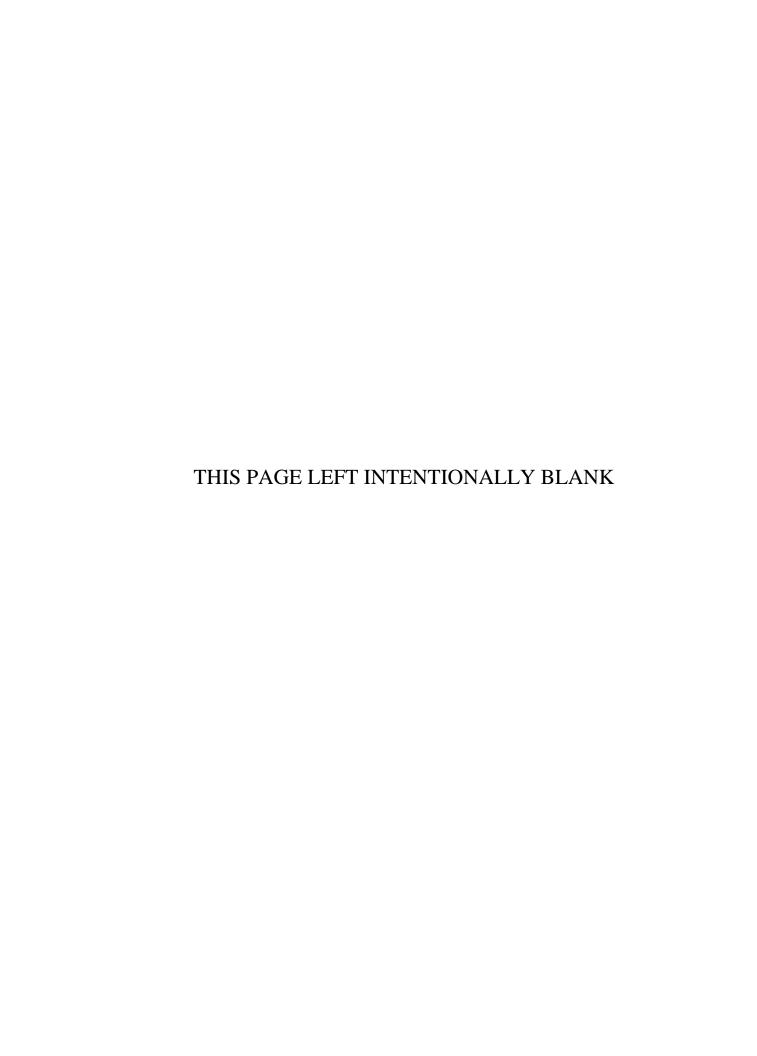
APPENDIX G

Section 7

Outfall 002 - February 5, 2010

MECX Data Validation Reports





DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITB0783 & ITB0888

Prepared by

MEC^X, LP 12269 East Vassar Drive Aurora, CO 80014 DATA VALIDATION REPORT Project: SSFL NPDES SDG: ITB0783 & ITB0888

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract Task Order: 1261.100D.00 Sample Delivery Group: ITB0783 & ITB0888

Project Manager: B. Kelly Matrix: Water

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 002 (Comp)	ITB0888-01	F0B090482- 001, G0B100439 -001	Water		ASTM 5174-91, 180.1, 200.7, 200.7 (Diss), 245.1, 245.1 (Diss), 1613B, 8315M, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD, SM2340B, SM2540D, SM5310B
Outfall 002 (Grab)	ITB0783-01	N/A	Water	2/5/2010 13:44	SM2510B

II. Sample Management

No anomalies were observed regarding sample management. The sample receipt temperature was noted to be ambient by TestAmerica-St Louis; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were present upon receipt at TestAmerica-West Sacramento and TestAmerica-St. Louis. As the samples were delivered to the remaining laboratories by courier, no custody seals were necessary. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Project: SSFL NPDES SDG: ITB0783 & ITB0888

Data Qualifier Reference Table

Qualifie	r 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 or PCB congeners.	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
Н	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
С	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.
В	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.
Е	Not applicable.	Duplicates showed poor agreement.
1	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	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.

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Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	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.
*11, *111	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.

DATA VALIDATION REPORT Project: SSFL NPDES SDG: ITB0783 & ITB0888

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: March 23, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (9/05).

- 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.
 - o GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed with the initial calibration sequence and at the beginning of each analytical sequence. 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.
 - o Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤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.
 - o Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had detects between the EDL and the RL for 1,2,3,4,6,7,8-HpCDD and total HpCDD, OCDD, 1,2,3,4,6,7,8-HpCDF and total HpCDF, and OCDF. Most detects in the method blank did not meet ratio criteria and were reported as EMPCs; however, due to the extent of contamination present in the method blank, it was the reviewer's professional opinion that those results be utilized to qualify applicable sample

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results. Isomers present in the sample between the EDLs and RLs were qualified as nondetected, "U," at the levels of contamination. The sample result for total HpCDD was qualified as nondetected, "U," as both peaks comprising the total were present in the method blank. Total HpCDF included one peak not present in the method blank, and was qualified as estimated, "J," as only a portion of the total was considered method blank contamination.

- Blank Spikes and Laboratory Control Samples: OPR 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. The laboratory performed a confirmation analysis for 2,3,7,8-TCDF; however as the initial result was identified as an EMPC and qualified as nondetected, the confirmation result was rejected, "R," in favor of the initial result.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating a representative number of reportable sample results. EMPCs qualified as nondetected for method blank contamination were not further qualified as EMPCs. Any remaining isomers reported as EMPCs were qualified as estimated and nondetected, "UJ," at the level of the EMPC, and any total results reported as EMPCs or including EMPCs were qualified as estimated, "J." Any detects reported below the EDL, or between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

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DATA VALIDATION REPORT SDG: ITB0783 & ITB0888

B. EPA METHOD 8315M—Hydrazines

Reviewed By: P. Meeks Date Reviewed: April 4, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 8315M, and the National Functional Guidelines for Organic Data Review (10/99).

- Holding Times: Extraction and analytical holding times were met. The sample was derivitized and analyzed within three days of collection.
- Calibration: Calibration criteria were met. The initial calibration r² values were ≥0.995. The ICV, CCV and QCS recoveries were within 85-115%.
- Blanks: There were no target compound detects above the MDL in the method blank.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. All recoveries and RPDs were within the laboratory-established control 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:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - o Field Duplicates: There were no field duplicate samples identified for this SDG.
- Compound Identification: Compound identification was verified. Review of the sample chromatograms and retention times 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 calibrations 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.

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C. EPA METHODS 200.7 and 245.1—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: March 17, 2010

The sample listed in Table 1 for these analyses were validated based on the guidelines outlined in the MEC^{x} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.7 and 245.1, SM2340B, and the National Functional Guidelines for Inorganic Data Review (7/02).

- Holding Times: Analytical holding times, six months for ICP metals and 28 days for mercury, were met.
- Tuning: Not applicable to these analyses.
- Calibration: Calibration criteria were met. Mercury initial calibration r² values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP and ICP-MS metals and 85-115% for mercury. The nickel CRDL recovery was 66%; therefore, nondetected nickel was qualified as estimated, "UJ," in both fractions. The remaining CRDL and CRI recoveries were within the control limits of 70-130%.
- Blanks: Boron was detected in the dissolved method blank at 45.3 μg/L; therefore, boron
 in the dissolved fraction was qualified as nondetected, "U," at the reporting limit. Method
 blanks and CCBs had no other applicable detects.
- Interference Check Samples: Recoveries were within the method-established control limits. Boron was reported at -75 μg/L in the ICSA solution; however, the concentration of the interfering element, iron, was insufficient to cause matrix interference in the site sample.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to these analyses.
- 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. When the sample results were qualified and the reviewer

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was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit 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 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.

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks

Date Reviewed: March 17, 2010

The sample listed in Table 1 for these analyses 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 (7/02).

- Holding Times: The tritium sample was analyzed within 180 days of collection. The aliquots for total uranium and radium-228 were reanalyzed more than 3x beyond the holding time for unpreserved samples; therefore, total uranium and radium-228 detected in the sample was qualified as estimated, "J." Aliquots for gross alpha and gross beta, and gamma spectroscopy were prepared beyond the five-day analytical holding time for unpreserved samples; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. Aliquots for radium-226 and strontium-90 were prepared within the five-day holding time for unpreserved aqueous samples.
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The remaining detector efficiencies were greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy.

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

- Blanks: Tritium was detected in the method blank at 165 pCi/L; therefore, tritium detected
 in the sample was qualified as nondetected, "U," at the reporting limit. There were no
 other analytes detected in the method blanks or KPA CCBs.
- Blank Spikes and Laboratory Control Samples: The recoveries and the radium-228 RPD 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. Any
 detects between the MDA 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 MDA.

The reviewer noted that the preparation log for KPA was not signed as having been reviewed.

- 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.
 - o Field Duplicates: There were no field duplicate samples identified for this SDG.

E. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 17, 2010

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the MEC^{x} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 180,1, SM2510B, SM5310B, and the National Functional Guidelines for Inorganic Data Review (7/02).

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Holding Times: The analytical holding time of seven days was met.

• Calibration: The initial calibration r² values were ≥0.995. Initial and continuing calibration check samples were recovered within 90-110%, except for the closing TOC CCV, which was recovered at 122%; therefore, TOC detected in the sample was qualified as estimated, "J."

- Blanks: The method blanks had no detects.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the samples in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the samples in this SDG. Method accuracy was evaluated based on LCS results.
- 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. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit 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.
- 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.



Established 1931

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Client:

Test America - Irvine

17461 Derian Avenue, Suite 100

002

Irvine, CA 92614-5817

Attention:

Joseph Doak

Sample:

Water / 1 Sample

Project Name: Project Number: ITB0888

Method Number:

EPA 8315 (Modified)

Investigation:

Hydrazines

REPORT

Laboratory No: 987712

Report Date: February 11, 2010

Sampling Date: February 5, 2010 Receiving Date: February 8, 2010

Extraction Date: February 8, 2010

Analysis Date: February 9, 2010

Units: μg/L

Reported By: JS

Analytical Results

	0 1 0 1 1	Sample	Dilution	Monomethyl	u-Dimethyl	Hydrazine	Qualifier
Sample ID	Sample Description	Amount (mL)	Factor	Hydrazine	Hydrazine		Codes
708690-MB	Method Blank	100	1	⅓ ND	₩ ND	-∜ ND	None
987712	ITB0888-01	100	1	U ND	Ų ND	∪ ND	None
MDL				0.857	1.42	0.452	
PQL				5.0	5.0	1.00	
Sample Reportin	g Limits			5.0	5.0	1.00	

*Analysis not validated

Note: Results based on detector #1 (UV=365nm) data.

1

Linda Saetem, Project Manager

Analytical Services, Truesdail Laboratories, Inc.

PM 4/5/10

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to dients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

Validated Sample Result Forms ITB0783/ITB0888

Analysis Method	d ASTM	1 5174-	91					
Sample Name	Outfall 002 (Composite) Matri	іх Туре:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	1.48	0.69	0.21	pCi/L			
Analysis Method	l EPA	180.1						
Sample Name	Outfall 002 (Composite) Matri	х Туре:	Water	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	11	1.0	0.040	NTU			
Analysis Method	d EPA	200.7						
Sample Name	ame Outfall 002 (Composite) Matrix Type: Water					7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Arsenic	7440-38-2	ND	10	7.0	ug/l		U	
Barium	7440-39-3	0.041	0.010	0.0060	mg/l			
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U	
Boron	7440-42-8	0.085	0.050	0.020	mg/l			
Calcium	7440-70-2	61	0.10	0.050	mg/l			
Chromium	7440-47-3	ND	5.0	2.0	ug/l		U	
Cobalt	7440-48-4	ND	10	2.0	ug/l		U	
Iron	7439-89-6	0.61	0.040	0.015	mg/l			
Magnesium	7439-95-4	16	0.020	0.012	mg/l			
Manganese	7439-96-5	18	20	7.0	ug/l	Ja	J	DNQ
Nickel	7440-02-0	ND	10	2.0	ug/l		UJ	R
Vanadium	7440-62-2	ND	10	3.0	ug/l		U	
Zinc	7440-66-6	8.8	20	6.0	ug/l	Ja	J	DNQ

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Analysis Method EPA 200.7-Diss

Sample Name	Outfall 002 (0	Composite	e) Matri	x Type:	Water	V	Validation Level: IV			
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes		
Arsenic	7440-38-2	ND	10	7.0	ug/l		U			
Barium	7440-39-3	0.035	0.010	0.0060	mg/l					
Beryllium	7440-41-7	ND	2.0	0.90	ug/l		U			
Boron	7440-42-8	ND	0.093	0.020	mg/l	В	U	В		
Calcium	7440-70-2	54	0.10	0.050	mg/l					
Cobalt	7440-48-4	ND	10	2.0	ug/l		U			
Iron	7439-89-6	ND	0.040	0.015	mg/l		U			
Magnesium	7439-95-4	14	0.020	0.012	mg/l					
Manganese	7439-96-5	7.1	20	7.0	ug/l	Ja	J	DNQ		
Nickel	7440-02-0	ND	10	2.0	ug/l		UJ	R		
Vanadium	7440-62-2	ND	10	3.0	ug/l		U			
Zinc	7440-66-6	ND	20	6.0	ug/l		U			
Analysis Metho	od EPA	245.1								
Sample Name Outfall 002 (Composite) Matrix Type: Water					V	alidation Le	vel: IV			
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes		
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U			
Analysis Metho	od EPA	245.1 <i>-1</i>	Diss							
Sample Name	Outfall 002 (0	Composite) Matri	x Type:	Water	V	alidation Le	vel: IV		
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes		
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U			
Analysis Metho	od EPA	900.0 N	10D							
Sample Name	Outfall 002 (C	Composite) Matri	x Type:	WATER	V	alidation Le	vel: IV		
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM					
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes		
Gross Alpha	12587-46-1	4.5	3	3	pCi/L		J	Н,С		

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Analysis Method EPA 901.1 MOD

Sample Name	Outfall 002 (C	Composite) Matri	x Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	2.6	20	10	pCi/L	U	UJ	Н
Potassium 40	13966-00-2	-40	0	190	pCi/L	U	UJ	Н
Analysis Metho	od EPA 9	903.0 N	10D					
Sample Name	Outfall 002 (C	Composite) Matri	іх Туре:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.1	1	0.2	pCi/L	U	UJ	С
Analysis Metho	od EPA 9	904 MC)D					
Sample Name	Outfall 002 (C	Outfall 002 (Composite) Matrix Type: WATER					Validation Le	vel: IV
Lab Sample Name:	ITB0888-01RE1	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium 228	15262-20-1	-0.04	1	0.37	pCi/L	U	R	Н
Analysis Metho	od EPA 9	905 MC	DD					
Sample Name	Outfall 002 (C	Composite) Matri	х Туре:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium 90	10098-97-2	0.37	3	0.42	pCi/L	U	U	
Analysis Metho	od EPA 9	906.0 N	10D					
Sample Name	Outfall 002 (C	Composite) Matri	ix Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	ND	500	93	pCi/L	Jb	U	В

Tuesday, March 30, 2010 Page 3 of 5

Analysis Method EPA-5 1613B

Sample Name	Outfall 002 (C	omposite) Matri	x Type:	WATER	7	alidation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010 9	:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	0.00005	0.0000005	ug/L	J, Ba	U	В
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	1.9e-006	0.0000003	ug/L	J, Q, Ba	U	В
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	6.4e-007	0.0000006	ug/L	J, Q	UJ	*III
1,2,3,4,7,8-HxCDD	39227-28-6	ND	2.9e-007	0.0000005	ug/L	J, Q	UJ	*III
1,2,3,4,7,8-HxCDF	70648-26-9	8e-007	0.00005	0.0000004	ug/L	J	J	DNQ
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.00005	0.0000005	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	5.5e-007	0.00005	0.0000003	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDD	19408-74-3	5e-007	0.00005	0.0000003	ug/L	J	J	DNQ
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.00005	0.0000004	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.00005	0.0000005	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.00005	0.0000004	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.00005	0.0000003	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.00005	0.0000005	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.00001	0.0000004	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.00001	0.0000019	ug/L		R	D
2,3,7,8-TCDF	51207-31-9	ND	8.1e-007	0.0000003	ug/L	J, Q	UJ	*III
OCDD	3268-87-9	ND	0.0001	0.0000012	ug/L	J, Ba	U	В
OCDF	39001-02-0	ND	0.0001	0.0000007	ug/L	J, Ba	U	В
Total HpCDD	37871-00-4	ND	0.00005	0.0000005	ug/L	J, Ba	U	В
Total HpCDF	38998-75-3	3.9e-006	0.00005	0.0000003	ug/L	J, Q, Ba	J	B, DNQ, *III
Total HxCDD	34465-46-8	1.5e-006	1.5e-006	0.0000003	ug/L	J, Q	J	DNQ, *III
Total HxCDF	55684-94-1	1.9e-006	1.9e-006	0.0000003	ug/L	J, Q	J	DNQ, *III
Total PeCDD	36088-22-9	ND	0.00005	0.0000005	ug/L		U	
Total PeCDF	30402-15-4	ND	0.00005	0.0000001	ug/L		U	
Total TCDD	41903-57-5	ND	0.00001	0.0000004	ug/L		U	
Total TCDF	55722-27-5	1.5e-006	1.5e-006	0.0000003	ug/L	J, Q	J	DNQ, *III
Analysis Metho	od SM23	40B						
Sample Name	Outfall 002 (C	Composite) Matri	x Type:	Vater	V	alidation Le	vel: IV
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010 9:	:03:00 PM			
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3		220	0.33	0.17	mg/l			

Tuesday, March 30, 2010 Page 4 of 5

Analysis Method SM2340B-Diss

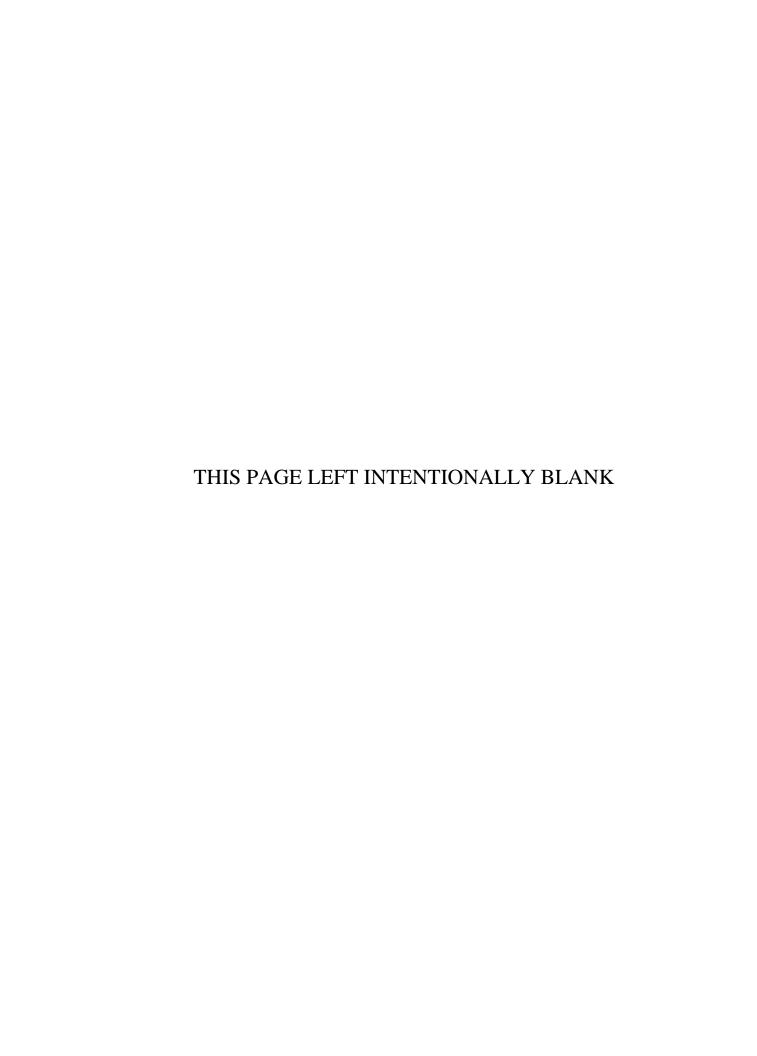
Sample Name	Outfall 002 (0	Composite	e) Matri	іх Туре:	Water	7	alidation Le	vel: IV	
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM				
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes	
Hardness as CaCO3		190	0.33	0.17	mg/l				
Analysis Metho	od SM25	10B							
Sample Name	Outfall 002		Matri	іх Туре:	Water	Validation Level: IV			
Lab Sample Name:	ITB0783-01	Sam	ple Date:	2/5/2010	9:30:00 AM				
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes	
Specific Conductance	NA	670	1.0	1.0	umhos/c				
Analysis Metho	od SM53	10B							
Sample Name	Outfall 002 (0	Composite	e) Matri	іх Туре:	Water	V	alidation Le	vel: IV	
Lab Sample Name:	ITB0888-01	Sam	ple Date:	2/5/2010	9:03:00 PM				
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes	
Total Organic Carbon	TOC	7.1	1.0	0.50	mg/l		J	С	

Tuesday, March 30, 2010 Page 5 of 5

APPENDIX G

Section 8

Outfall 002 - February 5, 2010 Test America Analytical Laboratory Reports







LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing Project: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly Sampled: 02/05/10

Received: 02/05/10 Revised: 03/31/10 12:37

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

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

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 3°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica

Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

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

ADDITIONAL

INFORMATION: Final revised report to include corrected units and .pdf for Radchem work.

 LABORATORY ID
 CLIENT ID
 MATRIX

 ITB0783-01
 Outfall 002
 Water

 ITB0783-02
 Trip Blanks
 Water

 ITB0888-01
 Outfall 002 (Composite)
 Water

Reviewed By:

TestAmerica Irvine

Kathleen A. Robb For Heather Clark Project Manager



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0783-01 (Outfall 002 - W	ater)								
Reporting Units: ug/l									
GRO (C4 - C12)	EPA 8015 Mod.	10B1671	25	100	ND	1	02/13/10	02/13/10	
Surrogate: 4-BFB (FID) (65-140%)					100 %				



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

EXTRACTABLE FUEL HYDROCARBONS (EPA 3510C/EPA 8015B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ITB0783-01 (Outfall 002 - Wat	er)								
Reporting Units: ug/l									
DRO (C13 - C28)	EPA 8015B	10B1526	50	100	ND	1	02/12/10	02/12/10	
Surrogate: n-Octacosane (45-120%)					72 %				



MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

PURGEABLES BY GC/MS (EPA 624)

	1010	GE/ IDEE		Civis (Ei	11 02 1)				
			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ITB0783-01 (Outfall 002 - Wat	er)								
Reporting Units: ug/l	,								
Benzene	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
Bromodichloromethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Bromoform	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Bromomethane	EPA 624	10B0785	0.42	1.0	ND	1	02/07/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	C, L
Chlorobenzene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
Chloroethane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Chloroform	EPA 624	10B0785	0.33	0.50	ND	1	02/07/10	02/08/10	
Chloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Dibromochloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0785	0.37	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0785	0.42	0.50	ND	1	02/07/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0785	0.22	0.50	ND	1	02/07/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloro-1,1,2-trifluoroethane	EPA 624	10B0785	1.1	2.0	ND	1	02/07/10	02/08/10	
Ethylbenzene	EPA 624	10B0785	0.25	0.50	ND	1	02/07/10	02/08/10	
Methylene chloride	EPA 624	10B0785	0.95	1.0	ND	1	02/07/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Tetrachloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Toluene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Trichloroethene	EPA 624	10B0785	0.26	0.50	ND	1	02/07/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0785	0.34	0.50	ND	1	02/07/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0785	0.50	5.0	ND	1	02/07/10	02/08/10	
Vinyl chloride	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Xylenes, Total	EPA 624	10B0785	0.90	1.5	ND	1	02/07/10	02/08/10	
Cyclohexane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%					106 %				
Surrogate: Dibromofluoromethane (80-120%)					113 %				
G	<i>'</i>				110.07				

TestAmerica Irvine

Kathleen A. Robb For Heather Clark Project Manager

Surrogate: Toluene-d8 (80-120%)

110 %



MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Carral, ID. ITD0702-02-/Tain Dlanks W	-4)							•	
Sample ID: ITB0783-02 (Trip Blanks - W Reporting Units: ug/l	ater)								
Benzene	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
Bromodichloromethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Bromoform	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Bromomethane	EPA 624	10B0785	0.42	1.0	ND	1	02/07/10	02/08/10	
Carbon tetrachloride	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	C, L
Chlorobenzene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	- ,
Chloroethane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Chloroform	EPA 624	10B0785	0.33	0.50	ND	1	02/07/10	02/08/10	
Chloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Dibromochloromethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichlorobenzene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,3-Dichlorobenzene	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
1,4-Dichlorobenzene	EPA 624	10B0785	0.37	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethane	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloroethane	EPA 624	10B0785	0.28	0.50	ND	1	02/07/10	02/08/10	
1,1-Dichloroethene	EPA 624	10B0785	0.42	0.50	ND	1	02/07/10	02/08/10	
cis-1,2-Dichloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
trans-1,2-Dichloroethene	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloropropane	EPA 624	10B0785	0.35	0.50	ND	1	02/07/10	02/08/10	
cis-1,3-Dichloropropene	EPA 624	10B0785	0.22	0.50	ND	1	02/07/10	02/08/10	
trans-1,3-Dichloropropene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
1,2-Dichloro-1,1,2-trifluoroethane	EPA 624	10B0785	1.1	2.0	ND	1	02/07/10	02/08/10	
Ethylbenzene	EPA 624	10B0785	0.25	0.50	ND	1	02/07/10	02/08/10	
Methylene chloride	EPA 624	10B0785	0.95	1.0	ND	1	02/07/10	02/08/10	
1,1,2,2-Tetrachloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Tetrachloroethene	EPA 624	10B0785	0.32	0.50	ND	1	02/07/10	02/08/10	
Toluene	EPA 624	10B0785	0.36	0.50	ND	1	02/07/10	02/08/10	
1,1,1-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
1,1,2-Trichloroethane	EPA 624	10B0785	0.30	0.50	ND	1	02/07/10	02/08/10	
Trichloroethene	EPA 624	10B0785	0.26	0.50	ND	1	02/07/10	02/08/10	
Trichlorofluoromethane	EPA 624	10B0785	0.34	0.50	ND	1	02/07/10	02/08/10	
Trichlorotrifluoroethane (Freon 113)	EPA 624	10B0785	0.50	5.0	ND	1	02/07/10	02/08/10	
Vinyl chloride	EPA 624	10B0785	0.40	0.50	ND	1	02/07/10	02/08/10	
Xylenes, Total	EPA 624	10B0785	0.90	1.5	ND	1	02/07/10	02/08/10	
Cyclohexane	EPA 624	10B0785	0.40	1.0	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-1209)	%)				106 %				

Surrogate: Dibromofluoromethane (80-120%)

109 %

Surrogate: Toluene-d8 (80-120%)

112 %

TestAmerica Irvine

Kathleen A. Robb For Heather Clark Project Manager



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

Sampled: 02/05/10

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0783-01 (Outfall 002 - Water	er)								
Reporting Units: ug/l									
Acrolein	EPA 624	10B0785	4.0	5.0	ND	1	02/07/10	02/08/10	
Acrylonitrile	EPA 624	10B0785	1.2	2.0	ND	1	02/07/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0785	1.8	5.0	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)	ı				106 %				
Surrogate: Dibromofluoromethane (80-120%))				113 %				
Surrogate: Toluene-d8 (80-120%)					110 %				
Sample ID: ITB0783-02 (Trip Blanks - Wat	er)								
Reporting Units: ug/l									
Acrolein	EPA 624	10B0785	4.0	5.0	ND	1	02/07/10	02/08/10	
Acrylonitrile	EPA 624	10B0785	1.2	2.0	ND	1	02/07/10	02/08/10	
2-Chloroethyl vinyl ether	EPA 624	10B0785	1.8	5.0	ND	1	02/07/10	02/08/10	
Surrogate: 4-Bromofluorobenzene (80-120%)	1				106 %				
Surrogate: Dibromofluoromethane (80-120%))				109 %				
Surrogate: Toluene-d8 (80-120%)					112 %				



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

1,4-DIOXANE BY GCMS - SINGLE ION MONITORING (SIM)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Con	nposite) - Water)								
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	10B0317	1.0	2.0	ND	1	02/08/10	02/08/10	
Surrogate: Dibromofluoromethane (80-120	9%)				101 %				



MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

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
Sample ID: ITB0888-01 (Outfall 002 (Co	omposite) - Water)								
Reporting Units: ug/l	• / /								
Acenaphthene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Acenaphthylene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Aniline	EPA 625	10B1159	0.28	9.4	ND	0.943	02/10/10	02/15/10	
Anthracene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Benzidine	EPA 625	10B1159	4.7	4.7	ND	0.943	02/10/10	02/15/10	
Benzo(a)anthracene	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
Benzo(a)pyrene	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
Benzo(b)fluoranthene	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
Benzo(g,h,i)perylene	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
Benzo(k)fluoranthene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Benzoic acid	EPA 625	10B1159	2.8	19	ND	0.943	02/10/10	02/15/10	
Benzyl alcohol	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
4-Bromophenyl phenyl ether	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
Butyl benzyl phthalate	EPA 625	10B1159	0.66	4.7	ND	0.943	02/10/10	02/15/10	
4-Chloro-3-methylphenol	EPA 625	10B1159	0.19	1.9	ND	0.943	02/10/10	02/15/10	
4-Chloroaniline	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
Bis(2-chloroethoxy)methane	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Bis(2-chloroethyl)ether	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Bis(2-chloroisopropyl)ether	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Bis(2-ethylhexyl)phthalate	EPA 625	10B1159	1.6	4.7	ND	0.943	02/10/10	02/15/10	
2-Chloronaphthalene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
2-Chlorophenol	EPA 625	10B1159	0.19	0.94	ND	0.943	02/10/10	02/15/10	
4-Chlorophenyl phenyl ether	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Chrysene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Dibenz(a,h)anthracene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Dibenzofuran	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Di-n-butyl phthalate	EPA 625	10B1159	0.19	1.9	ND	0.943	02/10/10	02/15/10	
1,2-Dichlorobenzene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
1,3-Dichlorobenzene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
1,4-Dichlorobenzene	EPA 625	10B1159	0.19	0.47	ND	0.943	02/10/10	02/15/10	
3,3'-Dichlorobenzidine	EPA 625	10B1159	4.7	4.7	ND	0.943	02/10/10	02/15/10	
2,4-Dichlorophenol	EPA 625	10B1159	0.19	1.9	ND	0.943	02/10/10	02/15/10	
Diethyl phthalate	EPA 625	10B1159	0.094	0.94	0.11	0.943	02/10/10	02/15/10	Ja
2,4-Dimethylphenol	EPA 625	10B1159	0.28	1.9	ND	0.943	02/10/10	02/15/10	
Dimethyl phthalate	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
4,6-Dinitro-2-methylphenol	EPA 625	10B1159	0.19	4.7	ND	0.943	02/10/10	02/15/10	
2,4-Dinitrophenol	EPA 625	10B1159	0.85	4.7	ND	0.943	02/10/10	02/15/10	
2,4-Dinitrotoluene	EPA 625	10B1159	0.19	4.7	ND	0.943	02/10/10	02/15/10	
2,6-Dinitrotoluene	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
Di-n-octyl phthalate	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	

TestAmerica Irvine

Kathleen A. Robb For Heather Clark Project Manager



MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

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

				_			_	_	
A 14	N. 41 1	D 4 1	MDL	Reporting	-	Dilution	Date	Date	Data Qualifiers
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Comp	osite) - Water)	- cont.							
Reporting Units: ug/l									
Fluoranthene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Fluorene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Hexachlorobenzene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
Hexachlorobutadiene	EPA 625	10B1159	0.19	1.9	ND	0.943	02/10/10	02/15/10	
Hexachlorocyclopentadiene	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
Hexachloroethane	EPA 625	10B1159	0.19	2.8	ND	0.943	02/10/10	02/15/10	
Indeno(1,2,3-cd)pyrene	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
Isophorone	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
2-Methylnaphthalene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
2-Methylphenol	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
4-Methylphenol	EPA 625	10B1159	0.19	4.7	ND	0.943	02/10/10	02/15/10	
Naphthalene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
2-Nitroaniline	EPA 625	10B1159	0.094	4.7	ND	0.943	02/10/10	02/15/10	
3-Nitroaniline	EPA 625	10B1159	0.19	4.7	ND	0.943	02/10/10	02/15/10	
4-Nitroaniline	EPA 625	10B1159	0.47	4.7	ND	0.943	02/10/10	02/15/10	
Nitrobenzene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
2-Nitrophenol	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
4-Nitrophenol	EPA 625	10B1159	2.4	4.7	ND	0.943	02/10/10	02/15/10	
N-Nitroso-di-n-propylamine	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
N-Nitrosodimethylamine	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
N-Nitrosodiphenylamine	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
Pentachlorophenol	EPA 625	10B1159	0.094	1.9	ND	0.943	02/10/10	02/15/10	
Phenanthrene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
Phenol	EPA 625	10B1159	0.28	0.94	ND	0.943	02/10/10	02/15/10	
Pyrene	EPA 625	10B1159	0.094	0.47	ND	0.943	02/10/10	02/15/10	
1,2,4-Trichlorobenzene	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
2,4,5-Trichlorophenol	EPA 625	10B1159	0.19	1.9	ND	0.943	02/10/10	02/15/10	
2,4,6-Trichlorophenol	EPA 625	10B1159	0.094	0.94	ND	0.943	02/10/10	02/15/10	
Surrogate: 2,4,6-Tribromophenol (40-120%)					96 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					73 %				
Surrogate: 2-Fluorophenol (30-120%)					65 %				
Surrogate: Nitrobenzene-d5 (45-120%)					75 %				
Surrogate: Phenol-d6 (35-120%)					69 %				
Surrogate: Terphenyl-d14 (50-125%)					86 %				

TestAmerica Irvine



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

ORGANOCHLORINE PESTICIDES (EPA 608)

	ONGAITO			STICIDE	5 (LIA	000)			
			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Comp	oosite) - Water)								
Reporting Units: ug/l									
4,4'-DDD	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
4,4'-DDE	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
4,4'-DDT	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
Aldrin	EPA 608	10B1291	0.0014	0.0047	ND	0.943	02/11/10	02/13/10	
alpha-BHC	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
beta-BHC	EPA 608	10B1291	0.0038	0.0094	ND	0.943	02/11/10	02/13/10	
delta-BHC	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Dieldrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan I	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan II	EPA 608	10B1291	0.0028	0.0047	ND	0.943	02/11/10	02/13/10	
Endosulfan sulfate	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin	EPA 608	10B1291	0.0019	0.0047	ND	0.943	02/11/10	02/13/10	C
Endrin aldehyde	EPA 608	10B1291	0.0019	0.0094	ND	0.943	02/11/10	02/13/10	
Endrin ketone	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	
gamma-BHC (Lindane)	EPA 608	10B1291	0.0028	0.019	ND	0.943	02/11/10	02/13/10	
Heptachlor	EPA 608	10B1291	0.0028	0.0094	ND	0.943	02/11/10	02/13/10	C
Heptachlor epoxide	EPA 608	10B1291	0.0024	0.0047	ND	0.943	02/11/10	02/13/10	
Methoxychlor	EPA 608	10B1291	0.0033	0.0047	ND	0.943	02/11/10	02/13/10	
Chlordane	EPA 608	10B1291	0.038	0.094	ND	0.943	02/11/10	02/13/10	
Toxaphene	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/13/10	
Surrogate: Decachlorobiphenyl (45-120%)					78 %				
Surrogate: Decachlorobiphenyl (45-120%)					78 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					52 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					52 %				

TestAmerica Irvine



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MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Com	posite) - Water) -	- cont.							
Reporting Units: ug/l									
Aroclor 1016	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1221	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1232	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1242	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1248	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1254	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Aroclor 1260	EPA 608	10B1291	0.24	0.47	ND	0.943	02/11/10	02/12/10	
Surrogate: Decachlorobiphenyl (45-120%)					86 %				



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200 Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0783-01 (Outfall 002 -	Water)								
Reporting Units: mg/l									
Hexane Extractable Material (Oil &	EPA 1664A	10B1778	1.4	5.0	ND	1	02/15/10	02/15/10	
Grease)									



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MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

METALS

METALS										
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: ITB0888-01 (Outfall 002 (C	omposite) - Water)									
Reporting Units: mg/l										
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	220	1	02/15/10	02/16/10		
Barium	EPA 200.7	10B1807	0.0060	0.010	0.041	1	02/15/10	02/16/10		
Boron	EPA 200.7	10B1807	0.020	0.050	0.085	1	02/15/10	02/16/10		
Calcium	EPA 200.7	10B1807	0.050	0.10	61	1	02/15/10	02/16/10		
Iron	EPA 200.7	10B1807	0.015	0.040	0.61	1	02/15/10	02/16/10		
Magnesium	EPA 200.7	10B1807	0.012	0.020	16	1	02/15/10	02/16/10		
Sample ID: ITB0888-01 (Outfall 002 (C	omposite) - Water)									
Reporting Units: ug/l										
Mercury	EPA 245.1	10B1942	0.10	0.20	ND	1	02/16/10	02/16/10		
Arsenic	EPA 200.7	10B1807	7.0	10	ND	1	02/15/10	02/16/10		
Antimony	EPA 200.8	10B1598	0.30	2.0	ND	1	02/12/10	02/15/10		
Beryllium	EPA 200.7	10B1807	0.90	2.0	ND	1	02/15/10	02/16/10		
Chromium	EPA 200.7	10B1807	2.0	5.0	ND	1	02/15/10	02/16/10		
Cobalt	EPA 200.7	10B1807	2.0	10	ND	1	02/15/10	02/16/10		
Manganese	EPA 200.7	10B1807	7.0	20	18	1	02/15/10	02/16/10	Ja	
Nickel	EPA 200.7	10B1807	2.0	10	ND	1	02/15/10	02/16/10		
Cadmium	EPA 200.8	10B1598	0.10	1.0	ND	1	02/12/10	02/15/10		
Vanadium	EPA 200.7	10B1807	3.0	10	ND	1	02/15/10	02/16/10		
Zinc	EPA 200.7	10B1807	6.0	20	8.8	1	02/15/10	02/16/10	Ja	
Copper	EPA 200.8	10B1598	0.50	2.0	1.7	1	02/12/10	02/15/10	Ja	
Lead	EPA 200.8	10B1598	0.20	1.0	0.40	1	02/12/10	02/15/10	Ja	
Selenium	EPA 200.8	10B1598	0.50	2.0	ND	1	02/12/10	02/15/10		
Silver	EPA 200.8	10B1598	0.10	1.0	ND	1	02/12/10	02/15/10		
Thallium	EPA 200.8	10B1598	0.20	1.0	ND	1	02/12/10	02/15/10	C	

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MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

DISSOLVED METALS

DISSOLVED METALS										
Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers			
)										
				-						
				1						
				1			В			
10B1846	0.050	0.10	54	1	02/15/10	02/16/10				
10B1846	0.015	0.040	ND	1	02/15/10	02/16/10				
10B1846	0.012	0.020	14	1	02/15/10	02/16/10				
)										
10B1953	0.10	0.20	ND	1	02/16/10	02/16/10				
10B1846	7.0	10	ND	1	02/15/10	02/16/10				
10B1845	0.30	2.0	ND	1	02/15/10	02/16/10				
10B1846	0.90	2.0	ND	1	02/15/10	02/16/10				
10B1846	2.0	10	ND	1	02/15/10	02/16/10				
10B1846	7.0	20	7.1	1	02/15/10	02/16/10	Ja			
10B1846	2.0	10	ND	1	02/15/10	02/16/10				
10B1845	0.10	1.0	ND	1	02/15/10	02/16/10				
10B1846	3.0	10	ND	1	02/15/10	02/16/10				
10B1846	6.0	20	ND	1	02/15/10	02/16/10				
10B2106	0.50	2.0	1.3	1	02/17/10	02/18/10	Ja			
10B1845	0.20	1.0	ND	1	02/15/10	02/16/10				
10B1845	0.50	2.0	0.51	1	02/15/10	02/16/10	Ja			
10B1845	0.10	1.0	ND	1	02/15/10	02/16/10				
10B1845	0.20	1.0	ND	1	02/15/10	02/16/10				
	(CALC] 10B1846 10B1845 10B1846 10B1845 10B1845 10B1845 10B1845	CALC N/A 10B1846 0.0060 10B1846 0.015 10B1846 0.012 10B1846 0.012 10B1846 0.012 10B1846 0.010 10B1846 0.90 10B1846 0.90 10B1846 0.90 10B1846 0.90 10B1846 0.10 10B1846 0.10 10B1846 0.10 10B1846 0.10 10B1846 0.50 10B1845 0.20 10B1845 0.50 10B1845 0.50 10B1845 0.50 10B1845 0.50 10B1845 0.10 10B1845 0.50 10B1845 0.10 10B1845 0.50 10B1845 0.10	CALC	MDL Limit Limit Result	MDL Limit Limit Result Factor	MDL Limit Limit Result Factor Extracted	MDL Limit Limit Result Factor Extracted Analyzed			



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

DISSOLVED INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: ITB0783-01 (Outfall 002 - Water)										
Reporting Units: ug/l										
Chromium VI	EPA 218.6	10B0683	0.25	1.0	ND	1	02/05/10	02/05/10		



MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

INORGANICS

	Data alifiers Ja Ja
Reporting Units: mg/l Ammonia-N (Distilled) SM4500NH3-C 10B1575 0.50 0.50 ND 1 02/12/10 02/12/10 Biochemical Oxygen Demand SM5210B 10B0795 0.50 2.0 0.81 1 02/07/10 02/12/10 Otheride EPA 300.0 10B0807 0.25 0.50 27 1 02/07/10 02/07/10 Otheride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 02/10/10 Otheride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 02/10/10 Otheride Otheride EPA 300.0 10B0807 0.060 0.11 0.24 1 02/07/10 02/07/10 Otheride O	Ja
Reporting Units: mg/l Ammonia-N (Distilled) SM4500NH3-C 10B1575 0.50 0.50 ND 1 02/12/10 02/12/10 Biochemical Oxygen Demand SM5210B 10B0795 0.50 2.0 0.81 1 02/07/10 02/12/10 Otheride EPA 300.0 10B0807 0.25 0.50 27 1 02/07/10 02/07/10 Otheride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 02/10/10 Otheride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 02/10/10 Otheride Otheride EPA 300.0 10B0807 0.060 0.11 0.24 1 02/07/10 02/07/10 Otheride O	Ja
Ammonia-N (Distilled) SM4500NH3-C 10B1575 0.50 0.50 ND 1 02/12/10 02/12/10 Biochemical Oxygen Demand SM5210B 10B0795 0.50 2.0 0.81 1 02/07/10 02/12/10 Chloride EPA 300.0 10B0807 0.25 0.50 27 1 02/07/10 02/07/10 Fluoride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 <td>Ja</td>	Ja
Chloride EPA 300.0 10B0807 0.25 0.50 27 1 02/07/10 02/07/10 Fluoride SM 4500-F-C 10B1111 0.020 0.10 0.39 1 02/10/10 02/10/10 Nitrate-N EPA 300.0 10B0807 0.060 0.11 0.24 1 02/07/10 02/07/10 Nitrate/Nitrite-N EPA 300.0 10B0807 0.15 0.26 0.24 1 02/07/10 02/07/10 Sulfate EPA 300.0 10B0807 0.15 0.26 0.24 1 02/07/10 02/07/10 Sulfate EPA 300.0 10B0807 4.0 10 160 20 02/08/10 02/08/10 Surfactants (MBAS) SM5540-C 10B0757 0.025 0.10 0.038 1 02/06/10 02/06/10 Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10	Ja
Nitrate-N EPA 300.0 10B0807 0.060 0.11 0.24 1 02/10/10 02/07/10 02/0	
Nitrate-N EPA 300.0 10B0807 0.060 0.11 0.24 1 02/07/10 02/07/10 Nitrate/Nitrite-N EPA 300.0 10B0807 0.15 0.26 0.24 1 02/07/10 02/07/10 Sulfate EPA 300.0 10B0857 4.0 10 160 20 02/08/10 02/08/10 Surfactants (MBAS) SM5540-C 10B0757 0.025 0.10 0.038 1 02/06/10 02/06/10 Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/l Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1	
Nitrate/Nitrite-N EPA 300.0 10B0807 0.15 0.26 0.24 1 02/07/10 02/07/10 Sulfate EPA 300.0 10B0857 4.0 10 160 20 02/08/10 02/08/10 Surfactants (MBAS) SM5540-C 10B0757 0.025 0.10 0.038 1 02/06/10 02/06/10 Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 02/11/10 Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/I Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) 0.10 0.10	
Sulfate EPA 300.0 10B0857 4.0 10 160 20 02/08/10 02/08/10 Surfactants (MBAS) SM5540-C 10B0757 0.025 0.10 0.038 1 02/06/10 02/06/10 Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 02/11/10 Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/I Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU	
Surfactants (MBAS) SM5540-C 10B0757 0.025 0.10 0.038 1 02/06/10 02/06/10 Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/I Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU	Ja
Total Dissolved Solids SM2540C 10B1300 1.0 10 400 1 02/11/10 02/11/10 Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/I Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU	Ja
Total Organic Carbon SM5310B 10B1284 0.50 1.0 7.1 1 02/11/10 02/11/10 Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/I Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU	
Total Suspended Solids SM 2540D 10B1450 1.0 10 9.0 1 02/11/10 02/11/10 Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/l Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU	
Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ml/l Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10 Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: NTU Reporting Units: NTU	
Reporting Units: ml/l Total Settleable Solids SM2540F 10B0752 0.10 0.10 ND 1 02/06/10 02/06/10	Ja
Reporting Units: NTU	
Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: ug/l Total Cyanide SM4500CN-E 10B1250 2.2 5.0 ND 1 02/10/10 02/10/10	
Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: ug/l	
Perchlorate EPA 314.0 10B1873 0.90 4.0 ND 1 02/16/10 02/16/10	
Nitrite-N EPA 300.0 10B0807 90 150 ND 1 02/07/10 02/07/10	
Sample ID: ITB0783-01 (Outfall 002 - Water) Reporting Units: umhos/cm Specific Conductance SM2510B 10B1119 1.0 1.0 670 1 02/10/10 02/10/10	

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

ASTM 5174-91

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Reporting Units: pCi/L Total Unanium	, , ,	52290	0.21	0.60	1 40	1	02/22/10	02/26/10	
Total Uranium	ASTM 5174-91	53280	0.21	0.69	1.48	1	02/23/10	02/26/10	



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Project ID: Annual Outfall 002 MWH-Pasadena/Boeing

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Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

EPA 900.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water)								
Reporting Units: pCi/L									
Gross Alpha	EPA 900.0 MOD	43108	3	3	4.5	1	02/10/10	02/18/10	
Gross Beta	EPA 900.0 MOD	43108	1.3	4	2.9	1	02/10/10	02/18/10	Jb



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MWH-Pasadena/Boeing

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Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Project ID: Annual Outfall 002

Attention: Bronwyn Kelly

EPA 901.1 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 00	2 (Composite) - Water)								
Reporting Units: pCi/L									
Cesium 137	EPA 901.1 MOD	42136	10	20	2.6	1	02/11/10	02/19/10	U
Potassium 40	EPA 901.1 MOD	42136	190	NA	-40	1	02/11/10	02/19/10	U



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Sampled: 02/05/10

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Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

EPA 903.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water)									
Reporting Units: pCi/L Radium (226)	EPA 903.0 MOD	41160	0.2	1	0.1	1	02/10/10	02/26/10	U



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

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Report Number: ITB0783 Sampled: 02/05/10 Received: 02/05/10

Attention: Bronwyn Kelly

Arcadia, CA 91007

EPA 904 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: ITB0888-01RE1 (Outfall 002 (Composite) - Water)											
Reporting Units: pCi/L Radium 228	EPA 904 MOD	60257	0.37	1	-0.04	1	03/01/10	03/05/10	U		



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Sampled: 02/05/10

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Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

EPA 905 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (Composite) - Water) Reporting Units: pCi/L									
Strontium 90	EPA 905 MOD	41162	0.42	3	0.37	1	02/10/10	02/19/10	U



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Attention: Bronwyn Kelly

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Arcadia, CA 91007

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

EPA 906.0 MOD

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (C Reporting Units: pCi/L	omposite) - Water)								
Tritium	EPA 906.0 MOD	49035	93	500	109	1	02/18/10	02/18/10	Jb



MWH-Pasadena/Boeing

Project ID: Annual Outfall 002

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Sampled: 02/05/10 Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01 (Outfall 002 (C	Composite) - Water)								
Reporting Units: ug/L									
1,2,3,4,6,7,8-HpCDD	EPA-5 1613B	48124	0.0000005	8 0.00005	4.7e-006	1	02/17/10	02/19/10	J, Ba
1,2,3,4,6,7,8-HpCDF	EPA-5 1613B	48124	0.0000003	7 0.00005	1.9e-006	1	02/17/10	02/19/10	J, Q, Ba
2,3,7,8-TCDF	EPA-5 1613B	48124	0.0000003	6 0.00001	8.1e-007	1	02/17/10	02/19/10	J, Q
1,2,3,4,7,8,9-HpCDF	EPA-5 1613B	48124	0.0000006	8 0.00005	6.4e-007	1	02/17/10	02/19/10	J, Q
1,2,3,4,7,8-HxCDD	EPA-5 1613B	48124	0.0000005	1 0.00005	2.9e-007	1	02/17/10	02/19/10	J, Q
1,2,3,4,7,8-HxCDF	EPA-5 1613B	48124	0.0000004	1 0.00005	8e-007	1	02/17/10	02/19/10	J
1,2,3,6,7,8-HxCDD	EPA-5 1613B	48124	0.0000005	1 0.00005	ND	1	02/17/10	02/19/10	
1,2,3,6,7,8-HxCDF	EPA-5 1613B	48124	0.0000003	7 0.00005	5.5e-007	1	02/17/10	02/19/10	J
1,2,3,7,8,9-HxCDD	EPA-5 1613B	48124	0.0000003	9 0.00005	5e-007	1	02/17/10	02/19/10	J
1,2,3,7,8,9-HxCDF	EPA-5 1613B	48124	0.0000004	9 0.00005	ND	1	02/17/10	02/19/10	
1,2,3,7,8-PeCDD	EPA-5 1613B	48124	0.0000005	8 0.00005	ND	1	02/17/10	02/19/10	
1,2,3,7,8-PeCDF	EPA-5 1613B	48124	0.0000004	4 0.00005	ND	1	02/17/10	02/19/10	
2,3,4,6,7,8-HxCDF	EPA-5 1613B	48124	0.0000003	6 0.00005	ND	1	02/17/10	02/19/10	
2,3,4,7,8-PeCDF	EPA-5 1613B	48124	0.0000005	4 0.00005	ND	1	02/17/10	02/19/10	
2,3,7,8-TCDD	EPA-5 1613B	48124	0.0000004	6 0.00001	ND	1	02/17/10	02/19/10	
OCDD	EPA-5 1613B	48124	0.0000012	2 0.0001	3.7e-005	1	02/17/10	02/19/10	J, Ba
OCDF	EPA-5 1613B	48124	0.0000007	6 0.0001	4.4e-006	1	02/17/10	02/19/10	J, Ba
Total HpCDD	EPA-5 1613B	48124			1.5e-005	1	02/17/10	02/19/10	J, Ba
Total HpCDF	EPA-5 1613B	48124			3.9e-006	1	02/17/10	02/19/10	J, Q, Ba
Total HxCDD	EPA-5 1613B	48124			1.5e-006	1	02/17/10	02/19/10	J, Q
Total HxCDF	EPA-5 1613B	48124			1.9e-006	1	02/17/10	02/19/10	J, Q
Total PeCDD	EPA-5 1613B	48124			ND	1	02/17/10	02/19/10	
Total PeCDF	EPA-5 1613B	48124			ND	1	02/17/10	02/19/10	
Total TCDD	EPA-5 1613B	48124			ND	1	02/17/10	02/19/10	
Total TCDF	EPA-5 1613B	48124	0.0000003	6 0.00001	1.5e-006	1	02/17/10	02/19/10	J, Q
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					71 %				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197					89 %				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (2					103 %				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (2	*				99 %				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (2)					90 %				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-					105 %				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-	· · · · · · · · · · · · · · · · · · ·				99 %				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-					95 %				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-					100 %				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-					93 %				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-18					90 %				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-18					85 %				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-					106 %				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-17					81 %				
Surrogate: 13C-2,3,7,8-TCDD (25-164%)	5)				81 %				
Surrogate: 13C-OCDD (17-157%)					102 %				
TD 4 A									

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Sampled: 02/05/10

MWH-Pasadena/Boeing

Arcadia, CA 91007

Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200

Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

EPA-5 1613B

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: ITB0888-01RE1 (Outfall 002	(Composite) - Wa	ter) - cont.							
Reporting Units: ug/L									
2,3,7,8-TCDF	EPA-5 1613B	48124	0.0000019	0.00001	ND	1	02/17/10	02/19/10	
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					92 %				
Surrogate: 37Cl4-2,3,7,8-TCDD (35-197%)	<i>6)</i>				89 %				



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MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 002 (ITB0783-01) - Water	r				
EPA 218.6	1	02/05/2010 09:30	02/05/2010 19:20	02/05/2010 22:45	02/05/2010 23:01
EPA 624	3	02/05/2010 09:30	02/05/2010 19:20	02/07/2010 00:00	02/08/2010 02:21
SM2540F	2	02/05/2010 09:30	02/05/2010 19:20	02/06/2010 10:40	02/06/2010 12:45
Sample ID: Trip Blanks (ITB0783-02) - Water	er				
EPA 624	3	02/05/2010 09:30	02/05/2010 19:20	02/07/2010 00:00	02/08/2010 01:24
Sample ID: Outfall 002 (Composite) (ITB088	8-01) - Water				
EPA 180.1	2	02/05/2010 21:03	02/06/2010 17:00	02/07/2010 08:03	02/07/2010 08:30
EPA 300.0	2	02/05/2010 21:03	02/06/2010 17:00	02/07/2010 18:15	02/07/2010 18:43
Filtration	1	02/05/2010 21:03	02/06/2010 17:00	02/08/2010 14:27	02/08/2010 14:28
SM5210B	2	02/05/2010 21:03	02/06/2010 17:00	02/07/2010 11:58	02/12/2010 16:10
SM5540-C	2	02/05/2010 21:03	02/06/2010 17:00	02/06/2010 20:00	02/06/2010 20:36

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Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/CADHS Mod. 8015)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1671 Extracted: 02/13/10	_										
Blank Analyzed: 02/13/2010 (10B1671-B	LK1)										
GRO (C4 - C12)	ND	100	25	ug/l							
Surrogate: 4-BFB (FID)	10.8			ug/l	10.0		108	65-140			
LCS Analyzed: 02/13/2010 (10B1671-BS	1)										
GRO (C4 - C12)	805	100	25	ug/l	800		101	80-120			
Surrogate: 4-BFB (FID)	11.5			ug/l	10.0		115	65-140			
Matrix Spike Analyzed: 02/13/2010 (10B	1671-MS1)				Sou	rce: ITB	1599-01				
GRO (C4 - C12)	458	100	25	ug/l	220	165	133	65-140			
Surrogate: 4-BFB (FID)	11.5			ug/l	10.0		115	65-140			
Matrix Spike Dup Analyzed: 02/13/2010 (10B1671-MSD1)					Sou	rce: ITB	1599-01				
GRO (C4 - C12)	364	100	25	ug/l	220	165	90	65-140	23	20	R
Surrogate: 4-BFB (FID)	10.6			ug/l	10.0		106	65-140			

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618 Michillinda Avenue, Suite 200

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (EPA 3510C/EPA 8015B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1526 Extracted: 02/12/10	<u>0</u>										
Blank Analyzed: 02/12/2010 (10B1526-E	BLK1)										
DRO (C13 - C28)	ND	100	50	ug/l							
EFH (C10 - C28)	ND	100	50	ug/l							
Surrogate: n-Octacosane	145			ug/l	200		72	45-120			
LCS Analyzed: 02/12/2010 (10B1526-BS	S1)										MNR1
EFH (C10 - C28)	547	100	50	ug/l	1000		55	40-115			
Surrogate: n-Octacosane	116			ug/l	200		58	45-120			
LCS Dup Analyzed: 02/12/2010 (10B152	26-BSD1)										
EFH (C10 - C28)	584	100	50	ug/l	1000		58	40-115	7	25	
Surrogate: n-Octacosane	125			ug/l	200		63	45-120			

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

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		2		CIIIO	20,01	1105411	, 0112 0	2111105	2		Quantities 9
Batch: 10B0785 Extracted: 02/07/10	<u>'</u>										
Blank Analyzed: 02/07/2010 (10B0785-B	LK1)										
Benzene	ND	0.50	0.28	ug/l							
Benzene	ND	0.50	0.28	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
Dibromochloromethane	ND	0.50	0.40	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
1,1-Dichloroethane	ND	0.50	0.40	ug/l							
1,1-Dichloroethane	ND	0.50	0.40	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
cis-1,2-Dichloroethene	ND	0.50	0.32	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.30	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
1,2-Dichloro-1,1,2-trifluoroethane	ND	2.0	1.1	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/1							
Methylene chloride	ND	1.0	0.95	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.30	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							

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THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Sampled: 02/05/10

Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10	n										•
Datch: 10B0/85 Extracted: 02/0//10	<u>u</u>										
Blank Analyzed: 02/07/2010 (10B0785-E	BLK1)										
Toluene	ND	0.50	0.36	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Vinyl chloride	ND	0.50	0.40	ug/l							
Vinyl chloride	ND	0.50	0.40	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Cyclohexane	ND	1.0	0.40	ug/l							
Surrogate: 4-Bromofluorobenzene	26.2			ug/l	25.0		105	80-120			
Surrogate: 4-Bromofluorobenzene	26.2			ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	23.9			ug/l	25.0		96	80-120			
Surrogate: Dibromofluoromethane	23.9			ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	27.0			ug/l	25.0		108	80-120			
Surrogate: Toluene-d8	27.0			ug/l	25.0		108	80-120			
LCS Analyzed: 02/07/2010 (10B0785-BS	81)										
Benzene	24.1	0.50	0.28	ug/l	25.0		96	70-120			
Benzene	24.1	0.50	0.28	ug/l	25.0		96	70-120			
Bromodichloromethane	28.8	0.50	0.30	ug/l	25.0		115	70-135			
Bromoform	22.2	0.50	0.40	ug/l	25.0		89	55-130			
Bromomethane	30.3	1.0	0.42	ug/l	25.0		121	65-140			
Carbon tetrachloride	39.8	0.50	0.28	ug/l	25.0		159	65-140			L
Carbon tetrachloride	39.8	0.50	0.28	ug/l	25.0		159	65-140			L
Chlorobenzene	25.9	0.50	0.36	ug/l	25.0		104	75-120			
Chloroethane	27.2	1.0	0.40	ug/l	25.0		109	60-140			
Chloroform	25.5	0.50	0.33	ug/l	25.0		102	70-130			
Chloroform	25.5	0.50	0.33	ug/l	25.0		102	70-130			
Chloromethane	28.2	0.50	0.40	ug/l	25.0		113	50-140			

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Sampled: 02/05/10 Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Daten. 10D0/03 Extracted. 02/0//10	_										
LCS Analyzed: 02/07/2010 (10B0785-BS	1)										
Dibromochloromethane	25.7	0.50	0.40	ug/l	25.0		103	70-140			
1,2-Dichlorobenzene	26.1	0.50	0.32	ug/l	25.0		104	75-120			
1,3-Dichlorobenzene	27.0	0.50	0.35	ug/l	25.0		108	75-120			
1,4-Dichlorobenzene	26.6	0.50	0.37	ug/l	25.0		107	75-120			
1,1-Dichloroethane	25.1	0.50	0.40	ug/l	25.0		100	70-125			
1,1-Dichloroethane	25.1	0.50	0.40	ug/l	25.0		100	70-125			
1,2-Dichloroethane	25.5	0.50	0.28	ug/l	25.0		102	60-140			
1,2-Dichloroethane	25.5	0.50	0.28	ug/l	25.0		102	60-140			
1,1-Dichloroethene	26.8	0.50	0.42	ug/l	25.0		107	70-125			
1,1-Dichloroethene	26.8	0.50	0.42	ug/l	25.0		107	70-125			
cis-1,2-Dichloroethene	25.6	0.50	0.32	ug/l	25.0		102	70-125			
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0		102	70-125			
1,2-Dichloropropane	22.8	0.50	0.35	ug/l	25.0		91	70-125			
cis-1,3-Dichloropropene	30.0	0.50	0.22	ug/l	25.0		120	75-125			
trans-1,3-Dichloropropene	23.0	0.50	0.32	ug/l	25.0		92	70-125			
Ethylbenzene	28.4	0.50	0.25	ug/l	25.0		114	75-125			
Ethylbenzene	28.4	0.50	0.25	ug/l	25.0		114	75-125			
Methylene chloride	21.2	1.0	0.95	ug/l	25.0		85	55-130			
1,1,2,2-Tetrachloroethane	22.6	0.50	0.30	ug/l	25.0		90	55-130			
Tetrachloroethene	28.9	0.50	0.32	ug/l	25.0		116	70-125			
Tetrachloroethene	28.9	0.50	0.32	ug/l	25.0		116	70-125			
Toluene	25.5	0.50	0.36	ug/l	25.0		102	70-120			
Toluene	25.5	0.50	0.36	ug/l	25.0		102	70-120			
1,1,1-Trichloroethane	31.7	0.50	0.30	ug/l	25.0		127	65-135			
1,1,1-Trichloroethane	31.7	0.50	0.30	ug/l	25.0		127	65-135			
1,1,2-Trichloroethane	22.6	0.50	0.30	ug/l	25.0		91	70-125			
1,1,2-Trichloroethane	22.6	0.50	0.30	ug/l	25.0		91	70-125			
Trichloroethene	28.0	0.50	0.26	ug/l	25.0		112	70-125			
Trichloroethene	28.0	0.50	0.26	ug/l	25.0		112	70-125			
Trichlorofluoromethane	31.6	0.50	0.34	ug/l	25.0		126	65-145			
Trichlorofluoromethane	31.6	0.50	0.34	ug/l	25.0		126	65-145			
Vinyl chloride	30.9	0.50	0.40	ug/l	25.0		124	55-135			
Vinyl chloride	30.9	0.50	0.40	ug/l	25.0		124	55-135			
Xylenes, Total	79.7	1.5	0.90	ug/l	75.0		106	70-125			
Xylenes, Total	79.7	1.5	0.90	ug/l	75.0		106	70-125			

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THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Sampled: 02/05/10 Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
·		Lillit	MIDL	Units	Level	Result	70KEC	Limits	KFD	Lillit	Quanners
Batch: 10B0785 Extracted: 02/07/19	<u>0</u>										
LCS Analyzed: 02/07/2010 (10B0785-BS	S1)										
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.3			ug/l	25.0		109	80-120			
Surrogate: Toluene-d8	27.3			ug/l	25.0		109	80-120			
Matrix Spike Analyzed: 02/07/2010 (101	B0785-MS1)				Sou	rce: ITB(302-01				
Benzene	21.5	0.50	0.28	ug/l	25.0	ND	86	65-125			
Benzene	21.5	0.50	0.28	ug/l	25.0	ND	86	65-125			
Bromodichloromethane	26.4	0.50	0.30	ug/l	25.0	ND	106	70-135			
Bromoform	19.7	0.50	0.40	ug/l	25.0	ND	79	55-135			
Bromomethane	26.9	1.0	0.42	ug/l	25.0	ND	108	55-145			
Carbon tetrachloride	35.7	0.50	0.28	ug/l	25.0	ND	143	65-140			<i>M</i> 7
Carbon tetrachloride	35.7	0.50	0.28	ug/l	25.0	ND	143	65-140			<i>M</i> 7
Chlorobenzene	23.7	0.50	0.36	ug/l	25.0	ND	95	75-125			
Chloroethane	24.5	1.0	0.40	ug/l	25.0	ND	98	55-140			
Chloroform	23.0	0.50	0.33	ug/l	25.0	ND	92	65-135			
Chloroform	23.0	0.50	0.33	ug/l	25.0	ND	92	65-135			
Chloromethane	25.6	0.50	0.40	ug/l	25.0	ND	103	45-145			
Dibromochloromethane	23.2	0.50	0.40	ug/l	25.0	ND	93	65-140			
1,2-Dichlorobenzene	23.4	0.50	0.32	ug/l	25.0	ND	94	75-125			
1,3-Dichlorobenzene	24.0	0.50	0.35	ug/l	25.0	ND	96	75-125			
1,4-Dichlorobenzene	24.0	0.50	0.37	ug/l	25.0	ND	96	75-125			
1,1-Dichloroethane	22.7	0.50	0.40	ug/l	25.0	ND	91	65-130			
1,1-Dichloroethane	22.7	0.50	0.40	ug/l	25.0	ND	91	65-130			
1,2-Dichloroethane	23.4	0.50	0.28	ug/l	25.0	ND	93	60-140			
1,2-Dichloroethane	23.4	0.50	0.28	ug/l	25.0	ND	93	60-140			
1,1-Dichloroethene	25.0	0.50	0.42	ug/l	25.0	0.470	98	60-130			
1,1-Dichloroethene	25.0	0.50	0.42	ug/l	25.0	0.470	98	60-130			
cis-1,2-Dichloroethene	23.1	0.50	0.32	ug/l	25.0	ND	93	65-130			
trans-1,2-Dichloroethene	22.8	0.50	0.30	ug/l	25.0	ND	91	65-130			
1,2-Dichloropropane	20.3	0.50	0.35	ug/l	25.0	ND	81	65-130			
cis-1,3-Dichloropropene	26.6	0.50	0.22	ug/l	25.0	ND	106	70-130			
trans-1,3-Dichloropropene	21.0	0.50	0.32	ug/l	25.0	ND	84	65-135			
Ethylbenzene	25.6	0.50	0.25	ug/l	25.0	ND	103	65-130			

TestAmerica Irvine



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Sampled: 02/05/10 Received: 02/05/10

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
Batch: 10B0785 Extracted: 02/07/10)										
	_										
Matrix Spike Analyzed: 02/07/2010 (10F	80785-MS1)				Sou	rce: ITB	0302-01				
Ethylbenzene	25.6	0.50	0.25	ug/l	25.0	ND	103	65-130			
Methylene chloride	18.6	1.0	0.95	ug/l	25.0	ND	74	50-135			
1,1,2,2-Tetrachloroethane	19.8	0.50	0.30	ug/l	25.0	ND	79	55-135			
Tetrachloroethene	29.3	0.50	0.32	ug/l	25.0	3.33	104	65-130			
Tetrachloroethene	29.3	0.50	0.32	ug/l	25.0	3.33	104	65-130			
Toluene	23.0	0.50	0.36	ug/l	25.0	ND	92	70-125			
Toluene	23.0	0.50	0.36	ug/l	25.0	ND	92	70-125			
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	115	65-140			
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	115	65-140			
1,1,2-Trichloroethane	20.7	0.50	0.30	ug/l	25.0	ND	83	65-130			
1,1,2-Trichloroethane	20.7	0.50	0.30	ug/l	25.0	ND	83	65-130			
Trichloroethene	26.5	0.50	0.26	ug/l	25.0	1.63	100	65-125			
Trichloroethene	26.5	0.50	0.26	ug/l	25.0	1.63	100	65-125			
Trichlorofluoromethane	29.1	0.50	0.34	ug/l	25.0	ND	116	60-145			
Trichlorofluoromethane	29.1	0.50	0.34	ug/l	25.0	ND	116	60-145			
Vinyl chloride	28.1	0.50	0.40	ug/l	25.0	ND	112	45-140			
Vinyl chloride	28.1	0.50	0.40	ug/l	25.0	ND	112	45-140			
Xylenes, Total	71.7	1.5	0.90	ug/l	75.0	ND	96	60-130			
Xylenes, Total	71.7	1.5	0.90	ug/l	75.0	ND	96	60-130			
Surrogate: 4-Bromofluorobenzene	28.7			ug/l	25.0		115	80-120			
Surrogate: 4-Bromofluorobenzene	28.7			ug/l	25.0		115	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	27.1			ug/l	25.0		108	80-120			
Surrogate: Toluene-d8	27.1			ug/l	25.0		108	80-120			
Matrix Spike Dup Analyzed: 02/07/2010	(10B0785-M	ISD1)			Sou	rce: ITB	0302-01				
Benzene	24.4	0.50	0.28	ug/l	25.0	ND	98	65-125	13	20	
Benzene	24.4	0.50	0.28	ug/l	25.0	ND	98	65-125	13	20	
Bromodichloromethane	29.7	0.50	0.30	ug/l	25.0	ND	119	70-135	12	20	
Bromoform	23.7	0.50	0.40	ug/l	25.0	ND	95	55-135	18	25	
Bromomethane	29.8	1.0	0.42	ug/l	25.0	ND	119	55-145	10	25	
Carbon tetrachloride	39.9	0.50	0.28	ug/l	25.0	ND	160	65-140	11	25	<i>M</i> 7
Carbon tetrachloride	39.9	0.50	0.28	ug/l	25.0	ND	160	65-140	11	25	M7
Chlorobenzene	26.9	0.50	0.36	ug/l	25.0	ND	108	75-125	13	20	-71/
Chloroethane	27.2	1.0	0.40	ug/l	25.0	ND	109	55-140	11	25	
	-					.10				· -	

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RPD

Data



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

Source

Report Number: ITB0783

Reporting

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Spike

		Reporting			Spike	Source		OKEC		KI D	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B0785 Extracted: 02/07/	/10										
Matrix Spike Dup Analyzed: 02/07/20	010 (10B0785-M	SD1)			Sou	ırce: ITB(0302-01				
Chloroform	25.8	0.50	0.33	ug/l	25.0	ND	103	65-135	11	20	
Chloroform	25.8	0.50	0.33	ug/l	25.0	ND	103	65-135	11	20	
Chloromethane	28.8	0.50	0.40	ug/l	25.0	ND	115	45-145	12	25	
Dibromochloromethane	27.2	0.50	0.40	ug/l	25.0	ND	109	65-140	16	25	
1,2-Dichlorobenzene	26.6	0.50	0.32	ug/l	25.0	ND	106	75-125	13	20	
1,3-Dichlorobenzene	27.4	0.50	0.35	ug/l	25.0	ND	109	75-125	13	20	
1,4-Dichlorobenzene	26.9	0.50	0.37	ug/l	25.0	ND	108	75-125	11	20	
1,1-Dichloroethane	25.2	0.50	0.40	ug/l	25.0	ND	101	65-130	10	20	
1,1-Dichloroethane	25.2	0.50	0.40	ug/l	25.0	ND	101	65-130	10	20	
1,2-Dichloroethane	26.8	0.50	0.28	ug/l	25.0	ND	107	60-140	14	20	
1,2-Dichloroethane	26.8	0.50	0.28	ug/l	25.0	ND	107	60-140	14	20	
1,1-Dichloroethene	27.6	0.50	0.42	ug/l	25.0	0.470	108	60-130	10	20	
1,1-Dichloroethene	27.6	0.50	0.42	ug/l	25.0	0.470	108	60-130	10	20	
cis-1,2-Dichloroethene	26.0	0.50	0.32	ug/l	25.0	ND	104	65-130	12	20	
trans-1,2-Dichloroethene	25.4	0.50	0.30	ug/l	25.0	ND	102	65-130	11	20	
1,2-Dichloropropane	23.5	0.50	0.35	ug/l	25.0	ND	94	65-130	15	20	
cis-1,3-Dichloropropene	30.8	0.50	0.22	ug/l	25.0	ND	123	70-130	15	20	
trans-1,3-Dichloropropene	24.5	0.50	0.32	ug/l	25.0	ND	98	65-135	16	25	
Ethylbenzene	29.0	0.50	0.25	ug/l	25.0	ND	116	65-130	12	20	
Ethylbenzene	29.0	0.50	0.25	ug/l	25.0	ND	116	65-130	12	20	
Methylene chloride	21.4	1.0	0.95	ug/l	25.0	ND	85	50-135	14	20	
1,1,2,2-Tetrachloroethane	24.3	0.50	0.30	ug/l	25.0	ND	97	55-135	20	30	
Tetrachloroethene	32.2	0.50	0.32	ug/l	25.0	3.33	115	65-130	9	20	
Tetrachloroethene	32.2	0.50	0.32	ug/l	25.0	3.33	115	65-130	9	20	
Toluene	26.0	0.50	0.36	ug/l	25.0	ND	104	70-125	12	20	
Toluene	26.0	0.50	0.36	ug/l	25.0	ND	104	70-125	12	20	
1,1,1-Trichloroethane	31.6	0.50	0.30	ug/l	25.0	ND	126	65-140	10	20	
1,1,1-Trichloroethane	31.6	0.50	0.30	ug/l	25.0	ND	126	65-140	10	20	
1,1,2-Trichloroethane	23.6	0.50	0.30	ug/l	25.0	ND	95	65-130	13	25	
1,1,2-Trichloroethane	23.6	0.50	0.30	ug/l	25.0	ND	95	65-130	13	25	
Trichloroethene	30.2	0.50	0.26	ug/l	25.0	1.63	114	65-125	13	20	
Trichloroethene	30.2	0.50	0.26	ug/l	25.0	1.63	114	65-125	13	20	
Trichlorofluoromethane	32.0	0.50	0.34	ug/l	25.0	ND	128	60-145	10	25	
Trichlorofluoromethane	32.0	0.50	0.34	ug/l	25.0	ND	128	60-145	10	25	
Vinyl chloride	31.2	0.50	0.40	ug/l	25.0	ND	125	45-140	11	30	

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783 Received: 02/05/10

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10	<u>_</u>										
Matrix Spike Dup Analyzed: 02/07/2010	(10B0785-MS	SD1)			Sou	rce: ITB(0302-01				
Vinyl chloride	31.2	0.50	0.40	ug/l	25.0	ND	125	45-140	11	30	
Xylenes, Total	80.9	1.5	0.90	ug/l	75.0	ND	108	60-130	12	20	
Xylenes, Total	80.9	1.5	0.90	ug/l	75.0	ND	108	60-130	12	20	
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.4			ug/l	25.0		109	80-120			
Surrogate: Toluene-d8	27.4			ug/l	25.0		109	80-120			



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METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0785 Extracted: 02/07/10											
Blank Analyzed: 02/07/2010 (10B0785-Bl	(K1)										
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	1.2	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: 4-Bromofluorobenzene	26.2	5.0	1.0	ug/l ug/l	25.0		105	80-120			
Surrogate: Dibromofluoromethane	23.9			ug/l ug/l	25.0		96	80-120			
Surrogate: Toluene-d8	27.0			ug/l ug/l	25.0		108	80-120			
Surroguic. Totache do	27.0			ugn	23.0		100	00-120			
LCS Analyzed: 02/07/2010 (10B0785-BS1	.)										
2-Chloroethyl vinyl ether	18.7	5.0	1.8	ug/l	25.0		75	25-170			
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.3			ug/l	25.0		109	80-120			
Matrix Spike Analyzed: 02/07/2010 (10B0	0785-MS1)				Sou	rce: ITB(302-01				
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170			M13
Surrogate: 4-Bromofluorobenzene	28.7			ug/l	25.0		115	80-120			
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	27.1			ug/l	25.0		108	80-120			
Matrix Spike Dup Analyzed: 02/07/2010	(10B0785-M	SD1)			Sou	rce: ITB(302-01				
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l	25.0	ND		25-170		25	M13
Surrogate: 4-Bromofluorobenzene	28.3			ug/l	25.0		113	80-120			
Surrogate: Dibromofluoromethane	24.7			ug/l	25.0		99	80-120			
Surrogate: Toluene-d8	27.4			ug/l	25.0		109	80-120			

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

1,4-DIOXANE BY GCMS - SINGLE ION MONITORING (SIM)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B0317 Extracted: 02/08/10	-										
Blank Analyzed: 02/08/2010 (10B0317-B	LK1)										
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	0.980			ug/l	1.00		98	80-120			
LCS Analyzed: 02/08/2010 (10B0317-BS	1)										
1,4-Dioxane	9.80	2.0	1.0	ug/l	10.0		98	70-125			
Surrogate: Dibromofluoromethane	0.960			ug/l	1.00		96	80-120			
Matrix Spike Analyzed: 02/08/2010 (10B	0317-MS1)				Sou	rce: ITB(0632-01				
1,4-Dioxane	9.00	2.0	1.0	ug/l	10.0	ND	90	70-130			
Surrogate: Dibromofluoromethane	1.03			ug/l	1.00		103	80-120			
Matrix Spike Dup Analyzed: 02/08/2010	(10B0317-M	SD1)			Sou	rce: ITB(0632-01				
1,4-Dioxane	9.37	2.0	1.0	ug/l	10.0	ND	94	70-130	4	30	
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-120			

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%REC

MWH-Pasadena/Boeing

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Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Reporting

Received: 02/05/10

RPD

Data

METHOD BLANK/QC DATA

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

Spike

Source

Analyte	Result	Limit	MDL	Units	Lovel	Docult	%REC	/oKEC	RPD	Limit	Qualifiers
·		Limit	MDL	Units	Level	Result	70KEC	Limits	KFD	Limit	Quanners
Batch: 10B1159 Extracted: 02/10/1	<u>0</u>										
Blank Analyzed: 02/15/2010 (10B1159-I	BLK1)										
Acenaphthene	ND	0.50	0.10	ug/l							
Acenaphthylene	ND	0.50	0.10	ug/l							
Aniline	ND	10	0.30	ug/1							
Anthracene	ND	0.50	0.10	ug/1							
Benzidine	ND	5.0	5.0	ug/l							
Benzo(a)anthracene	ND	5.0	0.10	ug/l							
Benzo(a)pyrene	ND	2.0	0.10	ug/l							
Benzo(b)fluoranthene	ND	2.0	0.10	ug/l							
Benzo(g,h,i)perylene	ND	5.0	0.10	ug/l							
Benzo(k)fluoranthene	ND	0.50	0.10	ug/l							
Benzoic acid	ND	20	3.0	ug/l							
Benzyl alcohol	ND	5.0	0.10	ug/l							
4-Bromophenyl phenyl ether	ND	1.0	0.10	ug/l							
Butyl benzyl phthalate	ND	5.0	0.70	ug/l							
4-Chloro-3-methylphenol	ND	2.0	0.20	ug/l							
4-Chloroaniline	ND	2.0	0.10	ug/l							
Bis(2-chloroethoxy)methane	ND	0.50	0.10	ug/l							
Bis(2-chloroethyl)ether	ND	0.50	0.10	ug/l							
Bis(2-chloroisopropyl)ether	ND	0.50	0.10	ug/l							
Bis(2-ethylhexyl)phthalate	ND	5.0	1.7	ug/l							
2-Chloronaphthalene	ND	0.50	0.10	ug/l							
2-Chlorophenol	ND	1.0	0.20	ug/l							
4-Chlorophenyl phenyl ether	ND	0.50	0.10	ug/l							
Chrysene	ND	0.50	0.10	ug/l							
Dibenz(a,h)anthracene	ND	0.50	0.10	ug/l							
Dibenzofuran	ND	0.50	0.10	ug/l							
Di-n-butyl phthalate	ND	2.0	0.20	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.20	ug/l							
3,3'-Dichlorobenzidine	ND	5.0	5.0	ug/l							
2,4-Dichlorophenol	ND	2.0	0.20	ug/l							
Diethyl phthalate	ND	1.0	0.10	ug/l							
2,4-Dimethylphenol	ND	2.0	0.30	ug/l							
Dimethyl phthalate	ND	0.50	0.10	ug/l							

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618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

518 Michilinda Avenue, Suite 20

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783 Received: 02/05/10

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
Batch: 10B1159 Extracted: 02/10/10	n										
Daten. 10D1137 Extracted. 02/10/10	<u>o_</u>										
Blank Analyzed: 02/15/2010 (10B1159-F	BLK1)										
4,6-Dinitro-2-methylphenol	ND	5.0	0.20	ug/l							
2,4-Dinitrophenol	ND	5.0	0.90	ug/l							
2,4-Dinitrotoluene	ND	5.0	0.20	ug/l							
2,6-Dinitrotoluene	ND	5.0	0.10	ug/l							
Di-n-octyl phthalate	ND	5.0	0.10	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	1.0	0.10	ug/l							
Fluoranthene	ND	0.50	0.10	ug/l							
Fluorene	ND	0.50	0.10	ug/l							
Hexachlorobenzene	ND	1.0	0.10	ug/l							
Hexachlorobutadiene	ND	2.0	0.20	ug/l							
Hexachlorocyclopentadiene	ND	5.0	0.10	ug/l							
Hexachloroethane	ND	3.0	0.20	ug/l							
Indeno(1,2,3-cd)pyrene	ND	2.0	0.10	ug/l							
Isophorone	ND	1.0	0.10	ug/l							
2-Methylnaphthalene	ND	1.0	0.10	ug/l							
2-Methylphenol	ND	2.0	0.10	ug/l							
4-Methylphenol	ND	5.0	0.20	ug/l							
Naphthalene	ND	1.0	0.10	ug/l							
2-Nitroaniline	ND	5.0	0.10	ug/l							
3-Nitroaniline	ND	5.0	0.20	ug/l							
4-Nitroaniline	ND	5.0	0.50	ug/l							
Nitrobenzene	ND	1.0	0.10	ug/l							
2-Nitrophenol	ND	2.0	0.10	ug/l							
4-Nitrophenol	ND	5.0	2.5	ug/l							
N-Nitroso-di-n-propylamine	ND	2.0	0.10	ug/l							
N-Nitrosodimethylamine	ND	2.0	0.10	ug/l							
N-Nitrosodiphenylamine	ND	1.0	0.10	ug/l							
Pentachlorophenol	ND	2.0	0.10	ug/l							
Phenanthrene	ND	0.50	0.10	ug/l							
Phenol	ND	1.0	0.30	ug/l							
Pyrene	ND	0.50	0.10	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	0.10	ug/l							
2,4,5-Trichlorophenol	ND	2.0	0.20	ug/l							
2,4,6-Trichlorophenol	ND	1.0	0.10	ug/l							
Surrogate: 2,4,6-Tribromophenol	20.9			ug/l	20.0		104	40-120			

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THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10

Source

Spike

Report Number: ITB0783

Reporting

Received: 02/05/10

RPD

Data

METHOD BLANK/QC DATA

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

		Reporting			Sріке	Source		%REC		KPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1159 Extracted: 02/10/10	<u>) </u>										
Blank Analyzed: 02/15/2010 (10B1159-B	LK1)										
Surrogate: 2-Fluorobiphenyl	10.3			ug/l	10.0		103	50-120			
Surrogate: 2-Fluorophenol	14.7			ug/l	20.0		74	30-120			
Surrogate: Nitrobenzene-d5	8.54			ug/l	10.0		85	45-120			
Surrogate: Phenol-d6	15.2			ug/l	20.0		76	35-120			
Surrogate: Terphenyl-d14	10.2			ug/l	10.0		102	50-125			
LCS Analyzed: 02/15/2010 (10B1159-BS	1)										
Acenaphthene	8.64	0.50	0.10	ug/l	10.0		86	60-120			
Acenaphthylene	9.02	0.50	0.10	ug/l	10.0		90	60-120			
Aniline	7.16	10	0.30	ug/l	10.0		72	35-120			Ja
Anthracene	9.24	0.50	0.10	ug/l	10.0		92	65-120			
Benzidine	5.98	5.0	5.0	ug/l	10.0		60	30-160			
Benzo(a)anthracene	9.58	5.0	0.10	ug/l	10.0		96	65-120			
Benzo(a)pyrene	9.92	2.0	0.10	ug/l	10.0		99	55-130			
Benzo(b)fluoranthene	9.96	2.0	0.10	ug/l	10.0		100	55-125			
Benzo(g,h,i)perylene	11.1	5.0	0.10	ug/l	10.0		111	45-135			
Benzo(k)fluoranthene	9.34	0.50	0.10	ug/l	10.0		93	50-125			
Benzoic acid	8.18	20	3.0	ug/l	10.0		82	25-120			Ja
Benzyl alcohol	8.10	5.0	0.10	ug/l	10.0		81	50-120			
4-Bromophenyl phenyl ether	9.46	1.0	0.10	ug/l	10.0		95	60-120			
Butyl benzyl phthalate	10.2	5.0	0.70	ug/l	10.0		102	55-130			
4-Chloro-3-methylphenol	8.26	2.0	0.20	ug/l	10.0		83	60-120			
4-Chloroaniline	7.82	2.0	0.10	ug/l	10.0		78	55-120			
Bis(2-chloroethoxy)methane	8.26	0.50	0.10	ug/l	10.0		83	55-120			
Bis(2-chloroethyl)ether	7.66	0.50	0.10	ug/l	10.0		77	50-120			
Bis(2-chloroisopropyl)ether	7.12	0.50	0.10	ug/l	10.0		71	45-120			
Bis(2-ethylhexyl)phthalate	10.1	5.0	1.7	ug/l	10.0		101	65-130			
2-Chloronaphthalene	8.34	0.50	0.10	ug/l	10.0		83	60-120			
2-Chlorophenol	7.78	1.0	0.20	ug/l	10.0		78	45-120			
4-Chlorophenyl phenyl ether	10.1	0.50	0.10	ug/l	10.0		101	65-120			
Chrysene	9.58	0.50	0.10	ug/l	10.0		96	65-120			
Dibenz(a,h)anthracene	10.2	0.50	0.10	ug/l	10.0		102	50-135			
Dibenzofuran	9.46	0.50	0.10	ug/l	10.0		95	65-120			
Di-n-butyl phthalate	9.34	2.0	0.20	ug/l	10.0		93	60-125			
1,2-Dichlorobenzene	7.14	0.50	0.10	ug/l	10.0		71	40-120			
1,3-Dichlorobenzene	6.68	0.50	0.10	ug/l	10.0		67	35-120			

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

Report Number: ITB0783

METHOD BLANK/QC DATA

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

	.	Reporting	MAN	** •	Spike	Source	0/755	%REC	D.D.D.	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1159 Extracted: 02/10/10	<u>0</u>										
LCS Analyzed: 02/15/2010 (10B1159-BS	*										
1,4-Dichlorobenzene	6.72	0.50	0.20	ug/l	10.0		67	35-120			
3,3'-Dichlorobenzidine	8.16	5.0	5.0	ug/l	10.0		82	45-135			
2,4-Dichlorophenol	8.26	2.0	0.20	ug/l	10.0		83	55-120			
Diethyl phthalate	9.78	1.0	0.10	ug/l	10.0		98	55-120			
2,4-Dimethylphenol	7.00	2.0	0.30	ug/l	10.0		70	40-120			
Dimethyl phthalate	10.2	0.50	0.10	ug/l	10.0		102	30-120			
4,6-Dinitro-2-methylphenol	8.02	5.0	0.20	ug/l	10.0		80	45-120			
2,4-Dinitrophenol	8.18	5.0	0.90	ug/l	10.0		82	40-120			
2,4-Dinitrotoluene	9.60	5.0	0.20	ug/l	10.0		96	65-120			
2,6-Dinitrotoluene	9.78	5.0	0.10	ug/l	10.0		98	65-120			
Di-n-octyl phthalate	10.1	5.0	0.10	ug/l	10.0		101	65-135			
1,2-Diphenylhydrazine/Azobenzene	8.90	1.0	0.10	ug/l	10.0		89	60-120			
Fluoranthene	9.30	0.50	0.10	ug/l	10.0		93	60-120			
Fluorene	9.88	0.50	0.10	ug/l	10.0		99	65-120			
Hexachlorobenzene	9.10	1.0	0.10	ug/l	10.0		91	60-120			
Hexachlorobutadiene	6.16	2.0	0.20	ug/l	10.0		62	40-120			
Hexachlorocyclopentadiene	6.54	5.0	0.10	ug/l	10.0		65	25-120			
Hexachloroethane	6.02	3.0	0.20	ug/l	10.0		60	35-120			
Indeno(1,2,3-cd)pyrene	10.7	2.0	0.10	ug/l	10.0		107	45-135			
Isophorone	8.36	1.0	0.10	ug/l	10.0		84	50-120			
2-Methylnaphthalene	8.12	1.0	0.10	ug/l	10.0		81	55-120			
2-Methylphenol	7.62	2.0	0.10	ug/l	10.0		76	50-120			
4-Methylphenol	7.82	5.0	0.20	ug/l	10.0		78	50-120			
Naphthalene	7.80	1.0	0.10	ug/l	10.0		78	55-120			
2-Nitroaniline	9.98	5.0	0.10	ug/l	10.0		100	65-120			
3-Nitroaniline	10.2	5.0	0.20	ug/l	10.0		102	60-120			
4-Nitroaniline	9.78	5.0	0.50	ug/l	10.0		98	55-125			
Nitrobenzene	7.98	1.0	0.10	ug/l	10.0		80	55-120			
2-Nitrophenol	8.60	2.0	0.10	ug/l	10.0		86	50-120			
4-Nitrophenol	10.6	5.0	2.5	ug/l	10.0		106	45-120			
N-Nitroso-di-n-propylamine	7.64	2.0	0.10	ug/l	10.0		76	45-120			
N-Nitrosodimethylamine	8.18	2.0	0.10	ug/l	10.0		82	45-120			
N-Nitrosodiphenylamine	9.40	1.0	0.10	ug/l	10.0		94	60-120			
Pentachlorophenol	8.12	2.0	0.10	ug/l	10.0		81	50-120			
Phenanthrene	9.14	0.50	0.10	ug/l	10.0		91	65-120			
1 nonanumone	J.1T	0.50	0.10	ug/1	10.0		71	05 120			

TestAmerica Irvine



MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

Report Number: ITB0783

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 10B1159 Extracted: 02/10/10	n										
Daten: 10D1137 Extracted: 02/10/10	<u> </u>										
LCS Analyzed: 02/15/2010 (10B1159-BS	51)										
Phenol	7.70	1.0	0.30	ug/l	10.0		77	40-120			
Pyrene	9.56	0.50	0.10	ug/l	10.0		96	55-125			
1,2,4-Trichlorobenzene	7.14	1.0	0.10	ug/l	10.0		71	45-120			
2,4,5-Trichlorophenol	9.00	2.0	0.20	ug/l	10.0		90	55-120			
2,4,6-Trichlorophenol	8.56	1.0	0.10	ug/l	10.0		86	55-120			
Surrogate: 2,4,6-Tribromophenol	20.9			ug/l	20.0		104	40-120			
Surrogate: 2-Fluorobiphenyl	8.88			ug/l	10.0		89	50-120			
Surrogate: 2-Fluorophenol	13.7			ug/l	20.0		69	30-120			
Surrogate: Nitrobenzene-d5	8.20			ug/l	10.0		82	45-120			
Surrogate: Phenol-d6	14.9			ug/l	20.0		75	35-120			
Surrogate: Terphenyl-d14	9.58			ug/l	10.0		96	50-125			
Matrix Spike Analyzed: 02/15/2010 (10l	B1159-MS1)				Sou	rce: ITB	0810-01				
Acenaphthene	8.02	0.49	0.098	ug/l	9.80	ND	82	60-120			
Acenaphthylene	7.22	0.49	0.098	ug/l	9.80	ND	74	60-120			
Aniline	ND	9.8	0.29	ug/l	9.80	ND		35-120			M2
Anthracene	7.84	0.49	0.098	ug/l	9.80	ND	80	65-120			
Benzidine	ND	4.9	4.9	ug/l	9.80	ND		30-160			M2
Benzo(a)anthracene	8.73	4.9	0.098	ug/l	9.80	ND	89	65-120			
Benzo(a)pyrene	8.22	2.0	0.098	ug/l	9.80	ND	84	55-130			
Benzo(b)fluoranthene	9.22	2.0	0.098	ug/l	9.80	ND	94	55-125			
Benzo(g,h,i)perylene	9.82	4.9	0.098	ug/l	9.80	ND	100	45-135			
Benzo(k)fluoranthene	8.45	0.49	0.098	ug/l	9.80	ND	86	55-125			
Benzoic acid	11.6	20	2.9	ug/l	9.80	ND	118	25-125			Ja
Benzyl alcohol	7.59	4.9	0.098	ug/l	9.80	ND	77	40-120			
4-Bromophenyl phenyl ether	8.25	0.98	0.098	ug/l	9.80	ND	84	60-120			
Butyl benzyl phthalate	9.51	4.9	0.69	ug/l	9.80	ND	97	55-130			
4-Chloro-3-methylphenol	3.18	2.0	0.20	ug/l	9.80	ND	32	60-120			M2
4-Chloroaniline	ND	2.0	0.098	ug/l	9.80	ND		55-120			M2
Bis(2-chloroethoxy)methane	7.12	0.49	0.098	ug/l	9.80	ND	73	50-120			
Bis(2-chloroethyl)ether	7.29	0.49	0.098	ug/l	9.80	ND	74	50-120			
Bis(2-chloroisopropyl)ether	6.71	0.49	0.098	ug/l	9.80	ND	68	45-120			
Bis(2-ethylhexyl)phthalate	9.55	4.9	1.7	ug/l	9.80	ND	97	65-130			
2-Chloronaphthalene	6.92	0.49	0.098	ug/l	9.80	ND	71	60-120			
2-Chlorophenol	6.12	0.98	0.20	ug/l	9.80	ND	62	45-120			
4-Chlorophenyl phenyl ether	9.33	0.49	0.098	ug/l	9.80	ND	95	65-120			

TestAmerica Irvine



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Project ID: Annual Outfall 002

Sampled: 02/05/10

%REC

Report Number: ITB0783

Reporting

Received: 02/05/10

RPD

Data

METHOD BLANK/QC DATA

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

Spike

Source

		Keporting			Spike	Source		OKEC		KI D	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1159 Extracted: 02/10	<u>/10</u>										
Matrix Spike Analyzed: 02/15/2010 (1	10B1159-MS1)				Sou	rce: ITB(0810-01				
Chrysene	8.61	0.49	0.098	ug/l	9.80	ND	88	65-120			
Dibenz(a,h)anthracene	8.78	0.49	0.098	ug/l	9.80	ND	90	45-135			
Dibenzofuran	8.84	0.49	0.098	ug/1	9.80	ND	90	65-120			
Di-n-butyl phthalate	8.59	2.0	0.20	ug/l	9.80	ND	88	60-125			
1,2-Dichlorobenzene	9.25	0.49	0.098	ug/l	9.80	ND	94	40-120			
1,3-Dichlorobenzene	6.55	0.49	0.098	ug/l	9.80	ND	67	35-120			
1,4-Dichlorobenzene	6.53	0.49	0.20	ug/l	9.80	ND	67	35-120			
3,3'-Dichlorobenzidine	ND	4.9	4.9	ug/l	9.80	ND		45-135			M2
2,4-Dichlorophenol	5.47	2.0	0.20	ug/l	9.80	ND	56	55-120			
Diethyl phthalate	10.1	0.98	0.098	ug/l	9.80	ND	103	55-120			
2,4-Dimethylphenol	ND	2.0	0.29	ug/l	9.80	ND		40-120			M2
Dimethyl phthalate	9.53	0.49	0.098	ug/1	9.80	ND	97	30-120			
4,6-Dinitro-2-methylphenol	10.7	4.9	0.20	ug/1	9.80	ND	109	45-120			
2,4-Dinitrophenol	11.4	4.9	0.88	ug/l	9.80	ND	116	40-120			
2,4-Dinitrotoluene	9.41	4.9	0.20	ug/l	9.80	ND	96	65-120			
2,6-Dinitrotoluene	10.3	4.9	0.098	ug/l	9.80	ND	105	65-120			
Di-n-octyl phthalate	9.51	4.9	0.098	ug/l	9.80	ND	97	65-135			
1,2-Diphenylhydrazine/Azobenzene	9.12	0.98	0.098	ug/1	9.80	ND	93	60-120			
Fluoranthene	8.51	0.49	0.098	ug/l	9.80	ND	87	60-120			
Fluorene	9.31	0.49	0.098	ug/l	9.80	ND	95	65-120			
Hexachlorobenzene	8.04	0.98	0.098	ug/l	9.80	ND	82	60-120			
Hexachlorobutadiene	6.39	2.0	0.20	ug/l	9.80	ND	65	40-120			
Hexachlorocyclopentadiene	6.39	4.9	0.098	ug/l	9.80	ND	65	25-120			
Hexachloroethane	6.14	2.9	0.20	ug/l	9.80	ND	63	35-120			
Indeno(1,2,3-cd)pyrene	9.31	2.0	0.098	ug/l	9.80	ND	95	40-135			
Isophorone	7.65	0.98	0.098	ug/l	9.80	0.333	75	50-120			
2-Methylnaphthalene	6.78	0.98	0.098	ug/l	9.80	ND	69	55-120			
2-Methylphenol	0.451	2.0	0.098	ug/l	9.80	ND	5	50-120			M2, Ja
4-Methylphenol	0.275	4.9	0.20	ug/l	9.80	ND	3	50-120			M2, Ja
Naphthalene	7.12	0.98	0.098	ug/l	9.80	ND	73	55-120			
2-Nitroaniline	5.57	4.9	0.098	ug/l	9.80	ND	57	65-120			M2
3-Nitroaniline	ND	4.9	0.20	ug/l	9.80	ND		60-120			M2
4-Nitroaniline	1.00	4.9	0.49	ug/l	9.80	ND	10	55-125			M2, Ja
Nitrobenzene	11.9	0.98	0.098	ug/l	9.80	ND	121	55-120			M1
2-Nitrophenol	12.4	2.0	0.098	ug/l	9.80	ND	126	50-120			M1

TestAmerica Irvine



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

Report Number: ITB0783

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 10B1159 Extracted: 02/1	10/10										
Matrix Spike Analyzed: 02/15/2010	(10B1159-MS1)				Sou	ırce: ITB	0810-01				
4-Nitrophenol	16.5	4.9	2.5	ug/l	9.80	ND	168	45-120			M1
N-Nitroso-di-n-propylamine	7.57	2.0	0.098	ug/l	9.80	ND	77	45-120			
N-Nitrosodimethylamine	7.31	2.0	0.098	ug/l	9.80	ND	75	45-120			
N-Nitrosodiphenylamine	6.55	0.98	0.098	ug/l	9.80	ND	67	60-120			
Pentachlorophenol	9.12	2.0	0.098	ug/l	9.80	ND	93	50-120			
Phenanthrene	8.33	0.49	0.098	ug/l	9.80	ND	85	65-120			
Phenol	7.92	0.98	0.29	ug/l	9.80	ND	81	40-120			
Pyrene	8.88	0.49	0.098	ug/1	9.80	ND	91	55-125			
1,2,4-Trichlorobenzene	6.88	0.98	0.098	ug/1	9.80	ND	70	45-120			
2,4,5-Trichlorophenol	9.37	2.0	0.20	ug/1	9.80	ND	96	55-120			
2,4,6-Trichlorophenol	9.18	0.98	0.098	ug/1	9.80	ND	94	55-120			
Surrogate: 2,4,6-Tribromophenol	17.4			ug/l	19.6		89	40-120			
Surrogate: 2-Fluorobiphenyl	6.96			ug/l	9.80		71	50-120			
Surrogate: 2-Fluorophenol	8.49			ug/l	19.6		43	30-120			
Surrogate: Nitrobenzene-d5	7.65			ug/l	9.80		78	45-120			
Surrogate: Phenol-d6	8.53			ug/l	19.6		44	35-120			
Surrogate: Terphenyl-d14	8.73			ug/l	9.80		89	50-125			
Matrix Spike Dup Analyzed: 02/15/	/2010 (10B1159-N	(ISD1)			Sou	ırce: ITB	0810-01				
Acenaphthene	7.43	0.49	0.098	ug/l	9.80	ND	76	60-120	8	25	
Acenaphthylene	6.16	0.49	0.098	ug/1	9.80	ND	63	60-120	16	25	
Aniline	ND	9.8	0.29	ug/1	9.80	ND		35-120		30	M2
Anthracene	7.53	0.49	0.098	ug/1	9.80	ND	77	65-120	4	25	
Benzidine	ND	4.9	4.9	ug/l	9.80	ND		30-160		35	M2
Benzo(a)anthracene	8.20	4.9	0.098	ug/l	9.80	ND	84	65-120	6	20	
Benzo(a)pyrene	7.90	2.0	0.098	ug/l	9.80	ND	81	55-130	4	25	
Benzo(b)fluoranthene	8.47	2.0	0.098	ug/l	9.80	ND	86	55-125	8	25	
Benzo(g,h,i)perylene	9.24	4.9	0.098	ug/l	9.80	ND	94	45-135	6	30	
Benzo(k)fluoranthene	8.18	0.49	0.098	ug/l	9.80	ND	83	55-125	3	30	
Benzoic acid	10.2	20	2.9	ug/l	9.80	ND	104	25-125	13	30	Ja
Benzyl alcohol	6.84	4.9	0.098	ug/l	9.80	ND	70	40-120	10	30	
4-Bromophenyl phenyl ether	8.04	0.98	0.098	ug/l	9.80	ND	82	60-120	3	25	
Butyl benzyl phthalate	9.35	4.9	0.69	ug/l	9.80	ND	95	55-130	2	25	
4-Chloro-3-methylphenol	5.67	2.0	0.20	ug/1	9.80	ND	58	60-120	56	25	M2, R-3
4-Chloroaniline	ND	2.0	0.098	ug/1	9.80	ND		55-120		25	M2
Bis(2-chloroethoxy)methane	6.57	0.49	0.098	ug/l	9.80	ND	67	50-120	8	25	
**				-							

TestAmerica Irvine



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Reporting

Sampled: 02/05/10 Received: 02/05/10

RPD

Data

METHOD BLANK/QC DATA

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

Spike

Source

		Reporting			Spike	Source		OKEC		KI D	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1159 Extracted: 02/10	0/10										
Matrix Spike Dup Analyzed: 02/15/20	010 (10B1159-M	ISD1)			Sou	rce: ITB(0810-01				
Bis(2-chloroethyl)ether	6.73	0.49	0.098	ug/l	9.80	ND	69	50-120	8	25	
Bis(2-chloroisopropyl)ether	5.22	0.49	0.098	ug/l	9.80	ND	53	45-120	25	25	
Bis(2-ethylhexyl)phthalate	9.18	4.9	1.7	ug/l	9.80	ND	94	65-130	4	25	
2-Chloronaphthalene	6.53	0.49	0.098	ug/l	9.80	ND	67	60-120	6	20	
2-Chlorophenol	6.31	0.98	0.20	ug/l	9.80	ND	64	45-120	3	25	
4-Chlorophenyl phenyl ether	8.71	0.49	0.098	ug/l	9.80	ND	89	65-120	7	25	
Chrysene	7.92	0.49	0.098	ug/l	9.80	ND	81	65-120	8	25	
Dibenz(a,h)anthracene	8.53	0.49	0.098	ug/l	9.80	ND	87	45-135	3	30	
Dibenzofuran	8.02	0.49	0.098	ug/l	9.80	ND	82	65-120	10	25	
Di-n-butyl phthalate	8.43	2.0	0.20	ug/l	9.80	ND	86	60-125	2	25	
1,2-Dichlorobenzene	6.98	0.49	0.098	ug/l	9.80	ND	71	40-120	28	25	R
1,3-Dichlorobenzene	5.14	0.49	0.098	ug/l	9.80	ND	52	35-120	24	25	
1,4-Dichlorobenzene	5.04	0.49	0.20	ug/l	9.80	ND	51	35-120	26	25	R
3,3'-Dichlorobenzidine	ND	4.9	4.9	ug/l	9.80	ND		45-135		25	M2
2,4-Dichlorophenol	5.73	2.0	0.20	ug/l	9.80	ND	58	55-120	5	25	
Diethyl phthalate	9.02	0.98	0.098	ug/l	9.80	ND	92	55-120	11	30	
2,4-Dimethylphenol	ND	2.0	0.29	ug/l	9.80	ND		40-120		25	M2
Dimethyl phthalate	8.84	0.49	0.098	ug/l	9.80	ND	90	30-120	7	30	
4,6-Dinitro-2-methylphenol	9.63	4.9	0.20	ug/l	9.80	ND	98	45-120	11	25	
2,4-Dinitrophenol	11.0	4.9	0.88	ug/l	9.80	ND	112	40-120	4	25	
2,4-Dinitrotoluene	8.65	4.9	0.20	ug/l	9.80	ND	88	65-120	8	25	
2,6-Dinitrotoluene	9.69	4.9	0.098	ug/l	9.80	ND	99	65-120	6	20	
Di-n-octyl phthalate	9.45	4.9	0.098	ug/l	9.80	ND	96	65-135	0.6	20	
1,2-Diphenylhydrazine/Azobenzene	8.37	0.98	0.098	ug/l	9.80	ND	85	60-120	9	25	
Fluoranthene	8.12	0.49	0.098	ug/l	9.80	ND	83	60-120	5	25	
Fluorene	8.59	0.49	0.098	ug/l	9.80	ND	88	65-120	8	25	
Hexachlorobenzene	7.73	0.98	0.098	ug/l	9.80	ND	79	60-120	4	25	
Hexachlorobutadiene	4.96	2.0	0.20	ug/l	9.80	ND	51	40-120	25	25	
Hexachlorocyclopentadiene	5.55	4.9	0.098	ug/l	9.80	ND	57	25-120	14	30	
Hexachloroethane	4.47	2.9	0.20	ug/l	9.80	ND	46	35-120	31	25	R
Indeno(1,2,3-cd)pyrene	9.18	2.0	0.098	ug/l	9.80	ND	94	40-135	1	30	
Isophorone	6.82	0.98	0.098	ug/l	9.80	0.333	66	50-120	11	25	
2-Methylnaphthalene	6.06	0.98	0.098	ug/l	9.80	ND	62	55-120	11	20	
2-Methylphenol	1.49	2.0	0.098	ug/l	9.80	ND	15	50-120	107	25	M2, R-3, Ja
4-Methylphenol	1.18	4.9	0.20	ug/l	9.80	ND	12	50-120	124	25	M2, R-3, Ja

TestAmerica Irvine

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

MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

ora Michillida Avenue, Suite 200

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1159 Extracted: 02/10/	<u>′10</u>										
Matrix Spike Dup Analyzed: 02/15/20	10 (10B1159-M	(SD1)			Sou	rce: ITB(0810-01				
Naphthalene	6.24	0.98	0.098	ug/l	9.80	ND	64	55-120	13	25	
2-Nitroaniline	3.16	4.9	0.098	ug/l	9.80	ND	32	65-120	55	25	M2, R-3, Ja
3-Nitroaniline	ND	4.9	0.20	ug/l	9.80	ND		60-120		25	M2
4-Nitroaniline	ND	4.9	0.49	ug/l	9.80	ND		55-125		25	M2
Nitrobenzene	9.80	0.98	0.098	ug/l	9.80	ND	100	55-120	19	25	
2-Nitrophenol	9.75	2.0	0.098	ug/l	9.80	ND	99	50-120	24	25	
4-Nitrophenol	13.3	4.9	2.5	ug/l	9.80	ND	136	45-120	21	30	M1
N-Nitroso-di-n-propylamine	6.45	2.0	0.098	ug/l	9.80	ND	66	45-120	16	25	
N-Nitrosodimethylamine	6.84	2.0	0.098	ug/l	9.80	ND	70	45-120	7	25	
N-Nitrosodiphenylamine	6.57	0.98	0.098	ug/l	9.80	ND	67	60-120	0.3	25	
Pentachlorophenol	8.57	2.0	0.098	ug/l	9.80	ND	87	50-120	6	25	
Phenanthrene	7.94	0.49	0.098	ug/l	9.80	ND	81	65-120	5	25	
Phenol	9.53	0.98	0.29	ug/l	9.80	ND	97	40-120	18	25	
Pyrene	8.33	0.49	0.098	ug/l	9.80	ND	85	55-125	6	25	
1,2,4-Trichlorobenzene	5.45	0.98	0.098	ug/l	9.80	ND	56	45-120	23	20	R
2,4,5-Trichlorophenol	8.51	2.0	0.20	ug/l	9.80	ND	87	55-120	10	30	
2,4,6-Trichlorophenol	8.06	0.98	0.098	ug/l	9.80	ND	82	55-120	13	30	
Surrogate: 2,4,6-Tribromophenol	16.4			ug/l	19.6		83	40-120			
Surrogate: 2-Fluorobiphenyl	6.69			ug/l	9.80		68	50-120			
Surrogate: 2-Fluorophenol	9.96			ug/l	19.6		51	30-120			
Surrogate: Nitrobenzene-d5	6.75			ug/l	9.80		69	45-120			
Surrogate: Phenol-d6	10.6			ug/l	19.6		54	35-120			
Surrogate: Terphenyl-d14	8.06			ug/l	9.80		82	50-125			

TestAmerica Irvine

Project ID: Annual Outfall 002

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Report Number: ITB0783

Sampled: 02/05/10 Received: 02/05/10

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
-		Lillit	MIDL	Units	Levei	Result	/oKEC	Limits	KI D	Lillit	Qualifiers
Batch: 10B1291 Extracted: 02/11/10	<u>) </u>										
Blank Analyzed: 02/12/2010 (10B1291-B	SLK1)										
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
gamma-BHC (Lindane)	ND	0.020	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Chlordane	ND	0.10	0.040	ug/l							
Toxaphene	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.387			ug/l	0.500		77	45-120			
Surrogate: Decachlorobiphenyl	0.387			ug/l	0.500		77	45-120			
Surrogate: Tetrachloro-m-xylene	0.240			ug/l	0.500		48	35-115			
Surrogate: Tetrachloro-m-xylene	0.240			ug/l	0.500		48	35-115			
LCS Analyzed: 02/12/2010 (10B1291-BS											
4,4'-DDD	0.464	0.0050	0.0020	ug/l	0.500		93	55-120			
4,4'-DDE	0.418	0.0050	0.0030	ug/l	0.500		84	50-120			
4,4'-DDT	0.450	0.010	0.0040	ug/l	0.500		90	55-120			
Aldrin	0.374	0.0050	0.0015	ug/l	0.500		75	40-115			
alpha-BHC	0.369	0.0050	0.0025	ug/l	0.500		74	45-115			
beta-BHC	0.361	0.010	0.0040	ug/l	0.500		72	55-115			
delta-BHC	0.404	0.0050	0.0035	ug/l	0.500		81	55-115			
Dieldrin	0.434	0.0050	0.0020	ug/l	0.500		87	55-115			
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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Report Number: ITB0783

Sampled: 02/05/10

Received: 02/05/10

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyta	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte		Limit	MIDL	Ullits	Level	Result	70KEC	Lillits	KFD	Lillit	Quanners
Batch: 10B1291 Extracted: 02/11/10	<u>) </u>										
X GG	4.										
LCS Analyzed: 02/12/2010 (10B1291-BS	<i>'</i>										
Endosulfan I	0.423	0.0050	0.0020	ug/l	0.500		85	55-115			
Endosulfan II	0.464	0.0050	0.0030	ug/l	0.500		93	55-120			
Endosulfan sulfate	0.431	0.010	0.0030	ug/l	0.500		86	60-120			
Endrin	0.477	0.0050	0.0020	ug/l	0.500		95	55-115			
Endrin aldehyde	0.393	0.010	0.0020	ug/l	0.500		79	50-120			
Endrin ketone	0.454	0.010	0.0030	ug/l	0.500		91	55-120			
gamma-BHC (Lindane)	0.381	0.020	0.0030	ug/l	0.500		76	45-115			
Heptachlor	0.415	0.010	0.0030	ug/l	0.500		83	45-115			
Heptachlor epoxide	0.407	0.0050	0.0025	ug/l	0.500		81	55-115			
Methoxychlor	0.485	0.0050	0.0035	ug/l	0.500		97	60-120			
Surrogate: Decachlorobiphenyl	0.394			ug/l	0.500		79	45-120			
Surrogate: Decachlorobiphenyl	0.394			ug/l	0.500		79	45-120			
Surrogate: Tetrachloro-m-xylene	0.339			ug/l	0.500		68	35-115			
Surrogate: Tetrachloro-m-xylene	0.339			ug/l	0.500		68	35-115			
Matrix Spike Analyzed: 02/12/2010 (10B	1291-MS1)				Sou	rce: ITB	0602-01				
4,4'-DDD	0.362	0.019	0.0075	ug/l	0.472	ND	77	50-125			
4,4'-DDE	0.530	0.019	0.011	ug/l	0.472	ND	112	45-125			
4,4'-DDT	0.402	0.038	0.015	ug/l	0.472	ND	85	50-125			
Aldrin	0.386	0.019	0.0057	ug/l	0.472	ND	82	35-120			
alpha-BHC	0.372	0.019	0.0094	ug/l	0.472	ND	79	40-120			
beta-BHC	0.186	0.038	0.015	ug/l	0.472	ND	39	50-120			M2
delta-BHC	0.314	0.019	0.013	ug/l	0.472	ND	67	50-120			
Dieldrin	0.390	0.019	0.0075	ug/l	0.472	ND	83	50-120			
Endosulfan I	0.475	0.019	0.0075	ug/l	0.472	ND	101	50-120			
Endosulfan II	0.390	0.019	0.011	ug/l	0.472	ND	83	50-125			
Endosulfan sulfate	0.333	0.038	0.011	ug/l	0.472	ND	71	55-125			
Endrin	0.413	0.019	0.0075	ug/l	0.472	ND	88	50-120			
Endrin aldehyde	0.190	0.038	0.0075	ug/l	0.472	ND	40	45-125			M2
Endrin ketone	0.342	0.038	0.011	ug/l	0.472	ND	72	50-125			
gamma-BHC (Lindane)	0.371	0.075	0.011	ug/l	0.472	ND	79	40-120			
Heptachlor	0.452	0.038	0.011	ug/l	0.472	ND	96	40-120			
Heptachlor epoxide	0.450	0.019	0.0094	ug/l	0.472	ND	95	50-120			
Methoxychlor	0.447	0.019	0.013	ug/l	0.472	ND	95	55-125			
Surrogate: Decachlorobiphenyl	0.418			ug/l	0.472		89	45-120			

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618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783 Received: 02/05/10

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

A constant	D14	Reporting	MDL	TI24-	Spike	Source	0/DEC	%REC	RPD	RPD	Data
Analyte	Result	Limit	MIDL	Units	Level	Result	%REC	Limits	KPD	Limit	Qualifiers
Batch: 10B1291 Extracted: 02/11/10	_										
75 . 1 G N . 1 . 1 . 2 . 2 . 2 . 2 . 2 . 2 . 2 . 2	1001 3501)					TED (
Matrix Spike Analyzed: 02/12/2010 (10B	,					rce: ITB(
Surrogate: Decachlorobiphenyl	0.418			ug/l	0.472		89	45-120			
Surrogate: Tetrachloro-m-xylene	0.220			ug/l	0.472		47	35-115			
Surrogate: Tetrachloro-m-xylene	0.220			ug/l	0.472		47	35-115			
Matrix Spike Dup Analyzed: 02/12/2010	(10B1291-M	ISD1)			Sou	rce: ITB(0602-01				
4,4'-DDD	0.364	0.019	0.0075	ug/1	0.472	ND	77	50-125	0.5	30	
4,4'-DDE	0.527	0.019	0.011	ug/l	0.472	ND	112	45-125	0.7	30	
4,4'-DDT	0.396	0.038	0.015	ug/l	0.472	ND	84	50-125	1	30	
Aldrin	0.384	0.019	0.0057	ug/l	0.472	ND	81	35-120	0.6	30	
alpha-BHC	0.367	0.019	0.0094	ug/l	0.472	ND	78	40-120	1	30	
beta-BHC	0.196	0.038	0.015	ug/l	0.472	ND	42	50-120	5	30	M2
delta-BHC	0.313	0.019	0.013	ug/l	0.472	ND	66	50-120	0.2	30	
Dieldrin	0.387	0.019	0.0075	ug/l	0.472	ND	82	50-120	0.7	30	
Endosulfan I	0.471	0.019	0.0075	ug/l	0.472	ND	100	50-120	1	30	
Endosulfan II	0.393	0.019	0.011	ug/l	0.472	ND	83	50-125	0.7	30	
Endosulfan sulfate	0.346	0.038	0.011	ug/l	0.472	ND	73	55-125	4	30	
Endrin	0.409	0.019	0.0075	ug/l	0.472	ND	87	50-120	1	30	
Endrin aldehyde	0.197	0.038	0.0075	ug/l	0.472	ND	42	45-125	4	30	M2
Endrin ketone	0.338	0.038	0.011	ug/l	0.472	ND	72	50-125	1	30	
gamma-BHC (Lindane)	0.368	0.075	0.011	ug/l	0.472	ND	78	40-120	0.6	30	
Heptachlor	0.441	0.038	0.011	ug/l	0.472	ND	93	40-120	3	30	
Heptachlor epoxide	0.447	0.019	0.0094	ug/l	0.472	ND	95	50-120	0.7	30	
Methoxychlor	0.442	0.019	0.013	ug/l	0.472	ND	94	55-125	1	30	
Surrogate: Decachlorobiphenyl	0.407			ug/l	0.472		86	45-120			
Surrogate: Decachlorobiphenyl	0.407			ug/l	0.472		86	45-120			
Surrogate: Tetrachloro-m-xylene	0.264			ug/l	0.472		56	35-115			
Surrogate: Tetrachloro-m-xylene	0.264			ug/l	0.472		56	35-115			

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Report Number: ITB0783

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1291 Extracted: 02/11/1	10										
Blank Analyzed: 02/11/2010 (10B1291-	BLK1)										
Aroclor 1016	ND	0.50	0.25	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.25	ug/l							
Surrogate: Decachlorobiphenyl	0.422			ug/l	0.500		84	45-120			
LCS Analyzed: 02/11/2010 (10B1291-B	S2)										
Aroclor 1016	2.94	0.50	0.25	ug/l	4.00		74	50-115			
Aroclor 1260	3.60	0.50	0.25	ug/l	4.00		90	60-120			
Surrogate: Decachlorobiphenyl	0.432			ug/l	0.500		86	45-120			
Matrix Spike Analyzed: 02/11/2010 (10	B1291-MS2)				Sou	rce: ITB	0602-01				
Aroclor 1016	4.30	0.47	0.24	ug/l	3.77	ND	114	45-120			
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125			
Surrogate: Decachlorobiphenyl	0.388			ug/l	0.472		82	45-120			
Matrix Spike Dup Analyzed: 02/11/201	0 (10B1291-M	ISD2)			Sou	rce: ITB	0602-01				
Aroclor 1016	4.36	0.47	0.24	ug/l	3.77	ND	116	45-120	1	30	
Aroclor 1260	3.32	0.47	0.24	ug/l	3.77	ND	88	55-125	0.2	25	
Surrogate: Decachlorobiphenyl	0.383			ug/l	0.472		81	45-120			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1778 Extracted: 02/15/10	_										
Blank Analyzed: 02/15/2010 (10B1778-B	LK1)										
Hexane Extractable Material (Oil & Grease)	ND	5.0	1.4	mg/l							
LCS Analyzed: 02/15/2010 (10B1778-BS	1)										MNR1
Hexane Extractable Material (Oil & Grease)	20.9	5.0	1.4	mg/l	20.0		104	78-114			
LCS Dup Analyzed: 02/15/2010 (10B177	8-BSD1)										
Hexane Extractable Material (Oil & Grease)	20.5	5.0	1.4	mg/l	20.0		102	78-114	2	11	



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METHOD BLANK/QC DATA

METALS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1598 Extracted: 02/12/10)										
	_										
Blank Analyzed: 02/15/2010 (10B1598-B	LK1)										
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Copper	ND	2.0	0.50	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Silver	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/15/2010 (10B1598-BS	1)										
Antimony	82.5	2.0	0.30	ug/l	80.0		103	85-115			
Cadmium	82.4	1.0	0.10	ug/l	80.0		103	85-115			
Copper	81.0	2.0	0.50	ug/l	80.0		101	85-115			
Lead	84.3	1.0	0.20	ug/l	80.0		105	85-115			
Selenium	81.2	2.0	0.50	ug/l	80.0		101	85-115			
Silver	82.7	1.0	0.10	ug/l	80.0		103	85-115			
Thallium	81.6	1.0	0.20	ug/l	80.0		102	85-115			
Matrix Spike Analyzed: 02/15/2010 (10B	31598-MS1)				Sou	rce: ITB(0888-01				
Antimony	83.1	2.0	0.30	ug/l	80.0	ND	104	70-130			
Cadmium	79.9	1.0	0.10	ug/l	80.0	ND	100	70-130			
Copper	80.3	2.0	0.50	ug/l	80.0	1.68	98	70-130			
Lead	77.4	1.0	0.20	ug/l	80.0	0.398	96	70-130			
Selenium	80.3	2.0	0.50	ug/l	80.0	ND	100	70-130			
Silver	78.7	1.0	0.10	ug/l	80.0	ND	98	70-130			
Thallium	79.3	1.0	0.20	ug/l	80.0	ND	99	70-130			
Matrix Spike Analyzed: 02/15/2010 (10B	31598-MS2)				Sou	rce: ITB(900-02				
Antimony	82.9	2.0	0.30	ug/l	80.0	ND	104	70-130			
Cadmium	81.1	1.0	0.10	ug/l	80.0	ND	101	70-130			
Copper	84.1	2.0	0.50	ug/l	80.0	1.41	103	70-130			
Lead	78.7	1.0	0.20	ug/l	80.0	0.252	98	70-130			
Selenium	77.8	2.0	0.50	ug/l	80.0	ND	97	70-130			
Silver	81.0	1.0	0.10	ug/l	80.0	ND	101	70-130			
Thallium	82.9	1.0	0.20	ug/l	80.0	ND	104	70-130			

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%REC

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Project ID: Annual Outfall 002

Sampled: 02/05/10

RPD

Data

Report Number: ITB0783

Reporting

Received: 02/05/10

METHOD BLANK/QC DATA

METALS

Spike

Source

Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1598 Extracted: 02/12	2/10										-
Matrix Spike Dup Analyzed: 02/15/2	•	*				rce: ITB(0888-01				
Antimony	84.1	2.0	0.30	ug/l	80.0	ND	105	70-130	1	20	
Cadmium	80.8	1.0	0.10	ug/l	80.0	ND	101	70-130	1	20	
Copper	82.7	2.0	0.50	ug/l	80.0	1.68	101	70-130	3	20	
Lead	79.1	1.0	0.20	ug/l	80.0	0.398	98	70-130	2	20	
Selenium	81.4	2.0	0.50	ug/l	80.0	ND	102	70-130	1	20	
Silver	79.8	1.0	0.10	ug/l	80.0	ND	100	70-130	1	20	
Thallium	80.5	1.0	0.20	ug/l	80.0	ND	101	70-130	1	20	
Batch: 10B1807 Extracted: 02/15	5/10										
Blank Analyzed: 02/16/2010 (10B180	7-BLK1)										
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Cobalt	ND	10	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	0.0179	0.020	0.012	mg/l							Ja
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
LCS Analyzed: 02/16/2010 (10B1807-	-BS1)										
Arsenic	518	10	7.0	ug/l	500		104	85-115			
Barium	0.511	0.010	0.0060	mg/l	0.500		102	85-115			
Beryllium	511	2.0	0.90	ug/l	500		102	85-115			
Boron	0.520	0.050	0.020	mg/l	0.500		104	85-115			
Calcium	2.58	0.10	0.050	mg/l	2.50		103	85-115			
Chromium	488	5.0	2.0	ug/l	500		98	85-115			
Cobalt	483	10	2.0	ug/l	500		97	85-115			
Iron	0.505	0.040	0.015	mg/l	0.500		101	85-115			
Magnesium	2.52	0.020	0.012	mg/l	2.50		101	85-115			
Manganese	497	20	7.0	ug/l	500		99	85-115			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1807 Extracted: 02/15/10	<u>)</u>										
LCS Analyzed: 02/16/2010 (10B1807-BS	31)										
Nickel	500	10	2.0	ug/l	500		100	85-115			
Vanadium	500	10	3.0	ug/l	500		100	85-115			
Zinc	522	20	6.0	ug/l	500		104	85-115			
Matrix Spike Analyzed: 02/16/2010 (10E	31807-MS1)				Sou	rce: ITB(980-01				
Arsenic	522	10	7.0	ug/l	500	ND	104	70-130			
Barium	0.511	0.010	0.0060	mg/l	0.500	ND	102	70-130			
Beryllium	501	2.0	0.90	ug/l	500	0.967	100	70-130			
Boron	0.537	0.050	0.020	mg/l	0.500	0.0262	102	70-130			
Calcium	5.69	0.10	0.050	mg/l	2.50	3.23	98	70-130			
Chromium	483	5.0	2.0	ug/l	500	ND	97	70-130			
Cobalt	477	10	2.0	ug/l	500	ND	95	70-130			
Iron	0.539	0.040	0.015	mg/l	0.500	0.0466	98	70-130			
Magnesium	2.75	0.020	0.012	mg/l	2.50	0.285	99	70-130			
Manganese	491	20	7.0	ug/l	500	ND	98	70-130			
Nickel	492	10	2.0	ug/l	500	2.57	98	70-130			
Vanadium	491	10	3.0	ug/l	500	3.29	98	70-130			
Zinc	524	20	6.0	ug/l	500	34.0	98	70-130			
Matrix Spike Analyzed: 02/16/2010 (10E	81807-MS2)				Sou	rce: ITB	1117-02				
Arsenic	ND	1000	700	ug/l	500	ND		70-130			M2
Barium	0.924	1.0	0.60	mg/l	0.500	ND	185	70-130			M1, Ja
Beryllium	565	200	90	ug/l	500	ND	113	70-130			
Boron	ND	5.0	2.0	mg/l	0.500	ND		70-130			M2
Calcium	65.3	10	5.0	mg/l	2.50	65.0	12	70-130			MHA
Chromium	4140	500	200	ug/l	500	3620	104	70-130			MHA
Cobalt	2410	1000	200	ug/l	500	1980	86	70-130			MHA
Iron	19100	4.0	1.5	mg/l	0.500	19000	8290	70-130			MHA
Magnesium	258	2.0	1.2	mg/l	2.50	256	57	70-130			MHA
Manganese	90700	2000	700	ug/l	500	90600	11	70-130			MHA
Nickel	5520	1000	200	ug/l	500	5010	101	70-130			MHA
Vanadium	906	1000	300	ug/l	500	477	86	70-130			Ja
Zinc	24100	2000	600	ug/l	500	24000	18	70-130			M2

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		Lillit	MDL	Units	Level	Result	70KEC	Lillits	KFD	Lillit	Quanners
Batch: 10B1807 Extracted: 02/15/10	_										
Matrix Spike Dup Analyzed: 02/16/2010	(10B1807-M	SD1)			Sou	rce: ITB(980-01				
Arsenic	524	10	7.0	ug/l	500	ND	105	70-130	0.4	20	
Barium	0.503	0.010	0.0060	mg/l	0.500	ND	101	70-130	2	20	
Beryllium	503	2.0	0.90	ug/l	500	0.967	100	70-130	0.4	20	
Boron	0.532	0.050	0.020	mg/l	0.500	0.0262	101	70-130	1	20	
Calcium	5.71	0.10	0.050	mg/l	2.50	3.23	99	70-130	0.3	20	
Chromium	487	5.0	2.0	ug/l	500	ND	97	70-130	0.7	20	
Cobalt	479	10	2.0	ug/l	500	ND	96	70-130	0.2	20	
Iron	0.546	0.040	0.015	mg/l	0.500	0.0466	100	70-130	1	20	
Magnesium	2.76	0.020	0.012	mg/l	2.50	0.285	99	70-130	0.3	20	
Manganese	492	20	7.0	ug/l	500	ND	98	70-130	0.2	20	
Nickel	493	10	2.0	ug/l	500	2.57	98	70-130	0.2	20	
Vanadium	490	10	3.0	ug/l	500	3.29	97	70-130	0.1	20	
Zinc	527	20	6.0	ug/l	500	34.0	99	70-130	0.4	20	
Batch: 10B1942 Extracted: 02/16/10	_										
Blank Analyzed: 02/16/2010 (10B1942-B	LK1)										
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 02/16/2010 (10B1942-BS	1)										
Mercury	7.96	0.20	0.10	ug/l	8.00		100	85-115			
Matrix Spike Analyzed: 02/16/2010 (10B	1942-MS1)				Sou	rce: ITB(974-01				
Mercury	7.91	0.20	0.10	ug/l	8.00	ND	99	70-130			
Matrix Spike Dup Analyzed: 02/16/2010	(10B1942-M	SD1)			Sou	rce: ITB(974-01				
Mercury	7.91	0.20	0.10	ug/l	8.00	ND	99	70-130	0.03	20	



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Arcadia, CA 91007

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Received: 02/05/10

METHOD BLANK/QC DATA

DISSOLVED METALS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1845 Extracted: 02/15/10	<u>)</u>										
	_										
Blank Analyzed: 02/16/2010 (10B1845-B	LK1)										
Antimony	ND	2.0	0.30	ug/l							
Cadmium	ND	1.0	0.10	ug/l							
Lead	ND	1.0	0.20	ug/l							
Selenium	ND	2.0	0.50	ug/l							
Silver	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/16/2010 (10B1845-BS	1)										
Antimony	81.7	2.0	0.30	ug/l	80.0		102	85-115			
Cadmium	81.8	1.0	0.10	ug/l	80.0		102	85-115			
Lead	84.1	1.0	0.20	ug/l	80.0		105	85-115			
Selenium	82.4	2.0	0.50	ug/l	80.0		103	85-115			
Silver	84.4	1.0	0.10	ug/l	80.0		105	85-115			
Thallium	87.0	1.0	0.20	ug/l	80.0		109	85-115			
Matrix Spike Analyzed: 02/16/2010 (10B	1845-MS1)				Sou	rce: ITB	1082-03				
Antimony	82.8	20	3.0	ug/l	80.0	ND	103	70-130			
Cadmium	81.7	10	1.0	ug/l	80.0	1.14	101	70-130			
Lead	74.3	10	2.0	ug/l	80.0	ND	93	70-130			
Selenium	88.1	20	5.0	ug/l	80.0	10.3	97	70-130			
Silver	82.2	10	1.0	ug/l	80.0	ND	103	70-130			
Thallium	78.4	10	2.0	ug/l	80.0	ND	98	70-130			
Matrix Spike Analyzed: 02/16/2010 (10B	1845-MS2)				Sou	rce: ITB	0888-01				
Antimony	86.1	2.0	0.30	ug/l	80.0	ND	108	70-130			
Cadmium	83.4	1.0	0.10	ug/l	80.0	ND	104	70-130			
Copper	84.8	2.0	0.50	ug/l	80.0	1.30	104	70-130			
Lead	78.5	1.0	0.20	ug/l	80.0	ND	98	70-130			
Selenium	83.6	2.0	0.50	ug/l	80.0	0.511	104	70-130			
Silver	82.6	1.0	0.10	ug/l	80.0	ND	103	70-130			
Thallium	85.5	1.0	0.20	ug/l	80.0	ND	107	70-130			
				-							

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%REC

RPD

Data



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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

Spike

Source

Report Number: ITB0783

Reporting

METHOD BLANK/QC DATA

DISSOLVED METALS

		Keporting			Spike	Source		OKEC		KI D	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1845 Extracted: 02/15	<u>/10</u>										
Matrix Spike Dup Analyzed: 02/16/20	010 (10B1845-M	(ISD1)			Sou	rce: ITB	1082-03				
Antimony	85.7	20	3.0	ug/l	80.0	ND	107	70-130	4	20	
Cadmium	84.8	10	1.0	ug/l	80.0	1.14	105	70-130	4	20	
Lead	76.5	10	2.0	ug/l	80.0	ND	96	70-130	3	20	
Selenium	93.5	20	5.0	ug/l	80.0	10.3	104	70-130	6	20	
Silver	84.5	10	1.0	ug/l	80.0	ND	106	70-130	3	20	
Thallium	80.8	10	2.0	ug/l	80.0	ND	101	70-130	3	20	
Batch: 10B1846 Extracted: 02/15	/10_										
Blank Analyzed: 02/16/2010 (10B1846	6-BLK1)										
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	0.0453	0.050	0.020	mg/l							Ja
Calcium	0.0573	0.10	0.050	mg/l							Ja
Cobalt	ND	10	2.0	ug/l							
Iron	0.0219	0.040	0.015	mg/l							Ja
Magnesium	0.0150	0.020	0.012	mg/l							Ja
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
LCS Analyzed: 02/16/2010 (10B1846-	BS1)										
Arsenic	521	10	7.0	ug/l	500		104	85-115			
Barium	0.489	0.010	0.0060	mg/l	0.500		98	85-115			
Beryllium	486	2.0	0.90	ug/l	500		97	85-115			
Boron	0.521	0.050	0.020	mg/l	0.500		104	85-115			
Calcium	2.42	0.10	0.050	mg/l	2.50		97	85-115			
Cobalt	461	10	2.0	ug/l	500		92	85-115			
Iron	0.499	0.040	0.015	mg/l	0.500		100	85-115			
Magnesium	2.42	0.020	0.012	mg/l	2.50		97	85-115			
Manganese	481	20	7.0	ug/l	500		96	85-115			
Nickel	480	10	2.0	ug/l	500		96	85-115			
Vanadium	489	10	3.0	ug/l	500		98	85-115			
Zinc	499	20	6.0	ug/l	500		100	85-115			

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Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 002

Sampled: 02/05/10 Received: 02/05/10

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•			1,122	CIIII	20,01	1100411	,01120	2111110		2	Z
Batch: 10B1846 Extracted: 02/15/10	<u>) </u>										
Matrix Spike Analyzed: 02/16/2010 (10E	R1846-MS1)				Sou	rce: ITB(0895-01				
Arsenic	543	10	7.0	ug/l	500	ND	109	70-130			
Barium	0.525	0.010	0.0060	mg/l	0.500	0.0235	100	70-130			
Beryllium	503	2.0	0.90	ug/l	500	ND	101	70-130			
Boron	0.617	0.050	0.020	mg/l	0.500	0.110	102	70-130			
Calcium	28.3	0.10	0.050	mg/l	2.50	24.7	144	70-130			MHA
Cobalt	468	10	2.0	ug/l	500	ND	94	70-130			
Iron	0.567	0.040	0.015	mg/l	0.500	ND	113	70-130			
Magnesium	7.76	0.020	0.012	mg/l	2.50	4.98	111	70-130			
Manganese	686	20	7.0	ug/l	500	190	99	70-130			
Nickel	488	10	2.0	ug/l	500	ND	98	70-130			
Vanadium	500	10	3.0	ug/l	500	ND	100	70-130			
Zinc	523	20	6.0	ug/l	500	12.7	102	70-130			
Zinc	323	20	0.0	ug/1	200	12.7	102	70 150			
Matrix Spike Analyzed: 02/16/2010 (10E	31846-MS2)				Sou	rce: ITB(0887-04				
Arsenic	510	10	7.0	ug/l	500	ND	102	70-130			
Barium	0.496	0.010	0.0060	mg/l	0.500	0.0149	96	70-130			
Beryllium	481	2.0	0.90	ug/l	500	ND	96	70-130			
Boron	0.549	0.050	0.020	mg/l	0.500	0.0701	96	70-130			
Calcium	13.1	0.10	0.050	mg/l	2.50	11.0	84	70-130			MHA
Cobalt	453	10	2.0	ug/l	500	ND	91	70-130			
Iron	1.16	0.040	0.015	mg/l	0.500	0.642	104	70-130			
Magnesium	5.35	0.020	0.012	mg/l	2.50	3.23	85	70-130			
Manganese	477	20	7.0	ug/l	500	ND	95	70-130			
Nickel	465	10	2.0	ug/l	500	ND	93	70-130			
Vanadium	486	10	3.0	ug/l	500	ND	97	70-130			
Zinc	497	20	6.0	ug/l	500	10.3	97	70-130			
Matrix Spike Dup Analyzed: 02/16/2010	(10B1846-M	(SD1)			Sou	rce: ITB(0895-01				
Arsenic	534	10	7.0	ug/l	500	ND	107	70-130	2	20	
Barium	0.502	0.010	0.0060	mg/l	0.500	0.0235	96	70-130	4	20	
Beryllium	480	2.0	0.90	ug/l	500	ND	96	70-130	5	20	
Boron	0.599	0.050	0.020	mg/l	0.500	0.110	98	70-130	3	20	
Calcium	27.1	0.10	0.050	mg/l	2.50	24.7	96	70-130	4	20	MHA
Cobalt	455	10	2.0	ug/l	500	24.7 ND	91	70-130	3	20	17111/1
Iron	0.509	0.040	0.015	mg/l	0.500	ND ND	102	70-130	11	20	
Magnesium	7.37	0.040	0.013	mg/l	2.50	4.98	96	70-130	5	20	
Magnesium	1.51	0.020	0.012	mg/1	2.30	4.98	90	/0-130	5	۷0	

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Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•	Result	Lillit	MIDL	Ullits	Level	Kesuit	70KEC	Lillits	KFD	Lillit	Quanners
Batch: 10B1846 Extracted: 02/15/10											
Matrix Spike Dup Analyzed: 02/16/2010 (10R1946_MSI	D1)			Sou	rce: ITB(1805_01				
Manganese	658	20	7.0	ug/l	500	190	94	70-130	4	20	
Nickel	472	10	2.0	ug/l	500	ND	94	70-130	3	20	
Vanadium	480	10	3.0	ug/l	500	ND ND	94 96	70-130	4	20	
Zinc	510	20	6.0	ug/l	500	12.7	99	70-130	3	20	
Zinc	310	20	0.0	ug/1	300	12.7	,,,	70 130	3	20	
Batch: 10B1953 Extracted: 02/16/10											
Blank Analyzed: 02/16/2010 (10B1953-BI	,										
Mercury	ND	0.20	0.10	ug/l							
LCS Analyzed: 02/16/2010 (10B1953-BS1)										
Mercury	8.15	0.20	0.10	ug/l	8.00		102	85-115			
Matrix Spike Analyzed: 02/16/2010 (10B)	1953-MS1)				Sou	rce: ITB0	907-01				
Mercury	7.43	0.20	0.10	ug/l	8.00	ND	93	70-130			
Matrix Spike Dup Analyzed: 02/16/2010 ((10B1953-MSI	D1)			Sou	rce: ITB(907-01				
Mercury	7.66	0.20	0.10	ug/l	8.00	ND	96	70-130	3	20	
Batch: 10B2106 Extracted: 02/17/10											
Batch: 10B2100 Extracted: 02/1//10	•										
Blank Analyzed: 02/17/2010 (10B2106-BI	LK1)										
Copper	ND	2.0	0.50	ug/l							
LCS Analyzed: 02/17/2010 (10B2106-BS1)										
Copper	, 77.6	2.0	0.50	ug/l	80.0		97	85-115			



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DISSOLVED METALS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B2106 Extracted: 02/17/10											
Matrix Spike Analyzed: 02/17/2010 (10B2	2106-MS1)				Sou	rce: ITB1	1775-07				
Copper	76.0	2.0	0.50	ug/l	80.0	2.19	92	70-130			
Matrix Spike Dup Analyzed: 02/17/2010	(10B2106-MSI	D1)	Source: ITB1775-07								
Copper	77.2	2.0	0.50	ug/l	80.0	2.19	94	70-130	2	20	



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METHOD BLANK/QC DATA

DISSOLVED INORGANICS

Analyte <u>Batch: 10B0683 Extracted: 02/05/10</u>	Result	Reporting Limit	MDL	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Data Qualifiers
Blank Analyzed: 02/05/2010 (10B0683-B) Chromium VI	L K1) ND	1.0	0.25	ug/l							
LCS Analyzed: 02/05/2010 (10B0683-BS) Chromium VI	5.10	1.0	0.25	ug/l	5.00		102	90-110			
Matrix Spike Analyzed: 02/05/2010 (10B Chromium VI	0683-MS1) 4.72	1.0	0.25	ug/l	Sou 5.00	rce: ITB	0773-01 94	90-110			
Matrix Spike Dup Analyzed: 02/05/2010 Chromium VI	(10B0683-M \$ 5.34	S D1) 1.0	0.25	ug/l	Sou 5.00	rce: ITB(ND	0773-01 107	90-110	12	10	R-3

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METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B0757 Extracted: 02/06/10	_										
Blank Analyzed: 02/06/2010 (10B0757-B)	LK1)										
Surfactants (MBAS)	ND	0.10	0.025	mg/l							
LCS Analyzed: 02/06/2010 (10B0757-BS)	1)										
Surfactants (MBAS)	0.245	0.10	0.025	mg/l	0.250		98	90-110			
Matrix Spike Analyzed: 02/06/2010 (10B	0757-MS1)				Sou	rce: ITB(0702-01				
Surfactants (MBAS)	0.351	0.10	0.025	mg/l	0.250	0.130	88	50-125			
Matrix Spike Dup Analyzed: 02/06/2010	(10R0757-M	SD1)			Sou	rce: ITB(0702-01				
Surfactants (MBAS)	0.353	0.10	0.025	mg/l	0.250	0.130	89	50-125	0.4	20	
, ,				Ü							
Batch: 10B0771 Extracted: 02/07/10	_										
Blank Analyzed: 02/07/2010 (10B0771-B	LK1)										
Turbidity	ND	1.0	0.040	NTU							
Duplicate Analyzed: 02/07/2010 (10B077	1_DI P1				Sou	rce: ITB(0856-01				
Turbidity	7.94	1.0	0.040	NTU	500	7.93	0050-01		0.1	20	
•						,,,,,					
Batch: 10B0795 Extracted: 02/07/10	-										
Blank Analyzed: 02/12/2010 (10B0795-B	LK1)										
Biochemical Oxygen Demand	ND	2.0	0.50	mg/l							
L CS Analyzada 02/12/2010 (10D0705 DS)	0										
LCS Analyzed: 02/12/2010 (10B0795-BS) Biochemical Oxygen Demand	1) 198	100	25	mg/l	198		100	85-115			
Diochemical Oxygen Demand	170	100	43	mg/i	170		100	05-115			



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METHOD BLANK/QC DATA

INORGANICS

Amaluta	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte	Result	Lillit	MDL	Units	Level	Resuit	%KEC	Limits	KPD	Limit	Qualifiers
Batch: 10B0795 Extracted: 02/07/10	-										
LCS Dup Analyzed: 02/12/2010 (10B0795	LRSD1)										
Biochemical Oxygen Demand	201	100	25	mg/l	198		102	85-115	2	20	
		100	23	mg/1	198		102	65-115	2	20	
Batch: 10B0807 Extracted: 02/07/10	-										
Blank Analyzed: 02/07/2010 (10B0807-Bl	LK1)										
Chloride	ND	0.50	0.25	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	150	90	ug/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
LCS Analyzed: 02/07/2010 (10B0807-BS1	1)										
Chloride	4.79	0.50	0.25	mg/l	5.00		96	90-110			
Nitrate-N	1.06	0.11	0.060	mg/l	1.13		94	90-110			
Nitrite-N	1470	150	90	ug/l	1520		97	90-110			
Matrix Spike Analyzed: 02/07/2010 (10Bo	0807-MS1)				Sou	rce: ITB	0887-04				
Chloride	9.87	0.50	0.25	mg/l	5.00	4.64	105	80-120			
Nitrate-N	1.52	0.11	0.060	mg/l	1.13	0.404	99	80-120			
Nitrite-N	1510	150	90	ug/l	1520	ND	100	80-120			
Matrix Spike Analyzed: 02/07/2010 (10Bo	0807-MS2)				Sou	rce: ITB	0886-01				
Chloride	12.1	0.50	0.25	mg/l	5.00	7.33	96	80-120			C8
Nitrate-N	1.65	0.11	0.060	mg/l	1.13	0.587	94	80-120			
Nitrite-N	1500	150	90	ug/l	1520	ND	99	80-120			
Matrix Spike Dup Analyzed: 02/07/2010	(10B0807-M	SD1)			Sou	rce: ITB	0887-04				
Chloride	9.84	0.50	0.25	mg/l	5.00	4.64	104	80-120	0.3	20	
Nitrate-N	1.52	0.11	0.060	mg/l	1.13	0.404	98	80-120	0.4	20	
Nitrite-N	1530	150	90	ug/l	1520	ND	100	80-120	0.9	20	



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METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B0857 Extracted: 02/08/10	_										
Blank Analyzed: 02/08/2010 (10B0857-B)	LK1)										
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/08/2010 (10B0857-BS)	1)										
Sulfate	9.63	0.50	0.20	mg/l	10.0		96	90-110			
Matrix Spike Analyzed: 02/08/2010 (10B	0857-MS1)				Soui	rce: ITB0	0604-05				
Sulfate	248	10	4.0	mg/l	100	163	85	80-120			
Matrix Spike Analyzed: 02/08/2010 (10B	0857-MS2)				Sour	rce: ITB(923-03				
Sulfate	31.2	1.0	0.40	mg/l	10.0	21.4	98	80-120			
Matrix Spike Dup Analyzed: 02/08/2010	(10B0857-MSI	D1)			Sour	rce: ITB(0604-05				
Sulfate	246	10	4.0	mg/l	100	163	82	80-120	1	20	
Batch: 10B1111 Extracted: 02/10/10	-										
Blank Analyzed: 02/10/2010 (10B1111-B	LK1)										
Fluoride	0.0333	0.10	0.020	mg/l							Ja
LCS Analyzed: 02/10/2010 (10B1111-BS)	1)										
Fluoride	1.03	0.10	0.020	mg/l	1.00		103	90-110			
Matrix Spike Analyzed: 02/10/2010 (10B	1111-MS1)				Sour	rce: ITB(0532-05				
Fluoride	1.19	0.10	0.020	mg/l	1.00	0.129	107	80-120			
Matrix Spike Dup Analyzed: 02/10/2010	(10B1111-MSI	D1)			Sour	rce: ITB(0532-05				
Fluoride	1.18	0.10	0.020	mg/l	1.00	0.129	105	80-120	2	20	

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INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1119 Extracted: 02/10/10											
Blank Analyzed: 02/10/2010 (10B1119-BI	LK1)										
Specific Conductance	ND	1.0	1.0	umhos/cm							
LCS Analyzed: 02/10/2010 (10B1119-BS1)										
Specific Conductance	1370	1.0	1.0	umhos/cm	1410		97	90-110			
Duplicate Analyzed: 02/10/2010 (10B1119)-DUP1)				Sou	rce: ITB0	680-01				
Specific Conductance	98.5	1.0	1.0	umhos/cm		98.2			0.3	5	
Batch: 10B1250 Extracted: 02/10/10	•										
Blank Analyzed: 02/10/2010 (10B1250-BI	LK1)										
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 02/10/2010 (10B1250-BS1)										
Total Cyanide	190	5.0	2.2	ug/l	200		95	90-110			
Matrix Spike Analyzed: 02/10/2010 (10B)	1250-MS1)				Sou	rce: ITB(359-02				
Total Cyanide	187	5.0	2.2	ug/l	200	ND	94	70-115			
Matrix Spike Dup Analyzed: 02/10/2010	(10B1250-M	SD1)			Sou	rce: ITB(359-02				
Total Cyanide	182	5.0	2.2	ug/l	200	ND	91	70-115	3	15	
Batch: 10B1284 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1284-BI	LK1)										
Total Organic Carbon	ND	1.0	0.50	mg/l							



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Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 10B1284 Extracted: 02/11/10											
LCS Analyzed: 02/11/2010 (10B1284-BS1))										
Total Organic Carbon	10.0	1.0	0.50	mg/l	10.0		100	90-110			
Matrix Spike Analyzed: 02/11/2010 (10B1	284-MS1)				Sou	rce: ITB1	1082-01				
Total Organic Carbon	9.13	1.0	0.50	mg/l	5.00	4.47	93	80-120			
Matrix Spike Dup Analyzed: 02/11/2010 (10B1284-MS	D 1)			Sou	rce: ITB1	1082-01				
Total Organic Carbon	9.43	1.0	0.50	mg/l	5.00	4.47	99	80-120	3	20	
Batch: 10B1300 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1300-BL	.K1)										
Total Dissolved Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/11/2010 (10B1300-BS1))										
Total Dissolved Solids	1010	10	1.0	mg/l	1000		101	90-110			
Duplicate Analyzed: 02/11/2010 (10B1300	-DUP1)				Sou	rce: ITB(770-04				
Total Dissolved Solids	122	10	1.0	mg/l		120			2	10	
Batch: 10B1450 Extracted: 02/11/10											
Blank Analyzed: 02/11/2010 (10B1450-BL	.K1)										
Total Suspended Solids	ND	10	1.0	mg/l							
LCS Analyzed: 02/11/2010 (10B1450-BS1) Total Suspended Solids) 994	10	1.0	mg/l	1000		99	85-115			

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INORGANICS

Analyte	I Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Oualifiers
Batch: 10B1450 Extracted: 02/11/10		Limit	MDL	Circs	Level	resure	70KLC	Limits	M D	Limit	Quanners
Daten. 10D1430 Extracted. 02/11/10	-										
Duplicate Analyzed: 02/11/2010 (10B1450)-DUP1)				Sou	rce: ITB0	770-04				
Total Suspended Solids	19.0	10	1.0	mg/l		19.0			0	10	
Batch: 10B1575 Extracted: 02/12/10	-										
Blank Analyzed: 02/12/2010 (10B1575-BI	LK1)										
Ammonia-N (Distilled)	ND	0.50	0.50	mg/l							
LCS Analyzed: 02/12/2010 (10B1575-BS1	.)										
Ammonia-N (Distilled)	10.6	0.50	0.50	mg/l	10.0		106	80-115			
Matrix Spike Analyzed: 02/12/2010 (10B)	1575-MS1)				Sou	rce: ITB0	887-04				
Ammonia-N (Distilled)	11.2	0.50	0.50	mg/l	10.0	0.560	106	70-120			
Matrix Spike Dup Analyzed: 02/12/2010	(10B1575-MSE	01)			Sou	rce: ITB0	887-04				
Ammonia-N (Distilled)	11.5	0.50	0.50	mg/l	10.0	0.560	109	70-120	2	15	
Batch: 10B1873 Extracted: 02/16/10	-										
Blank Analyzed: 02/16/2010 (10B1873-Bl	LK1)										
Perchlorate	ND	4.0	0.90	ug/l							
LCS Analyzed: 02/16/2010 (10B1873-BS1	.)										
Perchlorate	26.1	4.0	0.90	ug/l	25.0		104	85-115			
Matrix Spike Analyzed: 02/16/2010 (10B)	1873-MS1)				Sou	rce: ITB0	819-01				
Perchlorate	337	40	9.0	ug/l	250	109	91	80-120			



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INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 10B1873 Extracted: 02/16/10	-										
Matrix Spike Dup Analyzed: 02/16/2010 (10B1873-MSD1) Source: ITB0819-01											
Perchlorate	334	40	9.0	ug/l	250	109	90	80-120	0.7	20	



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ASTM 5174-91

Analyte Batch: 53280 Extracted: 02/23/10	Result	Reporting Limit	MDL	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup Analyzed: 02/26/2010 Total Uranium	(F0B09047000	1.4	0.4	pCi/L	Sou 27.7	rce: F0B0 0.566	09047000 106	1 62-150	1	20	
Matrix Spike Analyzed: 02/26/2010 (F0B	090470001S)				Sou	rce: F0B0	09047000	1			
Total Uranium	29.7	1.4	0.4	pCi/L	27.7	0.566	105	62-150			
Blank Analyzed: 02/26/2010 (F0B220000	280B)				Sou	rce:					
Total Uranium	0.046	0.693	0.21	pCi/L				-			U
LCS Analyzed: 02/26/2010 (F0B2200002	80C)				Sou	rce:					
Total Uranium	30.2	0.7	0.2	pCi/L	27.7		109	90-120			

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METHOD BLANK/QC DATA

EPA 900.0 MOD

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 43108 Extracted: 02/10/10											
Matrix Spike Analyzed: 02/18/2010 (F0B	090470001S)				Sou	rce: F0B(9047000	1			
Gross Alpha	47.2	3	1	pCi/L	49.4	2	91	35-150			
Gross Beta	79	4	1.5	pCi/L	68	3.9	110	54-150			
Duplicate Analyzed: 02/18/2010 (F0B090	470001X)				Sou	rce: F0B(9047000	1			
Gross Alpha	0.84	3	0.94	pCi/L		2		-			U
Gross Beta	3.2	4	1.5	pCi/L		3.9		-			Jb
Blank Analyzed: 02/19/2010 (F0B120000	108B)				Sou	rce:					
Gross Alpha	-0.28	2	0.87	pCi/L				-			U
Gross Beta	-0.23	4	1.1	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B1200001	08C)				Sou	rce:					
Gross Alpha	34.8	3	1.2	pCi/L	49.4		70	62-134			
Gross Beta	71.6	4	1	pCi/L	68		105	58-133			

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METHOD BLANK/QC DATA

EPA 901.1 MOD

Analyte Batch: 42136 Extracted: 02/11/10	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate Analyzed: 02/19/2010 (F0B09	0470001X)				Sou	rce: F0B	9047000	1			
Cesium 137	1.2	20	14	pCi/L		-2.9		-			U
Potassium 40	-50	NA	200	pCi/L		-100		-			U
Blank Analyzed: 02/19/2010 (F0B11000	0136B)				Sou	rce:					
Cesium 137	1.8	20	14	pCi/L				-			U
Potassium 40	-80	NA	210	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B110000)	136C)				Sou	rce:					
Americium 241	140000	NA	500	pCi/L	141000		99	87-110			
Cobalt 60	88000	NA	200	pCi/L	87900		100	89-110			
Cesium 137	52900	20	200	pCi/L	53100		100	90-110			



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METHOD BLANK/QC DATA

EPA 903.0 MOD

Analyte Batch: 41160 Extracted: 02/10/10	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate Analyzed: 02/26/2010 (F0B090	0467001X)				Sou	rce: F0B0	9046700	1			
Radium (226)	0.07	1	0.29	pCi/L		0.089		-			U
Blank Analyzed: 02/26/2010 (F0B100000	0160B)				Sou	rce:					
Radium (226)	0.092	1	0.14	pCi/L				-			U
LCS Analyzed: 02/26/2010 (F0B1000001	60C)				Sou	rce:					
Radium (226)	10.4	1	0.2	pCi/L	11.3		93	68-136			



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METHOD BLANK/QC DATA

EPA 904 MOD

Analyte Batch: 60257 Extracted: 03/01/10	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Blank Analyzed: 03/05/2010 (F0C010000) Radium 228	0.08	1	0.39	pCi/L	Sou	rce:		-			U
LCS Analyzed: 03/05/2010 (F0C0100002) Radium 228	57C) 6.23	1	0.39	pCi/L	Sou : 6.4	rce:	97	60-142			
LCS Dup Analyzed: 03/05/2010 (F0C010 Radium 228	0000257L) 6.35	1	0.4	pCi/L	Sou : 6.4	rce:	99	60-142	2	40	



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METHOD BLANK/QC DATA

EPA 905 MOD

Analyte <u>Batch: 41162 Extracted: 02/10/10</u>	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate Analyzed: 02/19/2010 (F0B090	0475001X)				Sou	rce: F0B0	9047500	1			
Strontium 90	-0.15	3	0.42	pCi/L		-0.05		-			U
Blank Analyzed: 02/19/2010 (F0B100000	162B)				Sou	rce:					
Strontium 90	-0.15	3	0.38	pCi/L				-			U
LCS Analyzed: 02/19/2010 (F0B1000001	62C)				Sou	rce:					
Strontium 90	6.82	3	0.34	pCi/L	6.8		100	80-130			



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METHOD BLANK/QC DATA

EPA 906.0 MOD

Analyte Batch: 49035 Extracted: 02/18/10	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Duplicate Analyzed: 02/18/2010 (F0B090	470001X)				Sou	rce: F0B0	9047000	1			
Tritium	80	500	92	pCi/L		114		-			U
Matrix Spike Analyzed: 02/18/2010 (F0E	8090473001S)				Sou	rce: F0B0	9047300	1			
Tritium	4650	500	90	pCi/L	4530	122	100	62-147			
Blank Analyzed: 02/18/2010 (F0B180000	035B)				Sou	rce:					
Tritium	165	500	95	pCi/L				-			Jb
LCS Analyzed: 02/18/2010 (F0B1800000	35C)				Sou	rce:					
Tritium	4440	500	90	pCi/L	4530		98	85-112			

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RPD

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Spike

Source

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EPA-5 1613B

Reporting

		Keporting	3		Spike	Source		OKEC		KI D	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 48124 Extracted: 02/17/1	.0										
Blank Analyzed: 02/18/2010 (G0B17	70000124B)				Sou	rce:					
1,2,3,4,6,7,8-HpCDD	2.3e-006	0.00005	0.0000011	ug/L				-			J, Q
1,2,3,4,6,7,8-HpCDF	6e-007	0.00005	0.0000004	ug/L				-			J, Q
2,3,7,8-TCDF	ND	0.00001	0.00000047	ug/L				-			
1,2,3,4,7,8,9-HpCDF	ND	0.00005	0.00000069	ug/L				-			
1,2,3,4,7,8-HxCDD	ND	0.00005	0.0000006	ug/L				-			
1,2,3,4,7,8-HxCDF	ND	0.00005	0.00000036	ug/L				-			
1,2,3,6,7,8-HxCDD	ND	0.00005	0.0000005	ug/L				-			
1,2,3,6,7,8-HxCDF	ND	0.00005	0.00000031	ug/L				-			
1,2,3,7,8,9-HxCDD	ND	0.00005	0.00000046	ug/L				-			
1,2,3,7,8,9-HxCDF	ND	0.00005	0.0000004	ug/L				-			
1,2,3,7,8-PeCDD	ND	0.00005	0.00000057	ug/L				-			
1,2,3,7,8-PeCDF	ND	0.00005	0.00000044	ug/L				-			
2,3,4,6,7,8-HxCDF	ND	0.00005	0.00000031	ug/L				-			
2,3,4,7,8-PeCDF	ND	0.00005	0.00000052	ug/L				-			
2,3,7,8-TCDD	ND	0.00001	0.00000046	ug/L				-			
OCDD	2.3e-005	0.0001	0.00000084	ug/L				-			J
OCDF	7.2e-007	0.0001	0.0000008	ug/L				-			J, Q
Total HpCDD	1.3e-005	0.00005	0.0000011	ug/L				-			J, Q
Total HpCDF	1.1e-006	0.00005	0.0000004	ug/L				-			J, Q
Total HxCDD	ND	0.00005	0.00000046	ug/L				-			
Total HxCDF	ND	0.00005	0.00000031	ug/L				-			
Total PeCDD	ND	0.00005	0.00000057	ug/L				-			
Total PeCDF	ND	0.00005	0.00000016	ug/L				-			
Total TCDD	ND	0.00001	0.00000046	ug/L				-			
Total TCDF	ND	0.00001	0.00000047	ug/L				-			
Surrogate: 13C-2,3,7,8-TCDF	0.0013			ug/L	0.002		63	24-169			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.00072			ug/L	0.0008		90	35-197			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.0018			ug/L	0.002		92	23-140			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.0017			ug/L	0.002		86	28-143			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0016			ug/L	0.002		79	26-138			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.0017			ug/L	0.002		87	32-141			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.0016			ug/L	0.002		82	26-152			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.0017			ug/L	0.002		86	28-130			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.0017			ug/L	0.002		86	26-123			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.0016			ug/L	0.002		81	29-147			

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THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Report Number: ITB0783

Reporting

Sampled: 02/05/10

Received: 02/05/10

RPD

Data

METHOD BLANK/QC DATA

EPA-5 1613B

Spike

Source

Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 48124 Extracted: 02/17/10	<u>) </u>										
Blank Analyzed: 02/18/2010 (G0B170	0000124B)				Sou	ırce:					
Surrogate: 13C-1,2,3,7,8-PeCDD	0.0016			ug/L	0.002		80	25-181			
Surrogate: 13C-1,2,3,7,8-PeCDF	0.0015			ug/L	0.002		75	24-185			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.0018			ug/L	0.002		90	28-136			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.0015			ug/L	0.002		74	21-178			
Surrogate: 13C-2,3,7,8-TCDD	0.0014			ug/L	0.002		71	25-164			
Surrogate: 13C-OCDD	0.0039			ug/L	0.004		98	17-157			
LCS Analyzed: 02/19/2010 (G0B1700	000124C)				Sou	ırce:					
1,2,3,4,6,7,8-HpCDD	0.00111	0.00005	0.0000021	ug/L	0.001		111	70-140			Ва
1,2,3,4,6,7,8-HpCDF	0.00113	0.00005	0.0000023	ug/L	0.001		113	82-122			Ва
2,3,7,8-TCDF	0.000222	0.00001	0.00000048	ug/L	0.0002		111	75-158			
1,2,3,4,7,8,9-HpCDF	0.00125	0.00005	0.000004	ug/L	0.001		125	78-138			
1,2,3,4,7,8-HxCDD	0.00128	0.00005	0.0000013	ug/L	0.001		128	70-164			
1,2,3,4,7,8-HxCDF	0.00119	0.00005	0.0000019	ug/L	0.001		119	72-134			
1,2,3,6,7,8-HxCDD	0.00109	0.00005	0.0000011	ug/L	0.001		109	76-134			
1,2,3,6,7,8-HxCDF	0.00114	0.00005	0.0000017	ug/L	0.001		114	84-130			
1,2,3,7,8,9-HxCDD	0.00102	0.00005	0.00000097	ug/L	0.001		102	64-162			
1,2,3,7,8,9-HxCDF	0.00118	0.00005	0.0000022	ug/L	0.001		118	78-130			
1,2,3,7,8-PeCDD	0.00112	0.00005	0.0000013	ug/L	0.001		112	70-142			
1,2,3,7,8-PeCDF	0.00114	0.00005	0.0000014	ug/L	0.001		114	80-134			
2,3,4,6,7,8-HxCDF	0.00116	0.00005	0.0000016	ug/L	0.001		116	70-156			
2,3,4,7,8-PeCDF	0.00115	0.00005	0.0000016	ug/L	0.001		115	68-160			
2,3,7,8-TCDD	0.000231	0.00001	0.00000063	ug/L	0.0002		115	67-158			
OCDD	0.00222	0.0001	0.0000034	ug/L	0.002		111	78-144			Ва
OCDF	0.0021	0.0001	0.0000025	ug/L	0.002		105	63-170			Ва
Surrogate: 13C-2,3,7,8-TCDF	0.00139			ug/L	0.002		70	22-152			
Surrogate: 37Cl4-2,3,7,8-TCDD	0.000723			ug/L	0.0008		90	31-191			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	0.00186			ug/L	0.002		93	26-166			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	0.00176			ug/L	0.002		88	21-158			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	0.0016			ug/L	0.002		80	20-186			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	0.00179			ug/L	0.002		89	21-193			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	0.00175			ug/L	0.002		87	19-202			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	0.00189			ug/L	0.002		94	25-163			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	0.00177			ug/L	0.002		89	21-159			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	0.00171			ug/L	0.002		85	17-205			
Surrogate: 13C-1,2,3,7,8-PeCDD	0.00174			ug/L	0.002		87	21-227			

TestAmerica Irvine



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

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 002

Sampled: 02/05/10

Report Number: ITB0783

Received: 02/05/10

METHOD BLANK/QC DATA

EPA-5 1613B

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 48124 Extracted: 02/17/10											
LCS Analyzed: 02/19/2010 (G0B170000	124C)				Sou	rce:					
Surrogate: 13C-1,2,3,7,8-PeCDF	0.00161			ug/L	0.002		81	21-192			
Surrogate: 13C-2,3,4,6,7,8-HxCDF	0.00192			ug/L	0.002		96	22-176			
Surrogate: 13C-2,3,4,7,8-PeCDF	0.00158			ug/L	0.002		79	13-328			
Surrogate: 13C-2,3,7,8-TCDD	0.00151			ug/L	0.002		76	20-175			
Surrogate: 13C-OCDD	0.00383			ug/L	0.004		96	13-199			

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Arcadia, CA 91007

Report Number: ITB0783

Sampled: 02/05/10
Received: 02/05/10

Attention: Bronwyn Kelly

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.

						Compliance
LabNumber	Analysis	Analyte	Units	Result	MRL	Limit
ITB0783-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.100	5.0	15
ITB0783-01	624-Boeing 001/002Q (Fr113+X+I	Fr1,1-Dichloroethene	ug/l	0	0.50	6
ITB0783-01	624-Boeing 001/002Q (Fr113+X+I	FrTrichloroethene	ug/l	0	0.50	5
ITB0783-01	Chromium VI-218.6	Chromium VI	ug/l	0.012	1.0	16
ITB0783-01	Cyanide, Total-4500CN-E (5ppb)	Total Cyanide	ug/l	-4	5.0	8.5
ITB0783-01	Settleable Solids - SM2540F	Total Settleable Solids	ml/l	0	0.10	0.3

Compliance Check

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LabNumber	Analysis Analyte	Units	Result	MRL	Compliance Limit
ITB0783-02	624-Boeing 001/002Q (Fr113+X+Fr1,1-Dichloroethene	ug/l	0	0.50	6
ITB0783-02	624-Boeing 001/002Q (Fr113+X+FrTrichloroethene	ug/l	0	0.50	5

Compliance Check

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						Compliance
LabNumber	Analysis	Analyte	Units	Result	MRL	Limit
ITB0888-01	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0.0014	0.0094	0.03
ITB0888-01	608-Pesticides (LowRL)	alpha-BHC	ug/l	0.0014	0.0047	0.03
ITB0888-01	625+NDMA, LL	2,4,6-Trichlorophenol	ug/l	0	0.94	13
ITB0888-01	625+NDMA, LL	2,4-Dinitrotoluene	ug/l	0	4.7	18
ITB0888-01	625+NDMA, LL	Bis(2-ethylhexyl)phthalate	ug/l	0.83	4.7	4
ITB0888-01	625+NDMA, LL	N-Nitrosodimethylamine	ug/l	0	1.9	16
ITB0888-01	625+NDMA, LL	Pentachlorophenol	ug/l	0	1.9	16
ITB0888-01	Antimony-200.8	Antimony	ug/l	0	2.0	6
ITB0888-01	Arsenic-200.7	Arsenic	ug/l	1.78	10	10
ITB0888-01	Barium-200.7	Barium	mg/l	0.041	0.010	1
ITB0888-01	Beryllium-200.7	Beryllium	ug/l	0	2.0	4
ITB0888-01	BOD - SM5210B	Biochemical Oxygen Demand	mg/l	0.81	2.0	30
ITB0888-01	Cadmium-200.8	Cadmium	ug/l	0	1.0	3.1
ITB0888-01	Chloride - 300.0	Chloride	mg/l	27	0.50	150

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THE LEADER	IN ENVIRONMENTA	I TESTING

MWH-Pasaden	a/Boeing	Project ID: Annual Outfall 002				
618 Michillinda Arcadia, CA 91	a Avenue, Suite 200 007	Report Number: ITB0783	eport Number: ITB0783			
Attention: Bro	nwyn Kelly					
ITB0888-01	Chromium-200.7	Chromium	ug/l	0	5.0	16
ITB0888-01	Copper-200.8	Copper	ug/l	1.68	2.0	14
ITB0888-01	Fluoride SM4500F,C	Fluoride	mg/l	0.39	0.10	1.6
ITB0888-01	Iron-200.7	Iron	mg/l	0.61	0.040	0.3
ITB0888-01	Lead-200.8	Lead	ug/l	0.40	1.0	5.2
ITB0888-01	Manganese-200.7	Manganese	ug/l	18	20	50
ITB0888-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.038	0.10	0.5
ITB0888-01	Nickel-200.7	Nickel	ug/l	-1	10	96
ITB0888-01	Nitrate-N, 300.0	Nitrate-N	mg/l	0.24	0.11	8
ITB0888-01	Nitrite-N, 300.0	Nitrite-N	ug/l	0	150	1000
ITB0888-01	Nitrogen, NO3+NO2 -N EPA 300.	0 Nitrate/Nitrite-N	mg/l	0.24	0.26	8
ITB0888-01	Perchlorate 314.0 - Default	Perchlorate	ug/l	0	4.0	6
ITB0888-01	Selenium-200.8	Selenium	ug/l	0.42	2.0	5
ITB0888-01	Silver-200.8	Silver	ug/l	0	1.0	4.1
ITB0888-01	Sulfate-300.0	Sulfate	mg/l	157	10	300
ITB0888-01	TDS - SM2540C	Total Dissolved Solids	mg/l	401	10	950
ITB0888-01	Thallium-200.8	Thallium	ug/l	0.095	1.0	2
ITB0888-01	TSS - SM2540D	Total Suspended Solids	mg/l	9.00	10	45
ITB0888-01	Zinc-200.7	Zinc	ug/l	8.82	20	120

Compliance Check

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						Compliance
LabNumber	Analysis	Analyte	Units	Result	MRL	Limit



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200 Sampled: 02/05/10

Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10

Attention: Bronwyn Kelly

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detected in the associated Method Blank	ζ.
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- **Ba** Method blank contamination. The associated method blank contains the target analyte at a reportable level.
- C Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- C8 Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
- J Estimated result. Result is less than the reporting limit.
- Ja Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- **Jb** Result is greater than sample detection limit but less than stated reporting limit.
- L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M13 The sample spiked had a pH of less than 2. 2-Chloroethylvinylether degrades under acidic conditions.
- M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- M7 The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
- MHA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- **Q** Estimated maximum possible concentration (EMPC).
- **R** The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
- **R-3** The RPD exceeded the acceptance limit due to sample matrix effects.
- U Result is less than the sample detection limit.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- **RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For 1,2-Diphenylhydrazine:

The result for 1,2-Diphenylhydrazine is based upon the reading of its breakdown product, Azobenzene.

For GRO (C4-C12):

GRO (C4-C12) is quantitated against a gasoline standard. Quantitation begins immediately following the methanol peak.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO):

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica Irvine



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Received: 02/05/10

Attention: Bronwyn Kelly

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EDD + Level 4	Water	N/A	N/A
EPA 1664A	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 218.6	Water	X	X
EPA 245.1-Diss	Water	X	X
EPA 245.1	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015 Mod.	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2340B-Diss	Water		
SM2340B	Water	X	X
SM2510B	Water	X	X
SM2540C	Water	X	
SM2540F	Water	X	X
SM4500CN-E	Water	X	X
SM4500NH3-C	Water	X	X
SM5210B	Water	X	X
SM5310B	Water	X	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

Subcontracted Laboratories

TestAmerica Irvine



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

MWH-Pasadena/Boeing Project ID: Annual Outfall 002

618 Michillinda Avenue, Suite 200 Sampled: 02/05/10

Arcadia, CA 91007 Report Number: ITB0783 Received: 02/05/10 Attention: Bronwyn Kelly

Aquatic Testing Laboratories-SUB California Cert #1775

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnic

Samples: ITB0888-01

Analysis Performed: Bioassay-Acute 96hr

Samples: ITB0888-01

TestAmerica St. Louis

13715 Rider Trail North - Earth City, MO 63045

Method Performed: ASTM 5174-91

Samples: ITB0888-01

Method Performed: EPA 900.0 MOD

Samples: ITB0888-01

Method Performed: EPA 901.1 MOD

Samples: ITB0888-01

Method Performed: EPA 903.0 MOD

Samples: ITB0888-01

Method Performed: EPA 904 MOD

Samples: ITB0888-01RE1

Method Performed: EPA 905 MOD

Samples: ITB0888-01

Method Performed: EPA 906.0 MOD

Samples: ITB0888-01

TestAmerica West Sacramento

880 Riverside Parkway - West Sacramento, CA 95605

Method Performed: EPA-5 1613B Samples: ITB0888-01, ITB0888-01RE1

Truesdail Laboratories-SUB California Cert #1237

14201 Franklin Avenue - Tustin, CA 92680

Analysis Performed: Hydrazine Samples: ITB0888-01

TestAmerica Irvine

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Client Name/Address:	\ddress:			Project:						†			ANA	SISA I	ANAI VSIS BEOLIBED	A L		
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007	dia a Ave, Si 31007	uite 200		Boeing-SSFL NPDES Annual Outfall 002 GRAB	NPDES II 002		Freon ,											Field readings: (Log in and include in report Temp and pH)
Test America Contact: Joseph Doak	Contact:	Joseph Do	ak				+ Freon 113 PP	3	***	•	(ME	(əlqe		M				Temp °F = 450 ペ PH = 4.6
Project Manager: Bronwyn Kelly	ger: Bror	nwyn Kelly		Phone Number:	£ =		ylenes +	+¥+5CA		- Ohlorin	3H- 1/ 991	recovera		leut te				Total Residual Chlorine = 0.07 Mp.
Sampler: S.	S. Dawson	350 V		Fax Number: (626) 568-6515	ب -		624 + x	A+ 429 ;	(3.81S) (1	able Sol	Grease (lstót) eb	- dss	(/ləsəip -	nctivity			Time of readings =
Sample Description	Sample Matrix	Container Type	Cont		Preservative	Bottle #	VOCs	AOC			Oil & (Cyani	8012	8015	npuoO			Comments
Outfall 002	W	VOAs	2	2/5/10 09830	Р	1A, 1B, 1C, 1D, 1E	×											
Outfall 002	W	VOAs	6	यानीक उनक	None	2A, 2B, 2C		×							-			
Outfall 002	W	500 mL Poly	1	J	None	8			×									
Outfall 002	W	1L Poly	1		None	4			^	×								
Outfall 002	M	150 mL Poly	+		None	8		+	+	*					+			
Outfall 002	3	1L Amber	N		HCI	6A, 6B				-	×				-			
Outfall 002	W	500 mL Poly	-		NaOH	7						×						
Trip Blanks	W	VOAs	8	~	HCI	8A, 8B, 8C	×											
Trip Blanks	W	VOAs	က	S	None	9A, 9B, 9C		×			,							
Outfall 002	W	VOAs	+		HCI	10A							×				v	
Outfall 002 Dup	W	VOAs	2		HCI	10B, 10C							×					/
Outfall 002	W	1L Amber	+	_	None	11A								×		- 1		000
Outfall 002 Dup	W	1L Amber	-	>	None	11B								×				3,6
Outfall 002	Α	500 mL Poly	N	245/11 0480	None	12A, 12B									×			
	These	Samples a	Te t	These Samples are the Grab Portion of Outfall (n of Outfall	002 for tilis	storm	event.	4	osite	sampl	es w	160	w and	- are to	be adde	Composite samples will follow and are to be added to this work order	ork order.
Relinquished By	7	R	Date/Time:	ate/Time:	.30	Received By	1	13	1 11	Date/Time:	0	15:30	- N 4	Tum-arou 24 Hour. 48 Hour.	Tum-around time: (Check) 24 Hour: 77 48 Hour. 5	heck) 72 Hour: 5 Day:		10 Day:
Relinquished By	1	Jan 1	Date/Time	. 9	19:20	Received By		1		ate/Time	Date/Time:	10	3	Sample In Intact:	Sample Integrity: (Check) Intact:	on ice:	×	
Relinquished By			Date (Times	***					1			1	I					

2.9 M253

LABORATORY REPORT

Date:

February 15, 2010

Client:

TestAmerica, Irvine

17461 Derian Ave., Suite 100

Irvine, CA 92614 Attn: Joseph Doak 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

Laboratory No.:

A-10020703-001

Sample I.D.:

ITB0888-01 (Outfall 002)

Sample Control:

The sample was received by ATL chilled and with the chain of custody record attached. Testing conducted on only one sample per client instruction (rain runoff sample). Sample received outside the recommended 36 hour hold time and conduct

per client instruction.

Date Sampled:

02/05/10

Date Received:

02/07/10 3.8°C

Temp. Received: Chlorine (TRC):

0.0 mg/l

Date Tested:

02/07/10 to 02/14/10

Sample Analysis:

The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0). *Ceriodaphnia dubia* Survival and Reproduction Test (EPA Method 1002).

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

Result Summary:

Acute:

 $\frac{\text{Survival}}{100\%} \quad \frac{\text{TUa}}{0.0}$

Chronic:

NOEC TUC

Ceriodaphnia Survival: Ceriodaphnia Reproduction:

Fathead Minnow:

100% 100%

1.0 1.0

Quality Control:

Reviewed and approved by:

Joseph A. LeMay

Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST EPA Method 2000.0



Lab No.: A-10020703-001

Client/ID: TestAmerica ITB0888-01 Outfall 002

Start Date: 02/07/2010

TEST SUMMARY

Species: Pimephales promelas.

Age: 12 (1-14) days. Regulations: NPDES.

Test solution volume: 250 ml. Feeding: prior to renewal at 48 hrs.

Number of replicates: 2.

Dilution water: Moderately hard reconstituted water.

Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture. Test type: Static-Renewal.

Test Protocol: EPA-821-R-02-012. Endpoints: Percent Survival at 96 hrs.

Test chamber: 600 ml beakers. Temperature: 20 +/- 1°C.

Number of fish per chamber: 10. QA/QC Batch No.: RT-100202.

TEST DATA

		900	DO	10	# I	Dead	Analyst & Time
		°C	DO	рН	Α	В	of Readings
DUTIAL	Control	20.1	8.5	7.7	0	0	2
INITIAL	100%	20.1	9.8	7.7	0	0	1400
24.11	Control	19.41	8.1	8.0	0	0	2
24 Hr	100%	19.7	8.7	8.2	0	0	1200
40.11	Control	19.3	8.1	7.5	0	0	Lu
48 Hr	100%	19.0	8.2	8.2	0	0	1300
	Control	19.8	9.0	8.0	0	0	R
Renewal	100%	20.4	9.6	8.0	0	0	1300
70.11	Control	19.4	7.1	25	0	0	La
72 Hr	100%	19.0	6.9	2.7	0	0	1520
0411	Control	19.1	8.2	7.7	0	0	Rn
96 Hr	100%	19.0	8.10	7.9	0	0	1 400

Comments:

Sample as received: Chlorine: 0.0 mg/l; pH: 7.7; Conductivity: 614 umho; Temp: 3.8°C;

DO: 1.5 mg/l; Alkalinity: 16 7 mg/l; Hardness: 115 mg/l; NH₃-N: 0.7 mg/l.

Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No.

Control: Alkalinity: 71 mg/l; Hardness: 108 mg/l; Conductivity: 32 5 umho.

Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / No.

Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.

Dissolved Oxygen (DO) readings in mg/l O₂.

RESULTS

Percent Survival In: Control: 100 % 100% Sample: 100 %



CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

- Test and Results Summary
- Data Summary and Statistical Analyses
- Raw Test Data: Water Quality & Test Organism Measurements

CERIODAPHNIA CHRONIC BIOASSAY EPA METHOD 1002.0



Lab No.: A-10020703-00 Date Tested: 02/07/10 to 02/14/10

Client/ID: Test America - ITB0888-01 (Outfall 002)

TEST SUMMARY

Test type: Daily static-renewal. Endpoints: Survival and Reproduction.

Species: Ceriodaphnia dubia.

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-100207. Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	27.9
100% Sample	100%	30.2

CHRONIC TOXICITY

100%
1.0
100%
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 = 10.9%)
Statistically significantly different concentrations relative difference > 13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

Start Date: End Date: Sample Date: Comments:	2/7/2010 1 2/14/2010 2/5/2010 2	14:00	Lab ID:	10020703 CAATL-AC FWCH EP	uatic Tes	ting Labs	Sample ID Sample Ty Test Spec	pe:	ITB0888-0 EFF2-Indu CD-Ceriod	
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

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

isher's Exa	Test (1-tail,		NOEC	LOEC	ChV	TU				
	ici rest		100	>100		1				
reatments	vs D-Control		11.7							
		377.7		Line	ar Interpo	lation (20	00 Resamples)			
Point	%	SD	95%	6 CL	Skew					
C05	>100									
C10	>100									
C15	>100						1.0			-
C20	>100						0.9			
C25	>100									
C40	>100						0.8 -			
C50	>100						0.7			
										1
							2 0.6 T			
							0.5			
							Response 0.6 - 0.0 - 0.5 - 0.4 - 0.4			
							0.3			Y
							0.2 -			
							0.1			
							0.0			
							0	50	100	150
								Do	se %	

			Cerioda	aphnia Su	rvival and	Reprod	uction les	st-Repro	uction	
	2/7/2010 1 2/14/2010 2/5/2010 2	14:00	Lab ID:	100207036 CAATL-AC FWCH EP	quatic Tes		Sample ID Sample Ty Test Spec	/pe:	ITB0888-0 EFF2-Indu CD-Cerioo	45% about
Conce-%	1	2	3	4	5	6	7	8	9	10
D-Control	30,000	26,000	31.000	29.000	30.000	32.000	24.000	30.000	22.000	25.000

33.000

30.000

25.000

24.000

27.000

28.000

29.000

				Transform: Untransformed					1-Tailed		Isot	onic
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
D-Control	27.900	1.0000	27.900	22.000	32.000	12.119	10				29.050	1.0000
100	30.200	1.0824	30.200	24.000	38.000	14.543	10	-1.312	1.734	3.039	29.050	1.0000

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.95408		0.905		-0.0193	-0.6964
F-Test indicates equal variances (p = 0.45)	1.68707		6.54109			
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	3.03942	0.10894	26.45	15.3611	0.20594	1, 18
Treatments vs D-Control						

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

26.000

34.000

30.000

31.000

D-Control

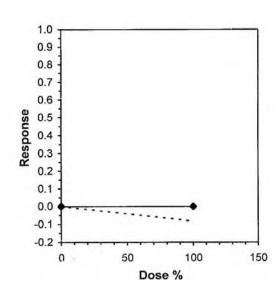
100

31.000

38.000

29.000

33.000



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



Lab No.: A-10020703-001

Start Date: 02/07/2010 Client ID: TestAmerica - ITB0888-01 Outfall 002

nem 1D. 10	estAmer	ca - 111	50000	-01			1		-	_		10	71			Date: 02		
		DA				DAY?		DA	Y 4		DAY 5		DA	Y 6		AY7		
		0 hr	24hr	19	0 hr	24hr	0 hi		24hr	0 hr	24hr	0 hr	1	24hr	0 hr	24hr	0 hr	24hr
Analyst Ini	itials:	1_	1	1	2	In	R	ز ا	the	h	R	R	- 7	2	ス	In	L	1/2
Time of Rea	adings:	1500	1430	==	430	1500	154	01	Ya	144	1400	144	0 13	500	1500	1400	1600	140
	DO	8.3	8.1		8.2	83	8.	2 8	3-4	8.2	8.0	8.3		.0	8.1	7.8	8.0	8.1
Control	pН	7.7	7-8	1	7-6	28	8.	07	26	7-7	7-9	7-	2 2	1	1.7	7.7	7-5	7.5
-	Temp	24.3	24-	8/2	4-8	ask	25	60	4.7	244	246	25.	7	25.0	254	253	255	24.
	DO	10-8	80	1	0-2	8.5	9-1	1 8	3	10.2	7.6	10:	3 7	-9	10-4	7-7	10-1	28
100%	pН	26	7-9	7	7-8	8.2	8-	1 8	51	7-8	23	2	8 8	5.1	7-8	8.2	78	80
	Temp	24-5	24	2	44	25-4	25	-0 :	25.1	251	250	25.	1/2	151	25.2	25.5	251	24.
	Ac	lditional l	Paramet	ers) ==		Cor	itrol					100% Sar	nple	
	Co	nductivity	(umohn	ns)						3	19					6-14		
	Al	kalinity (n	ng/I CaC	(O ₃)						6	7				1	67		
	H	ardness (m	g/l CaC	O ₃)						9					2	15		
	At	nmonia (n	ng/l NH ₃	-N)			ΞĪ			40	rl				C	ーレ		
								Sourc	e of Ne	onates								
Repli	icate:		A		В		-	D		E	F	\rightarrow	G		H	1	_	1
Broo	d ID:	3	SA		6 B	6	6	4[) (15	61		46	7	SH	6	- 3	55
Sample		Day					Numb	er of	Young l	Produced					tal Live	No. Liv		nalyst
Батре		Day		Á	В	C	D	E	F	G	н	1	J	,	oung	Adults		Initials
		1		0	0	0	U	0	C		C	U	0		0	10	1	2
	18	2		2	0	0	0	0	0	0	0	0	0	-	0	10	1	2
		3		4	5	N	4	9	6		3	2	9		33	10))	0
Control	-	4		8	0	0	9	0	0	1.7	17	13	12	-	91	10	1	~
	-	6		15	0	0	0	0	10		0	0	0		28	10	-	T
		7		2	15	17	16	17	16	(15)	(17)	(17	(1)		31	10		11
		Total		0	26	31	29	30	37		30	22	25	-	79	10		2
		1		0	0	0	0	0	0	0	0	0	0	1	0	10		n
		2		0	0	0	0	0	0	0	0	0	0		0	10	1	P
		3		ч	4	5	4	4	y	2	4	4	3			10	1	2
1009/		4		9	0	0	0	7	0	9	9	10	10	3	5-1	10	1	2
100%		5	1	8	11	12	11	14	10	_	14	0	0	1	03	10	7	2
		6	12	0	19	21	18	0	19	23	(19)	14	16		107	10		n
		7	- (2	(18)	(19)	0	(19)	0	0	0	(19)	1		0	10)/	
		Total	_ 3	31	34	38	33	25	33	24	27	28	24	2	60	10	(2

Circled fourth brood not used in statistical analysis.

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



CHAIN OF CUSTODY

SUBCONTRACT ORDER TestAmerica Irvine

ITB0888

SEN	DIN	FIA	BO	RA	TO	RY:

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: CA - CALIFORNIA Receipt Temperature: 3- &C

Receipt Temperature:

Analysis	Units	Expires	Comments
Sample ID: ITB0888-01 (Outfall 002 (Composite) -	Water) Sampled: 02/05/10 21:0	03
Bioassay-7 dy Chrnic	N/A	02/07/10 09:03	Cerìo, EPA/821-R02-013, Sub to Aquatic
Bioassay-Acute 96hr	% Survival	02/07/10 09:03	FH minnow, EPA/821-R02-012, Sub to Aquatic
Containers Supplied:			
1 gal Poly (AA)	1 gal Poly (AD)		

27-16905 Date/Time Released By Released By Date/Time

Received/By

Received By

2-7-40

Date/Time

Date/Time

2.

Page 1 of 1



REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE Method 2000.0 Reference Toxicant - SDS



QA/QC Batch No.: RT-100202

TEST SUMMARY

Species: Pimephales promelas.

Age: 13 days old. Regulations: NPDES.

Test chamber volume: 250 ml. Feeding: Prior to renewal at 48 hrs.

Temperature: 20 +/- 1°C. Number of replicates: 2. Dilution water: MHSF.

Source: In-lab culture.

Test type: Static-Renewal.

Test Protocol: EPA-821-R-02-012.

Endpoints: LC50 at 96 hrs. Test chamber: 600 ml beakers.

Aeration: None.

Number of organisms per chamber: 10.

Photoperiod: 16/8 hrs light/dark.

TEST DATA

		INITIAL				24 Hr					48 Hr			
Date/Time:	2-2-10 120			2-3	2-3-10 1300			2-	2-4-10			1201)		
Analyst:		R	~		2m					En				
	"C DO	DO.	-11	100	DO	-11	# D	# Dead		DO	pН	# Dead		
		рН	°C	Ю	pН	A	В	°C	A			В		
Control	19.6	8.4	7.6	19.4	7.9	7.4	0	0	19.2	7.1	7.9	0	0	
1.0 mg/I	19.6	8.5	7.6	19.2	8.0	7.4	0	0	19.2	7.3	7.7	0	0	
2.0 mg/l	19.6	8.5	7-7	19.1	8.0	7.4	0	0	19.1	2.2	7.6	0	0	
4.0 mg/l	19.6	8.5	22	19.1	7.6	24	0	0	19.1	7.2	7.6	0	0	
8.0 mg/l	19.6	8.6	7.7	19.0	6.8	7.3	W	10	-	-	-	_	_	

	R	ENEWA	\L		72 Hr					96 Hr				
Date/Time:	2-4-10 1200		2-5-10 1200)	2-4	1-10	1130					
Analyst:		Ru			En					R				
	°C	DO	pH	"C	DO	рН	# Dead		°C	DO	pH	# Dead		
		DO	pii		50	pir	Α	В		50	pri	A	В	
Control	19.5	8.8	7.8	19.5	7.4	7.4	0	0	20.6	6.3	7.4	0	0	
1.0 mg/l	19.5	8.8	7.8	19.4	7.4	7.4	0	0	20.6	6.6	7.4	0	0	
2.0 mg/l	19.5	8.9	7.8	19.2	2.4	7.4	0	0	20.6	6.5	7.4	0	0	
4.0 mg/l	19.5	8.9	7.8	19.2	2.3	7.4	0	0	20.5	6.4	2.4	0	0	
8.0 mg/l	-	_	-	_	-	_	-	-	-			_	_	

Comments: Control: Alkalinity: <u>69</u> mg/l; Hardness: <u>94</u> mg/l; Conductivity: <u>330</u> umho. SDS: Alkalinity: <u>68</u> mg/l; Hardness: <u>94</u> mg/l; Conductivity: <u>333</u> umho.

Concentration-response relationship acceptable? (see attached computer analysis):

Yes (response curve normal)

No (dose interrupted indicated or non-normal)

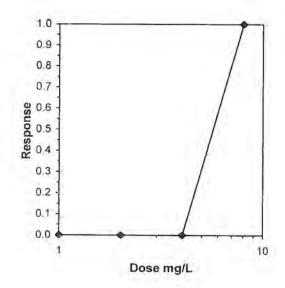
	Acute Fish Test-96 Hr Survival									
Start Date:	2/2/2010	12:00	Test ID:	RT100202f	Sample ID:	REF-Ref Toxicant				
End Date:	2/6/2010	11:30	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate				
Sample Date: Comments:	2/2/2010		Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas				
Conc-mg/L	1	2								
D-Control	1.0000	1.0000								
1	1.0000	1.0000								
2	1.0000	1.0000								
4	1,0000	1.0000								
8	0.0000	0.0000								

			Tr	ansform:	Arcsin So		Number Tot	Total	
Conc-mg/L		N-Mean	Mean	Min	Max	CV%	N	Resp Num	ber
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed			13727	
Equality of variance cannot be confirmed				
	Graphical Method			

Trim Level	EC50	
0.0%	5.6569	

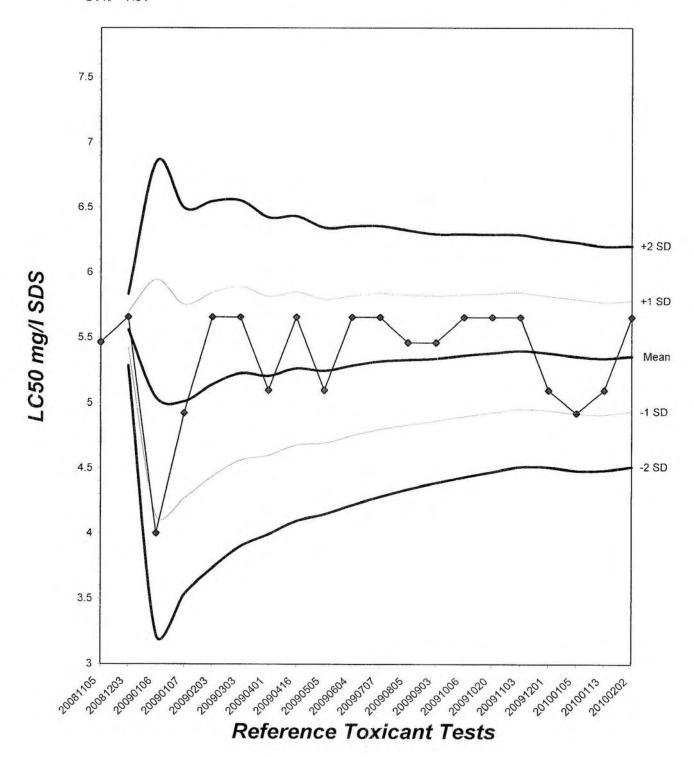
5.6569



Reviewed by:

Fathead Minnow Acute Laboratory Control Chart

CV% = 7.91



TEST ORGANISM LOG



FATHEAD MINNOW - LARVAL (Pimephales promelas)

QA/QC BATCH NO .: RT-100202
SOURCE: In-Lab Culture
DATE HATCHED: 1-20-10
APPROXIMATE QUANTITY:U W
APPROXIMATE QUANTITY: GENERAL APPEARANCE:
MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING:
DATE USED IN LAB: 1 / 5 / 10
AVERAGE FISH WEIGHT: 0,006 gm
LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C
Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.
Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.
200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C 250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C
ACCLIMATION WATER QUALITY:
Temp.: <u>19-6</u> °C pH: <u>7-6</u> Ammonia: <u>10-1</u> mg/l NH ₃ -N
DO: 8 4 mg/l Alkalinity: 69 mg/l Hardness: 94 mg/l
READINGS RECORDED BY: DATE: Z-3-/O



Test Temperature Chart

Test No: RT-100202

Date Tested: 02/02/10 to 02/06/10

Acceptable Range: 20+/- 1°C





Ceriodaphnia dubia Chronic Toxicity Test Reference Toxicant Data

CERIODAPHNIA CHRONIC BIOASSAY EPA METHOD 1002.0 REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-100207

Date Tested: 02/07/10 to 02/14/10

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: 7 days.

Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Surviva	al	Mean Number of Young Per Female		
Control	100%		28.5		
0.25 g/l	100%		30.9		
0.5 g/l	100%		25.5		
1.0 g/I	100%		15.4	*	
2.0 g/l	100%		2.9	*	
4.0 g/l	0%	*	0	**	

^{*} Statistically significantly less than control at P = 0.05 level

** Reproduction data from concentrations greater than survival NŒC are

excluded from statistical analysis.

CHRONIC TOXICITY

Survival LC50	2.8 g/l
Reproduction IC25	0.66 g/l

QA/QC TEST ACCEPTABILITY

Result			
Pass (100% Survival)			
Pass (28.5 young)			
Pass (100% with 3 broods)			
Pass (PMSD = 14.7%)			
Pass (Stat. sig. diff. conc. Relative difference = 46.0%)			
Pass (Response curve normal)			
֡֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜			

Start Date:	2/7/2010 1	5:00	Test ID:	경영하다 하는 그렇게 어떻게 되었다.			Sample ID:		REF-Ref Toxicant		
End Date:	2/14/2010	14:00	Lab ID:	ID: CAATL-Aquatic Testing			Sample Ty	/pe:		lium chloride	
Sample Date:	2/7/2010		Protocol:	FWCH EPA Test Sp				ecies: CD-Ceriodaphnia dubia			
Comments: Conc-gm/L	4	2	3	1	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	
0.25		1.0000	1000000		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	1.0000	1.0000	
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	

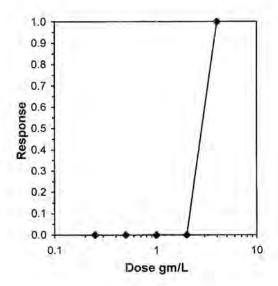
				Not			Fisher's	1-Tailed	Number	Total
Conc-am/L	Mean	N-Mean	Resp	Resp	Total	N	Exact P	Critical	Resp	Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	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					

Graphical Method

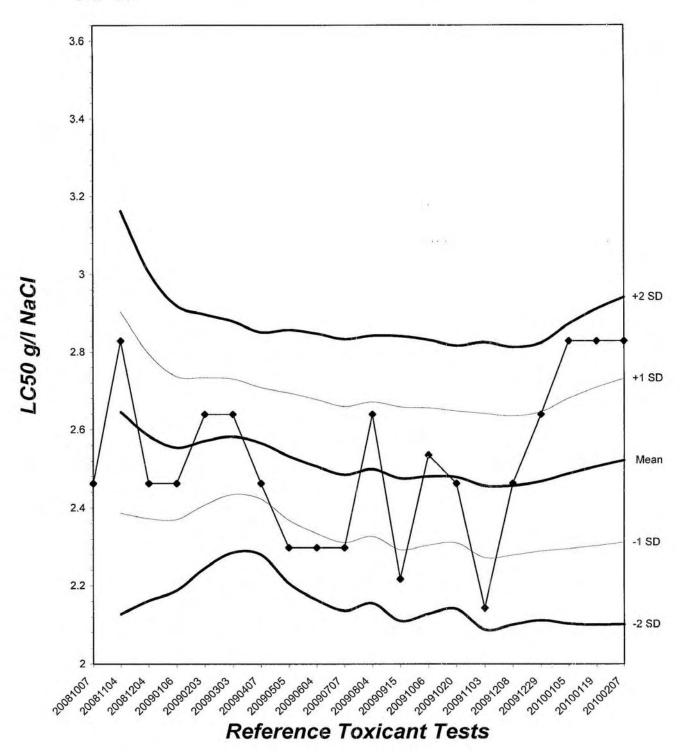
Trim Level EC50 0.0% 2.8284

2.8284



Ceriodaphnia Chronic Survival Laboratory Control Chart

CV% = 8.34



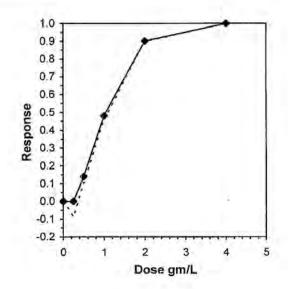
Start Date:	2/7/2010 1	5:00	Test ID:	RT100207	'c		Sample ID	:	REF-Ref T	oxicant
End Date:	2/14/2010	14:00	Lab ID:	CAATL-AC	quatic Tes	ting Labs	Sample Ty	/pe:	NACL-Soc	lium chloride
Sample Date: Comments:	2/7/2010		Protocol:	FWCH EP	A		Test Spec	ies:	CD-Cerioo	laphnia dubia
Conc-gm/L	1 -1 -	2	3	4	5	6	7	8	9	10
D-Control	30.000	29.000	30,000	32.000	29.000	30.000	30.000	25.000	26.000	24.000
0.25	48.000	29.000	31.000	31.000	27.000	27.000	28.000	36.000	25.000	27.000
0.5	27.000	26.000	26.000	28.000	25.000	25.000	30.000	25.000	18.000	25.000
1	24.000	13.000	15,000	19.000	24.000	13.000	11.000	13.000	11.000	11.000
2	3.000	3.000	2.000	3.000	2.000	3.000	4.000	4.000	2.000	3.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

			Transform	n: Untran	sformed		Rank	1-Tailed	Isot	onic
Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
28.500	1.0000	28.500	24,000	32.000	9.097	10			29.700	1.0000
30.900	1.0842	30.900	25,000	48.000	21.867	10	110.50	76.00	29.700	1.0000
25.500	0.8947	25.500	18.000	30.000	12.158	10	79.00	76.00	25.500	0.8586
15.400	0.5404	15.400	11.000	24.000	33.280	10	56.00	76.00	15.400	0.5185
2.900	0.1018	2.900	2.000	4.000	25.444	10	55.00	76.00	2.900	0.0976
0.000	0.0000	0.000	0.000	0.000	0.000	10			0.000	0.0000
	28.500 30.900 25.500 15.400 2.900	28.500 1.0000 30.900 1.0842 25.500 0.8947 15.400 0.5404 2.900 0.1018	Mean N-Mean Mean 28.500 1.0000 28.500 30.900 1.0842 30.900 25.500 0.8947 25.500 15.400 0.5404 15.400 2.900 0.1018 2.900	Mean N-Mean Mean Min 28.500 1.0000 28.500 24.000 30.900 1.0842 30.900 25.000 25.500 0.8947 25.500 18.000 15.400 0.5404 15.400 11.000 2.900 0.1018 2.900 2.000	Mean N-Mean Mean Min Max 28.500 1.0000 28.500 24.000 32.000 30.900 1.0842 30.900 25.000 48.000 25.500 0.8947 25.500 18.000 30.000 15.400 0.5404 15.400 11.000 24.000 2.900 0.1018 2.900 2.000 4.000	28.500 1.0000 28.500 24.000 32.000 9.097 30.900 1.0842 30.900 25.000 48.000 21.867 25.500 0.8947 25.500 18.000 30.000 12.158 15.400 0.5404 15.400 11.000 24.000 33.280 2.900 0.1018 2.900 2.000 4.000 25.444	Mean N-Mean Mean Min Max CV% N 28.500 1.0000 28.500 24.000 32.000 9.097 10 30.900 1.0842 30.900 25.000 48.000 21.867 10 25.500 0.8947 25.500 18.000 30.000 12.158 10 15.400 0.5404 15.400 11.000 24.000 33.280 10 2.900 0.1018 2.900 2.000 4.000 25.444 10	Mean N-Mean Mean Min Max CV% N Sum 28.500 1.0000 28.500 24.000 32.000 9.097 10 30.900 1.0842 30.900 25.000 48.000 21.867 10 110.50 25.500 0.8947 25.500 18.000 30.000 12.158 10 79.00 15.400 0.5404 15.400 11.000 24.000 33.280 10 56.00 2.900 0.1018 2.900 2.000 4.000 25.444 10 55.00	Mean N-Mean Mean Min Max CV% N Sum Critical 28.500 1.0000 28.500 24.000 32.000 9.097 10 30.900 1.0842 30.900 25.000 48.000 21.867 10 110.50 76.00 25.500 0.8947 25.500 18.000 30.000 12.158 10 79.00 76.00 15.400 0.5404 15.400 11.000 24.000 33.280 10 56.00 76.00 2.900 0.1018 2.900 2.000 4.000 25.444 10 55.00 76.00	Mean N-Mean Mean Min Max CV% N Sum Critical Mean 28.500 1.0000 28.500 24.000 32.000 9.097 10 29.700 30.900 1.0842 30.900 25.000 48.000 21.867 10 110.50 76.00 29.700 25.500 0.8947 25.500 18.000 30.000 12.158 10 79.00 76.00 25.500 15.400 0.5404 15.400 11.000 24.000 33.280 10 56.00 76.00 15.400 2.900 0.1018 2.900 2.000 4.000 25.444 10 55.00 76.00 2.900

Auxiliary Tests		-			Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates nor	-normal dis	stribution	$(p \le 0.05)$		0.87968	0.947	1.72192	5.90298
Bartlett's Test indicates unequal					32.1843	13.2767		
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU				
Steel's Many-One Rank Test	0.5	1	0.70711					
Total Control of D. Octobrol								

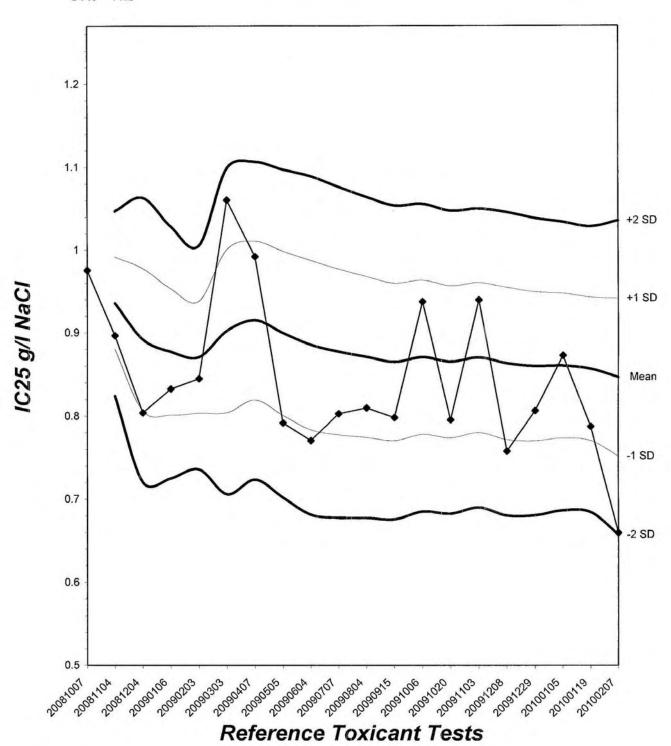
Treatments vs D-Control

				Linea	ar Interpolation	(200 Resamples)
Point	gm/L	SD	95%	CL	Skew	1-000
IC05	0.3384	0.0442	0.2691	0.4525	0.4001	
IC10	0.4268	0.0548	0.3537	0.5444	0.4118	
IC15	0.5126	0.0553	0.4160	0.6069	0.0105	1.0
IC20	0.5861	0.0571	0.4714	0.6748	-0.2745	0.9
IC25	0.6597	0.0572	0.5402	0.7608	-0.3338	0.8
IC40	0.8802	0.0645	0.7629	1.0101	0.4008	100
IC50	1.0440	0.0882	0.8903	1.2112	0.2244	0.7
						0.6 -



Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 11.2



CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-100207

Start Date: 02/07/2010

				Nu	mbei	r of Y	oung	Produ	uced			Total	No.	Analyst
Sample	Day	A	В	C	D	E	F	G	н	I	J	Live Young	Live Adults	Initials
	1	0	0	0	0	0	0	0	0	0	0	0	10	2
	2	0	0	0	0	0	0	0	0	0	0	0	10	R
	3	5	0	4	4	3	4	4	4	3	4	35	10	R
Control	4	0	5	0	0	0	9	10	7	9	9	49	10	R
Control	5	8	8	12	11	10	0	16	14	14	11	104	10	Ly
	6	0	0	U	0	0	12	(13)	(13)	0	(Z)	17	10	h
	7	17	16	14	17	16	15)	0	0	0	0	80	10	1/6
	Total	30	29	30	32	29	30	30	25	26	24	285	10	
	1	0	0	0	0	0	0	0	0	0	0	C	10	R
	2	0	0	0	0	0	0	0	0	0	0	0	10	Ry
	3	0	4	4	4	5	3	4	0	4	3	31	10	R
0.25 - //	4	0	0	0	0	9	8	11	10	9	0	47	10	Lu
0.25 g/l	5	11	8	8	10	13	0	13	11	12	8	ad	10	Ly
	6	18	17	19	1)	13	116	13	0	(17)	16	103	10	h
	7	19	0	(2)	(16)	0	(17)	0	15	0	(15)	34	10	16
	Total	88	29	31	31	27	27	28	36	25	27	309	10	1/
	1	0	0	0	0	0	0	0	C	0	C	0	10	en
	2	0	0	0	0	0	0	0	0	0	0	0	10	En
	3	2	0	3	0	3	3	0	0	4	3	18	(0)	R
0.5 //	4	0	4	4	2	5	0	6	4	6	5	36	10	Lin
0.5 g/l	5	7	5	0	0	0	7	8	6	8	0	41	10	Rom
	6	18	17	19	12	17	0	16	0	0	0	99	10	1
	7	0	0	0	14	(16)	15	0	15	(14)	17	61	10	
	Total	27	26	26	£	25	25	30	35	18	25	255	10	10

Circled fourth brood not used in statistical analysis.

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

b I

CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-100207

Start Date:02/07/2010

1 /71. 0

C1	D			Nı	ımbe	r of Y	oung l	Produ	ced			Total	No.	Analyst
Sample	Day	A	В	C	D	E	F	G	н	I	J	Live Young	Live Adults	Initials
	1	0	0	0	0	0	0	0	0	0	C	0	10	1
	2	0	0	0	0	0	0	0	0	0	0	0	10	En
	3	3	0	2	3	3	0	0	2	2	0	15	10	for
1.0 α/1	4	0	2	5	2	4	0	0	3	3	0	19	10	La
1.0 g/l	5	5	4	0	0	0	6	4	0	0	0	19	10	for
	6	0	0	0	14	17	0	0	0	0	4	35	10	b
	7	16	7	8	0	0	7	7	8	. 6	7	66	10	R
	Total	24	13	15	19	24	13	11	13	(1	10	154	10	1/
	1	a	0	0	0	0	0	C	C	0	C	0	10	1
	2	0	0	0	C	C	0	0	C	C	C	D	10	1
	3	0	0	0	0	0	0	0	C	C	0	0	10	2
2.0 //	4	0	0	0	0	0	C	0	0	0	0	U	10	2
2.0 g/l	5	0	0	0	0	0	C	0	0	0	0	0	10	2
	6	0	0	2	C	0	0	0	3	0	0	5	10	2
	7	3	3	0	3	Z	3	4	1	2	3	24	10	1
	Total	3	3	2	3	2	-3	U	4	2	3	29	10	
	1	200	X	X	22	X	X	X	X	X	/	0	0	1
	2	_	1	-	-	-)	-	-	-		_		
	3		_	-	-		_	_			_	-	-	
4.0 . "	4	-		-	-		-	_	-	-	_		_	
4.0 g/l	5	_	_			-	-	_	_	_	_	Special Contract	_	
	6	-	-		-	-	-	_	-	-	_	_	_	,
	7	_		_	-		_	-	·	_	-		_	
	Total	0	0	0	0	0	0	0	C	0	0	0	0	1

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

C\RIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl Water Chemistries Raw Data Sheet



QA/QC No.: RT-100207

Start Date: 02/07/2010

A/QC NO	o.: RT-10	00207										Start	Date:0	2/07/20	110
		DA	Y 1	DA	Y 2	DA	Y 3	DA	Y 4	DA	Y 5	DA	Y 6	DA	Y 7
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Fina
Analyst I	nitials:	N	0	1	En	Bo	for	Ru	Por	2	En	Ro	Ru	En	2
Time of R	eadings:	1500	1430	1430	1500	1500	1400	1400	1400	1400	1500	15au	1600	1600	Mi
	DO	8.3	83	8.1	8.4	8,2	8.3	8.3	8.2	8.4	8.2	8.1	7.9	8.0	8-6
Control	рН	7-7	8.0	8.2	8.0	8.0	7.8	8.0	7.8	7.7	7.7	7.7	7.8	7.5	7-6
	Temp	243	24.2	74-7	25.0	25.7	25.1	24.4	24.0	25.7	24.8	25.4	25.2	25.9	24.5
	DO	8.4	8.4	8.2	8.4	8.2	8.3	8.3	8.2	8.4	8.2	8.1	8.0	8.0	7.0
0.25 g/l	pН	8.0	7.8	8.0	80	8.0	7.8	8.0	2.8	7.7	7.7	7.7	7.8	7.5	7.5
	Temp	24.4	24.2	24.6	25.1	25-8	25.2	24.5	24.2	25.7	24.9	25.4	25.3	25.9	25
	DO	8.2	8.3	8.2	8.3	8.2	8.3	8.3	8.1	8.4	8.2	8.1	800	8.0	8.1
0.5 g/l	pН	7-9	7.8	7-8	8.0	8.1	7-8	7.8	7.8	2.7	7.7	2.7	2.8	7.6	75
	Temp	24.4	24.6	24.4	25.2	25.8	25.4	24.5	24.2	25.7	25.0	2575	25.4	25.8	24
	DO	8-3	8.4	8.4	8.3	8.3	8.2	8.3	8.1	8.3	8.3	8.2	29	8.0	8.0
1.0 g/l	рН	7.9	2.5	7.8	80	8.1	7-8	7.8	28	2.7	7.7	7.7	2.8	7.6	7.6
	Temp	24.5	24,6	24-5	25.2	25.9	25.4	24.6	24.1	25.8	25.0	25.6	25.4	25.8	24.4
	DO	8.2	80	8.4	8.5	8.3	8.2	8.3	8.1	8:3	8.3	8,2	8.1	8.0	8
2.0 g/l	рН	7.9	7.8	7.7	8.0	8.1	7.8	7.8	7.8	7.7	7.7	7.8	2.8	7.7	7-1
	Temp	24.6	24.8	245	25.2	26.0	25.3	24.8	24.1	25.9	25.1	25.8	25.3	25.10	247
	DO	8.3	8.0	_		_		_	-	_	-	_	_	1	
4.0 g/l	pН	8.1	7.7	_	_	_	_	_	_	_	_	_	-	-	-
	Temp	24.5	25-1	_	_	_	_	_	_		_	-			
	Di	ssolved	Oxyge	en (DO)	reading	gs are ii	n mg/l	O ₂ ; Tem	perature	(Temp)) readin	gs are ii	n°C.		
	Additional	Parame	ters	-			Conti	rol				High Co	ncentra	tion	
					Day	1	Day .	3	Day 5		Day 1		Day 3	D	ay 5
	Conducti	ivity (μS)		34	9	335	-	341	6	240	3:	390	33	510
	Alkalinity (6-	7	68		67	_	67	-	18	-	28
	Hardness (mg/I CaC	O ₃)		90		93		92		90	-	92		72
		11	т		-			Neonates							
Rep	licate:		A	B	C		D D	Е	F	7	G	H	1	<u> </u>	

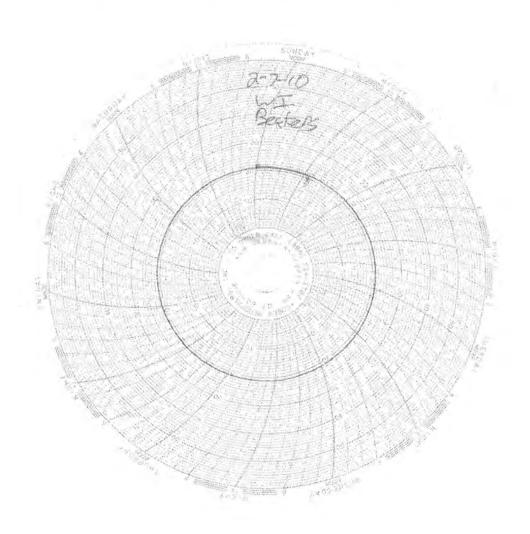


Test Temperature Chart

Test No: RT-100207

Date Tested: 02/07/10 to 02/14/10

Acceptable Range: 25+/- 1°C



SUBCONTRACT ORDER TestAmerica Irvine

987 712

ITB0888

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:

Truesdail Laboratories-SUB 14201 Franklin Avenue Tustin, CA 92680 Phone: (714) 730-6239

Fax: (714) 730-6462

Project Location: CA - CALIFORNIA

Receipt Temperature:

Rec'd 02/08/10

Ice: Y / N

Standard TAT is reque	ested unless specific due d	late is requested. => Due Date:	Initials:
Analysis	Units	Expires	Comments
Sample ID: ITB0888-01	(Outfall 002 (Composite)	- Water) Sampled: 02/05/10 21:03	
Hydrazine-OUT	ug/l	02/08/10 21:03	Sub Truesdail for Monomethylhydrazine, J flags
Containers Supplied:			10
1 L Amber (W)	1 L Amber (X)		Level a Data Package do





28/0730 Date/Time 742 Released By Date/Time

730

Page 1 of 1

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 · www.tuesdail.com

Established 1931

Client: Test America - Irvine

17461 Derian Avenue, Suite 100

Irvine, CA 92614-5817

Attention: Joseph Doak
Sample: Water / 1 Sample

Project Name: ITB0888
Project Number: ITB0888

Method Number: EPA 8315 (Modified)

Investigation: Hydrazines

REPORT

Report Date: February 11, 2010

Sampling Date: February 5, 2010 Receiving Date: February 8, 2010

Extraction Date: February 8, 2010
Analysis Date: February 9, 2010

Units: µg/L Reported By: JS

Analytical Results

		Sample	Dilution	Monomethyl	u-Dimethy!	Hydrazine	Qualifier
Sample ID	Sample Description	Amount (mL)	Factor	Hydrazine	Hydrazine		Codes
708690-MB	Method Blank	100	1	ND	ND	ND	None
987712	TB0888-01	100	غ	ND	ND	B	None
MDL				0.857	1.42	0.452	
PQL				5.0	5.0	1.00	
Sample Reporting Limits	g Limits			5.0	5.0	1.00	
	Company Company						

Note: Results based on detector #1 (UV=365nm) data.

Linda Saetern, Project Manager

Analytical Services, Truesdail Laboratories, Inc.

TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING

Client:

Test America - Irvine

Irvine, CA 92614-5817

17461 Derian Avenue, Suite 100

Established 1931

14201 FRANKLIN AVENUE · TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 · www.truesdail.com

Project Lab. No. QC Lab. No.: 987712 708690

Spiked Sample ID: 987712

Sampling Date: Report Date: February 5, 2010 February 11, 2010

Extraction Date: Receiving Date: February 8, 2010 February 8, 2010

Analysis Date: Reported By: February 9, 2010

Quality Control/Quality Assurance Calibration Report

	ICV					QCS				
Parameter	Theoretical	Measured	Percent	Control	Flag	Parameter	Theoretical	Measured	Percent	Control
	Value (ug/L)	Value (ug/L)	Recovery	Limits			Value (ug/L)	Value (ug/L)		Limits
Monomethyl Hydrazine	25.0	25.1	100	85-115	PASS	Monomethyl Hydrazine	50.0	46.4	927	85.115
I Dimosta Line Land	1 1						00:0	10.1	32.1	03-113
u-Dimethyl Hydrazine	25.0	25.7	103	85-115	PASS	u-Dimethyl Hydrazine	50.0	48.0	96.0	85-115
Hydrazina	1	. 10	200					1000	0010	00
Hydrazine	5.0	4.76	95.2	85-115	PASS	Hydrazine	10.0	10.2	102	85-115
								1		

PASS PASS PASS

Flag

Method Number: Project Number:

EPA 8315 (Modified)

Client Contact:

Sample:

Water / 1 Sample

Joseph Doak

ITB0888

Run Batch No.:

Extraction: 5138; Analysis: 678

Investigation:

Hydrazines

Quality Control/Quality Assurance Spikes Report

		LCS/LCS[CSD								MS/MS	ő				
	Spiked		Recovered	1	Per	Percent	LCS/		ဂ္ဂ	Control		Recovered	ă.	Per	ercent	- 1
	Conc.	č	Concentration	9	Recov	Recovery (%)	LCSD	Flag		Limits	S	Concentrat	ion	Recov	ecovery (%)	
Parameter	ug/L	LCS	LCSD	MB.	LCS	LCSD	RPD		%0	% Rec.	NS.	MSD	Sample	K	MSD	
Monomethyl Hydrazine	50.0	52.3	50.8	0.0	105	102	2.93%	PASS	20	50-150	41.5	40.8		83.0 81.7	817	الد
u-Dimethyl Hydrazine	50.0	53.4	51.6	0.0	107	103		PASS	20	50-150	44.9	457	Ť	89.7	914	. ا
Hydrazine	10.0	11.3	11.0	0.0	113	110	110 2.77%	PASS	20	50-150	10.3 10.7 0.00	10.7		103	107	ωİ.
											!					1,

	71	Recovered	Ď	Per	Percent	MS/		Acc	Accuracy
	င္ပ	Concentration	tion	Recov	ery (%)	MSD	Flag	Contro	Control Limits
: *	MS	MSD	Sample	MS	MS MSD	RPD		%D	% Rec.
0	41.5	40.8	0.00	83.0	81.7	1.55%	PASS	20	50-150
0	44.9	45.7	0.00	89.7	91.4	1.91%	PASS	20	50-150
10	10.3	10.7	0.00	103	107	3.33%	PASS	20	50-150

Note: Results based on detector #1 (UV=365nm) data.

Analytical Services, Truesdail Laboratories, Inc. Linda Saetem, Project Manager

This report applies only to the sample, or samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdail Laboratories.

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Client Name/Address:	ddress:			Project:						; †			ANA	VSIS	ANAI VSIS BEOLIBED	7		,
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007	dia a Ave, Si 11007	uite 200		Boeing-SSFL NPDES Annual Outfall 002 GRAB	JPDES 002		Freon ,		-									Fleid readings: (Log in and include in report Temp and pH)
Test America Contact: Joseph Doak	Contact:	Joseph Do	a X					3	-		(ME	(əlde					, — u	Temp °F = 好の。A PH = よん
Project Manager: Bronwyn Kelly	jer: Bror	wyn Kelly		Phone Number:	,,		+ euex	+¥+5C^		ninold9-l	3H- 1/ 991	recovera		leut te			-0	Total Residual Chlorine = 0.07 May 1
Sampler: S.	S. Dawson	2000		Fax Number: (626) 568-6515	7		Cyclohe		(2.81S) (a.816)		Grease (lstót) eb	- das	(/ləsəib -	nctivity			Time of readings =
Sample Description	Sample Matrix	Container Type	Cont.		Preservative	Bottle #	123A,				Oil & (Cyani	8015		npuon			Comments
Outfall 002	W	VOAs	2	2/5/10 CPB30	HCI	1A, 1B, 1C, 1D, 1E	×											
Outfall 002	W	VOAs	6	यानीय उनक	None	2A, 2B, 2C		×							_			
Outfall 002	W	500 mL Poly	ļ	j	None	က			×									
Outfall 002	W	1L Poly	1		None	4			×									
Outfall 002	M	150 mL Poly	+		Моле	6		-	+	*				+	+			
Outfall 002	3	1L Amber	N		FC	6A, 6B					×				_			
Outfall 002	W	500 mL Poly	-		NaOH	7						×						
Trip Blanks	W	VOAs	3	0	HCI	8A, 8B, 8C	×											
Trip Blanks	W	VOAs	က	S	None	9A, 9B, 9C		×			,							
Outfall 002	W	VOAs	+		HCI	10A							×				v	
Outfall 002 Dup	W	VOAs	2		HCI	10B, 10C							×					_
Outfall 002	W	1L Amber	1		None	11A								×		- 1		000
Outfall 002 Dup	W	1L Amber	1	>	None	118								×				3/6/
Outfall 002	W	500 mL Poly	2	यहात मि	None	12A, 12B	,								×			
	These	Samples	re t	These Samples are the Grab Portion of Outfall (of Outfall	002 for tilis	storm	event.	4	osite	Sampl	liw sa	- 9	w and	are to	be added	Composite samples will follow and are to be added to this work order	Corder
Relinquished By	7	R	Date/Time:	ate/Time:	.30	Received By	1	B	1 11	Date/Time:	10	15:30	F 9 4	Tum-arour 24 Hour. 48 Hour.	Tum-around time: (Check) 24 Hour: 77 48 Hour. 5	neck) 72 Hour: _ 5 Day: _	- 2	10 Day:
Relinquished By	1	Shi Shi	Date/Time	9	19:20	Received By		1		Time.	Date/Time:	0)	3	Sample Inf	Sample Integrity: (Check) Intact:	ock)	×	
Relinquished By			Date/Time	Plane As	Ī	Donning D.			10	1			T					

2.9 M253



TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

REVISED

PROJECT NO. ITB0888

MWH-Pasadena Boeing

Lot #: F0B090482

Joseph Doak

TestAmerica Irvine 17461 Derian Ave Suite 100 Irvine, CA 92614-5817

TESTAMERICA LABORATORIES, INC.

Project Manager

March 17, 2010

Case Narrative LOT NUMBER: F0B090482 Revised 03-17-10

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on February 9, 2010. This sample is associated with your MWH-Pasadena Boeing project.

The analytical results included in this report meet all applicable quality control procedure requirements.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. TestAmerica St. Louis' Florida certification number is E87689. The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium. unless requested wet weight by the client.

Report revised to report the KPA uranium results in pCi/L.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

There are no observations or nonconformances associated with the analysis in this lot.

METHODS SUMMARY

F0B090482

PARAMET	ER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma S	pectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross A	lpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
H-3 by	Distillation & LSC	EPA 906.0 MOD	
Radium-	226 by GFPC	EPA 903.0 MOD	
Radium-	228 by GFPC	EPA 904 MOD	
Stronti	um 90 by GFPC	EPA 905 MOD	
Total U	ranium By Laser Ph osphorimetry	ASTM 5174-91	
Referen	ices:		
ASTM	Annual Book Of ASTM Standards.		
EPA	"EASTERN ENVIRONMENTAL RADIATION FA PROCEDURES MANUAL" US EPA EPA 520/		

SAMPLE SUMMARY

F0B090482

<u>wo # s</u>	AMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LVF48	001	ITB0888-01	02/05/10	21:03

NOTE(S):

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

TestAmerica Irvine

Client Sample ID: ITB0888-01

Radiochemistry

Lab Sample ID: F0B090482-001

Work Order: Matrix:

LVF48 WATER Date Collected:

02/05/10 2103

Date Received:

02/09/10 1100

,			Total Uncert.			Prep	Analysis
Parameter	Result	Qual	(2 a+/-)	RL	mdc	Date	Date
Gamma Cs-137 & Hi	ts by EPA 901	.1 MOD	p	Ci/L	Batch #	0042136	Yld %
Cesium 137	2.6	U	6.0	20.0	10	02/11/10	02/19/10
Potassium 40	-40	Ū	200		190	02/11/10	02/19/10
Gross Alpha/Beta	EPA 900		p	Ci/L	Batch #	0043108	Yld %
Gross Alpha	4.5		2.4	3.0	3.0	02/10/10	02/18/10
Gross Beta	2.9	J	1.0	4.0	1.3	02/10/10	02/18/10
SR-90 BY GFPC EI	PA-905 MOD		р	Ci/L	Batch	0041162	Yld % 62
Strontium 90	0.37	U	0.27	3.00	0.42	02/10/10	02/19/10
TRITIUM (Distill)	by EPA 906.0	MOD	p	Ci/L	Batch #	0049035	Yld %
Tritium	109	J	73	500	93	02/18/10	02/18/10
Total Uranium by	KPA ASTM 5174	-91	p	Ci/L	Batch #	0053280	Yld %
Total Uranium	1.48		0,15	0.69	0.21	02/23/10	02/26/10
Radium 226 by El	PA 903.0 MOD		p	Ci/L	Batch	0041160	Yld % 86
Radium (226)	0.10	U	0.13	1.00	0.20	02/10/10	02/26/10
Radium 228 by GFF	PC EPA 904 MOD		p	Ci/L	Batch (0060257	Yld % 80
Radium 228	-0.04	ū	0.20	1.00	0.37	03/01/10	03/05/10

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only. Bold results are greater than the MDC.

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

Result is less than the sample detection limit,

METHOD BLANK REPORT

Radiochemistry

Client Lot ID:

F0B090482

Matrix:

WATER

Parameter Result Qual (2 of +/-) RL MDC Date Date									
Radium 228 by GFPC EPA 904 MOD		•		Uncert.					Lab Sample ID Analysis
Radium 228 0.08 U 0.23 1.00 0.39 03/01/10 03/05/20 Radium 226 by EPA 903.0 MOD pCi/L Batch # 0041160 Yld % 95 F0B10000 Radium (226) 0.092 U 0.095 1.00 0.14 02/10/10 02/26/20 SR-90 BY GFPC EPA-905 MOD pCi/L Batch # 0041162 Yld % 80 F0B10000 Strontium 90 -0.15 U 0.20 3.00 0.38 02/10/10 02/19/20 Gamma Cs-137 & Hits by EPA 901.1 MOD pCi/L Batch # 0042136 Yld % F0B10000 Cesium 137 1.8 U 7.7 20.0 14 02/11/10 02/19/20 Gross Alpha/Beta EPA 900 pCi/L Batch # 0043108 Yld % F0B10000 Gross Alpha/Beta EPA 900 pCi/L Batch # 0043108 Yld % F0B10000 Gross Alpha -0.28 U 0.35 2.00 0.87 02/11/10 02/19/20 Gross Beta -0.23 U 0.62 4.00 1.1 02/10/10 02/19/20 TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/20 Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B18000	Parameter	Result	Qual	(2 σ+/-)	RL	MDC		Date	Date
Radium 226 by EPA 903.0 MOD	Radium 228 by	SFPC EPA 904 MC	מכ	pCi/L	Batch #	0060257	Yld %	88 F	0C010000-257B
Radium (226) 0.092 U 0.095 1.00 0.14 02/10/10 02/26/ SR-90 BY GFPC EPA-905 MOD	Radium 228	0.08	ט	0.23	1.00	0.39		03/01/10	03/05/10
Radium (226) 0.092 U 0.095 1.00 0.14 02/10/10 02/26/2 SR-90 BY GFPC EPA-905 MOD	Radium 226 by	EPA 903.0 MOD		pCi/L	Batch #	0041160	Yld %	95 F	0B100000-160B
Strontium 90 -0.15 U 0.20 3.00 0.38 02/10/10 02/19/20 Gamma Cs-137 & Hits by EPA 901.1 MOD	Radium (226)	0.092	U		1.00	0.14		02/10/10	02/26/10
Gamma Cs-137 & Hits by EPA 901.1 MOD Cesium 137 1.8 U 7.7 20.0 14 02/11/10 02/19/ Potassium 40 Gross Alpha/Beta EPA 900 Gross Alpha Gross Beta -0.28 U 0.35 Gross Beta -0.23 U 0.62 DCi/L Batch # 0042136 Yld % FOB12000 14 02/11/10 02/19/ POB12000 Gross Beta -0.28 U 0.35 2.00 0.87 02/10/10 02/19/ 4.00 1.1 02/10/10 02/19/ TRITIUM (Distill) by EPA 906.0 MOD Tritium 165 J 85 FOB18000 PCi/L Batch # 0049035 Yld % FOB18000 PCi/L Batch # 0049035 Yld % FOB18000 PCi/L Batch # 0049035 Yld % FOB18000 PCi/L Batch # 0053280 Yld % FOB22000	SR-90 BY GFPC	EPA-905 MOD		pCi/L	Batch #	0041162	Yld %	80 F	0B100000-162B
Cesium 137	Strontium 90	-0.15	U	0.20	3.00	0.38		02/10/10	02/19/10
Potassium 40 -80 U 620 210 02/11/10 02/19/ Gross Alpha/Beta EPA 900 pCi/L Batch # 0043108 Yld % F0B12000 Gross Alpha -0.28 U 0.35 2.00 0.87 02/10/10 02/19/ Gross Beta -0.23 U 0.62 4.00 1.1 02/10/10 02/19/ TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/2 Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Gamma Cs-137 &	Hits by EPA 90	01.1 MOD	pCi/L	Batch #	0042136	Yld %	F	0 B1 10000-136B
Gross Alpha/Beta EPA 900 pCi/L Batch # 0043108 Yld % F0B12000 Gross Alpha -0.28 U 0.35 2.00 0.87 02/10/10 02/19/ Gross Beta -0.23 U 0.62 4.00 1.1 02/10/10 02/19/ TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/2 Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Cesium 137	1.8	U	7.7	20.0	14		02/11/10	02/19/10
Gross Alpha -0.28 U 0.35 2.00 0.87 02/10/10 02/19/ Gross Beta -0.23 U 0.62 4.00 1.1 02/10/10 02/19/ TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/ Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Potassium 40	-80	U	620		210		02/11/10	02/19/10
Gross Alpha -0.28 U 0.35 2.00 0.87 02/10/10 02/19/ Gross Beta -0.23 U 0.62 4.00 1.1 02/10/10 02/19/ TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/ Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Gross Alpha/Bet	ta EPA 900	- ,	pCi/L	Batch #	0043108	Yld %	F	0B120000-108B
TRITIUM (Distill) by EPA 906.0 MOD pCi/L Batch # 0049035 Yld % F0B18000 Tritium 165 J 85 500 95 02/18/10 02/18/ Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Gross Alpha	-0.28	ū		2,00	0.87		02/10/10	02/19/10
Tritium 165 J 85 500 95 02/18/10 02/18/1 Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	Gross Beta	-0.23	U	0.62	4.00	1.1		02/10/10	02/19/10
Total Uranium by KPA ASTM 5174-91 pCi/L Batch # 0053280 Yld % F0B22000	TRITIUM (Distil	l1) by EPA 906.	O MOD	pCi/L	Batch #	0049035	Yld %	F	0B180000-035B
	Tritium	165	J	85	500	95		02/18/10	02/18/10
	Total Uranium k	oy KPA ASTM 517	74-91	pCi/L	Batch #	0053280	Yld %	F	0B220000-280B
Total Uranium 0.0460 U 0.0057 0.693 0.21 02/23/10 02/26/	Total Uranium	0.0460	U	0.0057	0.693	0.21		02/23/10	02/26/10

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only Bold results are greater than the MDC.

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

F0B090482 Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID:

F0B090482

Matrix:

WATER

			Total				Lab	Sample ID
Parameter	Spike Amount	Result	Uncert. (2 g+/-)		MDC	% Yld	% Rec	QC Control Limits
Radium 226 by EPA	903.0 MOD		pCi/L	903.0	MOD		F0B1	00000-160C
Radium (226)	11.3	10.4	1.1		0.2	97	93	(68 - 136)
	Batch #:	0041160			Analysis Date:	02/26	5/10	
SR-90 BY GFPC EPA	4-905 MOD		pCi/L	905 M	OC		F0B1	00000-162C
Strontium 90	6.80	6.82	0.77		0.34	83	100	(80 - 130)
	Batch #:	0041162			Analysis Date:	02/19	9/10	
Gamma Cs-137 & Hit	s by EPA 901.1	MOD	pCi/L	901.1	MOD		F0B1	10000-136C
Americium 241	141000	140000	11000		500		99	(87 - 110)
Cesium 137	53100	52900	3000		200		100	(90 - 110)
Cobalt 60	87900	88000	5000		200		100	(89 - 110)
	Batch #:	0042136			Analysis Date:	02/19	9/10	
Gross Alpha/Beta E	PA 900		pCi/L	900.0	MOD		F0B1	20000-108C
Gross Beta	68.0	71.6	6.0		1		105	(58 - 133)
	Batch #:	0043108			Analysis Date:	02/19	9/10	
Gross Alpha/Beta E	PA 900		pCi/L	900.0	MOD		F0B1	.20000-108C
Gross Alpha	49.4	34.8	4.3		1.2		70	(62 - 134)
	Batch #:	0043108			Analysis Date:	02/19	9/10	
TRITIUM (Distill)	by EPA 906.0 M	OD	pCi/L	906.0	MOD		F0B1	.80000-035C
Tritium	4530	4440	460		90		98	(85 - 112)
	Batch #:	0049035			Analysis Date:	02/18	3/10	
Total Uranium by F	KPA ASTM 5174-9	1	pCi/L	5174-	91		F0B2	20000-280C
Total Uranium	27.7	30.2	3,6		0.2		109	(90 - 120)
	Batch #:	0053280			Analysis Date:	02/2	6/10	
Total Uranium by F	CPA ASTM 5174-9	1	pCi/L	5174-	91		F0B2	20000-280C
Total Uranium	5.54	5.97	0.61		0.21		108	(90 - 120)
	Batch #:	0053280			Analysis Date:	02/2	6/10	

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID:

F0B090482

Matrix:

WATER

				Total			Lab	Sample ID
Parameter		Spike Amount	Result	Uncert. (2 \sigma +/-)	% Yld	% Rec	QC Control Limits	Precision
Radium 228 1	y GFPC	EPA 904 MOD	pC	Ci/L 904 M)D		FOCO	10000-257C
Radium 228	Spk 2	6.40 6.40	6.23 6.35	0.74 0.77	87 84	97 99	(60 - 142) (60 - 142)	2
		Batch #:	0060257		Analysi	s Date:	03/05/10	

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id:
Matrix:

F0B090473

WATER

Date Sampled:

02/05/10

Date Received:

02/09/10

			en. L. J		- 1 7	QC Sample	e ID
Parameter	Spike Amount	Spike Result	Total Uncert. (2c+/-)	Spike Sampl Yld. Resul	OHCETC.	%YLD %REC	QC Control Limits
TRITIUM (Distill) by ER	A 906.0 1	4OD	pCi/L	906.0 M	OD	F0B090473	3-001
Tritium	4530	4650	470	122	77	100	(62 - 147)
	Batch #	: 0049035	An	alysis Date:	02/18/10		
Gross Alpha/Beta EPA 90	0		pCi/L	900.0 M	OD	F0B090470	0-001
Gross Alpha	49.4	47.2	5.2	2.00	0.88	91	(35 - 150)
	Batch #	: 0043108	An	alysis Date:	02/18/10		
Gross Alpha/Beta EPA 90	0		pCi/L	900.0 M	OD	F0B090470	0-001
Gross Beta	68.0	79.0	6.6	3.9	1.2	110	(54 - 150)
	Batch #	: 0043108	An	alysis Date:	02/18/10		

NOTE (S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0B090470

Matrix:

WATER

Date Sampled:

02/07/10 1143

Date Received:

02/09/10 1100

				Total				Total	Q	C Sampl	e ID
Parameter		Spike SPIKE Amount Result	Uncert. Spike SAMPLE (2 g+/-) Yld Result		Uncert. (2 o +/-) % Y	1d	%Rec	QC Control Limits			
Total Uranium	by KPA	ASTM 5		pCi/L	5	174-91		4-1-1-	F0:	B09047	0-001
Total Uranium		27.7	29.7	3.1		0.566	J	0.068		105	(62 - 150)
	Spk2	27.7	30.0	3.1		0.566	J	0.068 Precision		106 1	(62 - 150) %RPD
		Batch	#: 0053280	Ana	alysis d	ate:	02/2	6/10			

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID:

F0B090482

Matrix:

WATER

Date Sampled:

02/05/10

Date Received:

02/09/10

		Total			Total	\$	QC Sample ID	
Parameter	SAMPLE Result	Uncert (2σ+/-		DUPLICATE Result	Uncert. (2 g+/-)	% Yld	Precisi	.on
Radium 226 by EP	A 903.0 MOD		pCi/L	903.0 M	IOD	FO	B090467-00)1
Radium (226)	0.089	U 0.098	92	0.07 σ	0.16	92	31	%RPD
	Bato	h#: 004116	0 (Sample)	0041160	(Duplicate)			
Gamma Cs-137 & Hi	ts by EPA 90	01.1 MOD	pCi/L	901.1 M	(OD	FO	B090470-00)1
Cesium 137	-2.9	U 9.0		1.2 U	7.8		479	%RPD
Potassium 40	-100	U 43000		-50 U	230		93	%RPD
	Bato	h #: 004213	6 (Sample)	0042136	(Duplicate)			
Gross Alpha/Beta	EPA 900		pCi/L	900.0 M	OD	FO	B090470-0)1
Gross Alpha	2.00	J 0.88		0.84 U	0.66		82	%RPD
Gross Beta	3.9	J 1.2		3.2 J	1.1		20	%RPD
	Bato	h#: 004310	8 (Sample)	0043108	(Duplicate)			77.47
TRITIUM (Distill)	by EPA 906	O MOD	pCi/L	906.0 M	OD	FO	B090470-0)1
Tritium	114	J 75		80 U	66		35	%RPD
	Bato	h #: 004903	5 (Sample)	0049035	(Duplicate)			
SR-90 BY GFPC EP	A-905 MOD		pCi/L	905 MOD)	FO	B090475-0	01
Strontium 90	-0.05	U 0.23	72	-0.15 U	0.23	69	97	%RPD
	Bato	h #: 004116	2 (Sample)	0041162	(Duplicate)			

NOTE (S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

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

U Result is less than the sample detection limit. F0B090482

F0B090482



SUBCONTRACT ORDER

TestAmerica Irvine

ITB0888 ~

Revised

SENDING LABORATORY:

TestAmerica Irvine

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager:

2.5 gal Poly (U)

Joseph Doak

500 mL Amber (V)

RECEIVING LABORATORY:

TestAmerica St. Louis 13715 Rider Trail North Earth City, MO 63045 Phone: (314) 298-8566 Fax: (314) 298-8757

Analysis Due Expires Laboratory ID Comments Sampled:02/05/10 21:03 Sample ID: ITB0888-01 Water Uranium, Combined-O 02/17/10 12:00 02/05/11 21:03 Out St Louis, Boeing permit, DO NOT FILTER! Tritium-O 02/17/10 12:00 02/05/11 21:03 Out St Louis, Boeing permit, DO NOT FILTER! Strontium 90-O Out St Louis, Boeing permit, DO NOT FILTER! 02/17/10 12:00 02/05/11 21:03 Radium, Combined-O 02/17/10 12:00 02/05/11 21:03 Out St Louis, Boeing permit, DO NOT FILTER! Level 4 Data Package - Out 02/17/10 12:00 03/05/10 21:03 Gross Beta-O 02/17/10 12:00 08/04/10 21:03 Out St Louis, Boeing permit, DO NOT FILTER! Gross Alpha-O 02/17/10 12:00 08/04/10 21:03 Out St Louis, Boeing permit, DO NOT FILTER! Gamma Spec-O Out St Louis, k-40 and cs-137 only, DO NOT 02/17/10 12:00 02/05/11 21:03 FILTER! Containers Supplied:

Released By	Date	Received By	Date	
		840 M 18	2.9.10 1100	
Released By	Date	Received By	Date	

SUBCONTRACT ORDER TestAmerica Irvine

ITB0888

SENDING LABORATORY:

TestAmerica Irvine

17461 Derian Avenue, Suite 100

Irvine, CA 92614

Phone: (949) 261-1022

Fax: (949) 260-3297

Project Manager: Joseph Doak

Client: MWH-Pasadena/Boeing

RECEIVING LABORATORY:

TestAmerica St. Louis 13715 Rider Trail North Earth City, MO 63045 Phone :(314) 298-8566

Fax: (314) 298-8757

Project Location: CA - CALIFORNIA

Receipt Temperature:

Ice:

Ice: Y / N

Analysis	Units	Due	Expires	Interlab Price S	urch	Comments
ample ID: ITB0888-01 (Ou	tfall 002 (Co	omposite) - Wat	ter) Sampled	l: 02/05/10 21:03	3	
Gross Alpha-O	pCi/L	02/17/10	08/04/10 21:03	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Gross Beta-O	pCi/L	02/17/10	08/04/10 21:03	\$90.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Level 4 Data Package - Out	N/A	02/17/10	03/05/10 21:03	\$0.00	0%	
Radium, Combined-O	pCi/L	02/17/10	02/05/11 21:03	\$200.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Strontium 90-O	pCi/L	02/17/10	02/05/11 21:03	\$140.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Tritium-O	pCi/L	02/17/10	02/05/11 21:03	\$80.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Uranium, Combined-O	pCi/L	02/17/10	02/05/11 21:03	\$100.00	50%	Out St Louis, Boeing permit, DO NOT FILTER!
Containers Supplied:						
2.5 gal Poly (U)	500 mL Am	ber (V)				

Maguita Sula 2/8/10 17:00
Released By Date/Time

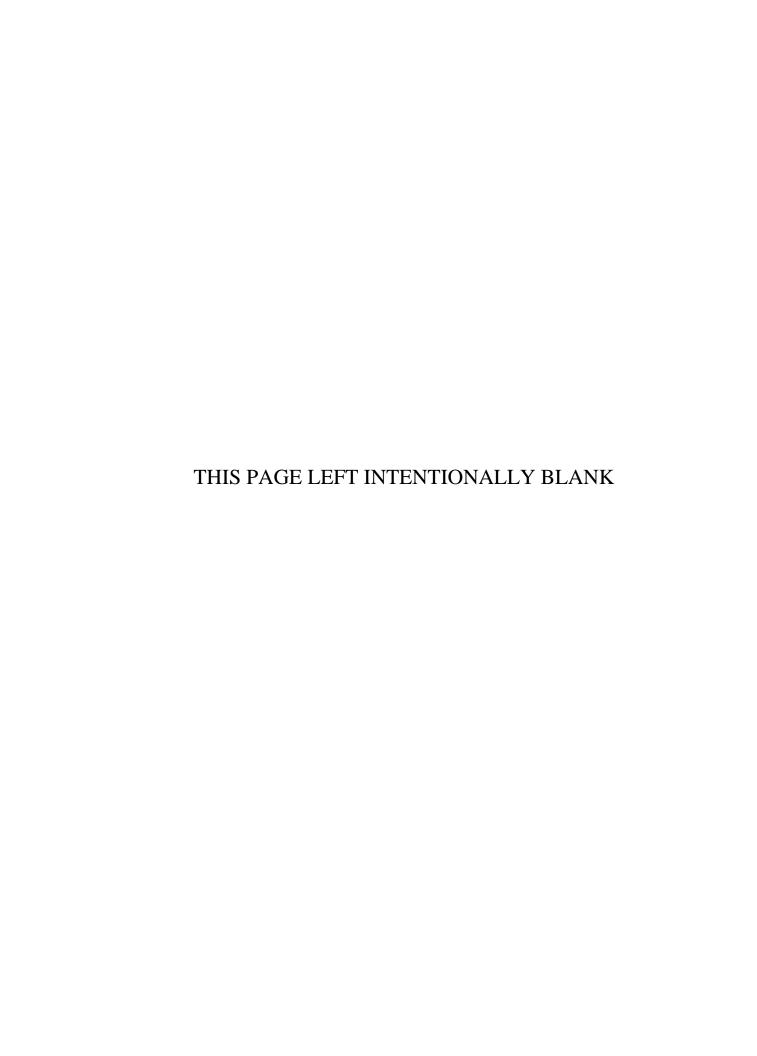
Received By

18/10 17:00

THE LEADER IN ENVIRONA	ENTAL YESTING		<u>u</u>	10(482) 489
		-	<u> </u>	73,464 44
3. 42 Ch. Of the State of Stat	UPON RECEIPTFORM TASTIVINE	3		15°,485 494
	77435,55044	-		17,400, 445
COC/REA No:	alan)	i,	122	
	Melow		- 0	
Initiated By:	<u> </u>			10 Time: //00
Shipper: (F			<u>ormation</u> her:	Multiple Packages: (Y-) N
Shipping #(s):*	orb Dile Country City	ent Ot		Sample Temperature (s):**
	133 2309 MB 6.	;	* * * * * * * * * * * * * * * * * * * *	1 an hier 6
2,	7		1 10 410	2
3				2
4	9.			4
4	10.			5. 10
		**San	nole must be received	l at 4°C ± 2°C- If not, note contents below. Temperature
	s correspond to Numbered Sample Temp lines	varian	ce does NOT affect i	he following: Metals-Liquid or Rad tests- Liquid or Soll
	for yes, "N" for no and "N/A" for not applicable): Are there custody seals present on the			
1. Y N	cooler?	8,	A(N)	Are there custody seals present on bottles?
2. Y N/A	Do custody seals on cooler appear to be tampered with?	9.	YNATA	Do custody seals on bottles appear to be tampered with?
3. (%) N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N WAS	Was sample received with proper pH'? (If no make note below)
4. (Y) N Sug. N	Sample received with Chain of Custody?	11.(N	Sample received in proper containers?
5, (X) N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N WA	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6. Y N	Was sample received broken?	13.	WN NGE	Was Internal COC/Workshare received?
7. (35 N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?
	ANL, Sandia) sites, pH of ALL containers received		erified, EXCEPT V	DA, TOX and soils.
Notes:	<u> 1780887 </u>	773		
	1 79	36) : :
	-88 SN 2.9.18	97	, E	wised chains wer
	94	98		or relinquished for
	(88")	, 99	B	oung project.
		800		
	01/2	590	.IT	1BO800 label time is 13
	86			
		002	c-	oc reado 1254
		602	<u> </u>	oc reado 1254
Corrective Action:	96		nformed by:	oc reado 1254

THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 "Sisyro1\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc"

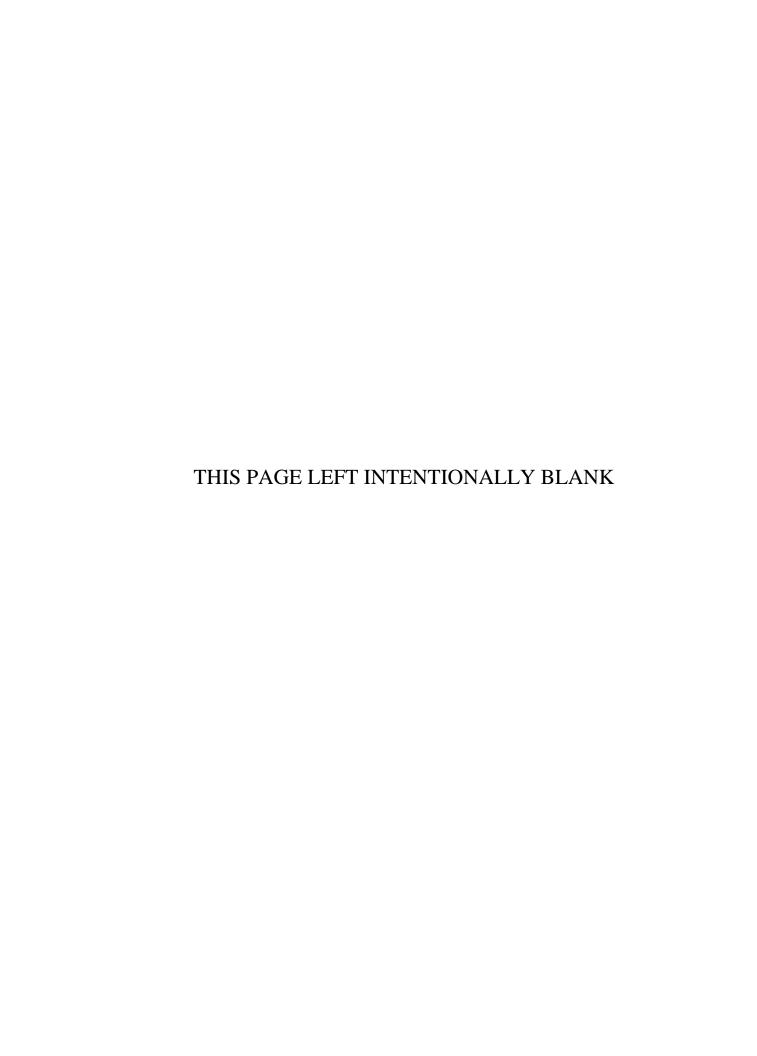


APPENDIX G

Section 9

Outfall 002 - February 20, 2010

MECX Data Validation Report





DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ITB2185

Prepared by

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

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract Task Order: 1261.100D.00

Sample Delivery Group: ITB2185
Project Manager: B. Kelly

Matrix: Water

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 002 (COMPOSITE)	ITB2185-03	F0B230452-001, G0B230477-001	WATER	2/20/2010 1:49:00 AM	ASTM 5174-91, 180.1, 245.1, 245.1 (DISS), 1613B, 900.0 MOD, 901.1 MOD, 903.0 MOD, 904 MOD, 905 MOD, 906.0 MOD
OUTFALL 002 (GRAB)	ITB2185-01	N/A	Water	2/20/2010 9:00:00 AM	120.1

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at TestAmerica-West Sacramento marginally below the temperature limit; however, the samples were no noted to be frozen or damaged. The samples in this SDG were received at the remaining laboratories within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at TestAmerica-St. Louis and TestAmerica-West Sacrament. As the smaples were courier to TestAmerica-Irvine, no custody seals were required. If necessary, the client ID was added to the sample result summary by the reviewer.

1

Data Qualifier Reference Table

Qualifie	er 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 or PCB congeners.	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
Н	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
С	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.
В	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.
Е	Not applicable.	Duplicates showed poor agreement.
1	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
Α	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
Т	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
\$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
Р	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.
* , *	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin

Date Reviewed: April 1, 2010

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (9/05).

- 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.
 - O GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed with the initial calibration sequence and at the beginning of each analytical sequence. 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.
 - o Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: The method blank had detects between the EDL and the RL for all target compounds except 2,3,7,8-TCDD and total TCDD, and 2,3,7,8-TCDF and total TCDF. Several detects in the method blank did not meet ratio criteria and were reported as EMPCs; however, due to the extent of contamination present in the method blank, it was the reviewer's professional opinion that those results be utilized to qualify applicable

sample results. Isomers present in the sample between the EDLs and RLs were qualified as nondetected, "U," at the levels of contamination. The sample results for all reported totals were also qualified as nondetected, "U," at the levels of contamination, as all peaks comprising the totals were present in the method blank at similar concentrations.

- Blank Spikes and Laboratory Control Samples: OPR 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 a representative number of reportable sample results. The EMPCs qualified as nondetected for method blank contamination were not further qualified as EMPCs. Any detects reported below the EDL, or between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHOD 245.1—Mercury

Reviewed By: P. Meeks

Date Reviewed: March 30, 2010

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 245.1, and the National Functional Guidelines for Inorganic Data Review (7/02).

- Holding Times: The analytical holding time, 28 days, was met.
- Tuning: Not applicable to this analysis.

• Calibration: Calibration criteria were met. Mercury initial calibration r² values were ≥0.995 and all initial and continuing calibration recoveries were within 85-115% for mercury. CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Not applicable to this analysis.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to this analysis.
- 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. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit 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 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 30, 2010

The samples listed in Table 1 for these analyses were 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 (10/04).

- Holding Times: The aliquot for total uranium was prepared more than 3x beyond the 5-day holding time for unpreserved samples; therefore, nondetected uranium in the sample (see Blanks section) was rejected, "R." Aliquots for gross alpha and gross beta were prepared beyond the five-day analytical holding time for unpreserved samples; therefore, results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The tritium sample was analyzed within 180 days of collection. Aliquots for radium-226, radium-228, strontium-90, total uranium, and gamma spectroscopy were prepared within the five-day holding time for unpreserved aqueous samples.
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, the results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects. The remaining detector efficiencies were greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. All chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: Total uranium was detected in the method blank at 0.315 pCi/L; therefore, total
 uranium detected in the sample was qualified as nondetected, at the reporting limit. This
 result was subsequently rejected due to an exceeded holding time. There were no other
 analytes detected in the method blanks or the KPA CCBs.
- Blank Spikes and Laboratory Control Samples: The recoveries and RPDs (radium-226, radium-228, strontium-90) were within laboratory-established control limits.
- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for cesium-137, potassium-40, gross alpha, gross beta, and tritium. All results were considered acceptable.

 Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed for the sample in this SDG on total uranium. Matrix spike analyses were performed on the sample in this SDG for gross alpha and gross beta. All recoveries and the RPD were within the laboratory-established control limits. Method accuracy for the remaining methods was evaluated based on the LCS results.

Sample Result Verification: An EPA Level IV review was performed for the sample in this
data package. The sample results and MDAs reported on the sample result form were
verified against the raw data and no calculation or transcription errors were noted. Any
detects between the MDA 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 MDA.

The reviewer noted that the total uranium preparation log was not signed as reviewed.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: March 10, 2010

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the MEC^{x} Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Methods 120.1 and 180.1, and the National Functional Guidelines for Inorganic Data Review (7/02).

- Holding Times: Analytical holding times were met.
- Calibration: Calibration criteria were met. Initial calibration r² values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110%.
- Blanks: Method blanks and CCBs had no detects.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in

this SDG.

Matrix Spike/Matrix Spike Duplicate: Not applicable to these analyses.

- 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. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit 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 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.

Validated Sample Result Forms ITB2185

Comple No	OUTFALL 0	02 (COM	DO Motor	v Tunos	WATER	τ	Validation Le	wol. IV
Sample Name		,		J P			andation Le	evel: 1v
Lab Sample Name:	ITB2185-03	Sam	iple Date:	2/20/2010	1:49:00 AM	<u> </u>		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	7440-61-1	0.677	0.693	0.21	pCi/L	Jb	R	B, H
Analysis Method	d EPA	120.1						
Sample Name	OUTFALL 0	02 (GRAE	3) Matri	x Type:	Water	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-01	Sam	ple Date:	2/20/2010	9:00:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	NA	630	1.0	1.0	umhos/c			
Analysis Method	d EPA	180.1						
Sample Name	OUTFALL 0	02 (COMI	PO Matri	x Type:	Water	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	0.75	1.0	0.040	NTU	J	J	DNQ
Analysis Method	d EPA	245.1						
Sample Name	OUTFALL 0	02 (COMI	PO Matri	x Type:	Water	V	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.00020	0.00010	mg/l		U	
Analysis Method	d EPA	245.1-I	<i>Diss</i>					
Sample Name	OUTFALL 0	02 (COMI	PO Matri	х Туре:	Water	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes

Tuesday, April 06, 2010 Page 1 of 3

Analysis Method EPA 900.0 MOD

Sample Name	OUTFALL 00)2 (COMI	PO Matri	x Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	0 1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587-46-1	-0.12	3	2	pCi/L	U	UJ	H, C
Gross Beta	12587-47-2	3.5	4	1.3	pCi/L	Jb	J	H, DNQ
Analysis Metho	od EPA 9	901.1 N	IOD					
Sample Name	OUTFALL 00)2 (COMI	PO Matri	x Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	0 1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium 137	10045-97-3	-1	20	21	pCi/L	U	U	
Potassium 40	13966-00-2	-30	0	280	pCi/L	U	U	
Analysis Metho	od EPA 9	903.0 N	10D					
Sample Name	OUTFALL 00)2 (COMI	PO Matri	x Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	0 1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium (226)	13982-63-3	0.133	1	0.048	pCi/L	Jb	J	C, DNQ
Analysis Metho	od EPA 9	904 MC	DD					
Sample Name	OUTFALL 00)2 (COMI	PO Matri	x Type:	WATER	7	Validation Le	vel: IV
Lab Sample Name:	ITB2185-03	Sam	ple Date:	2/20/2010	0 1:49:00 AM	I		
Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
				0.20	C' /I	U		
Radium 228	15262-20-1	-0.07	1	0.39	pCi/L	U	U	
Radium 228 Analysis Metho		-0.07 905 MC		0.39	pCi/L	U	U	
		905 MC)D		pCi/L WATER		U /alidation Le	vel: IV
Analysis Metho	od EPA 9	905 MC	OD PO Matri	х Туре:		V		vel: IV
Analysis Metho Sample Name	OUTFALL 00	905 MC	OD PO Matri	х Туре:	WATER	V		

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Analysis Method EPA 906.0 MOD

Total TCDF

55722-27-5

ND

OUTFALL 002 (COMPO Matrix Type: WATER Validation Level: IV Sample Name ITB2185-03 Lab Sample Name: **Sample Date:** 2/20/2010 1:49:00 AM Analyte CAS No Result RL**MDL** Result Lab Validation Validation Value Units **Oualifier** Qualifier **Notes** Tritium -79 500 IJ 10028-17-8 140 pCi/L IJ EPA-5 1613B Analysis Method OUTFALL 002 (COMPO Matrix Type: WATER Sample Name Validation Level: IV **Sample Date:** 2/20/2010 1:49:00 AM ITB2185-03 Lab Sample Name: CAS No Result RL MDL Analyte Result Lab Validation Validation Value Units Qualifier **Qualifier** Notes 1,2,3,4,6,7,8-HpCDD 35822-46-9 ND 1.5e-006 0.0000011 ug/L J, Q, Ba U В 1,2,3,4,6,7,8-HpCDF 67562-39-4 ND 9.2e-007 0.000001 ug/L J, Q, Ba U 1,2,3,4,7,8,9-HpCDF U 55673-89-7 ND 0.000048 0.0000017 ug/L 1,2,3,4,7,8-HxCDD 39227-28-6 ND 7.3e-007 ug/L J, Q, Ba U В 0.00000061,2,3,4,7,8-HxCDF 70648-26-9 ND 0.000048 0.0000002ug/L J, Ba U В 1,2,3,6,7,8-HxCDD 57653-85-7 ND 0.0000480.0000005 ug/L U 1,2,3,6,7,8-HxCDF 57117-44-9 ND 0.000048 0.0000002U ug/L 1,2,3,7,8,9-HxCDD 19408-74-3 ND 0.000048 0.0000005ug/L U 1,2,3,7,8,9-HxCDF 72918-21-9 ND 0.0000480.0000003 ug/L U U 1,2,3,7,8-PeCDD 40321-76-4 ND 0.000048 0.0000005ug/L 1,2,3,7,8-PeCDF 57117-41-6 ND 0.0000480.0000003 ug/L U 2,3,4,6,7,8-HxCDF 60851-34-5 ND 4.2e-007 0.0000002ug/L J, Q, Ba U В 2,3,4,7,8-PeCDF 57117-31-4 ND 0.000048 0.0000003 ug/L U 2,3,7,8-TCDD 1746-01-6 ND 0.0000095 0.00000000 U ug/L 2,3,7,8-TCDF 51207-31-9 ND $0.0000095 \ 0.0000000$ U ug/L OCDD 3268-87-9 ND 0.000095 J, Ba U 0.0000009 ug/L В OCDF 39001-02-0 ND 1.2e-006 0.0000011 ug/L J, Q, Ba U В Total HpCDD 37871-00-4 ND 3.4e-006 0.0000011ug/L J, Q, Ba U В Total HpCDF 38998-75-3 ND 9.2e-007 0.000001 ug/L Ba, J, Q U В Total HxCDD 34465-46-8 ND 7.3e-007 0.0000005 ug/L J, Q, Ba U В Total HxCDF 55684-94-1 ND 1.1e-006 0.0000002ug/L J, Q, Ba U В Total PeCDD 36088-22-9 ND 0.000048 0.0000005 U ug/L Total PeCDF U 30402-15-4 ND 0.000048 0.0000000 ug/L Total TCDD 41903-57-5 ND 0.0000095 0.0000000 U

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 $0.0000095 \ 0.0000000$

ug/L

U