2030-01</b>					
Chloride	5.70	0.50	0.25	mg/l	5.00	0.848	97	80-120			
Sulfate	11.3	0.50	0.20	mg/l	10.0	1.85	94	80-120			
<b>Matrix Spike Dup Analyzed: 12/19/2007 (7L19047-MSD1)</b>											
						<b>Source: IQL2030-01</b>					
Chloride	5.70	0.50	0.25	mg/l	5.00	0.848	97	80-120	0	20	
Sulfate	11.3	0.50	0.20	mg/l	10.0	1.85	94	80-120	0	20	
<b>Batch: 7L20129 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20129-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 12/20/2007 (7L20129-BS1)</b>											
Total Suspended Solids	927	10	10	mg/l	1000		93	85-115			
<b>Duplicate Analyzed: 12/20/2007 (7L20129-DUP1)</b>											
						<b>Source: IQL2122-01</b>					
Total Suspended Solids	71.0	10	10	mg/l		73.0			3	10	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L21099 Extracted: 12/21/07</b>											
<b>Blank Analyzed: 12/21/2007 (7L21099-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 12/21/2007 (7L21099-BS1)</b>											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 12/21/2007 (7L21099-DUP1)</b>											
Total Dissolved Solids	492	10	10	mg/l		Source: IQL2115-04 496			1	10	
<b>Batch: 7L21125 Extracted: 12/22/07</b>											
<b>Blank Analyzed: 12/26/2007 (7L21125-BLK1)</b>											
Oil & Grease	ND	5.0	1.2	mg/l							
<b>LCS Analyzed: 12/26/2007 (7L21125-BS1)</b>											
Oil & Grease	18.8	5.0	1.2	mg/l	20.0		94	65-120			MNR1
<b>LCS Dup Analyzed: 12/26/2007 (7L21125-BSD1)</b>											
Oil & Grease	18.7	5.0	1.2	mg/l	20.0		94	65-120	1	20	

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Received: 12/19/07

## 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
<b>Batch: W7L0889 Extracted: 12/26/07</b>											
<b>Blank Analyzed: 12/27/2007 (W7L0889-BLK1)</b>											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
<b>LCS Analyzed: 12/27/2007 (W7L0889-BS1)</b>											
Mercury, Dissolved	1.00	0.20	0.050	ug/l	1.00		100	85-115			
Mercury, Total	1.00	0.20	0.050	ug/l	1.00		100	85-115			
<b>Matrix Spike Analyzed: 12/27/2007 (W7L0889-MS1)</b>											
						<b>Source: 7121925-01</b>					
Mercury, Dissolved	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
<b>Matrix Spike Analyzed: 12/27/2007 (W7L0889-MS2)</b>											
						<b>Source: 7121925-03</b>					
Mercury, Dissolved	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
<b>Matrix Spike Dup Analyzed: 12/27/2007 (W7L0889-MSD1)</b>											
						<b>Source: 7121925-01</b>					
Mercury, Dissolved	0.909	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.909	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
<b>Matrix Spike Dup Analyzed: 12/27/2007 (W7L0889-MSD2)</b>											
						<b>Source: 7121925-03</b>					
Mercury, Dissolved	0.907	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.907	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	

TestAmerica Irvine

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 006  
 Report Number: IQL2125

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>											
<b>Blank Analyzed: 12/25/2007 (MB001)</b>											
						<b>Source:</b>					
2,3,7,8-TCDD	ND	5.00	N/A	ug/L				50-150		25	
1,2,3,7,8-PeCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,6,7,8-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,7,8,9-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDD	ND	25.0	N/A	ug/L				50-150		25	
OCDD	ND	50.0	N/A	ug/L				50-150		25	
2,3,7,8-TCDF	ND	5.00	N/A	ug/L				50-150		25	
1,2,3,7,8-PeCDF	ND	25.0	N/A	ug/L				50-150		25	
2,3,4,7,8-PeCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,6,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
2,3,4,6,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,7,8,9-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8,9-HpCDF	ND	25.0	N/A	ug/L				50-150		25	
OCDF	ND	50.0	N/A	ug/L				50-150		25	
Total TCDD	ND	5.00	N/A	ug/L				50-150		25	
Total PeCDD	ND	25.0	N/A	ug/L				50-150		25	
Total HxCDD	ND	25.0	N/A	ug/L				50-150		25	
Total HpCDD	ND	25.0	N/A	ug/L				50-150		25	
Total TCDF	0.00000139	5.00	N/A	ug/L				50-150		25	
Total PeCDF	ND	25.0	N/A	ug/L				50-150		25	
Total HxCDF	ND	25.0	N/A	ug/L				50-150		25	
Total HpCDF	ND	25.0	N/A	ug/L				50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	0.00156			ug/L	2000		78	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00193			ug/L	2000		96	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00139			ug/L	2000		70	50-150			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00124			ug/L	2000		62	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00128			ug/L	2000		64	50-150			
Surrogate: 13C-OCDD	0.00237			ug/L	4000		59	50-150			
Surrogate: 13C-2,3,7,8-TCDF	0.00158			ug/L	2000		79	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00197			ug/L	2000		99	50-150			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00208			ug/L	2000		104	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00139			ug/L	2000		70	50-150			

**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 006  
Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>										
<b>Blank Analyzed: 12/25/2007 (MB001)</b>										
					<b>Source:</b>					
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00113			ug/L	2000		57		50-150	
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00129			ug/L	2000		64		50-150	
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00128			ug/L	2000		64		50-150	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00112			ug/L	2000		56		50-150	
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.00112			ug/L	2000		56		50-150	
Surrogate: 13C-OCDF	0.00203			ug/L	4000		51		50-150	
Surrogate: 37Cl-2,3,7,8-TCDD	0.000755			ug/L	800		94		50-150	
<b>LCS Analyzed: 12/24/2007 (OPR001)</b>										
					<b>Source:</b>					
2,3,7,8-TCDD	10.3	5.00	N/A	ug/L	10		103		50-150	25
1,2,3,7,8-PeCDD	51.0	25.0	N/A	ug/L	50		102		50-150	25
1,2,3,4,7,8-HxCDD	50.5	25.0	N/A	ug/L	50		101		50-150	25
1,2,3,6,7,8-HxCDD	53.0	25.0	N/A	ug/L	50		106		50-150	25
1,2,3,7,8,9-HxCDD	51.8	25.0	N/A	ug/L	50		104		50-150	25
1,2,3,4,6,7,8-HpCDD	50.8	25.0	N/A	ug/L	50		102		50-150	25
OCDD	100	50.0	N/A	ug/L	100		100		50-150	25
2,3,7,8-TCDF	10.5	5.00	N/A	ug/L	10		105		50-150	25
1,2,3,7,8-PeCDF	51.3	25.0	N/A	ug/L	50		103		50-150	25
2,3,4,7,8-PeCDF	52.4	25.0	N/A	ug/L	50		105		50-150	25
1,2,3,4,7,8-HxCDF	50.2	25.0	N/A	ug/L	50		100		50-150	25
1,2,3,6,7,8-HxCDF	54.1	25.0	N/A	ug/L	50		108		50-150	25
2,3,4,6,7,8-HxCDF	53.7	25.0	N/A	ug/L	50		107		50-150	25
1,2,3,7,8,9-HxCDF	52.4	25.0	N/A	ug/L	50		105		50-150	25
1,2,3,4,6,7,8-HpCDF	50.4	25.0	N/A	ug/L	50		101		50-150	25
1,2,3,4,7,8,9-HpCDF	51.8	25.0	N/A	ug/L	50		104		50-150	25
OCDF	104	50.0	N/A	ug/L	100		104		50-150	25
Surrogate: 13C-2,3,7,8-TCDD	84.4			ug/L	100		84		50-150	
Surrogate: 13C-1,2,3,7,8-PeCDD	83.4			ug/L	100		83		50-150	
Surrogate: 13C-1,2,3,4,7,8-HxCDD	81.1			ug/L	100		81		50-150	
Surrogate: 13C-1,2,3,6,7,8-HxCDD	68.0			ug/L	100		68		50-150	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	75.4			ug/L	100		75		50-150	
Surrogate: 13C-OCDD	126			ug/L	200		63		50-150	
Surrogate: 13C-2,3,7,8-TCDF	79.7			ug/L	100		80		50-150	
Surrogate: 13C-1,2,3,7,8-PeCDF	91.9			ug/L	100		92		50-150	
Surrogate: 13C-2,3,4,7,8-PeCDF	88.6			ug/L	100		89		50-150	
Surrogate: 13C-1,2,3,4,7,8-HxCDF	79.3			ug/L	100		79		50-150	

#### 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 006  
 Report Number: IQL2125

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>											
<b>LCS Analyzed: 12/24/2007 (OPR001)</b>											
Surrogate: 13C-1,2,3,6,7,8-HxCDF	65.5			ug/L	100		66	50-150			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	68.9			ug/L	100		69	50-150			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	68.6			ug/L	100		69	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	65.2			ug/L	100		65	50-150			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	62.5			ug/L	100		63	50-150			
Surrogate: 13C-OCDF	108			ug/L	200		54	50-150			
Surrogate: 37Cl-2,3,7,8-TCDD	39.6			ug/L	40		99	50-150			

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 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

## 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.
- Ja** The amount detected is below the Lower Calibration Limit of the instrument
- 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

### 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 006  
Report Number: IQL2125

Sampled: 12/19/07  
Received: 12/19/07

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 413.1	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](http://www.testamericainc.com)*

### Subcontracted Laboratories

#### Alta Analytical Perspectives

2714 Exchange Drive - Wilmington, NC 28405

Method Performed: 1613-Dioxin-HR Alta  
Samples: IQL2125-01

#### Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gross Beta  
Samples: IQL2125-01

Analysis Performed: Radium, Combined  
Samples: IQL2125-01

Analysis Performed: Strontium 90  
Samples: IQL2125-01

Analysis Performed: Tritium  
Samples: IQL2125-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta  
Samples: IQL2125-01

Analysis Performed: EDD + Level 4  
Samples: IQL2125-01

### 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 006

Report Number: IQL2125

Sampled: 12/19/07

Received: 12/19/07

**Weck Laboratories, Inc**

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

Method Performed: EPA 245.1

Samples: IQL2125-01

**TestAmerica Irvine**

Joseph Doak  
Project Manager

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FAL 2125

# CHAIN OF CUSTODY FORM

Test America Version 04/28/06

Client Name/Address: <b>MWH-Arcadia</b> 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES <b>Routine Outfall 006</b> Stormwater at FSDF-2		Project Manager: <b>Bronwyn Kelly</b>		Phone Number: (626) 568-6691		Fax Number: (626) 568-6515		Field readings: Temp = <b>54.5</b> pH = <b>7.12</b> Sample Collection Time = <b>10:00</b>		Comments				
Test America Contact: <b>Joseph Doak</b>		Sampler: <b>R. BAWAGA</b>		Sample Matrix		Container Type		# of Cont.		Preservative		Bottle #				
Outfall 006	W	1L Poly	1	1	HNO <sub>3</sub>	1A	X	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl.	TCDD (end all congeners)	Oil & Grease (EPA 413.1)	Cl, SO <sub>4</sub> , NO <sub>3</sub> +NO <sub>2</sub> -N	TDS, TSS	Gross Beta, SR-90 (905)	Total Combined Radium 226 & 223, Tritium	Total Dissolved Metals: Sb Cd, Cu, Pb, Hg, Tl	
Outfall 006 Dup	W	1L Poly	1	1	HNO <sub>3</sub>	1B	X									
Outfall 006	W	1L Amber	2	2	None	2A, 2B			X							
Outfall 006	W	1L Amber	2	2	HCl	3A, 3B				X						
Outfall 006	W	500ml Poly	2	2	None	4A, 4B					X					
Outfall 006	W	500ml Poly	2	2	None	5A, 5B						X				
Outfall 006	W	2.5 Gal Cube 500 ml Amber	1	1	None	6A, 6B							X			
Outfall 006	W	1L Poly	1	1	None	7										
Relinquished By	<i>Lin B...</i>	12-19-07	1620	Received By	<i>BDT...</i>	12/19/07	1620	Date/Time:								
Relinquished By	<i>BDT...</i>	12/19/07	1910	Received By	<i>Felway...</i>	12/19/07	1910	Date/Time:								
Relinquished By				Received By				Date/Time:								

*Handwritten note:* Add analysis

December 26, 2007

**Vista Project I.D.: 30103**

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 December 21, 2007 under your Project Name "IQL2125". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A rush turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier  
Laboratory Director



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



**Section I: Sample Inventory Report**

**Date Received: 12/21/2007**

Vista Lab. ID

Client Sample ID

30103-001

IQL2125-01



## SECTION II

**Method Blank**

**EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9806	Lab Sample:	0-MB001			
Sample Size:	1.00 L	Date Extracted:	23-Dec-07	Date Analyzed DB-5:	25-Dec-07			
				Date Analyzed DB-225:	NA			
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.000000817			IS 13C-2,3,7,8-TCDD	78.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000965			13C-1,2,3,7,8-PeCDD	96.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000174			13C-1,2,3,4,7,8-HxCDD	69.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000175			13C-1,2,3,6,7,8-HxCDD	62.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000174			13C-1,2,3,4,6,7,8-HpCDD	63.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000246			13C-OCDD	59.3	17 - 157	
OCDD	ND	0.00000423			13C-2,3,7,8-TCDF	79.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000140			13C-1,2,3,7,8-PeCDF	98.6	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000129			13C-2,3,4,7,8-PeCDF	104	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000126			13C-1,2,3,4,7,8-HxCDF	69.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000846			13C-1,2,3,6,7,8-HxCDF	56.7	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000904			13C-2,3,4,6,7,8-HxCDF	64.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000973			13C-1,2,3,7,8,9-HxCDF	63.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000140			13C-1,2,3,4,6,7,8-HpCDF	55.9	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000100			13C-1,2,3,4,7,8,9-HpCDF	55.8	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000138			13C-OCDF	50.8	17 - 157	
OCDF	ND	0.00000156			CRS 37Cl-2,3,7,8-TCDD	94.4	35 - 197	
<b>Totals</b>								
Footnotes								
Total TCDD	ND	0.000000817			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.000000965			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000175			c. Method detection limit.			
Total HpCDD	ND	0.00000246			d. Lower control limit - upper control limit.			
Total TCDF	0.00000139							
Total PeCDF	ND	0.00000128						
Total HxCDF	ND	0.00000101						
Total HpCDF	ND	0.00000117						

Analyst: JMH

Approved By: Martha M. Maier 26-Dec-2007 13:46

**OPR Results**

**EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9806	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	23-Dec-07	Date Analyzed DB-5:	24-Dec-07		
				Date Analyzed DB-225:	NA		
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	84.4	25 - 164	
1,2,3,7,8-PeCDD	50.0	51.0	35 - 71	13C-1,2,3,7,8-PeCDD	83.4	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	50.5	35 - 82	13C-1,2,3,4,7,8-HxCDD	81.1	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	53.0	38 - 67	13C-1,2,3,6,7,8-HxCDD	68.0	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	51.8	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	75.4	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	50.8	35 - 70	13C-OCDD	63.2	17 - 157	
OCDD	100	100	78 - 144	13C-2,3,7,8-TCDF	79.7	24 - 169	
2,3,7,8-TCDF	10.0	10.5	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	91.9	24 - 185	
1,2,3,7,8-PeCDF	50.0	51.3	40 - 67	13C-2,3,4,7,8-PeCDF	88.6	21 - 178	
2,3,4,7,8-PeCDF	50.0	52.4	34 - 80	13C-1,2,3,4,7,8-HxCDF	79.3	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.2	36 - 67	13C-1,2,3,6,7,8-HxCDF	65.5	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	54.1	42 - 65	13C-2,3,4,6,7,8-HxCDF	68.9	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	53.7	35 - 78	13C-1,2,3,7,8,9-HxCDF	68.6	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	52.4	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	65.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	50.4	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	62.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	51.8	39 - 69	13C-OCDF	54.0	17 - 157	
OCDF	100	104	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	99.1	35 - 197	

Analyst: JMH

Approved By: Martha M. Maier 26-Dec-2007 13:46

**Sample ID: IQL2125-01**

**EPA Method 1613**

<u>Client Data</u>		<u>Sample Data</u>		<u>Laboratory Data</u>	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30103-001
Project:	IQL2125	Sample Size:	1.01 L	QC Batch No.:	9806
Date Collected:	19-Dec-07			Date Analyzed DB-5:	25-Dec-07
Time Collected:	1000			Date Analyzed DB-225:	NA
				Date Received:	21-Dec-07
				Date Extracted:	23-Dec-07

Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.000000661			IS 13C-2,3,7,8-TCDD	85.6	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000895			13C-1,2,3,7,8-PeCDD	82.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000124			13C-1,2,3,4,7,8-HxCDD	70.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000140			13C-1,2,3,6,7,8-HxCDD	61.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000132			13C-1,2,3,4,6,7,8-HpCDD	65.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000207			13C-OCDD	58.9	17 - 157	
OCDD	0.0000176			J	13C-2,3,7,8-TCDF	82.4	24 - 169	
2,3,7,8-TCDF	ND	0.00000133			13C-1,2,3,7,8-PeCDF	93.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000000827			13C-2,3,4,7,8-PeCDF	88.7	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000901			13C-1,2,3,4,7,8-HxCDF	71.0	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000499			13C-1,2,3,6,7,8-HxCDF	60.1	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000541			13C-2,3,4,6,7,8-HxCDF	63.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000599			13C-1,2,3,7,8,9-HxCDF	61.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000000921			13C-1,2,3,4,6,7,8-HpCDF	57.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.000000760			13C-1,2,3,4,7,8,9-HpCDF	57.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000101			13C-OCDF	52.0	17 - 157	
OCDF	ND	0.00000152			CRS 37Cl-2,3,7,8-TCDD	97.9	35 - 197	

<b>Totals</b>		<b>Footnotes</b>	
Total TCDD	ND	a. Sample specific estimated detection limit.	
Total PeCDD	ND	b. Estimated maximum possible concentration.	
Total HxCDD	ND	c. Method detection limit.	
Total HpCDD	0.00000416	d. Lower control limit - upper control limit.	
Total TCDF	ND		
Total PeCDF	ND		
Total HxCDF	ND		
Total HpCDF	ND		

Analyst: JMH

Approved By:

Martha M. Maier

26-Dec-2007 13:46

## APPENDIX

## DATA QUALIFIERS & ABBREVIATIONS

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

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

## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-02
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

IQL2125

30103

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

0.3°C

Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IQL2125-01	Water		Sampled: 12/19/07 10:00	
1613-Dioxin-HR-Alfa	ug/l	12/28/07	12/26/07 10:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	N/A	12/28/07	01/16/08 10:00	
<i>Containers Supplied:</i>				
1 L Amber (C)	1 L Amber (D)			

 12/20/07 1700

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

FedEx 12/20/07 1700

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

 12/21/07 1029

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

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



SAMPLE LOG-IN CHECKLIST



Vista Project #: 30103 TAT 7

Samples Arrival:	Date/Time <u>12/21/07 0947</u>	Initials: <u>WBB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>12/21/07 1120</u>	Initials: <u>WBB</u>	Location: <u>WR2</u> Shelf/Rack: <u>C-4</u>
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C	<u>0.3</u>	Time: <u>0952</u>	Thermometer ID: IR-1

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airbill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trk # <u>7909 0204 7014</u>			
Sample Container Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Custody Seals Intact?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> None
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain
		<input checked="" type="checkbox"/> Return	<input type="checkbox"/> Dispose

Comments:

**SUBCONTRACT ORDER**

TestAmerica Irvine

**IQL2125**

7122005

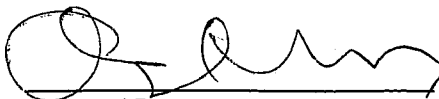
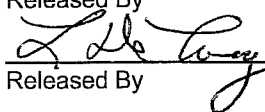
**SENDING LABORATORY:**

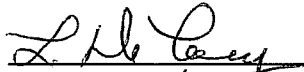
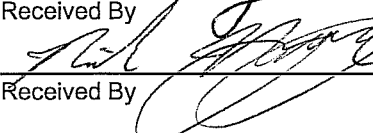
TestAmerica Irvine  
17461 Derian Avenue. Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak

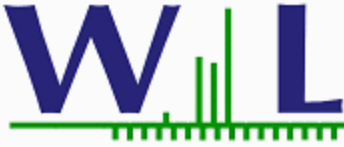
**RECEIVING LABORATORY:**

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
<b>Sample ID: IQL2125-01</b>	<b>Water</b>		<b>Sampled: 12/19/07 10:00</b>	
Level 4 Data Package - Wec	N/A	12/28/07	01/16/08 10:00	Provide Element transfer EDD
Mercury - 245.1, Diss -OUT	mg/l	12/28/07	01/16/08 10:00	Boeing, J flags, sub to Weck
Mercury - 245.1-OUT	mg/l	12/28/07	01/16/08 10:00	Boeing, J flags, sub to Weck
<i>Containers Supplied:</i>				
125 mL Poly w/HNO3	125 mL Poly (O)			
(N)				

 12/20/07 0700  
 Released By \_\_\_\_\_ Date/Time  
 12/20/07  
 Released By \_\_\_\_\_ Date/Time

 12/20/07 0700 4.5  
 Received By \_\_\_\_\_ Date/Time  
 12/20/07 1600  
 Received By \_\_\_\_\_ Date/Time



### CERTIFICATE OF ANALYSIS

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

**Report Date:** 12/28/07 15:28  
**Received Date:** 12/20/07 10:00  
**Turn Around:** 5 days

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

**Work Order #:** 7122005  
**Client Project:** IQL2125

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 12/20/07 10:00 with the Chain of Custody document. The samples were received in good condition. The samples were received at 4.5 °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



Page 1 of 6





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: 7122005  
Project ID: IQL2125

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:28

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQL2125-01	Client		7122005-01	Water	12/19/07 10:00



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: 7122005  
Project ID: IQL2125

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:28

**IQL2125-01 7122005-01 (Water)**

Date Sampled: 12/19/07 10:00

**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	W7L0889	12/26/07	12/27/07	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W7L0889	12/26/07	12/27/07	jlp



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

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

Report ID: 7122005  
Project ID: IQL2125

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:28

# QUALITY CONTROL SECTION



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

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

Report ID: 7122005  
 Project ID: IQL2125

Date Received: 12/20/07 10:00  
 Date Reported: 12/28/07 15:28

**Metals by EPA 200 Series Methods - Quality Control**

%REC

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

**Batch W7L0889 - EPA 245.1**

**Blank (W7L0889-BLK1)**

Analyzed: 12/27/07

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

**LCS (W7L0889-BS1)**

Analyzed: 12/27/07

Mercury, Dissolved	1.00	0.20	ug/l	1.00		100	85-115			
Mercury, Total	1.00	0.20	ug/l	1.00		100	85-115			

**Matrix Spike (W7L0889-MS1)**

Source: 7121925-01

Analyzed: 12/27/07

Mercury, Dissolved	0.882	0.20	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	ug/l	1.00	ND	88	70-130			

**Matrix Spike (W7L0889-MS2)**

Source: 7121925-03

Analyzed: 12/27/07

Mercury, Dissolved	0.882	0.20	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	ug/l	1.00	ND	88	70-130			

**Matrix Spike Dup (W7L0889-MSD1)**

Source: 7121925-01

Analyzed: 12/27/07

Mercury, Dissolved	0.909	0.20	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.909	0.20	ug/l	1.00	ND	91	70-130	3	20	

**Matrix Spike Dup (W7L0889-MSD2)**

Source: 7121925-03

Analyzed: 12/27/07

Mercury, Dissolved	0.907	0.20	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.907	0.20	ug/l	1.00	ND	91	70-130	3	20	



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: 7122005  
Project ID: IQL2125

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:28

### 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.



FAL 2125

# CHAIN OF CUSTODY FORM

Test America Version 04/28/06

Client Name/Address: <b>MWH-Arcadia</b> 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES <b>Routine Outfall 006</b> Stormwater at FSDF-2		Project Manager: <b>Bronwyn Kelly</b>		Phone Number: (626) 568-6691		Fax Number: (626) 568-6515	
Test America Contact: <b>Joseph Doak</b>		Project Manager: <b>Bronwyn Kelly</b>		Sampler: <b>R. BAWAGA</b>		Field readings: Temp = <b>54.5</b> pH = <b>7.12</b> Sample Collection Time = <b>10:00</b>			
Sample Description		Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	ANALYSIS REQUIRED	
Outfall 006	W	1L Poly	1	1	12-19-07 16:20	HNO <sub>3</sub>	1A	TDS, TSS	Gross Beta, SR-90 (905)
Outfall 006 Dup	W	1L Poly	1	1	12-19-07 16:20	HNO <sub>3</sub>	1B		Total Combined Radium 226 & 228, Tritium
Outfall 006	W	1L Amber	2	2		None	2A, 2B		Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl
Outfall 006	W	1L Amber	2	2		HCl	3A, 3B		
Outfall 006	W	500ml Poly	2	2		None	4A, 4B		
Outfall 006	W	500ml Poly	2	2		None	5A, 5B		
Outfall 006	W	2.5 Gal Cube 500 ml Amber	1	1		None	6A, 6B		
Outfall 006	W	1L Poly	1	1	12-19-07 16:20	None	7		
Relinquished By: <i>Lin By</i>		Date/Time: 12-19-07 1620	Received By: <i>BD Keen</i>		Date/Time: 12/19/07 1620	Turn around Time: (check) 5 Days <input checked="" type="checkbox"/>		Filter w/in 24hr of receipt at lab	
Relinquished By: <i>BD Keen</i>		Date/Time: 12/19/07 1910	Received By: <i>Felicia Nguyen</i>		Date/Time: 12/19/07 1910	Turn around Time: (check) 10 Days <input type="checkbox"/>		Sample Integrity: (check) On Ice: <input checked="" type="checkbox"/>	
Relinquished By: _____		Date/Time: _____	Received By: _____		Date/Time: _____	Turn around Time: (check) Normal <input type="checkbox"/>		Sample Integrity: (check) On Ice: <input type="checkbox"/>	

*ADD ANALYSIS*



# EBERLINE

SERVICES

January 2, 2008

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

Reference: Test America Project No. IQL2125  
Eberline Services NELAP Cert #01120CA (exp. 01/31/08)  
Eberline Services Report R712148-8674

Dear Mr. Doak:

Enclosed are results from the analysis of one water sample received at Eberline Services on December 24, 2007. The sample was analyzed according to the accompanying Test America Subcontract Order Form. The requested analysis was gross beta (EPA900.0). The sample was not filtered prior to analysis. Quality control samples consisted of an LCS, blank analysis, duplicate analysis, and matrix spike. All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melissa Mannion  
Senior Program Manager

*MCM/njv*

Enclosure: *Report*  
*Subcontract Form*  
*Receipt checklist*


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](http://www.eberlineservices.com)  
NPDES - 174

# Eberline Services

## ANALYSIS RESULTS

SDG <u>8674</u>	Client <u>TA IRVINE</u>
Work Order <u>R712148-01</u>	Contract <u>PROJECT# IQL2125</u>
Received Date <u>12/24/07</u>	Matrix <u>WATER</u>

<u>Client</u>	<u>Lab</u>	<u>Sample ID</u>	<u>Collected</u>	<u>Analyzed</u>	<u>Nuclide</u>	<u>Results ± 2σ</u>	<u>Units</u>	<u>MDA</u>
IQL2125-01	8674-001	12/19/07	12/28/07	Gross Beta	19.4 ± 2.1	pCi/L	2.1	

Certified by <u></u>
Report Date <u>01/02/08</u>
Page 1

# Eberline Services

## QC RESULTS

SDG <u>8674</u>	Client <u>TA IRVINE</u>
Work Order <u>R712148-01</u>	Contract <u>PROJECT# IQL2125</u>
Received Date <u>12/24/07</u>	Matrix <u>WATER</u>

Lab

<u>Sample ID</u>	<u>Nuclide</u>	<u>Results</u>	<u>Units</u>	<u>Amount Added</u>	<u>MDA</u>	<u>Evaluation</u>
<u>LCS</u>						
8674-002	Gross Beta	10.9 ± 0.76	pCi/Smpl	11.3	0.56	96% recovery
<u>BLANK</u>						
8674-003	Gross Beta	-0.120 ± 0.36	pCi/Smpl	NA	0.63	<MDA

<u>DUPLICATES</u>				<u>ORIGINALS</u>			
<u>Sample ID</u>	<u>Nuclide</u>	<u>Results + 2σ</u>	<u>MDA</u>	<u>Sample ID</u>	<u>Results + 2σ</u>	<u>MDA</u>	<u>3σ</u>
8674-004	Gross Beta	20.0 ± 2.6	3.3	8674-001	19.4 ± 2.1	2.1	<u>RPD (Tot) Eval</u>
							3 50 satis.

<u>SPIKED SAMPLE</u>				<u>ORIGINAL SAMPLE</u>				
<u>Sample ID</u>	<u>Nuclide</u>	<u>Results + 2σ</u>	<u>MDA</u>	<u>Sample ID</u>	<u>Results + 2σ</u>	<u>MDA</u>	<u>Added</u>	<u>%Recv</u>
8674-005	Gross Beta	88.0 ± 4.2	3.2	8674-001	19.4 ± 2.1	2.1	69.0	99

Certified by
Report Date <u>01/02/08</u>
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**SUBCONTRACT ORDER**

TestAmerica Irvine

**IQL2125**

8674


**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: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Comments
<b>Sample ID: IQL2125-01</b>	<b>Water</b>		<b>Sampled: 12/19/07 10:00</b>	
Gross Beta-O	pCi/L	12/28/07	06/16/08 10:00	DONT FILTER, 900.0, RESULT > 50 pCi/L, run Rad 226&228
Level 4 + EDD-OUT	N/A	12/28/07	01/16/08 10:00	Excel EDD email to pm, Include Std logs for Lvl IV
Radium, Combined-O	pCi/L	12/28/07	12/18/08 10:00	HOLD for G A&B results; EPA 903.1&904.0, NO FILTER
Strontium 90-O	pCi/L	12/28/07	12/18/08 10:00	HOLD for Ra 226&228 results, EPA 905.0, DONT FILTER
Tritium-O	pCi/L	12/28/07	12/18/08 10:00	HOLD for Ra 226&228 results, EPA 906.0, DONT FILTER
<i>Containers Supplied:</i>				
2.5 gal Poly (K)	500 mL Amber (L)			

  
 Released By \_\_\_\_\_

12/20/07 17:00  
 Date/Time \_\_\_\_\_

FedEx 12/20/07 17:00  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

FED EX  
 Released By \_\_\_\_\_

Date/Time \_\_\_\_\_

12/24/07 10:40  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

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Client: TESTAMERICA City IRVINE State CA

Date/Time received 12/4/07 10:40 CoC No. 1RL2125

Container I.D. No. \_\_\_\_\_ Requested TAT (Days) \_\_\_\_\_ P.C. Received Yes [ ] No [ ]

INSPECTION

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

14 Was P.M. notified of any anomalies? Yes [ ] No [ ] Date \_\_\_\_\_  
15 Inspected by JK Date 12/4/07 Time 11:20

Customer Sample No.	Beta/Gamma com.	Ion Chamber mR/hr	Wide	Customer Sample No.	Beta/Gamma com.	Ion Chamber mR/hr	Wide
1RL2125-01	< 60						

Ion Chamber Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
 Alpha Meter Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
 Beta/Gamma Meter Ser. No. 100482 Calibration date 9 May 2007

## **APPENDIX G**

### **Section 7**

Outfall 006 - BMP Effectiveness, December 18-19, 2007

Test America Analytical Laboratory Report

## LABORATORY REPORT

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

Project: BMP Effectiveness  
Monitoring Program

Sampled: 12/18/07-12/19/07  
Received: 12/19/07  
Revised: 01/31/08 15:18

NELAP #01108CA California ELAP#1197 CSDLAC #10256

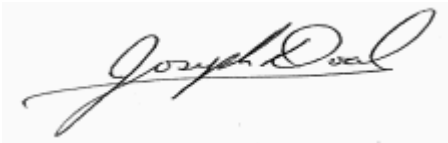
*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. 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
IQL2160-01	006 EFF-1	Water
IQL2160-02	006 EFF-2	Water
IQL2160-03	006 EFF-3	Water
IQL2160-04	006 EFF-4	Water
IQL2160-05	006 EFF-5	Water
IQL2160-06	006 EFF-6	Water
IQL2160-07	006 EFF-7	Water
IQL2160-08	006 EFF-8	Water
IQL2160-09	006 EFF-9	Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager



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

Project ID: BMP Effectiveness  
 Monitoring Program  
 Report Number: IQL2160

Sampled: 12/18/07-12/19/07  
 Received: 12/19/07

## INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2160-01 (006 EFF-1 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	1.0	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-01 (006 EFF-1 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	44	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-02 (006 EFF-2 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-02 (006 EFF-2 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	28	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-03 (006 EFF-3 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-03 (006 EFF-3 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	16	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-04 (006 EFF-4 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-04 (006 EFF-4 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	17	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-05 (006 EFF-5 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-05 (006 EFF-5 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	16	1	12/28/2007	12/28/2007	

### TestAmerica Irvine

Joseph Doak  
 Project Manager

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

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

Project ID: BMP Effectiveness  
 Monitoring Program  
 Report Number: IQL2160

Sampled: 12/18/07-12/19/07  
 Received: 12/19/07

## INORGANICS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2160-06 (006 EFF-6 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-06 (006 EFF-6 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	17	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-07 (006 EFF-7 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	1.0	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-07 (006 EFF-7 - Water)</b>				<b>Sampled: 12/18/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	16	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-08 (006 EFF-8 - Water)</b>				<b>Sampled: 12/19/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-08 (006 EFF-8 - Water)</b>				<b>Sampled: 12/19/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	33	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-09 (006 EFF-9 - Water)</b>				<b>Sampled: 12/19/07</b>				
Reporting Units: g/cc								
Density	Displacement	7L28073	NA	0.99	1	12/28/2007	12/28/2007	
<b>Sample ID: IQL2160-09 (006 EFF-9 - Water)</b>				<b>Sampled: 12/19/07</b>				
Reporting Units: mg/l								
Sediment	ASTM D3977	7L28103	10	39	1	12/28/2007	12/28/2007	

TestAmerica Irvine

Joseph Doak  
 Project Manager

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

Project ID: BMP Effectiveness  
Monitoring Program  
Report Number: IQL2160

Sampled: 12/18/07-12/19/07  
Received: 12/19/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L28073 Extracted: 12/28/07</b>										
<b>Duplicate Analyzed: 12/28/2007 (7L28073-DUP1)</b>										
Density	0.991	NA	g/cc		0.988			0	20	

TestAmerica Irvine

Joseph Doak  
Project Manager

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IQL2160 <Page 4 of 6>

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

Project ID: BMP Effectiveness  
Monitoring Program  
Report Number: IQL2160

Sampled: 12/18/07-12/19/07  
Received: 12/19/07

## DATA QUALIFIERS AND DEFINITIONS

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

**RPD** Relative Percent Difference

**TestAmerica Irvine**

Joseph Doak  
Project Manager

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**IQL2160 <Page 5 of 6>**

**NPDES - 184**

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

Project ID: BMP Effectiveness  
Monitoring Program  
Report Number: IQL2160

Sampled: 12/18/07-12/19/07  
Received: 12/19/07

## 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](http://www.testamericainc.com)*

### TestAmerica Irvine

Joseph Doak  
Project Manager

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701 2168

# CHAIN OF CUSTODY FORM

Test America Version 04/28/06

Client Name/Address: MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing BMP Effectiveness Monitoring Program		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		ANALYSIS REQUIRED		Field readings: Temp = <b>N/A</b> pH = <b>7.12</b> Sample Collection Time = <b>17:00</b> <b>RG-12.20.07</b> <b>0745</b> Comments			
Test America Contact: Joseph Doak Project Manager: Bronwyn Kelly Sampler: <b>R. Bannoso</b>		Suspended Sediment Concentration (SSC, ASTM- D3977-1997)		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Turn around Time: (check) 24 Hours <input type="checkbox"/> 5 Days <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/> 10 Days <input type="checkbox"/> 72 Hours <input type="checkbox"/> Normal <input type="checkbox"/> Sample Integrity: (Check) Intact <input checked="" type="checkbox"/> On Ice: <input type="checkbox"/> <b>2.671.6°C</b>			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Received By	Date/Time	Relinquished By	Date/Time	
006 EFF-1	W	500 mL Poly	1	12-18-07 17:00	None	1	<b>BD</b>	<b>12/19/07</b>	<b>R. Bannoso</b>	<b>12/19/07</b>	
006 EFF-2	W	500 mL Poly	1	12-18-07 18:00	None	2					
006 EFF-3	W	500 mL Poly	1	12-18-07 19:00	None	3					
006 EFF-4	W	500 mL Poly	1	12-18-07 20:00	None	4					
006 EFF-5	W	500 mL Poly	1	12-18-07 21:00	None	5					
006 EFF-6	W	500 mL Poly	1	12-18-07 22:00	None	6					
006 EFF-7	W	500 mL Poly	1	12-18-07 23:00	None	7					
006 EFF-8	W	500 mL Poly	1	12-19-07 00:00	None	8					
006 EFF-9	W	500 mL Poly	1	12-19-07 01:00	None	9					
006 EFF-10	W	500 mL Poly	1		None	10					
006 EFF-11	W	500 mL Poly	1		None	11					
006 EFF-12	W	500 mL Poly	1		None	12					
006 EFF-13	W	500 mL Poly	1		None	13					
006 EFF-14	W	500 mL Poly	1		None	14					
006 EFF-15	W	500 mL Poly	1		None	15					
006 EFF-16	W	500 mL Poly	1		None	16					
006 EFF-17	W	500 mL Poly	1		None	17					
006 EFF-18	W	500 mL Poly	1		None	18					
006 EFF-19	W	500 mL Poly	1		None	19					
006 EFF-20	W	500 mL Poly	1		None	20					
006 EFF-21	W	500 mL Poly	1		None	21					
006 EFF-22	W	500 mL Poly	1		None	22					
006 EFF-23	W	500 mL Poly	1		None	23					
006 EFF-24	W	500 mL Poly	1		None	24					
Relinquished By <b>R. Bannoso</b>		Date/Time: <b>12-19-07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>	
Relinquished By <b>BD</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>	
Relinquished By <b>BD</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>		Date/Time: <b>12/19/07</b>	

EW

## **APPENDIX G**

### **Section 8**

Outfall 009, December 19, 2007

MEC<sup>X</sup> Data Validation Reports



# DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IQL2128

Prepared by

MEC<sup>X</sup>, 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: IQL2128  
 Project Manager: B. Kelly  
 Matrix: Soil  
 QC Level: IV  
 No. of Samples: 1  
 No. of Reanalyses/Dilutions: 0  
 Laboratory: TestAmerica-Irvine, Weck, Vista

**Table 1. Sample Identification**

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 009	IQL2128-01	7122006-01, 30104-001	Water	12/19/07 0800	245.1, 1613, 6020

## II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and Weck within the temperature limits of 4°C ±2°C. The sample was received below the temperature limits at Vista; however, the sample was not noted to have been frozen. 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 Vista and 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: January 15, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>X</sup> 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 TCDF was reported in the method blank at a concentration of 0.00000139µg/l; however, total TCDF was not reported in site sample Outfall 009. 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. An EMPC value for total HpCDF was qualified as an estimated nondetect, “UJ.” Nondetects are valid to the estimated detection limit (EDL).

## B. EPA METHODS 245.1, 6020—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: January 15, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0)*, *EPA Methods 245.1 and 6020*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.

- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were  $\leq 5\%$ , and all masses of interest were calibrated to  $\leq 0.1$  amu and  $\leq 0.9$  amu at 10% peak height.
- Calibration: Calibration criteria were met. Mercury initial calibration  $r^2$  values were  $\geq 0.995$  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 dissolved metals analyses only. Recoveries were within the method-established control limits. All 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 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 CCV analyzed prior to the sample and the CCB analyzed after the sample both had all internal standard recoveries below the control limit; however, as the sample internal standard recoveries were acceptable, no qualifications were applied. The remaining 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.



Sample ID: <b>IQL2128-01</b>		Client Data		Sample Data		Laboratory Data		EPA Method 1613	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30104-001	Date Received:	21-Dec-07		
Project:	IQL2128	Sample Size:	1.00 L	QC Batch No.:	9806	Date Extracted:	23-Dec-07		
Date Collected:	19-Dec-07			Date Analyzed DB-5:	27-Dec-07	Date Analyzed DB-225:	NA		
Time Collected:	0800								
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers	
2,3,7,8-TCDD	ND	0.00000130			IS 13C-2,3,7,8-TCDD	75.7	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000165			13C-1,2,3,7,8-PeCDD	58.8	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000344			13C-1,2,3,4,7,8-HxCDD	72.2	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000364			13C-1,2,3,6,7,8-HxCDD	68.0	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000345			13C-1,2,3,4,6,7,8-HpCDD	44.7	23 - 140		
1,2,3,4,6,7,8-HpCDD	0.0000163			J	13C-OCDD	30.1	17 - 157		
OCDD	0.000187				13C-2,3,7,8-TCDF	75.1	24 - 169		
2,3,7,8-TCDF	ND	0.00000148			13C-1,2,3,7,8-PeCDF	59.9	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000192			13C-2,3,4,7,8-PeCDF	59.0	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000197			13C-1,2,3,4,7,8-HxCDF	61.6	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000974			13C-1,2,3,6,7,8-HxCDF	67.3	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000877			13C-2,3,4,6,7,8-HxCDF	65.9	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.00000105			13C-1,2,3,7,8,9-HxCDF	58.2	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000151			13C-1,2,3,4,6,7,8-HpCDF	45.6	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000380			13C-1,2,3,4,7,8,9-HpCDF	27.3	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000685			13C-OCDF	19.7	17 - 157		
OCDF	ND	0.0000107			CRS 37Cl-2,3,7,8-TCDD	84.0	35 - 197		
<b>Totals</b>									
Total TCDD	ND	0.00000130							
Total PeCDD	ND	0.00000165							
Total HxCDD	ND	0.00000352							
Total HpCDD	0.0000416								
Total TCDF	ND	0.00000148							
Total PeCDF	ND	0.00000194							
Total HxCDF	ND	0.00000107							
Total HpCDF	ND	0.00000168							

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

Analyst: DMS  
Level IV  
5/11/08  
Approved By: William J. Luksemburg 27-Dec-2007 13:18

# 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 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IQL2128-01 (Outfall 009 - Water)										
Reporting Units: ug/l										
Antimony	J/DNQ	EPA 200.8	7L20116	0.20	2.0	0.40	1	12/20/07	12/20/07	J
Cadmium	U	EPA 200.8	7L20116	0.11	1.0	ND	1	12/20/07	12/20/07	
Copper		EPA 200.8	7L20116	0.75	2.0	2.4	1	12/20/07	12/20/07	
Lead	J/DNQ	EPA 200.8	7L20116	0.10	1.0	0.47	1	12/20/07	12/20/07	J
Thallium	U	EPA 200.8	7L20116	0.15	1.0	ND	1	12/20/07	12/20/07	

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 009  Report Number: IQL2128	Sampled: 12/19/07 Received: 12/19/07
-----------------------------------------------------------------------------------------------------------	---------------------------------------------------------------	-----------------------------------------

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	7L20140	0.20	2.0	0.39	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8-Diss	7L20140	0.11	1.0	ND	1	12/20/07	12/20/07	
Copper	EPA 200.8-Diss	7L20140	0.75	2.0	2.0	1	12/20/07	12/20/07	
Lead	EPA 200.8-Diss	7L20140	0.10	1.0	0.20	1	12/20/07	12/20/07	J
Thallium	EPA 200.8-Diss	7L20140	0.15	1.0	ND	1	12/20/07	12/20/07	

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IQL2128 <Page 3 of 19>

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

Project ID: Routine Outfall 009  
Report Number: IQL2128

Sampled: 12/19/07  
Received: 12/19/07

### 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: IQL2128-01 (Outfall 009 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	U
Mercury, Total	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	U

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## **APPENDIX G**

### **Section 9**

Outfall 009, December 19, 2007

Test America Analytical Laboratory Report

## LABORATORY REPORT

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

Project: Routine Outfall 009

Sampled: 12/19/07  
Received: 12/19/07  
Issued: 12/31/07 09:28

NELAP #01108CA California ELAP#1197 CSDLAC #10256

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## SAMPLE CROSS REFERENCE

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

**LABORATORY ID**

IQL2128-01

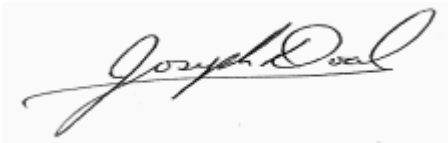
**CLIENT ID**

Outfall 009

**MATRIX**

Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	7L20116	0.20	2.0	<b>0.40</b>	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8	7L20116	0.11	1.0	ND	1	12/20/07	12/20/07	
Copper	EPA 200.8	7L20116	0.75	2.0	<b>2.4</b>	1	12/20/07	12/20/07	
Lead	EPA 200.8	7L20116	0.10	1.0	<b>0.47</b>	1	12/20/07	12/20/07	J
Thallium	EPA 200.8	7L20116	0.15	1.0	ND	1	12/20/07	12/20/07	

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NPDES - 203

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
<b>Antimony</b>	EPA 200.8-Diss	7L20140	0.20	2.0	<b>0.39</b>	1	12/20/07	12/20/07	J
Cadmium	EPA 200.8-Diss	7L20140	0.11	1.0	ND	1	12/20/07	12/20/07	
<b>Copper</b>	EPA 200.8-Diss	7L20140	0.75	2.0	<b>2.0</b>	1	12/20/07	12/20/07	
<b>Lead</b>	EPA 200.8-Diss	7L20140	0.10	1.0	<b>0.20</b>	1	12/20/07	12/20/07	J
Thallium	EPA 200.8-Diss	7L20140	0.15	1.0	ND	1	12/20/07	12/20/07	

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 Project Manager

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.</b>									
Reporting Units: mg/l									
Chloride	EPA 300.0	7L19047	0.25	0.50	<b>5.9</b>	1	12/19/07	12/20/07	
Nitrate/Nitrite-N	EPA 300.0	7L19047	0.15	0.26	<b>0.81</b>	1	12/19/07	12/20/07	
Oil & Grease	EPA 413.1	7L21125	1.1	4.7	ND	1	12/22/07	12/26/07	
Sulfate	EPA 300.0	7L19047	0.20	0.50	<b>16</b>	1	12/19/07	12/20/07	
Total Dissolved Solids	SM2540C	7L21099	10	10	<b>120</b>	1	12/21/07	12/21/07	
Total Suspended Solids	EPA 160.2	7L20129	10	10	ND	1	12/20/07	12/20/07	

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/l</b>									
Mercury, Dissolved	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	
Mercury, Total	EPA 245.1	W7L0889	0.050	0.20	ND	1	12/26/07	12/27/07	

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NPDES - 206

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
2,3,7,8-TCDD	1613-Dioxin-HR Alta	9806	N/A	4.98	ND	1	12/23/07	12/27/07	
1,2,3,7,8-PeCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,4,7,8-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,6,7,8-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,7,8,9-HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
<b>1,2,3,4,6,7,8-HpCDD</b>	1613-Dioxin-HR Alta	9806	N/A	24.9	<b>0.0000163</b>	1	12/23/07	12/27/07	J
<b>OCDD</b>	1613-Dioxin-HR Alta	9806	N/A	49.8	<b>0.000187</b>	1	12/23/07	12/27/07	
2,3,7,8-TCDF	1613-Dioxin-HR Alta	9806	N/A	4.98	ND	1	12/23/07	12/27/07	
1,2,3,7,8-PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
2,3,4,7,8-PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,4,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,6,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
2,3,4,6,7,8-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,7,8,9-HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,4,6,7,8-HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
1,2,3,4,7,8,9-HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
OCDF	1613-Dioxin-HR Alta	9806	N/A	49.8	ND	1	12/23/07	12/27/07	
Total TCDD	1613-Dioxin-HR Alta	9806	N/A	4.98	ND	1	12/23/07	12/27/07	
Total PeCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
Total HxCDD	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
<b>Total HpCDD</b>	1613-Dioxin-HR Alta	9806	N/A	24.9	<b>0.0000416</b>	1	12/23/07	12/27/07	
Total TCDF	1613-Dioxin-HR Alta	9806	N/A	4.98	ND	1	12/23/07	12/27/07	
Total PeCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
Total HxCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
Total HpCDF	1613-Dioxin-HR Alta	9806	N/A	24.9	ND	1	12/23/07	12/27/07	
<i>Surrogate: 13C-2,3,7,8-TCDD (25-164%)</i>					75.7 %				
<i>Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)</i>					58.8 %				
<i>Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)</i>					72.2 %				
<i>Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)</i>					68 %				
<i>Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)</i>					44.7 %				
<i>Surrogate: 13C-OCDD (17-157%)</i>					30.1 %				
<i>Surrogate: 13C-2,3,7,8-TCDF (24-169%)</i>					75.1 %				
<i>Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)</i>					59.9 %				
<i>Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)</i>					59 %				
<i>Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)</i>					61.6 %				
<i>Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)</i>					67.3 %				
<i>Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)</i>					65.9 %				
<i>Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)</i>					58.2 %				
<i>Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)</i>					45.6 %				
<i>Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)</i>					27.3 %				
<i>Surrogate: 13C-OCDF (17-157%)</i>					19.7 %				

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IQL2128-01 (Outfall 009 - Water) - cont.</b>									
Reporting Units: ug/L									
Surrogate: 37Cl-2,3,7,8-TCDD (35-197%)					84 %				

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NPDES - 208

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07  
Received: 12/19/07

## SHORT HOLD TIME DETAIL REPORT

	<b>Hold Time (in days)</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>	<b>Date/Time Extracted</b>	<b>Date/Time Analyzed</b>
<b>Sample ID: Outfall 009 (IQL2128-01) - Water</b> EPA 300.0	2	12/19/2007 08:00	12/19/2007 19:05	12/19/2007 20:00	12/20/2007 04:14

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**NPDES - 209**

MWH-Pasadena/Boeing  
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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L20116 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20116-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 12/20/2007 (7L20116-BS1)</b>											
Antimony	84.5	2.0	0.20	ug/l	80.0		106	85-115			
Cadmium	84.5	1.0	0.11	ug/l	80.0		106	85-115			
Copper	85.1	2.0	0.75	ug/l	80.0		106	85-115			
Lead	84.6	1.0	0.10	ug/l	80.0		106	85-115			
Thallium	86.6	1.0	0.15	ug/l	80.0		108	85-115			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20116-MS1) Source: IQL2190-01</b>											
Antimony	80.0	2.0	0.20	ug/l	80.0	0.268	100	70-130			
Cadmium	78.8	1.0	0.11	ug/l	80.0	0.576	98	70-130			
Copper	102	2.0	0.75	ug/l	80.0	21.3	101	70-130			
Lead	103	1.0	0.10	ug/l	80.0	23.3	100	70-130			
Thallium	82.8	1.0	0.15	ug/l	80.0	ND	103	70-130			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20116-MS2) Source: IQL2059-01</b>											
Antimony	82.3	2.0	0.20	ug/l	80.0	1.68	101	70-130			
Cadmium	78.8	1.0	0.11	ug/l	80.0	0.396	98	70-130			
Copper	101	2.0	0.75	ug/l	80.0	19.1	102	70-130			
Lead	85.1	1.0	0.10	ug/l	80.0	3.19	102	70-130			
Thallium	82.3	1.0	0.15	ug/l	80.0	ND	103	70-130			
<b>Matrix Spike Dup Analyzed: 12/20/2007 (7L20116-MSD1) Source: IQL2190-01</b>											
Antimony	79.3	2.0	0.20	ug/l	80.0	0.268	99	70-130	1	20	
Cadmium	78.6	1.0	0.11	ug/l	80.0	0.576	98	70-130	0	20	
Copper	101	2.0	0.75	ug/l	80.0	21.3	100	70-130	1	20	
Lead	104	1.0	0.10	ug/l	80.0	23.3	101	70-130	1	20	
Thallium	83.5	1.0	0.15	ug/l	80.0	ND	104	70-130	1	20	

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Project ID: Routine Outfall 009  
 Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L20140 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20140-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
<b>LCS Analyzed: 12/20/2007 (7L20140-BS1)</b>											
Antimony	80.2	2.0	0.20	ug/l	80.0		100	85-115			
Cadmium	78.5	1.0	0.11	ug/l	80.0		98	85-115			
Copper	75.0	2.0	0.75	ug/l	80.0		94	85-115			
Lead	79.6	1.0	0.10	ug/l	80.0		100	85-115			
Thallium	81.8	1.0	0.15	ug/l	80.0		102	85-115			
<b>Matrix Spike Analyzed: 12/20/2007 (7L20140-MS1) Source: IQL2118-01</b>											
Antimony	81.3	2.0	0.20	ug/l	80.0	0.742	101	70-130			
Cadmium	75.0	1.0	0.11	ug/l	80.0	ND	94	70-130			
Copper	73.9	2.0	0.75	ug/l	80.0	2.16	90	70-130			
Lead	76.2	1.0	0.10	ug/l	80.0	0.118	95	70-130			
Thallium	78.3	1.0	0.15	ug/l	80.0	ND	98	70-130			
<b>Matrix Spike Dup Analyzed: 12/20/2007 (7L20140-MSD1) Source: IQL2118-01</b>											
Antimony	81.5	2.0	0.20	ug/l	80.0	0.742	101	70-130	0	20	
Cadmium	75.2	1.0	0.11	ug/l	80.0	ND	94	70-130	0	20	
Copper	73.8	2.0	0.75	ug/l	80.0	2.16	90	70-130	0	20	
Lead	76.0	1.0	0.10	ug/l	80.0	0.118	95	70-130	0	20	
Thallium	78.3	1.0	0.15	ug/l	80.0	ND	98	70-130	0	20	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 009  
Report Number: IQL2128

Sampled: 12/19/07  
Received: 12/19/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L19047 Extracted: 12/19/07</b>											
<b>Blank Analyzed: 12/19/2007 (7L19047-BLK1)</b>											
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							
<b>LCS Analyzed: 12/19/2007 (7L19047-BS1)</b>											
Chloride	5.10	0.50	0.25	mg/l	5.00		102	90-110			
Sulfate	9.75	0.50	0.20	mg/l	10.0		98	90-110			
<b>Matrix Spike Analyzed: 12/19/2007 (7L19047-MS1) Source: IQL2030-01</b>											
Chloride	5.70	0.50	0.25	mg/l	5.00	0.848	97	80-120			
Sulfate	11.3	0.50	0.20	mg/l	10.0	1.85	94	80-120			
<b>Matrix Spike Dup Analyzed: 12/19/2007 (7L19047-MSD1) Source: IQL2030-01</b>											
Chloride	5.70	0.50	0.25	mg/l	5.00	0.848	97	80-120	0	20	
Sulfate	11.3	0.50	0.20	mg/l	10.0	1.85	94	80-120	0	20	
<b>Batch: 7L20129 Extracted: 12/20/07</b>											
<b>Blank Analyzed: 12/20/2007 (7L20129-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 12/20/2007 (7L20129-BS1)</b>											
Total Suspended Solids	927	10	10	mg/l	1000		93	85-115			
<b>Duplicate Analyzed: 12/20/2007 (7L20129-DUP1) Source: IQL2122-01</b>											
Total Suspended Solids	71.0	10	10	mg/l		73.0			3	10	

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 Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 7L21099 Extracted: 12/21/07</b>											
<b>Blank Analyzed: 12/21/2007 (7L21099-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 12/21/2007 (7L21099-BS1)</b>											
Total Dissolved Solids	992	10	10	mg/l	1000		99	90-110			
<b>Duplicate Analyzed: 12/21/2007 (7L21099-DUP1)</b>											
Total Dissolved Solids	492	10	10	mg/l		496			1	10	
<b>Batch: 7L21125 Extracted: 12/22/07</b>											
<b>Blank Analyzed: 12/26/2007 (7L21125-BLK1)</b>											
Oil & Grease	ND	5.0	1.2	mg/l							
<b>LCS Analyzed: 12/26/2007 (7L21125-BS1)</b>											
Oil & Grease	18.8	5.0	1.2	mg/l	20.0		94	65-120			MNR1
<b>LCS Dup Analyzed: 12/26/2007 (7L21125-BSD1)</b>											
Oil & Grease	18.7	5.0	1.2	mg/l	20.0		94	65-120	1	20	

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Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## 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
<b>Batch: W7L0889 Extracted: 12/26/07</b>											
<b>Blank Analyzed: 12/27/2007 (W7L0889-BLK1)</b>											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
<b>LCS Analyzed: 12/27/2007 (W7L0889-BS1)</b>											
Mercury, Dissolved	1.00	0.20	0.050	ug/l	1.00		100	85-115			
Mercury, Total	1.00	0.20	0.050	ug/l	1.00		100	85-115			
<b>Matrix Spike Analyzed: 12/27/2007 (W7L0889-MS1)</b>											
						<b>Source: 7121925-01</b>					
Mercury, Dissolved	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
<b>Matrix Spike Analyzed: 12/27/2007 (W7L0889-MS2)</b>											
						<b>Source: 7121925-03</b>					
Mercury, Dissolved	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	0.050	ug/l	1.00	ND	88	70-130			
<b>Matrix Spike Dup Analyzed: 12/27/2007 (W7L0889-MSD1)</b>											
						<b>Source: 7121925-01</b>					
Mercury, Dissolved	0.909	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.909	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
<b>Matrix Spike Dup Analyzed: 12/27/2007 (W7L0889-MSD2)</b>											
						<b>Source: 7121925-03</b>					
Mercury, Dissolved	0.907	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.907	0.20	0.050	ug/l	1.00	ND	91	70-130	3	20	

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 Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>											
<b>Blank Analyzed: 12/25/2007 (MB001)</b>											
						<b>Source:</b>					
2,3,7,8-TCDD	ND	5.00	N/A	ug/L				50-150		25	
1,2,3,7,8-PeCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,6,7,8-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,7,8,9-HxCDD	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDD	ND	25.0	N/A	ug/L				50-150		25	
OCDD	ND	50.0	N/A	ug/L				50-150		25	
2,3,7,8-TCDF	ND	5.00	N/A	ug/L				50-150		25	
1,2,3,7,8-PeCDF	ND	25.0	N/A	ug/L				50-150		25	
2,3,4,7,8-PeCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,6,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
2,3,4,6,7,8-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,7,8,9-HxCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDF	ND	25.0	N/A	ug/L				50-150		25	
1,2,3,4,7,8,9-HpCDF	ND	25.0	N/A	ug/L				50-150		25	
OCDF	ND	50.0	N/A	ug/L				50-150		25	
Total TCDD	ND	5.00	N/A	ug/L				50-150		25	
Total PeCDD	ND	25.0	N/A	ug/L				50-150		25	
Total HxCDD	ND	25.0	N/A	ug/L				50-150		25	
Total HpCDD	ND	25.0	N/A	ug/L				50-150		25	
Total TCDF	0.00000139	5.00	N/A	ug/L				50-150		25	
Total PeCDF	ND	25.0	N/A	ug/L				50-150		25	
Total HxCDF	ND	25.0	N/A	ug/L				50-150		25	
Total HpCDF	ND	25.0	N/A	ug/L				50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	0.00156			ug/L	2000		78	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00193			ug/L	2000		96	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00139			ug/L	2000		70	50-150			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00124			ug/L	2000		62	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00128			ug/L	2000		64	50-150			
Surrogate: 13C-OCDD	0.00237			ug/L	4000		59	50-150			
Surrogate: 13C-2,3,7,8-TCDF	0.00158			ug/L	2000		79	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00197			ug/L	2000		99	50-150			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00208			ug/L	2000		104	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00139			ug/L	2000		70	50-150			

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 009  
 Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>										
<b>Blank Analyzed: 12/25/2007 (MB001)</b>										
					<b>Source:</b>					
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00113			ug/L	2000		57		50-150	
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00129			ug/L	2000		64		50-150	
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00128			ug/L	2000		64		50-150	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00112			ug/L	2000		56		50-150	
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.00112			ug/L	2000		56		50-150	
Surrogate: 13C-OCDF	0.00203			ug/L	4000		51		50-150	
Surrogate: 37Cl-2,3,7,8-TCDD	0.000755			ug/L	800		94		50-150	
<b>LCS Analyzed: 12/24/2007 (OPR001)</b>										
					<b>Source:</b>					
2,3,7,8-TCDD	10.3	5.00	N/A	ug/L	10		103		50-150	25
1,2,3,7,8-PeCDD	51.0	25.0	N/A	ug/L	50		102		50-150	25
1,2,3,4,7,8-HxCDD	50.5	25.0	N/A	ug/L	50		101		50-150	25
1,2,3,6,7,8-HxCDD	53.0	25.0	N/A	ug/L	50		106		50-150	25
1,2,3,7,8,9-HxCDD	51.8	25.0	N/A	ug/L	50		104		50-150	25
1,2,3,4,6,7,8-HpCDD	50.8	25.0	N/A	ug/L	50		102		50-150	25
OCDD	100	50.0	N/A	ug/L	100		100		50-150	25
2,3,7,8-TCDF	10.5	5.00	N/A	ug/L	10		105		50-150	25
1,2,3,7,8-PeCDF	51.3	25.0	N/A	ug/L	50		103		50-150	25
2,3,4,7,8-PeCDF	52.4	25.0	N/A	ug/L	50		105		50-150	25
1,2,3,4,7,8-HxCDF	50.2	25.0	N/A	ug/L	50		100		50-150	25
1,2,3,6,7,8-HxCDF	54.1	25.0	N/A	ug/L	50		108		50-150	25
2,3,4,6,7,8-HxCDF	53.7	25.0	N/A	ug/L	50		107		50-150	25
1,2,3,7,8,9-HxCDF	52.4	25.0	N/A	ug/L	50		105		50-150	25
1,2,3,4,6,7,8-HpCDF	50.4	25.0	N/A	ug/L	50		101		50-150	25
1,2,3,4,7,8,9-HpCDF	51.8	25.0	N/A	ug/L	50		104		50-150	25
OCDF	104	50.0	N/A	ug/L	100		104		50-150	25
Surrogate: 13C-2,3,7,8-TCDD	84.4			ug/L	100		84		50-150	
Surrogate: 13C-1,2,3,7,8-PeCDD	83.4			ug/L	100		83		50-150	
Surrogate: 13C-1,2,3,4,7,8-HxCDD	81.1			ug/L	100		81		50-150	
Surrogate: 13C-1,2,3,6,7,8-HxCDD	68.0			ug/L	100		68		50-150	
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	75.4			ug/L	100		75		50-150	
Surrogate: 13C-OCDD	126			ug/L	200		63		50-150	
Surrogate: 13C-2,3,7,8-TCDF	79.7			ug/L	100		80		50-150	
Surrogate: 13C-1,2,3,7,8-PeCDF	91.9			ug/L	100		92		50-150	
Surrogate: 13C-2,3,4,7,8-PeCDF	88.6			ug/L	100		89		50-150	
Surrogate: 13C-1,2,3,4,7,8-HxCDF	79.3			ug/L	100		79		50-150	

**TestAmerica Irvine**

Joseph Doak  
 Project Manager

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

Project ID: Routine Outfall 009  
 Report Number: IQL2128

Sampled: 12/19/07  
 Received: 12/19/07

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 9806 Extracted: 12/23/07</b>											
<b>LCS Analyzed: 12/24/2007 (OPR001)</b>											
Surrogate: 13C-1,2,3,6,7,8-HxCDF	65.5			ug/L	100		66	50-150			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	68.9			ug/L	100		69	50-150			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	68.6			ug/L	100		69	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	65.2			ug/L	100		65	50-150			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	62.5			ug/L	100		63	50-150			
Surrogate: 13C-OCDF	108			ug/L	200		54	50-150			
Surrogate: 37Cl-2,3,7,8-TCDD	39.6			ug/L	40		99	50-150			

TestAmerica Irvine

Joseph Doak  
 Project Manager

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

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## 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
IQL2128-01	413.1 Oil and Grease	Oil & Grease	mg/l	0.38	4.7	15
IQL2128-01	Antimony-200.8	Antimony	ug/l	0.40	2.0	6.00
IQL2128-01	Antimony-200.8, Diss	Antimony	ug/l	0.39	2.0	6.00
IQL2128-01	Cadmium-200.8	Cadmium	ug/l	0.023	1.0	4.00
IQL2128-01	Cadmium-200.8, Diss	Cadmium	ug/l	0.017	1.0	4.00
IQL2128-01	Chloride - 300.0	Chloride	mg/l	5.89	0.50	150
IQL2128-01	Copper-200.8	Copper	ug/l	2.43	2.0	14
IQL2128-01	Copper-200.8, Diss	Copper	ug/l	2.03	2.0	14
IQL2128-01	Lead-200.8	Lead	ug/l	0.47	1.0	5.20
IQL2128-01	Lead-200.8, Diss	Lead	ug/l	0.20	1.0	5.20
IQL2128-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.81	0.26	10.00
IQL2128-01	Sulfate-300.0	Sulfate	mg/l	16	0.50	250
IQL2128-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	124	10	850
IQL2128-01	Thallium-200.8	Thallium	ug/l	0.0064	1.0	2.00
IQL2128-01	Thallium-200.8, Diss	Thallium	ug/l	0	1.0	2.00

TestAmerica Irvine

Joseph Doak  
 Project Manager

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IQL2128 <Page 17 of 19>

NPDES - 218

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

Project ID: Routine Outfall 009

Report Number: IQL2128

Sampled: 12/19/07

Received: 12/19/07

## DATA QUALIFIERS AND DEFINITIONS

- J** The amount detected is below the Lower Calibration Limit of the instrument
- 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

**TestAmerica Irvine**

Joseph Doak  
Project Manager

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**IQL2128** <Page 18 of 19>

**NPDES - 219**

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

Project ID: Routine Outfall 009  
Report Number: IQL2128

Sampled: 12/19/07  
Received: 12/19/07

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 413.1	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](http://www.testamericainc.com)*

### Subcontracted Laboratories

#### Alta Analytical Perspectives

2714 Exchange Drive - Wilmington, NC 28405

Method Performed: 1613-Dioxin-HR Alta  
Samples: IQL2128-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta  
Samples: IQL2128-01

#### Weck Laboratories, Inc

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

Method Performed: EPA 245.1  
Samples: IQL2128-01

### TestAmerica Irvine

Joseph Doak  
Project Manager

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2022-08

JAL

# CHAIN OF CUSTODY FORM

Test America Version 04/28/06

<b>Client Name/Address:</b> MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		<b>Project:</b> Boeing-SSFL NPDES <b>Routine Outfall 009</b> Stormwater at WS-13		<b>Field readings:</b> Temp = <b>51.3°</b> pH = <b>6.76</b> Sample Collection Time = <b>0800</b>									
<b>Test America Contact:</b> Joseph Doak <b>Project Manager:</b> Bronwyn Kelly <b>Sampler:</b> <b>J. Marnoni</b> <b>P. Barrero</b>		<b>Phone Number:</b> (626) 568-6691 <b>Fax Number:</b> (626) 568-6515		<b>Comments</b>									
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals Sb, Cd, Cu, Pb, Hg, Tl	Oil & Grease (EPA 413.1)	TCDD (and all congeners)	CF, SO <sub>4</sub> , NO <sub>3</sub> +NO <sub>2</sub> -N	TDS, TSS	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl	Filter w/in 24hr of receipt at lab
Outfall 009	W	1L Poly	1	12-19-07 0800	HNO <sub>3</sub>	1A	X						
Outfall 009 Dup	W	1L Poly	1		HNO <sub>3</sub>	1B	X						
Outfall 009	W	1L Amber	2		None	2A, 2B		X					
Outfall 009	W	1L Amber	2		HCl	3A, 3B							
Outfall 009	W	500 ml Poly	2		None	4A, 4B			X				
Outfall 009	W	500 ml Poly	2		None	5A, 5B				X			
Outfall 009	W	1L Poly	1	12-19-07 0800	None	6						X	

70. 12/19/07

<b>Relinquished By:</b>  Date/Time: 12-19-07 1620	<b>Received By:</b>  Date/Time: 12-19-07 1620
<b>Relinquished By:</b>  Date/Time: 12-19-07 1905	<b>Received By:</b>  Date/Time: 12-19-07 1905
<b>Relinquished By:</b>  Date/Time: 12-19-07 1905	<b>Received By:</b>  Date/Time: 12-19-07 1905

Turn around Time: (check)  
 24 Hours \_\_\_\_\_ 5 Days \_\_\_\_\_  
 48 Hours \_\_\_\_\_ 72 Hours \_\_\_\_\_  
 Sample Integrity: (Check)  
 Intact \_\_\_\_\_ On Ice:

26.6°C

December 27, 2007

**Vista Project I.D.: 30104**

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

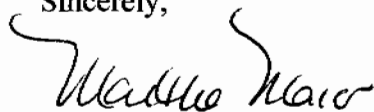
Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on December 21, 2007 under your Project Name "IQL2128". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A rush turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP 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: 12/21/2007**

Vista Lab. ID

Client Sample ID

30104-001

IQL2128-01

## SECTION II

**Method Blank**

**EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9806	Lab Sample:	0-MB001			
Sample Size:	1.00 L	Date Extracted:	23-Dec-07	Date Analyzed DB-5:	25-Dec-07			
				Date Analyzed DB-225:	NA			
Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.000000817			IS 13C-2,3,7,8-TCDD	78.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000965			13C-1,2,3,7,8-PeCDD	96.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000174			13C-1,2,3,4,7,8-HxCDD	69.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000175			13C-1,2,3,6,7,8-HxCDD	62.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000174			13C-1,2,3,4,6,7,8-HpCDD	63.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000246			13C-OCDD	59.3	17 - 157	
OCDD	ND	0.00000423			13C-2,3,7,8-TCDF	79.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000140			13C-1,2,3,7,8-PeCDF	98.6	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000129			13C-2,3,4,7,8-PeCDF	104	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000126			13C-1,2,3,4,7,8-HxCDF	69.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000846			13C-1,2,3,6,7,8-HxCDF	56.7	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000904			13C-2,3,4,6,7,8-HxCDF	64.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000000973			13C-1,2,3,7,8,9-HxCDF	63.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000140			13C-1,2,3,4,6,7,8-HpCDF	55.9	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000100			13C-1,2,3,4,7,8,9-HpCDF	55.8	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000138			13C-OCDF	50.8	17 - 157	
OCDF	ND	0.00000156			CRS 37Cl-2,3,7,8-TCDD	94.4	35 - 197	
<b>Totals</b>								
Footnotes								
Total TCDD	ND	0.000000817			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.000000965			b. Estimated maximum possible concentration.			
Total HxCDD	ND	0.00000175			c. Method detection limit.			
Total HpCDD	ND	0.00000246			d. Lower control limit - upper control limit.			
Total TCDF	0.00000139							
Total PeCDF	ND	0.00000128						
Total HxCDF	ND	0.00000101						
Total HpCDF	ND	0.00000117						

Analyst: JMH

Approved By:

William J. Luksemburg

27-Dec-2007 13:18

**OPR Results**

**EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	9806	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	23-Dec-07	Date Analyzed DB-5:	24-Dec-07		
				Date Analyzed DB-225:	NA		
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	10.3	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	84.4	25 - 164	
1,2,3,7,8-PeCDD	50.0	51.0	35 - 71	13C-1,2,3,7,8-PeCDD	83.4	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	50.5	35 - 82	13C-1,2,3,4,7,8-HxCDD	81.1	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	53.0	38 - 67	13C-1,2,3,6,7,8-HxCDD	68.0	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	51.8	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	75.4	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	50.8	35 - 70	13C-OCDD	63.2	17 - 157	
OCDD	100	100	78 - 144	13C-2,3,7,8-TCDF	79.7	24 - 169	
2,3,7,8-TCDF	10.0	10.5	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	91.9	24 - 185	
1,2,3,7,8-PeCDF	50.0	51.3	40 - 67	13C-2,3,4,7,8-PeCDF	88.6	21 - 178	
2,3,4,7,8-PeCDF	50.0	52.4	34 - 80	13C-1,2,3,4,7,8-HxCDF	79.3	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	50.2	36 - 67	13C-1,2,3,6,7,8-HxCDF	65.5	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	54.1	42 - 65	13C-2,3,4,6,7,8-HxCDF	68.9	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	53.7	35 - 78	13C-1,2,3,7,8,9-HxCDF	68.6	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	52.4	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	65.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	50.4	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	62.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	51.8	39 - 69	13C-OCDF	54.0	17 - 157	
OCDF	100	104	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	99.1	35 - 197	

Analyst: MAS

Approved By:

William J. Luksemburg

27-Dec-2007 13:12

Sample ID: **IQL2128-01**

EPA Method **1613**

Client Data		Sample Data		Laboratory Data	
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30104-001
Project:	IQL2128	Sample Size:	1.00 L	QC Batch No.:	9806
Date Collected:	19-Dec-07			Date Analyzed DB-5:	27-Dec-07
Time Collected:	0800			Date Analyzed DB-225:	NA
				Date Received:	21-Dec-07
				Date Extracted:	23-Dec-07

Analyte	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers	Labeled Standard	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.00000130			IS 13C-2,3,7,8-TCDD	75.7	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000165			13C-1,2,3,7,8-PeCDD	58.8	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000344			13C-1,2,3,4,7,8-HxCDD	72.2	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000364			13C-1,2,3,6,7,8-HxCDD	68.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000345			13C-1,2,3,4,6,7,8-HpCDD	44.7	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000163			J	13C-OCDD	30.1	17 - 157	
OCDD	0.000187				13C-2,3,7,8-TCDF	75.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000148			13C-1,2,3,7,8-PeCDF	59.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000192			13C-2,3,4,7,8-PeCDF	59.0	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000197			13C-1,2,3,4,7,8-HxCDF	61.6	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000974			13C-1,2,3,6,7,8-HxCDF	67.3	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000877			13C-2,3,4,6,7,8-HxCDF	65.9	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000105			13C-1,2,3,7,8,9-HxCDF	58.2	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000151			13C-1,2,3,4,6,7,8-HpCDF	45.6	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.00000380			13C-1,2,3,4,7,8,9-HpCDF	27.3	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000685			13C-OCDF	19.7	17 - 157	
OCDF	ND	0.0000107			CRS 37Cl-2,3,7,8-TCDD	84.0	35 - 197	

Totals		Footnotes	
Total TCDD	ND	0.00000130	a. Sample specific estimated detection limit.
Total PeCDD	ND	0.00000165	b. Estimated maximum possible concentration.
Total HxCDD	ND	0.00000352	c. Method detection limit.
Total HpCDD	0.0000416		d. Lower control limit - upper control limit.
Total TCDF	ND	0.00000148	
Total PeCDF	ND	0.00000194	
Total HxCDF	ND	0.00000107	
Total HpCDF	ND	0.00000168	

Analyst: DMS

Approved By:

William J. Luksemburg 27-Dec-2007 13:18

## APPENDIX



## DATA QUALIFIERS & ABBREVIATIONS

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

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

## CERTIFICATIONS

<b>Accrediting Authority</b>	<b>Certificate Number</b>
State of Alaska, DEC	CA413-02
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

IQL2128

30104

SENDING LABORATORY:

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

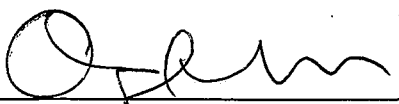
RECEIVING LABORATORY:

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

0.3°C

Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IQL2128-01	Water		Sampled: 12/19/07 08:00	
1613-Dioxin-HR-Alta	ug/l	12/28/07	12/26/07 08:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	N/A	12/28/07	01/16/08 08:00	Excel EDD email to pm, Include Std logs for Lvl IV
<i>Containers Supplied:</i>				
1 L Amber (C)	1 L Amber (D)			

  
Released By \_\_\_\_\_ Date/Time 12/20/07 1700

FedEx 12/20/07 1700  
Received By \_\_\_\_\_ Date/Time  
Bettina Benedict 12/21/07 1028  
Received By \_\_\_\_\_ Date/Time

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

**SAMPLE LOG-IN CHECKLIST**



Vista Project #: 30104 TAT 7

<b>Samples Arrival:</b>	Date/Time 12/21/07 0947	Initials: WBB	Location: WR-2
			Shelf/Rack: N/A
<b>Logged In:</b>	Date/Time 12/21/07 1124	Initials: WBB	Location: WR2
			Shelf/Rack: C-4
<b>Delivered By:</b>	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
		<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
<b>Preservation:</b>	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
			<input type="checkbox"/> None
<b>Temp °C</b>	0.3	<b>Time:</b>	0952
		<b>Thermometer ID:</b>	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 #	7909 0204 7014		
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 <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?			<input checked="" type="checkbox"/> None
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain
			<input checked="" type="checkbox"/> Return
			Dispose

Comments:



### CERTIFICATE OF ANALYSIS

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

**Report Date:** 12/28/07 15:27  
**Received Date:** 12/20/07 10:00  
**Turn Around:** 5 days

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

**Work Order #:** 7122006  
**Client Project:** IQL2128

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 12/20/07 10:00 with the Chain of Custody document. The samples were received in good condition. The samples were received at 4.5 °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: 7122006  
Project ID: IQL2128

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:27

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQL2128-01	Client		7122006-01	Water	12/19/07 08:00



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

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

Report ID: 7122006  
Project ID: IQL2128

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:27

**IQL2128-01 7122006-01 (Water)**

Date Sampled: 12/19/07 08:00

**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	W7L0889	12/26/07	12/27/07	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W7L0889	12/26/07	12/27/07	jlp



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TestAmerica, Inc. - Irvine  
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Irvine CA, 92614

Report ID: 7122006  
Project ID: IQL2128

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:27

# QUALITY CONTROL SECTION





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

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

Report ID: 7122006  
 Project ID: IQL2128

Date Received: 12/20/07 10:00  
 Date Reported: 12/28/07 15:27

**Metals by EPA 200 Series Methods - Quality Control**

%REC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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**Batch W7L0889 - EPA 245.1**

**Blank (W7L0889-BLK1)**

Analyzed: 12/27/07

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

**LCS (W7L0889-BS1)**

Analyzed: 12/27/07

Mercury, Dissolved	1.00	0.20	ug/l	1.00		100	85-115			
Mercury, Total	1.00	0.20	ug/l	1.00		100	85-115			

**Matrix Spike (W7L0889-MS1)**

Source: 7121925-01

Analyzed: 12/27/07

Mercury, Dissolved	0.882	0.20	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	ug/l	1.00	ND	88	70-130			

**Matrix Spike (W7L0889-MS2)**

Source: 7121925-03

Analyzed: 12/27/07

Mercury, Dissolved	0.882	0.20	ug/l	1.00	ND	88	70-130			
Mercury, Total	0.882	0.20	ug/l	1.00	ND	88	70-130			

**Matrix Spike Dup (W7L0889-MSD1)**

Source: 7121925-01

Analyzed: 12/27/07

Mercury, Dissolved	0.909	0.20	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.909	0.20	ug/l	1.00	ND	91	70-130	3	20	

**Matrix Spike Dup (W7L0889-MSD2)**

Source: 7121925-03

Analyzed: 12/27/07

Mercury, Dissolved	0.907	0.20	ug/l	1.00	ND	91	70-130	3	20	
Mercury, Total	0.907	0.20	ug/l	1.00	ND	91	70-130	3	20	



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

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

Report ID: 7122006  
Project ID: IQL2128

Date Received: 12/20/07 10:00  
Date Reported: 12/28/07 15:27

### 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.

SUBCONTRACT ORDER

TestAmerica Irvine

IQL2128

7122006

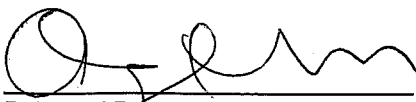
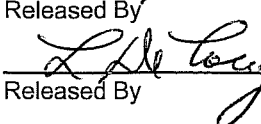
SENDING LABORATORY:

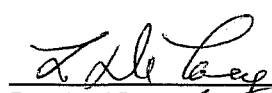

TestAmerica Irvine  
17461 Derian Avenue, Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak

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: IQL2128-01	Water			Sampled: 12/19/07 08:00
Mercury - 245.1, Diss -OUT	mg/l	12/28/07	01/16/08 08:00	
Mercury - 245.1-OUT	mg/l	12/28/07	01/16/08 08:00	
<i>Containers Supplied:</i>				
125 mL Poly w/HNO3	125 mL Poly (M)			
(L)				

  
 Released By \_\_\_\_\_ Date/Time 12/20/07 0700  
  
 Released By \_\_\_\_\_ Date/Time 12/20/07

  
 Received By \_\_\_\_\_ Date/Time 12/20/07 0700 4.5  
  
 Received By \_\_\_\_\_ Date/Time 12/20/07 10:00  
 NPDES - 239