APPENDIX G

Section 3

Outfall 004, July 05, 2007

MECX Data Validation Reports

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

MECX		Task Order	1261.001D.00
12269 East Vassar Drive		SDG No.	IQG0326
Aurora, CO 80014		No. of Analyses	1
		I	100.0007
Laboratory Vista Analy		Date: Augu	
Reviewer K. Shadow		Reviewer's	Signature
Analysis/Method Dioxin/Fura	n by 1613	- Inte	Madal
ACTION ITEMS ^a			()
Case Narrative			
Deficiencies			
2. Out of Scope Analyses			
		— ************************************	
3. Analyses Not Conducted			
4. Missing Hardcopy			
Deliverables			
5. Incorrect Hardcopy			
Deliverables			
6. Deviations from Analysis	Ouglifications were s	asigned for the follow	uina:
•	Qualifications were a		
Protocol, e.g.,	as estimated, "J."	e laboratory lower G	alibration level was qualified
Holding Times GC/MS Tune/Inst. Performance	as estimated, J.		
Calibration			
Method blanks			
Surrogates			
Matrix Spike/Dup LCS			
Field QC			
Internal Standard Performance			
Compound Identification			
Quantitation			
System Performance			
COMMENTS ^b			
^a Subcontracted analytical laboratory is not ^b Differences in protocol have been adopted			v is required

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

ME	C ^x		Task Order:	1261.100D.00		
122	69 East Vassar Drive		SDG No.:	IQG0326		
Aur	ora, CO 80014		No. of Analyses:	1		
	Laboratory: Weck		Date: August			
	Reviewer: P. Meeks		Reviewer's Si	gnature		
	Analysis/Method: Mercury		- It, Miles			
AC1	TION ITEMS ^a					
	Case Narrative		Company of the second s	The second secon		
	Deficiencies					
			***************************************	4.990.		
2.	Out of Scope Analyses					
3.	Analyses Not Conducted					
4.	Missing Hardcopy					
	Deliverables					
5.	Incorrect Hardcopy					
	Deliverables					
6.	Deviations from Analysis					
	Protocol, e.g.,					
	Holding Times					
	GC/MS Tune/Inst. Performance					
	Calibration	A - b - c -				
	Method blanks					
	Surrogates					
	Matrix Spike/Dup LCS					
	Field QC					
	Internal Standard Performance					
	Compound Identification					
	Quantitation					
	System Performance					
CON	MMENTS ^b	Acceptable as reviewed.				
				THE STATE OF THE S		
	bcontracted analytical laboratory is not r					
^b Dif	ferences in protocol have been adopted	by the laboratory but no action ac	gainst the laboratory is red	quired.		

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

MEC [^]		Task Order: 1261.100D.00
12269	East Vassar Drive	SDG No.: <u>IQG0326</u>
Aurora	a, CO 80014	No. of Analyses: 1
	Laboratory: Eberline	Date: August 16, 2007
	Reviewer: P. Meeks	Reviewer's Signature
A	nalysis/Method: Radionuc	ides F. McO
ACTIC	ON ITEMS ^a	
	ase Narrative	
	eficiencies	
2. C	Out of Scope Analyses	
2.	out of ocope Analyses	
3. A	nalyses Not Conducted	
J. F	analyses Not Conducted	
4 B	lissing Hardcopy	
	Deliverables	
L	Peliverables	
- I		
	ncorrect Hardcopy	
L)eliverables	
6. C	Deviations from Analysis	Qualification applied for gross alpha detector efficiency.
		Qualification applied for groots diplied detector officiology.
	Protocol, e.g.,	
	lolding Times	
	GC/MS Tune/Inst. Performance	
	Calibration	
	Method blanks	
	Surrogates	
	/latrix Spike/Dup LCS	
	Field QC	
	nternal Standard Performance	
	Compound Identification	
	Quantitation	
	System Performance	
COMI	MENTS ^b	
		meeting contract and/or method requirements.
b Diffe	erences in protocol have been adopted	by the laboratory but no action against the laboratory is required.



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IQG0326

Prepared by

MEC^x, LLC 12269 East Vassar Drive Aurora, CO 80014 DATA VALIDATION REPORT Project: SSFL NPDES

SDG: IQG0326

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract Task Order: 1261.100D.00

Sample Delivery Group: IQG0326 Project Manager: P. Costa

Matrix: Soil C Level: IV

QC Level: IV No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Laboratory: Eberline

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 004	IQGD326-01	7070602-01, 8667- 001,	water	7/05/07 1055	245.1, 900.0, 1613

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TesAmerica-Irving at 0°C; however, as the sample was not frozen or damaged no qualifications were required. The sample was received at the sub-laboratory, Vista, within the temperature limits of 4°C ±2°C. The sub-laboratory, Eberline, did not provide temperature information; however, as radiological samples do not need to be chilled, no qualifications were required. According to the case narrative for this SDG, the sample was received intact. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at sub-laboratories, Eberline and Vista. The client ID was added to the sample result summaries by the reviewer.

1

DATA VALIDATION REPORT Project: SSFL NPDES SDG: IQG0326

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.	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.

DATA VALIDATION REPORT Project: SSFL NPDES SDG: IQG0326

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.
I	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.

DATA VALIDATION REPORT Project: SSFL NPDES SDG: IQG0326

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.

DATA VALIDATION REPORT Project: SSFL NPDES

SDG: IQG0326

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: August 23, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613, and the National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - o GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. No adverse affect was observed with this practice. 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.

DATA VALIDATION REPORT Project: SSFL NPDES
SDG: IQG0326

 Blanks: The method blank had a detect for OCDD above the EDL; however, the concentration reported in the sample exceeded five times the concentration reported in the method blank.

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

B. EPA METHODS 6010B, 6020, 7470A/7471A—Metals and Mercury

Reviewed By: P. Meeks

Date Reviewed: August 22, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 7470A, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding time, 28 days for mercury, was met.
- Tuning: As mercury was not analyzed by ICP-MS, the ICP-MS tune is not applicable.

DATA VALIDATION REPORT SSFL NPDES

SSFL NPDES
SDG: IQG0326

• 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.

- Blanks: Mercury was detected in the total method blank, but was not detected in Outfall 004. Mercury was not detected in the dissolved method blank or the associated CCBs.
- Interference Check Samples: As mercury was not analyzed by ICP or ICP-MS, the interference check samples are not applicable.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratoryestablished QC limits of 85-115%.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed. Evaluation of method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: As mercury was not analyzed by ICP-MS, ICP-MS internal standards are not applicable.
- 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. Reported nondetects are valid to the MDL.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

C. EPA METHODS 901.1, 905.0—Radionuclides

Reviewed By: P. Meeks

Date Reviewed: August 16, 2007

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

Holding Times: The analytical holding time, five days for unpreserved samples, was met.

DATA VALIDATION REPORT SSFL NPDES
SSFL NPDES
SDG: IQG0326

 Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability. Initial calibrations for gross alpha and beta were checked. The gross alpha detector efficiency was less than 20%; therefore, nondetected gross alpha in Outfall 004 was qualified as an estimated nondetect, "UJ." All other initial calibration and calibration verification information was acceptable.

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

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Data			Sample Data		Laboratory Data				
Name: Test	Test America-Irvine		Matrix:	Aqueous	Lab Sample: 29170-001	100	Date Received:	ived:	7-Jul-07
flected: ollected:	5-Jul-07 1055	<u> </u>	Sample Size:	1.03 L	QC Batch No.: 9192 Date Analyzed DB-5: 22-Jul-07		Date Extracted: Date Analyzed I	Date Extracted: Date Analyzed DB-225:	18-Jul-07 NA
Analyte	Conc. (ug/L)	DL 8	EMPCb	Qualifiers	Labeled Standard		%R	rcr-ncr _q	Oualifiers
2,3,7,8-TCDD	Q	0.000000556	99		IS 13C-2,3,7,8-TCDD		88.3	25 - 164	
1,2,3,7,8-PeCDD	Ð	0,000000639	39		13C-1,2,3,7,8-PeCDD		80.3	25 - 181	
1,2,3,4,7,8-HxCDD	8	0.00000168	00		13C-1,2,3,4,7,8-HxCDD		81.4	32 - 141	
1,2,3,6,7,8-HxCDD	R	0.000000786	98		13C-1,2,3,6,7,8-HxCDD		80.5	28 - 130	
1,2,3,7,8,9-HxCDD	2	0.000000748	*		13C-1,2,3,4,6,7,8-HpCDD		81.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000163	COCCUMENTAL PROPERTY OF THE PR	Accept to September 19 September 19	-	13C-OCDD		70.3	17-157	
ഠാ	0.000257			B	13C-2,3,7,8-TCDF		89.1	24-169	
2,3,7,8-TCDF	R	0.000000646	16		13C-1,2,3,7,8-PeCDF		78.4	24 - 185	
1,2,3,7,8-PeCDF	2	0.000000506	90		13C-2,3,4,7,8-PeCDF		80.1	21-178	
2,3,4,7,8-PeCDF	Q	0.000000486	36	THE RESERVE THE PARTY OF THE PA	13C-1,2,3,4,7,8-HxCDF		70.4	26 - 152	
1,2,3,4,7,8-HxCDF	2	0.000000342	5		13C-1,2,3,6,7,8-HxCDF		68.5	26-123	
1,2,3,6,7,8-HxCDF	2	0.000000378	78	California of the California o	13C-2,3,4,6,7,8-HxCDF		73.2	28 - 136	
2,3,4,6,7,8-HxCDF	2	0.000000408	98		13C-1,2,3,7,8,9-HxCDF		72.6	29 - 147	に対した。
1,2,3,7,8,9-HxCDF	B	0.000000574	74		13C-1,2,3,4,6,7,8-HpCDF		72.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	0,00000236			1	13C-1,2,3,4,7,8,9-HpCDF		74.1	26-138	
1,2,3,4,7,8,9-HpCDF	QN	0.0000000796	96		13C-OCDF		69.4	17-157	
OCDF	0.00000633				CRS 37CI-2,3,7,8-TCDD		103	35 - 197	
Totals					Footnotes				
Total TCDD	9	0.000000556	99		a. Sample specific estimated detection limit.	nit.	l l		
Total PeCDD	2	0.000000639	66		b. Estimated maximum possible concentration	ation.			
Total HxCDD	QN	0.00000107	,		c. Method detection limit.				
Total HpCDD	0.0000301				d. Lower control limit - upper control limit	*			
Total TCDF	2	0.000000646	9						
Total PeCDF	2	0.000000496	98						
Total HxCDF	0.00000148		0.000000234	34					
Total HoCDF	0.00000897							上 一	一日 一日の一日 日本

John John

Approved By:

William J. Luksemburg 27-Jul-2007 07:56

Analyst: JMH
LEVE [12]

NPDES-190

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Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326 Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

Outfall 004

IQG0326-01 7070602-01 (Water)

Date Sampled:

07/05/07 10:55

Metals by EPA 200 Series Methods

Analyte		Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Dissolved	Ų	ND	0.050	ug/l	0.20	1	EPA 245.1	W7G0184	07/06/07	07/09/07	jlp
Mercury, Total	V	ND	0.050	ug/l	0.20	1	EPA 245.1	W7G0184	07/06/07	07/09/07	jlp



Eberline Services

ANALYSIS RESULTS

 SDG
 8667
 Client
 TA IRVINE

 Work Order
 R707039-01
 Contract
 PROJECT# IQG0326

 Received Date
 07/09/07
 Matrix
 WATER

Lab Client Results $\pm 2\sigma$ Units Sample ID Collected Analyzed Nuclide ACM Sample ID Outfall 004 1000326-01 1.74 UJ/R pCi/L 0.085 ± 1.0 07/05/07 08/03/07 GrossAlpha 8667-001 1.09 08/03/07 Gross Beta 8.17 ± 0.87 pCi/L

LEVEL IV

Certified by

Report Date 08/14/07

Page 1

APPENDIX G

Section 4

Outfall 004, July 05, 2007 Test America Analytical Laboratory Report



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing Project: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly
Sampled: 07/05/07
Received: 07/05/07

Issued: 08/14/07 16:01

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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

This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 0°C, on ice and with chain of custody documentation.

HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within

method specified holding time requirements.

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: Enclosed are complete final results. The results for the Radiochemistry analyses were added.

 LABORATORY ID
 CLIENT ID
 MATRIX

 IQG0326-01
 Outfall 004
 Water

 IQG0326-02
 Trip Blank
 Water

Reviewed By:

TestAmerica - Irvine, CA

Michele Chamberdin



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 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

CORRECTIVE ACTION REPORT

Department: Inorganics Prep Date: 07/17/2007

Method: EPA 608 Matrix: Water

QC Batch: 7G13086

Identification and Definition of Problem:

Sample IQG-0326-01 was extracted past the method holding time for EPA 608 Pesticides/PCB.

Determination of the Cause of the Problem:

A cause for the problem was due to basic employee oversight.

Corrective Action Taken:

The correct procedure was reviewed with employee. Sample was reported and flagged with H qualifier to indicate missing holding time. The group leader for the department will conduct a secondary review and the department manager will conduct a tertiary review of the extraction worklist to identify samples close to their hold time, to ensure they are prepared prior to expiration.

Michele Chamberdin

Quality Assurance Approval:

Date: 07/19/2007 01:57 PM
Michele Chamberlin

TestAmerica - Irvine, CA

Sampled: 07/05/07



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007

Report Number: IQG0326 Received: 07/05/07

Attention: Bronwyn Kelly

PURGEABLES BY GC/MS (EPA 624)

			MDL	Reporting		Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQG0326-01 (Outfall 004 -	Water)				Sample	ed: 07/05/0	07		
Reporting Units: ug/l									
Benzene	EPA 624	7G06007	0.28	1.0	ND	1	07/06/07	07/06/07	
Bromodichloromethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07	
Bromoform	EPA 624	7G06007	0.40	5.0	3.1	1	07/06/07	07/06/07	J
Bromomethane	EPA 624	7G06007	0.42	5.0	ND	1	07/06/07	07/06/07	
Carbon tetrachloride	EPA 624	7G06007	0.28	0.50	ND	1	07/06/07	07/06/07	
Chlorobenzene	EPA 624	7G06007	0.36	2.0	ND	1	07/06/07	07/06/07	
Chloroethane	EPA 624	7G06007	0.40	5.0	ND	1	07/06/07	07/06/07	
Chloroform	EPA 624	7G06007	0.33	2.0	ND	1	07/06/07	07/06/07	
Chloromethane	EPA 624	7G06007	0.40	5.0	ND	1	07/06/07	07/06/07	
Dibromochloromethane	EPA 624	7G06007	0.28	2.0	2.8	1	07/06/07	07/06/07	
1,2-Dichlorobenzene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07	
1,3-Dichlorobenzene	EPA 624	7G06007	0.35	2.0	ND	1	07/06/07	07/06/07	
1,4-Dichlorobenzene	EPA 624	7G06007	0.37	2.0	ND	1	07/06/07	07/06/07	M2
1,1-Dichloroethane	EPA 624	7G06007	0.27	2.0	ND	1	07/06/07	07/06/07	
1,2-Dichloroethane	EPA 624	7G06007	0.28	0.50	ND	1	07/06/07	07/06/07	
1,1-Dichloroethene	EPA 624	7G06007	0.42	5.0	ND	1	07/06/07	07/06/07	
trans-1,2-Dichloroethene	EPA 624	7G06007	0.27	2.0	ND	1	07/06/07	07/06/07	
1,2-Dichloropropane	EPA 624	7G06007	0.35	2.0	ND	1	07/06/07	07/06/07	
cis-1,3-Dichloropropene	EPA 624	7G06007	0.22	2.0	ND	1	07/06/07	07/06/07	
trans-1,3-Dichloropropene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07	
Ethylbenzene	EPA 624	7G06007	0.25	2.0	ND	1	07/06/07	07/06/07	
Methylene chloride	EPA 624	7G06007	0.95	5.0	ND	1	07/06/07	07/06/07	
1,1,2,2-Tetrachloroethane	EPA 624	7G06007	0.24	2.0	ND	1	07/06/07	07/06/07	
Tetrachloroethene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07	
Toluene	EPA 624	7G06007	0.36	2.0	ND	1	07/06/07	07/06/07	
1,1,1-Trichloroethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07	
1,1,2-Trichloroethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07	
Trichloroethene	EPA 624	7G06007	0.26	2.0	ND	1	07/06/07	07/06/07	
Trichlorofluoromethane	EPA 624	7G06007	0.34	5.0	ND	1	07/06/07	07/06/07	
Vinyl chloride	EPA 624	7G06007	0.30	0.50	ND	1	07/06/07	07/06/07	
Xylenes, Total	EPA 624	7G06007	0.90	4.0	ND	1	07/06/07	07/06/07	
Trichlorotrifluoroethane (Freon 113)	EPA 624	7G06007	1.5	5.0	ND	1	07/06/07	07/06/07	
Surrogate: Dibromofluoromethane (80-1	20%)				101 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromoflyorobenzene (80-1	20%)				03 %				

Surrogate: 4-Bromofluorobenzene (80-120%)

93 %

TestAmerica - Irvine, CA

Sampled: 07/05/07

Received: 07/05/07



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Project ID: Annual Outfall 004

Report Number: IQG0326

PURGEABLES BY GC/MS (EPA 624)

Attention: Bronwyn Kelly

Arcadia, CA 91007

			MDL	Reporting	Sample	Dilution	Date	Date	Data	
Analyte	Method	Batch	Limit	Limit	Result		Extracted	Analyzed	Qualifiers	
Sample ID: IQG0326-02 (Trip Blank - Wat	ter)			Sampled: 07/05/07						
Reporting Units: ug/l	•				•					
Benzene	EPA 624	7G06007	0.28	1.0	ND	1	07/06/07	07/06/07		
Bromodichloromethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07		
Bromoform	EPA 624	7G06007	0.40	5.0	ND	1	07/06/07	07/06/07		
Bromomethane	EPA 624	7G06007	0.42	5.0	ND	1	07/06/07	07/06/07		
Carbon tetrachloride	EPA 624	7G06007	0.28	0.50	ND	1	07/06/07	07/06/07		
Chlorobenzene	EPA 624	7G06007	0.36	2.0	ND	1	07/06/07	07/06/07		
Chloroethane	EPA 624	7G06007	0.40	5.0	ND	1	07/06/07	07/06/07		
Chloroform	EPA 624	7G06007	0.33	2.0	ND	1	07/06/07	07/06/07		
Chloromethane	EPA 624	7G06007	0.40	5.0	ND	1	07/06/07	07/06/07		
Dibromochloromethane	EPA 624	7G06007	0.28	2.0	ND	1	07/06/07	07/06/07		
1,2-Dichlorobenzene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07		
1,3-Dichlorobenzene	EPA 624	7G06007	0.35	2.0	ND	1	07/06/07	07/06/07		
1,4-Dichlorobenzene	EPA 624	7G06007	0.37	2.0	ND	1	07/06/07	07/06/07		
1,1-Dichloroethane	EPA 624	7G06007	0.27	2.0	ND	1	07/06/07	07/06/07		
1,2-Dichloroethane	EPA 624	7G06007	0.28	0.50	ND	1	07/06/07	07/06/07		
1,1-Dichloroethene	EPA 624	7G06007	0.42	5.0	ND	1	07/06/07	07/06/07		
trans-1,2-Dichloroethene	EPA 624	7G06007	0.27	2.0	ND	1	07/06/07	07/06/07		
1,2-Dichloropropane	EPA 624	7G06007	0.35	2.0	ND	1	07/06/07	07/06/07		
cis-1,3-Dichloropropene	EPA 624	7G06007	0.22	2.0	ND	1	07/06/07	07/06/07		
trans-1,3-Dichloropropene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07		
Ethylbenzene	EPA 624	7G06007	0.25	2.0	ND	1	07/06/07	07/06/07		
Methylene chloride	EPA 624	7G06007	0.95	5.0	ND	1	07/06/07	07/06/07		
1,1,2,2-Tetrachloroethane	EPA 624	7G06007	0.24	2.0	ND	1	07/06/07	07/06/07		
Tetrachloroethene	EPA 624	7G06007	0.32	2.0	ND	1	07/06/07	07/06/07		
Toluene	EPA 624	7G06007	0.36	2.0	ND	1	07/06/07	07/06/07		
1,1,1-Trichloroethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07		
1,1,2-Trichloroethane	EPA 624	7G06007	0.30	2.0	ND	1	07/06/07	07/06/07		
Trichloroethene	EPA 624	7G06007	0.26	2.0	ND	1	07/06/07	07/06/07		
Trichlorofluoromethane	EPA 624	7G06007	0.34	5.0	ND	1	07/06/07	07/06/07		
Vinyl chloride	EPA 624	7G06007	0.30	0.50	ND	1	07/06/07	07/06/07		
Xylenes, Total	EPA 624	7G06007	0.90	4.0	ND	1	07/06/07	07/06/07		
Trichlorotrifluoroethane (Freon 113)	EPA 624	7G06007	1.5	5.0	ND	1	07/06/07	07/06/07		
Surrogate: Dibromofluoromethane (80-120%)	6)				99 %					
Surrogate: Toluene-d8 (80-120%)					99 %					
Surrogate: 4-Bromofluorobenzene (80-120%)	5)				94 %					

TestAmerica - Irvine, CA



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

PURGEABLES-- GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 004 - Wa	ter)				Sample	ed: 07/05/0	07		
Reporting Units: ug/l					_				
Acrolein	EPA 624	7G06007	4.0	50	ND	1	07/06/07	07/06/07	
Acrylonitrile	EPA 624	7G06007	0.70	50	ND	1	07/06/07	07/06/07	
2-Chloroethyl vinyl ether	EPA 624	7G06007	1.8	5.0	ND	1	07/06/07	07/06/07	
Surrogate: Dibromofluoromethane (80-120%)	6)				101 %				
Surrogate: Toluene-d8 (80-120%)					100 %				
Surrogate: 4-Bromofluorobenzene (80-120%)	5)				93 %				
Sample ID: IQG0326-02 (Trip Blank - Wat	ter)				Sample	ed: 07/05/0	07		
Reporting Units: ug/l									
Acrolein	EPA 624	7G06007	4.0	50	ND	1	07/06/07	07/06/07	
Acrylonitrile	EPA 624	7G06007	0.70	50	ND	1	07/06/07	07/06/07	
2-Chloroethyl vinyl ether	EPA 624	7G06007	1.8	5.0	ND	1	07/06/07	07/06/07	
Surrogate: Dibromofluoromethane (80-120%)	6)				99 %				
Surrogate: Toluene-d8 (80-120%)					99 %				
Surrogate: 4-Bromofluorobenzene (80-120%)	5)				94 %				



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007

Report Number: IQG0326

Received: 07/05/07

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: IQG0326-01 (Outfall 004 -	Water)				Sample	ed: 07/05/0)7		
Reporting Units: ug/l					•				
Acenaphthene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Acenaphthylene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Aniline	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Anthracene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzidine	EPA 625	7G06114	8.2	19	ND	0.962	07/06/07	07/10/07	L6
Benzoic acid	EPA 625	7G06114	8.2	19	ND	0.962	07/06/07	07/10/07	
Benzo(a)anthracene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzo(b)fluoranthene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzo(k)fluoranthene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzo(g,h,i)perylene	EPA 625	7G06114	2.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzo(a)pyrene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Benzyl alcohol	EPA 625	7G06114	2.4	19	ND	0.962	07/06/07	07/10/07	
Bis(2-chloroethoxy)methane	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Bis(2-chloroethyl)ether	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Bis(2-chloroisopropyl)ether	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Bis(2-ethylhexyl)phthalate	EPA 625	7G06114	3.8	48	ND	0.962	07/06/07	07/10/07	
4-Bromophenyl phenyl ether	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Butyl benzyl phthalate	EPA 625	7G06114	3.8	19	ND	0.962	07/06/07	07/10/07	
4-Chloroaniline	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
2-Chloronaphthalene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
4-Chloro-3-methylphenol	EPA 625	7G06114	1.9	19	ND	0.962	07/06/07	07/10/07	
2-Chlorophenol	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
4-Chlorophenyl phenyl ether	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Chrysene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Dibenz(a,h)anthracene	EPA 625	7G06114	2.9	19	ND	0.962	07/06/07	07/10/07	
Dibenzofuran	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Di-n-butyl phthalate	EPA 625	7G06114	1.9	19	ND	0.962	07/06/07	07/10/07	
1,3-Dichlorobenzene	EPA 625	7G06114	2.9	9.6	ND	0.962	07/06/07	07/10/07	
1,4-Dichlorobenzene	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
1,2-Dichlorobenzene	EPA 625	7G06114	2.9	9.6	ND	0.962	07/06/07	07/10/07	
3,3-Dichlorobenzidine	EPA 625	7G06114	2.9	19	ND	0.962	07/06/07	07/10/07	
2,4-Dichlorophenol	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Diethyl phthalate	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
2,4-Dimethylphenol	EPA 625	7G06114	3.4	19	ND	0.962	07/06/07	07/10/07	
Dimethyl phthalate	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
4,6-Dinitro-2-methylphenol	EPA 625	7G06114	3.8	19	ND	0.962	07/06/07	07/10/07	
2,4-Dinitrophenol	EPA 625	7G06114	4.3	19	ND	0.962	07/06/07	07/10/07	
2,4-Dinitrotoluene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
2,6-Dinitrotoluene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Di-n-octyl phthalate	EPA 625	7G06114	1.9	19	ND	0.962	07/06/07	07/10/07	
Fluoranthene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200
Arcadia, CA 91007
Report Number: IQG0326
Sampled: 07/05/07
Received: 07/05/07

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
•		2400	2311114	2				111111111111111111111111111111111111111	
Sample ID: IQG0326-01 (Outfall 004 - Wat	er) - cont.				Sample	ed: 07/05/0	07		
Reporting Units: ug/l Fluorene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Hexachlorobenzene	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Hexachlorobutadiene	EPA 625	7G06114	3.4	9.6	ND	0.962	07/06/07	07/10/07	
Hexachlorocyclopentadiene	EPA 625	7G06114	4.8	19	ND ND	0.962	07/06/07	07/10/07	
Hexachloroethane	EPA 625	7G06114	2.9	9.6	ND ND	0.962	07/06/07	07/10/07	
Indeno(1,2,3-cd)pyrene	EPA 625	7G06114	2.9	19	ND ND	0.962	07/06/07	07/10/07	
Isophorone	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
2-Methylnaphthalene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
2-Methylphenol	EPA 625	7G06114	1.9	9.6 9.6	ND ND	0.962	07/06/07	07/10/07	
- 1	EPA 625	7G06114	1.9	9.6 9.6	ND ND	0.962	07/06/07	07/10/07	
4-Methylphenol Naphthalene	EPA 625 EPA 625	7G06114 7G06114	2.4		ND ND	0.962	07/06/07	07/10/07	
2-Nitroaniline	EPA 625 EPA 625	7G06114 7G06114	1.9	9.6 19	ND ND	0.962	07/06/07	07/10/07	
3-Nitroaniline	EPA 625	7G06114 7G06114	1.9	19	ND ND	0.962	07/06/07	07/10/07	
4-Nitroaniline	EPA 625	7G06114 7G06114	2.4	19	ND ND	0.962	07/06/07	07/10/07	
		7G06114 7G06114	2.4	19	ND ND	0.962		07/10/07	
Nitrobenzene	EPA 625						07/06/07		
2-Nitrophenol	EPA 625	7G06114	3.4	9.6	ND	0.962	07/06/07	07/10/07	
4-Nitrophenol	EPA 625	7G06114	5.3	19	ND	0.962	07/06/07	07/10/07	
N-Nitrosodiphenylamine	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
N-Nitroso-di-n-propylamine	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
Pentachlorophenol	EPA 625	7G06114	3.4	19	ND	0.962	07/06/07	07/10/07	
Phenanthrene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Phenol	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
Pyrene	EPA 625	7G06114	1.9	9.6	ND	0.962	07/06/07	07/10/07	
1,2,4-Trichlorobenzene	EPA 625	7G06114	2.4	9.6	ND	0.962	07/06/07	07/10/07	
2,4,5-Trichlorophenol	EPA 625	7G06114	2.9	19	ND	0.962	07/06/07	07/10/07	
2,4,6-Trichlorophenol	EPA 625	7G06114	2.9	19	ND	0.962	07/06/07	07/10/07	
1,2-Diphenylhydrazine/Azobenzene	EPA 625	7G06114	1.9	19	ND	0.962	07/06/07	07/10/07	
N-Nitrosodimethylamine	EPA 625	7G06114	2.4	19	ND	0.962	07/06/07	07/10/07	
Surrogate: 2-Fluorophenol (30-120%)					69 %				
Surrogate: Phenol-d6 (35-120%)					70 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					93 %				
Surrogate: Nitrobenzene-d5 (40-120%)					72 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					82 %				
Surrogate: Terphenyl-d14 (45-120%)					95 %				



MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07 Report Number: IQG0326 Received: 07/05/07

Attention: Bronwyn Kelly

Arcadia, CA 91007

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 004 - Water	er) - cont.				Sample	ed: 07/05/0)7		Н
Reporting Units: ug/l									
Aldrin	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
alpha-BHC	EPA 608	7G13086	0.020	0.10	ND	1	07/13/07	07/14/07	C
beta-BHC	EPA 608	7G13086	0.040	0.10	ND	1	07/13/07	07/14/07	
delta-BHC	EPA 608	7G13086	0.020	0.20	ND	1	07/13/07	07/14/07	C
gamma-BHC (Lindane)	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Chlordane	EPA 608	7G13086	0.20	1.0	ND	1	07/13/07	07/14/07	
4,4'-DDD	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	C
4,4'-DDE	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
4,4'-DDT	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Dieldrin	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Endosulfan I	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Endosulfan II	EPA 608	7G13086	0.040	0.10	ND	1	07/13/07	07/14/07	
Endosulfan sulfate	EPA 608	7G13086	0.050	0.20	ND	1	07/13/07	07/14/07	L
Endrin	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Endrin aldehyde	EPA 608	7G13086	0.050	0.10	ND	1	07/13/07	07/14/07	
Endrin ketone	EPA 608	7G13086	0.040	0.10	ND	1	07/13/07	07/14/07	
Heptachlor	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Heptachlor epoxide	EPA 608	7G13086	0.030	0.10	ND	1	07/13/07	07/14/07	
Methoxychlor	EPA 608	7G13086	0.040	0.10	ND	1	07/13/07	07/14/07	
Toxaphene	EPA 608	7G13086	1.5	5.0	ND	1	07/13/07	07/14/07	
Surrogate: Tetrachloro-m-xylene (35-115%)					70 %				
Surrogate: Decachlorobiphenyl (45-120%)					87 %				



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

MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07

Arcadia, CA 91007 Attention: Bronwyn Kelly Report Number: IQG0326

Received: 07/05/07

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 004 - Wa	ter) - cont.				Sample	ed: 07/05/0	07		Н
Reporting Units: ug/l									
Aroclor 1016	EPA 608	7G13086	0.35	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1221	EPA 608	7G13086	0.10	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1232	EPA 608	7G13086	0.25	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1242	EPA 608	7G13086	0.25	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1248	EPA 608	7G13086	0.25	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1254	EPA 608	7G13086	0.25	1.0	ND	1	07/13/07	07/16/07	
Aroclor 1260	EPA 608	7G13086	0.30	1.0	ND	1	07/13/07	07/16/07	
Surrogate: Decachlorobiphenyl (45-120%)					78 %				



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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007

Report Number: IQG0326

Received: 07/05/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 0	04 - Water) - cont.	er) - cont. Sampled: 07/05/07							
Reporting Units: mg/l									
Boron	EPA 200.7	7G10114	0.020	0.050	0.18	1	07/10/07	07/11/07	
Calcium	EPA 200.7	7G10114	0.050	0.10	27	1	07/10/07	07/11/07	B-1
Iron	EPA 200.7	7G10114	0.015	0.040	0.041	1	07/10/07	07/11/07	
Magnesium	EPA 200.7	7G10114	0.0080	0.020	9.8	1	07/10/07	07/11/07	



Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007

Report Number: IQG0326

Received: 07/05/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IQG0326-01 (Outfall 004 - Water) - cont.		Sampled: 07/05/07								
Reporting Units: ug/l										
Aluminum	EPA 200.7	7G10114	40	50	ND	1	07/10/07	07/11/07		
Antimony	EPA 200.8	7G10082	0.20	2.0	ND	1	07/10/07	07/10/07		
Arsenic	EPA 200.7	7G10114	7.0	10	ND	1	07/10/07	07/11/07		
Beryllium	EPA 200.7	7G10114	0.90	2.0	ND	1	07/10/07	07/11/07		
Cadmium	EPA 200.8	7G10082	0.11	1.0	ND	1	07/10/07	07/10/07		
Chromium	EPA 200.7	7G10114	2.0	5.0	5.9	1	07/10/07	07/11/07		
Copper	EPA 200.8	7G10082	0.75	2.0	1.2	1	07/10/07	07/10/07	J	
Lead	EPA 200.8	7G10082	0.10	1.0	0.23	1	07/10/07	07/11/07	J	
Nickel	EPA 200.7	7G10114	2.0	10	2.6	1	07/10/07	07/11/07	B, J	
Selenium	EPA 200.7	7G10114	8.0	10	8.1	1	07/10/07	07/11/07	J	
Silver	EPA 200.7	7G10114	6.0	10	ND	1	07/10/07	07/11/07		
Thallium	EPA 200.8	7G10082	0.15	1.0	ND	1	07/10/07	07/11/07		
Vanadium	EPA 200.7	7G10114	3.0	10	ND	1	07/10/07	07/11/07		
Zinc	EPA 200.7	7G10114	4.0	20	ND	1	07/10/07	07/11/07		



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07 Report Number: IQG0326

Attention: Bronwyn Kelly

Arcadia, CA 91007

Received: 07/05/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IQG0326-01 (Outfall 004	- Water) - cont.) - cont. Sampled: 07/05/07								
Reporting Units: mg/l										
Aluminum	EPA 200.7-Diss	7G13103	0.040	0.050	ND	1	07/13/07	07/13/07		
Boron	EPA 200.7-Diss	7G13103	0.020	0.050	0.19	1	07/13/07	07/13/07		
Calcium	EPA 200.7-Diss	7G13103	0.050	0.10	29	1	07/13/07	07/13/07	MHA	
Iron	EPA 200.7-Diss	7G13103	0.015	0.040	ND	1	07/13/07	07/13/07		
Magnesium	EPA 200.7-Diss	7G13103	0.0080	0.020	11	1	07/13/07	07/13/07		
Hardness (as CaCO3)	SM2340B	7G13103	1.0	1.0	120	1	07/13/07	07/13/07		



MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

Sampled: 07/05/07

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

Report Number: IQG0326

Received: 07/05/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IQG0326-01 (Outfall 004 - Water) - cont.		Sampled: 07/05/07								
Reporting Units: ug/l										
Antimony	EPA 200.8-Diss	7G05130	0.20	2.0	0.49	1	07/05/07	07/07/07	J	
Arsenic	EPA 200.7-Diss	7G13103	7.0	10	ND	1	07/13/07	07/13/07		
Beryllium	EPA 200.7-Diss	7G13103	0.90	2.0	ND	1	07/13/07	07/13/07		
Cadmium	EPA 200.8-Diss	7G05130	0.11	1.0	ND	1	07/05/07	07/07/07		
Chromium	EPA 200.7-Diss	7G13103	2.0	5.0	ND	1	07/13/07	07/13/07		
Copper	EPA 200.8-Diss	7G05130	0.75	2.0	0.92	1	07/05/07	07/07/07	J	
Lead	EPA 200.8-Diss	7G05130	0.10	1.0	ND	1	07/05/07	07/07/07		
Nickel	EPA 200.7-Diss	7G13103	2.0	10	ND	1	07/13/07	07/13/07		
Selenium	EPA 200.7-Diss	7G13103	8.0	10	ND	1	07/13/07	07/13/07		
Silver	EPA 200.7-Diss	7G13103	6.0	10	ND	1	07/13/07	07/13/07		
Thallium	EPA 200.8-Diss	7G05130	0.15	1.0	ND	1	07/05/07	07/07/07		
Vanadium	EPA 200.7-Diss	7G13103	3.0	10	ND	1	07/13/07	07/13/07		
Zinc	EPA 200.7-Diss	7G13103	4.0	20	ND	1	07/13/07	07/13/07		



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07 Report Number: IQG0326 Received: 07/05/07

Attention: Bronwyn Kelly

Arcadia, CA 91007

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 004 -	Water) - cont.				Sample	ed: 07/05/0	7		
Reporting Units: mg/l									
Chloride	EPA 300.0	7G05123	5.0	10	58	20	07/05/07	07/06/07	
Fluoride	EPA 300.0	7G05123	0.15	0.50	0.36	1	07/05/07	07/06/07	J
Hardness (as CaCO3)	SM2340B	7G13103	1.0	1.0	120	1	07/13/07	07/13/07	
Nitrate/Nitrite-N	EPA 300.0	7G05123	0.15	0.26	0.76	1	07/05/07	07/06/07	
Oil & Grease	EPA 413.1	7G16055	1.1	4.8	ND	1	07/16/07	07/16/07	
Sulfate	EPA 300.0	7G05123	4.0	10	62	20	07/05/07	07/06/07	
Total Dissolved Solids	SM2540C	7G06061	10	10	310	1	07/06/07	07/06/07	
Total Suspended Solids	EPA 160.2	7G09093	10	10	ND	1	07/09/07	07/09/07	



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Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

618 Michillinda Avenue, Suite 200 Arcadia, CA 91007

Report Number: IQG0326

Received: 07/05/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQG0326-01 (Outfall 004 - Water) - cont.					Sample	ed: 07/05/0) 7		
Reporting Units: ug/l									
Total Cyanide	EPA 335.2	7G09106	2.2	5.0	ND	1	07/09/07	07/09/07	
Perchlorate	EPA 314.0	7G11060	0.65	4.0	ND	1	07/11/07	07/11/07	



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MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

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Sampled: 07/05/07 Report Number: IQG0326

Arcadia, CA 91007 Attention: Bronwyn Kelly Received: 07/05/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 004 (IQG0326-01) - Wate	r				
EPA 300.0	2	07/05/2007 10:55	07/05/2007 17:20	07/05/2007 21:30	07/06/2007 09:55
EPA 624	3	07/05/2007 10:55	07/05/2007 17:20	07/06/2007 00:00	07/06/2007 10:26
Sample ID: Trip Blank (IQG0326-02) - Wate	r				
EPA 624	3	07/05/2007 15:00	07/05/2007 17:20	07/06/2007 00:00	07/06/2007 09:03



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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
•		Limit	WIDE	Cints	Level	Result	70REC	Limits	KI D	Limit	Quantitis
Batch: 7G06007 Extracted: 07/06/0	<u>7_</u>										
Blank Analyzed: 07/06/2007 (7G06007-I	BLK1)										
Benzene	ND	1.0	0.28	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.40	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.40	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Methylene chloride	ND	5.0	0.95	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
Vinyl chloride	ND	0.50	0.30	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	1.5	ug/l							
Surrogate: Dibromofluoromethane	23.0			ug/l	25.0		92	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.3			ug/l	25.0		93	80-120			

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Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7G06007 Extracted: 07/06/07	7										
LCS Analyzed: 07/06/2007 (7G06007-BS	51)										
Benzene	21.4	1.0	0.28	ug/l	25.0		86	70-120			
Bromodichloromethane	22.1	2.0	0.30	ug/l	25.0		88	70-135			
Bromoform	19.6	5.0	0.40	ug/l	25.0		78	55-130			
Bromomethane	25.6	5.0	0.42	ug/l	25.0		102	65-140			
Carbon tetrachloride	26.3	0.50	0.28	ug/l	25.0		105	65-140			
Chlorobenzene	21.4	2.0	0.36	ug/l	25.0		86	75-120			
Chloroethane	23.8	5.0	0.40	ug/l	25.0		95	60-140			
Chloroform	21.2	2.0	0.33	ug/l	25.0		85	70-130			
Chloromethane	24.4	5.0	0.40	ug/l	25.0		98	50-140			
Dibromochloromethane	19.6	2.0	0.28	ug/l	25.0		78	70-140			
1,2-Dichlorobenzene	22.3	2.0	0.32	ug/l	25.0		89	75-120			
1,3-Dichlorobenzene	22.6	2.0	0.35	ug/l	25.0		91	75-120			
1,4-Dichlorobenzene	20.6	2.0	0.37	ug/l	25.0		83	75-120			
1,1-Dichloroethane	21.2	2.0	0.27	ug/l	25.0		85	70-125			
1,2-Dichloroethane	20.3	0.50	0.28	ug/l	25.0		81	60-140			
1,1-Dichloroethene	20.1	5.0	0.42	ug/l	25.0		80	70-125			
trans-1,2-Dichloroethene	21.4	2.0	0.27	ug/l	25.0		85	70-125			
1,2-Dichloropropane	20.3	2.0	0.35	ug/l	25.0		81	70-125			
cis-1,3-Dichloropropene	20.7	2.0	0.22	ug/l	25.0		83	75-125			
trans-1,3-Dichloropropene	21.4	2.0	0.32	ug/l	25.0		86	70-125			
Ethylbenzene	22.5	2.0	0.25	ug/l	25.0		90	75-125			
Methylene chloride	19.5	5.0	0.95	ug/l	25.0		78	55-130			
1,1,2,2-Tetrachloroethane	18.7	2.0	0.24	ug/l	25.0		75	55-130			
Tetrachloroethene	22.3	2.0	0.32	ug/l	25.0		89	70-125			
Toluene	22.6	2.0	0.36	ug/l	25.0		90	70-120			
1,1,1-Trichloroethane	22.8	2.0	0.30	ug/l	25.0		91	65-135			
1,1,2-Trichloroethane	20.4	2.0	0.30	ug/l	25.0		81	70-125			
Trichloroethene	21.2	2.0	0.26	ug/l	25.0		85	70-125			
Trichlorofluoromethane	24.6	5.0	0.34	ug/l	25.0		99	65-145			
Vinyl chloride	23.7	0.50	0.30	ug/l	25.0		95	55-135			
Surrogate: Dibromofluoromethane	23.5			ug/l	25.0		94	80-120			
Surrogate: Toluene-d8	24.1			ug/l	25.0		96	80-120			
Surrogate: 4-Bromofluorobenzene	23.6			ug/l	25.0		94	80-120			

TestAmerica - Irvine, CA



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 7G06007 Extracted: 07/06/0	7											
Division Statement Street	<u>—</u>											
Matrix Spike Analyzed: 07/06/2007 (7G06007-MS1)					Source: IQG0326-01							
Benzene	19.1	1.0	0.28	ug/l	25.0	ND	76	65-125				
Bromodichloromethane	20.9	2.0	0.30	ug/l	25.0	ND	83	70-135				
Bromoform	19.3	5.0	0.40	ug/l	25.0	3.10	65	55-135				
Bromomethane	20.8	5.0	0.42	ug/l	25.0	ND	83	55-145				
Carbon tetrachloride	23.2	0.50	0.28	ug/l	25.0	ND	93	65-140				
Chlorobenzene	19.4	2.0	0.36	ug/l	25.0	ND	77	75-125				
Chloroethane	19.7	5.0	0.40	ug/l	25.0	ND	79	55-140				
Chloroform	19.2	2.0	0.33	ug/l	25.0	ND	77	65-135				
Chloromethane	17.9	5.0	0.40	ug/l	25.0	ND	71	45-145				
Dibromochloromethane	19.1	2.0	0.28	ug/l	25.0	2.75	65	65-140				
1,2-Dichlorobenzene	20.0	2.0	0.32	ug/l	25.0	ND	80	75-125				
1,3-Dichlorobenzene	20.3	2.0	0.35	ug/l	25.0	ND	81	75-125				
1,4-Dichlorobenzene	18.1	2.0	0.37	ug/l	25.0	ND	72	75-125			M2	
1,1-Dichloroethane	18.2	2.0	0.27	ug/l	25.0	ND	73	65-130				
1,2-Dichloroethane	19.3	0.50	0.28	ug/l	25.0	ND	77	60-140				
1,1-Dichloroethene	17.1	5.0	0.42	ug/l	25.0	ND	68	60-130				
trans-1,2-Dichloroethene	18.8	2.0	0.27	ug/l	25.0	ND	75	65-130				
1,2-Dichloropropane	18.8	2.0	0.35	ug/l	25.0	ND	75	65-130				
cis-1,3-Dichloropropene	19.0	2.0	0.22	ug/l	25.0	ND	76	70-130				
trans-1,3-Dichloropropene	20.3	2.0	0.32	ug/l	25.0	ND	81	65-135				
Ethylbenzene	19.8	2.0	0.25	ug/l	25.0	ND	79	65-130				
Methylene chloride	17.3	5.0	0.95	ug/l	25.0	ND	69	50-135				
1,1,2,2-Tetrachloroethane	18.2	2.0	0.24	ug/l	25.0	ND	73	55-135				
Tetrachloroethene	19.6	2.0	0.32	ug/l	25.0	ND	78	65-130				
Toluene	20.3	2.0	0.36	ug/l	25.0	ND	81	70-125				
1,1,1-Trichloroethane	19.1	2.0	0.30	ug/l	25.0	ND	77	65-140				
1,1,2-Trichloroethane	19.4	2.0	0.30	ug/l	25.0	ND	78	65-130				
Trichloroethene	19.3	2.0	0.26	ug/l	25.0	ND	77	65-125				
Trichlorofluoromethane	20.6	5.0	0.34	ug/l	25.0	ND	82	60-145				
Vinyl chloride	17.6	0.50	0.30	ug/l	25.0	ND	70	45-140				
Surrogate: Dibromofluoromethane	24.4			ug/l	25.0		97	80-120				
Surrogate: Toluene-d8	24.7			ug/l	25.0		99	80-120				
Surrogate: 4-Bromofluorobenzene	23.8			ug/l	25.0		95	80-120				

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618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyta	Dogul4	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte	Result	Limit	MIDL	Units	Levei	Result	%KEC	Limits	KPD	Limit	Quaimers
Batch: 7G06007 Extracted: 07/06/0	<u>7</u>										
15 / 1 G II D / 1 D / 1 D / 10 C / 10 C	- (= 00 00 = 3	FCD 4)				100	000001				
Matrix Spike Dup Analyzed: 07/06/2007	•	· · · · · · · · · · · · · · · · · · ·		_		rce: IQG					
Benzene	20.9	1.0	0.28	ug/l	25.0	ND	83	65-125	9	20	
Bromodichloromethane	21.9	2.0	0.30	ug/l	25.0	ND	88	70-135	5	20	
Bromoform	20.4	5.0	0.40	ug/l	25.0	3.10	69	55-135	6	25	
Bromomethane	22.7	5.0	0.42	ug/l	25.0	ND	91	55-145	8	25	
Carbon tetrachloride	24.8	0.50	0.28	ug/l	25.0	ND	99	65-140	7	25	
Chlorobenzene	20.9	2.0	0.36	ug/l	25.0	ND	84	75-125	8	20	
Chloroethane	21.3	5.0	0.40	ug/l	25.0	ND	85	55-140	8	25	
Chloroform	20.4	2.0	0.33	ug/l	25.0	ND	82	65-135	6	20	
Chloromethane	19.3	5.0	0.40	ug/l	25.0	ND	77	45-145	8	25	
Dibromochloromethane	20.3	2.0	0.28	ug/l	25.0	2.75	70	65-140	6	25	
1,2-Dichlorobenzene	22.2	2.0	0.32	ug/l	25.0	ND	89	75-125	11	20	
1,3-Dichlorobenzene	22.3	2.0	0.35	ug/l	25.0	ND	89	75-125	9	20	
1,4-Dichlorobenzene	19.5	2.0	0.37	ug/l	25.0	ND	78	75-125	7	20	
1,1-Dichloroethane	19.7	2.0	0.27	ug/l	25.0	ND	79	65-130	8	20	
1,2-Dichloroethane	20.4	0.50	0.28	ug/l	25.0	ND	81	60-140	6	20	
1,1-Dichloroethene	18.8	5.0	0.42	ug/l	25.0	ND	75	60-130	9	20	
trans-1,2-Dichloroethene	20.4	2.0	0.27	ug/l	25.0	ND	82	65-130	8	20	
1,2-Dichloropropane	20.6	2.0	0.35	ug/l	25.0	ND	82	65-130	9	20	
cis-1,3-Dichloropropene	20.4	2.0	0.22	ug/l	25.0	ND	82	70-130	7	20	
trans-1,3-Dichloropropene	21.7	2.0	0.32	ug/l	25.0	ND	87	65-135	7	25	
Ethylbenzene	21.3	2.0	0.25	ug/l	25.0	ND	85	65-130	7	20	
Methylene chloride	18.9	5.0	0.95	ug/l	25.0	ND	76	50-135	9	20	
1,1,2,2-Tetrachloroethane	19.2	2.0	0.24	ug/l	25.0	ND	77	55-135	5	30	
Tetrachloroethene	21.5	2.0	0.32	ug/l	25.0	ND	86	65-130	9	20	
Toluene	21.7	2.0	0.36	ug/l	25.0	ND	87	70-125	7	20	
1,1,1-Trichloroethane	21.4	2.0	0.30	ug/l	25.0	ND	86	65-140	11	20	
1,1,2-Trichloroethane	20.7	2.0	0.30	ug/l	25.0	ND	83	65-130	7	25	
Trichloroethene	20.4	2.0	0.26	ug/l	25.0	ND	82	65-125	5	20	
Trichlorofluoromethane	21.5	5.0	0.34	ug/l	25.0	ND	86	60-145	4	25	
Vinyl chloride	19.6	0.50	0.30	ug/l	25.0	ND	78	45-140	11	30	
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.4			ug/l	25.0		94	80-120			
-				-							

TestAmerica - Irvine, CA



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7G06007 Extracted: 07/06/07	,										
	_										
Blank Analyzed: 07/06/2007 (7G06007-B	LK1)										
Acrolein	ND	50	4.0	ug/l							
Acrylonitrile	ND	50	0.70	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: Dibromofluoromethane	23.0			ug/l	25.0		92	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.3			ug/l	25.0		93	80-120			
LCS Analyzed: 07/06/2007 (7G06007-BS	1)										
2-Chloroethyl vinyl ether	18.0	5.0	1.8	ug/l	25.0		72	25-170			
Surrogate: Dibromofluoromethane	23.5			ug/l	25.0		94	80-120			
Surrogate: Toluene-d8	24.1			ug/l	25.0		96	80-120			
Surrogate: 4-Bromofluorobenzene	23.6			ug/l	25.0		94	80-120			
Matrix Spike Analyzed: 07/06/2007 (7G0	6007-MS1)				Sou	rce: IQG	0326-01				
2-Chloroethyl vinyl ether	18.7	5.0	1.8	ug/l	25.0	ND	75	25-170			
Surrogate: Dibromofluoromethane	24.4			ug/l	25.0		97	80-120			
Surrogate: Toluene-d8	24.7			ug/l	25.0		99	80-120			
Surrogate: 4-Bromofluorobenzene	23.8			ug/l	25.0		95	80-120			
Matrix Spike Dup Analyzed: 07/06/2007	(7G06007-M	(SD1)			Sou	rce: IQG	0326-01				
2-Chloroethyl vinyl ether	19.2	5.0	1.8	ug/l	25.0	ND	77	25-170	3	25	
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100	80-120			
Surrogate: Toluene-d8	24.5			ug/l	25.0		98	80-120			
Surrogate: 4-Bromofluorobenzene	23.4			ug/l	25.0		94	80-120			

%REC

Result %REC Limits



MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

RPD

Limit

Data

Qualifiers

Report Number: IQG0326

Reporting

Received: 07/05/07

RPD

METHOD BLANK/QC DATA

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

Spike

Source

		reporting			Spike
Analyte	Result	Limit	MDL	Units	Level
Batch: 7G06114 Extracted: 07/06/07	<u>7_</u>				
Blank Analyzed: 07/10/2007 (7G06114-E	BLK1)				
Acenaphthene	ND	10	2.0	ug/l	
Acenaphthylene	ND	10	2.0	ug/l	
Aniline	ND	10	2.5	ug/l	
Anthracene	ND	10	2.0	ug/l	
Benzidine	ND	20	8.5	ug/l	
Benzoic acid	ND	20	8.5	ug/l	
Benzo(a)anthracene	ND	10	2.0	ug/l	
Benzo(b)fluoranthene	ND	10	2.0	ug/l	
Benzo(k)fluoranthene	ND	10	2.0	ug/l	
Benzo(g,h,i)perylene	ND	10	3.0	ug/l	
Benzo(a)pyrene	ND	10	2.0	ug/l	
Benzyl alcohol	ND	20	2.5	ug/l	
Bis(2-chloroethoxy)methane	ND	10	2.0	ug/l	
Bis(2-chloroethyl)ether	ND	10	2.5	ug/l	
Bis(2-chloroisopropyl)ether	ND	10	2.5	ug/l	
Bis(2-ethylhexyl)phthalate	ND	50	4.0	ug/l	
4-Bromophenyl phenyl ether	ND	10	2.5	ug/l	
Butyl benzyl phthalate	ND	20	4.0	ug/l	
4-Chloroaniline	ND	10	2.0	ug/l	
2-Chloronaphthalene	ND	10	2.0	ug/l	
4-Chloro-3-methylphenol	ND	20	2.0	ug/l	
2-Chlorophenol	ND	10	2.0	ug/l	
4-Chlorophenyl phenyl ether	ND	10	2.0	ug/l	
Chrysene	ND	10	2.0	ug/l	
Dibenz(a,h)anthracene	ND	20	3.0	ug/l	
Dibenzofuran	ND	10	2.0	ug/l	
Di-n-butyl phthalate	ND	20	2.0	ug/l	
1,3-Dichlorobenzene	ND	10	3.0	ug/l	
1,4-Dichlorobenzene	ND	10	2.5	ug/l	
1,2-Dichlorobenzene	ND	10	3.0	ug/l	
3,3-Dichlorobenzidine	ND	20	3.0	ug/l	
2,4-Dichlorophenol	ND	10	2.0	ug/l	
Diethyl phthalate	ND	10	2.0	ug/l	
2,4-Dimethylphenol	ND	20	3.5	ug/l	
Dimethyl phthalate	ND	10	2.0	ug/l	

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MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

METHOD BLANK/QC DATA

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

Analyte Ro		eporting Limit	MDL		Spike Level	Source Result	/ DFC	%REC	RPD	RPD Limit	Data Qualifiers
•	esuit	Lillit	MDL	Units	Level	Result	OKEC	Limits	KID	Lillit	Quaimers
Batch: 7G06114 Extracted: 07/06/07											
Disals Assalsas J. 07/10/2007 (7/20/114 DI I/	1)										
Blank Analyzed: 07/10/2007 (7G06114-BLK)		20	4.0	а							
, , , , , , , , , , , , , , , , , , , ,	ND	20	4.0	ug/l							
	ND	20	4.5	ug/l							
	ND	10	2.0	ug/l							
,	ND	10	2.0	ug/l							
2 1	ND	20	2.0	ug/l							
	ND	10	2.0	ug/l							
	ND	10	2.0	ug/l							
	ND	10	2.5	ug/l							
	ND	10	3.5	ug/l							
3 1	ND	20	5.0	ug/l							
	ND	10	3.0	ug/l							
, , , , , , , , , , , , , , , , , , ,	ND	20	3.0	ug/l							
1	ND	10	2.0	ug/l							
<i>y</i> 1	ND	10	2.0	ug/l							
3 1	ND	10	2.0	ug/l							
2 1	ND	10	2.0	ug/l							
•	ND	10	2.5	ug/l							
	ND	20	2.0	ug/l							
	ND	20	2.0	ug/l							
	ND	20	2.5	ug/l							
Nitrobenzene	ND	20	2.5	ug/l							
•	ND	10	3.5	ug/l							
4-Nitrophenol	ND	20	5.5	ug/l							
N-Nitrosodiphenylamine	ND	10	2.0	ug/l							
N-Nitroso-di-n-propylamine	ND	10	2.5	ug/l							
Pentachlorophenol	ND	20	3.5	ug/l							
Phenanthrene	ND	10	2.0	ug/l							
Phenol	ND	10	2.0	ug/l							
Pyrene	ND	10	2.0	ug/l							
1,2,4-Trichlorobenzene	ND	10	2.5	ug/l							
2,4,5-Trichlorophenol	ND	20	3.0	ug/l							
2,4,6-Trichlorophenol	ND	20	3.0	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	20	2.0	ug/l							
N-Nitrosodimethylamine	ND	20	2.5	ug/l							
Surrogate: 2-Fluorophenol	135			ug/l	200		68	30-120			

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618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 70	G06114 Extracted: 07/00	6/07										
Blank Ana	alyzed: 07/10/2007 (7G0611	4-BLK1)										
Surrogate:	Phenol-d6	146			ug/l	200		73	35-120			
Surrogate:	2,4,6-Tribromophenol	183			ug/l	200		92	40-120			
U	Nitrobenzene-d5	83.6			ug/l	100		84	40-120			
_	2-Fluorobiphenyl	85.8			ug/l	100		86	45-120			
Surrogate:	Terphenyl-d14	93.7			ug/l	100		94	45-120			
LCS Anal	yzed: 07/10/2007 (7G06114	-BS1)										MNR1
Acenaphthe	ene	90.5	10	2.0	ug/l	100		91	55-120			
Acenaphthy	vlene	95.1	10	2.0	ug/l	100		95	60-120			
Aniline		83.2	10	2.5	ug/l	100		83	40-120			
Anthracene		93.4	10	2.0	ug/l	100		93	60-120			
Benzidine		81.2	20	8.5	ug/l	100		81	25-160			
Benzoic aci	d	84.1	20	8.5	ug/l	100		84	25-120			
Benzo(a)an	thracene	92.0	10	2.0	ug/l	100		92	60-120			
Benzo(b)flu	oranthene	81.7	10	2.0	ug/l	100		82	55-125			
Benzo(k)flu	oranthene	88.0	10	2.0	ug/l	100		88	50-125			
Benzo(g,h,i)perylene	99.0	10	3.0	ug/l	100		99	45-130			
Benzo(a)py	rene	92.5	10	2.0	ug/l	100		92	55-125			
Benzyl alco	hol	90.5	20	2.5	ug/l	100		90	50-120			
Bis(2-chlore	oethoxy)methane	102	10	2.0	ug/l	100		102	55-120			
Bis(2-chlore	oethyl)ether	88.5	10	2.5	ug/l	100		88	50-120			
Bis(2-chlore	oisopropyl)ether	90.2	10	2.5	ug/l	100		90	45-120			
Bis(2-ethyll	hexyl)phthalate	86.1	50	4.0	ug/l	100		86	60-125			
4-Bromoph	enyl phenyl ether	104	10	2.5	ug/l	100		104	55-120			
Butyl benzy	l phthalate	89.2	20	4.0	ug/l	100		89	50-125			
4-Chloroan	iline	94.3	10	2.0	ug/l	100		94	50-120			
2-Chlorona	phthalene	90.1	10	2.0	ug/l	100		90	55-120			
4-Chloro-3-	methylphenol	99.4	20	2.0	ug/l	100		99	55-120			
2-Chloroph	enol	80.9	10	2.0	ug/l	100		81	45-120			
4-Chloroph	enyl phenyl ether	101	10	2.0	ug/l	100		101	60-120			
Chrysene		93.2	10	2.0	ug/l	100		93	60-120			
Dibenz(a,h)	anthracene	99.9	20	3.0	ug/l	100		100	50-135			
Dibenzofur	an	95.1	10	2.0	ug/l	100		95	60-120			
Di-n-butyl j	phthalate	93.3	20	2.0	ug/l	100		93	55-125			
1,3-Dichlor	obenzene	80.4	10	3.0	ug/l	100		80	35-120			
1,4-Dichlor	obenzene	80.9	10	2.5	ug/l	100		81	35-120			

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618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 7G06114 Extracted: 07/06/0	17										
Daten. / Goolly Extracted. 67/00/0	<u>, , , </u>										
LCS Analyzed: 07/10/2007 (7G06114-B	S1)										MNR1
1,2-Dichlorobenzene	84.2	10	3.0	ug/l	100		84	40-120			
3,3-Dichlorobenzidine	76.3	20	3.0	ug/l	100		76	50-135			
2,4-Dichlorophenol	97.9	10	2.0	ug/l	100		98	50-120			
Diethyl phthalate	98.2	10	2.0	ug/l	100		98	50-120			
2,4-Dimethylphenol	94.6	20	3.5	ug/l	100		95	35-120			
Dimethyl phthalate	95.8	10	2.0	ug/l	100		96	25-120			
4,6-Dinitro-2-methylphenol	102	20	4.0	ug/l	100		102	40-120			
2,4-Dinitrophenol	95.1	20	4.5	ug/l	100		95	35-120			
2,4-Dinitrotoluene	100	10	2.0	ug/l	100		100	60-120			
2,6-Dinitrotoluene	99.1	10	2.0	ug/l	100		99	60-120			
Di-n-octyl phthalate	105	20	2.0	ug/l	100		105	60-130			
Fluoranthene	95.4	10	2.0	ug/l	100		95	55-120			
Fluorene	96.0	10	2.0	ug/l	100		96	60-120			
Hexachlorobenzene	101	10	2.5	ug/l	100		101	55-120			
Hexachlorobutadiene	96.9	10	3.5	ug/l	100		97	40-120			
Hexachlorocyclopentadiene	113	20	5.0	ug/l	100		113	20-120			
Hexachloroethane	80.7	10	3.0	ug/l	100		81	35-120			
Indeno(1,2,3-cd)pyrene	77.7	20	3.0	ug/l	100		78	45-135			
Isophorone	102	10	2.0	ug/l	100		102	50-120			
2-Methylnaphthalene	89.2	10	2.0	ug/l	100		89	50-120			
2-Methylphenol	87.1	10	2.0	ug/l	100		87	50-120			
4-Methylphenol	89.0	10	2.0	ug/l	100		89	45-120			
Naphthalene	90.0	10	2.5	ug/l	100		90	50-120			
2-Nitroaniline	97.7	20	2.0	ug/l	100		98	60-120			
3-Nitroaniline	94.4	20	2.0	ug/l	100		94	55-120			
4-Nitroaniline	101	20	2.5	ug/l	100		101	50-125			
Nitrobenzene	93.9	20	2.5	ug/l	100		94	50-120			
2-Nitrophenol	94.0	10	3.5	ug/l	100		94	45-120			
4-Nitrophenol	93.3	20	5.5	ug/l	100		93	40-120			
N-Nitrosodiphenylamine	94.4	10	2.0	ug/l	100		94	55-120			
N-Nitroso-di-n-propylamine	95.1	10	2.5	ug/l	100		95	45-120			
Pentachlorophenol	103	20	3.5	ug/l	100		103	45-125			
Phenanthrene	95.1	10	2.0	ug/l	100		95	60-120			
Phenol	79.7	10	2.0	ug/l	100		80	45-120			
Pyrene	89.9	10	2.0	ug/l	100		90	50-125			
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TestAmerica - Irvine, CA



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 7G06114 Extracted: 07/06/0	07										
LCS Analyzed: 07/10/2007 (7G06114-E	-										MNR1
1,2,4-Trichlorobenzene	94.1	10	2.5	ug/l	100		94	45-120			
2,4,5-Trichlorophenol	101	20	3.0	ug/l	100		101	50-120			
2,4,6-Trichlorophenol	97.4	20	3.0	ug/l	100		97	50-120			
1,2-Diphenylhydrazine/Azobenzene	101	20	2.0	ug/l	100		101	55-120			
N-Nitrosodimethylamine	78.7	20	2.5	ug/l	100		79	40-120			
Surrogate: 2-Fluorophenol	139			ug/l	200		69	30-120			
Surrogate: Phenol-d6	156			ug/l	200		78	35-120			
Surrogate: 2,4,6-Tribromophenol	207			ug/l	200		104	40-120			
Surrogate: Nitrobenzene-d5	90.7			ug/l	100		91	40-120			
Surrogate: 2-Fluorobiphenyl	91.4			ug/l	100		91	45-120			
Surrogate: Terphenyl-d14	82.2			ug/l	100		82	45-120			
LCS Dup Analyzed: 07/10/2007 (7G06)	114-BSD1)										
Acenaphthene	90.3	10	2.0	ug/l	100		90	55-120	0	20	
Acenaphthylene	92.0	10	2.0	ug/l	100		92	60-120	3	20	
Aniline	76.7	10	2.5	ug/l	100		77	40-120	8	30	
Anthracene	95.4	10	2.0	ug/l	100		95	60-120	2	20	
Benzidine	ND	20	8.5	ug/l	100			25-160		35	L6
Benzoic acid	78.4	20	8.5	ug/l	100		78	25-120	7	30	
Benzo(a)anthracene	88.4	10	2.0	ug/l	100		88	60-120	4	20	
Benzo(b)fluoranthene	87.7	10	2.0	ug/l	100		88	55-125	7	25	
Benzo(k)fluoranthene	90.1	10	2.0	ug/l	100		90	50-125	2	20	
Benzo(g,h,i)perylene	86.5	10	3.0	ug/l	100		86	45-130	13	25	
Benzo(a)pyrene	91.2	10	2.0	ug/l	100		91	55-125	1	25	
Benzyl alcohol	81.9	20	2.5	ug/l	100		82	50-120	10	20	
Bis(2-chloroethoxy)methane	91.9	10	2.0	ug/l	100		92	55-120	11	20	
Bis(2-chloroethyl)ether	81.1	10	2.5	ug/l	100		81	50-120	9	20	
Bis(2-chloroisopropyl)ether	77.0	10	2.5	ug/l	100		77	45-120	16	20	
Bis(2-ethylhexyl)phthalate	85.4	50	4.0	ug/l	100		85	60-125	1	20	
4-Bromophenyl phenyl ether	97.1	10	2.5	ug/l	100		97	55-120	7	25	
Butyl benzyl phthalate	97.3	20	4.0	ug/l	100		97	50-125	9	20	
4-Chloroaniline	80.7	10	2.0	ug/l	100		81	50-120	16	25	
2-Chloronaphthalene	84.8	10	2.0	ug/l	100		85	55-120	6	20	
4-Chloro-3-methylphenol	93.2	20	2.0	ug/l	100		93	55-120	6	25	
2-Chlorophenol	74.7	10	2.0	ug/l	100		75	45-120	8	25	
4-Chlorophenyl phenyl ether	94.4	10	2.0	ug/l	100		94	60-120	7	20	
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TestAmerica - Irvine, CA



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07 Received: 07/05/07

Report Number: IQG0326

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: 7G06114 Extracted: 07/06/0	7										
Batch. /G00114 Extracted. 0//00/0	<u>/</u>										
LCS Dup Analyzed: 07/10/2007 (7G061	14-BSD1)										
Chrysene	101	10	2.0	ug/l	100		101	60-120	8	20	
Dibenz(a,h)anthracene	95.2	20	3.0	ug/l	100		95	50-135	5	25	
Dibenzofuran	84.8	10	2.0	ug/l	100		85	60-120	11	20	
Di-n-butyl phthalate	94.0	20	2.0	ug/l	100		94	55-125	1	20	
1,3-Dichlorobenzene	66.8	10	3.0	ug/l	100		67	35-120	18	25	
1,4-Dichlorobenzene	67.7	10	2.5	ug/l	100		68	35-120	18	25	
1,2-Dichlorobenzene	69.5	10	3.0	ug/l	100		69	40-120	19	25	
3,3-Dichlorobenzidine	67.2	20	3.0	ug/l	100		67	50-135	13	25	
2,4-Dichlorophenol	85.7	10	2.0	ug/l	100		86	50-120	13	20	
Diethyl phthalate	96.7	10	2.0	ug/l	100		97	50-120	1	30	
2,4-Dimethylphenol	83.8	20	3.5	ug/l	100		84	35-120	12	25	
Dimethyl phthalate	94.8	10	2.0	ug/l	100		95	25-120	1	30	
4,6-Dinitro-2-methylphenol	101	20	4.0	ug/l	100		101	40-120	1	25	
2,4-Dinitrophenol	97.2	20	4.5	ug/l	100		97	35-120	2	25	
2,4-Dinitrotoluene	101	10	2.0	ug/l	100		101	60-120	1	20	
2,6-Dinitrotoluene	95.7	10	2.0	ug/l	100		96	60-120	3	20	
Di-n-octyl phthalate	105	20	2.0	ug/l	100		105	60-130	0	20	
Fluoranthene	97.6	10	2.0	ug/l	100		98	55-120	2	20	
Fluorene	94.7	10	2.0	ug/l	100		95	60-120	1	20	
Hexachlorobenzene	102	10	2.5	ug/l	100		102	55-120	2	20	
Hexachlorobutadiene	75.0	10	3.5	ug/l	100		75	40-120	26	25	R-7
Hexachlorocyclopentadiene	82.7	20	5.0	ug/l	100		83	20-120	31	30	R-7
Hexachloroethane	67.4	10	3.0	ug/l	100		67	35-120	18	25	
Indeno(1,2,3-cd)pyrene	79.3	20	3.0	ug/l	100		79	45-135	2	25	
Isophorone	93.5	10	2.0	ug/l	100		94	50-120	9	20	
2-Methylnaphthalene	81.0	10	2.0	ug/l	100		81	50-120	10	20	
2-Methylphenol	81.9	10	2.0	ug/l	100		82	50-120	6	20	
4-Methylphenol	86.4	10	2.0	ug/l	100		86	45-120	3	20	
Naphthalene	80.9	10	2.5	ug/l	100		81	50-120	11	20	
2-Nitroaniline	94.5	20	2.0	ug/l	100		95	60-120	3	20	
3-Nitroaniline	90.9	20	2.0	ug/l	100		91	55-120	4	25	
4-Nitroaniline	94.1	20	2.5	ug/l	100		94	50-125	7	20	
Nitrobenzene	82.9	20	2.5	ug/l	100		83	50-120	12	25	
2-Nitrophenol	83.2	10	3.5	ug/l	100		83	45-120	12	25	
4-Nitrophenol	97.6	20	5.5	ug/l	100		98	40-120	5	30	

TestAmerica - Irvine, CA



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 7G06114 Extracted: 07/06/0	7_										
LCS Dup Analyzed: 07/10/2007 (7G0611	(4-RSD1)										
N-Nitrosodiphenylamine	86.8	10	2.0	ug/l	100		87	55-120	8	20	
N-Nitroso-di-n-propylamine	86.3	10	2.5	ug/l	100		86	45-120	10	20	
Pentachlorophenol	109	20	3.5	ug/l	100		109	45-125	6	25	
Phenanthrene	88.7	10	2.0	ug/l	100		89	60-120	7	20	
Phenol	76.0	10	2.0	ug/l	100		76	45-120	5	25	
Pyrene	88.9	10	2.0	ug/l	100		89	50-125	1	25	
1,2,4-Trichlorobenzene	80.5	10	2.5	ug/l	100		81	45-120	16	20	
2,4,5-Trichlorophenol	88.2	20	3.0	ug/l	100		88	50-120	14	30	
2,4,6-Trichlorophenol	92.6	20	3.0	ug/l	100		93	50-120	5	30	
1,2-Diphenylhydrazine/Azobenzene	95.0	20	2.0	ug/l	100		95	55-120	6	25	
N-Nitrosodimethylamine	81.5	20	2.5	ug/l	100		82	40-120	4	20	
Surrogate: 2-Fluorophenol	141			ug/l	200		70	30-120			
Surrogate: Phenol-d6	151			ug/l	200		76	35-120			
Surrogate: 2,4,6-Tribromophenol	201			ug/l	200		101	40-120			
Surrogate: Nitrobenzene-d5	81.9			ug/l	100		82	40-120			
Surrogate: 2-Fluorobiphenyl	81.1			ug/l	100		81	45-120			
Surrogate: Terphenyl-d14	87.6			ug/l	100		88	45-120			



MWH-Pasadena/Boeing

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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•			WE	Circs	Level	resure	/UILE	Limits	III D	Limit	Quanners
Batch: 7G13086 Extracted: 07/13/0	<u>/</u>										
Blank Analyzed: 07/14/2007 (7G13086-I	BLK1)										
Aldrin	ND	0.10	0.030	ug/l							
alpha-BHC	ND	0.10	0.020	ug/l							
beta-BHC	ND	0.10	0.040	ug/l							
delta-BHC	ND	0.20	0.020	ug/l							
gamma-BHC (Lindane)	ND	0.10	0.030	ug/l							
Chlordane	ND	1.0	0.20	ug/l							
4,4'-DDD	ND	0.10	0.030	ug/l							
4,4'-DDE	ND	0.10	0.030	ug/l							
4,4'-DDT	ND	0.10	0.030	ug/l							
Dieldrin	ND	0.10	0.030	ug/l							
Endosulfan I	ND	0.10	0.030	ug/l							
Endosulfan II	ND	0.10	0.040	ug/l							
Endosulfan sulfate	ND	0.20	0.050	ug/l							
Endrin	ND	0.10	0.030	ug/l							
Endrin aldehyde	ND	0.10	0.050	ug/l							
Endrin ketone	ND	0.10	0.040	ug/l							
Heptachlor	ND	0.10	0.030	ug/l							
Heptachlor epoxide	ND	0.10	0.030	ug/l							
Methoxychlor	ND	0.10	0.040	ug/l							
Toxaphene	ND	5.0	1.5	ug/l							
Surrogate: Tetrachloro-m-xylene	0.401			ug/l	0.500		80	35-115			
Surrogate: Decachlorobiphenyl	0.477			ug/l	0.500		95	45-120			
LCS Analyzed: 07/14/2007 (7G13086-BS	S1)										MNR1
Aldrin	0.405	0.10	0.030	ug/l	0.500		81	40-115			
alpha-BHC	0.439	0.10	0.020	ug/l	0.500		88	45-115			
beta-BHC	0.464	0.10	0.040	ug/l	0.500		93	55-115			
delta-BHC	0.485	0.20	0.020	ug/l	0.500		97	55-115			
gamma-BHC (Lindane)	0.441	0.10	0.030	ug/l	0.500		88	45-115			
4,4'-DDD	0.506	0.10	0.030	ug/l	0.500		101	55-120			
4,4'-DDE	0.478	0.10	0.030	ug/l	0.500		96	50-120			
4,4'-DDT	0.522	0.10	0.030	ug/l	0.500		104	55-120			
Dieldrin	0.469	0.10	0.030	ug/l	0.500		94	55-115			
Endosulfan I	0.452	0.10	0.030	ug/l	0.500		90	55-115			
Endosulfan II	0.463	0.10	0.040	ug/l	0.500		93	55-120			
Endosulfan sulfate	0.605	0.20	0.050	ug/l	0.500		121	60-120			L
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METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 7G13086 Extracted: 07/13/07		2	.,,,,,,	C 11145	20,01	1100411	,,,,,,		141.2	2	Quantities
Daten. 7913000 Extracted. 07/13/01	<u>_</u>										
LCS Analyzed: 07/14/2007 (7G13086-BS	51)										MNR1
Endrin	0.482	0.10	0.030	ug/l	0.500		96	55-115			
Endrin aldehyde	0.458	0.10	0.050	ug/l	0.500		92	50-120			
Endrin ketone	0.490	0.10	0.040	ug/l	0.500		98	55-120			
Heptachlor	0.428	0.10	0.030	ug/l	0.500		86	45-115			
Heptachlor epoxide	0.435	0.10	0.030	ug/l	0.500		87	55-115			
Methoxychlor	0.495	0.10	0.040	ug/l	0.500		99	60-120			
Surrogate: Tetrachloro-m-xylene	0.357			ug/l	0.500		71	35-115			
Surrogate: Decachlorobiphenyl	0.477			ug/l	0.500		95	45-120			
LCS Dup Analyzed: 07/14/2007 (7G1308	86-BSD1)										
Aldrin	0.446	0.10	0.030	ug/l	0.500		89	40-115	10	30	
alpha-BHC	0.464	0.10	0.020	ug/l	0.500		93	45-115	6	30	
beta-BHC	0.473	0.10	0.040	ug/l	0.500		95	55-115	2	30	
delta-BHC	0.500	0.20	0.020	ug/l	0.500		100	55-115	3	30	
gamma-BHC (Lindane)	0.461	0.10	0.030	ug/l	0.500		92	45-115	4	30	
4,4'-DDD	0.497	0.10	0.030	ug/l	0.500		99	55-120	2	30	
4,4'-DDE	0.467	0.10	0.030	ug/l	0.500		93	50-120	2	30	
4,4'-DDT	0.519	0.10	0.030	ug/l	0.500		104	55-120	1	30	
Dieldrin	0.473	0.10	0.030	ug/l	0.500		95	55-115	1	30	
Endosulfan I	0.460	0.10	0.030	ug/l	0.500		92	55-115	2	30	
Endosulfan II	0.477	0.10	0.040	ug/l	0.500		95	55-120	3	30	
Endosulfan sulfate	0.489	0.20	0.050	ug/l	0.500		98	60-120	21	30	
Endrin	0.493	0.10	0.030	ug/l	0.500		99	55-115	2	30	
Endrin aldehyde	0.464	0.10	0.050	ug/l	0.500		93	50-120	1	30	
Endrin ketone	0.491	0.10	0.040	ug/l	0.500		98	55-120	0	30	
Heptachlor	0.454	0.10	0.030	ug/l	0.500		91	45-115	6	30	
Heptachlor epoxide	0.444	0.10	0.030	ug/l	0.500		89	55-115	2	30	
Methoxychlor	0.495	0.10	0.040	ug/l	0.500		99	60-120	0	30	
Surrogate: Tetrachloro-m-xylene	0.384			ug/l	0.500		77	35-115			
Surrogate: Decachlorobiphenyl	0.475			ug/l	0.500		95	45-120			

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Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

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Received: 07/05/07

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: 7G13086 Extracted: 07/13/0	<u>7_</u>										
Blank Analyzed: 07/16/2007 (7G13086-	BLK1)										
Aroclor 1016	ND	1.0	0.35	ug/l							
Aroclor 1221	ND	1.0	0.10	ug/l							
Aroclor 1232	ND	1.0	0.25	ug/l							
Aroclor 1242	ND	1.0	0.25	ug/l							
Aroclor 1248	ND	1.0	0.25	ug/l							
Aroclor 1254	ND	1.0	0.25	ug/l							
Aroclor 1260	ND	1.0	0.30	ug/l							
Surrogate: Decachlorobiphenyl	0.453			ug/l	0.500		91	45-120			
LCS Analyzed: 07/16/2007 (7G13086-B	S2)										MNR1
Aroclor 1016	3.54	1.0	0.35	ug/l	4.00		88	50-115			
Aroclor 1260	4.11	1.0	0.30	ug/l	4.00		103	60-120			
Surrogate: Decachlorobiphenyl	0.427			ug/l	0.500		85	45-120			
LCS Dup Analyzed: 07/16/2007 (7G130	86-BSD2)										
Aroclor 1016	3.50	1.0	0.35	ug/l	4.00		88	50-115	1	30	
Aroclor 1260	4.31	1.0	0.30	ug/l	4.00		108	60-120	5	25	
Surrogate: Decachlorobiphenyl	0.443			ug/l	0.500		89	45-120			



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METHOD BLANK/QC DATA

A conclusion	D14	Reporting	MDI	T.T	Spike	Source	0/ DEC	%REC	DDD	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7G10082 Extracted: 07/10/07	<u>-</u>										
Blank Analyzed: 07/10/2007-07/11/2007 (7G10082-BL	.K1)									
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	0.169	1.0	0.15	ug/l							J
LCS Analyzed: 07/10/2007-07/11/2007 (7	G10082-BS1)									
Antimony	78.0	2.0	0.20	ug/l	80.0		98	85-115			
Cadmium	77.4	1.0	0.11	ug/l	80.0		97	85-115			
Copper	79.9	2.0	0.75	ug/l	80.0		100	85-115			
Lead	79.5	1.0	0.10	ug/l	80.0		99	85-115			
Thallium	79.5	1.0	0.15	ug/l	80.0		99	85-115			
Matrix Spike Analyzed: 07/10/2007-07/1	1/2007 (7G10	082-MS1)			Sou	rce: IQF2	2756-02				
Antimony	77.7	2.0	0.20	ug/l	80.0	ND	97	70-130			
Cadmium	77.3	1.0	0.11	ug/l	80.0	ND	97	70-130			
Copper	82.1	2.0	0.75	ug/l	80.0	ND	103	70-130			
Lead	81.9	1.0	0.10	ug/l	80.0	ND	102	70-130			
Thallium	81.4	1.0	0.15	ug/l	80.0	0.206	101	70-130			
Matrix Spike Dup Analyzed: 07/10/2007-	-07/11/2007 (*	7G10082-MS	D1)		Sou	rce: IQF	2756-02				
Antimony	78.4	2.0	0.20	ug/l	80.0	ND	98	70-130	1	20	
Cadmium	77.5	1.0	0.11	ug/l	80.0	ND	97	70-130	0	20	
Copper	82.5	2.0	0.75	ug/l	80.0	ND	103	70-130	1	20	
Lead	82.3	1.0	0.10	ug/l	80.0	ND	103	70-130	1	20	
Thallium	81.4	1.0	0.15	ug/l	80.0	0.206	102	70-130	0	20	



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METHOD BLANK/QC DATA

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7G10114 Extracted: 07/10/0	<u>7_</u>										
	<u> </u>										
Blank Analyzed: 07/10/2007 (7G10114-I											
Aluminum	46.3	50	40	ug/l							J
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	0.177	0.10	0.050	mg/l							B-1
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.0080	mg/l							
Nickel	2.01	10	2.0	ug/l							J
Selenium	ND	10	8.0	ug/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	4.0	ug/l							
LCS Analyzed: 07/10/2007 (7G10114-BS	S1)										
Aluminum	512	50	40	ug/l	500		102	85-115			
Arsenic	487	10	7.0	ug/l	500		97	85-115			
Beryllium	503	2.0	0.90	ug/l	500		101	85-115			
Boron	0.486	0.050	0.020	mg/l	0.500		97	85-115			
Calcium	2.70	0.10	0.050	mg/l	2.50		108	85-115			
Chromium	486	5.0	2.0	ug/l	500		97	85-115			
Iron	0.514	0.040	0.015	mg/l	0.500		103	85-115			
Magnesium	2.50	0.020	0.0080	mg/l	2.50		100	85-115			
Nickel	499	10	2.0	ug/l	500		100	85-115			
Selenium	485	10	8.0	ug/l	500		97	85-115			
Silver	251	10	6.0	ug/l	250		100	85-115			
Vanadium	503	10	3.0	ug/l	500		101	85-115			
Zinc	472	20	4.0	ug/l	500		94	85-115			
				2							



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METHOD BLANK/QC DATA

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
•		Lillit	MIDL	Units	Level	Result	70KEC	Limits	KrD	Lillit	Qualifiers
Batch: 7G10114 Extracted: 07/10/07	<u> </u>										
Matrix Spike Analyzed: 07/10/2007 (7G1	0114-MS1)				Sou	ırce: IQG	0478-01				
Aluminum	811	50	40	ug/l	500	185	125	70-130			
Arsenic	505	10	7.0	ug/l	500	ND	101	70-130			
Beryllium	524	2.0	0.90	ug/l	500	ND	105	70-130			
Boron	0.610	0.050	0.020	mg/l	0.500	0.0834	105	70-130			
Calcium	17.0	0.10	0.050	mg/l	2.50	14.1	119	70-130			MHA
Chromium	521	5.0	2.0	ug/l	500	ND	104	70-130			
Iron	1.05	0.040	0.015	mg/l	0.500	0.323	145	70-130			M1
Magnesium	11.8	0.020	0.0080	mg/l	2.50	8.96	115	70-130			
Nickel	516	10	2.0	ug/l	500	2.48	103	70-130			
Selenium	496	10	8.0	ug/l	500	ND	99	70-130			
Silver	257	10	6.0	ug/l	250	ND	103	70-130			
Vanadium	532	10	3.0	ug/l	500	5.03	105	70-130			
Zinc	488	20	4.0	ug/l	500	ND	98	70-130			
Matrix Spike Analyzed: 07/10/2007 (7G1	0114-MS2)				Sou	ırce: IQG	0367-01				
Aluminum	432	50	40	ug/l	500	ND	86	70-130			
Arsenic	521	10	7.0	ug/l	500	ND	104	70-130			
Beryllium	503	2.0	0.90	ug/l	500	ND	101	70-130			
Boron	2.23	0.050	0.020	mg/l	0.500	1.75	98	70-130			
Calcium	99.9	0.10	0.050	mg/l	2.50	97.7	84	70-130			MHA
Chromium	483	5.0	2.0	ug/l	500	ND	97	70-130			
Iron	1.39	0.040	0.015	mg/l	0.500	0.886	102	70-130			
Magnesium	52.6	0.020	0.0080	mg/l	2.50	51.4	49	70-130			MHA
Nickel	492	10	2.0	ug/l	500	6.54	97	70-130			
Selenium	502	10	8.0	ug/l	500	ND	100	70-130			
Silver	249	10	6.0	ug/l	250	ND	100	70-130			
Vanadium	512	10	3.0	ug/l	500	ND	102	70-130			
Zinc	554	20	4.0	ug/l	500	80.3	95	70-130			



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

METHOD BLANK/QC DATA

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7G10114 Extracted: 07/10/0	<u> 17 </u>										
Matrix Spike Dup Analyzed: 07/10/200'	7 (7G10114-N	ASD1)			Sou	rce: IQG	0478-01				
Aluminum	743	50	40	ug/l	500	185	112	70-130	9	20	
Arsenic	488	10	7.0	ug/l	500	ND	98	70-130	4	20	
Beryllium	506	2.0	0.90	ug/l	500	ND	101	70-130	3	20	
Boron	0.593	0.050	0.020	mg/l	0.500	0.0834	102	70-130	3	20	
Calcium	16.3	0.10	0.050	mg/l	2.50	14.1	88	70-130	5	20	MHA
Chromium	481	5.0	2.0	ug/l	500	ND	96	70-130	8	20	
Iron	0.876	0.040	0.015	mg/l	0.500	0.323	111	70-130	18	20	
Magnesium	11.3	0.020	0.0080	mg/l	2.50	8.96	92	70-130	5	20	
Nickel	491	10	2.0	ug/l	500	2.48	98	70-130	5	20	
Selenium	491	10	8.0	ug/l	500	ND	98	70-130	1	20	
Silver	248	10	6.0	ug/l	250	ND	99	70-130	3	20	
Vanadium	513	10	3.0	ug/l	500	5.03	101	70-130	4	20	
Zinc	473	20	4.0	ug/l	500	ND	95	70-130	3	20	



THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing

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Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

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: 7G05130 Extracted: 07/05/07	•										
	_										
Blank Analyzed: 07/07/2007 (7G05130-B	LK1)										
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 07/07/2007 (7G05130-BS	1)										
Antimony	85.3	2.0	0.20	ug/l	80.0		107	85-115			
Cadmium	84.0	1.0	0.11	ug/l	80.0		105	85-115			
Copper	77.5	2.0	0.75	ug/l	80.0		97	85-115			
Lead	82.5	1.0	0.10	ug/l	80.0		103	85-115			
Thallium	84.1	1.0	0.15	ug/l	80.0		105	85-115			
Matrix Spike Analyzed: 07/07/2007 (7G0	5130-MS1)				Sou	rce: IQG	0326-01				
Antimony	88.0	2.0	0.20	ug/l	80.0	0.491	109	70-130			
Cadmium	82.8	1.0	0.11	ug/l	80.0	ND	103	70-130			
Copper	76.3	2.0	0.75	ug/l	80.0	0.919	94	70-130			
Lead	77.9	1.0	0.10	ug/l	80.0	ND	97	70-130			
Thallium	79.7	1.0	0.15	ug/l	80.0	ND	100	70-130			
Matrix Spike Dup Analyzed: 07/07/2007	(7G05130-M	SD1)			Sou	rce: IQG	0326-01				
Antimony	87.9	2.0	0.20	ug/l	80.0	0.491	109	70-130	0	20	
Cadmium	83.5	1.0	0.11	ug/l	80.0	ND	104	70-130	1	20	
Copper	76.8	2.0	0.75	ug/l	80.0	0.919	95	70-130	1	20	
Lead	78.7	1.0	0.10	ug/l	80.0	ND	98	70-130	1	20	
Thallium	79.4	1.0	0.15	ug/l	80.0	ND	99	70-130	0	20	



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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: 7G13103 Extracted: 07/13	3/07										
Blank Analyzed: 07/13/2007 (7G1310	03-BLK1)										
Aluminum	ND	0.050	0.040	mg/l							
Arsenic	ND	10	7.0	ug/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	0.0651	0.10	0.050	mg/l							J
Chromium	ND	5.0	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.0080	mg/l							
Nickel	ND	10	2.0	ug/l							
Selenium	ND	10	8.0	ug/l							
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Silver	ND	10	6.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	4.0	ug/l							
LCS Analyzed: 07/13/2007 (7G13103	B-BS1)										
Aluminum	0.501	0.050	0.040	mg/l	0.500		100	85-115			
Arsenic	501	10	7.0	ug/l	500		100	85-115			
Beryllium	519	2.0	0.90	ug/l	500		104	85-115			
Boron	0.482	0.050	0.020	mg/l	0.500		96	85-115			
Calcium	2.61	0.10	0.050	mg/l	2.50		104	85-115			
Chromium	496	5.0	2.0	ug/l	500		99	85-115			
Iron	0.520	0.040	0.015	mg/l	0.500		104	85-115			
Magnesium	2.54	0.020	0.0080	mg/l	2.50		102	85-115			
Nickel	500	10	2.0	ug/l	500		100	85-115			
Selenium	473	10	8.0	ug/l	500		95	85-115			
Silver	240	10	6.0	ug/l	250		96	85-115			
Vanadium	504	10	3.0	ug/l	500		101	85-115			
Zinc	487	20	4.0	ug/l	500		97	85-115			



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METHOD BLANK/QC DATA

DISSOLVED METALS

		Reporting			Spike	Source	0	%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7G13103 Extracted: 07/13/07	<u>'</u>										
Matrix Spike Analyzed: 07/13/2007 (7G1	,					rce: IQG					
Aluminum	0.508	0.050	0.040	mg/l	0.500	ND	102	70-130			
Arsenic	522	10	7.0	ug/l	500	ND	104	70-130			
Beryllium	539	2.0	0.90	ug/l	500	ND	108	70-130			
Boron	0.697	0.050	0.020	mg/l	0.500	0.188	102	70-130			
Calcium	30.4	0.10	0.050	mg/l	2.50	28.6	69	70-130			MHA
Chromium	512	5.0	2.0	ug/l	500	ND	102	70-130			
Iron	0.535	0.040	0.015	mg/l	0.500	ND	107	70-130			
Magnesium	13.0	0.020	0.0080	mg/l	2.50	10.8	90	70-130			
Nickel	513	10	2.0	ug/l	500	ND	103	70-130			
Selenium	485	10	8.0	ug/l	500	ND	97	70-130			
Silver	246	10	6.0	ug/l	250	ND	98	70-130			
Vanadium	514	10	3.0	ug/l	500	ND	103	70-130			
Zinc	498	20	4.0	ug/l	500	ND	100	70-130			
Matrix Spike Dup Analyzed: 07/13/2007	(7G13103-M	SD1)			Sou	rce: IQG	0326-01				
Aluminum	0.509	0.050	0.040	mg/l	0.500	ND	102	70-130	0	20	
Arsenic	524	10	7.0	ug/l	500	ND	105	70-130	1	20	
Beryllium	528	2.0	0.90	ug/l	500	ND	106	70-130	2	20	
Boron	0.703	0.050	0.020	mg/l	0.500	0.188	103	70-130	1	20	
Calcium	30.1	0.10	0.050	mg/l	2.50	28.6	60	70-130	1	20	MHA
Chromium	513	5.0	2.0	ug/l	500	ND	103	70-130	0	20	
Iron	0.533	0.040	0.015	mg/l	0.500	ND	107	70-130	0	20	
Magnesium	13.1	0.020	0.0080	mg/l	2.50	10.8	94	70-130	1	20	
Nickel	513	10	2.0	ug/l	500	ND	103	70-130	0	20	
Selenium	486	10	8.0	ug/l	500	ND	97	70-130	0	20	
Silver	245	10	6.0	ug/l	250	ND	98	70-130	0	20	
Vanadium	519	10	3.0	ug/l	500	ND	104	70-130	1	20	
Zinc	499	20	4.0	ug/l	500	ND	100	70-130	0	20	



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Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 004

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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: 7G05123 Extracted: 07/05/07	<u>, </u>										
Blank Analyzed: 07/05/2007 (7G05123-B	LK1)										
Chloride	ND	0.50	0.25	mg/l							
Fluoride	ND	0.50	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 07/05/2007 (7G05123-BS	1)										
Chloride	5.00	0.50	0.25	mg/l	5.00		100	90-110			
Fluoride	4.77	0.50	0.15	mg/l	5.00		95	90-110			
Sulfate	9.93	0.50	0.20	mg/l	10.0		99	90-110			
Matrix Spike Analyzed: 07/05/2007 (7G0	5123-MS1)				Sou	ırce: IQG	0335-01				
Chloride	18.8	1.0	0.50	mg/l	5.00	13.9	99	80-120			
Fluoride	5.35	1.0	0.30	mg/l	5.00	0.554	96	80-120			
Sulfate	55.6	1.0	0.40	mg/l	10.0	45.3	103	80-120			
Matrix Spike Dup Analyzed: 07/05/2007	(7G05123-M	(SD1)			Sou	ırce: IQG	0335-01				
Chloride	18.8	1.0	0.50	mg/l	5.00	13.9	99	80-120	0	20	
Fluoride	5.34	1.0	0.30	mg/l	5.00	0.554	96	80-120	0	20	
Sulfate	55.4	1.0	0.40	mg/l	10.0	45.3	102	80-120	0	20	
Batch: 7G06061 Extracted: 07/06/07	,										
Blank Analyzed: 07/06/2007 (7G06061-B	LK1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 07/06/2007 (7G06061-BS	1)										
Total Dissolved Solids	998	10	10	mg/l	1000		100	90-110			



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Arcadia, CA 91007

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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: 7G06061 Extracted: 07/06/07	<u>. </u>										
	_										
Duplicate Analyzed: 07/06/2007 (7G0606	1-DUP1)				Sou	rce: IQG	0268-01				
Total Dissolved Solids	379	10	10	mg/l		381			1	10	
Batch: 7G09093 Extracted: 07/09/07	<u> </u>										
Blank Analyzed: 07/09/2007 (7G09093-B	LK1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 07/09/2007 (7G09093-BS	1)										
Total Suspended Solids	974	10	10	mg/l	1000		97	85-115			
Duplicate Analyzed: 07/09/2007 (7G0909	3-DUP1)				Sou	rce: IQG	0355-01				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 7G09106 Extracted: 07/09/07	<u> </u>										
Blank Analyzed: 07/09/2007 (7G09106-B	LK1)										
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 07/09/2007 (7G09106-BS	1)										
Total Cyanide	198	5.0	2.2	ug/l	200		99	90-110			
Matrix Spike Analyzed: 07/09/2007 (7G0	9106-MS1)				Sou	rce: IQG	0597-01				
Total Cyanide	191	5.0	2.2	ug/l	200	6.71	92	70-115			
Matrix Spike Dup Analyzed: 07/09/2007	(7G09106-N	ASD1)			Sou	rce: IQG	0597-01				
Total Cyanide	191	5.0	2.2	ug/l	200	6.71	92	70-115	0	15	



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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: 7G11060 Extracted: 07/11/07	,										
	_										
Blank Analyzed: 07/11/2007 (7G11060-B	LK1)										
Perchlorate	ND	4.0	0.65	ug/l							
LCS Analyzed: 07/11/2007 (7G11060-BS	1)										
Perchlorate	51.1	4.0	0.65	ug/l	50.0		102	85-115			
Matrix Spike Analyzed: 07/11/2007 (7G1	1060-MS1)				Sou	rce: IQG	0574-03				
Perchlorate	54.1	4.0	0.65	ug/l	50.0	4.56	99	80-120			
Matrix Spike Dup Analyzed: 07/11/2007	(7G11060-MS	SD1)			Sou	rce: IQG	0574-03				
Perchlorate	53.3	4.0	0.65	ug/l	50.0	4.56	97	80-120	1	20	
Batch: 7G13103 Extracted: 07/13/07	<u>'</u>										
Blank Analyzed: 07/13/2007 (7G13103-B	LK1)										
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Batch: 7G16055 Extracted: 07/16/07	<u>.</u>										
Blank Analyzed: 07/16/2007 (7G16055-B	LK1)										
Oil & Grease	ND	5.0	1.2	mg/l							
LCS Analyzed: 07/16/2007 (7G16055-BS	1)										MNR1
Oil & Grease	19.7	5.0	1.2	mg/l	20.0		98	65-120			WITNE
		2.0			20.0		, ,	32 120			
LCS Dup Analyzed: 07/16/2007 (7G1605		5.0	1.2	/1	20.0		00	65.100	,	20	
Oil & Grease	19.6	5.0	1.2	mg/l	20.0		98	65-120	1	20	



Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07

Arcadia, CA 91007 Attention: Bronwyn Kelly Report Number: IQG0326 Received: 07/05/07

Compliance Check

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

						Compliance
LabNumber	Analysis	Analyte	Units	Result	MRL	Limit
IQG0326-01	413.1 Oil and Grease	Oil & Grease	mg/l	0.67	4.8	15
IQG0326-01	Antimony-200.8	Antimony	ug/l	0.067	2.0	6.00
IQG0326-01	Antimony-200.8, Diss	Antimony	ug/l	0.49	2.0	6.00
IQG0326-01	Boron-200.7	Boron	mg/l	0.18	0.050	1.00
IQG0326-01	Boron-200.7, Diss	Boron	mg/l	0.19	0.050	1.00
IQG0326-01	Cadmium-200.8	Cadmium	ug/l	0.048	1.0	4.00
IQG0326-01	Cadmium-200.8, Diss	Cadmium	ug/l	0.038	1.0	4.00
IQG0326-01	Chloride - 300.0	Chloride	mg/l	58	10	150
IQG0326-01	Copper-200.8	Copper	ug/l	1.17	2.0	14
IQG0326-01	Copper-200.8, Diss	Copper	ug/l	0.92	2.0	14
IQG0326-01	Fluoride-300.0	Fluoride	mg/l	0.36	0.50	1.60
IQG0326-01	Lead-200.8	Lead	ug/l	0.23	1.0	5.20
IQG0326-01	Lead-200.8, Diss	Lead	ug/l	0.0040	1.0	5.20
IQG0326-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	0.76	0.26	10.00
IQG0326-01	Perchlorate 314.0 (1ppb_IC6)	Perchlorate	ug/l	0	4.0	6.00
IQG0326-01	Sulfate-300.0	Sulfate	mg/l	62	10	250
IQG0326-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	313	10	850
IQG0326-01	Thallium-200.8	Thallium	ug/l	0.044	1.0	2.00
IQG0326-01	Thallium-200.8, Diss	Thallium	ug/l	0.049	1.0	2.00



THE LEADER IN ENVIRONMENTAL TESTING

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

MWH-Pasadena/Boeing Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200 Sampled: 07/05/07

Arcadia, CA 91007 Report Number: IQG0326 Received: 07/05/07

Attention: Bronwyn Kelly

В

R-7

DATA QUALIFIERS AND DEFINITIONS

	•	
B-1	Analyte was detected in the associated method blank.	Analyte concentration in the sample is greater than 10x the

concentration found in the method blank.

Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not

impacted.

H Sample analysis performed past method-specified holding time.

Analyte was detected in the associated Method Blank.

J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.

L6 Per the EPA methods, benzidine is known to be subject to oxidative losses during solvent concentration.

M1 The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. 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.

LFB/LFBD RPD exceeded the acceptance limit. Recovery met acceptance criteria.

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.



THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing

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Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Annual Outfall 004

Sampled: 07/05/07

Report Number: IQG0326

Received: 07/05/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.2	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 300.0	Water	X	X
EPA 314.0	Water	N/A	X
EPA 335.2	Water	X	X
EPA 413.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM2340B	Water	X	X
SM2540C	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

Aquatic Testing Laboratories-SUB California Cert #1775

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-Acute 96hr

Samples: IQG0326-01

Eberline Services - SUB

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gross Alpha

Samples: IQG0326-01

Analysis Performed: Gross Beta

Samples: IQG0326-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IQG0326-01

TestAmerica - Irvine, CA



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

MWH-Pasadena/Boeing

Project ID: Annual Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 07/05/07 Report Number: IQG0326 Received: 07/05/07

Attention: Bronwyn Kelly

Arcadia, CA 91007

Weck Laboratories, Inc

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

Analysis Performed: Mercury - 245.1

Samples: IQG0326-01

Analysis Performed: Mercury - 245.1, Diss

Samples: IQG0326-01

1900376

Page 1 of 1

Del Mar Analytical version 04/28/06 CHAIN OF CUSTODY FORM

Oliver Mamo / Addresse:			Droiont							ANAI YSIS BEOLIIBED	SIS R		3FD	
Value/Addi	O O		Joeina-	Project Boeing-SSFL NPDES	<u> </u>	,		_				5 -		
MWH-Pasadena 300 North Lake Aven Pasadena, CA 91101	MWH-Pasadena 300 North Lake Avenue, Suite 1200 Pasadena, CA 91101		Annual Stormw	Annual Outfall 004 Stormwater at SRE		Hg, B, V, Hardness	(1.E14 Ac	DES + bb		oss Beta, Sr-90	87		,V ,Θ , _P H	Field readings: Temp = $\frac{7}{5}$
Project Manager. Bror Sampler: $\rho_{\mathcal{UCA}}$	Project Manager. Bronwyn Kelly Sampler: $\int_{0}^{\infty} \mathcal{L} \mathcal{L} \mathcal{C} \mathcal{U}$	 	Phone Numb (626) 568-66 Fax Number: (626) 568-65	Phone Number: (626) 568-6691 Fax Number: (626) 5 <u>6</u> 8-6515	1,1	al Recoverabl Cd, Cu, Pb, I Fe, Al, + PP, I Ca Co3	OD (and all co & Grease (EF \$O4, NO3+N chlorate	S TSS C\$ (624), NPI	Cs A+A+2C/	sticides/PCBs, Gro base Alpha, Gro ium (906.0*, 9 ium (506.0*)	dium 226 & 22	tioixoT etu	anide al Dissolved I Cd, Cu, Pb, I Fe, Al, + PP, Ca Co3	pH = 7.26 Collected at time of sampling Comments
Sample Sample Description Matrix	Container Type	# of Cont.	Sampling Date/Time	g Preservative	Bottle * #	Sb, Tl, I	Cl-'	TDS		Oro Trit	Rad	лэ∀	Tot Sb,	
-	1L Poly 1	2	0/105	7-5-01/6/2/4NO3	1A	×						_		
Outfall 004- W	1L Poly 1			HNO3	1B	×								
Outfall 004 W	1L Amber 2		-	None	2A,2B	^	×							
Outfall 004 W	1L Amber 2			HCI	3A, 3B		×							
Outfall 004 W	Poly-500 2	_		None	4A,4B		×							
Outfall 004 W	Poly-500 2		-	None	5A, 5B			×						
Outfall 004 W	VOAs 3		-	Ю	6A, 6B, 6C			×						
Outfall 004 W	VOAs 3	-		None	7A, 7B, 7C				×					
Outfall 004 W	1L Amber 2	-		None	8A, 8B					×				
Outfall 004 W	2.5 Gal Cube 1 100 ml Amber 3 VOAs			None None	9A 15A, 15B, 15C				-	×				Analyze for Total Combined RA- 226 & RA-228 only if Gross Alpha/Bate exceed permit limit Analyze for Tritium and Sr-90 only if Ra-2268228 exceed permit limit
Outfall 004 W	1L Amber 2	<u>_</u> .	_	None	10A, 10B						×			
Outfall 004 W	1 Gal Poly 1			None	11A				\prod			×		
Outfall 004 W	500ml Poly	_		NaOH	12	-							×	11.1
Outfall 004 W	Poly-1L 1			None	13								×	Fitter W/in Z4nrs or receipt at lab
Trip Blanks W	VOAs 3	~		None	14A, 14B, 14C				×	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Trip Blank W	VOAs 3	_	>	모	16A, 16B, 16C			×						
Relinquished By	7	ן ן	Date/Time: 3	B. 3 Received By		TA7	Date/Time			0	7L 24	Turn arour 24 Hours	Turn around Time: (check) 24 Hours 5 Days	s/s
De		1	10-5-	\rightleftharpoons	2		7,0 %		\rightarrow	0	48	48 Hours	10 Days	$\sum_{\text{avs}} \frac{1}{2} \frac$
Relimitished By	INTAL		Date/Time.	e. Received By		Dat	Date/Time:				72 Pe	72 Hours Perchlorat	72 Hours No Perchlorate Only 72 Hours_	Normal X (20(0)
Refinquished By		1	Date/Time:	e. Receired By	2	Dat	Date/Time:				ž	etals On	Metals Only 72 Hours	ı
				5		6 C	श(०५)क		1720	^	<u>5</u>	imple in	Sample Integrity: (Check) Intact	
				<							-			

NPDES-239

LABORATORY REPORT

Date:

July 10, 2007

Client:

Test America - Irvine

17461 Derian Ave., Suite 100

Irvine, CA 92614

Attn: Michele Chamberlin

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-07070608-001

Sample ID.:

IQG0326-01

Sample Control:

The sample was received by ATL in a chilled state, within the recommended hold

time and with the chain of custody record attached.

Date Sampled:

07/05/07

Date Received:

07/06/07

Temp. Received:

2°C

Chlorine (TRC):

 $0.0 \, \text{mg/l}$

Date Tested:

07/06/07 to 07/10/07

Sample Analysis:

The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).

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

Result Summary:

Sample ID.

Results

IOG0326-01

100% Survival (TUa = 0.0)

Quality Control:

Reviewed and approved by:

Toseph A. LeMay

Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST EPA Method 2000.0



Lab No.: A-07070608-001

Client/ID: TestAmerica IQG0326-01 Start Date: 07/06/2007

TEST SUMMARY

Species: Pimephales promelas.

Age: /2 (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-070703.

TEST DATA

		°C	DO		# D	ead	Analyst & Time
			DO	рН	Α	В	of Readings
INITIAL	Control	19.10	8.8	7.9	()	0	2-
INITIAL	100%	20.0	84	7.6	0	0	1330
24 Hr	Control	19.2	8.4	2.8	0	0	2~
24 Ar	100%	19.1	8.1	8.0	0	0	1200
48 Hr	Control	19-2	7-1	7-6	0		2
48 Hr	100%	19.3	66	7.9	0	0	1230
D	Control	19.4	8.7	8.0	0		h
Renewal	100%	195	8.4	7,0	\mathcal{L}	0	1230
72.11	Control	14. 2	6.3	7.4	0	0	~
72 Hr	100%	19.7	7. 3	7.4	0	0	1230
06 116	Control	19.1	6.9	7.7	0	0	L
96 Hr	100%	19.1	7.1	8.1	0	0	1300

Comments:

Sample as received: Chlorine: 0.0 mg/l; pH: 70; Conductivity: 470 umho; Temp:2°C; DO: 8,4 mg/l; Alkalinity: 9/ mg/l; Hardness: 109 mg/l; NH₃-N: 0,3 mg/l. Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No.

Control: Alkalinity: <u>/</u> 2 mg/l; Hardness: <u>92</u> mg/l; Conductivity: <u>3/5</u> 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 %

SUBCONTRACT ORDER

TestAmerica - Irvine, CA

IQG0326

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

Phone: (949) 261-1022

Fax: (949) 260-3297

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB

4350 Transport Street, Unit 107

Ventura, CA 93003

Phone :(805) 650-0546

Fax: (805) 650-0756

Project Location: California

Receipt Temperature: 7 °C

Ice: (Y) N

Analysis	Due	Expires	Comments
Sample ID: IQG0326-01	Water	Sampled: 07/05/07 10:55	
Bioassay-Acute 96hr	07/16/07 12:00	07/06/07 22:55	FH minnow, EPA/821-R02-012, Sub to AqTest Labs
Containers Supplied: 1 gal Poly (Z)			

Xuon Mayen
Released by

160

Date/Time

Date/Time

Received By

Received By

007 7

Date/Time

-6-7 12:56

Date/Time

Page 1 of 1 NPDES-242



REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE Method 2000.0 Reference Toxicant - SDS



QA/QC Batch No.: RT-070703

TEST SUMMARY

Species: Pimephales promelas.

Age: <u>/</u> 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 glass beakers.

Aeration: None.

Number of organisms per chamber: 10.

Photoperiod: 16/8 hrs light/dark.

TEST DATA

		INITIAI	_			24 Hr					48 Hr		
Date/Time:	7-3-	27	1400	7-	4-7	13	30		7-5-0	7		1300	
Analyst:		2				2					Z-	,	
	°C	DO	рН	°C	DO	рН	# D	Dead	°C	DO	ьЦ	# D	ead
	C	50	pri		DO	br	A	В	C	DO	рН	А	В
Control	19.6	9.1	8.1	19-5	7-4	7.8	C	0	19.7	7.3	2.7	0	0
1.0 mg/l	19.6	9.0	8.1	19.6	7-4	2.7	0	0	19.6	7.3	7.6	0	0
2.0 mg/l	19.6	90	8.1	19.6	7-4	7.7	0	0	19.6	7.2	7.6	0	0
4.0 mg/l	19.6	9.1	8.1	19.6	7.3	7.6	0	0	19.5	7.1	7.5	1	0
8.0 mg/l	19.6	9.1	8./	196	7.2	7-5	10	10	Commence .	_gparts e	C. Wanger	***************************************	CATE STATE OF THE

	R	RENEWA	\L			72 Hr					96 Hr		
Date/Time:	7-5-0	フ	1300	7-6	·-U7		130		7-7-	07		140	υ
Analyst:		R	P-tum'			L.					2		
		DO	рН	°C	DO	pН	# D	ead	°C	DO	n I I	# D	ead
		D()	μπ		20	hti	А	В		טט	pН	А	В
Control	19.6	89	8.0	19.7	7.3	7.7	0	0	19.7	2.4	7.6	U	0
1.0 mg/l	19.6	8.8	7.9	19.6	7.4	7.6	0	()	19.7	7.4	7.6	0	(2
2.0 mg/l	19.6	8.9	7.9	19.6	7.2	7.6	0	0	19.6	7.3	7.5	U	0
4.0 mg/l	19.6	8.8	ŀ	19.6	6.8	7.5	0	0	19.6	7.0	25	0	0
8.0 mg/l	19.6	8.8	29	apparation (*anagamatic***	*****	anguigaria/titiro r		symmetric en	Company (Control Control	france.		^

Comments: Control: Alkalinity: 63 mg/l; Hardness: 95 mg/l; Conductivity: 290 umho. SDS: Alkalinity: 63 mg/l; Hardness: 94 mg/l; Conductivity: 295 umho.

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

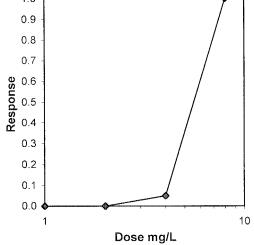
Yes (response curve normal)

No (dose interrupted indicated or non-normal)

				Acute Fish Test-96	Hr Survival	
Start Date:	03 Jul-07	14:00	Test ID:	RT-070703f	Sample ID:	REF-Ref Toxicant
End Date:	07 Jul-07	14:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	03 Jul-07	00:00	Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:						
Conc-mg/L	1	2				
D-Control	1.0000	1.00 00				
1	1.0000	1.0000				
2	1.0000	1.0000				
4	1.0000	0.9000				
8	0.0000	0.0000				

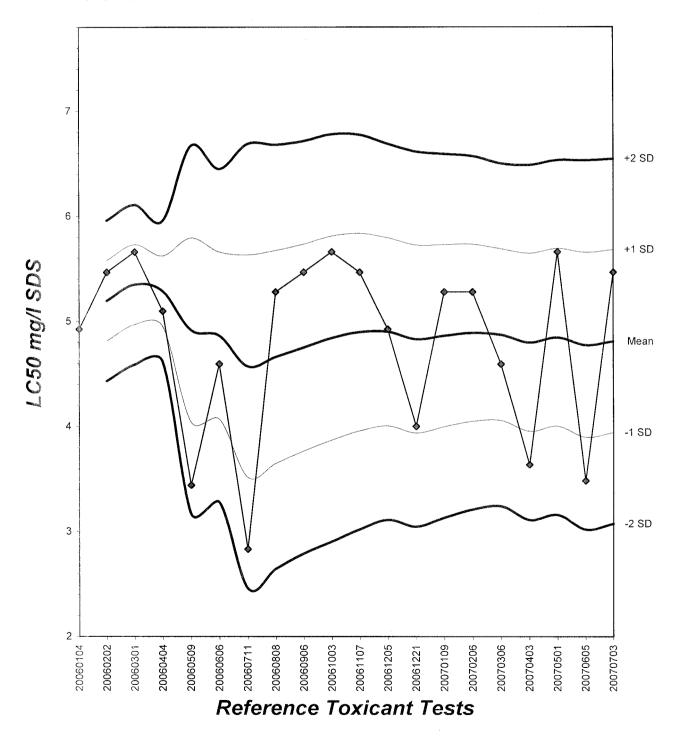
			Tra	ansform:	Arcsin Sc	uare Root	-	Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	0.9500	0.9500	1.3305	1.2490	1.4120	8.661	2	1	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	3			Statistic	Critical	Skew	Kurt
Normality of the	e data set	cannot be c	confirmed				
Equality of varia	ance cann	ot be confir	med				
				Trimmed Spearman-Karber			
Trim Level	EC50	95% C	CL				
0.0%	5.4642	5.1072	5.8461				
5.0%	5.5546	5.3 505	5.7664				
10 .0%	5.5546	5.35 05	5.7664	1.0			
2 0.0%	5.5546	5.3 505	5.7664	0.9		/ 1	
Auto-0.0%	5.4642	5.10 72	5.8461			/	
				0.8 -		/	
				0.7		/	
				9.0 J		/	



Fathead Minnow Acute Laboratory Control Chart

CV% = 18.1



TEST ORGANISM LOG



FATHEAD MINNOW - LARVAL (Pimephales promelas)

QA/QC BATCH NO.: RT-070605

SOURCE: In-Lab Culture
DATE HATCHED: 6-19-07
APPROXIMATE QUANTITY: Z ~
APPROXIMATE QUANTITY: GENERAL APPEARANCE:
MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING:
DATE USED IN LAB: 7/3/2
AVERAGE FISH WEIGHT: gm
TEST LOADING LIMITS: 0.65 gm/liter
200 ml test solution volume = 0.013 gm mean fish weight limit 250 ml test solution volume = 0.016 gm mean fish weight limit
ACCLIMATION WATER QUALITY:
Temp.: 194 °C pH: 8-1 Ammonia: 20-1 mg/l NH ₃ -N
DO:9_l mg/l Alkalinity: <u>63</u> mg/l Hardness: <u>95</u> mg/l
READINGS RECORDED BY: DATE:

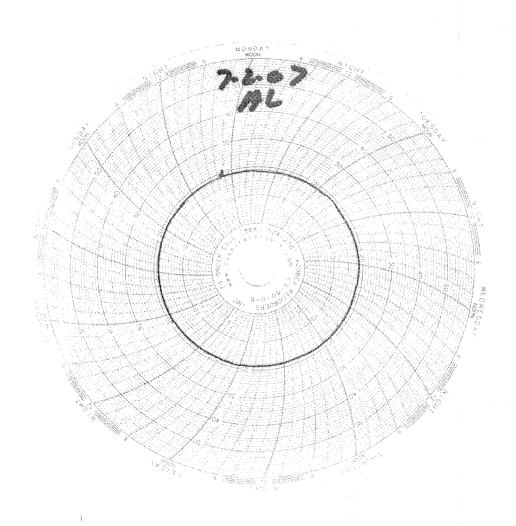


Laboratory Temperature Chart

QA/QC Batch No: RT-070703

Date Tested: 07/03/07 to 07/07/07

Acceptable Range: 20+/- 1°C





August 14, 2007

Ms. Michele Chamberlin Test America, Inc. 17461 Derian Avenue, Suite 100 Irvine, CA 92614

Reference: Test America Project No. IQG0326

Eberline Services NELAP Cert #01120CA (exp. 01/31/08)

Eberline Services Report R707039-8667

Dear Ms. Chamberlin:

Enclosed are results from the analysis of one water sample received at Eberline Services on July 9, 2007. The sample was analyzed according to the accompanying Test America Subcontract Order Form. The requested analyses were gross alpha/gross beta (EPA900.0). Quality control samples consisted of an LCS, blank analysis, duplicate analysis, and matrix spike. All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melissa Mannion

Senior Program Manager

melessi Manno

MCM/njv

Enclosure: Report

Subcontract Form Receipt checklist

Invoice

Eberline Services

ANALYSIS RESULTS

 SDG
 8667
 Client TA IRVINE

 Work Order
 R707039-01
 Contract PROJECT# IQG0326

 Received Date
 07/09/07
 Matrix WATER

 Client
 Lab

 Sample ID
 Sample ID
 Collected Analyzed
 Nuclide
 Results ± 2σ
 Units
 MDA

 IQG0326-01
 8667-001
 07/05/07
 08/03/07
 GrossAlpha
 0.085 ± 1.0
 pCi/L
 1.74

 08/03/07
 Gross Beta
 8.17 ± 0.87
 pCi/L
 1.09

Certified by Report Date 08/14/07
Page 1

Eberline Services

QC RESULTS

 SDG
 8667
 Client TA IRVINE

 Work Order R707039-01
 Contract PR0JECT# IQG0326

 Received Date 07/09/07
 Matrix WATER

Recerv	-ca Bacc <u>077 027</u>	<u>, , , , , , , , , , , , , , , , , , , </u>			MATER			
Lab <u>Sample ID</u>	<u>Nuclide</u>	<u>Results</u>	<u>Units</u>	Amount	Added MDA	<u> </u>	<u>valuation</u>	
<u>LCS</u> 8667-002	GrossAlpha Gross Beta	9.62 ± 0.81 9.89 ± 0.37	pCi/Smp pCi/Smp				5% recove	•
BLANK 8667-003	GrossAlpha Gross Beta	-0.186 ± 0.17	pCi/Smp	l n	IA 0.3 IA 0.2	.63 <	MDA MDA	-
	DUPLICATES				ORIGINALS			
<u>Sample II</u> 8667-004	Nuclide GrossAlpha Gross Beta	Results ± 2σ -0.216 ± 1.0 8.23 ± 0.87		<u>Sample ID</u> 8667-001	Results ± 2σ 0.085 ± 1.0 8.17 ± 0.87	MDA 1.74 1.09		ot) Eval 0 satis. 48 satis.
	SPIKED SAMPLI	E		ORI	GINAL SAMPLE			
<u>Sample II</u> 8667-005	Nuclide GrossAlpha Gross Beta	Results $\pm 2\sigma$ 81.2 \pm 5.1 74.4 \pm 1.9		<u>Sample ID</u> 8667-001	Results $\pm 2\sigma$ 0.085 ± 1.0 8.17 ± 0.87	MDA 1.74 1.09	<u>Added</u> 70.7 63.4	<u>%Recv</u> 115 104

Certified by Report Date 08/14/07
Page 2

SUBCONTRACT ORDER

TestAmerica - Irvine, CA IQG0326



°C

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Eberline Services - SUB

2030 Wright Avenue Richmond, CA 94804

Phone :(510) 235-2633

Fax: (510) 235-0438

Project Location: California

Receipt Temperature:_

Ice: Y / N

Analysis	Due	Expires	Comments
Sample ID: IQG0326-01	Water	Sampled: 07/05	/07 10:55
EDD + Level 4	07/16/07 12:00	08/02/07 10:55	
Gross Alpha-O	07/16/07 12:00	01/01/08 10:55	900.0, IF RESULT>15 pCi/L, run Radium 226 & 228
Gross Beta-O	07/16/07 12:00	01/01/08 10:55	900.0, IF RESULT>50 pCi/L, run Radium 226 & 228
Radium, Combined-O	07/16/07 12:00	07/04/08 10:55	HOLD for Gross A&B results; EPA 903.1 & 904.0
Strontium 90-O	07/16/07 12:00	07/04/08 10:55	HOLD for Ra 226+Ra 228 results, EPA 905.0
Tritium-O	07/16/07 12:00	07/04/08 10:55	HOLD for Ra 226+Ra 228 results, EPA 906.0
Containers Supplied:	500 (FW)		
2.5 gal Poly (S)	125 mL Amber (T)	40 mL Voa Vial (U)	40 mL Voa Vial (V) 40 mL Voa Vial (W)

Released By

Date/Time

Date/Time

Received By

Date/Time

Received By

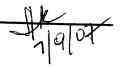
Date/Time

NPBES-252



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST



Client:	163T AW	1	City	1RVINE 260326	Sta	te	
Container I.	D. No. 145 (HELT Reques	sted TAT (Day	s) P.O. Rec	eived Yes	[] No[]
			INSP	ECTION			
1. Cus	tody seals on s	shipping contain	er intact?		Yes [X)	No[] 0	1 A \
2. Cus	tody seals on s	shipping contain	er dated & sign	ed?	Yes [X]	_	
3. Cus	tody seals on s	sample containe	rs intact?		Yes []		
4. Cus	tody seals on s	sample containe	rs dated & sign	ed?		No[y] 1	
	king material is		ſ		Wet[]	Dry [x]	. ^,
6. Nur	nber of sample	s in shipping cor	ntainer:	Sample Matrix	W	•	
7. Nur	nber of contain	ers per sample:	5	_ (Or see CoC)		
		rect container		Yes [Ŋ]			
		with samples?		Yes [x]			
10. San	nples have: 7	「ape[] Haza	ard labels []	Rad labels [] Ap	propriate sa	mple labe is	[V]
11, San	iples are:	n good condition	Leaki	ng [] Broken C	ontainer []	Missina	[]
12. San	ples are: Pre	served [] No	ot preserved [() pH Prese	ervative		
13. Des	cribe any anom	nalies:	,				
							
14. Was	P.M. notified	of any anomalie	s? Ye	s[/] No[]	Date		
	P.M. notified			s[] No[] 7/09/67 Time:	0	7	
15. Insp	ected by	Hu	Date:	Thales	0	7	
15. Insp				7/09/67 Time:	0	n R/hr	wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp	ected by	Hu	Date:	Customer Sample	8:5		wipe
15. Insp Customer Sample No.	cpm	mR/hr	Wipe	Customer Sample	срт	mR/hr	
Customer Sample No.	cpm	mR/hr	Wipe	Customer Sample No.	S:F	mR/hr	
Customer Sample No.	cpm cpm er. No.	mR/hr	Wipe	Customer Sample	срт	mR/hr	



July 27, 2007

Vista Project I.D.: 29170

Ms. Michele Chamberlin Test America-Irvine 17461 Derian Avenue Suite 100 Irvine, CA 92614

Dear Ms. Chamberlin,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on July 07, 2007 under your Project Name "IQG0326". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-657-1520 or by email at mmaier@vista-analytical.com. Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha M. Maier Laboratory Director



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



Section I: Sample Inventory Report Date Received: 7/7/2007

<u>Vista Lab. ID</u> <u>Client Sample ID</u>

29170-001 IQG0326-01

NPDES-255 Page 2 of 290

SECTION II

Project 29170

NPDES-256
Page 3 of 290

Method Blank	K									EPA Method 1613
Matrix:	Aqueous		QC Batch No.:	9:	192	Lab	Sample:	0-MB001		
Sample Size:	1.00 L		Date Extracted	: 18	8-Jul-07	Date	Analyzed DB-5:	21-Jul-07	Date An	alyzed DB-225: NA
	1.00 2				3 3 4 4 1 5 7		1111111/200 22 01	21 001 07	2 400 1 111	, 200 2 2 220. TWI
Analyte	Conc.	(ug/L)	DL a	EMPC b	Qualifiers		Labeled Standa	rd	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD		ND	0.000000782			<u>IS</u>	13C-2,3,7,8-TCI)D	82.9	25 - 164
1,2,3,7,8-PeCD	D	ND	0.000000707				13C-1,2,3,7,8-Pe	CDD	80.7	25 - 181
1,2,3,4,7,8-HxC	CDD	ND	0.00000131				13C-1,2,3,4,7,8-1	HxCDD	84.3	32 - 141
1,2,3,6,7,8-HxC	CDD	ND	0.000000740				13C-1,2,3,6,7,8-1	HxCDD	83.0	28 - 130
1,2,3,7,8,9-HxC	CDD	ND	0.000000710				13C-1,2,3,4,6,7,8	3-HpCDD	82.1	23 - 140
1,2,3,4,6,7,8-Hp	pCDD	ND	0.00000117				13C-OCDD		66.0	17 - 157
OCDD		0.00000202			J		13C-2,3,7,8-TCI)F	85.8	24 - 169
2,3,7,8-TCDF		ND	0.000000804				13C-1,2,3,7,8-Pe	CDF	80.2	24 - 185
1,2,3,7,8-PeCD	F	ND	0.000000560				13C-2,3,4,7,8-Pe	CDF	82.9	21 - 178
2,3,4,7,8-PeCD	F	ND	0.000000512				13C-1,2,3,4,7,8-1	HxCDF	74.5	26 - 152
1,2,3,4,7,8-HxC	CDF	ND	0.000000418				13C-1,2,3,6,7,8-1	HxCDF	73.0	26 - 123
1,2,3,6,7,8-HxC	CDF	ND	0.000000472				13C-2,3,4,6,7,8-1	HxCDF	78.6	28 - 136
2,3,4,6,7,8-HxC	CDF	ND	0.000000499				13C-1,2,3,7,8,9-1	HxCDF	77.3	29 - 147
1,2,3,7,8,9-HxC	CDF	ND	0.000000755				13C-1,2,3,4,6,7,8	3-HpCDF	76.1	28 - 143
1,2,3,4,6,7,8-Hp	pCDF	ND	0.000000566				13C-1,2,3,4,7,8,9	9-HpCDF	75.2	26 - 138
1,2,3,4,7,8,9-Hp	pCDF	ND	0.000000621				13C-OCDF		69.5	17 - 157
OCDF		ND	0.00000175			CRS	37Cl-2,3,7,8-TC	DD	94.8	35 - 197
Totals						Foot	notes			
Total TCDD		ND	0.000000782			a. San	nple specific estimated of	letection limit.		
Total PeCDD		ND	0.000000707			b. Esti	mated maximum possib	ole concentration.		
Total HxCDD		ND	0.000000920			c. Met	thod detection limit.			
Total HpCDD		ND	0.00000117			d. Lov	ver control limit - upper	control limit.		
Total TCDF		ND	0.000000804							
Total PeCDF		ND	0.000000536							
Total HxCDF		ND	0.000000536							
Total HpCDF		ND	0.000000594							

Analyst: DMS William J. Luksemburg 27-Jul-2007 07:56

OPR Results						EP	A Method 1	1613
Matrix: Sample Size:	Aqueous 1.00 L		QC Batch No.: Date Extracted:	9192 18-Jul-07	Lab Sample: 0-OPR001 Date Analyzed DB-5: 21-Jul-07	Date Analy	zed DB-225:	NA
Analyte		Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD		10.0	9.82	6.7 - 15.8	<u>IS</u> 13C-2,3,7,8-TCDD	82.5	25 - 164	
1,2,3,7,8-PeCl	DD	50.0	51.5	35 - 71	13C-1,2,3,7,8-PeCDD	79.6	25 - 181	
1,2,3,4,7,8-Hx	CDD	50.0	50.9	35 - 82	13C-1,2,3,4,7,8-HxCDD	80.3	32 - 141	
1,2,3,6,7,8-Hx	CDD	50.0	51.8	38 - 67	13C-1,2,3,6,7,8-HxCDD	79.4	28 - 130	
1,2,3,7,8,9-Hx	CDD	50.0	51.3	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	83.2	23 - 140	
1,2,3,4,6,7,8-H	IpCDD	50.0	50.9	35 - 70	13C-OCDD	69.3	17 - 157	
OCDD		100	106	78 - 144	13C-2,3,7,8-TCDF	81.5	24 - 169	
2,3,7,8-TCDF		10.0	9.82	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	74.9	24 - 185	
1,2,3,7,8-PeCl	OF	50.0	50.8	40 - 67	13C-2,3,4,7,8-PeCDF	77.3	21 - 178	
2,3,4,7,8-PeCl	OF	50.0	49.7	34 - 80	13C-1,2,3,4,7,8-HxCDF	70.7	26 - 152	
1,2,3,4,7,8-Hx	CDF	50.0	49.0	36 - 67	13C-1,2,3,6,7,8-HxCDF	68.3	26 - 123	
1,2,3,6,7,8-Hx	CDF	50.0	51.5	42 - 65	13C-2,3,4,6,7,8-HxCDF	73.6	28 - 136	
2,3,4,6,7,8-Hx	CDF	50.0	50.4	35 - 78	13C-1,2,3,7,8,9-HxCDF	75.2	29 - 147	
1,2,3,7,8,9-Hx	CDF	50.0	50.1	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.9	28 - 143	
1,2,3,4,6,7,8-H	IpCDF	50.0	48.7	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	78.2	26 - 138	
1,2,3,4,7,8,9-H	HpCDF	50.0	48.4	39 - 69	13C-OCDF	73.5	17 - 157	
OCDF		100	102	63 - 170	<u>CRS</u> 37Cl-2,3,7,8-TCDD	97.3	35 - 197	

Analyst: DMS William J. Luksemburg 27-Jul-2007 07:56

Sample ID: IQG	0326-01								EPA N	Aethod 1613
Client Data			Sample Data		Lab	oratory Data				
	America-Irvine		Matrix:	Aqueous	Lab	Sample:	29170-001	Date Re	ceived:	7-Jul-07
Project: IQG Date Collected: 5-Ju	0326 1.07		Sample Size:	1.03 L	QC I	Batch No.:	9192	Date Ex	tracted:	18-Jul-07
Time Collected: 1055					Date	Analyzed DB-5:	22-Jul-07	Date An	alyzed DB-225:	NA
Analyte	Conc. (ug/L)	DL a	EMPC ^b	Qualifiers		Labeled Standa	rd	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000000	556		<u>IS</u>	13C-2,3,7,8-TCD	D	88.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000	539			13C-1,2,3,7,8-Pe	CDD	80.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.000001	58			13C-1,2,3,4,7,8-H	IxCDD	81.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.000000	786			13C-1,2,3,6,7,8-H	łxCDD	80.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.000000	748			13C-1,2,3,4,6,7,8	-HpCDD	81.8	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000163			J		13C-OCDD		70.3	17 - 157	
OCDD	0.000257			В		13C-2,3,7,8-TCD	F	89.1	24 - 169	
2,3,7,8-TCDF	ND	0.000000	646			13C-1,2,3,7,8-Pe	CDF	78.4	24 - 185	
1,2,3,7,8-PeCDF	ND	0.0000003	506			13C-2,3,4,7,8-Pe	CDF	80.1	21 - 178	
2,3,4,7,8-PeCDF	ND	0.0000004	486			13C-1,2,3,4,7,8-H	IxCDF	70.4	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.0000003	342			13C-1,2,3,6,7,8-H	IxCDF	68.5	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.0000003	378			13C-2,3,4,6,7,8-H	IxCDF	73.2	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.0000004	408			13C-1,2,3,7,8,9-H	IxCDF	72.6	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.0000003	574			13C-1,2,3,4,6,7,8	-HpCDF	72.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.00000236			J		13C-1,2,3,4,7,8,9	-HpCDF	74.1	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000000	796			13C-OCDF		69.4	17 - 157	
OCDF	0.00000633			J	CRS	37Cl-2,3,7,8-TCI	DD	103	35 - 197	
Totals					Foo	tnotes				
Total TCDD	ND	0.0000003	556		a. Sa	mple specific estimated	detection limit.			
Total PeCDD	ND	0.000000	539		b. Es	timated maximum poss	ible concentration.			
Total HxCDD	ND	0.0000010	07		c. M	ethod detection limit.				
Total HpCDD	0.0000301				d. Lo	ower control limit - uppe	er control limit.			
Total TCDF	ND	0.000000	546							
Total PeCDF	ND	0.0000004	496							
Total HxCDF	0.00000148		0.000002	234						
Total HpCDF	0.00000897									

Analyst: JMH William J. Luksemburg 27-Jul-2007 07:56

Project 29170

Page 6 of 290

APPENDIX

Project 29170

NPDES-260
Page 7 of 290

DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank.

D Dilution

P The amount reported is the maximum possible concentration due to possible

chlorinated diphenylether interference.

H The signal-to-noise ratio is greater than 10:1.

I Chemical Interference

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

* See Cover Letter

Conc. Concentration

DL Sample-specific estimated detection limit

MDL The minimum concentration of a substance that can be measured and

reported with 99% confidence that the analyte concentration is greater

than zero in the matrix tested.

EMPC Estimated Maximum Possible Concentration

NA Not applicable

RL Reporting Limit – concentrations that correspond to low calibration point

ND Not Detected

TEQ Toxic Equivalency

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica - Irvine, CA

IQG0326

29170

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB

1104 Windfield Way

El Dorado Hills, CA 95762

Phone: (916) 673-1520

Fax: (916) 673-0106

Project Location: California

Receipt Temperature: 2 9 °C

ce: (Ý)/ N

Analysis	Due	Expires	Comments
Sample ID: IQG0326-01	Water	Sampled: 07/05/07 10:55	
1613-Dioxin-HR-Alta	07/16/07 12:00	07/12/07 10:55	J flags,17 congeners,no
Level 4 + EDD-OUT	07/16/07 12:00	08/02/07 10:55	TEQ,ug/L,sub=Vista Excel EDD email to pm,Include Std logs for Lvl IV
Containers Supplied:			
1 L Amber (C)	1 L Amber (D)		

Released By

Date/Time

Date/Time

Received By

Received By

Date/Time

NPDES-263
Page 10 of 290

Released By Project 29170

SAMPLE LOG-IN CHECKLIST



Vista Project #:	29170)				7	ΓΑΤ <u> </u>	Inspe	ei free	1
	Date/Time			Initials:		Lo	cation	: W r	2 - J	
Samples Arrival:	7/7/07	11.	00	FER	>			ck:_W		
	Date/Time			Initials:		Loc	cation	: W	R-2	
Logged In:	7/9/07	20	919	CB0	M	She	elf/Ra	ck: <u>B</u>	Δ	
Delivered By:	FedEx	UF	PS	Cal	DHL	_		and /ered	Oth	ner
Preservation:	(Ice		Blu	ie Ice	Dr	у Ісе)		None	
Temp °C 2.4	7°C	Time:	: 110	7		The	ermon	neter II): IR-	1
	Control of the Contro									
								YES	NO	NA
Adequate Sample '	Volume Recei	ved?	<u>-</u>					V		
Holding Time Acce	ptable?							/		
Shipping Container	r(s) Intact?			· · · · · · · · · · · · · · · · · · ·				V		
Shipping Custody S	Seals Intact?	٠.						V		
Shipping Documen	tation Present	t?						1		

1318 8741

COC

Client)

Sample

Container

Return

Retain

1987

If Chlorinated or Drinking Water Samples, Acceptable Preservation?

Vista

Trk#

Chain of Custody / Sample Documentation Present?

COC Anomaly/Sample Acceptance Form completed?

Shipping Container

Na₂S₂O₃ Preservation Documented?

Sample Container Intact?

Sample Custody Seals Intact?

Airbill

Comments:

None (

Dispose

SUBCONTRACT ORDER

TestAmerica - Irvine, CA

IQG0326

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Weck Laboratories, Inc.

14859 E. Clark Avenue

City of Industry, CA 91745

Phone: (626) 336-2139

Fax: (626) 336-2634

Project Location: California

Receipt Temperature:

Y / N Ice:

Analysis

Due

Expires

Comments

Sample ID: IQG0326-01

Water

Sampled: 07/05/07 10:55

Level 4 Data Package - Wec07/16/07 12:00 Mercury - 245.1, Diss -OUT 07/16/07 12:00

07/16/07 12:00

08/02/07 10:55 08/02/07 10:55 08/02/07 10:55 Provide Element transfer file

Sub to Weck, J & B flags

Sub to Weck, Boeing, permit, J flags

Mercury - 245.1-OUT Containers Supplied:

125 mL Poly w/HNO3

125 mL Poly (AD)

(AC)

Røløased By Released By

Date/Time

NPDES-265 Page 1 of 1



Weck Laboratories, Inc.

Analytical Laboratory Services - Since 1964

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

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine

Report Date:

07/10/07 14:21

17461 Derian Ave, Suite 100

Received Date:

07/06/07 08:06

Irvine, CA 92614

Turn Around:

6 days

Attention: Michele Chamberlin

Work Order #:

7070602

(02

Phone: (949) 261-1022

Fax: (949) 260-3297

Client Project:

IQG0326

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

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

Dear Michele Chamberlin:

Enclosed are the results of analyses for samples received 07/06/07 08:06 with the Chain of Custody document. The samples were received in good condition. The samples were received at 9.6 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager



Page 1 of 6



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326 Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQG0326-01	client		7070602-01	Water	07/05/07 10:55



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326

Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

IQG0326-01 7070602-01 (Water)

Date Sampled: 07/05/07 10:55

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W7G0184	07/06/07	07/09/07	jlp	
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W7G0184	07/06/07	07/09/07	jlp	



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

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326 Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

QUALITY CONTROL SECTION



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326

Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

Metals by EPA 200 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7G0184 - EPA 245.1										
Blank (W7G0184-BLK1)				Analyzed	: 07/09/07					
Mercury, Total	0.0310	0.050	ug/l							J
Mercury, Dissolved	ND	0.20	ug/l							
LCS (W7G0184-BS1)				Analyzed	07/09/07					
Mercury, Total	0.979	0.050	ug/l	1.00		98	85-115			
Mercury, Dissolved	0.979	0.20	ug/l	1.00		98	85-115			
Matrix Spike (W7G0184-MS1)	Sour	ce: 7070530-0	2	Analyzed	07/09/07					
Mercury, Total	0.991	0.050	ug/l	1.00	0.0340	96	70-130			
Mercury, Dissolved	0.991	0.20	ug/l	1.00	0.0340	96	70-130			
Matrix Spike (W7G0184-MS2)	Sour	ce: 7070532-0	9	Analyzed	07/09/07					
Mercury, Total	0.981	0.050	ug/l	1.00	0.0290	95	70-130			
Mercury, Dissolved	0.981	0.20	ug/l	1.00	0.0290	95	70-130			
Matrix Spike Dup (W7G0184-MSD1)	Sour	ce: 7070530-0	2	Analyzed	07/09/07					
Mercury, Total	0.978	0.050	ug/l	1.00	0.0340	94	70-130	1	20	
Mercury, Dissolved	0.978	0.20	ug/l	1.00	0.0340	94	70-130	1	20	
Matrix Spike Dup (W7G0184-MSD2)	Sour	ce: 7070532-0	9	Analyzed	07/09/07					
Mercury, Total	0.969	0.050	ug/l	1.00	0.0290	94	70-130	1	20	
Mercury, Dissolved	0.969	0.20	ug/l	1.00	0.0290	94	70-130	1	20	



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7070602 Project ID: IQG0326

Date Received: 07/06/07 08:06 Date Reported: 07/10/07 14:21

Notes and Definitions

Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

% Rec Percent Recovery

Sub Subcontracted analysis, original report available upon request

MDL Method Detection Limit

MDA Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

APPENDIX G

Section 5

Outfall 004, September 22, 2007 MEC^X Data Validation Reports

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

MECX, LLC	Package ID IQI2055
12260 East Vassar Drive	Task Order 1261.100D.00 001
Suite 500	SDG No. IQI2055
Lakewood, CO 80226	No. of Analyses 1
Laboratory Vista	Analytical Date: Oct. 31, 2007
Reviewer E. We	essling Reviewer's Signature
Analysis/Method Dioxi	
	73
ACTION ITEMS ^a	
. Case Narrative	
Deficiencies	
2. Out of Scope	
Analyses	
3. Analyses Not Conducted	
4. Missing Hardcopy	
Deliverables	
Incorrect Hardcopy	
Deliverables	
6. Deviations from Analysi	Qualifications were assigned for the following:
Protocol, e.g.,	
Holding Times	- EMPC values were qualified as estimated nondetects
GC/MS Tune/Inst. Performa	
Calibration	- Estimated values between the RL and EDL qualified DNQ
Method blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performan	ice
Compound Identification	
Quantitation	
System Performance	
COMMENTSb	
201	
	is not meeting contract and/or method requirements.
Differences in protocol have been a	adopted by the laboratory but no action against the laboratory is required.

Rev 3 (5/2/00- lhw) L:\public\dataval\ccsdtrax.frm

CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

MEC^	Task Order: 1261.100D.00
12269 East Vassar Drive	SDG No.: IQI2055
Aurora, CO 80014	No. of Analyses: 1
Laboratory: TesAmer	rica, Weck Date: October 21, 2007
Reviewer: P. Meeks	**************************************
Analysis/Method: Metals, C	
7 a.a.ye.e/ea.ea	
ACTION ITEMS ^a	
Case Narrative	
Deficiencies	
2. Out of Scope Analyses	
3. Analyses Not Conducted	
4. Missing Hardcopy	
Deliverables	
5. Incorrect Hardcopy	
Deliverables	
6. Deviations from Analysis	Detect below the reporting limit qualified as estimated.
Protocol, e.g.,	Qualification applied for calibration outlier.
Holding Times	
GC/MS Tune/Inst. Performance	
Calibration	
Method blanks	
Surrogates	
Matrix Spike/Dup LCS	
Field QC	
Internal Standard Performance	
Compound Identification	
Quantitation	
System Performance	
COMMENTS ^b	1
COMMENTS	
a Subcontracted analytical laboratory is no	t meeting contract and/or method requirements.
	ed by the laboratory but no action against the laboratory is required.



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IQI2055

Prepared by

MEC^x, LLC 12269 East Vassar Drive Aurora, CO 80014

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract Task Order: 1261.100D.00

Sample Delivery Group: IQI2055 Project Manager: P. Costa

Matrix: Water

QC Level: IV
No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Laboratory: TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 004	IQI2055-01	7092405-01	Water	9/22/07 1122	160.2, 314.0, 245.1, 1613

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine and the sub-laboratory, Weck, within the temperature limits of 4°C ±2°C. The sample was received at the sub-laboratory, Vista, below the temperature limit at 0.4°C; however, as the sample was not noted to be damaged or frozen, no qualifications were required. According to the case narrative for this SDG, the sample was received intact at all laboratories. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were couriered to TestAmerica-Irvine, custody seals were not required. Custody seals were intact upon arrival at sub-laboratories, Weck and Vista. The client ID was added to the sample result summaries by the reviewer.

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.	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.				
E	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.

DATA VALIDATION REPORT SSFL NPDES
SSFL NPDES
SDG: IQI2055

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: E. Wessling Date Reviewed: 10/21/2007

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 (8/02).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - o GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. No adverse affect was observed with this practice. 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.

DATA VALIDATION REPORT SSFL NPDES
SSFL NPDES
SDG: IQI2055

 Blanks: The method blank had a detect for OCDD above the EDL; however, the concentration reported in the sample exceeded five times the concentration reported in the method blank.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.
- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613. Total PeCDF was qualified as an estimated nondetect, "UJ," as the EMPC value did not meet the identification criteria.
- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detect below the laboratory lower calibration level was qualified as estimated, "J." These "J" values were annotated with the qualification code of "DNQ" to comply with the reporting requirements of the NPDES permit. Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS 7470A—Mercury

Reviewed By: P. Meeks

Date Reviewed: October 21, 2007

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{\times} 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 (2/94).

- Holding Times: The analytical holding time, 28 days for mercury, was met.
- Tuning: As mercury was not analyzed by 6020, mass spectrometer tuning is not applicable.

DATA VALIDATION REPORT SSFL NPDES
SSFL NPDES
SDG: IQI2055

• Calibration: Calibration criteria were met. Mercury initial calibration r² values were ≥0.995 and all initial and continuing calibration recoveries were within 85-115%. The low-level mercury IPC was recovered at 54%; therefore, dissolved mercury in Outfall 004 was qualified as estimated, "J." As the total mercury concentration exceeded 3x the concentration of the IPC, it was not qualified.

- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: As mercury was not analyzed by 6020, the interference check sample is not applicable.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- 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.
- Internal Standards Performance: As mercury was not analyzed by 6020, internal standard performance is not applicable.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated 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.

VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks

Date Reviewed: October 21, 2007

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 Methods 160.2 and 314.0, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding times, 7 days for TSS and 28 days for perchlorate, were met.
- Calibration: Calibration criteria were met. Perchlorate initial calibration r² values were ≥0.995 and all initial and continuing calibration, ICCS, and IPC recoveries were within 90-110%. The IPC-MA was recovered within 85-115%.
- 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.
- 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.
- 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. 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.

Sample ID: IQI2	2055-01	atte	Q()	004				EPA I	Method 161
Project: IQI2	Sep-07	1	Sample Data Matrix: Sample Size:	Aqueous 1.01 L	Laboratory Data Lab Sample: QC Batch No.: Date Analyzed DB-5:	29591-001 9453 8-Oct-07	Date Ex	eceived: ktracted: nalyzed DB-225:	25-Sep-07 6-Oct-07 NA
Analyte	Conc. (ug/L)	DL a	EMPC ^b	Qualifiers	Labeled Stand	lard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND U	0.000001	18		IS 13C-2,3,7,8-TC	DD	85.6	25 - 164	
1,2,3,7,8-PeCDD	ND U	0.000001	90		13C-1,2,3,7,8-P	eCDD	90.5	25 - 181	
1,2,3,4,7,8-HxCDD	0.00000223 ノ/フ	PY		J	13C-1,2,3,4,7,8	-HxCDD	79.3	32 - 141	
1,2,3,6,7,8-HxCDD	0.00000653			J	13C-1,2,3,6,7,8	-HxCDD	75.5	28 - 130	
1,2,3,7,8,9-HxCDD	0.00000226			J	13C-1,2,3,4,6,7	,8-HpCDD	83.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.000186				13C-OCDD		73.0	17 - 157	
OCDD	0.00336			В	13C-2,3,7,8-TC	DF	86.2	24 - 169	
2,3,7,8-TCDF	ND U	0.000001	54		13C-1,2,3,7,8-P	eCDF	93.0	24 - 185	
1,2,3,7,8-PeCDF	ND	0.0000019	90		13C-2,3,4,7,8-P	eCDF	95.7	21 - 178	
2,3,4,7,8-PeCDF	ND	0.0000017	74		13C-1,2,3,4,7,8-	-HxCDF	73.7	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.0000033	58		13C-1,2,3,6,7,8-	-HxCDF	68.7	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.0000037	71		13C-2,3,4,6,7,8-	HxCDF	73.1	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.0000039)5		13C-1,2,3,7,8,9-	HxCDF	74.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND 🗸	0.0000049	9		13C-1,2,3,4,6,7,	8-HpCDF	75.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000332				13C-1,2,3,4,7,8,	9-HpCDF	82.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND U	0.0000069	8		13C-OCDF		70.3	17 - 157	
OCDF	0.0000774				CRS 37CI-2,3,7,8-TC	DD	97.5	35 - 197	
Totals			Footnotes						
Total TCDD	ND U	0.0000011	8		a. Sample specific estimate	d detection limit.			
Total PeCDD	ND U	0.0000019	0		b. Estimated maximum pos	sible concentration.			
Total HxCDD	0.0000352				c. Method detection limit.				
Total HpCDD	0.000377				d. Lower control limit - upp	per control limit.			
Total TCDF	ND U	0.0000016	4						
Total PeCDF	ND U1/*	IIL	0.000004	10					
Total HxCDF	0.0000351								
Total HpCDF	0.000129								

Analyst: JMH

herel IV

Approved By:

Martha M. Maier 09-Oct-2007 13:06



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

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

Irvine CA, 92614

Report ID: 7092405 Project ID: IQI2055 Date Received: 09/24/07 09:00

Date Reported: 09/28/07 15:36

IQI2055-01 7092405-01 (Water)

Date Sampled:

09/22/07 11:22

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved J DNG R Mercury, Total	0.055 0.23	0.025 0.025	ug/l ug/l	0.10 0.10	1	EPA 245.1 EPA 245.1	W7I1160 W7I1160	09/27/07 09/27/07	09/27/07 09/27/07	jlp jlp	J





MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

Sampled: 09/22/07

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Report Number: IQI2055

Received: 09/22/07

FAIL 004

INORGANICS

Analyte		Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2055-01 (Outfall 0	004 - Wat	er) - cont.							•	
Reporting Units: mg/l										
Chloride	X	EPA 300.0	7124057	2.5	5.0	53	10	09/24/07	09/24/07	
Nitrate/Nitrite-N	ï	EPA 300.0	7124057	0.15	0.26	3.2	1	09/24/07	09/24/07	
Oil & Grease		EPA 413.1	7125056	1.1	4.7	ND	1	09/25/07	09/25/07	
Sulfate)	EPA 300.0	7124057	0.20	0.50	37	1	09/24/07	09/24/07	
Total Dissolved Solids	V	SM2540C	7127118	10	10	360	1	09/27/07	09/27/07	
Total Suspended Solids	•	EPA 160.2	7125131	10	10	170	1	09/25/07	09/25/07	
Sample ID: IQI2055-01 (Outfall (004 - Wat	er)								
Reporting Units: ug/l										
Perchlorate	V	EPA 314.0	7J03062	1.5	4.0	ND	1	10/03/07	10/04/07	
1	11.			XA	unalysis	not	val.do	sted		

LEVEL IV

APPENDIX G

Section 6

Outfall 004, September 22, 2007 Test America Analytical Laboratory Report



LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing Project: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly
Sampled: 09/22/07
Received: 09/22/07

Issued: 10/16/07 09:29

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

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

LABORATORY ID CLIENT ID MATRIX
IQ12055-01 Outfall 004 Water

Reviewed By:

TestAmerica - Irvine, CA

Joseph Dock

Joseph Doak Project Manager



MWH-Pasadena/Boeing

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Sampled: 09/22/07 Report Number: IQI2055

Attention: Bronwyn Kelly

Arcadia, CA 91007

Received: 09/22/07

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2055-01 (Outfall 004	- Water)								
Reporting Units: ug/l									
Antimony	EPA 200.8	7125136	0.20	2.0	0.85	1	09/25/07	09/26/07	Ja
Cadmium	EPA 200.8	7125136	0.11	1.0	0.15	1	09/25/07	09/26/07	Ja
Copper	EPA 200.8	7125136	0.75	2.0	10	1	09/25/07	09/26/07	
Lead	EPA 200.8	7125136	0.10	1.0	4.4	1	09/25/07	09/26/07	
Thallium	EPA 200.8	7125136	0.15	1.0	ND	1	09/25/07	09/26/07	



MWH-Pasadena/Boeing

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Report Number: IQI2055

Attention: Bronwyn Kelly

Arcadia, CA 91007

Sampled: 09/22/07 Received: 09/22/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2055-01 (Outfall 004 - V	Vater) - cont.								
Reporting Units: ug/l									
Antimony	EPA 200.8-Diss	7I24137	0.20	2.0	0.93	1	09/24/07	09/25/07	Ja
Cadmium	EPA 200.8-Diss	7I24137	0.11	1.0	ND	1	09/24/07	09/25/07	
Copper	EPA 200.8-Diss	7I24137	0.75	2.0	3.8	1	09/24/07	09/25/07	
Lead	EPA 200.8-Diss	7I24137	0.10	1.0	0.25	1	09/24/07	09/25/07	Ja
Thallium	EPA 200.8-Diss	7I24137	0.15	1.0	ND	1	09/24/07	09/25/07	



MWH-Pasadena/Boeing

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Report Number: IQI2055 Sampled: 09/22/07
Received: 09/22/07

Attention: Bronwyn Kelly

Arcadia, CA 91007

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2055-01 (Outfall 004 - Wa	ter) - cont.								
Reporting Units: mg/l									
Chloride	EPA 300.0	7124057	2.5	5.0	53	10	09/24/07	09/24/07	
Nitrate/Nitrite-N	EPA 300.0	7124057	0.15	0.26	3.2	1	09/24/07	09/24/07	
Oil & Grease	EPA 413.1	7125056	1.1	4.7	ND	1	09/25/07	09/25/07	
Sulfate	EPA 300.0	7124057	0.20	0.50	37	1	09/24/07	09/24/07	
Total Dissolved Solids	SM2540C	7127118	10	10	360	1	09/27/07	09/27/07	
Total Suspended Solids	EPA 160.2	7I25131	10	10	170	1	09/25/07	09/25/07	
Sample ID: IQI2055-01 (Outfall 004 - Wa	ter)								
Reporting Units: ug/l									
Perchlorate	EPA 314.0	7J03062	1.5	4.0	ND	1	10/03/07	10/04/07	



MWH-Pasadena/Boeing

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Report Number: IQI2055

Sampled: 09/22/07 Received: 09/22/07

Attention: Bronwyn Kelly

Arcadia, CA 91007

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2055-01 (Outfall 004 - Wa	nter) - cont.								
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W7I1160	0.025	0.10	0.055	1	09/27/07	09/27/07	J
Mercury, Total	EPA 245.1	W7I1160	0.025	0.10	0.23	1	09/27/07	09/27/07	



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 004

Sampled: 09/22/07

Report Number: IQI2055

Received: 09/22/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 004 (IQI2055-01) - Water	r				
EPA 300.0	2	09/22/2007 11:22	09/22/2007 16:05	09/24/2007 07:00	09/24/2007 09:43



MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Attention: Bronwyn Kelly

Arcadia, CA 91007

Project ID: Routine Outfall 004

Report Number: IQI2055

Sampled: 09/22/07 Received: 09/22/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7125136 Extracted: 09/25/07	-										
Blank Analyzed: 09/26/2007 (7I25136-BI	LK1)										
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/26/2007 (7I25136-BS1	1)										
Antimony	83.2	2.0	0.20	ug/l	80.0		104	85-115			
Cadmium	81.4	1.0	0.11	ug/l	80.0		102	85-115			
Copper	83.8	2.0	0.75	ug/l	80.0		105	85-115			
Lead	80.5	1.0	0.10	ug/l	80.0		101	85-115			
Thallium	84.6	1.0	0.15	ug/l	80.0		106	85-115			
Matrix Spike Analyzed: 09/26/2007 (712	5136-MS1)				Sou	rce: IQI2	053-01				
Antimony	83.3	2.0	0.20	ug/l	80.0	0.569	103	70-130			
Cadmium	78.0	1.0	0.11	ug/l	80.0	ND	98	70-130			
Copper	80.0	2.0	0.75	ug/l	80.0	ND	100	70-130			
Lead	76.1	1.0	0.10	ug/l	80.0	ND	95	70-130			
Thallium	80.4	1.0	0.15	ug/l	80.0	ND	100	70-130			
Matrix Spike Analyzed: 09/26/2007 (712	5136-MS2)				Sou	rce: IQI1	869-04				
Antimony	81.3	2.0	0.20	ug/l	80.0	0.881	101	70-130			
Cadmium	73.3	1.0	0.11	ug/l	80.0	ND	92	70-130			
Copper	82.3	2.0	0.75	ug/l	80.0	5.95	95	70-130			
Lead	70.4	1.0	0.10	ug/l	80.0	0.706	87	70-130			
Thallium	70.7	1.0	0.15	ug/l	80.0	ND	88	70-130			
Matrix Spike Dup Analyzed: 09/26/2007	(7I25136-M	SD1)			Sou	rce: IQI2	053-01				
Antimony	82.0	2.0	0.20	ug/l	80.0	0.569	102	70-130	2	20	
Cadmium	77.3	1.0	0.11	ug/l	80.0	ND	97	70-130	1	20	
Copper	78.7	2.0	0.75	ug/l	80.0	ND	98	70-130	2	20	
Lead	73.0	1.0	0.10	ug/l	80.0	ND	91	70-130	4	20	
Thallium	77.8	1.0	0.15	ug/l	80.0	ND	97	70-130	3	20	

TestAmerica - Irvine, CA

Joseph Doak Project Manager



MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 004

Report Number: IQI2055

Sampled: 09/22/07 Received: 09/22/07

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7I24137 Extracted: 09/24/07											
Blank Analyzed: 09/25/2007 (7I24137-BL	· /										
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.10	ug/l							
Thallium	ND	1.0	0.15	ug/l							
LCS Analyzed: 09/25/2007 (7I24137-BS1))										
Antimony	85.3	2.0	0.20	ug/l	80.0		107	85-115			
Cadmium	87.6	1.0	0.11	ug/l	80.0		110	85-115			
Copper	78.2	2.0	0.75	ug/l	80.0		98	85-115			
Lead	81.2	1.0	0.10	ug/l	80.0		102	85-115			
Thallium	80.8	1.0	0.15	ug/l	80.0		101	85-115			
Matrix Spike Analyzed: 09/25/2007 (7124	137-MS1)				Sou	rce: IQI2	053-01				
Antimony	88.1	2.0	0.20	ug/l	80.0	0.630	109	70-130			
Cadmium	83.8	1.0	0.11	ug/l	80.0	ND	105	70-130			
Copper	76.1	2.0	0.75	ug/l	80.0	ND	95	70-130			
Lead	80.5	1.0	0.10	ug/l	80.0	0.157	100	70-130			
Thallium	79.5	1.0	0.15	ug/l	80.0	ND	99	70-130			
Matrix Spike Dup Analyzed: 09/25/2007	(7I24137-M	SD1)			Sou	rce: IQI2	053-01				
Antimony	88.4	2.0	0.20	ug/l	80.0	0.630	110	70-130	0	20	
Cadmium	83.0	1.0	0.11	ug/l	80.0	ND	104	70-130	1	20	
Copper	75.5	2.0	0.75	ug/l	80.0	ND	94	70-130	1	20	
Lead	80.1	1.0	0.10	ug/l	80.0	0.157	100	70-130	1	20	
Thallium	79.4	1.0	0.15	ug/l	80.0	ND	99	70-130	0	20	



Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Report Number: IQI2055

Sampled: 09/22/07

Received: 09/22/07

METHOD BLANK/QC DATA

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7I24057 Extracted: 09/24/07											
Blank Analyzed: 09/24/2007 (7124057-BL	,										
Chloride	ND	0.50	0.25	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 09/24/2007 (7124057-BS1))										
Chloride	4.85	0.50	0.25	mg/l	5.00		97	90-110			
Sulfate	9.78	0.50	0.20	mg/l	10.0		98	90-110			
Matrix Spike Analyzed: 09/24/2007 (7124	057-MS1)				Sou	rce: IQI2	057-01				
Chloride	8.67	0.50	0.25	mg/l	5.00	4.37	86	80-120			
Sulfate	20.5	0.50	0.20	mg/l	10.0	11.3	92	80-120			
Matrix Spike Dup Analyzed: 09/24/2007 ((7124057-MS)	D1)			Sou	rce: IQI2	057-01				
Chloride	8.64	0.50	0.25	mg/l	5.00	4.37	85	80-120	0	20	
Sulfate	20.5	0.50	0.20	mg/l	10.0	11.3	92	80-120	0	20	
Batch: 7I25056 Extracted: 09/25/07											
Blank Analyzed: 09/25/2007 (7I25056-BL	K1)										
Oil & Grease	ND	5.0	1.2	mg/l							
LCS Analyzed: 09/25/2007 (7I25056-BS1))										MNR1
Oil & Grease	20.2	5.0	1.2	mg/l	20.0		101	65-120			
LCS Dup Analyzed: 09/25/2007 (7125056-	-BSD1)										
Oil & Grease	20.0	5.0	1.2	mg/l	20.0		100	65-120	1	20	



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

Sampled: 09/22/07

Report Number: IQI2055 Received: 09/22/07

METHOD BLANK/QC DATA

Amaluta	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC Limits	RPD	RPD	Data Qualifiers
Analyte	Resuit	LIIIII	MIDL	Units	Levei	Result	70KEC	Limits	KPD	Limit	Quanners
Batch: 7I25131 Extracted: 09/25/07											
Blank Analyzed: 09/25/2007 (7I25131-BL	K1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/25/2007 (7I25131-BS1)										
Total Suspended Solids	1060	10	10	mg/l	1000		106	85-115			
Duplicate Analyzed: 09/25/2007 (7I25131	-DUP1)				Sour	rce: IQI1	885-01				
Total Suspended Solids	30.0	10	10	mg/l		28.0			7	10	
Batch: 7I27118 Extracted: 09/27/07											
Blank Analyzed: 09/27/2007 (7I27118-BL	K1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/27/2007 (7I27118-BS1))										
Total Dissolved Solids	998	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 09/27/2007 (7127118	-DUP1)				Sou	rce: IQI2	053-01				
Total Dissolved Solids	589	10	10	mg/l		588			0	10	
Batch: 7J03062 Extracted: 10/03/07											
Blank Analyzed: 10/03/2007 (7J03062-BI	LK1)										
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 10/03/2007 (7J03062-BS1)										
Perchlorate	51.7	4.0	1.5	ug/l	50.0		103	85-115			



618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

Sampled: 09/22/07

Report Number: IQI2055

Received: 09/22/07

METHOD BLANK/QC DATA

	D 1/	Reporting	MDI	T T •	Spike	Source		%REC	DDD	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7J03062 Extracted: 10	/03/07										
Matrix Spike Analyzed: 10/03/200	07 (7J03062-MS1)				Sou	rce: IQI2	2029-08				
Perchlorate	47.0	4.0	1.5	ug/l	50.0	ND	94	80-120			
Matrix Spike Dup Analyzed: 10/0		Sou	rce: IQI2	029-08							
Perchlorate	49.7	4.0	1.5	ug/l	50.0	ND	99	80-120	6	20	



MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

Report Number: IQI2055

Sampled: 09/22/07 Received: 09/22/07

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

	B 1	Reporting	MDI	T T •.	Spike	Source	A/DEG	%REC	DDD	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: W7I1160 Extracted: 09/27/07	<u> </u>										
DI 1 4 1 1 00/25/2005 (NV5141 (O. P.	OT 174\										
Blank Analyzed: 09/27/2007 (W7I1160-E	,										
Mercury, Dissolved	ND	0.10	0.025	ug/l							
Mercury, Total	ND	0.10	0.025	ug/l							
LCS Analyzed: 09/27/2007 (W7I1160-BS	1)										
Mercury, Dissolved	1.05	0.10	0.025	ug/l	1.00		105	85-115			
Mercury, Total	1.05	0.10	0.025	ug/l	1.00		105	85-115			
Matrix Spike Analyzed: 09/27/2007 (W7	[1160-MS1)				Sou	rce: 7092	457-10				
Mercury, Dissolved	1.07	0.10	0.025	ug/l	1.00	ND	107	70-130			
Mercury, Total	1.07	0.10	0.025	ug/l	1.00	ND	107	70-130			
Matrix Spike Analyzed: 09/27/2007 (W7	[1160-MS2)				Sou	rce: 7092	457-11				
Mercury, Dissolved	1.04	0.10	0.025	ug/l	1.00	ND	104	70-130			
Mercury, Total	1.04	0.10	0.025	ug/l	1.00	ND	104	70-130			
Matrix Spike Dup Analyzed: 09/27/2007	(W7I1160-MS	SD1)			Sou	rce: 7092	457-10				
Mercury, Dissolved	1.05	0.10	0.025	ug/l	1.00	ND	105	70-130	2	20	
Mercury, Total	1.05	0.10	0.025	ug/l	1.00	ND	105	70-130	2	20	
Matrix Spike Dup Analyzed: 09/27/2007	(W7I1160-MS	SD2)			Sou	rce: 7092	457-11				
Mercury, Dissolved	1.04	0.10	0.025	ug/l	1.00	ND	104	70-130	0	20	
Mercury, Total	1.04	0.10	0.025	ug/l	1.00	ND	104	70-130	0	20	
•				-							



MWH-Pasadena/Boeing

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007 Report Number: IQI2055

Sampled: 09/22/07 Received: 09/22/07

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
IQI2055-01	413.1 Oil and Grease	Oil & Grease	mg/l	0.47	4.7	15
IQI2055-01	Antimony-200.8	Antimony	ug/l	0.85	2.0	6.00
IQI2055-01	Antimony-200.8, Diss	Antimony	ug/l	0.93	2.0	6.00
IQI2055-01	Cadmium-200.8	Cadmium	ug/l	0.15	1.0	4.00
IQI2055-01	Cadmium-200.8, Diss	Cadmium	ug/l	0.067	1.0	4.00
IQI2055-01	Chloride - 300.0	Chloride	mg/l	53	5.0	150
IQI2055-01	Copper-200.8	Copper	ug/l	10	2.0	14
IQI2055-01	Copper-200.8, Diss	Copper	ug/l	3.83	2.0	14
IQI2055-01	Lead-200.8	Lead	ug/l	4.43	1.0	5.20
IQI2055-01	Lead-200.8, Diss	Lead	ug/l	0.25	1.0	5.20
IQI2055-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	3.23	0.26	10.00
IQI2055-01	Sulfate-300.0	Sulfate	mg/l	37	0.50	250
IQI2055-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	359	10	850
IQI2055-01	Thallium-200.8	Thallium	ug/l	0.11	1.0	2.00
IQI2055-01	Thallium-200.8, Diss	Thallium	ug/l	0	1.0	2.00



Project ID: Routine Outfall 004 MWH-Pasadena/Boeing

618 Michillinda Avenue, Suite 200 Sampled: 09/22/07

Arcadia, CA 91007 Report Number: IQI2055 Received: 09/22/07

Attention: Bronwyn Kelly

DATA QUALIFIERS AND DEFINITIONS

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

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.

MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike

Duplicate.

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

RPD Relative Percent Difference



MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Project ID: Routine Outfall 004

618 Michillinda Avenue, Suite 200

Arcadia, CA 91007

Report Number: IQI2055

Sampled: 09/22/07

Received: 09/22/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.2	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	N/A	X
EPA 413.1	Water	X	X
SM2540C	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

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta

Samples: IQI2055-01

Weck Laboratories, Inc

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

Method Performed: EPA 245.1 Samples: IQI2055-01

Test America version 04/28/06	meric	A Version	04/28/	Project:	CHAIN OF	CUSTC	CUSTODY FORM	Z X		ANA	ANALYSIS REQUIRED	S C,	Page 1 of
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007	cadia da Avenu 91007	ss. Je, Suite 2	00		NPDES all 004 SRE-1						.dS :slst		Field readings: Temp = $6/.0$
lest America Confact: Nicholas Marz Project Manager: Bronwyn Kelly Sampler: ρ_{oLLoC}	a contact nager: E	Bronwyn F	Kelly	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515	яг. Л		l Recoverable Cd, Cu, Pb, Hg	D (and all cong	. Grease (EPA SO4, NO3+NO	SST,	I Dissolved Me T, pb, Hg, TI		pH= $S_1 +0$ Sample Collection Time = $U_1 \ge S_2$
Sample	Sample	Container	# Of	Sampling Date/Time	Preservative	Bottle *				SQT	Tota ,bO		Comments
Outfall 004	>	1L Poly	-	6	ZHN03	14	×						
Outfall 004- Dup	3	1L Poly	-		HN03	18	×						
Outfall 004	>	1L Amber	2		None	2A, 2B		×					
Outfall 004	>	1L Amber	2		НСІ	3A, 3B		×					
Outfall 004	8	Poly-500 ml	2		None	4A, 4B			×				
Outfall 004	3	Poly-500 ml	2		None	5A, 5B				×			
Outfall 004	3	Poly-1L	-	6	None	9					×		Filter w/in 24hr of receipt at lab
								+					
								+					
								+					
			_										
Relinguished By	N. S.	M	- 7-	Date/Time: 9-22-07 1350		1	Date 7/22	Date/Time: 22/0そ	N-	1350		lum arot 24 Hours	nd Lime: (c
Relinquished B	S	0	. J	Date/Time: 1605	Received By		Dar	Date/Time:	8	i) or	2011	48 Hours 72 Hours	10 Days Normal
Relinquished By	2 2	ζ	<u>-</u>	Date/Time:	Received By		Pa A	Date/Time:	1/6	1		Perchlora	Perchlorate Only 72 Hours
												Metals O	Metals Only 72 Hours
												Sample	Intact On Ice:



October 09, 2007

Vista Project I.D.: 29591

Mr. Nicholas Marz TestAmerica 17461 Derian Ave. Suite 100 Irvine, CA 92614

Dear Mr. Marz,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on September 25, 2007 under your Project Name "IQI2055". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A rush turnaround time was provided for this work.

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

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

Sincerely,

Martha M. Maier Laboratory Director



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



12.7

Section I: Sample Inventory Report Date Received: 9/25/2007

<u>Vista Lab. ID</u> <u>Client Sample ID</u>

29591-001 IQI2055-01

SECTION II

Project 29591 SPDES-306
Page 3 of 256

Method Blan	k					EPA Method 1613
Matrix:	Aqueous	QC Batch No.:	9453	Lab Sample:	O-MB001	
Sample Size:	1.00 L	Date Extracted:	6-Oct-07	Date Analyzed DB-5:	9-Oct-07 Date Ar	nalyzed DB-225: NA
Analyte	Conc. (ug/L)	DL ^a EN	MPC b Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.000000567		<u>IS</u> 13C-2,3,7,8-TCDD	100	25 - 164
1,2,3,7,8-PeCD	DD ND	0.00000789		13C-1,2,3,7,8-PeC	DD 108	25 - 181
1,2,3,4,7,8-Hx0	CDD ND	0.00000150		13C-1,2,3,4,7,8-Hx	CDD 99.0	32 - 141
1,2,3,6,7,8-Hx0	CDD ND	0.000000769		13C-1,2,3,6,7,8-Hx	CDD 96.9	28 - 130
1,2,3,7,8,9-Hx0	CDD ND	0.000000741		13C-1,2,3,4,6,7,8-I	HpCDD 101	23 - 140
1,2,3,4,6,7,8-H	pCDD ND	0.00000168		13C-OCDD	83.7	17 - 157
OCDD	0.000	00168	J	13C-2,3,7,8-TCDF	106	24 - 169
2,3,7,8-TCDF	ND	0.000000781		13C-1,2,3,7,8-PeC	DF 112	24 - 185
1,2,3,7,8-PeCD	OF ND	0.000000768		13C-2,3,4,7,8-PeC	DF 116	21 - 178
2,3,4,7,8-PeCD	OF ND	0.000000724		13C-1,2,3,4,7,8-Hx	CDF 87.6	26 - 152
1,2,3,4,7,8-Hx0	CDF ND	0.00000102		13C-1,2,3,6,7,8-Hx	CDF 83.5	26 - 123
1,2,3,6,7,8-Hx0	CDF ND	0.000000993		13C-2,3,4,6,7,8-Hx	CDF 86.7	28 - 136
2,3,4,6,7,8-Hx0	CDF ND	0.0000106		13C-1,2,3,7,8,9-Hx	CDF 86.9	29 - 147
1,2,3,7,8,9-Hx0	CDF ND	0.00000140		13C-1,2,3,4,6,7,8-I	HpCDF 85.5	28 - 143
1,2,3,4,6,7,8-H	pCDF ND	0.00000208		13C-1,2,3,4,7,8,9-I	HpCDF 91.1	26 - 138
1,2,3,4,7,8,9-Н	pCDF ND	0.00000199		13C-OCDF	82.0	17 - 157
OCDF	ND	0.00000225		<u>CRS</u> 37Cl-2,3,7,8-TCDI	88.9	35 - 197
Totals				Footnotes		
Total TCDD	ND	0.000000567		a. Sample specific estimated dete	ection limit.	
Total PeCDD	ND	0.00000789		b. Estimated maximum possible		
Total HxCDD	ND	0.00000100		c. Method detection limit.		
Total HpCDD	ND	0.00000168		d. Lower control limit - upper co	ntrol limit.	
Total TCDF	ND	0.000000781				
Total PeCDF	ND	0.00000746				
Total HxCDF	ND	0.00000112				
Total HpCDF	ND	0.00000204				

Analyst: JMH Approved By: Martha M. Maier 09-Oct-2007 13:06

OPR Results						EP	A Method 1	1613
Matrix: Sample Size:	Aqueous 1.00 L		QC Batch No.: Date Extracted:	9453 6-Oct-07	Lab Sample: 0-OPR001 Date Analyzed DB-5: 8-Oct-07	Date Analy	zed DB-225:	NA
Analyte		Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD		10.0	9.21	6.7 - 15.8	<u>IS</u> 13C-2,3,7,8-TCDD	93.5	25 - 164	
1,2,3,7,8-PeCD)D	50.0	49.5	35 - 71	13C-1,2,3,7,8-PeCDD	94.6	25 - 181	
1,2,3,4,7,8-Hx0	CDD	50.0	50.1	35 - 82	13C-1,2,3,4,7,8-HxCDD	95.7	32 - 141	
1,2,3,6,7,8-Hx	CDD	50.0	48.2	38 - 67	13C-1,2,3,6,7,8-HxCDD	91.7	28 - 130	
1,2,3,7,8,9-Hx	CDD	50.0	48.0	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	105	23 - 140	
1,2,3,4,6,7,8-H	lpCDD	50.0	49.8	35 - 70	13C-OCDD	102	17 - 157	
OCDD		100	99.0	78 - 144	13C-2,3,7,8-TCDF	92.5	24 - 169	
2,3,7,8-TCDF		10.0	9.46	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	97.9	24 - 185	
1,2,3,7,8-PeCD)F	50.0	47.2	40 - 67	13C-2,3,4,7,8-PeCDF	93.1	21 - 178	
2,3,4,7,8-PeCD)F	50.0	48.3	34 - 80	13C-1,2,3,4,7,8-HxCDF	90.3	26 - 152	
1,2,3,4,7,8-Hx	CDF	50.0	51.0	36 - 67	13C-1,2,3,6,7,8-HxCDF	87.1	26 - 123	
1,2,3,6,7,8-Hx	CDF	50.0	49.9	42 - 65	13C-2,3,4,6,7,8-HxCDF	89.5	28 - 136	
2,3,4,6,7,8-Hx	CDF	50.0	50.4	35 - 78	13C-1,2,3,7,8,9-HxCDF	89.9	29 - 147	
1,2,3,7,8,9-Hx	CDF	50.0	49.4	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	91.5	28 - 143	
1,2,3,4,6,7,8-H	[pCDF	50.0	53.6	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	104	26 - 138	
1,2,3,4,7,8,9-H	[pCDF	50.0	50.2	39 - 69	13C-OCDF	97.4	17 - 157	
OCDF		100	99.4	63 - 170	<u>CRS</u> 37Cl-2,3,7,8-TCDD	83.7	35 - 197	

Analyst: JMH Approved By: Martha M. Maier 09-Oct-2007 13:06

Sample ID: IQI2	055-01								EPA I	Method 1613
Client Data			Sample Data		Lab	oratory Data				
	America		Matrix:	Aqueous	Lab	Sample:	29591-001	Date Re	ceived:	25-Sep-07
Project: IQI2 Date Collected: 22-S	055 ep-07		Sample Size:	1.01 L	QC	Batch No.:	9453	Date Ex	tracted:	6-Oct-07
Time Collected: 1122	cp or				Date	Analyzed DB-5:	8-Oct-07	Date An	alyzed DB-225:	NA
Analyte	Conc. (ug/L)	DL a	EMPC ^b	Qualifiers		Labeled Standa	ard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.000001	18		<u>IS</u>	13C-2,3,7,8-TCI)D	85.6	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000001	90			13C-1,2,3,7,8-Pe	CDD	90.5	25 - 181	
1,2,3,4,7,8-HxCDD	0.00000223			J		13C-1,2,3,4,7,8-1	HxCDD	79.3	32 - 141	
1,2,3,6,7,8-HxCDD	0.00000653			J		13C-1,2,3,6,7,8-l	HxCDD	75.5	28 - 130	
1,2,3,7,8,9-HxCDD	0.00000226			J		13C-1,2,3,4,6,7,8	3-HpCDD	83.5	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.000186					13C-OCDD		73.0	17 - 157	
OCDD	0.00336			В		13C-2,3,7,8-TCI	DF	86.2	24 - 169	
2,3,7,8-TCDF	ND	0.000001	64			13C-1,2,3,7,8-Pe	CDF	93.0	24 - 185	
1,2,3,7,8-PeCDF	ND	0.000001	90			13C-2,3,4,7,8-Pe	CDF	95.7	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000001	74			13C-1,2,3,4,7,8-1	HxCDF	73.7	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000003	58			13C-1,2,3,6,7,8-1	HxCDF	68.7	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000003	71			13C-2,3,4,6,7,8-1	HxCDF	73.1	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000003	95			13C-1,2,3,7,8,9-1	HxCDF	74.8	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000004	99			13C-1,2,3,4,6,7,8	8-HpCDF	75.4	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000332					13C-1,2,3,4,7,8,9	9-HpCDF	82.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000006	98			13C-OCDF		70.3	17 - 157	
OCDF	0.0000774				CRS	37Cl-2,3,7,8-TC	DD	97.5	35 - 197	
Totals					Foo	otnotes				
Total TCDD	ND	0.000001	18		a. Sa	ample specific estimated	d detection limit.			
Total PeCDD	ND	0.000001	90		b. E	stimated maximum poss	sible concentration.			
Total HxCDD	0.0000352				c. M	ethod detection limit.				
Total HpCDD	0.000377				d. L	ower control limit - upp	er control limit.			
Total TCDF	ND	0.000001	64							
Total PeCDF	ND		0.00000	410						
Total HxCDF	0.0000351									
Total HpCDF	0.000129									

Analyst: JMH Approved By: Martha M. Maier 09-Oct-2007 13:06

APPENDIX

Project 29591 Supplemental NPDES-310
Page 7 of 256

DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank.

D Dilution

P The amount reported is the maximum possible concentration due to possible

chlorinated diphenylether interference.

H The signal-to-noise ratio is greater than 10:1.

I Chemical Interference

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

* See Cover Letter

Conc. Concentration

DL Sample-specific estimated detection limit

MDL The minimum concentration of a substance that can be measured and

reported with 99% confidence that the analyte concentration is greater

than zero in the matrix tested.

EMPC Estimated Maximum Possible Concentration

NA Not applicable

RL Reporting Limit – concentrations that correspond to low calibration point

ND Not Detected

TEQ Toxic Equivalency

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica - Irvine, CA **IQI2055**

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB

1104 Windfield Way

El Dorado Hills, CA 95762

Phone: (916) 673-1520 Fax: (916) 673-0106

Project Location: California

Receipt Temperature: 0.4

29591

Analysis	Units	Due	Expires	Comments
Sample ID: IQI2055-01	Water		Sampled: 09/22/07 11:22	temp=61.0, pH=8.40
1613-Dioxin-HR-Alta	ug/l	10/01/07	09/29/07 1 1 :22	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Containers Supplied:				-
1 L Amber (C)	1 L Amber (D)			

Bottoni Spenedict 1/2/07 1241 Released By Received By Date/Time

Date/Time Released By

Date/Time Received By

Page 1 of 1

SAMPLE LOG-IN CHECKLIST



Vista Project #:	29		1]			7	TAT_	1091	pecitied
	Date/Time		221	Initials:	12	Loc	cation	\overline{w}	R-2-
Samples Arrival:	9/25/07	- Di	320	130		Sh	elf/Rac	ck: <u> </u>	1/A
	Date/Time			Initials:		Lo	cation	: h)R-2-
Logged In:	9/25/6	7 1	<i>500</i>	Bo	13	Sh	elf/Rac	ck:	B-4
Delivered By:	FedEx	UI	P\$	Cal	DHL	_	Ha Deliv	ind vered	Other
Preservation:	dce)	В	Blue Ice	Dr	у Ісє)		None
Temp °C	.4	Time	: (0848		The	ermon	neter l	D : IR-1
						•			

				Y	∕EŞ⁄	NO	NA
Adequate Sample Volume Recei	ved?				V/		
Holding Time Acceptable?				٨			
Shipping Container(s) Intact?			v	1	/		
Shipping Custody Seals Intact?	* .	· .			,		V
Shipping Documentation Present	t?				V		
Airbill Trk# 7	90344	1/01655			V		
Sample Container Intact?					V		
Sample Custody Seals Intact?		_			/		V
Chain of Custody / Sample Docu	mentation P	resent?					
COC Anomaly/Sample Acceptar	ice Form con	npleted?				V	
If Chlorinated or Drinking Water	Samples, Ac	ceptable Preser	vation?				V
Na ₂ S ₂ O ₃ Preservation Document	ted?	coc	Samp Contair			None	
Shipping Container	Vista	Client	Retain (Retu	ırn)	Disp	oose

Comments:



Weck Laboratories, Inc.

Analytical Laboratory Services - Since 1964

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

CERTIFICATE OF ANALYSIS

TestAmerica, Inc. - Irvine **Client:**

Report Date:

09/28/07 15:36

17461 Derian Ave, Suite 100

Received Date:

09/24/07 09:00

Irvine, CA 92614

Turn Around:

Normal

Attention: Nicholas Marz

Work Order #:

7092405

Phone: (949) 261-1022

Fax: (949) 260-3297

Client Project: IQI2055

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

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

Dear Nicholas Marz:

Enclosed are the results of analyses for samples received 09/24/07 09:00 with the Chain of Custody document. The samples were received in good condition. The samples were received at 2.3 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager



Page 1 of 6



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7092405 Project ID: IQI2055 Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQI2055-01	Client		7092405-01	Water	09/22/07 11:22



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7092405 Project ID: IQI2055 Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:36

IQI2055-01 7092405-01 (Water)

Date Sampled: 09/22/07 11:22

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed		Data Qualifiers
Mercury, Dissolved	0.055	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07	jlp	J
Mercury, Total	0.23	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07	jlp	



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

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

Irvine CA, 92614

Report ID: 7092405 Project ID: IQI2055 Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:36

QUALITY CONTROL SECTION



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7092405 Project ID: IQI2055 Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:36

Metals by EPA 200 Series Methods - Quality Control

%REC

		D (0.1	G.		0/DEC		DDD	D.
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7I1160 - EPA 245.1										
Blank (W7I1160-BLK1)				Analyzed	09/27/07					
Mercury, Total	ND	0.10	ug/l							
Mercury, Dissolved	ND	0.10	ug/l							
LCS (W7I1160-BS1)			Analyzed:	09/27/07						
Mercury, Total	1.05	0.10	ug/l	1.00		105	85-115			
Mercury, Dissolved	1.05	0.10	ug/l	1.00		105	85-115			
Matrix Spike (W7I1160-MS1)	Source: 7092457-10		Analyzed: 09/27/07							
Mercury, Total	1.07	0.10	ug/l	1.00	ND	107	70-130			
Mercury, Dissolved	1.07	0.10	ug/l	1.00	ND	107	70-130			
Matrix Spike (W7I1160-MS2)	Source: 7092457-11		Analyzed: 09/27/07							
Mercury, Total	1.04	0.10	ug/l	1.00	ND	104	70-130			
Mercury, Dissolved	1.04	0.10	ug/l	1.00	ND	104	70-130			
Matrix Spike Dup (W7I1160-MSD1)	Source: 7092457-10		Analyzed: 09/27/07							
Mercury, Total	1.05	0.10	ug/l	1.00	ND	105	70-130	2	20	
Mercury, Dissolved	1.05	0.10	ug/l	1.00	ND	105	70-130	2	20	
Matrix Spike Dup (W7I1160-MSD2)	So	Source: 7092457-11		Analyzed: 09/27/07						
Mercury, Total	1.04	0.10	ug/l	1.00	ND	104	70-130	0	20	
Mercury, Dissolved	1.04	0.10	ug/l	1.00	ND	104	70-130	0	20	



Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745

Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Report ID: 7092405 Project ID: IQI2055

Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:36

Notes and Definitions

Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

% Rec Percent Recovery

Sub Subcontracted analysis, original report available upon request

MDL Method Detection Limit

MDA Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

SUBCONTRACT ORDER

TestAmerica - Irvine, CA IQI2055

7092405

°C

SENDING LABORATORY:

TestAmerica - Irvine, CA

17461 Derian Avenue. Suite 100

Irvine, CA 92614

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

Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Weck Laboratories, Inc-SUB 14859 E. Clark Avenue City of Industry, CA 91745 Phone :(626) 336-2139

Fax: (626) 336-2634

Project Location: California

Receipt Temperature:

Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IQI2055-01	Water		Sampled: 09/22/07 1	1:22 temp=61.0, pH=8.40
Level 4 Data Package - We	c N/A	10/01/07	10/20/07 11:22	
Mercury - 245.1, Diss -OUT	mg/l	10/01/07	10/20/07 11:22	Weck, Boeing, J flags
Mercury - 245.1-OUT	mg/l	10/01/07	10/20/07 11:22	Weck,Boeing, permit, J flags, if result>ND,call TA
Containers Supplied:	12500			
125 mL Poly w/HNO3	500-mL Poly	w/HNO3		
(L)	M)			

Released By

Date/Time/

Receive

Received By
Received By

Date/Time

900

Page 1 of 1

7.30

NPDES-321