# **APPENDIX G**

# Section 7

Outfall 006, September 22, 2007 MEC<sup>X</sup> Data Validation Reports

	CX, LLC	Package ID IQI2056
	50 East Vassar Drive	Task Order 1261.100D.00 001
	e 500	SDG No. IQI2056
Lake	ewood, CO 80226	No. of Analyses 1
	Laboratory Vista Analy	
	Reviewer E. Wessling	
	Analysis/Method Dioxins/Fu	rans Bobe Willies
ACI	TION ITEMS <sup>a</sup>	
•	Case Narrative	
	Deficiencies	
-	0	
2.	Out of Scope	
	Analyses	
3.	Analyses Not Conducted	
4.	Missing Hardcopy	
	Deliverables	
5.	Incorrect Hardcopy	
	Deliverables	
6.	Deviations from Analysis	Qualifications were assigned for the following:
0.	Protocol, e.g.,	Quanteacors were assigned for the following.
	Holding Times	- Blank qualifications
	GC/MS Tune/Inst. Performance	- Dank quantearons
	Calibration	
	Method blanks	
	Surrogates	
	Matrix Spike/Dup LCS	
	Field QC	
	Internal Standard Performance	
	Compound Identification	
	Quantitation	
CO	System Performance OMMENTS <sup>b</sup>	1
cu	MINIENTS	

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

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### CONTRACT COMPLIANCE SCREENING FORM FOR HARDCOPY DATA

MEC <sup>X</sup>	Task Order:	1261.100D.00
12269 East Vassar Drive	SDG No .:	IQI2056
Aurora, CO 80014	No. of Analyses:	1

Laboratory: TestAmerica, Weck, Eberline	Date: October 21, 2007
Reviewer: P. Meeks	Reviewer's Signature
Analysis/Method: Metals, General Minerals, Radionuclides	P. Mas

73	Case Narrative Deficiencies	
2.	Out of Scope Analyses	
3.	Analyses Not Conducted	
-	Missing Handson	
4.	Missing Hardcopy Deliverables	
	Dellaciables	
5.	Incorrect Hardcopy	
(Capperson	Deliverables	
6.	Deviations from Analysis	Detect below the reporting limit qualified as estimated.
	Protocol, e.g.,	Qualifications applied for calibration outlier.
	Holding Times	Qualification applied for exceeded holding time.
	GC/MS Tune/Inst. Performance	
	Calibration	
	Method blanks	
	Surrogates	
	Matrix Spike/Dup LCS	
	Field QC	
	Internal Standard Performance	
	Compound Identification	
	Quantitation	
	System Performance	
co	MMENTS <sup>b</sup>	



# DATA VALIDATION REPORT

# Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IQI2056

Prepared by

MEC<sup>x</sup>, LLC 12269 East Vassar Drive Aurora, CO 80014

### I. INTRODUCTION

Task Order Title: Contract Task Order:	Boeing SSFL NPDES 1261.100D.00
Sample Delivery Group:	IQI2056
Project Manager:	P. Costa
Matrix:	Waterl
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 006	IQI2056-01	7092406-01, 8670-01	Water	9/22/07 1230	160.2, 314.0, 245.1, 900.0, 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  $4^{\circ}C \pm 2^{\circ}C$ . The sample was received at the sub-laboratory, Vista, below the temperature limit at  $0.4^{\circ}C$ ; however, as the sample was not noted to be damaged or frozen, no qualifications were required. 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 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. The client ID was added to the sample result summaries by the reviewer.

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.
Ν	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 Qualifier 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.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
Μ	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**

### **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.
Ρ	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*11, *111	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

### **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  $MEC^{X}$  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.
  - 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.
  - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
  - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.

- Blanks: The method blank had a detect for OCDD above the EDL. The concentration reported in sample Outfall 006 was less than five times the concentration reported in the method blank; therefore, the sample detect was qualified as a nondetect, "U," at the level of contamination. No further qualifications were required.
- 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. Nondetects are valid to the estimated detection limit (EDL). No target compounds were detected in the site sample.

### 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<sup>x</sup>* 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.

- Calibration: Calibration criteria were met. Mercury initial calibration r<sup>2</sup> 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, mercury in Outfall 006 was qualified as estimated, "J," for detected total mercury and, "UJ," for nondetected dissolved mercury.
- 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.

### C. EPA METHODS 901.1, 905.0—Radionuclides

Reviewed By: P. Meeks Date Reviewed: October 21, 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 exceeded by one day. Gross beta reported in the sample was qualified as estimated, "J."
- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability. Initial calibrations for gross beta were checked. The detector efficiency was above 20%. All other initial calibration and calibration verification information was acceptable.
- Blanks: Gross beta was not reported above the MDA in the method blank.
- Blank Spikes and Laboratory Control Samples: The recovery was within laboratoryestablished control limits of 113-120%.
- Laboratory Duplicates: No duplicate analysis was performed for the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed for the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample result and MDA reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Reported nondetects are valid to the MDA.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
  - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
  - Field Duplicates: There were no field duplicate samples identified for this SDG.

### D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks Date Reviewed: 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 r<sup>2</sup> 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: IQI	2056-01	Q	AH.	3 20	do					EPA N	Aethod 1613
Project: IQI	tAmerica 2056 Sep-07 0		<u>o qu</u>	Sample Data Matrix: Sample Size:	Aqueous 1.00 L	Lab QC	ooratory Data Sample: Batch No.: e Analyzed DB-5:	29587-001 9453 9-Oct-07	Date Re Date Ex Date An		25-Sep-07 6-Oct-07 NA
Analyte	Conc. (	(ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers		Labeled Stan	dard	%R	LCL-UCL <sup>d</sup>	Oualifiers
2,3,7,8-TCDD	ND	U	0.000000	0861		IS	13C-2,3,7,8-TC	DD	89.2	25 - 164	36 F (25)
1,2,3,7,8-PeCDD	ND	1	0.000001	15			13C-1,2,3,7,8-P	PeCDD	92.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	.	0.000004	410			13C-1,2,3,4,7,8	-HxCDD	79.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND		0.000001	66			13C-1,2,3,6,7,8	-HxCDD	79.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.000001	61		1953	13C-1,2,3,4,6,7	,8-HpCDD	78.1	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	V	0.000003	82			13C-OCDD		67.9	17 - 157	
OCDD	0.0000	1540 UB			В		13C-2,3,7,8-TC	DF	89.3	24 - 169	
2,3,7,8-TCDF	ND	U	0.000001	21			13C-1,2,3,7,8-P	eCDF	93.4	24 - 185	
1,2,3,7,8-PeCDF	ND	1	0.000001	21		2011	13C-2,3,4,7,8-P	eCDF	91.2	21 - 178	
2,3,4,7,8-PeCDF	ND		0.000001	25			13C-1,2,3,4,7,8	-HxCDF	72.3	26 - 152	
1,2,3,4,7,8-HxCDF	ND		0.000001	68		1.622	13C-1,2,3,6,7,8	-HxCDF	69.8	26 - 123	
1,2,3,6,7,8-HxCDF	ND		0.000001	64			13C-2,3,4,6,7,8	-HxCDF	67.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND		0.000001	95		343	13C-1,2,3,7,8,9	-HxCDF	69.1	29 - 147	
1,2,3,7,8,9-HxCDF	ND		0.000002	62			13C-1,2,3,4,6,7	,8-HpCDF	67.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND		0.000003	47			13C-1,2,3,4,7,8,	,9-HpCDF	72.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	1	0.000003	56			13C-OCDF		65.0	17 - 157	
OCDF	ND	V	0.000004	94		CRS	37Cl-2,3,7,8-TC	CDD	94.3	35 - 197	
Totals						Foo	tnotes				
Total TCDD	ND	U	0.000000	861		a, Sa	mple specific estimate	ed detection limit.			
Total PeCDD	ND	1	0.000001	15		b. Es	timated maximum pos	ssible concentration.			
Гotal HxCDD	ND		0.000002	46		c. M	ethod detection limit.				
Total HpCDD	ND		0.000003	82		d. Lo	wer control limit - up	per control limit.			
Total TCDF	ND		0.000001	21							
Total PeCDF	ND		0.000001	23							
Total HxCDF	ND		0.000001	97							
Fotal HpCDF	ND	Y	0.000003	52	A TRACE						

Analyst: JMH

heralt

Approved By:

William J. Luksemburg 09-Oct-2007 13:04



TestAmerica, Inc. - Irvine 17461 Derian Ave, Suite 100 Irvine CA, 92614 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:37

### Report ID: 7092406 Project ID: IQI2056

OUTFALL 006

IQI2056-01 7092406-01 (Water)

Date Sampled: 09/22/07 12:30

#### 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 UJ/R	ND	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07	jlp	1
Mercury, Total J/DNQ, R	0.027	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07	jlp	

LEVEL IV

Weck Laboratories, Inc Kim G Tu, Project Manager The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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### Eberline Services

ANALYSIS RESULTS

SDG <u>8670</u> Work Order <u>R709:</u> Received Date <u>09/2</u>	146-01			TA IRVINE PROJECT# IQI2050 WATER	5	<u></u>
		TFALL 00	6		· · · · · · · · · · · · · · · · · · ·	
lient mple ID	Lab <u>Sample ID</u>	Collected Analyzed	Nuclide	<u>Results ± 20</u>	Units	MDA
Q12056-01 J/H	8670-001	09/22/07 10/01/07	Gross Beta	13.0 ± 2.0	pCi/L	2.3

LEVEL IV

Certified by Moli Mari Report Date <u>10/02/07</u> Page 1 **TestAmeric** 

#### THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Bo		Project ID:	Routine O	utfall 006						
618 Michillinda Ave Arcadia, CA 91007 Attention: Bronwyn		Repo	rt Number:	IQI2056			0.0	09/22/07 09/22/07	21. 21.	
			IN	ORGA	NICS					
Analyte		Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQI2056-		Water) - cont.								
Reporting Units: Chloride	mg/i	EPA 300.0	7124057	2.5	5.0	62	10	09/24/07	09/24/07	

0.15

1.1

0.20

10

0.26

4.7

0.50

10

2.5

ND

23

320

1

1

1

1

09/24/07

09/25/07

09/24/07

09/27/07

09/25/07

10/03/07

09/24/07

09/25/07

09/24/07

09/27/07

09/25/07

10/03/07

7124057

7125056

7124057

7127118

Total Suspended	Solids	EPA 160.2	7125131	10	10	26	1	0
Sample ID: IQI2	056-01 (Outfall 00	6 - Water)	( <b>.</b> .)					
Reporting U	nits: ug/l							
Perchlorate	()	EPA 314.0	7J03062	1.5	4.0	ND	I	1
	V			XA	nalysis	not u	alidate	d

EVEL IV

EPA 300.0

EPA 413.1

EPA 300.0

SM2540C

TestAmerica - Irvine, CA

Joseph Doak Project Manager

Nitrate/Nitrite-N

**Total Dissolved Solids** 

Oil & Grease

Sulfate

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

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IQ12056 <Page 4 of 15>

# APPENDIX G

# Section 8

Outfall 006, September 22, 2007 Test America Analytical Laboratory Report

# <u>TestAmerica</u>

#### THE LEADER IN ENVIRONMENTAL TESTING

## LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project: Routine Outfall 006

Sampled: 09/22/07 Received: 09/22/07 Issued: 10/16/07 09:33

### 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

IQI2056-01

**CLIENT ID** Outfall 006 MATRIX Water

Reviewed By:

Joseph Dock

**TestAmerica - Irvine, CA** Joseph Doak Project Manager



		META	LS Reporting	Sampla	Dilution	Date	Date	Data	
618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly	Report Number:				Sampled: Received:	09/22/07 09/22/07			
MWH-Pasadena/Boeing	Project ID:	Routine O	utfall 006						

Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Date Analyzed	Qualifiers
Sample ID: IQI2056-01 (Outfall 00	06 - Water)								
Reporting Units: ug/l									
Antimony	EPA 200.8	7125136	0.20	2.0	0.60	1	09/25/07	09/26/07	Ja
Cadmium	EPA 200.8	7125136	0.11	1.0	0.27	1	09/25/07	09/26/07	Ja
Copper	EPA 200.8	7I25136	0.75	2.0	5.9	1	09/25/07	09/26/07	
Lead	EPA 200.8	7I25136	0.10	1.0	1.3	1	09/25/07	09/26/07	
Thallium	EPA 200.8	7125136	0.15	1.0	ND	1	09/25/07	09/26/07	

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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: IQI2056-01 (Outfall 006 - V	Water) - cont.											
<b>Reporting Units: ug/l</b>												
Antimony	EPA 200.8-Diss	7I24137	0.20	2.0	0.59	1	09/24/07	09/25/07	Ja			
Cadmium	EPA 200.8-Diss	7124137	0.11	1.0	0.18	1	09/24/07	09/25/07	Ja			
Copper	EPA 200.8-Diss	7I24137	0.75	2.0	4.3	1	09/24/07	09/25/07				
Lead	EPA 200.8-Diss	7124137	0.10	1.0	0.13	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				

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: IQI2056-01 (Outfall 006 - Wa Reporting Units: mg/l	ter) - cont.										
Chloride	EPA 300.0	7124057	2.5	5.0	62	10	09/24/07	09/24/07			
Nitrate/Nitrite-N	EPA 300.0	7124057	0.15	0.26	2.5	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	23	1	09/24/07	09/24/07			
Total Dissolved Solids	SM2540C	7127118	10	10	320	1	09/27/07	09/27/07			
Total Suspended Solids	EPA 160.2	7I25131	10	10	26	1	09/25/07	09/25/07			
Sample ID: IQI2056-01 (Outfall 006 - Wa Reporting Units: ug/l	,	71020 (2	1.5				10/02/07	10/02/05			
Perchlorate	EPA 314.0	7J03062	1.5	4.0	ND	1	10/03/07	10/03/07			

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MWH-Pasadena/Boeing	Project ID:	Routine Outfall 006			
618 Michillinda Avenue, Suite 200			Sampled:	09/22/07	
Arcadia, CA 91007	Report Number:	IQI2056	Received:	09/22/07	
Attention: Bronwyn Kelly					
					_

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: IQI2056-01 (Outfall 006 - Wate	er) - cont.											
Reporting Units: ug/l												
Mercury, Dissolved	EPA 245.1	W7I1160	0.025	0.10	ND	1	09/27/07	09/27/07				
Mercury, Total	EPA 245.1	W7I1160	0.025	0.10	0.027	1	09/27/07	09/27/07	J			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

Sampled: 09/22/07 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 006 (IQI2056-01) - Water					
EPA 300.0	2	09/22/2007 12:30	09/22/2007 16:05	09/24/2007 07:00	09/24/2007 09:59

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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	)										
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 (7125	5136-MS1)				Sou	irce: IQI2	2053-01				
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 (7125	5136-MS2)				Sou	irce: 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	2053-01				
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



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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											
	174)										
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-MS	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	
				-							

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

**METHOD BLANK/QC DATA** 

### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7124057 Extracted: 09/24/07											
Blank Analyzed: 09/24/2007 (7124057-BL	<b>K</b> 1)										
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 (7I24057-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	(7I24057-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: 7125056 Extracted: 09/25/07											
Blank Analyzed: 09/25/2007 (7125056-BL	<b>K</b> 1)										
Oil & Grease	ND	5.0	1.2	mg/l							
				U							MNR1
LCS Analyzed: 09/25/2007 (7I25056-BS1 Oil & Grease	) 20.2	5.0	1.2	mg/l	20.0		101	65-120			MINKI
		5.0	1.4	1116/1	20.0		101	55 120			
LCS Dup Analyzed: 09/25/2007 (7125056	,										
Oil & Grease	20.0	5.0	1.2	mg/l	20.0		100	65-120	1	20	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

METHOD BLANK/QC DATA

### **INORGANICS**

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7I25131 Extracted: 09/25/07	_										
Blank Analyzed: 09/25/2007 (7125131-B	LK1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 09/25/2007 (7I25131-BS)	1)										
Total Suspended Solids	1060	10	10	mg/l	1000		106	85-115			
Duplicate Analyzed: 09/25/2007 (712513)	1-DUP1)				Sou	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	LK1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 09/27/2007 (7I27118-BS)	1)										
Total Dissolved Solids	998	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 09/27/2007 (712711	8-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-B	LK1)										
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 10/03/2007 (7J03062-BS	1)										
Perchlorate	51.7	4.0	1.5	ug/l	50.0		103	85-115			

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

**METHOD BLANK/QC DATA** 

### **INORGANICS**

Analyte <u>Batch: 7J03062 Extracted: 10/03/(</u>	Result	Reporting Limit	MDL	Units	Spike Level	Source Result		%REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Analyzed: 10/03/2007 (7.	103062-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: 10/03/20	)7 (7J03062-M	(SD1)			Sou	rce: IQI2	2029-08				
Perchlorate	49.7	4.0	1.5	ug/l	50.0	ND	99	80-120	6	20	

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

### **METHOD BLANK/QC DATA**

### Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
·		Linit		emis	Level	itesuit	/unec	Linits	IN D	Linit	Quanners
Batch: W7I1160 Extracted: 09/27/07	<u> </u>										
Blank Analyzed: 09/27/2007 (W7I1160-E	LK1)										
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)		Source: 7092457-10								
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	5D1)			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	

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

### **Compliance Check**

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

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IQI2056-01	413.1 Oil and Grease	Oil & Grease	mg/l	0.66	4.7	15
IQI2056-01	Antimony-200.8	Antimony	ug/l	0.60	2.0	6.00
IQI2056-01	Antimony-200.8, Diss	Antimony	ug/l	0.59	2.0	6.00
IQI2056-01	Cadmium-200.8	Cadmium	ug/l	0.27	1.0	4.00
IQI2056-01	Cadmium-200.8, Diss	Cadmium	ug/l	0.18	1.0	4.00
IQI2056-01	Chloride - 300.0	Chloride	mg/l	62	5.0	150
IQI2056-01	Copper-200.8	Copper	ug/l	5.87	2.0	14
IQI2056-01	Copper-200.8, Diss	Copper	ug/l	4.33	2.0	14
IQI2056-01	Lead-200.8	Lead	ug/l	1.32	1.0	5.20
IQI2056-01	Lead-200.8, Diss	Lead	ug/l	0.13	1.0	5.20
IQI2056-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	2.50	0.26	10.00
IQI2056-01	Sulfate-300.0	Sulfate	mg/l	23	0.50	250
IQI2056-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	315	10	850
IQI2056-01	Thallium-200.8	Thallium	ug/l	0.071	1.0	2.00
IQI2056-01	Thallium-200.8, Diss	Thallium	ug/l	0	1.0	2.00

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

### **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

TestAmerica - Irvine, CA



MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Routine Outfall 006

Report Number: IQI2056

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

**Certification Summary** 

#### TestAmerica - Irvine, CA

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

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**

#### **Eberline Services - SUB**

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gross Beta Samples: IQI2056-01

Analysis Performed: Radium, Combined Samples: IQI2056-01

Analysis Performed: Strontium 90 Samples: IQI2056-01

Analysis Performed: Tritium Samples: IQI2056-01

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: IQI2056-01

### Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745 Method Performed: EPA 245.1 Samples: IQI2056-01

TestAmerica - Irvine, CA

Page 1 of 1		Field readings:	Temp = 54 4	707 =Hd	Sample Collection Time = {23e	Comments							unfiltered and unpreserved analysis	Filter w/in 24hr of receipt at lab			Turn around Time: (check) 24 Hours 5 Days	10 Days	Perchlorate Only 72 Hours	Sample Integrity: (Check) On Ice: Con Ice:
	D																Turn around 24 Hours	48 Hours 72 Hours	Perchlorate Only 72 H Metals Only 72 Hours	Sample Integ Intact
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o <mark>DY</mark>		:s	, TI,	ph, Hg rable I	il Recove Cd, Cu, F	sto⊺ ,dS	×	Х												
TAT 2056 OF CUSTO						Bottle * #	1A	1B	2A, 2B	3A, 3B	4A, 4B	5A, 5B	6A, 6B, 6C, 6D, 6E, 6F, 6G, 6H, 6I, 6J	7				Ex l		
IGT 2056 CHAIN OF CUSTODY FORM		IPDES 1 006	-SUF-Z			Preservative	HNO3	HN03	None	HCI	None	None	None	None			Received By	Received By	Received By	
CHA	ect:	Boeing-SSFL NPDES Routine Outfall 006	mwater at r	Phone Number	(626) 568-6515 (626) 568-6515	Sampling Date/Time	10.17							82-67 2:30			Je:	Time: 1605	.e.	
06	Project:	Roe Roe		Pho	626 (626	ļ	6							2			ダィンノーク Date/Time:	Date/Time: 22/07	Date/Time:	
ן 04/28,		00	Ho M	Kelly		Cont.	-	-	2	5	2	2	<del>ი</del> თ	-			1-07	6	<b>-</b>	
<b>a</b> Version	SS:	ue, Suite 2	t. Nishala	r: Nicholas Bronwyn	6.0	Container Tvpe	1L Poly	1L Poly	1L Amber	1L Amber	Poly-500 ml	Poly-500 ml	2.5 Gal Cube 40 ml Amber Voa	Poly-1L			6-23	) ) l		
meric	ie/Addre	Cadia Ida Aven	V 91007	a contac	2 On-	Sample Matrix	3	3	3	8	N	>	3	8			By		By	
Test America version 04/28/06	Client Name/Address:	MWH-Arcadia 618 Michillinda Avenue, Suite 200	Arcadia, C/	Test America Contact: Nicholas Marz Project Man ager: Bronwyn Kelly	Sampler: R On - 7 6 3	Sample Description	Outfall 006	Outfall 006- Dup	Outfall 006	Outfall 006	Outfall 006	Outfall 006	Outfall 006	Outfall 006			Relinquished By	Relinquished By	Relinquished By	

5 (



October 2, 2007

Ms. Trupti Mistry Project Manager Test America, Inc. 17461 Derian Avenue, Suite 100 Irvine, CA 92614

Reference: Test America Project No. IQI2056 Eberline Services NELAP Cert #01120CA (exp. 01/31/08) Eberline Services Report R709146-8670

Dear Ms. Mistry:

Enclosed are results from the analyses of one water sample received at Eberline Services on September 25, 2007. The sample was analyzed according to the accompanying Test America Subcontract Order Form. The requested analysis was gross beta (EPA900.0). The sample was not filtered prior to analysis. Quality control samples consisted of an LCS, blank analysis, duplicate analysis, and matrix spike. All QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melion Marm

Melissa Mannion Senior Program Manager

MCM/

Enclosure: Report Subcontract Form Receipt checklist

> Analytical Services 2030 Wright Avenue P.O. Box 4040 Richmond, California 94804-0040 (510) 235-2633 Fax (510) 235-0438 Toll Free (800) 841-5487 www.eber**NPDES**4**356** om

### Eberline Services

### ANALYSIS RESULTS

	<u>8670</u> R709146-01 09/25/07			TA IRVINE PROJECT# IQI2056 WATER	5	
Client Sample ID	Lab Sample ID	Collected Analyzed	Nuclide	<u>Results ± 20</u>	Units	MDA

IQI2056-01 8670-001 09/22/07 10/01/07 Gross Beta 13.0 ± 2.0 pCi/L 2.3

Certified by Meli Mari
Report Date <u>10/02/07</u>
Page 1

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	SDG <u>8670</u> k Order <u>R709146</u> ed Date <u>09/25/0</u>				Client Contract Matrix			056		
Lab Sample ID	Nuclide	Results	Units	Amount	Added	MDA	<u>E</u>	valuation		
LCS 8669-002	Gross Beta	8.58 ± 0.69	pCi/Sm)	ol 9.4	48	0.56	9	1% recove	ry	
<u>BLANK</u> 8669-003	Gross Beta	0.116 ± 0.46	pCi/Smj	pl 1	NA	0.76	<	MDA		
	DUPLICATES				ORIGINALS	5			3о	
<u>Sample ID</u> 8669-004	<u>Nuclide</u> Gross Beta	<u>Results ± 20</u> 476 ± 83	<u>MDA</u> 95	<u>Sample ID</u> 8669-001	<u>Results</u> 426 <u>±</u>		<u>MDA</u> 140	<u>RPD</u> (T)	<u>ot)</u> <u>Eval</u> 60 satis.	
	SPIKED SAMPLE			OR:	IGINAL SAM	1PLE				
<u>Sample ID</u> 8669-005	<u>Nuclide</u> Gross Beta	<u>Results ± 20</u> 3580 ± 160	<u>MDA</u> 90	<u>Sample ID</u> 8669-001	<u>Results</u> 426 ±		<u>MDA</u> 140	<u>Added</u> 2920	<u>%Recv</u> 108	

## QC RESULTS

~ Certified by Meli Marm Report Date <u>10/02/07</u>

Page 2



## SUBCONTRACT ORDER - PROJECT # IQI2056

8670

RECEIVING LABORATORY:				
Eberline Services - SUB				
2030 Wright Avenue				
Richmond, CA 94804				
Phone :(510) 235-2633				
Fax: (510) 235-0438				
Project Location: California				

Standard TAT is req	uested unless specific due date is reques	sted. => Due Date:	Initials:
Analysis	Expiration		Comments
Sample ID: IQI2056-01	Water Sampled: 09/22/07 12:30	Temp=64.4, pH=7.02	
Gross Beta-O	03/20/08 12:30		DONT FILTER, 900.0, RESULT>50 pCi/L, run Rad 226&228
Radium, Combined-O	09/21/08 12:30		HOLD for G A&B results; EPA 903.1&904.0,NO FILTER
Strontium 90-O	09/21/08 12:30		HOLD for Ra 226&228 results, EPA 905.0, DONT FILTER
Tritium-O	09/21/08 12:30		HOLD for Ra 226&228 results, EPA 906.0, DONT FILTER
<b>Containers Supplied:</b>			
	1N)		
✓40 mL Amber Voa Vial	(IQI2056-01O)		
∠40 mL Amber Voa Vial	(IQI2056-01P)		
✓40 mL Amber Voa Vial	(IQI2056-01Q)		
∠40 mL Amber Voa Vial	(IQI2056-01R)		
∠ 40 mL Amber Voa Vial	(IQI2056-01S)		
🥏 40 mL Amber Voa Vial	(IQI2056-01T)		
240 mL Amber Voa Vial	(IQI2056-01U)		
_ 40 mL Amber Voa Vial	(IQI2056-01V)		
, 40 mL Amber Voa Vial	(IQI2056-01W)		

	SAM	PLE INTEGRITY:		
All containers intact: Yes No Custody Seals Present: Yes Yes No	Sample labels/COC ag Samples Preserved Pro		Samples Received On Ice:: Samples Received at (temp):	Yes No
	4-24+117a)		012507	
Released By	Date / Time-	Received By	Date	Time
Released By	Date Time	Received By	Date	Time
				Page 1 of 1

	BERLINE		DND, CA LABOR LE RECEIPT CHECKLI			
Clien	t: TEST AND	STUCA	_City(MINE	St	ateA	
Date/	Time received 9/25/	of 09- 200 1	1012056			
Conta	ainer I.D. No. 100 Cr	Requeste	d TAT (Days) P.	O. Received Ye	es[] No[	]
			INSPECTION			
1.	Custody seals on s	shipping container	intact?		No[]] 1	
2.	Custody seals on s	shipping container	dated & signed?	Yes [	No[] N	V/A [¥]
3.	Custody seals on s	ample containers	intact?	Yes[]	No[] N	√A [¥]
4	Custody seals on s	ample containers	dated & signed?		No[] N	V/A [X]
5.	Packing material is	2 2	ł	Wet [ ]	Dry [ 🌾 ]	
6.			iner: Sample			
7			(Or see C			
8.	Samples are in cor	rect container	Yes [ <b>V</b> ]	No [ ]		
9.	Paperwork agrees		Yes [火]			
10.			labels [ ] Rad labels [			
11.			C] Leaking [] Br		-	
12.	Samples are: Pre	served [ ] Not p	preserved [ $\chi$ ] pH	_ Preservative		
14.	Was P.M. notified	· /	Yes [ ] Date: ۲۶ ح	No[] Date		
<u> </u>	stomer	mR/hr	Customer Wide No.		mR/hr	wipe
	nple No. com					
	npie No. com			4	t.	
				:		
	npie No. com					
	npie No. com					
	npie No. com					
San						
Cha	amber Ser. No		Calibration	date		

Beta/Gamma	M	eter	Ser	No	
	101	CICI	Jei.	INU.	-

Form SCP-02, O6-24-05

\_\_\_\_\_

Calibration date \_\_\_\_\_

ûF



October 09, 2007

Vista Project I.D.: 29587

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 "IQI2056". 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,

Marcus Mare

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: 9/25/2007

<u>Vista Lab. ID</u>

Client Sample ID

29587-001

IQI2056-01

**SECTION II** 

Method Blan	k									EPA Method 1613
Matrix:	Aqueous		QC Batch No.:	94	153	Lab	Sample:	0-MB001		
Sample Size:	1.00 L		Date Extracted	: 6-	Oct-07	Date	Analyzed DB-5:	9-Oct-07	Date An	alyzed DB-225: NA
Analyte	Conc.	(ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers		Labeled Standa	rd	%R	LCL-UCL <sup>d</sup> Qualifiers
2,3,7,8-TCDD		ND	0.000000567			IS	13C-2,3,7,8-TCI	DD	100	25 - 164
1,2,3,7,8-PeCE	DD	ND	0.000000789				13C-1,2,3,7,8-Pe	eCDD	108	25 - 181
1,2,3,4,7,8-Hx	CDD	ND	0.00000150				13C-1,2,3,4,7,8-	HxCDD	99.0	32 - 141
1,2,3,6,7,8-Hx		ND	0.000000769				13C-1,2,3,6,7,8-	HxCDD	96.9	28 - 130
1,2,3,7,8,9-Hx		ND	0.000000741				13C-1,2,3,4,6,7,	8-HpCDD	101	23 - 140
1,2,3,4,6,7,8-H		ND	0.00000168				13C-OCDD	-	83.7	17 - 157
OCDD	1	0.0000168			J		13C-2,3,7,8-TCI	DF	106	24 - 169
2,3,7,8-TCDF		ND	0.000000781				13C-1,2,3,7,8-Pe	eCDF	112	24 - 185
1,2,3,7,8-PeCE	DF	ND	0.000000768				13C-2,3,4,7,8-Pe	eCDF	116	21 - 178
2,3,4,7,8-PeCD		ND	0.000000724				13C-1,2,3,4,7,8-	HxCDF	87.6	26 - 152
1,2,3,4,7,8-Hx		ND	0.00000102				13C-1,2,3,6,7,8-	HxCDF	83.5	26 - 123
1,2,3,6,7,8-Hx		ND	0.000000993				13C-2,3,4,6,7,8-	HxCDF	86.7	28 - 136
2,3,4,6,7,8-Hx	CDF	ND	0.00000106				13C-1,2,3,7,8,9-	HxCDF	86.9	29 - 147
1,2,3,7,8,9-Hx	CDF	ND	0.00000140				13C-1,2,3,4,6,7,	8-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-HpCDF	91.1	26 - 138
1,2,3,4,7,8,9-H	-	ND	0.00000199				13C-OCDF	_	82.0	17 - 157
OCDF	-	ND	0.00000225			CRS	37Cl-2,3,7,8-TC	DD	88.9	35 - 197
Totals						Foot	notes			
Total TCDD		ND	0.000000567			a. San	ple specific estimated	detection limit.		
Total PeCDD		ND	0.000000789			b. Est	mated maximum possi	ble concentration.		
Total HxCDD		ND	0.00000100			c. Me	hod detection limit.			
Total HpCDD		ND	0.00000168			d. Lov	ver control limit - uppe	r control limit.		
Total TCDF		ND	0.000000781							
Total PeCDF		ND	0.000000746							
Total HxCDF		ND	0.00000112							
Total HpCDF		ND	0.00000204							

Analyst: JMH

OPR Results					EP	A Method 1	613
Matrix: Aqueous Sample Size: 1.00 L		C Batch No.: ate Extracted:	9453 6-Oct-07	Lab Sample:0-OPR001Date Analyzed DB-5:8-Oct-07	Date Analy	zed DB-225:	NA
Analyte	Spike Conc. Co	onc. (ng/mL)	<b>OPR</b> 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-PeCDD	50.0	49.5	35 - 71	13C-1,2,3,7,8-PeCDD	94.6	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	50.1	35 - 82	13C-1,2,3,4,7,8-HxCDD	95.7	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	48.2	38 - 67	13C-1,2,3,6,7,8-HxCDD	91.7	28 - 130	
1,2,3,7,8,9-HxCDD	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-HpCDD	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-PeCDF	50.0	47.2	40 - 67	13C-2,3,4,7,8-PeCDF	93.1	21 - 178	
2,3,4,7,8-PeCDF	50.0	48.3	34 - 80	13C-1,2,3,4,7,8-HxCDF	90.3	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	51.0	36 - 67	13C-1,2,3,6,7,8-HxCDF	87.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	49.9	42 - 65	13C-2,3,4,6,7,8-HxCDF	89.5	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	50.4	35 - 78	13C-1,2,3,7,8,9-HxCDF	89.9	29 - 147	
1,2,3,7,8,9-HxCDF	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-HpCDF	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-HpCDF	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: William J. Luksemburg 09-Oct-2007 13:04

Sample ID: IQI2	056-01								EPA N	Iethod 1613
Client DataName:TestAProject:IQI20Date Collected:22-SeTime Collected:1230			Sample Data Matrix: Sample Size:	Aqueous 1.00 L	Lab QC I	Dratory Data Sample: Batch No.: Analyzed DB-5:	29587-001 9453 9-Oct-07	Date Re Date Ex Date An		25-Sep-07 6-Oct-07 NA
Analyte (	Conc. (ug/L)	DL <sup>a</sup>	EMPC <sup>b</sup>	Qualifiers		Labeled Standa	rd	%R	LCL-UCL <sup>d</sup>	Qualifiers
2,3,7,8-TCDD	ND	0.000000	861		<u>IS</u>	13C-2,3,7,8-TCD	D	89.2	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000001	15			13C-1,2,3,7,8-PeC	CDD	92.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.000004	10			13С-1,2,3,4,7,8-Н	xCDD	79.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.000001	66			13С-1,2,3,6,7,8-Н	xCDD	79.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.000001	61			13C-1,2,3,4,6,7,8-	HpCDD	78.1	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.000003	82			13C-OCDD		67.9	17 - 157	
OCDD	0.0000540			В		13C-2,3,7,8-TCDI	F	89.3	24 - 169	
2,3,7,8-TCDF	ND	0.0000012	21			13C-1,2,3,7,8-PeC	CDF	93.4	24 - 185	
1,2,3,7,8-PeCDF	ND	0.0000012	21			13C-2,3,4,7,8-PeC	CDF	91.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.0000012	25			13С-1,2,3,4,7,8-Н	xCDF	72.3	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000001	68			13С-1,2,3,6,7,8-Н	xCDF	69.8	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000001	64			13С-2,3,4,6,7,8-Н	xCDF	67.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.000001	95			13С-1,2,3,7,8,9-Н	xCDF	69.1	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.000002	62			13C-1,2,3,4,6,7,8-	HpCDF	67.1	28 - 143	
1,2,3,4,6,7,8-HpCDF	ND	0.0000034	47			13C-1,2,3,4,7,8,9-	HpCDF	72.5	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.000003	56			13C-OCDF		65.0	17 - 157	
OCDF	ND	0.000004	94		CRS	37Cl-2,3,7,8-TCD	D	94.3	35 - 197	
Totals					Foo	tnotes				
Total TCDD	ND	0.000000	861		a. Sa	mple specific estimated	detection limit.			
Total PeCDD	ND	0.000001	15		b. Es	timated maximum possil	ble concentration.			
Total HxCDD	ND	0.000002	46		c. M	ethod detection limit.				
Total HpCDD	ND	0.000003	82		d. Lo	ower control limit - upper	r control limit.			
Total TCDF	ND	0.0000012	21							
Total PeCDF	ND	0.0000012	23							
Total HxCDF	ND	0.000001	97							
Total HpCDF	ND	0.000003								

Analyst: JMH

APPENDIX

## **DATA QUALIFIERS & ABBREVIATIONS**

В	This compound was also detected in the method blank.
D	Dilution
Р	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
Н	The signal-to-noise ratio is greater than 10:1.
Ι	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	<b>Reporting Limit – concentrations that correspond to low calibration point</b>
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

**IQI2056** 

4587 2.60

#### 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: A. ( °C

Ice: Ν

Analysis	Units	Due	Expires	Comments
Sample ID: IQI2056-01	Water		Sampled: 09/22/07 12:30	Temp=64.4, pH=7.02
1613-Dioxin-HR-Alta	ug/l	10/01/07	09/29/07 12:30	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Containers Supplied:				
1 L Amber (C)	1 L Amber (D)			

Released By Date/Time

Date/Time

There det Received By

Date/Time

\_\_\_\_\_

Received By

Page 1 of 1

**NPDES-370** Page 10 of 253

Released By

## SAMPLE LOG-IN CHECKLIST

.



Vista Project #:	29587				TA <sup>*</sup>	T <u>UNOP</u>	ecifi	<u>e</u> d			
	Date/Time		Initials:		Locat	tion: //	)R-	Я			
Samples Arrival:	9/25/07	0836	BSI.	3		/Rack:	N//	+			
Logged In:	Date/Time 9/35/07	9/25/07 1205 BLB					Location: $WR-2$ Shelf/Rack: $B-4$				
Delivered By:	FedEx	UPS	Cal	DHL	- E	Hand Delivered	Otl	her			
Preservation:	lce		ue Ice	Dr	y Ice		None				
Temp°C 2.	6°C	Time: (	)854		Thern	nometer	<b>D:</b> IR-	1			
					•	YES	NO	NA			
Adaguata Sampla	Adequate Sample Volume Received?										
	· · · · · · · · · · · · · · · · · · ·	veur									
Holding Time Acce	· · · · · · · · · · · · · · · · · · ·							<u> </u>			
Shipping Containe		· .		· · · · · · · · · · · · · · · · · · ·	* <u>5</u> *			V			
Shipping Documer		+?			<u>, , , , ,</u>						
Airbill	Trk #		102 OIP	1							
		1 1 001 1		2.1			<u> </u>				
Sample Container Intact? Sample Custody Seals Intact?											
		1									
Chain of Custody / Sample Documentation Present? COC Anomaly/Sample Acceptance Form completed?							$\frac{1}{2}$				
			ipierea (								
If Chlorinated or D	rinking Water	Samples, Ac	ceptable Pre	servatio				$\downarrow V$			
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Preserva	tion Document	ted?	COC		Samp Contai		Non	e			
Shipping Containe	r	Return	eturn Dispose								
Comments:				••••••				•			

#### SUBCONTRACT ORDER

TestAmerica - Irvine, CA

IQI2056

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

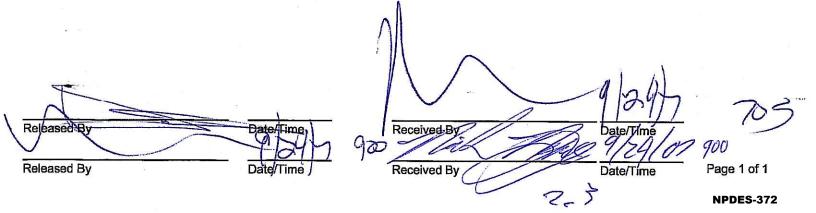
## RECEIVING LABORATORY:

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: °C

Ice: Y / N

7092406

Analysis	Units	Due	Expires	Comments			
Sample ID: IQI2056-01	Water		Sampled: 09/22/07 12:3	0 Temp=64.4, pH=7.02			
Level 4 + EDD-OUT	N/A	10/01/07	10/20/07 12:30	Sub to Weck, transfer file EDD			
Mercury - 245.1, Diss -OUT	mg/l	10/01/07	10/20/07 12:30	Weck, Boeing, J flags			
Mercury - 245.1-OUT	mg/l	10/01/07	10/20/07 12:30	Weck,Boeing, permit, J flags, if result>ND,call TA			
Containers Supplied:							
125 mL Poly w/HNO3 (L)	1251	nl poly u	-14~03	3			





# 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**

09/28/07 15:37 TestAmerica, Inc. - Irvine **Client: Report Date:** 09/24/07 09:00 17461 Derian Ave, Suite 100 **Received Date:** Irvine, CA 92614 **Turn Around:** Normal Attention: Nicholas Marz 7092406 Work Order #: Phone: (949) 261-1022 Fax: (949) 260-3297 **Client Project:** IQI2056

### 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: in

Kim G Tu

Project Manager







Report ID: 7092406 Project ID: IQI2056 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:37

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQI2056-01	Client		7092406-01	Water	09/22/07 12:30



Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:37

IQI2056-01	7092406-01 (Water)

Report ID: 7092406

Project ID: IQI2056

Date Sampled: 09/22/07 12:30

#### 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	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07 jlp	J
Mercury, Total	0.027	0.025	ug/l	0.10	1	EPA 245.1	W7I1160	09/27/07	09/27/07 jlp	



Report ID: 7092406 Project ID: IQI2056 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

 Date Received:
 09/24/07 09:00

 Date Reported:
 09/28/07 15:37

# QUALITY CONTROL SECTION



Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:37

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

Report ID: 7092406

Project ID: IQI2056

							%REC			
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)	So	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)	So	urce: 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)	So	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)	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	



Report ID: 7092406 Project ID: IQI2056 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

Date Received: 09/24/07 09:00 Date Reported: 09/28/07 15:37

#### **Notes and Definitions**

- J 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.