

# **APPENDIX G**

## **Section 73**

Outfall 011, January 27, 2008

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



# DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRA2565

Prepared by

MEC<sup>X</sup>, LLC  
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Aurora, CO 80014

**I. INTRODUCTION**

Task Order Title: Boeing SSFL NPDES  
 Contract Task Order: 1261.100D.00  
 Sample Delivery Group: IRA2565  
 Project Manager: B. Kelly  
 Matrix: Soil  
 QC Level: IV  
 No. of Samples: 2  
 No. of Reanalyses/Dilutions: 0  
 Laboratory: TestAmerica-Irvine

**Table 1. Sample Identification**

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 011	IRA2565-01	30207-001, 8692-001, 8012803-01	Water	01/27/08 0900	120.1, 160.2, 160.5, 180.1, 200.8, 245.1, 624, 625, 900.0, 901.1, 903.1, 904.0, 905.0, 906.0, 1613, ASTM D-5174
Trip Blank	IRA2565-02	N/A	Water	N/A	624

**II. Sample Management**

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine within the temperature limits of 4°C ±2°C. The sample was received below the temperature limit at Vista; however, the sample was not noted to have been frozen. The sample was received above the temperature limit at Weck; however, mercury is not considered volatile. According to the case narrative for this SDG, the sample was received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at Vista. No custody seals were present upon arrival at Weck. If necessary, the client ID was added to the sample result summary by the reviewer.

### Data Qualifier Reference Table

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

### Qualification Code Reference Table

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

**Qualification Code Reference Table Cont.**

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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: March 2, 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 HpCDD was detected in the method blank above the EDL. The result in the sample was qualified as estimated, "J," as a portion of the reported total HpCDD was

considered to be method blank contamination. The method blank had no other target compound detects above the EDL.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Any EMPC value was qualified as an estimated nondetect, "UJ." Nondetects are valid to the estimated detection limit (EDL).

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

Reviewed By: P. Meeks

Date Reviewed: March 10, 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 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.
- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were  $\leq 5\%$ , and all masses of interest were calibrated to  $\leq 0.1$  amu and  $\leq 0.9$  amu at 10% peak height.



- Calibration: Calibration criteria were met. Mercury initial calibration  $r^2$  values were  $\geq 0.995$ . A bracketing lead CCV was recovered above the control limit at 115%; however, lead was not detected in the site sample. All remaining initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. The mercury MDL check standard was recovered at 66%; therefore, nondetected mercury in the sample was qualified as estimated, "UJ." The remaining CRI recoveries were within the control limits of 70-130%.
- Blanks: Zinc was detected in the method blank associated with the dissolved metals analyses at 2.87  $\mu\text{g/L}$ ; therefore zinc detected in the dissolved metal aliquot was qualified as an estimated nondetect, "UJ." There were no other applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with the 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 performed on the sample in this SDG for mercury only. The recoveries and RPDs were within the laboratory-established control limits. Evaluation of the ICP-MS method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

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

### C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: March 5, 2008

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

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

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

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The internal spike efficiency to default efficiency ratios was near 1, indicating that quenching did not occur.

The strontium chemical yield was at least 70% and was considered acceptable. The strontium continuing calibration results were within the laboratory control limits.

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

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

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

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

#### **D. EPA METHOD 625—Semivolatile Organic Compounds (SVOCs)**

Reviewed By: L. Calvin

Date Reviewed: March 9, 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 Semivolatile Organics (DVP-3, Rev. 0)*, *EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within seven days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. Samples were analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria were met. Initial calibration average RRFs were  $\geq 0.05$  and %RSDs  $\leq 35\%$ . Continuing calibration RRFs were  $\geq 0.05$  and %Ds  $\leq 20\%$ .
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample of this SDG. Evaluation of method accuracy and precision was based on LSC/LSCD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and  $\pm 30$  seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for five semivolatile target compounds by EPA Method 625. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

## E. EPA METHOD 624—Volatile Organic Compounds (VOCs)

Reviewed By: L. Calvin

Date Reviewed: March 9, 2008

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>X</sup> Data Validation Procedure for Volatile Organics (DVP-2, Rev. 0)*, *EPA Method 8260B*, and the *National Functional Guidelines for Organic Data Review (2/94)*.

- Holding Times: Analytical holding times were met. The preserved water samples were analyzed within 14 days of collection.
- GC/MS Tuning: The BFB tunes met the method abundance criteria. Samples were analyzed within 12 hours of the BFB injection time.
- Calibration: Calibration criteria were met. For applicable target compounds, initial calibration average RRFs were  $\geq 0.05$  and %RSDs  $\leq 35\%$ . Continuing calibration RRFs were  $\geq 0.05$  and %Ds  $\leq 20\%$ .
- Blanks: The method blank had no target compound detects above the MDL.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on site sample Outfall 011. Recoveries and RPDs were within laboratory-established QC limits.
- 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:
  - Trip Blanks: Sample Trip Blank was the trip blank associated with site sample Outfall 011. The trip blank had no target compound detects above the MDL.
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards:  $-50\%/+100\%$  for internal standard areas and  $\pm 30$  seconds for retention times.

- **Compound Identification:** Compound identification was verified. The laboratory analyzed for 15 volatile target compounds by EPA Method 624. Review of the sample chromatograms, retention times, and spectra indicated no problems with target compound identification.
- **Compound Quantification and Reported Detection Limits:** Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- **Tentatively Identified Compounds:** TICs were not reported by the laboratory for this SDG.
- **System Performance:** Review of the raw data indicated no problems with system performance.

## F. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 7, 2008

The sample listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC<sup>X</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 0)*, *EPA Methods 120.1, 160.2, 160.5, 180.1*, and the *National Functional Guidelines for Inorganic Data Review (2/94)*.

- **Holding Times:** Analytical holding times, 24 hours for conductivity, 48 hours for settleable solids and turbidity, and seven days for TSS, were met.
- **Calibration:** The conductivity and turbidity check standard recoveries were acceptable. The balance calibration logs were acceptable. Calibration is not applicable to settleable solids.
- **Blanks:** Turbidity was detected in the method blank but not at a concentration sufficient to qualify the site samples. Method blanks and CCBs had no other detects.
- **Blank Spikes and Laboratory Control Samples:** Recoveries were within laboratory-established QC limits. The LCS is not applicable to settleable solids or turbidity.
- **Laboratory Duplicates:** A laboratory duplicate analysis was performed for turbidity. The RPD was within the laboratory-established control limit.
- **Matrix Spike/Matrix Spike Duplicate:** No MS/MSD analyses were performed on the sample in this SDG. For the applicable methods, method accuracy was evaluated based on the LCS results.

- Sample Result Verification: Review is not applicable at a Level V validation. Nondetects are valid to the reporting limit. Turbidity was reported from a 5x dilution.
- 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: **IRA2565-01** *Outfall 011* EPA Method 1613

<b>Client Data</b>		<b>Sample Data</b>		<b>Laboratory Data</b>		
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	30207-001	
Project:	IRA2565	Sample Size:	1.00 L	QC Batch No.:	9921	
Date Collected:	27-Jan-08			Date Analyzed DB-5:	6-Feb-08	
Time Collected:	0900			Date Analyzed DB-225:	29-Jan-08	
					Date Extracted:	2-Feb-08
					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	0.000000921			IS 13C-2,3,7,8-TCDD	85.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000162			13C-1,2,3,7,8-PeCDD	80.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000178			13C-1,2,3,4,7,8-HxCDD	76.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000430			13C-1,2,3,6,7,8-HxCDD	76.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000685			13C-1,2,3,4,6,7,8-HpCDD	82.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000632				13C-OCDD	71.0	17 - 157	
OCDD	0.000718				13C-2,3,7,8-TCDF	86.1	24 - 169	
2,3,7,8-TCDF	ND	0.00000728			13C-1,2,3,7,8-PeCDF	84.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000101			13C-2,3,4,7,8-PeCDF	73.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000165			13C-1,2,3,4,7,8-HxCDF	93.8	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000151			13C-1,2,3,6,7,8-HxCDF	75.6	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000205			13C-2,3,4,6,7,8-HxCDF	70.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000176			13C-1,2,3,7,8,9-HxCDF	76.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000109			13C-1,2,3,4,6,7,8-HpCDF	73.3	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000149			J	13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000344			13C-OCDF	75.4	17 - 157	
OCDF	0.0000456			J	CRS 37Cl-2,3,7,8-TCDD	89.1	35 - 197	
<b>Totals</b>								
Total TCDD	ND	0.000000921						
Total PeCDD	ND	0.00000162						
Total HxCDD	0.0000117							
Total HpCDD	0.000169			B				
Total TCDF	ND	0.00000117						
Total PeCDF	ND	0.000000946						
Total HxCDF	0.00000502							
Total HpCDF	0.0000412							

**Footnotes**

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

Analyst: **MAAS** *Leave it* Approved By: **William J. Luksenburg** 08-Feb-2008 12:16



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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.										
Reporting Units: ug/l										
Cadmium	J/DWQ	EPA 200.8	8A28076	0.11	1.0	0.20	1	01/28/08	01/28/08	J
Copper		EPA 200.8	8A28076	0.75	2.0	5.3	1	01/28/08	01/28/08	
Lead		EPA 200.8	8A28076	0.30	1.0	3.9	1	01/28/08	01/28/08	
Selenium	U	EPA 200.8	8A28076	0.30	2.0	ND	1	01/28/08	01/28/08	
Zinc		EPA 200.8	8A28076	2.5	20	59	1	01/28/08	01/28/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak  
Project Manager

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
Cadmium U	EPA 200.8-Diss	8A28070	0.11	1.0	ND	1	01/28/08	01/28/08	
Copper	EPA 200.8-Diss	8A28070	0.75	2.0	4.8	1	01/28/08	01/28/08	
Lead U	EPA 200.8-Diss	8A28070	0.30	1.0	ND	1	01/28/08	01/28/08	
Selenium U	EPA 200.8-Diss	8A28070	0.30	2.0	ND	1	01/28/08	01/28/08	
Zinc VT/B	EPA 200.8-Diss	8A28070	2.5	20	8.3	1	01/28/08	01/28/08	B, J

LEVEL IV

TestAmerica Irvine

Joseph Doak  
 Project Manager

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

Project ID: Routine Outfall 011  
Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

### 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: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	
Mercury, Total	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
<b>Reporting Units: ug/l</b>									
Bis(2-ethylhexyl)phthalate	EPA 625	8A29057	1.6	4.7	ND	0.943	01/29/08	01/31/08	
2,4-Dinitrotoluene	EPA 625	8A29057	0.19	8.5	ND	0.943	01/29/08	01/31/08	
N-Nitrosodimethylamine	EPA 625	8A29057	0.094	7.5	ND	0.943	01/29/08	01/31/08	
Pentachlorophenol	EPA 625	8A29057	0.094	7.5	ND	0.943	01/29/08	01/31/08	
2,4,6-Trichlorophenol	EPA 625	8A29057	0.094	5.7	ND	0.943	01/29/08	01/31/08	
Surrogate: 2-Fluorophenol (30-120%)					72 %				
Surrogate: Phenol-d6 (35-120%)					78 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					120 %				
Surrogate: Nitrobenzene-d5 (45-120%)					78 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					85 %				
Surrogate: Terphenyl-d14 (50-125%)					108 %				

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
Carbon tetrachloride	EPA 624	8A30009	0.28	5.0	ND	1	01/30/08	01/30/08	
Chloroform	EPA 624	8A30009	0.33	2.0	ND	i	01/30/08	01/30/08	
1,1-Dichloroethane	EPA 624	8A30009	0.27	2.0	ND	1	01/30/08	01/30/08	
1,2-Dichloroethane	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethene	EPA 624	8A30009	0.42	3.0	ND	1	01/30/08	01/30/08	
Ethylbenzene	EPA 624	8A30009	0.25	2.0	ND	1	01/30/08	01/30/08	
Tetrachloroethene	EPA 624	8A30009	0.32	2.0	ND	1	01/30/08	01/30/08	
Toluene	EPA 624	8A30009	0.36	2.0	ND	i	01/30/08	01/30/08	
1,1,1-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
1,1,2-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
Trichloroethene	EPA 624	8A30009	0.26	5.0	ND	1	01/30/08	01/30/08	
Trichlorofluoromethane	EPA 624	8A30009	0.34	5.0	ND	1	01/30/08	01/30/08	
Vinyl chloride	EPA 624	8A30009	0.30	5.0	ND	1	01/30/08	01/30/08	
Xylenes, Total	EPA 624	8A30009	0.90	4.0	ND	i	01/30/08	01/30/08	
Surrogate: Dibromofluoromethane (80-120%)					107 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				

<b>Sample ID: IRA2565-02 (Trip Blanks - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
Carbon tetrachloride	EPA 624	8A30009	0.28	5.0	ND	1	01/30/08	01/30/08	
Chloroform	EPA 624	8A30009	0.33	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethane	EPA 624	8A30009	0.27	2.0	ND	1	01/30/08	01/30/08	
1,2-Dichloroethane	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethene	EPA 624	8A30009	0.42	3.0	ND	1	01/30/08	01/30/08	
Ethylbenzene	EPA 624	8A30009	0.25	2.0	ND	1	01/30/08	01/30/08	
Tetrachloroethene	EPA 624	8A30009	0.32	2.0	ND	1	01/30/08	01/30/08	
Toluene	EPA 624	8A30009	0.36	2.0	ND	1	01/30/08	01/30/08	
1,1,1-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
1,1,2-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
Trichloroethene	EPA 624	8A30009	0.26	5.0	ND	1	01/30/08	01/30/08	
Trichlorofluoromethane	EPA 624	8A30009	0.34	5.0	ND	1	01/30/08	01/30/08	
Vinyl chloride	EPA 624	8A30009	0.30	5.0	ND	1	01/30/08	01/30/08	
Xylenes, Total	EPA 624	8A30009	0.90	4.0	ND	1	01/30/08	01/30/08	
Surrogate: Dibromofluoromethane (80-120%)					104 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				

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 Arcadia, CA 91007  
 Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B05016	1.3	4.8	1.6	1	02/05/08	02/05/08	J
Ammonia-N (Distilled)	EPA 350.2	8A29110	0.30	0.50	ND	1	01/29/08	01/29/08	
Biochemical Oxygen Demand	EPA 405.1	8A28120	0.59	2.0	2.2	1	01/28/08	02/02/08	
Chloride	EPA 300.0	8A28061	0.25	0.50	4.8	1	01/28/08	01/28/08	
Nitrate-N	EPA 300.0	8A28061	0.060	0.11	3.5	1	01/28/08	01/28/08	
Nitrite-N	EPA 300.0	8A28061	0.090	0.15	ND	1	01/28/08	01/28/08	
Nitrate/Nitrite-N	EPA 300.0	8A28061	0.15	0.26	3.5	1	01/28/08	01/28/08	
Sulfate	EPA 300.0	8A28061	0.20	0.50	9.0	1	01/28/08	01/28/08	
Surfactants (MBAS)	SM5540-C	8A28127	0.044	0.10	0.058	1	01/28/08	01/28/08	J
Total Dissolved Solids	SM2540C	8A31077	10	10	100	1	01/31/08	01/31/08	
Total Suspended Solids	EPA 160.2	8A28115	10	10	43	1	01/28/08	01/28/08	

**Sample ID: IRA2565-01 (Outfall 11 - Water)**

Reporting Units: ml/hr

Total Settleable Solids	EPA 160.5	8A28129	0.10	0.10	ND	1	01/28/08	01/28/08	
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**Sample ID: IRA2565-01 (Outfall 11 - Water)**

Reporting Units: NTU

Turbidity	EPA 180.1	8A29082	0.20	5.0	60	5	01/29/08	01/29/08	
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**Sample ID: IRA2565-01 (Outfall 11 - Water)**

Reporting Units: ug/l

Total Cyanide	EPA 335.2	8A28126	2.2	5.0	ND	1	01/28/08	01/28/08	
Perchlorate	EPA 314.0	8A28071	1.5	4.0	ND	1	01/28/08	01/28/08	

\* Analysis not validated

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08

Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	8A31072	1.0	1.0	120	1	01/31/08	01/31/08	

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# **APPENDIX G**

## **Section 74**

Outfall 011, January 27, 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 011

Sampled: 01/27/08  
Received: 01/28/08  
Issued: 02/28/08 12:13

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(s) of Custody, 2 pages, are included and are an integral part of this report.*

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

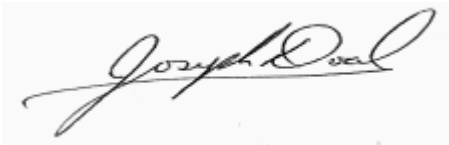
## SAMPLE CROSS REFERENCE

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

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

LABORATORY ID	CLIENT ID	MATRIX
IRA2565-01	Outfall 11	Water
IRA2565-02	Trip Blanks	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 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
Carbon tetrachloride	EPA 624	8A30009	0.28	5.0	ND	1	01/30/08	01/30/08	
Chloroform	EPA 624	8A30009	0.33	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethane	EPA 624	8A30009	0.27	2.0	ND	1	01/30/08	01/30/08	
1,2-Dichloroethane	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethene	EPA 624	8A30009	0.42	3.0	ND	1	01/30/08	01/30/08	
Ethylbenzene	EPA 624	8A30009	0.25	2.0	ND	1	01/30/08	01/30/08	
Tetrachloroethene	EPA 624	8A30009	0.32	2.0	ND	1	01/30/08	01/30/08	
Toluene	EPA 624	8A30009	0.36	2.0	ND	1	01/30/08	01/30/08	
1,1,1-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
1,1,2-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
Trichloroethene	EPA 624	8A30009	0.26	5.0	ND	1	01/30/08	01/30/08	
Trichlorofluoromethane	EPA 624	8A30009	0.34	5.0	ND	1	01/30/08	01/30/08	
Vinyl chloride	EPA 624	8A30009	0.30	5.0	ND	1	01/30/08	01/30/08	
Xylenes, Total	EPA 624	8A30009	0.90	4.0	ND	1	01/30/08	01/30/08	
Surrogate: Dibromofluoromethane (80-120%)					107 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				
<b>Sample ID: IRA2565-02 (Trip Blanks - Water)</b>									
Reporting Units: ug/l									
Benzene	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
Carbon tetrachloride	EPA 624	8A30009	0.28	5.0	ND	1	01/30/08	01/30/08	
Chloroform	EPA 624	8A30009	0.33	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethane	EPA 624	8A30009	0.27	2.0	ND	1	01/30/08	01/30/08	
1,2-Dichloroethane	EPA 624	8A30009	0.28	2.0	ND	1	01/30/08	01/30/08	
1,1-Dichloroethene	EPA 624	8A30009	0.42	3.0	ND	1	01/30/08	01/30/08	
Ethylbenzene	EPA 624	8A30009	0.25	2.0	ND	1	01/30/08	01/30/08	
Tetrachloroethene	EPA 624	8A30009	0.32	2.0	ND	1	01/30/08	01/30/08	
Toluene	EPA 624	8A30009	0.36	2.0	ND	1	01/30/08	01/30/08	
1,1,1-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
1,1,2-Trichloroethane	EPA 624	8A30009	0.30	2.0	ND	1	01/30/08	01/30/08	
Trichloroethene	EPA 624	8A30009	0.26	5.0	ND	1	01/30/08	01/30/08	
Trichlorofluoromethane	EPA 624	8A30009	0.34	5.0	ND	1	01/30/08	01/30/08	
Vinyl chloride	EPA 624	8A30009	0.30	5.0	ND	1	01/30/08	01/30/08	
Xylenes, Total	EPA 624	8A30009	0.90	4.0	ND	1	01/30/08	01/30/08	
Surrogate: Dibromofluoromethane (80-120%)					104 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
<b>Reporting Units: ug/l</b>									
Bis(2-ethylhexyl)phthalate	EPA 625	8A29057	1.6	4.7	ND	0.943	01/29/08	01/31/08	
2,4-Dinitrotoluene	EPA 625	8A29057	0.19	8.5	ND	0.943	01/29/08	01/31/08	
N-Nitrosodimethylamine	EPA 625	8A29057	0.094	7.5	ND	0.943	01/29/08	01/31/08	
Pentachlorophenol	EPA 625	8A29057	0.094	7.5	ND	0.943	01/29/08	01/31/08	
2,4,6-Trichlorophenol	EPA 625	8A29057	0.094	5.7	ND	0.943	01/29/08	01/31/08	
Surrogate: 2-Fluorophenol (30-120%)					72 %				
Surrogate: Phenol-d6 (35-120%)					78 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					120 %				
Surrogate: Nitrobenzene-d5 (45-120%)					78 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					85 %				
Surrogate: Terphenyl-d14 (50-125%)					108 %				

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08

Received: 01/28/08

## ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
alpha-BHC	EPA 608	8A29059	0.0024	0.0094	ND	0.943	01/29/08	01/29/08	
Surrogate: Decachlorobiphenyl (45-120%)					83 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					72 %				

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NPDES - 2746

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08

Received: 01/28/08

## METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
Cadmium	EPA 200.8	8A28076	0.11	1.0	<b>0.20</b>	1	01/28/08	01/28/08	J
Copper	EPA 200.8	8A28076	0.75	2.0	<b>5.3</b>	1	01/28/08	01/28/08	
Lead	EPA 200.8	8A28076	0.30	1.0	<b>3.9</b>	1	01/28/08	01/28/08	
Selenium	EPA 200.8	8A28076	0.30	2.0	ND	1	01/28/08	01/28/08	
Zinc	EPA 200.8	8A28076	2.5	20	<b>59</b>	1	01/28/08	01/28/08	

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NPDES - 2747

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08

Received: 01/28/08

## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	8A28070	0.11	1.0	ND	1	01/28/08	01/28/08	
<b>Copper</b>	EPA 200.8-Diss	8A28070	0.75	2.0	<b>4.8</b>	1	01/28/08	01/28/08	
Lead	EPA 200.8-Diss	8A28070	0.30	1.0	ND	1	01/28/08	01/28/08	
Selenium	EPA 200.8-Diss	8A28070	0.30	2.0	ND	1	01/28/08	01/28/08	
<b>Zinc</b>	EPA 200.8-Diss	8A28070	2.5	20	<b>8.3</b>	1	01/28/08	01/28/08	B, J

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B05016	1.3	4.8	1.6	1	02/05/08	02/05/08	J
Ammonia-N (Distilled)	EPA 350.2	8A29110	0.30	0.50	ND	1	01/29/08	01/29/08	
Biochemical Oxygen Demand	EPA 405.1	8A28120	0.59	2.0	2.2	1	01/28/08	02/02/08	
Chloride	EPA 300.0	8A28061	0.25	0.50	4.8	1	01/28/08	01/28/08	
Nitrate-N	EPA 300.0	8A28061	0.060	0.11	3.5	1	01/28/08	01/28/08	
Nitrite-N	EPA 300.0	8A28061	0.090	0.15	ND	1	01/28/08	01/28/08	
Nitrate/Nitrite-N	EPA 300.0	8A28061	0.15	0.26	3.5	1	01/28/08	01/28/08	
Sulfate	EPA 300.0	8A28061	0.20	0.50	9.0	1	01/28/08	01/28/08	
Surfactants (MBAS)	SM5540-C	8A28127	0.044	0.10	0.058	1	01/28/08	01/28/08	J
Total Dissolved Solids	SM2540C	8A31077	10	10	100	1	01/31/08	01/31/08	
Total Suspended Solids	EPA 160.2	8A28115	10	10	43	1	01/28/08	01/28/08	
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	8A28129	0.10	0.10	ND	1	01/28/08	01/28/08	
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
Reporting Units: NTU									
Turbidity	EPA 180.1	8A29082	0.20	5.0	60	5	01/29/08	01/29/08	
<b>Sample ID: IRA2565-01 (Outfall 11 - Water)</b>									
Reporting Units: ug/l									
Total Cyanide	EPA 335.2	8A28126	2.2	5.0	ND	1	01/28/08	01/28/08	
Perchlorate	EPA 314.0	8A28071	1.5	4.0	ND	1	01/28/08	01/28/08	

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NPDES - 2749



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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	8A31072	1.0	1.0	120	1	01/31/08	01/31/08	

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NPDES - 2750

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08

Received: 01/28/08

## 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: IRA2565-01 (Outfall 11 - Water) - cont.</b>									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	
Mercury, Total	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	

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**IRA2565 <Page 9 of 28>**  
**NPDES - 2751**

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## 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 11 (IRA2565-01) - Water</b>					
EPA 160.5	2	01/27/2008 09:00	01/28/2008 05:30	01/28/2008 18:30	01/28/2008 18:30
EPA 180.1	2	01/27/2008 09:00	01/28/2008 05:30	01/29/2008 09:00	01/29/2008 09:00
EPA 300.0	2	01/27/2008 09:00	01/28/2008 05:30	01/28/2008 09:00	01/28/2008 13:19
EPA 405.1	2	01/27/2008 09:00	01/28/2008 05:30	01/28/2008 16:43	02/02/2008 12:00
SM5540-C	2	01/27/2008 09:00	01/28/2008 05:30	01/28/2008 20:21	01/28/2008 21:22

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**NPDES - 2752**

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A30009 Extracted: 01/30/08</b>											
<b>Blank Analyzed: 01/30/2008 (8A30009-BLK1)</b>											
Benzene	ND	2.0	0.28	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	3.0	0.42	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	5.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Surrogate: Dibromofluoromethane	26.8			ug/l	25.0		107	80-120			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	22.0			ug/l	25.0		88	80-120			
<b>LCS Analyzed: 01/30/2008 (8A30009-BS1)</b>											
Benzene	25.2	2.0	0.28	ug/l	25.0		101	70-120			
Carbon tetrachloride	26.5	5.0	0.28	ug/l	25.0		106	65-140			
Chloroform	27.6	2.0	0.33	ug/l	25.0		110	70-130			
1,1-Dichloroethane	27.3	2.0	0.27	ug/l	25.0		109	70-125			
1,2-Dichloroethane	24.8	2.0	0.28	ug/l	25.0		99	60-140			
1,1-Dichloroethene	24.3	3.0	0.42	ug/l	25.0		97	70-125			
Ethylbenzene	25.7	2.0	0.25	ug/l	25.0		103	75-125			
Tetrachloroethene	21.8	2.0	0.32	ug/l	25.0		87	70-125			
Toluene	25.4	2.0	0.36	ug/l	25.0		101	70-120			
1,1,1-Trichloroethane	27.3	2.0	0.30	ug/l	25.0		109	65-135			
1,1,2-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		102	70-125			
Trichloroethene	23.9	5.0	0.26	ug/l	25.0		96	70-125			
Trichlorofluoromethane	29.3	5.0	0.34	ug/l	25.0		117	65-145			
Vinyl chloride	25.3	5.0	0.30	ug/l	25.0		101	55-135			
Xylenes, Total	74.5	4.0	0.90	ug/l	75.0		99	70-125			

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A30009 Extracted: 01/30/08</b>											
<b>LCS Analyzed: 01/30/2008 (8A30009-BS1)</b>											
Surrogate: Dibromofluoromethane	27.0			ug/l	25.0		108	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	24.8			ug/l	25.0		99	80-120			
<b>Matrix Spike Analyzed: 01/30/2008 (8A30009-MS1) Source: IRA2565-01</b>											
Benzene	24.1	2.0	0.28	ug/l	25.0	ND	96	65-125			
Carbon tetrachloride	25.1	5.0	0.28	ug/l	25.0	ND	100	65-140			
Chloroform	26.6	2.0	0.33	ug/l	25.0	ND	106	65-135			
1,1-Dichloroethane	25.8	2.0	0.27	ug/l	25.0	ND	103	65-130			
1,2-Dichloroethane	23.9	2.0	0.28	ug/l	25.0	ND	96	60-140			
1,1-Dichloroethane	22.0	3.0	0.42	ug/l	25.0	ND	88	60-130			
Ethylbenzene	25.1	2.0	0.25	ug/l	25.0	ND	100	65-130			
Tetrachloroethene	21.2	2.0	0.32	ug/l	25.0	ND	85	65-130			
Toluene	24.3	2.0	0.36	ug/l	25.0	ND	97	70-125			
1,1,1-Trichloroethane	26.0	2.0	0.30	ug/l	25.0	ND	104	65-140			
1,1,2-Trichloroethane	25.4	2.0	0.30	ug/l	25.0	ND	102	65-130			
Trichloroethene	23.3	5.0	0.26	ug/l	25.0	ND	93	65-125			
Trichlorofluoromethane	26.4	5.0	0.34	ug/l	25.0	ND	105	60-145			
Vinyl chloride	21.6	5.0	0.30	ug/l	25.0	ND	86	45-140			
Xylenes, Total	72.8	4.0	0.90	ug/l	75.0	ND	97	60-130			
Surrogate: Dibromofluoromethane	26.6			ug/l	25.0		106	80-120			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.9			ug/l	25.0		100	80-120			
<b>Matrix Spike Dup Analyzed: 01/30/2008 (8A30009-MSD1) Source: IRA2565-01</b>											
Benzene	26.9	2.0	0.28	ug/l	25.0	ND	108	65-125	11	20	
Carbon tetrachloride	28.0	5.0	0.28	ug/l	25.0	ND	112	65-140	11	25	
Chloroform	29.2	2.0	0.33	ug/l	25.0	ND	117	65-135	9	20	
1,1-Dichloroethane	28.5	2.0	0.27	ug/l	25.0	ND	114	65-130	10	20	
1,2-Dichloroethane	26.4	2.0	0.28	ug/l	25.0	ND	106	60-140	10	20	
1,1-Dichloroethane	24.0	3.0	0.42	ug/l	25.0	ND	96	60-130	9	20	
Ethylbenzene	28.1	2.0	0.25	ug/l	25.0	ND	113	65-130	11	20	
Tetrachloroethene	23.8	2.0	0.32	ug/l	25.0	ND	95	65-130	12	20	
Toluene	27.1	2.0	0.36	ug/l	25.0	ND	109	70-125	11	20	
1,1,1-Trichloroethane	28.6	2.0	0.30	ug/l	25.0	ND	115	65-140	10	20	
1,1,2-Trichloroethane	28.0	2.0	0.30	ug/l	25.0	ND	112	65-130	10	25	

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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## METHOD BLANK/QC DATA

### PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A30009 Extracted: 01/30/08</b>											
<b>Matrix Spike Dup Analyzed: 01/30/2008 (8A30009-MSD1)</b>						<b>Source: IRA2565-01</b>					
Trichloroethene	25.8	5.0	0.26	ug/l	25.0	ND	103	65-125	10	20	
Trichlorofluoromethane	28.7	5.0	0.34	ug/l	25.0	ND	115	60-145	9	25	
Vinyl chloride	24.6	5.0	0.30	ug/l	25.0	ND	98	45-140	13	30	
Xylenes, Total	81.1	4.0	0.90	ug/l	75.0	ND	108	60-130	11	20	
Surrogate: Dibromofluoromethane	26.4			ug/l	25.0		106	80-120			
Surrogate: Toluene-d8	25.4			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	24.2			ug/l	25.0		97	80-120			

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Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A29057 Extracted: 01/29/08</b>											
<b>Blank Analyzed: 01/31/2008 (8A29057-BLK1)</b>											
Bis(2-ethylhexyl)phthalate	ND	5.0	1.7	ug/l							
2,4-Dinitrotoluene	ND	9.0	0.20	ug/l							
N-Nitrosodimethylamine	ND	8.0	0.10	ug/l							
Pentachlorophenol	ND	8.0	0.10	ug/l							
2,4,6-Trichlorophenol	ND	6.0	0.10	ug/l							
Surrogate: 2-Fluorophenol	14.9			ug/l	20.0		75	30-120			
Surrogate: Phenol-d6	16.3			ug/l	20.0		81	35-120			
Surrogate: 2,4,6-Tribromophenol	18.4			ug/l	20.0		92	40-120			
Surrogate: Nitrobenzene-d5	8.42			ug/l	10.0		84	45-120			
Surrogate: 2-Fluorobiphenyl	8.88			ug/l	10.0		89	50-120			
Surrogate: Terphenyl-d14	10.6			ug/l	10.0		106	50-125			
<b>LCS Analyzed: 01/31/2008 (8A29057-BS1)</b>											
Bis(2-ethylhexyl)phthalate	11.3	5.0	1.7	ug/l	10.0		113	65-130			
2,4-Dinitrotoluene	11.2	9.0	0.20	ug/l	10.0		112	65-120			
N-Nitrosodimethylamine	8.42	8.0	0.10	ug/l	10.0		84	45-120			
Pentachlorophenol	8.90	8.0	0.10	ug/l	10.0		89	50-120			
2,4,6-Trichlorophenol	8.46	6.0	0.10	ug/l	10.0		85	55-120			
Surrogate: 2-Fluorophenol	15.6			ug/l	20.0		78	30-120			
Surrogate: Phenol-d6	17.1			ug/l	20.0		86	35-120			
Surrogate: 2,4,6-Tribromophenol	21.2			ug/l	20.0		106	40-120			
Surrogate: Nitrobenzene-d5	8.44			ug/l	10.0		84	45-120			
Surrogate: 2-Fluorobiphenyl	8.82			ug/l	10.0		88	50-120			
Surrogate: Terphenyl-d14	9.24			ug/l	10.0		92	50-125			
<b>LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)</b>											
Bis(2-ethylhexyl)phthalate	11.3	5.0	1.7	ug/l	10.0		113	65-130	1	20	
2,4-Dinitrotoluene	10.2	9.0	0.20	ug/l	10.0		102	65-120	9	20	
N-Nitrosodimethylamine	7.74	8.0	0.10	ug/l	10.0		77	45-120	8	20	J
Pentachlorophenol	8.24	8.0	0.10	ug/l	10.0		82	50-120	8	25	
2,4,6-Trichlorophenol	8.06	6.0	0.10	ug/l	10.0		81	55-120	5	30	
Surrogate: 2-Fluorophenol	14.4			ug/l	20.0		72	30-120			
Surrogate: Phenol-d6	16.3			ug/l	20.0		82	35-120			
Surrogate: 2,4,6-Tribromophenol	19.6			ug/l	20.0		98	40-120			
Surrogate: Nitrobenzene-d5	7.74			ug/l	10.0		77	45-120			
Surrogate: 2-Fluorobiphenyl	7.68			ug/l	10.0		77	50-120			

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Arcadia, CA 91007  
Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METHOD BLANK/QC DATA

### ACID & BASE/NEUTRALS BY GC/MS (EPA 625)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A29057 Extracted: 01/29/08</b>											
<b>LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)</b>											
Surrogate: Terphenyl-d14	8.94			ug/l	10.0		89	50-125			

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Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## METHOD BLANK/QC DATA

### ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A29059 Extracted: 01/29/08</b>											
<b>Blank Analyzed: 01/29/2008 (8A29059-BLK1)</b>											
alpha-BHC	ND	0.010	0.0025	ug/l							
Surrogate: Decachlorobiphenyl	0.417			ug/l	0.500		83	45-120			
Surrogate: Tetrachloro-m-xylene	0.376			ug/l	0.500		75	35-115			
<b>LCS Analyzed: 01/29/2008 (8A29059-BS1)</b>											
alpha-BHC	0.450	0.010	0.0025	ug/l	0.500		90	45-115			MNR1
Surrogate: Decachlorobiphenyl	0.459			ug/l	0.500		92	45-120			
Surrogate: Tetrachloro-m-xylene	0.392			ug/l	0.500		78	35-115			
<b>LCS Dup Analyzed: 01/29/2008 (8A29059-BSD1)</b>											
alpha-BHC	0.341	0.010	0.0025	ug/l	0.500		68	45-115	28	30	
Surrogate: Decachlorobiphenyl	0.338			ug/l	0.500		68	45-120			
Surrogate: Tetrachloro-m-xylene	0.302			ug/l	0.500		60	35-115			

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Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## METHOD BLANK/QC DATA

### METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 8A28076 Extracted: 01/28/08</b>											
<b>Blank Analyzed: 01/28/2008 (8A28076-BLK1)</b>											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	ND	20	2.5	ug/l							
<b>LCS Analyzed: 01/28/2008 (8A28076-BS1)</b>											
Cadmium	82.2	1.0	0.11	ug/l	80.0		103	85-115			
Copper	83.7	2.0	0.75	ug/l	80.0		105	85-115			
Lead	82.0	1.0	0.30	ug/l	80.0		102	85-115			
Selenium	79.2	2.0	0.30	ug/l	80.0		99	85-115			
Zinc	82.3	20	2.5	ug/l	80.0		103	85-115			
<b>Matrix Spike Analyzed: 01/28/2008 (8A28076-MS1) Source: IRA2324-01</b>											
Cadmium	81.0	1.0	0.11	ug/l	80.0	ND	101	70-130			
Copper	85.4	2.0	0.75	ug/l	80.0	2.97	103	70-130			
Lead	81.3	1.0	0.30	ug/l	80.0	0.484	101	70-130			
Selenium	76.6	2.0	0.30	ug/l	80.0	ND	96	70-130			
Zinc	82.0	20	2.5	ug/l	80.0	4.76	97	70-130			
<b>Matrix Spike Analyzed: 01/28/2008 (8A28076-MS2) Source: IRA2432-04</b>											
Cadmium	78.5	1.0	0.11	ug/l	80.0	ND	98	70-130			
Copper	80.3	2.0	0.75	ug/l	80.0	1.94	98	70-130			
Lead	80.4	1.0	0.30	ug/l	80.0	0.376	100	70-130			
Selenium	79.3	2.0	0.30	ug/l	80.0	3.49	95	70-130			
Zinc	74.2	20	2.5	ug/l	80.0	3.40	89	70-130			
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28076-MSD1) Source: IRA2324-01</b>											
Cadmium	80.8	1.0	0.11	ug/l	80.0	ND	101	70-130	0	20	
Copper	84.6	2.0	0.75	ug/l	80.0	2.97	102	70-130	1	20	
Lead	81.9	1.0	0.30	ug/l	80.0	0.484	102	70-130	1	20	
Selenium	75.7	2.0	0.30	ug/l	80.0	ND	95	70-130	1	20	
Zinc	81.1	20	2.5	ug/l	80.0	4.76	95	70-130	1	20	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## 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: 8A28070 Extracted: 01/28/08</b>											
<b>Blank Analyzed: 01/28/2008 (8A28070-BLK1)</b>											
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Zinc	2.87	20	2.5	ug/l							J
<b>LCS Analyzed: 01/28/2008 (8A28070-BS1)</b>											
Cadmium	89.6	1.0	0.11	ug/l	80.0		112	85-115			
Copper	82.3	2.0	0.75	ug/l	80.0		103	85-115			
Lead	89.0	1.0	0.30	ug/l	80.0		111	85-115			
Selenium	92.2	2.0	0.30	ug/l	80.0		115	85-115			
Zinc	83.7	20	2.5	ug/l	80.0		105	85-115			
<b>Matrix Spike Analyzed: 01/28/2008 (8A28070-MS1) Source: IRA2565-01</b>											
Cadmium	85.8	1.0	0.11	ug/l	80.0	ND	107	70-130			
Copper	86.7	2.0	0.75	ug/l	80.0	4.82	102	70-130			
Lead	88.0	1.0	0.30	ug/l	80.0	ND	110	70-130			
Selenium	82.5	2.0	0.30	ug/l	80.0	ND	103	70-130			
Zinc	92.4	20	2.5	ug/l	80.0	8.35	105	70-130			
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28070-MSD1) Source: IRA2565-01</b>											
Cadmium	88.0	1.0	0.11	ug/l	80.0	ND	110	70-130	3	20	
Copper	88.0	2.0	0.75	ug/l	80.0	4.82	104	70-130	1	20	
Lead	90.0	1.0	0.30	ug/l	80.0	ND	113	70-130	2	20	
Selenium	84.6	2.0	0.30	ug/l	80.0	ND	106	70-130	2	20	
Zinc	93.3	20	2.5	ug/l	80.0	8.35	106	70-130	1	20	

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Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## 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: 8A28061 Extracted: 01/28/08</b>											
<b>Blank Analyzed: 01/28/2008 (8A28061-BLK1)</b>											
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
<b>LCS Analyzed: 01/28/2008 (8A28061-BS1)</b>											
Chloride	4.62	0.50	0.25	mg/l	5.00		92	90-110			M-3
Nitrate-N	1.14	0.11	0.060	mg/l	1.13		101	90-110			M-3
Nitrite-N	1.45	0.15	0.090	mg/l	1.52		95	90-110			
Sulfate	10.1	0.50	0.20	mg/l	10.0		101	90-110			M-3
<b>Matrix Spike Analyzed: 01/28/2008 (8A28061-MS1)</b>											
						<b>Source: IRA2565-01</b>					
Chloride	9.49	0.50	0.25	mg/l	5.00	4.84	93	80-120			
Nitrate-N	4.60	0.11	0.060	mg/l	1.13	3.47	100	80-120			
Nitrite-N	1.58	0.15	0.090	mg/l	1.52	ND	104	80-120			
Sulfate	18.7	0.50	0.20	mg/l	10.0	8.97	97	80-120			
<b>Matrix Spike Analyzed: 01/29/2008 (8A28061-MS2)</b>											
						<b>Source: IRA2637-11</b>					
Nitrite-N	3.37	0.15	0.090	mg/l	1.52	ND	222	80-120			MI
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28061-MSD1)</b>											
						<b>Source: IRA2565-01</b>					
Chloride	9.45	0.50	0.25	mg/l	5.00	4.84	92	80-120	1	20	
Nitrate-N	4.63	0.11	0.060	mg/l	1.13	3.47	103	80-120	1	20	
Nitrite-N	1.60	0.15	0.090	mg/l	1.52	ND	105	80-120	1	20	
Sulfate	18.7	0.50	0.20	mg/l	10.0	8.97	97	80-120	0	20	

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Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
 Received: 01/28/08

## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 8A28071 Extracted: 01/28/08</u></b>											
<b>Blank Analyzed: 01/28/2008 (8A28071-BLK1)</b>											
Perchlorate	ND	4.0	1.5	ug/l							
<b>LCS Analyzed: 01/28/2008 (8A28071-BS1)</b>											
Perchlorate	54.0	4.0	1.5	ug/l	50.0		108	85-115			
<b>Matrix Spike Analyzed: 01/28/2008 (8A28071-MS1)</b>											
						<b>Source: IRA2506-01</b>					
Perchlorate	55.4	4.0	1.5	ug/l	50.0	ND	111	80-120			
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28071-MSD1)</b>											
						<b>Source: IRA2506-01</b>					
Perchlorate	55.2	4.0	1.5	ug/l	50.0	ND	110	80-120	0	20	
<b><u>Batch: 8A28115 Extracted: 01/28/08</u></b>											
<b>Blank Analyzed: 01/28/2008 (8A28115-BLK1)</b>											
Total Suspended Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 01/28/2008 (8A28115-BS1)</b>											
Total Suspended Solids	970	10	10	mg/l	1000		97	85-115			
<b>Duplicate Analyzed: 01/28/2008 (8A28115-DUP1)</b>											
						<b>Source: IRA2560-07</b>					
Total Suspended Solids	10.0	10	10	mg/l		11.0			10	10	
<b><u>Batch: 8A28120 Extracted: 01/28/08</u></b>											
<b>Blank Analyzed: 02/02/2008 (8A28120-BLK1)</b>											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							

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Sampled: 01/27/08  
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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 8A28120 Extracted: 01/28/08</u></b>											
<b>LCS Analyzed: 02/02/2008 (8A28120-BS1)</b>											
Biochemical Oxygen Demand	183	100	30	mg/l	198		92	85-115			
<b>LCS Dup Analyzed: 02/02/2008 (8A28120-BSD1)</b>											
Biochemical Oxygen Demand	184	100	30	mg/l	198		93	85-115	1	20	
<b><u>Batch: 8A28126 Extracted: 01/28/08</u></b>											
<b>Blank Analyzed: 01/28/2008 (8A28126-BLK1)</b>											
Total Cyanide	ND	5.0	2.2	ug/l							
<b>LCS Analyzed: 01/28/2008 (8A28126-BS1)</b>											
Total Cyanide	197	5.0	2.2	ug/l	200		99	90-110			
<b>Matrix Spike Analyzed: 01/28/2008 (8A28126-MS1)</b>											
Total Cyanide	203	5.0	2.2	ug/l	200	ND	101	70-115			
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28126-MSD1)</b>											
Total Cyanide	199	5.0	2.2	ug/l	200	ND	99	70-115	2	15	
<b><u>Batch: 8A28127 Extracted: 01/28/08</u></b>											
<b>Blank Analyzed: 01/28/2008 (8A28127-BLK1)</b>											
Surfactants (MBAS)	ND	0.10	0.044	mg/l							
<b>LCS Analyzed: 01/28/2008 (8A28127-BS1)</b>											
Surfactants (MBAS)	0.258	0.10	0.044	mg/l	0.250		103	90-110			

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Report Number: IRA2565

Sampled: 01/27/08  
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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><u>Batch: 8A28127 Extracted: 01/28/08</u></b>											
<b>Matrix Spike Analyzed: 01/28/2008 (8A28127-MS1)</b>						<b>Source: IRA2565-01</b>					
Surfactants (MBAS)	0.317	0.10	0.044	mg/l	0.250	0.0583	104	50-125			
<b>Matrix Spike Dup Analyzed: 01/28/2008 (8A28127-MSD1)</b>						<b>Source: IRA2565-01</b>					
Surfactants (MBAS)	0.312	0.10	0.044	mg/l	0.250	0.0583	102	50-125	1	20	
<b><u>Batch: 8A29082 Extracted: 01/29/08</u></b>											
<b>Blank Analyzed: 01/29/2008 (8A29082-BLK1)</b>											
Turbidity	0.110	1.0	0.040	NTU							J
<b>Duplicate Analyzed: 01/29/2008 (8A29082-DUP1)</b>						<b>Source: IRA2565-01</b>					
Turbidity	64.0	5.0	0.20	NTU		60.0			6	20	
<b><u>Batch: 8A29110 Extracted: 01/29/08</u></b>											
<b>Blank Analyzed: 01/29/2008 (8A29110-BLK1)</b>											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
<b>LCS Analyzed: 01/29/2008 (8A29110-BS1)</b>											
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115			
<b>Matrix Spike Analyzed: 01/29/2008 (8A29110-MS1)</b>						<b>Source: IRA2355-01</b>					
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120			
<b>Matrix Spike Dup Analyzed: 01/29/2008 (8A29110-MSD1)</b>						<b>Source: IRA2355-01</b>					
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0	ND	106	70-120	3	15	

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Report Number: IRA2565

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 Received: 01/28/08

## 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><u>Batch: 8A31072 Extracted: 01/31/08</u></b>											
<b>Duplicate Analyzed: 01/31/2008 (8A31072-DUP1)</b>						<b>Source: IRA2944-01</b>					
Specific Conductance	128	1.0	1.0	umhos/cm		128			0	5	
<b><u>Batch: 8A31077 Extracted: 01/31/08</u></b>											
<b>Blank Analyzed: 01/31/2008 (8A31077-BLK1)</b>											
Total Dissolved Solids	ND	10	10	mg/l							
<b>LCS Analyzed: 01/31/2008 (8A31077-BS1)</b>											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
<b>Duplicate Analyzed: 01/31/2008 (8A31077-DUP1)</b>						<b>Source: IRA2619-03</b>					
Total Dissolved Solids	ND	10	10	mg/l		ND				10	
<b><u>Batch: 8B05016 Extracted: 02/05/08</u></b>											
<b>Blank Analyzed: 02/05/2008 (8B05016-BLK1)</b>											
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
<b>LCS Analyzed: 02/05/2008 (8B05016-BS1)</b>											
Hexane Extractable Material (Oil & Grease)	19.9	5.0	1.4	mg/l	20.2		99	78-114			MNR1
<b>LCS Dup Analyzed: 02/05/2008 (8B05016-BSD1)</b>											
Hexane Extractable Material (Oil & Grease)	20.3	5.0	1.4	mg/l	20.2		100	78-114	2	11	

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## METHOD BLANK/QC DATA

### Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: W8A1034 Extracted: 01/29/08</b>											
<b>Blank Analyzed: 01/30/2008 (W8A1034-BLK1)</b>											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
<b>LCS Analyzed: 01/30/2008 (W8A1034-BS1)</b>											
Mercury, Dissolved	0.986	0.20	0.050	ug/l	1.00		99	85-115			
Mercury, Total	0.986	0.20	0.050	ug/l	1.00		99	85-115			
<b>Matrix Spike Analyzed: 01/30/2008 (W8A1034-MS1)</b>											
						<b>Source: IRA2565-01</b>					
Mercury, Dissolved	2.06	0.40	0.10	ug/l	2.00	ND	103	70-130			
Mercury, Total	2.06	0.40	0.10	ug/l	2.00	ND	103	70-130			
<b>Matrix Spike Dup Analyzed: 01/30/2008 (W8A1034-MSD1)</b>											
						<b>Source: IRA2565-01</b>					
Mercury, Dissolved	2.02	0.40	0.10	ug/l	2.00	ND	101	70-130	2	20	
Mercury, Total	2.02	0.40	0.10	ug/l	2.00	ND	101	70-130	2	20	

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Received: 01/28/08

## 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
IRA2565-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	1.63	4.8	10
IRA2565-01	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0	0.0094	0.01
IRA2565-01	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	5.7	6.5
IRA2565-01	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	0	8.5	9.1
IRA2565-01	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	1.40	4.7	4
IRA2565-01	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	7.5	8.1
IRA2565-01	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	7.5	8.2
IRA2565-01	Ammonia-N, Titr (350.2) w/dist	Ammonia-N (Distilled)	mg/l	0.28	0.50	2
IRA2565-01	BOD	Biochemical Oxygen Demand	mg/l	2.15	2.0	20
IRA2565-01	Cadmium-200.8	Cadmium	ug/l	0.20	1.0	2
IRA2565-01	Chloride - 300.0	Chloride	mg/l	4.84	0.50	150
IRA2565-01	Copper-200.8	Copper	ug/l	5.34	2.0	7.1
IRA2565-01	Cyanide-335.2 5ppb	Total Cyanide	ug/l	-1	5.0	5
IRA2565-01	Hg_w 245.1	Mercury, Total	ug/l	0.029	0.20	0.2
<b>IRA2565-01</b>	<b>Lead-200.8</b>	<b>Lead</b>	<b>ug/l</b>	<b>3.88</b>	<b>1.0</b>	<b>2.6</b>
IRA2565-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.058	0.10	0.5
IRA2565-01	Nitrate-N, 300.0	Nitrate-N	mg/l	3.47	0.11	8
IRA2565-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
IRA2565-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	3.47	0.26	8
IRA2565-01	Perchlorate 314.0-DEFAULT	Perchlorate	ug/l	0	4.0	6
IRA2565-01	Selenium-200.8	Selenium	ug/l	0.24	2.0	4.1
IRA2565-01	Settleable Solids	Total Settleable Solids	ml/l/hr	0	0.10	0.1
IRA2565-01	Sulfate-300.0	Sulfate	mg/l	8.97	0.50	300
IRA2565-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	100	10	950
<b>IRA2565-01</b>	<b>TSS - EPA 160.2</b>	<b>Total Suspended Solids</b>	<b>mg/l</b>	<b>43</b>	<b>10</b>	<b>15</b>
<b>IRA2565-01</b>	<b>Zinc-200.8</b>	<b>Zinc</b>	<b>ug/l</b>	<b>59</b>	<b>20</b>	<b>54</b>

## Compliance Check

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LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
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Project ID: Routine Outfall 011

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Sampled: 01/27/08  
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## 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.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- MNR1** There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

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Joseph Doak  
Project Manager

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IRA2565 <Page 26 of 28>  
NPDES - 2768

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

Project ID: Routine Outfall 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 120.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 335.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM2540C	Water	X	
SM5540-C	Water	X	X

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

### Subcontracted Laboratories

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

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnrc

Samples: IRA2565-01

### 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 011

Report Number: IRA2565

Sampled: 01/27/08  
Received: 01/28/08

## Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec  
Samples: IRA2565-01

Analysis Performed: Gross Alpha  
Samples: IRA2565-01

Analysis Performed: Gross Beta  
Samples: IRA2565-01

Analysis Performed: Radium, Combined  
Samples: IRA2565-01

Analysis Performed: Strontium 90  
Samples: IRA2565-01

Analysis Performed: Tritium  
Samples: IRA2565-01

Analysis Performed: Uranium, Combined  
Samples: IRA2565-01

## 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: IRA2565-01

## Weck Laboratories, Inc

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

Method Performed: EPA 245.1  
Samples: IRA2565-01

## TestAmerica Irvine

Joseph Doak  
Project Manager

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IRA 2565

IRA 2565

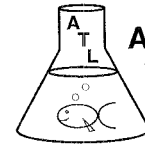
Client Name/Address:		Project:		ANALYSIS REQUIRED										Field readings:						
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Boeing-SSFL NPDES Routine Outfall 011		Total Recoverable Metals Cu, Pb, Hg, Cd, Se, Zn	Settleable Solids	TCDD (and all congeners)	Oil & Grease (1664-HEM)	Cyanide (total recoverable)	BOD <sub>5</sub> (20 degrees C)	Surfactants (MBAS)	Cl <sup>-</sup> , SO <sub>4</sub> <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , Nitrate-N, Nitrite-N	Turbidity, TDS, TSS, Conductivity	Ammonia-N (350.2)	Alpha BHC (608)	2,4,6 TCP, 2,4 Dinitrotoluene	Bis(2-ethylhexyl)phthalate	NDMA, PCP (SVOCs 625)			
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #											Temp = 10.6 °C	pH = 7.6	Time of readings =	
Outfall 011	W	1L Poly	1	1/27/08 0900	HNO <sub>3</sub>	1A	X											24 TAT		
Outfall 011 Dup	W	1L Poly	1	1/27/08 0900	HNO <sub>3</sub>	1B	X											24 TAT		
Outfall 011	W	1L Poly	1	1/27/08 0900	None	2		X												
Outfall 011	W	1L Amber	2	1/27/08 0900	None	3A, 3B		X												
Outfall 011	W	1L Amber	2	1/27/08 0900	HCl	4A, 4B		X												
Outfall 011	W	500 ml Poly	1	1/27/08 0900	NaOH	5		X												
Outfall 011	W	1L Poly	1	1/27/08 0900	None	6		X												
Outfall 011	W	500 ml Poly	2	1/27/08 0900	None	7A, 7B		X												
Outfall 011	W	500 ml Poly	2	1/27/08 0900	None	8A, 8B		X										24 TAT		
Outfall 011	W	500 ml Poly	1	1/27/08 0900	None	9		X										24 TAT		
Outfall 011	W	500 ml Poly	2	1/27/08 0900	None	10A, 10B		X												
Outfall 011	W	500 ml Poly	1	1/27/08 0900	H <sub>2</sub> SO <sub>4</sub>	11		X												
Outfall 011	W	1L Amber	2	1/27/08 0900	None	12A, 12B		X												
Outfall 011	W	1L Amber	2	1/27/08 0900	None	13A, 13B		X												
Relinquished By				Date/Time:	1200	Received By										Date/Time:	1200	Turn around Time: (check)		
Relinquished By				Date/Time:	1200	Received By										Date/Time:	1200	24 Hours	5 Days	
Relinquished By				Date/Time:	1535	Received By										Date/Time:	1200	48 Hours	10 Days	
Relinquished By				Date/Time:	1535	Received By										Date/Time:	1200	72 Hours	Normal	
Relinquished By				Date/Time:	1535	Received By										Date/Time:	1200	Sample Integrity: (check)	Intact	On Ice:

1-27-08 1200  
1-27-08 1535

# 358



# LABORATORY REPORT



**Aquatic  
Testing  
Laboratories**

*"dedicated to providing quality aquatic toxicity testing"*

4350 Transport Street, Unit 107  
Ventura, CA 93003  
(805) 650-0546 FAX (805) 650-0756  
CA DOHS ELAP Cert. No.: 1775

**Date:** February 5, 2008

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

**Laboratory No.:** A-08012801-001  
**Sample ID.:** IRA2565-01 (Outfall 011)

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

Date Sampled: 01/27/08  
Date Received: 01/28/08  
Temp. Received: 2°C  
Chlorine (TRC): 0.0 mg/l  
Date Tested: 01/28/08 to 02/04/08

**Sample Analysis:** The following analyses were performed on your sample:

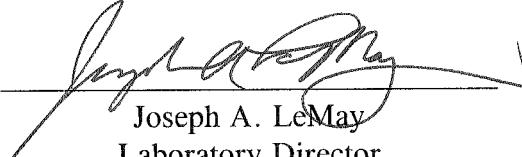
*Ceriodaphnia dubia* Survival and Reproduction Test (EPA Method 1002).

Attached are the test data generated from the analysis of your sample.

## Result Summary:

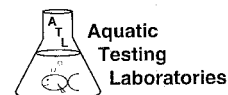
<b>Chronic:</b>	<u>NOEC</u>	<u>TUc</u>
<i>Ceriodaphnia</i> Survival:	100%	1.0
<i>Ceriodaphnia</i> Reproduction:	100%	1.0

**Quality Control:** Reviewed and approved by:

  
Joseph A. LeMay  
Laboratory Director



**CERIODAPHNIA CHRONIC BIOASSAY  
EPA METHOD 1002.0**



Lab No.: A-08012801-001  
Client/ID: Test America – IRA2565-01 (Outfall 011)

Date Tested: 01/28/08 to 02/04/08

**TEST SUMMARY**

Test type: Daily static-renewal.	Endpoints: Survival and Reproduction.
Species: <i>Ceriodaphnia dubia</i> .	Source: In-laboratory culture.
Age: < 24 hrs; all released within 8 hrs.	Food: .1 ml YTC, algae per day.
Test vessel size: 30 ml.	Test solution volume: 15 ml.
Number of test organisms per vessel: 1.	Number of replicates: 10.
Temperature: 25 +/- 1°C.	Photoperiod: 16/8 hrs. light/dark cycle.
Dilution water: Mod. hard reconstituted (MHRW).	Test duration: 7 days.
QA/QC Batch No.: RT-080106.	Statistics: ToxCalc computer program.

**RESULTS SUMMARY**

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	27.9
100% Sample	100%	30.0
Sample not statistically significantly less than Control for either endpoint.		

**CHRONIC TOXICITY**

Survival NOEC	100%
Survival TUc	1.0
Reproduction NOEC	100%
Reproduction TUc	1.0

**QA/QC TEST ACCEPTABILITY**

Parameter	Result
Control survival ≥80%	Pass (100% survival)
≥15 young per surviving control female	Pass (27.9 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 5.7%)
Statistically significantly different concentrations relative difference >13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

**Ceriodaphnia Survival and Reproduction Test-7 Day Survival**

Start Date: 1/28/2008 15:00 Test ID: 8012801 Sample ID: Outfall 011  
 End Date: 2/4/2008 15:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial  
 Sample Date: 1/27/2008 09:00 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia

Comments:

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

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

**Hypothesis Test (1-tail, 0.05)**

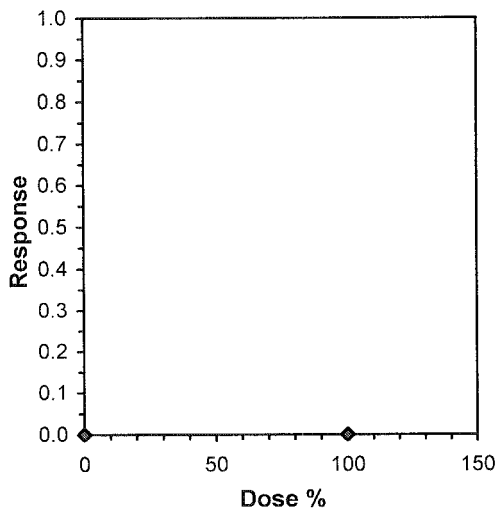
Fisher's Exact Test      NOEC      LOEC      ChV      TU

Treatments vs D-Control

100      >100                1

**Linear Interpolation (200 Resamples)**

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



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

Start Date: 1/28/2008 15:00 Test ID: 8012801 Sample ID: Outfall 011  
 End Date: 2/4/2008 15:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial  
 Sample Date: 1/27/2008 09:00 Protocol: FWCH 4TH-EPA-821-R-02-0 Test Species: CD-Ceriodaphnia dubia

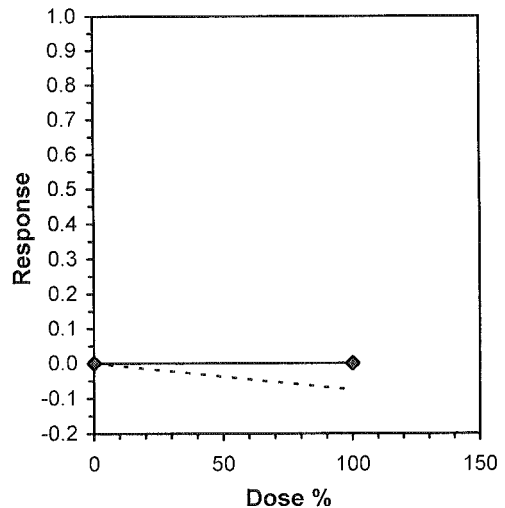
Comments:

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	28.000	26.000	29.000	27.000	28.000	27.000	28.000	30.000	30.000	26.000
100	35.000	30.000	32.000	31.000	28.000	28.000	29.000	26.000	30.000	31.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
D-Control	27.900	1.0000	27.900	26.000	30.000	5.194	10				28.950	1.0000	
100	30.000	1.0753	30.000	26.000	35.000	8.315	10	-2.302	1.734	1.582	28.950	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.96092	0.905	0.43843	1.10812		
F-Test indicates equal variances (p = 0.12)	2.96296	6.54109				
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs D-Control	1.58192	0.0567	22.05	4.16111	0.03349	1, 18

Linear Interpolation (200 Resamples)				
Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



**CERIODAPHNIA DUBIA CHRONIC BIOASSAY**  
**EPA METHOD 1002.0 Raw Data Sheet**



Lab No.: A-08012801-001

Client ID: TestAmerica - IRA2565-01 (Outfall 011)

Start Date: 01/28/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:		Rm Rm		Rm Rm		Rm Rm		Rm Rm		Rm Rm		Rm Rm		Rm Rm	
Time of Readings:		600	1500	1500	1500	1500	1600	1600	1500	1500	1530	1530	1500	1500	1530
Control	DO	7.9	8.2	8.9	8.4	8.1	8.5	8.2	8.4	8.0	8.1	8.1	8.2	7.8	8.0
	pH	7.0	7.9	8.0	7.6	7.8	7.7	7.7	7.7	7.6	7.8	7.6	7.7	7.6	7.7
	Temp	24.2	25.1	24.6	25.0	24.6	24.9	25.1	24.5	25.0	24.8	25.4	24.8	24.6	25.1
100%	DO	9.9	7.9	10.0	8.4	10.2	8.5	9.3	8.4	10.8	8.2	11.2	8.2	10.1	8.3
	pH	7.2	7.2	7.3	7.1	7.1	7.0	7.1	7.1	6.7	7.0	6.5	7.0	7.0	7.0
	Temp	24.3	25.1	24.6	25.1	24.8	24.8	24.2	24.5	24.2	24.8	24.4	24.8	24.9	25.2

Additional Parameters	Control	100% Sample
Conductivity (umohms)	310	117
Alkalinity (mg/l CaCO <sub>3</sub> )	67	24
Hardness (mg/l CaCO <sub>3</sub> )	97	48
Ammonia (mg/l NH <sub>3</sub> -N)	20.1	0.2

Source of Neonates											
Replicate:	A	B	C	D	E	F	G	H	I	J	
Brood ID:	1A	1B	1E	2H	3B	3F	3J	4G	6C	6E	

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	5	5	3	4	4	4	4	3	4	3	39	10	Rm
	4	0	0	10	0	6	0	0	11	0	0	27	10	Rm
	5	8	7	0	8	0	7	9	0	8	8	55	10	Rm
	6	0	0	16	15	0	0	15	16	0	0	62	10	Rm
	7	15	14	(12)	(10)	18	16	(19)	(19)	18	15	96	10	Rm
	Total	28	26	29	27	28	27	28	30	30	26	279	10	Rm
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	2	0	0	0	0	0	0	0	0	0	0	0	10	Rm
	3	5	4	4	3	4	4	3	3	3	3	36	10	Rm
	4	11	8	0	9	10	9	10	8	11	12	88	10	Rm
	5	0	18	10	0	14	0	0	0	16	14	72	10	Rm
	6	19	0	18	19	0	17	16	15	0	0	104	10	Rm
	7	(16)	(19)	(19)	(20)	(16)	(16)	(17)	(12)	(16)	(19)	0	10	Rm
	Total	35	30	32	31	28	28	29	20	30	31	300	10	Rm

Circled fourth brood not used in statistical analysis.

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

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2565

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB  
4350 Transport Street, Unit 107  
Ventura, CA 93003  
Phone : (805) 650-0546  
Fax: (805) 650-0756  
Project Location: California  
Receipt Temperature: 2°C Ice: (Y) N

Analysis	Units	Due	Expires	Comments
<b>Sample ID: IRA2565-01</b>				
Bioassay-7 dy Chrnrc	Water N/A	02/06/08	01/28/08 21:00	Sampled: <b>01/27/08 09:00</b> Cerio, EPA/821-R02-013, Sub to Aquatic testing
<i>Containers Supplied:</i> 1 gal Poly (AC)				

Rody Guerra 01/28/08 0700  
Released By Date/Time  
Emilio Aceves 01/28/08 1200  
Released By Date/Time

Emilio Aceves TAI 01/28/08 0700  
Received By Date/Time  
JM 1-28-08 1200  
Received By Date/Time



# ***REFERENCE TOXICANT DATA***

# CERIODAPHNIA CHRONIC BIOASSAY

EPA METHOD 1002.0

REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-080106

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

## TEST SUMMARY

Test type: Daily static-renewal.

Species: *Ceriodaphnia dubia*.

Age: < 24 hrs; all released within 8 hrs.

Test vessel size: 30 ml.

Number of test organisms per vessel: 1.

Temperature: 25 +/- 1°C.

Dilution water: Mod. hard reconstituted (MHRW).

Reference Toxicant: Sodium chloride (NaCl).

Endpoints: Survival and Reproduction.

Source: In-laboratory culture.

Food: .1 ml YTC, algae per day.

Test solution volume: 20 ml.

Number of replicates: 10.

Photoperiod: 16/8 hrs. light/dark cycle.

Test duration: 6 days.

Statistics: ToxCalc computer program.

## RESULTS SUMMARY

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

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

## CHRONIC TOXICITY

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

## QA/QC TEST ACCEPTABILITY

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

**Ceriodaphnia Survival and Reproduction Test-Survival Day 6**

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

Comments:

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

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

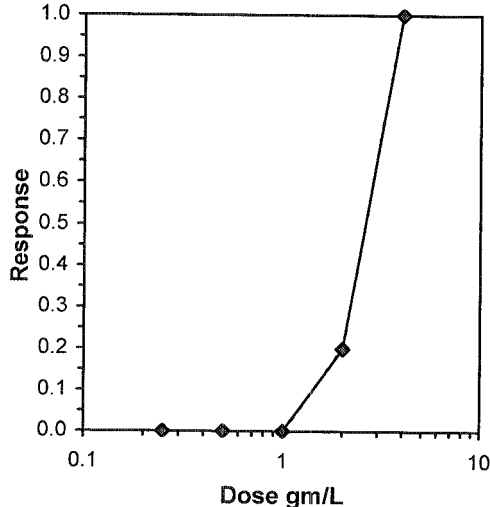
**Hypothesis Test (1-tail, 0.05)**      NOEC      LOEC      ChV      TU

Fisher's Exact Test                      2              4              2.82843

Treatments vs D-Control

**Trimmed Spearman-Kärber**

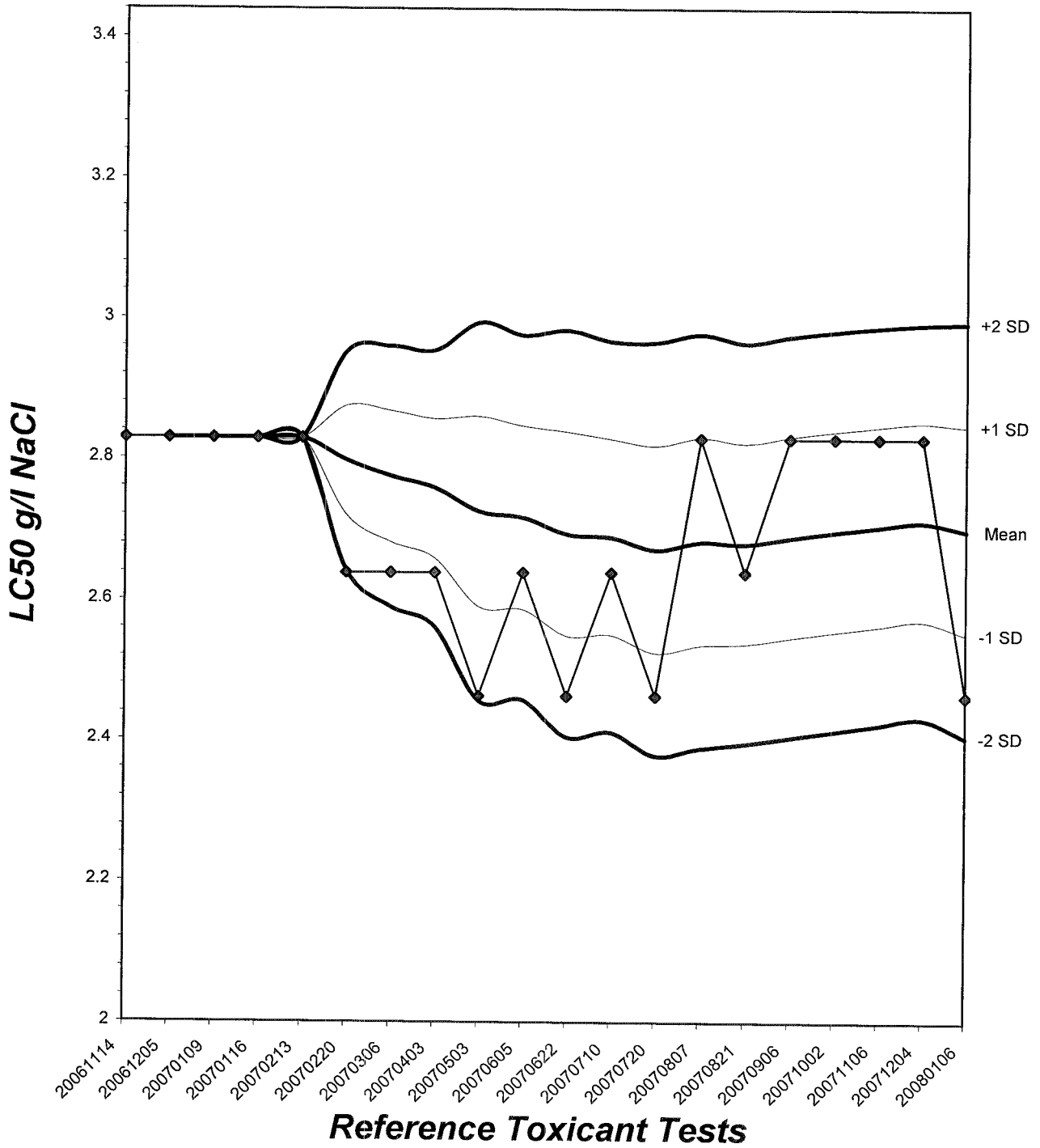
Trim Level	EC50	95% CL	
0.0%	2.4623	2.0663	2.9342
5.0%	2.5108	2.0545	3.0683
10.0%	2.5519	1.9976	3.2599
20.0%	2.5937	2.2616	2.9745
Auto-0.0%	2.4623	2.0663	2.9342





# Ceriodaphnia dubia Chronic Survival Laboratory Control Chart

CV% = 5.46



**Ceriodaphnia Survival and Reproduction Test-Reproduction**

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

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

Conc-gm/L	Mean	N-Mean	Transform: Untransformed					Rank Sum	1-Tailed Critical	Isotonic	
			Mean	Min	Max	CV%	N			Mean	N-Mean
D-Control	20.500	1.0000	20.500	11.000	25.000	18.432	10			20.500	1.0000
0.25	19.500	0.9512	19.500	9.000	25.000	26.177	10	102.00	76.00	19.500	0.9512
0.5	19.500	0.9512	19.500	12.000	22.000	16.617	10	94.50	76.00	19.500	0.9512
*1	14.000	0.6829	14.000	8.000	19.000	32.819	10	62.50	76.00	14.000	0.6829
*2	3.200	0.1561	3.200	0.000	8.000	76.263	10	55.00	76.00	3.200	0.1561
4	0.000	0.0000	0.000	0.000	0.000	0.000	10			0.000	0.0000

**Auxiliary Tests**

Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05) Statistic: 0.91281 Critical: 0.947 Skew: -0.9793 Kurt: 0.67912  
 Bartlett's Test indicates equal variances (p = 0.25) Statistic: 5.39 Critical: 13.2767

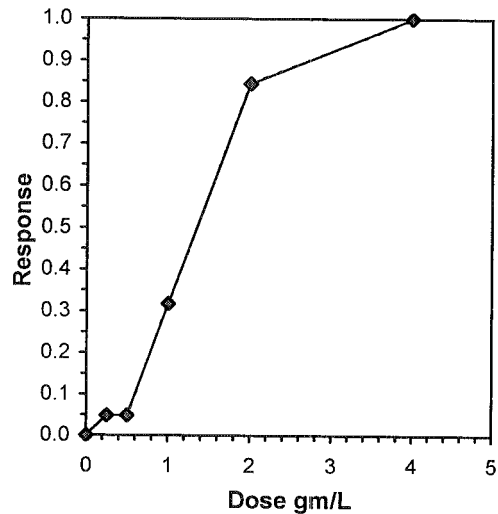
**Hypothesis Test (1-tail, 0.05)**

Steel's Many-One Rank Test NOEC: 0.5 LOEC: 1 ChV: 0.70711 TU

Treatments vs D-Control

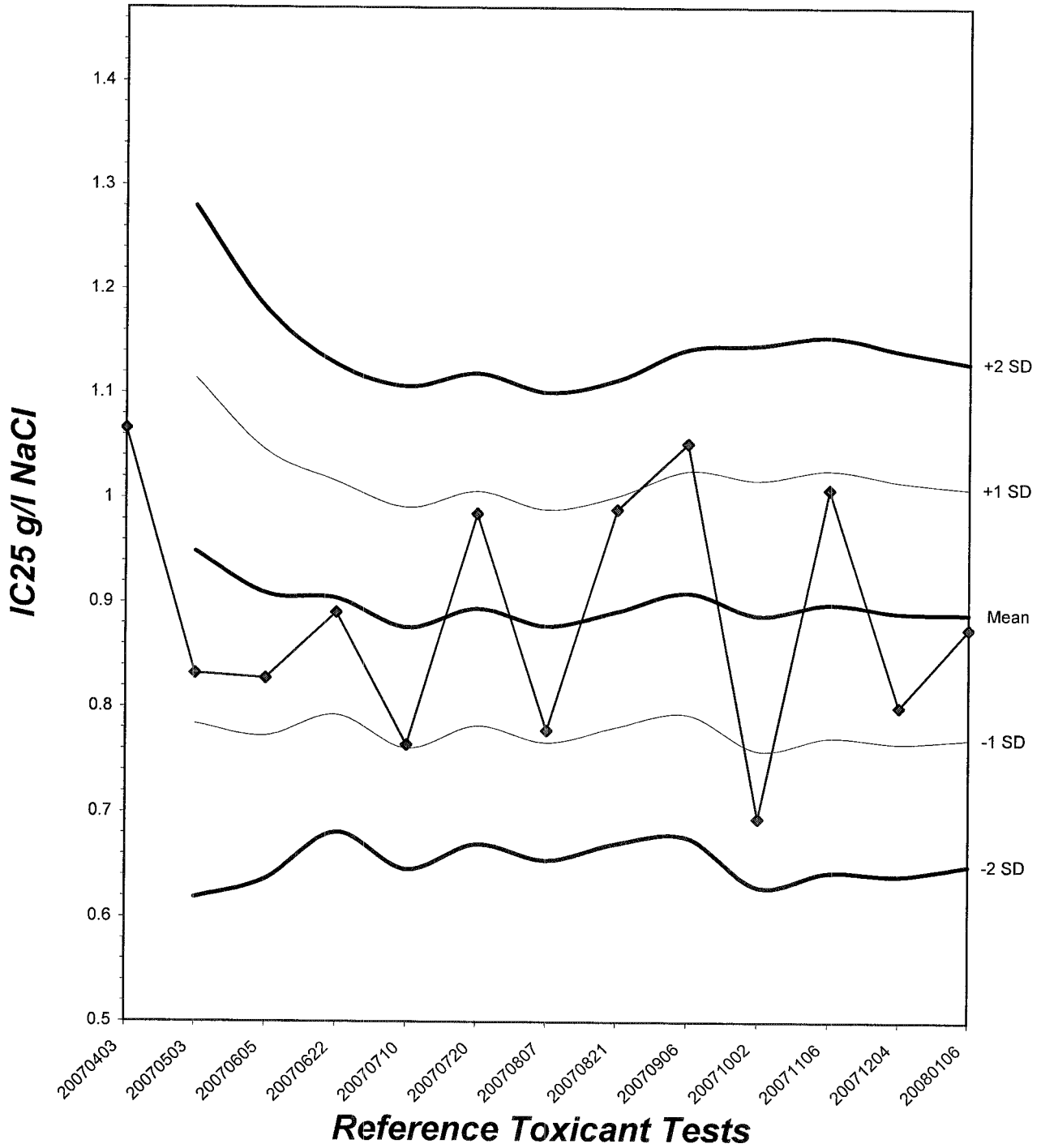
**Linear Interpolation (200 Resamples)**

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



# ***Ceriodaphnia dubia* Chronic Reproduction Laboratory Control Chart**

CV% = 13.5



# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

## Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	2	0	0	0	3	0	3	0	8	10	
	4	4	3	0	4	3	2	0	2	0	3	21	10	
	5	9	8	7	7	6	7	6	7	6	7	70	10	
	6	10	0	12	10	14	11	10	13	11	15	106	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	23	11	21	21	73	20	19	22	20	25	205	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	3	0	2	0	0	3	0	11	10	
	4	4	0	2	0	3	6	4	2	0	3	24	10	
	5	8	8	7	5	6	0	7	6	7	8	62	10	
	6	0	13	10	14	0	12	10	13	12	14	98	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	12	24	19	22	9	20	21	21	22	25	195	10	
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	2	0	2	0	0	0	3	2	0	0	9	10	
	4	0	3	0	3	4	3	0	0	3	3	19	10	
	5	9	6	7	7	0	9	8	7	7	6	66	10	
	6	10	10	12	12	12	0	11	12	12	10	101	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	21	19	21	22	16	12	22	21	22	19	195	10	

Circled fourth brood not used in statistical analysis.

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

# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

## Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
1.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	3	0	0	2	0	5	10	
	4	3	2	2	3	0	0	3	2	0	2	17	10	
	5	5	7	7	4	5	7	5	4	7	6	57	10	
	6	11	0	0	12	9	0	8	11	10	0	61	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	19	9	9	19	14	10	16	17	19	8	140	10	
2.0 g/l	1	0	0	0	0	0	0	0	X	0	0	9	h	
	2	0	0	0	0	0	0	0	-	0	0	9		
	3	0	0	0	0	0	0	0	-	0	0	9		
	4	2	0	2	3	0	0	0	2	-	0	9		9
	5	3	0	0	2	2	3	3	0	-	0	13		9
	6	3	2	0	0	2	0	0	3	-	X	10		8
	7	-	-	-	-	-	-	-	-	-	-	-		-
	Total	8	2	2	5	4	3	3	5	0	0	32		8
4.0 g/l	1	X	X	X	X	X	X	X	X	X	0	0	h	
	2	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	-	-	-	-	-	-	-	-		
	6	-	-	-	-	-	-	-	-	-	-	-		
	7	-	-	-	-	-	-	-	-	-	-	-		
	Total	0	0	0	0	0	0	0	0	0	0	0		0

Circled fourth brood not used in statistical analysis.  
 7<sup>th</sup> day only used if <60% of the surviving control females have produced their third brood.

# CERIODAPHNIA DUBIA CHRONIC BIOASSAY

## Reference Toxicant - NaCl Water Chemistries Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

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

Dissolved Oxygen (DO) readings are in mg/l O<sub>2</sub>; Temperature (Temp) readings are in °C.

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	350	348	305	6400	3100	3210
Alkalinity (mg/l CaCO <sub>3</sub> )	66	65	63	65	66	64
Hardness (mg/l CaCO <sub>3</sub> )	98	97	98	98	97	98

### Source of Neonates

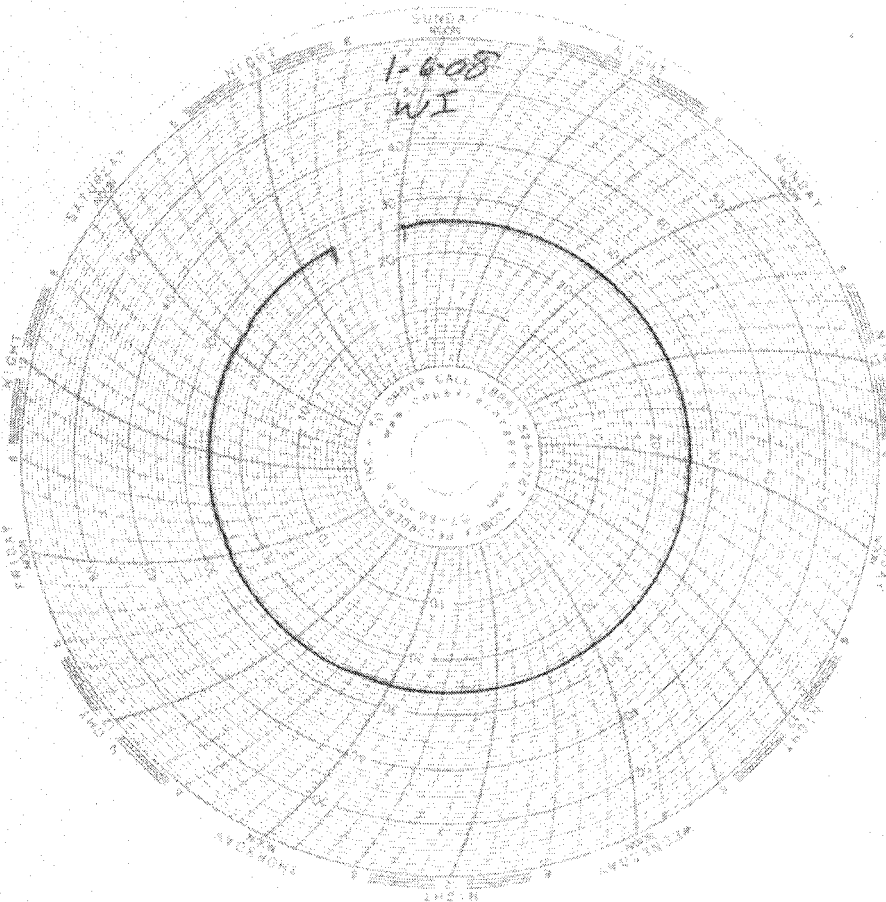
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	2B	1B	3C	2C	2A	3D	3E	2F	3F	2G

# *Laboratory Temperature Chart*

*QA/QC Batch No: RT-080106*

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

*Acceptable Range: 25+/- 1°C*





# EBERLINE SERVICES

February 27 2008

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

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

Dear Mr. Doak:

Enclosed are results from the analyses of six water samples received on January 29, 2008. The samples were analyzed according to the accompanying Test America Subcontract Order Forms, the requested analyses were: gross alpha/gross beta (EPA 900.0), tritium (H-3, EPA906.0), Sr-90 (EPA905.0), Ra-226 (EPA903.1), Ra-228 (EPA 904.0), total uranium (ASTM D-5174), and gamma spectroscopy (EPA901.1, K-40 and Cs-137 only). The parenthetical G after a nuclide indicates that the result was obtained by gamma spectroscopy; a "U" in the results column indicates that the nuclide was not detected greater than the indicated minimum detectable activity (MDA). The samples were not filtered prior to analysis. The samples were analyzed in batches with common QC samples. All samples were batched with QC samples 8687-002, 003, 004, and 005, except for total uranium analysis; the QC samples for total-U analysis are 8682-002, 003, 004, and 005. Batch quality control samples consisted of LCS's, blank analyses, duplicate analyses, and matrix spike analyses (gross alpha/gross beta, H-3, Ra-226, Total-U only). All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melissa Mannion  
Senior Program Manager

MCM/njv

Enclosure: Reports/CoC's

Analytical Services  
2030 Wright Avenue  
P.O. Box 4040  
Richmond, California 94804-0040  
(510) 235-2633 Fax (510) 235-0438  
Toll Free (800) 841-5487  
www.eberlineservices.com  
NPDES - 2788




# Eberline Services

## ANALYSIS RESULTS

SDG <u>8692</u>	Client <u>TA IRVINE</u>
Work Order <u>R801175-01</u>	Contract <u>PROJECT# IRA2565</u>
Received Date <u>01/29/08</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>
IRA2565-01	8692-001	01/27/08	02/16/08	GrossAlpha	1.29 ± 0.48	pCi/L	0.57
			02/16/08	Gross Beta	3.03 ± 0.60	pCi/L	0.87
			02/20/08	Ra-228	-0.085 ± 0.18	pCi/L	0.51
			02/15/08	K-40 (G)	U	pCi/L	55
			02/15/08	Cs-137 (G)	U	pCi/L	2.0
			02/21/08	H-3	-90.4 ± 92	pCi/L	160
			02/20/08	Ra-226	-0.114 ± 0.38	pCi/L	0.83
			02/14/08	Sr-90	-0.007 ± 0.26	pCi/L	0.54
			02/19/08	Total U	0.101 ± 0.015	pCi/L	0.022

Certified by <u></u>
Report Date <u>02/27/08</u>
Page 1





TestAmerica Irvine

IRA2565

8292

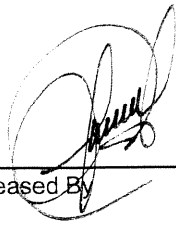
**SENDING LABORATORY:**

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

**RECEIVING LABORATORY:**

Eberline Services - SUB  
 2030 Wright Avenue  
 Richmond, CA 94804  
 Phone : (510) 235-2633  
 Fax: (510) 235-0438  
 Project Location: California  
 Receipt Temperature: 6 °C      Ice: (Y) / N

Analysis	Units	Due	Expires	Comments
<b>Sample ID: IRA2565-01      Water      Sampled: 01/27/08 09:00</b>				
EDD + Level 4	N/A	02/06/08	02/24/08 09:00	Excel EDD email to pm, include Std logs for Lvl IV
Gamma Spec-O	mg/kg	02/06/08	01/26/09 09:00	Boeing, permit, J flags, K-40 and CS-137 only
Gross Alpha-O	pCi/L	02/06/08	07/25/08 09:00	Boeing, permit, J flags
Gross Beta-O	pCi/L	02/06/08	07/25/08 09:00	Boeing, permit, J flags
Radium, Combined-O	pCi/L	02/06/08	01/26/09 09:00	Boeing, permit, J flags
Strontium 90-O	pCi/L	02/06/08	01/26/09 09:00	Boeing, permit, J flags
Tritium-O	pCi/L	02/06/08	01/26/09 09:00	Boeing, permit, J flags
Uranium, Combined-O	pCi/L	02/06/08	01/26/09 09:00	Boeing, permit, J flags
<i>Containers Supplied:</i>				
2.5 gal Poly (AA)	500 mL Amber (AB)			

  
 \_\_\_\_\_  
 Released By      1/28/08  
 Date/Time  
 \_\_\_\_\_  
 Released By      \_\_\_\_\_  
 Date/Time

Fed-Ex      1/28/08  
 \_\_\_\_\_  
 Received By      Date/Time  
 \_\_\_\_\_  
 Received By      01/21/08 10:15  
 Date/Time      Page 1 of 1

1/29/08

Client: TEST AMERICA City: IRVINE State: CA

Date/Time received: 01/29/08 10:15 CoC No: 1/NA 2565

Container ID No: 16 CHEST 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 materials Yes  Dry
- 6 Number of samples in shipping container: 1 Sample Matrix: W
- 7 Number of containers per sample: 2 (Or see CoC) \_\_\_\_\_
- 8 Samples are in correct container? Yes  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  or \_\_\_\_\_ Preservative \_\_\_\_\_
- 13 Describe any anomalies \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- 14 Was P.M. notified of any anomalies? Yes  No  Date \_\_\_\_\_
- 15 Inspected by: [Signature] Date: 01/29/08 Time: 10:30

Customer Sample No.	Beta/Gamma con.	Ion Chamber mR/hr	Wide	Customer Sample No.	Beta/Gamma con.	Ion Chamber mR/hr	Wide
1/NA 2565-1	260						

Ion Chamber Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
 Alpha Meter Ser. No. \_\_\_\_\_ Calibration date \_\_\_\_\_  
 Beta/Gamma Meter Ser. No. 106482 Calibration date 09 MAY 07

February 09, 2008

**Vista Project I.D.: 30207**

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

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on January 29, 2008 under your Project Name "IRA2565". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](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: 1/29/2008**

Vista Lab. ID

Client Sample ID

30207-001

IRA2565-01

## SECTION II



Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	9921	Lab Sample:	0-MB001	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	2-Feb-08						
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	0.00000165			<b>IS</b> 13C-2,3,7,8-TCDD	73.6	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000120			13C-1,2,3,7,8-PeCDD	76.1	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000316			13C-1,2,3,4,7,8-HxCDD	74.4	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000300			13C-1,2,3,6,7,8-HxCDD	73.5	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000295			13C-1,2,3,4,6,7,8-HpCDD	77.2	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000197			13C-OCDD	65.9	17 - 157		
OCDD	ND	0.00000682			13C-2,3,7,8-TCDF	72.7	24 - 169		
2,3,7,8-TCDF	ND	0.000000988			13C-1,2,3,7,8-PeCDF	80.3	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000123			13C-2,3,4,7,8-PeCDF	66.6	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000151			13C-1,2,3,4,7,8-HxCDF	95.5	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000596			13C-1,2,3,6,7,8-HxCDF	77.3	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000816			13C-2,3,4,6,7,8-HxCDF	67.6	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000976			13C-1,2,3,7,8,9-HxCDF	76.1	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000111			13C-1,2,3,4,6,7,8-HpCDF	72.0	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000146			13C-1,2,3,4,7,8,9-HpCDF	75.2	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000154			13C-OCDF	71.7	17 - 157		
OCDF	ND	0.00000455			<b>CRS</b> 37Cl-2,3,7,8-TCDD	77.0	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.00000165			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000209			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000304			c. Method detection limit.				
Total HpCDD	0.00000138				d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000988							
Total PeCDF	ND	0.00000136							
Total HxCDF	ND	0.000000843							
Total HpCDF	ND	0.00000150							

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:16

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	9921	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	2-Feb-08	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	11.2	6.7 - 15.8	<b>IS</b> 13C-2,3,7,8-TCDD	77.8	25 - 164	
1,2,3,7,8-PeCDD	50.0	55.0	35 - 71	13C-1,2,3,7,8-PeCDD	74.8	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	54.7	35 - 82	13C-1,2,3,4,7,8-HxCDD	74.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	54.1	38 - 67	13C-1,2,3,6,7,8-HxCDD	75.4	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	54.8	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	80.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	54.0	35 - 70	13C-OCDD	71.4	17 - 157	
OCDD	100	113	78 - 144	13C-2,3,7,8-TCDF	77.3	24 - 169	
2,3,7,8-TCDF	10.0	10.7	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	73.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	55.0	40 - 67	13C-2,3,4,7,8-PeCDF	66.3	21 - 178	
2,3,4,7,8-PeCDF	50.0	55.4	34 - 80	13C-1,2,3,4,7,8-HxCDF	90.2	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	54.4	36 - 67	13C-1,2,3,6,7,8-HxCDF	73.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	56.0	42 - 65	13C-2,3,4,6,7,8-HxCDF	69.8	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	56.1	35 - 78	13C-1,2,3,7,8,9-HxCDF	74.7	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	55.4	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	71.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	55.5	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	55.7	39 - 69	13C-OCDF	72.9	17 - 157	
OCDF	100	106	63 - 170	<b>CRS</b> 37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:16

Sample ID: IRA2565-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30207-001	Date Received:	29-Jan-08
Project:	IRA2565		Sample Size:	1.00 L	QC Batch No.:	9921	Date Extracted:	2-Feb-08
Date Collected:	27-Jan-08				Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	0900							
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	0.00000921			<b>IS</b> 13C-2,3,7,8-TCDD	85.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000162			13C-1,2,3,7,8-PeCDD	80.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000178			13C-1,2,3,4,7,8-HxCDD	76.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000430			13C-1,2,3,6,7,8-HxCDD	76.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.00000685			13C-1,2,3,4,6,7,8-HpCDD	82.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000632				13C-OCDD	71.0	17 - 157	
OCDD	0.000718				13C-2,3,7,8-TCDF	86.1	24 - 169	
2,3,7,8-TCDF	ND	0.000000728			13C-1,2,3,7,8-PeCDF	84.9	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000101			13C-2,3,4,7,8-PeCDF	73.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000165			13C-1,2,3,4,7,8-HxCDF	93.8	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000151			13C-1,2,3,6,7,8-HxCDF	75.6	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000205			13C-2,3,4,6,7,8-HxCDF	70.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000176			13C-1,2,3,7,8,9-HxCDF	76.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000109			13C-1,2,3,4,6,7,8-HpCDF	73.3	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000149			J	13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000344			13C-OCDF	75.4	17 - 157	
OCDF	0.0000456			J	<b>CRS</b> 37Cl-2,3,7,8-TCDD	89.1	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000921			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000162			b. Estimated maximum possible concentration.			
Total HxCDD	0.0000117				c. Method detection limit.			
Total HpCDD	0.000169			B	d. Lower control limit - upper control limit.			
Total TCDF	ND	0.00000117						
Total PeCDF	ND		0.000000946					
Total HxCDF	0.00000502		0.0000107					
Total HpCDF	0.0000412							

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:16

## 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>E</b>	<b>The amount detected is above the High Calibration Limit.</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 Low Calibration Limit.</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

IRA2565

30207

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

1.1°C

Ice: Y / N

Analysis	Units	Due	Expires	Comments
<b>Sample ID: IRA2565-01</b>	<b>Water</b>			
			Sampled: 01/27/08 09:00	
1613-Dioxin-HR-Alta	ug/l	02/06/08	02/03/08 09:00	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
Level 4 Data Package - Out	N/A	02/06/08	02/24/08 09:00	
<i>Containers Supplied:</i>				
1 L Amber (D)		1 L Amber (E)		

Rodriguez  
Released By

1/28/08 1700  
Date/Time

Feder 1/28/08 1700  
Received By Date/Time

Released By

Date/Time

Bethma Benedict 1/29/08 1029  
Received By Date/Time

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30207 TAT unspecified

Samples Arrival:	Date/Time <u>1/29/08 0905</u>	Initials: <u>URB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>1/29/08 1229</u>	Initials: <u>URB</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>C2</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>1.1°C</u>	Time: <u>0914</u>	Thermometer ID: IR-1

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Airbill	Trk # <u>7997 92271985</u>		
Sample Container Intact?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preservation Documented?	<input type="checkbox"/> COC	<input type="checkbox"/> Sample Container	<input checked="" type="checkbox"/> None
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	

Comments:



SUBCONTRACT ORDER

TestAmerica Irvine

IRA2565

8012803


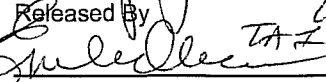
SENDING LABORATORY:

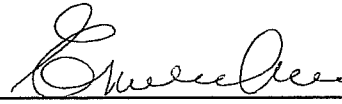
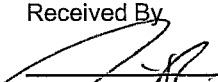
TestAmerica Irvine  
17461 Derian Avenue. Suite 100  
Irvine, CA 92614  
Phone: (949) 261-1022  
Fax: (949) 260-3297  
Project Manager: Joseph Doak

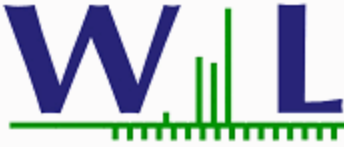
RECEIVING LABORATORY:

Weck Laboratories, Inc  
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: IRA2565-01	Water		Sampled: 01/27/08 09:00	
Level 4 Data Package - Wec	N/A	02/06/08	02/24/08 09:00	
Mercury - 245.1, Diss -OUT	mg/l	02/06/08	02/24/08 09:00	Boeing, permit, J flags, Filter and pres. ASAP before 9:00am!!!
Mercury - 245.1-OUT	mg/l	01/29/08	02/24/08 09:00	Boeing, permit, J flags
<i>Containers Supplied:</i>				
125 mL Poly (AE)	125 mL Poly w/HNO3 (AF)			

  
 Released By \_\_\_\_\_ Date/Time 01/28/08 07:00  
  
 Released By \_\_\_\_\_ Date/Time \_\_\_\_\_

  
 Received By \_\_\_\_\_ Date/Time 01/28/08 07:00  
  
 Received By \_\_\_\_\_ Date/Time 01/28/08



### CERTIFICATE OF ANALYSIS

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

**Report Date:** 01/30/08 12:53  
**Received Date:** 01/28/08 08:45  
**Turn Around:** 1 day

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

**Work Order #:** 8012803  
**Client Project:** IRA2565

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

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

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 01/28/08 08:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 7.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager



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: 8012803  
Project ID: IRA2565

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:53

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA2565-01	Client		8012803-01	Water	01/27/08 09:00



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: 8012803  
Project ID: IRA2565

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:53

**IRA2565-01 8012803-01 (Water)**

Date Sampled: 01/27/08 09:00

**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	W8A1034	01/29/08	01/30/08	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1034	01/29/08	01/30/08	jlp



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

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

Report ID: 8012803  
Project ID: IRA2565

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:53

# 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: 8012803  
 Project ID: IRA2565

Date Received: 01/28/08 08:45  
 Date Reported: 01/30/08 12:53

**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 W8A1034 - EPA 245.1**

**Blank (W8A1034-BLK1)**

Analyzed: 01/30/08

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

**LCS (W8A1034-BS1)**

Analyzed: 01/30/08

Mercury, Dissolved	0.986	0.20	ug/l	1.00		99	85-115			
Mercury, Total	0.986	0.20	ug/l	1.00		99	85-115			

**Matrix Spike (W8A1034-MS1)**

Source: 8012803-01

Analyzed: 01/30/08

Mercury, Dissolved	2.06	0.40	ug/l	2.00	ND	103	70-130			
Mercury, Total	2.06	0.40	ug/l	2.00	ND	103	70-130			

**Matrix Spike Dup (W8A1034-MSD1)**

Source: 8012803-01

Analyzed: 01/30/08

Mercury, Dissolved	2.02	0.40	ug/l	2.00	ND	101	70-130	2	20	
Mercury, Total	2.02	0.40	ug/l	2.00	ND	101	70-130	2	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: 8012803  
Project ID: IRA2565

Date Received: 01/28/08 08:45  
Date Reported: 01/30/08 12:53

### 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.

## **APPENDIX G**

### **Section 75**

Outfall 011 - BMP Effectiveness, January 27-28, 2008

Test America Analytical Laboratory Report



## LABORATORY REPORT

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

Project: BMP Effectiveness  
Monitoring Program

Sampled: 01/27/08-01/28/08  
Received: 01/28/08  
Revised: 04/30/08 13:07

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

ADDITIONAL  
INFORMATION:

This is a Revised report to correct date and sampling times in accordance with the revised Chain of custody per clients request.

LABORATORY ID	CLIENT ID	MATRIX
IRA2667-01	011 EFF-1	Water
IRA2667-02	011 EFF-2	Water
IRA2667-03	011 EFF-3	Water
IRA2667-04	011 EFF-4	Water
IRA2667-05	011 EFF-5	Water
IRA2667-06	011 EFF-6	Water
IRA2667-07	011 EFF-7	Water
IRA2667-08	011 EFF-8	Water
IRA2667-09	011 EFF-9	Water
IRA2667-10	011 EFF-10	Water
IRA2667-11	011 EFF-11	Water
IRA2667-12	011 EFF-12	Water
IRA2667-13	011 EFF-13	Water
IRA2667-14	011 EFF-14	Water
IRA2667-15	011 EFF-15	Water
IRA2667-16	011 EFF-16	Water
IRA2667-17	011 EFF-17	Water
IRA2667-18	011 EFF-18	Water
IRA2667-19	011 EFF-19	Water
IRA2667-20	011 EFF-20	Water
IRA2667-21	011 EFF-21	Water
IRA2667-22	011 EFF-22	Water
IRA2667-23	011 EFF-23	Water

TestAmerica Irvine

Joseph Doak  
Project Manager

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

Project ID: BMP Effectiveness  
Monitoring Program  
Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
Received: 01/28/08

**LABORATORY ID**

IRA2667-24

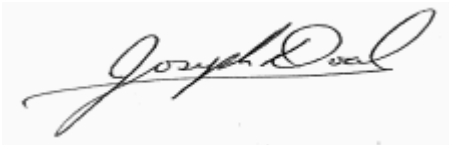
**CLIENT ID**

011 EFF-24

**MATRIX**

Water

Reviewed By:



**TestAmerica Irvine**

Joseph Doak  
Project Manager

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MWH-Pasadena/Boeing  
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 Monitoring Program  
 Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2667-01 (011 EFF-1 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-02 (011 EFF-2 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-03 (011 EFF-3 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-04 (011 EFF-4 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-05 (011 EFF-5 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	1.0	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-06 (011 EFF-6 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-07 (011 EFF-7 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	1.0	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-08 (011 EFF-8 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	1.0	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-09 (011 EFF-9 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-10 (011 EFF-10 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	

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 Attention: Bronwyn Kelly

Project ID: BMP Effectiveness  
 Monitoring Program  
 Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2667-11 (011 EFF-11 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-12 (011 EFF-12 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	1.0	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-13 (011 EFF-13 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.98	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-14 (011 EFF-14 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-15 (011 EFF-15 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-16 (011 EFF-16 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-17 (011 EFF-17 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.98	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-18 (011 EFF-18 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	1.0	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-19 (011 EFF-19 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04115	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-20 (011 EFF-20 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04120	N/A	NA	0.99	1	02/04/08	02/04/08	

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 Project Manager

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Project ID: BMP Effectiveness  
 Monitoring Program  
 Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2667-21 (011 EFF-21 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04120	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-22 (011 EFF-22 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04120	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-23 (011 EFF-23 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04120	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-24 (011 EFF-24 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: g/cc									
Density	Displacement	8B04120	N/A	NA	0.99	1	02/04/08	02/04/08	
<b>Sample ID: IRA2667-01 (011 EFF-1 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	45	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-02 (011 EFF-2 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	44	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-03 (011 EFF-3 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	35	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-04 (011 EFF-4 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	30	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-05 (011 EFF-5 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	42	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-06 (011 EFF-6 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	37	1	02/04/08	02/05/08	

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 Attention: Bronwyn Kelly

Project ID: BMP Effectiveness  
 Monitoring Program  
 Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2667-07 (011 EFF-7 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	47	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-08 (011 EFF-8 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	75	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-09 (011 EFF-9 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	120	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-10 (011 EFF-10 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	130	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-11 (011 EFF-11 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	81	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-12 (011 EFF-12 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	64	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-13 (011 EFF-13 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	46	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-14 (011 EFF-14 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	48	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-15 (011 EFF-15 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	41	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-16 (011 EFF-16 - Water)</b>					<b>Sampled: 01/27/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	42	1	02/04/08	02/05/08	

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 Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
 Received: 01/28/08

## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: IRA2667-17 (011 EFF-17 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	37	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-18 (011 EFF-18 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	35	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-19 (011 EFF-19 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04124	10	10	35	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-20 (011 EFF-20 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04125	10	10	58	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-21 (011 EFF-21 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04125	10	10	76	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-22 (011 EFF-22 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04125	10	10	61	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-23 (011 EFF-23 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04125	10	10	47	1	02/04/08	02/05/08	
<b>Sample ID: IRA2667-24 (011 EFF-24 - Water)</b>					<b>Sampled: 01/28/08</b>				
Reporting Units: mg/l									
Sediment	ASTM D3977	8B04125	10	10	36	1	02/04/08	02/05/08	

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Received: 01/28/08

## 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: 8B04115 Extracted: 02/04/08</b>											
<b>Duplicate Analyzed: 02/04/2008 (8B04115-DUP1)</b>											
Density	0.992	NA	N/A	g/cc		0.990			0	20	
<b>Source: IRA2667-01</b>											
<b>Batch: 8B04120 Extracted: 02/04/08</b>											
<b>Duplicate Analyzed: 02/04/2008 (8B04120-DUP1)</b>											
Density	0.987	NA	N/A	g/cc		0.984			0	20	
<b>Source: IRA2668-01</b>											

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IRA2667 <Page 8 of 10>  
NPDES - 2821



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## DATA QUALIFIERS AND DEFINITIONS

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

**TestAmerica Irvine**

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**IRA2667 <Page 9 of 10>**  
**NPDES - 2822**

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Monitoring Program  
Report Number: IRA2667

Sampled: 01/27/08-01/28/08  
Received: 01/28/08

## Certification Summary

### TestAmerica Irvine

Method	Matrix	Nelac	California
ASTM D3977	Water		
Displacement	Water		

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

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Project Manager

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

IRA26607

IR/ARCADIA Page 1 of 1

0730  
 1-29-08  
 57.1

Client Name/Address:		Project: Boeing BMP Effectiveness Monitoring Program		ANALYSIS REQUIRED		
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515				
Test America Contact: Joseph Doak Project Manager: Bronwyn Kelly Sampler: <i>Follett</i>		Suspended Sediment Concentration (SSC, ASTM-D3977-1997)				
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #
011 EFF-1	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	1
011 EFF-2	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	2
011 EFF-3	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	3
011 EFF-4	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	4
011 EFF-5	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	5
011 EFF-6	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	6
011 EFF-7	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	7
011 EFF-8	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	8
011 EFF-9	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	9
011 EFF-10	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	10
011 EFF-11	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	11
011 EFF-12	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	12
011 EFF-13	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	13
011 EFF-14	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	14
011 EFF-15	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	15
011 EFF-16	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	16
011 EFF-17	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	17
011 EFF-18	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	18
011 EFF-19	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	19
011 EFF-20	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	20
011 EFF-21	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	21
011 EFF-22	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	22
011 EFF-23	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	23
011 EFF-24	W	500 mL Poly	1	<del>1-27-08-08:00</del>	None	24

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	1-28-08 14:00	<i>[Signature]</i>	01/28/08 14:20
<i>[Signature]</i>	1-28-08 16:15	<i>[Signature]</i>	1-28-08 16:15

Relinquished By	Date/Time	Received By	Date/Time
<i>[Signature]</i>	1-28-08 16:15	<i>[Signature]</i>	1-28-08 16:15

Field readings:  
 Temp = *NA*  
 pH = *NA*  
 Time of readings = *NA*

Comments  
*(MB)*  
 Sampling Date Corrections:  
 1-27-08 9:00  
 1-27-08 10:00  
 1-27-08 11:00  
 1-27-08 12:00  
 1-27-08 1:00  
 1-27-08 2:00  
 1-27-08 3:00  
 1-27-08 4:00  
 1-27-08 5:00  
 1-27-08 6:00  
 1-27-08 7:00  
 1-27-08 8:00  
 1-27-08 9:00  
 1-27-08 10:00  
 1-27-08 11:00  
 1-28-08 12:00  
 1-28-08 1:00  
 1-28-08 2:00  
 1-28-08 3:00  
 1-28-08 4:00  
 1-28-08 5:00  
 1-28-08 6:00  
 1-28-08 7:00

Turn around Time: (check)  
 24 Hours \_\_\_\_\_ 5 Days \_\_\_\_\_  
 48 Hours \_\_\_\_\_ 10 Days \_\_\_\_\_  
 72 Hours \_\_\_\_\_ Normal \_\_\_\_\_ **X**  
 Sample Integrity: (check)  
 Intact \_\_\_\_\_ On Ice: \_\_\_\_\_ **X**  
 56/36