

**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: S. Dellamia

Date Reviewed: January 21, 2009

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: The method blank had no 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. 1,2,3,6,7,8-HxCDD detected below the laboratory lower calibration level in sample Outfall 009 was qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the estimated detection limit (EDL).

## B. EPA METHODS 200.8 and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: January 6, 2009

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 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (10/04)*.

- Holding Times: The analytical holding times, 28 days for mercury and 6 months for lead, 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. The mercury initial calibration  $r^2$  value was  $\geq 0.995$  and all initial and continuing calibration recoveries were within 85-115%. Method

detection limit check standard recoveries were within 50-150%. The CRI and CRA and check standards were recovered within the control limits of 70-130%.

- Blanks: Antimony was detected in the dissolved method blank at 0.48 µg/L and in a bracketing CCB at 0.49 µg/L; therefore, total and dissolved antimony detected in the sample were qualified as nondetected, "U," at the reporting limit. Copper was detected in the dissolved method blank at 2.2 µg/L; therefore, dissolved copper detected in the sample was qualified as nondetected, "U," at the level of contamination. There were no other applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the 200.8 analytes only. Cadmium was detected in the ICSA solution at a concentration above that detected in the sample, but the reviewer was not able to determine if matrix interference affected the sample. Antimony, thallium, and lead were not spiked into the ICSAB solution. Recoveries were within the method-established control limits.
- Blank Spikes and Laboratory Control Samples: The recovery was within the laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: All sample internal standard intensities were within 60-125% of the internal standard intensities measured in the initial calibration blank.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summaries were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

## C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: January 26, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174, and the National Functional Guidelines for Inorganic Data Review (2/94)*.

- **Holding Times:** The tritium sample was analyzed within 180 days of collection. Aliquots for gross alpha, gross beta radium-226, radium-228, strontium-90, and total uranium were prepared within the five-day holding time for unpreserved samples. The aliquot for gamma spectroscopy was prepared beyond the five-day holding time for unpreserved samples; therefore, the nondetected results for these analytes were qualified as estimated, "UJ."
- **Calibration:** The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha detector efficiency was less than 20%; therefore, the detected gross alpha result in the sample was qualified as estimated, "J." The gross beta detector efficiency was greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The strontium chemical yield greater than 60% and was considered acceptable. The strontium and radium-226 continuing calibration results were within the laboratory control limits. The radium-228 tracer, yttrium oxalate, yields were greater than 70%. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- **Blanks:** Radium-226 and radium-228 were detected in the method blanks but were not detected in the sample. There were no other analytes detected in the method blanks.
- **Blank Spikes and Laboratory Control Samples:** The radium-226 LCS recovery was 52%; therefore, the nondetected result for radium-226 was qualified as estimated, "UJ." The radium-226 and radium-228 LCS/LCSD RPDs were 53% and 38%, respectively; therefore, the nondetected results for radium-226 and radium-228 were qualified as estimated, "UJ." The remaining recoveries and the strontium-90 RPD were within laboratory-established control limits.
- **Laboratory Duplicates:** No duplicate analyses were performed on the sample in this SDG.

- **Matrix Spike/Matrix Spike Duplicate:** No matrix spike analyses were performed on the sample. Method accuracy and precision were evaluated base on LCS and LCS/LCSD results.
- **Sample Result Verification:** An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Total uranium, normally reported in aqueous units, was converted to pCi/L using a conversion factor for naturally occurring uranium. 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 MDA.
- **Field QC Samples:** Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - **Field Blanks and Equipment Rinsates:** This SDG had no identified field blank or equipment rinsate samples.
  - **Field Duplicates:** There were no field duplicate samples identified for this SDG.

Sample ID: IRL1711-01		EPA Method 1613						
Client Data		Laboratory Data						
Name: Test, America-Irvine, CA	Matrix: Aqueous	Lab Sample: 31267-001	Date Received: 17-Dec-08					
Project: IRL1711	Sample Size: 1.02 L	QC Batch No.: 1770	Date Extracted: 17-Dec-08					
Date Collected: 15-Dec-08		Date Analyzed DB-5: 18-Dec-08	Date Analyzed DB-22.5: NA					
Time Collected: 0955								
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	u	0.000000856		IS 13C-2,3,7,8-TCDD	105	25 - 164	
1,2,3,7,8-PeCDD	ND	u	0.00000523		13C-1,2,3,7,8-PeCDD	109	25 - 181	
1,2,3,4,7,8-HxCDD	ND	u	0.00000516		13C-1,2,3,4,7,8-HxCDD	89.6	32 - 141	
1,2,3,6,7,8-HxCDD	0.00000681	u	J/DNG	J	13C-1,2,3,6,7,8-HxCDD	98.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	u	0.00000548		13C-1,2,3,4,6,7,8-HpCDD	93.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.000138	u			13C-OCDD	77.0	17 - 157	
OCDD	0.00144	u			13C-2,3,7,8-TCDF	99.4	24 - 169	
2,3,7,8-TCDF	ND	u	0.00000924		13C-1,2,3,7,8-PeCDF	103	24 - 185	
1,2,3,7,8-PeCDF	ND	u	0.00000213		13C-2,3,4,7,8-PeCDF	100	21 - 178	
2,3,4,7,8-PeCDF	ND	u	0.00000242		13C-1,2,3,4,7,8-HxCDF	98.8	26 - 152	
1,2,3,4,7,8-HxCDF	ND	u	0.00000200		13C-1,2,3,6,7,8-HxCDF	87.9	26 - 123	
1,2,3,6,7,8-HxCDF	ND	u	0.00000243		13C-2,3,4,6,7,8-HxCDF	87.0	28 - 136	
2,3,4,6,7,8-HxCDF	ND	u	0.00000296		13C-1,2,3,7,8,9-HxCDF	95.0	29 - 147	
1,2,3,7,8,9-HxCDF	ND	u	0.00000138		13C-1,2,3,4,6,7,8-HpCDF	82.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000296	u			13C-1,2,3,4,7,8,9-HpCDF	84.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	u	0.00000306		13C-OCDF	79.7	17 - 157	
OCDF	0.0000849	u			CRS 37Cl-2,3,7,8-TCDD	92.8	35 - 197	
<b>Totals</b>								
Total TCDD	ND	u	0.00000159					
Total PeCDD	ND	u	0.00000523					
Total HxCDD	0.0000336							
Total HpCDD	0.000381							
Total TCDF	ND	u	0.000000924					
Total PeCDF	0.00000842	u	J/DNG					
Total HxCDF	0.0000290							
Total HpCDF	0.0000795							

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

Analyst: MAS  
Approved By: William J. Luksemburg 19-Dec-2008 11:14

**LEVEL IV**

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

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08  
 Received: 12/15/08

### DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8L17121	0.20	2.0	1.7	1	12/17/08	12/18/08	B, J U/B
Cadmium	EPA 200.8-Diss	8L17121	0.11	1.0	0.14	1	12/17/08	12/18/08	J T/DNQ
Copper	EPA 200.8-Diss	8L17121	0.75	2.0	5.2	1	12/17/08	12/19/08	B U/B
Lead	EPA 200.8-Diss	8L17121	0.30	1.0	1.1	1	12/17/08	12/18/08	
Thallium	EPA 200.8-Diss	8L17121	0.20	1.0	ND	1	12/17/08	12/18/08	U

LEVEL IV

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 Project Manager

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

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

### METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRL1711-01 (Outfall 009 - Water)									
Reporting Units: ug/l									
Antimony	EPA 200.8	8L16092	0.20	2.0	1.7	1	12/16/08	12/17/08	J U/B
Cadmium	EPA 200.8	8L16092	0.11	1.0	0.54	1	12/16/08	12/17/08	J J/DNR
Copper	EPA 200.8	8L16092	0.75	2.0	12	1	12/16/08	12/17/08	
Lead	EPA 200.8	8L16092	0.30	1.0	19	1	12/16/08	12/17/08	
Thallium	EPA 200.8	8L16092	0.20	1.0	ND	1	12/16/08	12/17/08	U

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Project Manager

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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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.									
Reporting Units: ug/L									
Mercury	J/DNG	MCAWW 245.1	8353495	0.027	0.2	0.073	1	12/18/08	12/18/08 J

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## MCAWW 245.1-Diss

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
Mercury-diss U	MCAWW 245.1-Diss	8353517	0.027	0.2	ND	1	12/18/08	12/18/08	

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Outfall 009  
 TestAmerica Irvine

Client Sample ID: IRL1711-01

Radiochemistry

Lab Sample ID: F8L170178-001 Date Collected: 12/15/08 0955  
 Work Order: K4VLE Date Received: 12/17/08 0930  
 Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
<b>Gamma Cs-137 &amp; Hits by EPA 901.1 MOD</b>				pCi/L		Batch # 8359107	Yld %
Cesium 137	0.6	U	6.3	20.0	12	12/24/08	01/11/09
Potassium 40	-40	U	200		240	12/24/08	01/11/09
<b>Gross Alpha/Beta EPA 900</b>				pCi/L		Batch # 8353165	Yld %
Gross Alpha	1.41	J	0.81	3.00	0.98	12/18/08	12/21/08
Gross Beta	5.5		1.1	4.0	1.2	12/18/08	12/21/08
<b>Radium 226 by EPA 903.0 MOD</b>				pCi/L		Batch # 8352386	Yld % 85
Radium (226)	0.09	U	0.12	1.00	0.19	12/17/08	01/09/09
<b>Radium 228 by GFPC EPA 904 MOD</b>				pCi/L		Batch # 8352387	Yld % 70
Radium 228	-0.24	U	0.23	1.00	0.46	12/17/08	01/09/09
<b>TRITIUM (Distill) by EPA 906.0 MOD</b>				pCi/L		Batch # 9012073	Yld %
Tritium	210	U	210	500	340	01/12/09	01/13/09
<b>SR-90 BY GFPC EPA-905 MOD</b>				pCi/L		Batch # 8352461	Yld % 60
Strontium 90	0.50	U	0.41	3.00	0.66	12/17/08	01/10/09
<b>Total Uranium by KPA ASTM 5174-91</b>				pCi/L		Batch # 8354127	Yld %
Total Uranium	0.150	U	0.016	0.693	0.21	12/19/08	12/21/08

LEVEL IV

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.

Bold results are greater than the MDC.

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

U Result is less than the sample detection limit.

## **APPENDIX G**

### **Section 13**

Outfall 009, December 15, 2008

Test America Analytical Laboratory Report

## LABORATORY REPORT

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

Project: Routine Outfall 009

Sampled: 12/15/08  
Received: 12/15/08  
Issued: 01/29/09 14:07

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

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

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

## SAMPLE CROSS REFERENCE

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

ADDITIONAL INFORMATION: This report has been revised to correct the Total Uranium units to pCi/L per client request (the original incorrect report from TestAmerica St. Louis Laboratory has been removed).

**LABORATORY ID**

IRL1711-01

**CLIENT ID**

Outfall 009

**MATRIX**

Water

Reviewed By:



**TestAmerica Irvine**

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water)</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8	8L16092	0.20	2.0	1.7	1	12/16/08	12/17/08	J
Cadmium	EPA 200.8	8L16092	0.11	1.0	0.54	1	12/16/08	12/17/08	J
Copper	EPA 200.8	8L16092	0.75	2.0	12	1	12/16/08	12/17/08	
Lead	EPA 200.8	8L16092	0.30	1.0	19	1	12/16/08	12/17/08	
Thallium	EPA 200.8	8L16092	0.20	1.0	ND	1	12/16/08	12/17/08	

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Trupti Mistry For Joseph Doak  
 Project Manager

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

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	8L17121	0.20	2.0	1.7	1	12/17/08	12/18/08	B, J
Cadmium	EPA 200.8-Diss	8L17121	0.11	1.0	0.14	1	12/17/08	12/18/08	J
Copper	EPA 200.8-Diss	8L17121	0.75	2.0	5.2	1	12/17/08	12/19/08	B
Lead	EPA 200.8-Diss	8L17121	0.30	1.0	1.1	1	12/17/08	12/18/08	
Thallium	EPA 200.8-Diss	8L17121	0.20	1.0	ND	1	12/17/08	12/18/08	

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 Project Manager

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: mg/l</b>									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8L19123	1.3	4.8	<b>3.9</b>	1	12/19/08	12/19/08	B, J
Chloride	EPA 300.0	8L15075	0.25	0.50	<b>11</b>	1	12/15/08	12/16/08	
Nitrate/Nitrite-N	EPA 300.0	8L16086	0.15	0.26	<b>0.87</b>	1	12/16/08	12/16/08	
Sulfate	EPA 300.0	8L15075	0.20	0.50	<b>10</b>	1	12/15/08	12/16/08	
Total Dissolved Solids	SM2540C	8L16052	10	10	<b>100</b>	1	12/16/08	12/17/08	

**TestAmerica Irvine**

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
2,3,7,8-TCDD	1613-Dioxin-HR Alta	1770	0.00000850	0.0000491	ND	1	12/17/08	12/18/08	
1,2,3,7,8-PeCDD	1613-Dioxin-HR Alta	1770	0.00005230	0.000245	ND	1	12/17/08	12/18/08	
1,2,3,4,7,8-HxCDD	1613-Dioxin-HR Alta	1770	0.00005160	0.000245	ND	1	12/17/08	12/18/08	
<b>1,2,3,6,7,8-HxCDD</b>	1613-Dioxin-HR Alta	1770	0.00001690	0.000245	<b>0.0000681</b>	1	12/17/08	12/18/08	Jb
1,2,3,7,8,9-HxCDD	1613-Dioxin-HR Alta	1770	0.00005480	0.000245	ND	1	12/17/08	12/18/08	
<b>1,2,3,4,6,7,8-HpCDD</b>	1613-Dioxin-HR Alta	1770	0.00002010	0.000245	<b>0.000138</b>	1	12/17/08	12/18/08	
<b>OCDD</b>	1613-Dioxin-HR Alta	1770	0.00002450	0.000491	<b>0.00144</b>	1	12/17/08	12/18/08	
2,3,7,8-TCDF	1613-Dioxin-HR Alta	1770	0.00000920	0.0000491	ND	1	12/17/08	12/18/08	
1,2,3,7,8-PeCDF	1613-Dioxin-HR Alta	1770	0.00002130	0.000245	ND	1	12/17/08	12/18/08	
2,3,4,7,8-PeCDF	1613-Dioxin-HR Alta	1770	0.00002420	0.000245	ND	1	12/17/08	12/18/08	
1,2,3,4,7,8-HxCDF	1613-Dioxin-HR Alta	1770	0.000002	0.0000245	ND	1	12/17/08	12/18/08	
1,2,3,6,7,8-HxCDF	1613-Dioxin-HR Alta	1770	0.00002430	0.000245	ND	1	12/17/08	12/18/08	
2,3,4,6,7,8-HxCDF	1613-Dioxin-HR Alta	1770	0.00002960	0.000245	ND	1	12/17/08	12/18/08	
1,2,3,7,8,9-HxCDF	1613-Dioxin-HR Alta	1770	0.00001380	0.000245	ND	1	12/17/08	12/18/08	
<b>1,2,3,4,6,7,8-HpCDF</b>	1613-Dioxin-HR Alta	1770	0.00001700	0.000245	<b>0.0000296</b>	1	12/17/08	12/18/08	
1,2,3,4,7,8,9-HpCDF	1613-Dioxin-HR Alta	1770	0.00003060	0.000245	ND	1	12/17/08	12/18/08	
<b>OCDF</b>	1613-Dioxin-HR Alta	1770	0.00003660	0.000491	<b>0.0000849</b>	1	12/17/08	12/18/08	
Total TCDD	1613-Dioxin-HR Alta	1770	0.00000850	0.0000491	ND	1	12/17/08	12/18/08	
Total PeCDD	1613-Dioxin-HR Alta	1770	0.0000523	0.0000245	ND	1	12/17/08	12/18/08	
<b>Total HxCDD</b>	1613-Dioxin-HR Alta	1770	0.0000169	0.0000245	<b>0.0000336</b>	1	12/17/08	12/18/08	
<b>Total HpCDD</b>	1613-Dioxin-HR Alta	1770	0.0000201	0.0000245	<b>0.000381</b>	1	12/17/08	12/18/08	
Total TCDF	1613-Dioxin-HR Alta	1770	0.00000920	0.0000491	ND	1	12/17/08	12/18/08	
<b>Total PeCDF</b>	1613-Dioxin-HR Alta	1770	0.0000213	0.0000245	<b>0.00000842</b>	1	12/17/08	12/18/08	
<b>Total HxCDF</b>	1613-Dioxin-HR Alta	1770	0.0000138	0.0000245	<b>0.0000290</b>	1	12/17/08	12/18/08	
<b>Total HpCDF</b>	1613-Dioxin-HR Alta	1770	0.000017	0.0000245	<b>0.0000795</b>	1	12/17/08	12/18/08	

Surrogate: 13C-2,3,7,8-TCDD (25-164%)	105 %
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)	109 %
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)	89.6 %
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)	98.2 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)	93.9 %
Surrogate: 13C-OCDD (17-157%)	77 %
Surrogate: 13C-2,3,7,8-TCDF (24-169%)	99.4 %
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)	103 %
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)	100 %
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)	98.8 %
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)	87.9 %
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)	87 %
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)	95 %
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)	82.8 %
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)	84.5 %
Surrogate: 13C-OCDF (17-157%)	79.7 %

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Trupti Mistry For Joseph Doak  
Project Manager

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618 Michillinda Avenue, Suite 200  
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Attention: Bronwyn Kelly

Project ID: Routine Outfall 009

Report Number: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
Reporting Units: ug/L									
Surrogate: 37Cl-2,3,7,8-TCDD (35-197%)					92.8 %				

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## MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
Reporting Units: ug/L									
Mercury	MCAWW 245.1	8353495	0.027	0.2	<b>0.073</b>	1	12/18/08	12/18/08	J

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Received: 12/15/08

## MCAWW 245.1-Diss

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRL1711-01 (Outfall 009 - Water) - cont.</b>									
<b>Reporting Units: ug/L</b>									
Mercury-diss	MCAWW 245.1-Diss	8353517	0.027	0.2	ND	1	12/18/08	12/18/08	

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Sampled: 12/15/08

Received: 12/15/08

## 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 (IRL1711-01) - Water</b> EPA 300.0	2	12/15/2008 09:55	12/15/2008 18:15	12/16/2008 13:00	12/16/2008 14:30

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Sampled: 12/15/08  
 Received: 12/15/08

## 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: 8L16092 Extracted: 12/16/08</b>											
<b>Blank Analyzed: 12/17/2008 (8L16092-BLK1)</b>											
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
<b>LCS Analyzed: 12/17/2008 (8L16092-BS1)</b>											
Antimony	83.1	2.0	0.20	ug/l	80.0		104	85-115			
Cadmium	81.2	1.0	0.11	ug/l	80.0		101	85-115			
Copper	78.8	2.0	0.75	ug/l	80.0		99	85-115			
Lead	79.1	1.0	0.30	ug/l	80.0		99	85-115			
Thallium	81.4	1.0	0.20	ug/l	80.0		102	85-115			
<b>Matrix Spike Analyzed: 12/17/2008 (8L16092-MS1) Source: IRL1721-01</b>											
Antimony	82.4	2.0	0.20	ug/l	80.0	2.39	100	70-130			
Cadmium	79.8	1.0	0.11	ug/l	80.0	2.50	97	70-130			
Copper	81.9	2.0	0.75	ug/l	80.0	4.87	96	70-130			
Lead	81.9	1.0	0.30	ug/l	80.0	2.16	100	70-130			
Thallium	85.6	1.0	0.20	ug/l	80.0	ND	107	70-130			
<b>Matrix Spike Analyzed: 12/17/2008 (8L16092-MS2) Source: IRL1706-01</b>											
Antimony	84.1	2.0	0.20	ug/l	80.0	0.415	105	70-130			
Cadmium	81.1	1.0	0.11	ug/l	80.0	ND	101	70-130			
Copper	78.8	2.0	0.75	ug/l	80.0	0.930	97	70-130			
Lead	82.0	1.0	0.30	ug/l	80.0	ND	102	70-130			
Thallium	84.1	1.0	0.20	ug/l	80.0	ND	105	70-130			
<b>Matrix Spike Dup Analyzed: 12/17/2008 (8L16092-MSD1) Source: IRL1721-01</b>											
Antimony	86.2	2.0	0.20	ug/l	80.0	2.39	105	70-130	5	20	
Cadmium	82.8	1.0	0.11	ug/l	80.0	2.50	100	70-130	4	20	
Copper	84.2	2.0	0.75	ug/l	80.0	4.87	99	70-130	3	20	
Lead	86.4	1.0	0.30	ug/l	80.0	2.16	105	70-130	5	20	
Thallium	90.1	1.0	0.20	ug/l	80.0	ND	113	70-130	5	20	

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8L17121 Extracted: 12/17/08</b>											
<b>Blank Analyzed: 12/18/2008 (8L17121-BLK1)</b>											
Antimony	0.481	2.0	0.20	ug/l							J
Cadmium	ND	1.0	0.11	ug/l							
Copper	1.97	2.0	0.75	ug/l							J
Lead	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
<b>LCS Analyzed: 12/18/2008 (8L17121-BS1)</b>											
Antimony	82.2	2.0	0.20	ug/l	80.0		103	85-115			
Cadmium	81.0	1.0	0.11	ug/l	80.0		101	85-115			
Copper	81.1	2.0	0.75	ug/l	80.0		101	85-115			
Lead	85.0	1.0	0.30	ug/l	80.0		106	85-115			
Thallium	89.6	1.0	0.20	ug/l	80.0		112	85-115			
<b>Matrix Spike Analyzed: 12/18/2008 (8L17121-MS1) Source: IRL1362-01</b>											
Antimony	79.1	2.0	0.20	ug/l	80.0	0.572	98	70-130			
Cadmium	74.4	1.0	0.11	ug/l	80.0	ND	93	70-130			
Copper	72.4	2.0	0.75	ug/l	80.0	1.31	89	70-130			
Lead	75.0	1.0	0.30	ug/l	80.0	ND	94	70-130			
Thallium	79.7	1.0	0.20	ug/l	80.0	ND	100	70-130			
<b>Matrix Spike Dup Analyzed: 12/18/2008 (8L17121-MSD1) Source: IRL1362-01</b>											
Antimony	88.0	2.0	0.20	ug/l	80.0	0.572	109	70-130	11	20	
Cadmium	82.4	1.0	0.11	ug/l	80.0	ND	103	70-130	10	20	
Copper	79.1	2.0	0.75	ug/l	80.0	1.31	97	70-130	9	20	
Lead	81.5	1.0	0.30	ug/l	80.0	ND	102	70-130	8	20	
Thallium	88.2	1.0	0.20	ug/l	80.0	ND	110	70-130	10	20	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8L15075 Extracted: 12/15/08</b>											
<b>Blank Analyzed: 12/15/2008 (8L15075-BLK1)</b>											
Chloride	ND	0.50	0.25	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
<b>LCS Analyzed: 12/15/2008 (8L15075-BS1)</b>											
Chloride	4.94	0.50	0.25	mg/l	5.00		99	90-110			
Sulfate	10.1	0.50	0.20	mg/l	10.0		101	90-110			
<b>Matrix Spike Analyzed: 12/15/2008 (8L15075-MS1)</b>											
						<b>Source: IRL1621-01</b>					
Chloride	116	20	10	mg/l	50.0	71.2	89	80-120			
Sulfate	845	20	8.0	mg/l	100	757	88	80-120			MHA
<b>Matrix Spike Analyzed: 12/15/2008 (8L15075-MS2)</b>											
						<b>Source: IRL1706-01</b>					
Chloride	5.40	0.50	0.25	mg/l	5.00	0.625	95	80-120			
Sulfate	14.0	0.50	0.20	mg/l	10.0	4.57	95	80-120			
<b>Matrix Spike Dup Analyzed: 12/15/2008 (8L15075-MSD1)</b>											
						<b>Source: IRL1621-01</b>					
Chloride	111	20	10	mg/l	50.0	71.2	80	80-120	4	20	
Sulfate	834	20	8.0	mg/l	100	757	77	80-120	1	20	MHA
<b>Batch: 8L16052 Extracted: 12/16/08</b>											
<b>Blank Analyzed: 12/16/2008 (8L16052-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 12/16/2008 (8L16052-BS1)</b>											
Total Dissolved Solids	996	10	10	mg/l	1000		100	90-110			

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8L16052 Extracted: 12/16/08</b>											
<b>Duplicate Analyzed: 12/16/2008 (8L16052-DUP1)</b>						<b>Source: IRL1707-01</b>					
Total Dissolved Solids	569	10	10	mg/l		577			1	10	
<b>Batch: 8L16086 Extracted: 12/16/08</b>											
<b>Blank Analyzed: 12/16/2008 (8L16086-BLK1)</b>											
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
<b>Batch: 8L19123 Extracted: 12/19/08</b>											
<b>Blank Analyzed: 12/19/2008 (8L19123-BLK1)</b>											
Hexane Extractable Material (Oil & Grease)	3.50	5.0	1.4	mg/l							J
<b>LCS Analyzed: 12/19/2008 (8L19123-BS1)</b>											
Hexane Extractable Material (Oil & Grease)	21.4	5.0	1.4	mg/l	20.2		106	78-114			MNR1
<b>LCS Dup Analyzed: 12/19/2008 (8L19123-BSD1)</b>											
Hexane Extractable Material (Oil & Grease)	21.9	5.0	1.4	mg/l	20.2		108	78-114	2	11	

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### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Data Qualifiers
<b>Batch: 1770 Extracted: 12/17/08</b>											
<b>Blank Analyzed: 12/18/2008 (MB001)</b>						<b>Source:</b>					
2,3,7,8-TCDD	ND	0.0000500	0.0000095	ug/L				50-150		25	
1,2,3,7,8-PeCDD	ND	0.0000250	0.0000025	ug/L				50-150		25	
1,2,3,4,7,8-HxCDD	ND	0.0000250	0.00000182	ug/L				50-150		25	
1,2,3,6,7,8-HxCDD	ND	0.0000250	0.00000171	ug/L				50-150		25	
1,2,3,7,8,9-HxCDD	ND	0.0000250	0.00000164	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDD	ND	0.0000250	0.00000279	ug/L				50-150		25	
OCDD	ND	0.0000500	0.0000043	ug/L				50-150		25	
2,3,7,8-TCDF	ND	0.0000500	0.00000887	ug/L				50-150		25	
1,2,3,7,8-PeCDF	ND	0.0000250	0.00000118	ug/L				50-150		25	
2,3,4,7,8-PeCDF	ND	0.0000250	0.00000107	ug/L				50-150		25	
1,2,3,4,7,8-HxCDF	ND	0.0000250	0.00000051	ug/L				50-150		25	
1,2,3,6,7,8-HxCDF	ND	0.0000250	0.00000059	ug/L				50-150		25	
2,3,4,6,7,8-HxCDF	ND	0.0000250	0.00000069	ug/L				50-150		25	
1,2,3,7,8,9-HxCDF	ND	0.0000250	0.00000105	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDF	ND	0.0000250	0.00000153	ug/L				50-150		25	
1,2,3,4,7,8,9-HpCDF	ND	0.0000250	0.00000182	ug/L				50-150		25	
OCDF	ND	0.0000500	0.00000159	ug/L				50-150		25	
Total TCDD	ND	0.00000500	0.00000958	ug/L				50-150		25	
Total PeCDD	ND	0.0000250	0.0000025	ug/L				50-150		25	
Total HxCDD	ND	0.0000250	0.00000164	ug/L				50-150		25	
Total HpCDD	ND	0.0000250	0.00000279	ug/L				50-150		25	
Total TCDF	ND	0.00000500	0.00000887	ug/L				50-150		25	
Total PeCDF	ND	0.0000250	0.00000107	ug/L				50-150		25	
Total HxCDF	ND	0.0000250	0.000000512	ug/L				50-150		25	
Total HpCDF	ND	0.0000250	0.00000153	ug/L				50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	0.00188			ug/L	2000		94	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00202			ug/L	2000		101	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00169			ug/L	2000		84	50-150			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00191			ug/L	2000		96	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00179			ug/L	2000		90	50-150			
Surrogate: 13C-OCDD	0.00297			ug/L	4000		74	50-150			
Surrogate: 13C-2,3,7,8-TCDF	0.00186			ug/L	2000		93	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00180			ug/L	2000		90	50-150			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00194			ug/L	2000		97	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00182			ug/L	2000		91	50-150			

**TestAmerica Irvine**

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
 Received: 12/15/08

## METHOD BLANK/QC DATA

### DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
<b>Batch: 1770 Extracted: 12/17/08</b>											
<b>Blank Analyzed: 12/18/2008 (MB001)</b>											
<b>Source:</b>											
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00172			ug/L	2000		86	50-150			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00174			ug/L	2000		87	50-150			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00180			ug/L	2000		90	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00160			ug/L	2000		80	50-150			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.00166			ug/L	2000		83	50-150			
Surrogate: 13C-OCDF	0.00312			ug/L	4000		78	50-150			
Surrogate: 37Cl-2,3,7,8-TCDD	0.000760			ug/L	800		95	50-150			
<b>LCS Analyzed: 12/18/2008 (OPR001)</b>											
<b>Source:</b>											
2,3,7,8-TCDD	8.63	5.00	0.840	ug/L	10		86	50-150		25	
1,2,3,7,8-PeCDD	47.8	25.0	1.59	ug/L	50		96	50-150		25	
1,2,3,4,7,8-HxCDD	46.8	25.0	1.18	ug/L	50		94	50-150		25	
1,2,3,6,7,8-HxCDD	46.3	25.0	1.69	ug/L	50		93	50-150		25	
1,2,3,7,8,9-HxCDD	45.7	25.0	1.18	ug/L	50		91	50-150		25	
1,2,3,4,6,7,8-HpCDD	46.3	25.0	2.01	ug/L	50		93	50-150		25	
OCDD	95.6	50.0	2.45	ug/L	100		96	50-150		25	
2,3,7,8-TCDF	8.58	5.00	0.970	ug/L	10		86	50-150		25	
1,2,3,7,8-PeCDF	46.7	25.0	1.09	ug/L	50		93	50-150		25	
2,3,4,7,8-PeCDF	48.7	25.0	1.48	ug/L	50		97	50-150		25	
1,2,3,4,7,8-HxCDF	45.2	25.0	1.06	ug/L	50		90	50-150		25	
1,2,3,6,7,8-HxCDF	47.5	25.0	0.730	ug/L	50		95	50-150		25	
2,3,4,6,7,8-HxCDF	45.7	25.0	1.26	ug/L	50		91	50-150		25	
1,2,3,7,8,9-HxCDF	46.6	25.0	0.940	ug/L	50		93	50-150		25	
1,2,3,4,6,7,8-HpCDF	45.0	25.0	1.70	ug/L	50		90	50-150		25	
1,2,3,4,7,8,9-HpCDF	44.9	25.0	0.960	ug/L	50		90	50-150		25	
OCDF	89.5	50.0	3.66	ug/L	100		90	50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	89.2			ug/L	100		89	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDD	96.7			ug/L	100		97	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	77.1			ug/L	100		77	50-150			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	91.1			ug/L	100		91	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	84.0			ug/L	100		84	50-150			
Surrogate: 13C-OCDD	136			ug/L	200		68	50-150			
Surrogate: 13C-2,3,7,8-TCDF	88.6			ug/L	100		89	50-150			
Surrogate: 13C-1,2,3,7,8-PeCDF	88.4			ug/L	100		88	50-150			
Surrogate: 13C-2,3,4,7,8-PeCDF	91.1			ug/L	100		91	50-150			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	88.6			ug/L	100		89	50-150			

**TestAmerica Irvine**

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## 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: 1770 Extracted: 12/17/08</b>											
<b>LCS Analyzed: 12/18/2008 (OPR001)</b>											
Surrogate: 13C-1,2,3,6,7,8-HxCDF	81.1			ug/L	100		81	50-150			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	81.0			ug/L	100		81	50-150			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	83.5			ug/L	100		84	50-150			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	74.7			ug/L	100		75	50-150			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	79.5			ug/L	100		80	50-150			
Surrogate: 13C-OCDF	146			ug/L	200		73	50-150			
Surrogate: 37Cl-2,3,7,8-TCDD	33.6			ug/L	40		84	50-150			

TestAmerica Irvine

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08

Received: 12/15/08

## METHOD BLANK/QC DATA

### MCAWW 245.1

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8353495 Extracted: 12/18/08</b>											
<b>Matrix Spike Dup Analyzed: 12/18/2008 (D8L170200001D)</b>						<b>Source: D8L170200001</b>					
Mercury	4.64	0.2	0.027	ug/L	5	ND	93	90-110	9	10	
<b>Matrix Spike Analyzed: 12/18/2008 (D8L170200001S)</b>						<b>Source: D8L170200001</b>					
Mercury	4.24	0.2	0.027	ug/L	5	ND	85	90-110	9	10	N
<b>Blank Analyzed: 12/18/2008 (D8L180000495B)</b>						<b>Source:</b>					
Mercury	ND	0.2	0.027	ug/L				-			
<b>LCS Analyzed: 12/18/2008 (D8L180000495C)</b>						<b>Source:</b>					
Mercury	4.59	0.2	0.027	ug/L	5		92	90-110			

**TestAmerica Irvine**

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
 Received: 12/15/08

## METHOD BLANK/QC DATA

### MCAWW 245.1-Diss

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8353517 Extracted: 12/18/08</b>											
<b>Matrix Spike Dup Analyzed: 12/18/2008 (D8L170200001D)</b>						<b>Source: D8L170200001</b>					
Mercury-diss	4.37	0.2	0.027	ug/L	5	ND	87	90-110	9	10	N
<b>Matrix Spike Analyzed: 12/18/2008 (D8L170200001S)</b>						<b>Source: D8L170200001</b>					
Mercury-diss	4.8	0.2	0.027	ug/L	5	ND	96	90-110	9	10	
<b>Blank Analyzed: 12/18/2008 (D8L180000517B)</b>						<b>Source:</b>					
Mercury-diss	ND	0.2	0.027	ug/L				-			
<b>LCS Analyzed: 12/18/2008 (D8L180000517C)</b>						<b>Source:</b>					
Mercury-diss	4.63	0.2	0.027	ug/L	5		93	90-110			

TestAmerica Irvine

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## Compliance Check

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

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IRL1711-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	3.94	4.8	15
IRL1711-01	Antimony-200.8	Antimony	ug/l	1.74	2.0	6
IRL1711-01	Cadmium-200.8	Cadmium	ug/l	0.54	1.0	4
IRL1711-01	Chloride - 300.0	Chloride	mg/l	11	0.50	150
IRL1711-01	Copper-200.8	Copper	ug/l	12	2.0	14
<b>IRL1711-01</b>	<b>Lead-200.8</b>	<b>Lead</b>	<b>ug/l</b>	<b>19</b>	<b>1.0</b>	<b>5.2</b>
IRL1711-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.87	0.26	10
IRL1711-01	Sulfate-300.0	Sulfate	mg/l	10	0.50	250
IRL1711-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	102	10	850
IRL1711-01	Thallium-200.8	Thallium	ug/l	0.073	1.0	2

### TestAmerica Irvine

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## DATA QUALIFIERS AND DEFINITIONS

- B** Analyte was detected in the associated Method Blank.
- 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.
- Jb** The amount detected is below the Lower Calibration Limit of the instrument
- MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- N** Spike sample recovery is outside control limits.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

### TestAmerica Irvine

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
SM2540C	Water	X	

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

### Subcontracted Laboratories

#### Alta Analytical Perspectives

2714 Exchange Drive - Wilmington, NC 28405

Method Performed: 1613-Dioxin-HR Alta  
Samples: IRL1711-01

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

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chnric  
Samples: IRL1711-01

#### TestAmerica Denver

4955 Yarrow Street - Arvada, CO 80002

Method Performed: MCAWW 245.1  
Samples: IRL1711-01

Method Performed: MCAWW 245.1-Diss  
Samples: IRL1711-01

### TestAmerica Irvine

Trupti Mistry For 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: IRL1711

Sampled: 12/15/08  
Received: 12/15/08

## TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Analysis Performed: Gamma Spec  
Samples: IRL1711-01

Analysis Performed: Gross Alpha  
Samples: IRL1711-01

Analysis Performed: Gross Beta  
Samples: IRL1711-01

Analysis Performed: Radium, Combined  
Samples: IRL1711-01

Analysis Performed: Strontium 90  
Samples: IRL1711-01

Analysis Performed: Tritium  
Samples: IRL1711-01

Analysis Performed: Uranium, Combined  
Samples: IRL1711-01

## 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: IRL1711-01

## TestAmerica Irvine

Trupti Mistry For Joseph Doak  
Project Manager

# CHAIN OF CUSTODY FORM

Test America Version 12/20/07

<b>Client Name/Address:</b> MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak		<b>Project:</b> Boeing-SSFL NPDES <b>Routine Outfall 009</b> Stormwater at WS-13		<b>Project Manager:</b> Bronwyn Kelly Phone Number: (626) 568-6691 Fax Number: (626) 568-6515		<b>Field readings:</b> Temp = 47 pH = 7.15 Time of readings = 0955		IRU711					
<b>Sampler:</b> R. B. AMG		ANALYSIS REQUIRED		Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl		Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl		Comments					
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	TCD (and all congeners)	Oil & Grease (1664-HEM)	CF, SO <sub>4</sub> , NO <sub>3</sub> +NO <sub>2</sub> -N	TDS	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Unfiltered and unpreserved analysis
Outfall 009	W	1L Poly	1	12/15/08 09:55	HNO <sub>3</sub>	1A	X						
Outfall 009-Dup	W	1L Poly	1	12/15/08 09:55	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		X					
Outfall 009	W	500 ml Poly	2		None	4A, 4B			X				
Outfall 009	W	500 ml Poly	1		None	5				X			
Outfall 009	W	2.5 Gal Cube 500 ml Amber	1		None	6A					X		
Outfall 009	W	500 ml Amber	1		None	6B						X	
Outfall 009	W	1 Gal Poly	1	12/15/08 09:55	None	7							Test first and second rain event of the season
Outfall 009	W	1L Poly	1	12/15/08 09:55	None	8							Filter w/in 24hrs of receipt at lab
Relinquished By		Date/Time:		Received By		Date/Time:		Turn around Time: (check)		Sample Integrity: (check)		Data Requirements: (check)	
[Signature]		12/15/08		[Signature]		12/15/08 1530		24 Hours <input checked="" type="checkbox"/> 5 Days <input type="checkbox"/>		Intact <input checked="" type="checkbox"/> On Ice: <input type="checkbox"/>		No Level IV <input type="checkbox"/> All Level IV <input type="checkbox"/>	
Relinquished By		Date/Time:		Received By		Date/Time:		NPDES Level IV <input checked="" type="checkbox"/>					
[Signature]		12/15/08		[Signature]		12/15/08 1815							
Relinquished By		Date/Time:		Received By		Date/Time:							
[Signature]		12/15/08		[Signature]		12/15/08 1815							

**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## **ANALYTICAL REPORT**

**MWH-Pasadena / Boeing**

**Lot D8L170208**

**Project IRL1711**

**Joseph Doak  
17461 Derian Avenue  
Suite 100  
Irvine, CA 92614**

**TestAmerica Laboratories, Inc.**

  
**Danielle Fougère  
Project Manager**

**December 22, 2008**

787

## Case Narrative

Enclosed is the report for one sample received at TestAmerica Laboratories, Inc. – Denver laboratory on December 17, 2008. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

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

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

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

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## Quality Control Summary for Lot D8L170208

### **Sample Receiving**

The cooler temperature for the sample received on December 17, 2008 at the Denver laboratory was 2.6°C. All sample containers were received in acceptable condition.

### **Total Mercury –Method 245.1**

Matrix spike analyses for QC batch 8353495 were performed on a sample from another client and/or lot, and were outside control limits.

No other anomalies were observed.

### **Dissolved Mercury –Method 245.1**

Matrix spike analyses for QC batch 8353517 were performed on a sample from another client and/or lot, and were outside control limits.

No other anomalies were observed.

## Quality Control Definitions of Qualifiers

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

216  
ALB  
JRI  
12/17/08

**SUBCONTRACT ORDER**  
**TestAmerica Irvine**  
**IRL1711**

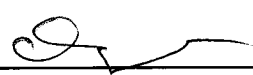
**SENDING LABORATORY:**

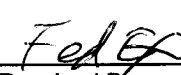
TestAmerica Irvine  
17461 Derian Avenue. Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak  
Client: MWH-Pasadena/Boeing

**RECEIVING LABORATORY:**

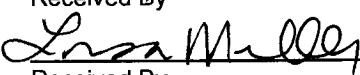
TestAmerica Denver  
4955 Yarrow Street  
Arvada, CO 80002  
Phone : (303) 736-0100  
Fax: (303) 431-7171  
Project Location: CA - CALIFORNIA  
Receipt Temperature: \_\_\_\_\_ °C      Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
<b>Sample ID: IRL1711-01</b>	<b>Water</b>					<b>Sampled: 12/15/08 09:55      Instant Notification</b>
Level 4 + EDD-OUT	N/A	12/22/08	01/12/09 09:55	\$0.00	25%	Sub Denver, transfer file EDD
Mercury - 245.1, Diss -OUT	ug/l	12/22/08	01/12/09 09:55	\$36.00	25%	Denver, Boeing, J flags
Mercury - 245.1-OUT	ug/l	12/22/08	01/12/09 09:55	\$36.00	25%	Denver, Boeing, permit, J flags,
<b>Containers Supplied:</b>						
1 L Poly w/HNO3 (B)	125 mL Poly (N)					

  
Released By \_\_\_\_\_  
Date/Time 12/16/08 17:00

  
Received By \_\_\_\_\_  
Date/Time 12/16/08 17:00

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

  
Received By \_\_\_\_\_  
Date/Time 12/17/08 0945  
790  
Page 1 of 1



TestAmerica Denver  
Sample Receiving Checklist

Lot #: D82170208 Date/Time Received: 12/17/08 0945

Company Name & Sampling Site: TA Irvine

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

Quote #: 72743

Special Instructions:

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

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 2.6

N/A Yes No

*Initials*  
DL

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

TestAmerica Denver  
Sample Receiving Checklist

Lot # D8L170208

**Login Checks:**

Initials

GM

N/A Yes No

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

**Labeling and Storage Checks:**

Initials

AS

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

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

# EXECUTIVE SUMMARY - Detection Highlights

D8L170208

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
IRL1711-01 12/15/08 09:55 001				
Mercury	0.073 J	0.20	ug/L	MCAWW 245.1

# METHODS SUMMARY

D8L170208

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

## References:

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

# METHOD / ANALYST SUMMARY

D8L170208

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

## References:

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

# SAMPLE SUMMARY

D8L170208

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
K4VW3	001	IRL1711-01	12/15/08	09:55

**NOTE (S) :**

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

# QC DATA ASSOCIATION SUMMARY

D8L170208

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 245.1		8353495	8353297
	WATER	MCAWW 245.1		8353517	8353310

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## Total Metals

Lot ID: D8L170208

Client: TestAmerica Irvine

Method: 245.1

Associated Samples: 001

Batch: 8353495



TOTAL Metals  
COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D8L170208  
Lab Code: \_\_\_\_\_ Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_  
SOW No.: \_\_\_\_\_

Sample ID. Lab Sample No.  
IRL1711-01 D8L170208-001

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

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

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

Signature: *Yongming Ding* Name: Yongming Ding  
Date: 12/20/2008 Title: Analyst V 799

## TestAmerica Irvine

### Total Metals Analysis Data Sheet

<b>Lab Name:</b>	<u>TESTAMERICA DENVER</u>	<b>Client Sample ID:</b>	<u>IRL1711-01</u>
<b>Lot/SDG Number:</b>	<u>D8L170208</u>	<b>Lab Sample ID:</b>	<u>D8L170208-001</u>
<b>Matrix:</b>	<u>WATER</u>	<b>Lab WorkOrder:</b>	<u>K4VW3</u>
<b>% Moisture:</b>	<u>N/A</u>	<b>Date/Time Collected:</b>	<u>12/15/08 09:55</u>
<b>Basis:</b>	<u>Wet</u>	<b>Date/Time Received:</b>	<u>12/17/08 09:45</u>
<b>Analysis Method:</b>	<u>245.1</u>	<b>Date Leached:</b>	
<b>Unit:</b>	<u>ug/L</u>	<b>Date/Time Extracted:</b>	<u>12/18/08 16:30</u>
<b>QC Batch ID:</b>	<u>8353495</u>	<b>Date/Time Analyzed:</b>	<u>12/18/08 21:34</u>
<b>Sample Aliquot:</b>	<u>10 mL</u>	<b>Instrument ID:</b>	<u>023</u>
<b>Dilution Factor:</b>	<u>1</u>		

CAS No.	Analyte	Conc.	MDL	RL	Q
7439-97-6	Mercury	0.073	0.027	0.20	J