APPENDIX G

Section 17

Outfall 013, October 14, 2009

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ISJ1378

Prepared by

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

I. INTRODUCTION

Task Order Title:	Boeing SSFL NPDES
Contract Task Order:	1261.100D.00
Sample Delivery Group:	ISJ1378
Project Manager:	B. Kelly
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 013	ISJ1378-01	CHS0766-001, 32140-001	Water	10/14/2009 9:00:00 AM	1613, 180.1, 200.8, 200.8 Diss, 245.1, 245.1 Diss, SM5210B

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at the laboratory within the temperature limits of 4°C ±2°C. The samples were received below the temperature limit at TestAmerica-Denver and Vista; however, the samples were not noted to be frozen or damaged. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the samples were transported to TestAmerica-Irvine and Vista by courier, no custody seals were necessary. Custody seals were intact upon arrival at TestAmerica-Denver. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

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

Qualification Code Reference Table

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

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: November 20, 2009

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.

- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

    - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤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 no target compound detects above the EDL. One peak in the blank reported as an EMPC for total HpCDD was also present in sample Outfall 013

and reported as part of the total HpCDD result. The sample result was qualified as estimated, "J,"

- Blank Spikes and Laboratory Control Samples: OPR recoveries were within the acceptance criteria listed in Table 6 of Method 1613.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

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

- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613.

- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. Target compounds reported as EMPCs were qualified as estimated nondetects, "UJ." The laboratory does not include EMPCs in the results reported for totals; therefore, totals were not qualified. The laboratory calculated and reported compound-specific detection limits. Any detects between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the estimated detection limit (EDL).

B. EPA METHODS200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: November 20, 2009

The samples listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: Analytical holding times, six months for ICP and ICP-MS metals and 28 days for mercury, were met.

- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤ 0.1 amu and ≤0.9 amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP and ICP-MS metals and 85-115% for mercury. CRDL and CRI recoveries were within 70-130%.

- Blanks: Mercury was reported in a CCB bracketing the analysis of total mercury; therefore nondetected total mercury in the sample was qualified as estimated, "UJ." Method blanks and CCBs had no other applicable detects.

- Interference Check Samples: Recoveries were within the method-established control limits of 80-120%. Cadmium and copper were detected above the reporting limit and lead was detected above the method detection limit in the ICSA associated with both the total and dissolved metals analyses. No qualifications were applied as the sample did not have significant levels of the reported interferents.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established 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: All sample internal standard intensities were within 60-120% of the internal standard intensities measured in the initial calibration. Copper and zinc were not bracketed by a lower mass internal standard. As CCV, CRDL and LCS recoveries were acceptable, total and dissolved copper in the sample was qualified as estimated, "J," rather than rejected.

- 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. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: November 20, 2009

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), EPA Method 180.1 and SM5210B*, and the *National Functional Guidelines for Inorganic Data Review* (07/02).

- Holding Times: The analytical holding times, 48 hours from collection, for turbidity and BOD were met.

- Calibration: Calibration criteria were met. The turbidity initial calibration r^2 value was $\geq$0.995 and continuing calibration recoveries were within 90-110%.

- Blanks: Method blanks and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: BOD LCS and LCSD recoveries were within the laboratory-established control limits. Not applicable to the turbidity analysis.

- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.

- Matrix Spike/Matrix Spike Duplicate: Not applicable to the turbidity or BOD analyses.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Any detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

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

Sample ID: **ISJ1378-01** Outfall 013 **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	32140-001	Date Received:	16-Oct-09
Project:	ISJ1378	Sample Size:	1.02 L	QC Batch No.:	2469	Date Extracted:	19-Oct-09
Date Collected:	14-Oct-09			Date Analyzed DB-5:	22-Oct-09	Date Analyzed DB-225:	NA
Time Collected:	0900						

	Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
U	2,3,7,8-TCDD	ND	0.000000554		
	1,2,3,7,8-PeCDD	ND	0.000000645		
	1,2,3,4,7,8-HxCDD	ND	0.00000137		
	1,2,3,6,7,8-HxCDD	ND	0.00000144		
	1,2,3,7,8,9-HxCDD	ND	0.00000147		
J/DNQ	1,2,3,4,6,7,8-HpCDD	0.00000242			J
J/DNQ	OCDD	0.0000176			J
U	2,3,7,8-TCDF	ND	0.000000491		
	1,2,3,7,8-PeCDF	ND	0.000000661		
	2,3,4,7,8-PeCDF	ND	0.000000670		
	1,2,3,4,7,8-HxCDF	ND	0.000000378		
	1,2,3,6,7,8-HxCDF	ND	0.000000380		
	2,3,4,6,7,8-HxCDF	ND	0.000000424		
	1,2,3,7,8,9-HxCDF	ND	0.000000483		
UJ/%III	1,2,3,4,6,7,8-HpCDF	ND		0.000000692	
U	1,2,3,4,7,8,9-HpCDF	ND	0.000000489		
UJ/%III	OCDF	ND		0.00000167	

	Totals				
U	Total TCDD	ND	0.000000554		
	Total PeCDD	ND	0.000000645		
	Total HxCDD	ND	0.00000143		
J/B	Total HpCDD	0.00000530			
U	Total TCDF	ND	0.000000491		
	Total PeCDF	ND	0.000000666		
	Total HxCDF	ND	0.000000414		
	Total HpCDF	0.000000721		0.00000141	

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	90.6	25 - 164	
	13C-1,2,3,7,8-PeCDD	94.6	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	84.5	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	74.8	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	90.2	23 - 140	
	13C-OCDD	77.3	17 - 157	
	13C-2,3,7,8-TCDF	83.5	24 - 169	
	13C-1,2,3,7,8-PeCDF	82.8	24 - 185	
	13C-2,3,4,7,8-PeCDF	83.7	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	87.0	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	80.4	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	83.6	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	90.0	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	89.7	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	91.5	26 - 138	
	13C-OCDF	79.3	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	102	35 - 197	

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH fm 11/25/09

Approved By: Martha M. Maier 27-Oct-2009 11:10

LEVEL IV

Validated Sample Result Forms: ISJ1378

Analysis Method EPA 180.1

Sample Name Outfall 013 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	Turb	5.5	1.0	0.040	NTU			

Analysis Method EPA 200.8

Sample Name Outfall 013 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium	7440-43-9	8.4	1.0	0.10	ug/l			
Copper	7440-50-8	8.8	2.0	0.50	ug/l		J	*III
Lead	7439-92-1	5.0	1.0	0.20	ug/l			
Selenium	7782-49-2	ND	2.0	0.50	ug/l		U	
Zinc	7440-66-6	260	20	5.0	ug/l			

Analysis Method EPA 200.8-Diss

Sample Name Outfall 013 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cadmium, dissolved	7440-43-9	8.2	1.0	0.10	ug/l			
Copper, dissolved	7440-50-8	8.4	2.0	0.50	ug/l	B	J	*III
Lead, dissolved	7439-92-1	3.0	1.0	0.20	ug/l			
Selenium, dissolved	7782-49-2	ND	2.0	0.50	ug/l		U	
Zinc, dissolved	7440-66-6	260	20	5.0	ug/l			

Analysis Method MCAWW 245.1

Sample Name Outfall 013 **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.2	0.027	ug/L		UJ	B

Analysis Method MCAWW 245.1-DISS

Sample Name Outfall 013 **Matrix Type:** WATER **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury, dissolved	7439-97-6	ND	0.2	0.027	ug/L		U	

Analysis Method SM5210B

Sample Name Outfall 013 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISJ1378-01 **Sample Date:** 10/14/2009 9:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Biochemical Oxygen Demand	BOD	2.8	2.0	0.50	mg/l			

APPENDIX G

Section 18

Outfall 013, October 14, 2009

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

LABORATORY REPORT

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

Project: Quarterly Outfall 013

Sampled: 10/14/09
Received: 10/14/09
Issued: 10/28/09 17:41

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

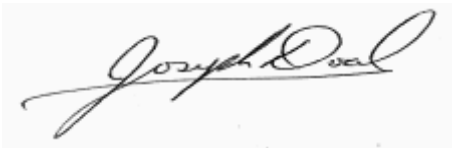
SAMPLE CROSS REFERENCE

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

LABORATORY ID	CLIENT ID	MATRIX
ISJ1378-01	Outfall 013	Water
ISJ1378-02	Trip Blank	Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

VOLATILE FUEL HYDROCARBONS (EPA 5030/8015)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015B	9J16072	0.030	0.050	ND	1	Tam	10/16/09	
Surrogate: 4-BFB (FID) (65-140%)					*83 %*				

TestAmerica Irvine

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Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01RE2 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
DRO (C13 - C28)	EPA 8015B	9J21103	0.048	0.095	ND	0.952	JH	10/21/09	
Surrogate: n-Octacosane (45-120%)					*74 %*				

TestAmerica Irvine

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	9J24023	0.40	0.50	ND	1	jp	10/24/09	
1,2,3-Trichloropropane	EPA 624	9J24023	0.40	1.0	ND	1	jp	10/24/09	
Di-isopropyl Ether (DIPE)	EPA 624	9J24023	0.25	0.50	ND	1	jp	10/24/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9J24023	0.32	0.50	ND	1	jp	10/24/09	
tert-Butanol (TBA)	EPA 624	9J24023	6.5	10	ND	1	jp	10/24/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					*99 %*				
Surrogate: Dibromofluoromethane (80-120%)					*112 %*				
Surrogate: Toluene-d8 (80-120%)					*114 %*				
Sample ID: ISJ1378-02 (Trip Blank - Water)									
Reporting Units: ug/l									
1,2-Dibromoethane (EDB)	EPA 624	9J24023	0.40	0.50	ND	1	jp	10/24/09	
1,2,3-Trichloropropane	EPA 624	9J24023	0.40	1.0	ND	1	jp	10/24/09	
Di-isopropyl Ether (DIPE)	EPA 624	9J24023	0.25	0.50	ND	1	jp	10/24/09	
Methyl-tert-butyl Ether (MTBE)	EPA 624	9J24023	0.32	0.50	ND	1	jp	10/24/09	
tert-Butanol (TBA)	EPA 624	9J24023	6.5	10	ND	1	jp	10/24/09	
Surrogate: 4-Bromofluorobenzene (80-120%)					*101 %*				
Surrogate: Dibromofluoromethane (80-120%)					*109 %*				
Surrogate: Toluene-d8 (80-120%)					*114 %*				

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: ug/l									
1,4-Dioxane	EPA 8260B-SIM	9J19029	1.0	2.0	ND	1	GMK	10/19/09	
Surrogate: Dibromofluoromethane (80-120%)					*114 %*				

TestAmerica Irvine

Joseph Doak
Project Manager

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/l									
Naphthalene	EPA 625	9J16099	2.9	9.6	ND	0.962	DF/	10/20/09	
N-Nitrosodimethylamine	EPA 625	9J16099	2.4	19	ND	0.962	DF/	10/20/09	
Surrogate: 2,4,6-Tribromophenol (40-120%)					*109 %*				
Surrogate: 2-Fluorobiphenyl (50-120%)					*95 %*				
Surrogate: 2-Fluorophenol (30-120%)					*72 %*				
Surrogate: Nitrobenzene-d5 (45-120%)					*88 %*				
Surrogate: Phenol-d6 (35-120%)					*79 %*				
Surrogate: Terphenyl-d14 (50-125%)					*98 %*				

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Sampled: 10/14/09
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HEXANE EXTRACTABLE MATERIAL

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	9J19042	1.3	4.7	ND	1	DA	10/19/09	

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Received: 10/14/09

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7	9J19084	0.020	0.050	**0.035**	1	LL	10/20/09	J
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8	9J16097	0.10	1.0	**8.4**	1	NH	10/17/09	
Copper	EPA 200.8	9J16097	0.50	2.0	**8.8**	1	NH	10/17/09	
Lead	EPA 200.8	9J16097	0.20	1.0	**5.0**	1	NH	10/17/09	
Selenium	EPA 200.8	9J16097	0.50	2.0	ND	1	NH	10/17/09	
Zinc	EPA 200.8	9J16097	5.0	20	**260**	1	NH	10/17/09	

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DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Boron	EPA 200.7-Diss	9J19046	0.020	0.050	**0.035**	1	LL	10/20/09	J
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: ug/l									
Cadmium	EPA 200.8-Diss	9J20101	0.10	1.0	**8.2**	1	BR	10/20/09	
Copper	EPA 200.8-Diss	9J20101	0.50	2.0	**8.4**	1	BR	10/20/09	B
Lead	EPA 200.8-Diss	9J20101	0.20	1.0	**3.0**	1	BR	10/20/09	
Selenium	EPA 200.8-Diss	9J20101	0.50	2.0	ND	1	BR	10/20/09	
Zinc	EPA 200.8-Diss	9J20101	5.0	20	**260**	1	BR	10/20/09	

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Received: 10/14/09

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: mg/l									
Ammonia-N (Distilled)	SM4500NH3-C	9J15121	0.50	0.50	**3.1**	1	TMK	10/15/09	
Biochemical Oxygen Demand	SM5210B	9J15089	0.50	2.0	**2.8**	1	XL	10/20/09	
Chloride	EPA 300.0	9J14063	0.25	0.50	**21**	1	NN	10/14/09	
Fluoride	SM 4500-F-C	9J16006	0.020	0.10	**0.15**	1	FZ	10/16/09	B
Nitrate-N	EPA 300.0	9J14063	0.060	0.11	**3.3**	1	NN	10/14/09	
Nitrite-N	EPA 300.0	9J14063	0.090	0.15	ND	1	NN	10/14/09	
Nitrate/Nitrite-N	EPA 300.0	9J14063	0.15	0.26	**3.3**	1	NN	10/14/09	
Sulfate	EPA 300.0	9J14063	0.20	0.50	**14**	1	NN	10/14/09	
Total Dissolved Solids	SM2540C	9J19008	1.0	10	**81**	1	MC	10/19/09	
Total Suspended Solids	SM 2540D	9J20162	1.0	10	ND	1	dk1	10/20/09	
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: ml/l									
Total Settleable Solids	SM2540F	9J15052	0.10	0.10	ND	1	BLP	10/15/09	
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: NTU									
Turbidity	EPA 180.1	9J15097	0.040	1.0	**5.5**	1	AB	10/15/09	
Sample ID: ISJ1378-01 (Outfall 013 - Water)									
Reporting Units: ug/l									
Perchlorate	EPA 314.0	9J15069	0.90	4.0	**3.3**	1	MN	10/15/09	J

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Sampled: 10/14/09
Received: 10/14/09

DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/L									
2,3,7,8-TCDD	1613-Dioxin-HR Alta	2469	).000000550	.00000491	ND	1	JMH	10/22/09	
1,2,3,7,8-PeCDD	1613-Dioxin-HR Alta	2469	).000000645	0.0000245	ND	1	JMH	10/22/09	
1,2,3,4,7,8-HxCDD	1613-Dioxin-HR Alta	2469	0.000001370	.0000245	ND	1	JMH	10/22/09	
1,2,3,6,7,8-HxCDD	1613-Dioxin-HR Alta	2469	0.000001440	.0000245	ND	1	JMH	10/22/09	
1,2,3,7,8,9-HxCDD	1613-Dioxin-HR Alta	2469	0.000001470	.0000245	ND	1	JMH	10/22/09	
1,2,3,4,6,7,8-HpCDD	1613-Dioxin-HR Alta	2469	0.000001290	.0000245	**0.00000242**	1	JMH	10/22/09	Ja
OCDD	1613-Dioxin-HR Alta	2469	0.000005130	.0000491	**0.0000176**	1	JMH	10/22/09	Ja
2,3,7,8-TCDF	1613-Dioxin-HR Alta	2469	).000000490	.00000491	ND	1	JMH	10/22/09	
1,2,3,7,8-PeCDF	1613-Dioxin-HR Alta	2469	).000000661	0.0000245	ND	1	JMH	10/22/09	
2,3,4,7,8-PeCDF	1613-Dioxin-HR Alta	2469	0.000000670	.0000245	ND	1	JMH	10/22/09	
1,2,3,4,7,8-HxCDF	1613-Dioxin-HR Alta	2469	).000000378	0.0000245	ND	1	JMH	10/22/09	
1,2,3,6,7,8-HxCDF	1613-Dioxin-HR Alta	2469	0.000000380	.0000245	ND	1	JMH	10/22/09	
2,3,4,6,7,8-HxCDF	1613-Dioxin-HR Alta	2469	).000000424	0.0000245	ND	1	JMH	10/22/09	
1,2,3,7,8,9-HxCDF	1613-Dioxin-HR Alta	2469	).000000483	0.0000245	ND	1	JMH	10/22/09	
1,2,3,4,6,7,8-HpCDF	1613-Dioxin-HR Alta	2469	).000000692	0.0000245	ND	1	JMH	10/22/09	
1,2,3,4,7,8,9-HpCDF	1613-Dioxin-HR Alta	2469	).000000485	0.0000245	ND	1	JMH	10/22/09	
OCDF	1613-Dioxin-HR Alta	2469	0.000001670	.0000491	ND	1	JMH	10/22/09	
Total TCDD	1613-Dioxin-HR Alta	2469	.000000554	0.00000491	ND	1	JMH	10/22/09	
Total PeCDD	1613-Dioxin-HR Alta	2469	.000000645	0.0000245	ND	1	JMH	10/22/09	
Total HxCDD	1613-Dioxin-HR Alta	2469	.00000137	0.0000245	ND	1	JMH	10/22/09	
Total HpCDD	1613-Dioxin-HR Alta	2469	.00000129	0.0000245	**0.00000530**	1	JMH	10/22/09	
Total TCDF	1613-Dioxin-HR Alta	2469	.000000491	0.00000491	ND	1	JMH	10/22/09	
Total PeCDF	1613-Dioxin-HR Alta	2469	.000000661	0.0000245	ND	1	JMH	10/22/09	
Total HxCDF	1613-Dioxin-HR Alta	2469	.000000378	0.0000245	ND	1	JMH	10/22/09	
Total HpCDF	1613-Dioxin-HR Alta	2469	.000000489	0.0000245	**0.000000721**	1	JMH	10/22/09	
Surrogate: 13C-2,3,7,8-TCDD (25-164%)					*90.6 %*				
Surrogate: 13C-1,2,3,7,8-PeCDD (25-181%)					*94.6 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDD (32-141%)					*84.5 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDD (28-130%)					*74.8 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD (23-140%)					*90.2 %*				
Surrogate: 13C-OCDD (17-157%)					*77.3 %*				
Surrogate: 13C-2,3,7,8-TCDF (24-169%)					*83.5 %*				
Surrogate: 13C-1,2,3,7,8-PeCDF (24-185%)					*82.8 %*				
Surrogate: 13C-2,3,4,7,8-PeCDF (21-178%)					*83.7 %*				
Surrogate: 13C-1,2,3,4,7,8-HxCDF (26-152%)					*87 %*				
Surrogate: 13C-1,2,3,6,7,8-HxCDF (26-123%)					*80.4 %*				
Surrogate: 13C-2,3,4,6,7,8-HxCDF (28-136%)					*83.6 %*				
Surrogate: 13C-1,2,3,7,8,9-HxCDF (29-147%)					*90 %*				
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF (28-143%)					*89.7 %*				
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF (26-138%)					*91.5 %*				
Surrogate: 13C-OCDF (17-157%)					*79.3 %*				

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DIOXIN (EPA 1613)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/L									
Surrogate: 37Cl-2,3,7,8-TCDD (35-197%)					*102 %*				

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MCAWW 245.1

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1	9293508	0.027	0.2	ND	1	CG	10/21/09	

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Sampled: 10/14/09
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MCAWW 245.1-DISS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISJ1378-01 (Outfall 013 - Water) - cont.									
Reporting Units: ug/L									
Mercury	MCAWW 245.1-DISS	9293522	0.027	0.2	ND	1	CG	10/21/09	

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SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 013 (ISJ1378-01) - Water					
EPA 180.1	2	10/14/2009 09:00	10/14/2009 19:05	10/15/2009 13:00	10/15/2009 13:00
EPA 300.0	2	10/14/2009 09:00	10/14/2009 19:05	10/14/2009 20:50	10/14/2009 21:23
Filtration	1	10/14/2009 09:00	10/14/2009 19:05	10/14/2009 21:26	10/14/2009 21:28
SM2540F	2	10/14/2009 09:00	10/14/2009 19:05	10/15/2009 07:31	10/15/2009 09:30
SM5210B	2	10/14/2009 09:00	10/14/2009 19:05	10/15/2009 10:49	10/20/2009 11:00

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METHOD BLANK/QC DATA

VOLATILE FUEL HYDROCARBONS (EPA 5030/8015)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J16072 Extracted: 10/16/09										
Blank Analyzed: 10/16/2009 (9J16072-BLK1)										
GRO (C4 - C12)	ND	0.050	mg/l							
Surrogate: 4-BFB (FID)	*0.00922*		*mg/l*	*0.0100*		*92*	*65-140*			
LCS Analyzed: 10/16/2009 (9J16072-BS1)										
GRO (C4 - C12)	0.755	0.050	mg/l	0.800		94	80-120			
Surrogate: 4-BFB (FID)	*0.0158*		*mg/l*	*0.0100*		*158*	*65-140*			*Z2*
Matrix Spike Analyzed: 10/16/2009 (9J16072-MS1)					**Source: ISJ1462-01**					
GRO (C4 - C12)	0.322	0.050	mg/l	0.220	0.0866	107	65-140			
Surrogate: 4-BFB (FID)	*0.0142*		*mg/l*	*0.0100*		*142*	*65-140*			*ZX*
Matrix Spike Dup Analyzed: 10/16/2009 (9J16072-MSD1)					**Source: ISJ1462-01**					
GRO (C4 - C12)	0.327	0.050	mg/l	0.220	0.0866	109	65-140	2	20	
Surrogate: 4-BFB (FID)	*0.0146*		*mg/l*	*0.0100*		*146*	*65-140*			*ZX*

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J21103 Extracted: 10/21/09										
Blank Analyzed: 10/21/2009 (9J21103-BLK1)										
DRO (C13 - C28)	ND	0.10	mg/l							
EFH (C10 - C28)	ND	0.10	mg/l							
Surrogate: n-Octacosane	*0.124*		*mg/l*	*0.200*		*62*	*45-120*			
LCS Analyzed: 10/21/2009 (9J21103-BS1)										**MNR1**
EFH (C10 - C28)	0.573	0.10	mg/l	1.00		57	40-115			
Surrogate: n-Octacosane	*0.127*		*mg/l*	*0.200*		*64*	*45-120*			
LCS Dup Analyzed: 10/21/2009 (9J21103-BSD1)										
EFH (C10 - C28)	0.591	0.10	mg/l	1.00		59	40-115	3	25	
Surrogate: n-Octacosane	*0.138*		*mg/l*	*0.200*		*69*	*45-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J24023 Extracted: 10/24/09										
Blank Analyzed: 10/24/2009 (9J24023-BLK1)										
1,2-Dibromoethane (EDB)	ND	0.50	ug/l							
1,2,3-Trichloropropane	ND	1.0	ug/l							
Di-isopropyl Ether (DIPE)	ND	0.50	ug/l							
Methyl-tert-butyl Ether (MTBE)	ND	0.50	ug/l							
tert-Butanol (TBA)	ND	10	ug/l							
Surrogate: 4-Bromofluorobenzene	*24.7*		*ug/l*	*25.0*		*99*	*80-120*			
Surrogate: Dibromofluoromethane	*26.6*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Toluene-d8	*28.3*		*ug/l*	*25.0*		*113*	*80-120*			
LCS Analyzed: 10/24/2009 (9J24023-BS1)										
1,2-Dibromoethane (EDB)	25.0	0.50	ug/l	25.0		100	75-125			
1,2,3-Trichloropropane	25.9	1.0	ug/l	25.0		104	60-130			
Di-isopropyl Ether (DIPE)	24.6	0.50	ug/l	25.0		98	60-135			
Methyl-tert-butyl Ether (MTBE)	24.2	0.50	ug/l	25.0		97	60-135			
tert-Butanol (TBA)	121	10	ug/l	125		97	70-135			
Surrogate: 4-Bromofluorobenzene	*26.4*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Dibromofluoromethane	*27.6*		*ug/l*	*25.0*		*110*	*80-120*			
Surrogate: Toluene-d8	*27.9*		*ug/l*	*25.0*		*112*	*80-120*			
Matrix Spike Analyzed: 10/24/2009 (9J24023-MS1)					**Source: ISJ1378-01**					
1,2-Dibromoethane (EDB)	25.6	0.50	ug/l	25.0	ND	102	70-130			
1,2,3-Trichloropropane	25.9	1.0	ug/l	25.0	ND	103	55-135			
Di-isopropyl Ether (DIPE)	27.0	0.50	ug/l	25.0	ND	108	60-140			
Methyl-tert-butyl Ether (MTBE)	26.2	0.50	ug/l	25.0	ND	105	55-145			
tert-Butanol (TBA)	134	10	ug/l	125	ND	107	65-140			
Surrogate: 4-Bromofluorobenzene	*26.6*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Dibromofluoromethane	*28.3*		*ug/l*	*25.0*		*113*	*80-120*			
Surrogate: Toluene-d8	*27.9*		*ug/l*	*25.0*		*111*	*80-120*			

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METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J24023 Extracted: 10/24/09										
Matrix Spike Dup Analyzed: 10/24/2009 (9J24023-MSD1)					**Source: ISJ1378-01**					
1,2-Dibromoethane (EDB)	25.1	0.50	ug/l	25.0	ND	100	70-130	2	25	
1,2,3-Trichloropropane	24.7	1.0	ug/l	25.0	ND	99	55-135	5	30	
Di-isopropyl Ether (DIPE)	26.6	0.50	ug/l	25.0	ND	107	60-140	1	25	
Methyl-tert-butyl Ether (MTBE)	25.3	0.50	ug/l	25.0	ND	101	55-145	4	25	
tert-Butanol (TBA)	132	10	ug/l	125	ND	106	65-140	1	25	
Surrogate: 4-Bromofluorobenzene	*26.4*		*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: Dibromofluoromethane	*27.9*		*ug/l*	*25.0*		*112*	*80-120*			
Surrogate: Toluene-d8	*28.4*		*ug/l*	*25.0*		*114*	*80-120*			

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J19029 Extracted: 10/19/09										
Blank Analyzed: 10/19/2009 (9J19029-BLK1)										
1,4-Dioxane	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	*1.07*		*ug/l*	*1.00*		*107*	*80-120*			
LCS Analyzed: 10/19/2009 (9J19029-BS1)										
1,4-Dioxane	11.0	2.0	ug/l	10.0		110	70-125			
Surrogate: Dibromofluoromethane	*1.07*		*ug/l*	*1.00*		*107*	*80-120*			
Matrix Spike Analyzed: 10/19/2009 (9J19029-MS1)					**Source: ISJ1702-01**					
1,4-Dioxane	15.7	2.0	ug/l	10.0	5.10	106	70-130			
Surrogate: Dibromofluoromethane	*1.10*		*ug/l*	*1.00*		*110*	*80-120*			
Matrix Spike Dup Analyzed: 10/19/2009 (9J19029-MSD1)					**Source: ISJ1702-01**					
1,4-Dioxane	16.0	2.0	ug/l	10.0	5.10	109	70-130	1	30	
Surrogate: Dibromofluoromethane	*1.13*		*ug/l*	*1.00*		*113*	*80-120*			

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METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J16099 Extracted: 10/16/09										
Blank Analyzed: 10/20/2009 (9J16099-BLK1)										
Naphthalene	ND	10	ug/l							
N-Nitrosodimethylamine	ND	20	ug/l							
Surrogate: 2,4,6-Tribromophenol	*173*		*ug/l*	*200*		*86*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*73.7*		*ug/l*	*100*		*74*	*50-120*			
Surrogate: 2-Fluorophenol	*123*		*ug/l*	*200*		*61*	*30-120*			
Surrogate: Nitrobenzene-d5	*70.2*		*ug/l*	*100*		*70*	*45-120*			
Surrogate: Phenol-d6	*123*		*ug/l*	*200*		*62*	*35-120*			
Surrogate: Terphenyl-d14	*89.1*		*ug/l*	*100*		*89*	*50-125*			
LCS Analyzed: 10/20/2009 (9J16099-BS1)										**MNR1**
Naphthalene	71.2	10	ug/l	100		71	55-120			
N-Nitrosodimethylamine	68.9	20	ug/l	100		69	45-120			
Surrogate: 2,4,6-Tribromophenol	*173*		*ug/l*	*200*		*86*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*78.9*		*ug/l*	*100*		*79*	*50-120*			
Surrogate: 2-Fluorophenol	*120*		*ug/l*	*200*		*60*	*30-120*			
Surrogate: Nitrobenzene-d5	*76.7*		*ug/l*	*100*		*77*	*45-120*			
Surrogate: Phenol-d6	*128*		*ug/l*	*200*		*64*	*35-120*			
Surrogate: Terphenyl-d14	*85.2*		*ug/l*	*100*		*85*	*50-125*			
LCS Dup Analyzed: 10/20/2009 (9J16099-BSD1)										
Naphthalene	68.6	10	ug/l	100		69	55-120	4	20	
N-Nitrosodimethylamine	71.2	20	ug/l	100		71	45-120	3	20	
Surrogate: 2,4,6-Tribromophenol	*169*		*ug/l*	*200*		*84*	*40-120*			
Surrogate: 2-Fluorobiphenyl	*76.6*		*ug/l*	*100*		*77*	*50-120*			
Surrogate: 2-Fluorophenol	*123*		*ug/l*	*200*		*62*	*30-120*			
Surrogate: Nitrobenzene-d5	*75.6*		*ug/l*	*100*		*76*	*45-120*			
Surrogate: Phenol-d6	*123*		*ug/l*	*200*		*62*	*35-120*			
Surrogate: Terphenyl-d14	*87.1*		*ug/l*	*100*		*87*	*50-125*			

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METHOD BLANK/QC DATA

HEXANE EXTRACTABLE MATERIAL

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J19042 Extracted: 10/19/09										
Blank Analyzed: 10/19/2009 (9J19042-BLK1)										
Hexane Extractable Material (Oil & Grease)	ND	5.0	mg/l							
LCS Analyzed: 10/19/2009 (9J19042-BS1)										**MNR1**
Hexane Extractable Material (Oil & Grease)	19.6	5.0	mg/l	20.0		98	78-114			
LCS Dup Analyzed: 10/19/2009 (9J19042-BSD1)										
Hexane Extractable Material (Oil & Grease)	19.2	5.0	mg/l	20.0		96	78-114	2	11	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J16097 Extracted: 10/16/09										
Blank Analyzed: 10/16/2009 (9J16097-BLK1)										
Cadmium	ND	1.0	ug/l							
Copper	ND	2.0	ug/l							
Lead	ND	1.0	ug/l							
Selenium	ND	2.0	ug/l							
Zinc	5.48	20	ug/l							*J*
LCS Analyzed: 10/16/2009 (9J16097-BS1)										
Cadmium	86.0	1.0	ug/l	80.0		107	85-115			
Copper	79.0	2.0	ug/l	80.0		99	85-115			
Lead	79.2	1.0	ug/l	80.0		99	85-115			
Selenium	77.4	2.0	ug/l	80.0		97	85-115			
Zinc	79.4	20	ug/l	80.0		99	85-115			
Matrix Spike Analyzed: 10/17/2009 (9J16097-MS1)					**Source: ISJ1191-01**					
Cadmium	84.2	1.0	ug/l	80.0	ND	105	70-130			
Copper	94.5	2.0	ug/l	80.0	19.7	93	70-130			
Lead	77.5	1.0	ug/l	80.0	2.22	94	70-130			
Selenium	79.9	2.0	ug/l	80.0	3.34	96	70-130			
Zinc	88.5	20	ug/l	80.0	16.3	90	70-130			
Matrix Spike Analyzed: 10/17/2009 (9J16097-MS2)					**Source: ISJ1400-03**					
Cadmium	85.8	1.0	ug/l	80.0	ND	107	70-130			
Copper	73.1	2.0	ug/l	80.0	0.808	90	70-130			
Lead	75.4	1.0	ug/l	80.0	ND	94	70-130			
Selenium	76.4	2.0	ug/l	80.0	2.48	92	70-130			
Zinc	76.5	20	ug/l	80.0	12.4	80	70-130			
Matrix Spike Dup Analyzed: 10/17/2009 (9J16097-MSD1)					**Source: ISJ1191-01**					
Cadmium	84.1	1.0	ug/l	80.0	ND	105	70-130	0	20	
Copper	93.5	2.0	ug/l	80.0	19.7	92	70-130	1	20	
Lead	77.3	1.0	ug/l	80.0	2.22	94	70-130	0	20	
Selenium	78.0	2.0	ug/l	80.0	3.34	93	70-130	2	20	
Zinc	87.8	20	ug/l	80.0	16.3	89	70-130	1	20	

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J19084 Extracted: 10/19/09										
Blank Analyzed: 10/20/2009 (9J19084-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/20/2009 (9J19084-BS1)										
Boron	0.498	0.050	mg/l	0.500		100	85-115			
Matrix Spike Analyzed: 10/20/2009 (9J19084-MS1)					**Source: ISJ1729-02**					
Boron	0.900	0.050	mg/l	0.500	0.399	100	70-130			
Matrix Spike Analyzed: 10/20/2009 (9J19084-MS2)					**Source: ISJ1729-03**					
Boron	0.809	0.050	mg/l	0.500	0.301	102	70-130			
Matrix Spike Dup Analyzed: 10/20/2009 (9J19084-MSD1)					**Source: ISJ1729-02**					
Boron	0.919	0.050	mg/l	0.500	0.399	104	70-130	2	20	

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METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J19046 Extracted: 10/19/09										
Blank Analyzed: 10/20/2009 (9J19046-BLK1)										
Boron	ND	0.050	mg/l							
LCS Analyzed: 10/20/2009 (9J19046-BS1)										
Boron	0.506	0.050	mg/l	0.500		101	85-115			
Matrix Spike Analyzed: 10/20/2009 (9J19046-MS1)					**Source: ISJ1378-01**					
Boron	0.512	0.050	mg/l	0.500	0.0348	95	70-130			
Matrix Spike Dup Analyzed: 10/20/2009 (9J19046-MSD1)					**Source: ISJ1378-01**					
Boron	0.533	0.050	mg/l	0.500	0.0348	100	70-130	4	20	
Batch: 9J20101 Extracted: 10/20/09										
Blank Analyzed: 10/20/2009 (9J20101-BLK1)										
Cadmium	ND	1.0	ug/l							
Copper	1.38	2.0	ug/l							*J*
Lead	ND	1.0	ug/l							
Selenium	ND	2.0	ug/l							
Zinc	ND	20	ug/l							
LCS Analyzed: 10/20/2009 (9J20101-BS1)										
Cadmium	84.7	1.0	ug/l	80.0		106	85-115			
Copper	79.4	2.0	ug/l	80.0		99	85-115			
Lead	80.6	1.0	ug/l	80.0		101	85-115			
Selenium	79.6	2.0	ug/l	80.0		100	85-115			
Zinc	81.0	20	ug/l	80.0		101	85-115			

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DISSOLVED METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J20101 Extracted: 10/20/09										
Matrix Spike Analyzed: 10/20/2009 (9J20101-MS1)					**Source: ISJ1373-01**					
Cadmium	84.0	1.0	ug/l	80.0	ND	105	70-130			
Copper	84.7	2.0	ug/l	80.0	5.64	99	70-130			
Lead	79.6	1.0	ug/l	80.0	0.780	99	70-130			
Selenium	80.0	2.0	ug/l	80.0	ND	100	70-130			
Zinc	91.3	20	ug/l	80.0	13.7	97	70-130			
Matrix Spike Analyzed: 10/20/2009 (9J20101-MS2)					**Source: ISJ1376-01**					
Cadmium	81.8	1.0	ug/l	80.0	0.186	102	70-130			
Copper	80.5	2.0	ug/l	80.0	3.51	96	70-130			
Lead	77.5	1.0	ug/l	80.0	0.241	97	70-130			
Selenium	77.5	2.0	ug/l	80.0	0.987	96	70-130			
Zinc	80.8	20	ug/l	80.0	ND	101	70-130			
Matrix Spike Dup Analyzed: 10/20/2009 (9J20101-MSD1)					**Source: ISJ1373-01**					
Cadmium	83.8	1.0	ug/l	80.0	ND	105	70-130	0	20	
Copper	84.6	2.0	ug/l	80.0	5.64	99	70-130	0	20	
Lead	79.3	1.0	ug/l	80.0	0.780	98	70-130	0	20	
Selenium	80.6	2.0	ug/l	80.0	ND	101	70-130	1	20	
Zinc	94.5	20	ug/l	80.0	13.7	101	70-130	3	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J14063 Extracted: 10/14/09										
Blank Analyzed: 10/14/2009 (9J14063-BLK1)										
Chloride	ND	0.50	mg/l							
Nitrate-N	ND	0.11	mg/l							
Nitrite-N	ND	0.15	mg/l							
Nitrate/Nitrite-N	ND	0.26	mg/l							
Sulfate	ND	0.50	mg/l							
LCS Analyzed: 10/14/2009 (9J14063-BS1)										
Chloride	5.09	0.50	mg/l	5.00		102	90-110			
Nitrate-N	1.22	0.11	mg/l	1.13		108	90-110			
Nitrite-N	1.59	0.15	mg/l	1.52		104	90-110			
Sulfate	10.5	0.50	mg/l	10.0		105	90-110			
Matrix Spike Analyzed: 10/14/2009 (9J14063-MS1)					**Source: ISJ1211-01**					
Chloride	104	5.0	mg/l	50.0	55.0	98	80-120			
Nitrate-N	12.8	1.1	mg/l	11.3	ND	113	80-120			
Nitrite-N	16.7	1.5	mg/l	15.2	ND	110	80-120			
Sulfate	201	5.0	mg/l	100	97.8	103	80-120			
Matrix Spike Analyzed: 10/14/2009 (9J14063-MS2)					**Source: ISJ1341-01**					
Chloride	19.4	0.50	mg/l	5.00	14.6	96	80-120			
Nitrate-N	1.71	0.11	mg/l	1.13	0.531	104	80-120			
Nitrite-N	1.64	0.15	mg/l	1.52	ND	108	80-120			
Sulfate	34.7	0.50	mg/l	10.0	24.2	105	80-120			
Matrix Spike Dup Analyzed: 10/14/2009 (9J14063-MSD1)					**Source: ISJ1211-01**					
Chloride	103	5.0	mg/l	50.0	55.0	95	80-120	1	20	
Nitrate-N	12.6	1.1	mg/l	11.3	ND	112	80-120	1	20	
Nitrite-N	16.5	1.5	mg/l	15.2	ND	108	80-120	2	20	
Sulfate	200	5.0	mg/l	100	97.8	102	80-120	0	20	

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INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J15069 Extracted: 10/15/09										
Blank Analyzed: 10/15/2009 (9J15069-BLK1)										
Perchlorate	ND	4.0	ug/l							
LCS Analyzed: 10/15/2009 (9J15069-BS1)										
Perchlorate	25.5	4.0	ug/l	25.0		102	85-115			
Matrix Spike Analyzed: 10/15/2009 (9J15069-MS1)					**Source: ISJ1179-03**					
Perchlorate	37.1	4.0	ug/l	25.0	12.1	100	80-120			
Matrix Spike Dup Analyzed: 10/15/2009 (9J15069-MSD1)					**Source: ISJ1179-03**					
Perchlorate	37.6	4.0	ug/l	25.0	12.1	102	80-120	1	20	
Batch: 9J15089 Extracted: 10/15/09										
Blank Analyzed: 10/20/2009 (9J15089-BLK1)										
Biochemical Oxygen Demand	ND	2.0	mg/l							
LCS Analyzed: 10/20/2009 (9J15089-BS1)										
Biochemical Oxygen Demand	212	100	mg/l	198		107	85-115			
LCS Dup Analyzed: 10/20/2009 (9J15089-BSD1)										
Biochemical Oxygen Demand	206	100	mg/l	198		104	85-115	3	20	
Batch: 9J15097 Extracted: 10/15/09										
Blank Analyzed: 10/15/2009 (9J15097-BLK1)										
Turbidity	ND	1.0	NTU							

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J15097 Extracted: 10/15/09										
Duplicate Analyzed: 10/15/2009 (9J15097-DUP1)					**Source: ISJ1316-01**					
Turbidity	0.0600	1.0	NTU		0.0600			0	20	*J*
Duplicate Analyzed: 10/15/2009 (9J15097-DUP2)					**Source: ISJ1397-01**					
Turbidity	105	10	NTU		107			2	20	
Batch: 9J15121 Extracted: 10/15/09										
Blank Analyzed: 10/15/2009 (9J15121-BLK1)										
Ammonia-N (Distilled)	ND	0.50	mg/l							
LCS Analyzed: 10/15/2009 (9J15121-BS1)										
Ammonia-N (Distilled)	10.4	0.50	mg/l	10.0		104	80-115			
Matrix Spike Analyzed: 10/15/2009 (9J15121-MS1)					**Source: ISJ1307-01**					
Ammonia-N (Distilled)	13.2	0.50	mg/l	10.0	3.92	92	70-120			
Matrix Spike Dup Analyzed: 10/15/2009 (9J15121-MSD1)					**Source: ISJ1307-01**					
Ammonia-N (Distilled)	13.2	0.50	mg/l	10.0	3.92	92	70-120	0	15	
Batch: 9J16006 Extracted: 10/16/09										
Blank Analyzed: 10/16/2009 (9J16006-BLK1)										
Fluoride	0.0214	0.10	mg/l							*J*
LCS Analyzed: 10/16/2009 (9J16006-BS1)										
Fluoride	0.962	0.10	mg/l	1.00		96	90-110			

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

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9J16006 Extracted: 10/16/09										
Matrix Spike Analyzed: 10/16/2009 (9J16006-MS1)					**Source: ISJ1042-01**					
Fluoride	1.15	0.10	mg/l	1.00	0.168	98	80-120			
Matrix Spike Dup Analyzed: 10/16/2009 (9J16006-MSD1)					**Source: ISJ1042-01**					
Fluoride	1.14	0.10	mg/l	1.00	0.168	97	80-120	1	20	
Batch: 9J19008 Extracted: 10/19/09										
Blank Analyzed: 10/19/2009 (9J19008-BLK1)										
Total Dissolved Solids	ND	10	mg/l							
LCS Analyzed: 10/19/2009 (9J19008-BS1)										
Total Dissolved Solids	1000	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 10/19/2009 (9J19008-DUP1)					**Source: ISJ1307-01**					
Total Dissolved Solids	1520	10	mg/l		1500			1	10	
Batch: 9J20162 Extracted: 10/20/09										
Blank Analyzed: 10/20/2009 (9J20162-BLK1)										
Total Suspended Solids	ND	10	mg/l							
LCS Analyzed: 10/20/2009 (9J20162-BS1)										
Total Suspended Solids	989	10	mg/l	1000		99	85-115			
Duplicate Analyzed: 10/20/2009 (9J20162-DUP1)					**Source: ISJ1361-02**					
Total Suspended Solids	24.0	10	mg/l		24.0			0	10	

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METHOD BLANK/QC DATA

DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 2469 Extracted: 10/19/09										
Blank Analyzed: 10/22/2009 (MB001)					**Source:**					
2,3,7,8-TCDD	ND	0.00000500	ug/L				50-150		25	
1,2,3,7,8-PeCDD	ND	0.0000250	ug/L				50-150		25	
1,2,3,4,7,8-HxCDD	ND	0.0000250	ug/L				50-150		25	
1,2,3,6,7,8-HxCDD	ND	0.0000250	ug/L				50-150		25	
1,2,3,7,8,9-HxCDD	ND	0.0000250	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDD	ND	0.0000250	ug/L				50-150		25	
OCDD	ND	0.0000500	ug/L				50-150		25	
2,3,7,8-TCDF	ND	0.00000500	ug/L				50-150		25	
1,2,3,7,8-PeCDF	ND	0.0000250	ug/L				50-150		25	
2,3,4,7,8-PeCDF	ND	0.0000250	ug/L				50-150		25	
1,2,3,4,7,8-HxCDF	ND	0.0000250	ug/L				50-150		25	
1,2,3,6,7,8-HxCDF	ND	0.0000250	ug/L				50-150		25	
2,3,4,6,7,8-HxCDF	ND	0.0000250	ug/L				50-150		25	
1,2,3,7,8,9-HxCDF	ND	0.0000250	ug/L				50-150		25	
1,2,3,4,6,7,8-HpCDF	ND	0.0000250	ug/L				50-150		25	
1,2,3,4,7,8,9-HpCDF	ND	0.0000250	ug/L				50-150		25	
OCDF	ND	0.0000500	ug/L				50-150		25	
Total TCDD	ND	0.00000500	ug/L				50-150		25	
Total PeCDD	ND	0.0000250	ug/L				50-150		25	
Total HxCDD	ND	0.0000250	ug/L				50-150		25	
Total HpCDD	ND	0.0000250	ug/L				50-150		25	
Total TCDF	ND	0.00000500	ug/L				50-150		25	
Total PeCDF	ND	0.0000250	ug/L				50-150		25	
Total HxCDF	ND	0.0000250	ug/L				50-150		25	
Total HpCDF	ND	0.0000250	ug/L				50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	*0.00188*		*ug/L*	*2000*		*94*	*50-150*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*0.00192*		*ug/L*	*2000*		*96*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*0.00182*		*ug/L*	*2000*		*91*	*50-150*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*0.00165*		*ug/L*	*2000*		*83*	*50-150*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*0.00194*		*ug/L*	*2000*		*97*	*50-150*			
Surrogate: 13C-OCDD	*0.00333*		*ug/L*	*4000*		*83*	*50-150*			
Surrogate: 13C-2,3,7,8-TCDF	*0.00186*		*ug/L*	*2000*		*93*	*50-150*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*0.00193*		*ug/L*	*2000*		*96*	*50-150*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*0.00193*		*ug/L*	*2000*		*97*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*0.00185*		*ug/L*	*2000*		*92*	*50-150*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*0.00175*		*ug/L*	*2000*		*87*	*50-150*			

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

METHOD BLANK/QC DATA

DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 2469 Extracted: 10/19/09										
Blank Analyzed: 10/22/2009 (MB001)					**Source:**					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*0.00182*		*ug/L*	*2000*		*91*	*50-150*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*0.00188*		*ug/L*	*2000*		*94*	*50-150*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*0.00187*		*ug/L*	*2000*		*94*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*0.00193*		*ug/L*	*2000*		*97*	*50-150*			
Surrogate: 13C-OCDF	*0.00348*		*ug/L*	*4000*		*87*	*50-150*			
Surrogate: 37Cl-2,3,7,8-TCDD	*0.000773*		*ug/L*	*800*		*97*	*50-150*			
LCS Analyzed: 10/22/2009 (OPR001)					**Source:**					
2,3,7,8-TCDD	8.78	5.00	ug/L	10		88	50-150		25	
1,2,3,7,8-PeCDD	45.4	25.0	ug/L	50		91	50-150		25	
1,2,3,4,7,8-HxCDD	47.1	25.0	ug/L	50		94	50-150		25	
1,2,3,6,7,8-HxCDD	48.1	25.0	ug/L	50		96	50-150		25	
1,2,3,7,8,9-HxCDD	48.2	25.0	ug/L	50		96	50-150		25	
1,2,3,4,6,7,8-HpCDD	47.4	25.0	ug/L	50		95	50-150		25	
OCDD	96.5	50.0	ug/L	100		97	50-150		25	
2,3,7,8-TCDF	8.55	5.00	ug/L	10		86	50-150		25	
1,2,3,7,8-PeCDF	46.3	25.0	ug/L	50		93	50-150		25	
2,3,4,7,8-PeCDF	46.5	25.0	ug/L	50		93	50-150		25	
1,2,3,4,7,8-HxCDF	49.4	25.0	ug/L	50		99	50-150		25	
1,2,3,6,7,8-HxCDF	48.8	25.0	ug/L	50		98	50-150		25	
2,3,4,6,7,8-HxCDF	47.2	25.0	ug/L	50		94	50-150		25	
1,2,3,7,8,9-HxCDF	48.4	25.0	ug/L	50		97	50-150		25	
1,2,3,4,6,7,8-HpCDF	48.0	25.0	ug/L	50		96	50-150		25	
1,2,3,4,7,8,9-HpCDF	46.8	25.0	ug/L	50		94	50-150		25	
OCDF	102	50.0	ug/L	100		102	50-150		25	
Surrogate: 13C-2,3,7,8-TCDD	*93.1*		*ug/L*	*100*		*93*	*50-150*			
Surrogate: 13C-1,2,3,7,8-PeCDD	*84.1*		*ug/L*	*100*		*84*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8-HxCDD	*89.9*		*ug/L*	*100*		*90*	*50-150*			
Surrogate: 13C-1,2,3,6,7,8-HxCDD	*82.6*		*ug/L*	*100*		*83*	*50-150*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDD	*90.3*		*ug/L*	*100*		*90*	*50-150*			
Surrogate: 13C-OCDD	*158*		*ug/L*	*200*		*79*	*50-150*			
Surrogate: 13C-2,3,7,8-TCDF	*96.2*		*ug/L*	*100*		*96*	*50-150*			
Surrogate: 13C-1,2,3,7,8-PeCDF	*90.0*		*ug/L*	*100*		*90*	*50-150*			
Surrogate: 13C-2,3,4,7,8-PeCDF	*91.0*		*ug/L*	*100*		*91*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8-HxCDF	*87.1*		*ug/L*	*100*		*87*	*50-150*			
Surrogate: 13C-1,2,3,6,7,8-HxCDF	*83.3*		*ug/L*	*100*		*83*	*50-150*			

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Attention: Bronwyn Kelly

Project ID: Quarterly Outfall 013
Report Number: ISJ1378

Sampled: 10/14/09
Received: 10/14/09

METHOD BLANK/QC DATA

DIOXIN (EPA 1613)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 2469 Extracted: 10/19/09										
LCS Analyzed: 10/22/2009 (OPR001)					**Source:**					
Surrogate: 13C-2,3,4,6,7,8-HxCDF	*88.8*		*ug/L*	*100*		*89*	*50-150*			
Surrogate: 13C-1,2,3,7,8,9-HxCDF	*91.9*		*ug/L*	*100*		*92*	*50-150*			
Surrogate: 13C-1,2,3,4,6,7,8-HpCDF	*88.6*		*ug/L*	*100*		*89*	*50-150*			
Surrogate: 13C-1,2,3,4,7,8,9-HpCDF	*90.7*		*ug/L*	*100*		*91*	*50-150*			
Surrogate: 13C-OCDF	*159*		*ug/L*	*200*		*79*	*50-150*			
Surrogate: 37Cl-2,3,7,8-TCDD	*38.7*		*ug/L*	*40*		*97*	*50-150*			

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METHOD BLANK/QC DATA

MCAWW 245.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9293508 Extracted: 10/21/09										
Matrix Spike Dup Analyzed: 10/21/2009 (D9J160335001D)					**Source: D9J160335001**					
Mercury	2.04	0.2	ug/L	5	ND	40	90-110	25	10	*N, **
Matrix Spike Analyzed: 10/21/2009 (D9J160335001S)					**Source: D9J160335001**					
Mercury	1.59	0.2	ug/L	5	ND	31	90-110			*N*
Blank Analyzed: 10/21/2009 (D9J200000508B)					**Source:**					
Mercury	ND	0.2	ug/L				-			
LCS Analyzed: 10/21/2009 (D9J200000508C)					**Source:**					
Mercury	4.89	0.2	ug/L	5		98	90-110			

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METHOD BLANK/QC DATA

MCAWW 245.1-DISS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9293522 Extracted: 10/21/09										
Matrix Spike Dup Analyzed: 10/21/2009 (D9J160335001D)					**Source: D9J160335001**					
Mercury	2.97	0.2	ug/L	5	ND	59	90-110	5	10	*N*
Matrix Spike Analyzed: 10/21/2009 (D9J160335001S)					**Source: D9J160335001**					
Mercury	3.13	0.2	ug/L	5	ND	62	90-110			*N*
Blank Analyzed: 10/21/2009 (D9J200000522B)					**Source:**					
Mercury	ND	0.2	ug/L				-			
LCS Analyzed: 10/21/2009 (D9J200000522C)					**Source:**					
Mercury	5.17	0.2	ug/L	5		103	90-110			

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DATA QUALIFIERS AND DEFINITIONS

*	Relative percent difference (RPD) is outside stated control limits.
B	Analyte was detected in the associated Method Blank.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
Ja	The amount detected is below the Lower CalibrationLimit of the instrument
MNR1	There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
N	Spike sample recovery is outside control limits.
Z2	Surrogate recovery was above the acceptance limits. Data not impacted.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For GRO (C4-C12):

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

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

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

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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 1664A	Water	X	X
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
EPA 8015B	Water	X	X
EPA 8260B-SIM	Water	X	X
Filtration	Water	N/A	N/A
SM 2540D	Water	X	X
SM 4500-F-C	Water	X	X
SM2540C	Water	X	
SM2540F	Water	X	X
SM4500NH3-C	Water	X	X
SM5210B	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

Alta Analytical Perspectives
2714 Exchange Drive - Wilmington, NC 28405
Method Performed: 1613-Dioxin-HR Alta
Samples: ISJ1378-01

TestAmerica Denver
4955 Yarrow Street - Arvada, CO 80002
Method Performed: MCAWW 245.1
Samples: ISJ1378-01

Method Performed: MCAWW 245.1-DISS
Samples: ISJ1378-01

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Report Number: ISJ1378

Sampled: 10/14/09
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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: ISJ1378-01

TestAmerica Irvine

Joseph Doak
Project Manager

Test America Version 6/29/09

CHAIN OF CUSTODY FORM

253878

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Ave, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES **Quarterly Outfall 013** **GRAB**
Project Manager: Bronwyn Kelly Sampler: Emily Alfaro Meghann Chee	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	8015 - gas	8015 - diesel/jet fuel	Settleable Solids	624 (EDB, 1,2,3-TCP, MTBE, DIPE, TBA)	Comments
Outfall 013	W	1L Amber	1	10/14/09/0900	HCl	1A	X					
Outfall 013 Dup	W	1L Amber	1		HCl	1B	X					
Outfall 013	W	VOAs	1		HCl	2A		X				
Outfall 013 Dup	W	VOAs	2		HCl	2B, 2C		X				
Outfall 013	W	1L Amber	1		None	3A			X			
Outfall 013 Dup	W	1L Amber	1		None	3B			X			
Outfall 013	W	1L Poly	1		None	4				X		
Outfall 013	W	VOAs	1		HCl	5A					X	
Outfall 013 Dup	W	VOAs	2		HCl	5B, 5C					X	
Trip Blanks	W	VOAs	3		HCl	6A, 6B, 6C					X	

ANALYSIS REQUIRED

Field readings:
(Log in and include in report Temp and pH)

Temp °F = 15.7/60.8°F

pH = [illegible] 6.9

Time of readings = 0900

Meghann Chee 101409

These Samples are the Grab Portion of Outfall 013 for this storm event. Composite samples will follow and are to be added to this work order.

Relinquished By	Date/Time:	Received By	Date/Time:
	101409/1425		10-14-09/14:25
Relinquished By	Date/Time:	Received By	Date/Time:
	10-14-09 19:05		10/14/09 1905
Relinquished By	Date/Time:	Received By	Date/Time:

Turn-around time: (Check)

24 Hour: _____ 72 Hour: _____ 10 Day: _____

48 Hour: _____ 5 Day: _____ Normal: X

Sample Integrity: (Check)

Intact: _____ On Ice: X 4°C

Data Requirements: (Check)

No Level IV: _____ All Level IV: _____ NPDES Level IV: X

CHAIN OF CUSTODY FORM

Client Name/Address:
MWH-Arcadia
618 Michillinda Ave, Suite 200
Arcadia, CA 91007

Test America Contact: Joseph Doak

Project:
Boeing-SSFL NPDES
Quarterly Outfall 013
~~COMPOSITE~~ GRAB

Project Manager: Bronwyn Kelly

Sampler: Emily Alfaro, Meghann Chell

Phone Number:
(626) 568-6691
Fax Number:
(626) 568-6515

ANALYSIS REQUIRED

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	1,4-Dioxane (8260B)	BOD_5 (20 degrees C)	625 (Naphthalene + NDMA analysis)	Ammonia-N (350.2)	Cl^-, SO_4, NO_3+NO_2-N, F, Perchlorate	Nitrate-N, Nitrite-N	Turbidity, TDS, TSS,	Total Recoverable Metals, Cd, Se, Zn, B, Cu, Pb, Hg	Total Dissolved Metals, Cd, Se, Zn, B, Cu, Pb, Hg	TCDD (and all congeners)	Comments
Outfall 013	W	VOAs	1	10/14/09 / 0900	HCl	7A	X										
Outfall 013 Dup	W	VOAs	2		HCl	7B, 7C	X										
Outfall 013	W	1L Poly	1		None	8		X									
Outfall 013	W	1L Amber	1		None	9A			X								
Outfall 013 Dup	W	1L Amber	1		None	9B			X								
Outfall 013	W	500 mL Poly	1		H_2SO_4	10				X							
Outfall 013	W	500 mL Poly	2		None	11A, 11B					X						
Outfall 013	W	500 ml Poly	1		None	12						X					
Outfall 013	W	500 mL Poly	2		None	13A, 13B							X				
Outfall 013	W	1L Poly	2		HNO_3	14A, 14B								X			
Outfall 013	W	1L Poly	1		None	15									X		Filter w/in 24hrs of receipt at lab
Outfall 013	W	1L Amber	2		None	16A, 16B										X	

Meghann Chell 10/14/09
grab [illegible]

[redacted]

Relinquished By	Date/Time:	Received By	Date/Time:
[signature]	10/14/09/1425	[signature]	10-14-09/14:25
[signature]	10-14-09 19:05		

Turn-around time: (Check)
24 Hour: ____ 72 Hour: ____ 10 Day: ____
48 Hour: ____ 5 Day: ____ Normal: X

Sample Integrity: (Check)
Intact: ____ On Ice: Y

Data Requirements: (Check)
No Level IV: ____ All Level IV: ____ NPDES Level IV: Y

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

MWH – Pasadena/Boeing

Lot D9J160341

Project ISJ1378

Joseph Doak
17461 Derian Avenue
Suite 100
Irvine, CA 92614

TestAmerica Laboratories, Inc.

DiLea Griego
Project Manager

October 26, 2009

Table of Contents

Standard Deliverables with Supporting Documentation

Report Contents	Number of Pages

Standard Deliverables

(*The **Report Cover** page is considered an integral part of this Standard Deliverable package. This report is incomplete unless all pages indicated in this Table of Contents are included.)*

Supporting Documentation

(Note: A one-page "Description of Supporting Documentation" is provided at the beginning of this section.).

	Check below when supporting documentation is present.
• **Volatile GC/MS**	
• **Semivolatile GC/MS**	
• **Volatile GC**	
• **Semivolatile GC**	
• **LC/MS or HPLC**	
• **Metals**	X
• **General Chemistry**	
• **Subcontracted Data**	

Case Narrative

Enclosed is the report for one sample received at the TestAmerica Laboratory in Denver on October 16, 2009. The results included in this report relate only to the samples in this report and have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted below.

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

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

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

Quality Control Summary for Lot D9J160341

Sample Receiving

The cooler temperature upon receipt at the laboratory was acceptable at 0.3°C.

Total Metals- Method 245.1

The MS/MSD analyses associated with batch 9293508 exhibited spike compound recoveries and RPD values outside the QC control limits for mercury. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

Dissolved Metals- Method 245.1

The MS/MSD analyses associated with batch 9293522 exhibited spike compound recoveries outside the QC control limits for mercury. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were observed.

Quality Control Definitions of Qualifiers

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

EXECUTIVE SUMMARY - Detection Highlights

D9J160341

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D9J160341

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Dissolved Mercury (CVAA)	MCAWW 245.1	MCAWW 245.1
Mercury (Manual Cold Vapor Technique)	MCAWW 245.1	MCAWW 245.1

References:

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

METHOD / ANALYST SUMMARY

D9J160341

ANALYTICAL METHOD	ANALYST	ANALYST ID
MCAWW 245.1	Christopher Grisdale	9582

References:

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

SAMPLE SUMMARY

D9J160341

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LMQ30	001	ISJ1378-01	10/14/09	09:00

NOTE(S):

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

QC DATA ASSOCIATION SUMMARY

D9J160341

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	MCAWW 245.1		9293508	9293301
	WATER	MCAWW 245.1		9293522	9293314

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Total Metals

CLP-Like Forms

Lot ID: D9J160341

Client: TestAmerica-Irvine

Method: 245.1

Associated Samples: -001

Batch: 9293508

Total Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9J160341

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
ISJ1378-01	D9J160341-001

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 10/23/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	ISJ1378-01
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J160341-001
Matrix:	WATER	**Lab WorkOrder:**	LMQ30
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 09:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293508	**Date/Time Analyzed:**	10/21/09 11:24
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

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

Total Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	7.000	6.648	95.0	5.000	5.179	103.6	5.335	106.7	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Total Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9J160341

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.18500	92.5					

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J200000-508B
Matrix:	WATER	**Lab WorkOrder:**	LMXVC
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293508	**Date/Time Analyzed:**	10/21/09 11:04
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

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

Total Metals Analysis

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.027	U	0.027	U	-0.028	B			0.027	U	CV

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9J160341	**MS Lab Sample ID:**	D9J160335-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LMQ24
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 08:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293508	**Date/Time Analyzed:**	10/21/09 11:11
MS Sample Aliquot:	10 mL	**Instrument ID:**	023
MS Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.027	U	1.59		31	N	90 - 110

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9J160341	**MSD Lab Sample ID:**	D9J160335-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LMQ24
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 08:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293508	**Date/Time Analyzed:**	10/21/09 11:13
MSD Sample Aliquot:	10 mL	**Instrument ID:**	023
MSD Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.027	U	2.04		40	N	25	*	90 - 110	10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Total Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J200000-508C
Matrix:	WATER	**Lab WorkOrder:**	LMXVC
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293508	**Date/Time Analyzed:**	10/21/09 11:06
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	4.89	98		90 - 110

Total Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

Total Metals Analysis

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
INTRA-LAB QC	10/21/2009	10.0	10.0
LAB MS/MSD MS	10/21/2009	10.0	10.0
LAB MS/MSD MSD	10/21/2009	10.0	10.0
ISJ1378-01	10/21/2009	10.0	10.0
MB9293508	10/21/2009	10.0	10.0
Check Sample	10/21/2009	10.0	10.0

Comments:

Total Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9J160341

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 10/21/2009 End Date: 10/21/2009

Sample ID.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Cal Blank	1.00	10:37																X								
Std1	1.00	10:39																X								
Std2	1.00	10:41																X								
Std3	1.00	10:43																X								
Std4	1.00	10:46																X								
Std5	1.00	10:48																X								
Std6	1.00	10:50																X								
ICB	1.00	10:53																X								
ICV	1.00	10:55																X								
RL	1.00	10:58																X								
CCV	1.00	11:00																X								
CCB	1.00	11:02																X								
MB9293508	1.00	11:04																X								
Check Sample	1.00	11:06																X								
INTRA-LAB QC	1.00	11:09																X								
LAB MS/MSD MS	1.00	11:11																X								
LAB MS/MSD MSD	1.00	11:13																X								
ISJ1378-01	1.00	11:24																X								
CCV	1.00	11:26																X								
CCB	1.00	11:29																X								

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Dissolved Metals

CLP-Like Forms

Lot ID: D9J160341

Client: TestAmerica-Irvine

Method: 245.1

Associated Samples: -001

Batch: 9293522

Dissolved Metals Analysis

COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Contract: TestAmerica Irvine SDG No.: D9J160341

Lab Code: _____ Case No.: _____ SAS No.: _____

SOW No.: _____

Sample ID.	Lab Sample No.
ISJ1378-01	D9J160341-001

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

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

Signature: Janice Collins Name: Janice Collins

Date: 10/23/09 Title: Metals Analyst

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	ISJ1378-01
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J160341-001
Matrix:	WATER	**Lab WorkOrder:**	LMQ30
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 09:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293522	**Date/Time Analyzed:**	10/21/09 12:55
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

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

Dissolved Metals Analysis

-2A-

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury	7.000	6.648	95.0	5.000	5.179	103.6	5.166	103.3	CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis
-2A-
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Initial Calibration Source: Inorganic Ventures

Continuing Calibration Source: Ultra Scientific

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	M
Mercury				5.000	5.463	109.3			CV

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Dissolved Metals Analysis
-2B-
CRDL STANDARD FOR AA AND ICP

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9J160341

AA CRDL Standard Source: Ultra Scientific

ICP CRDL Standard Source:

Concentration Units: ug/L

Analyte	CRDL Standard for AA			CRDL Standard for ICP				
				Initial			Final	
	True	Found	%R	True	Found	%R	Found	%R
Mercury	0.200	0.18500	92.5					

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J200000-522B
Matrix:	WATER	**Lab WorkOrder:**	LMXWE
% Moisture:		**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293522	**Date/Time Analyzed:**	10/21/09 12:33
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

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

Dissolved Metals Analysis

-3-

BLANKS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.027	U	0.027	U	0.027	U	0.027	U	0.027	U	CV

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9J160341	**MS Lab Sample ID:**	D9J160335-001S
Matrix:	WATER	**MS Lab WorkOrder:**	LMQ24
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 08:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293522	**Date/Time Analyzed:**	10/21/09 12:46
MS Sample Aliquot:	10 mL	**Instrument ID:**	023
MS Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MS Result	C	% Rec	Q	QC Limit
Mercury	5.00	0.027	U	3.13		62	N	90 - 110

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	LAB MS/MSD
Lot/SDG Number:	D9J160341	**MSD Lab Sample ID:**	D9J160335-001D
Matrix:	WATER	**MSD Lab WorkOrder:**	LMQ24
% Moisture:	N/A	**Date/Time Collected:**	10/14/09 08:00
Basis:	Wet	**Date/Time Received:**	10/16/09 09:00
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293522	**Date/Time Analyzed:**	10/21/09 12:48
MSD Sample Aliquot:	10 mL	**Instrument ID:**	023
MSD Dilution Factor:	1		

Analyte	Spike Amount	Sample Result	C	MSD Result	C	% Rec	Q	RPD	Q	QC Limits	
										% Rec	RPD
Mercury	5.00	0.027	U	2.97		59	N	5.3		90 - 110	10

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Irvine

Dissolved Metals Analysis Data Sheet

Lab Name:	TESTAMERICA DENVER	**Client Sample ID:**	
Lot/SDG Number:	D9J160341	**Lab Sample ID:**	D9J200000-522C
Matrix:	WATER	**Lab WorkOrder:**	LMXWE
% Moisture:	N/A	**Date/Time Collected:**	
Basis:	Wet	**Date/Time Received:**	
Analysis Method:	245.1	**Date Leached:**	
Unit:	ug/L	**Date/Time Extracted:**	10/21/09 08:30
QC Batch ID:	9293522	**Date/Time Analyzed:**	10/21/09 12:35
Sample Aliquot:	10 mL	**Instrument ID:**	023
Dilution Factor:	1		

Analyte	True	Found	%Rec	Q	Limits
Mercury	5.00	5.17	103		90 - 110

Dissolved Metals Analysis

-10-

DETECTION LIMITS

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

ICP ID Number: _____ Date: 12/26/2008

Flame AA ID Number: Cetac M7500 Hg

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	PQL (ug/L)	MDL (ug/L)	M
Mercury	253.70		0.20	0.027	CV

Comments: _____

Dissolved Metals Analysis

-13-

PREPARATION LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: D9J160341

Method: CV Prep Method: _____

Sample ID	Preparation Date	Initial Volume	Final Volume(mL)
INTRA-LAB QC	10/21/2009	10.0	10.0
LAB MS/MSD MS	10/21/2009	10.0	10.0
LAB MS/MSD MSD	10/21/2009	10.0	10.0
ISJ1378-01	10/21/2009	10.0	10.0
MB9293522	10/21/2009	10.0	10.0
Check Sample	10/21/2009	10.0	10.0

Comments:

Dissolved Metals Analysis
-14-

ANALYSIS RUN LOG

Contract: TestAmerica Irvine

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: D9J160341

Instrument ID Number: Cetac M7500 Hg Method: CV

Start Date: 10/21/2009 End Date: 10/21/2009

Sample ID.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
Cal Blank	1.00	10:37																X									
Std1	1.00	10:39																X									
Std2	1.00	10:41																X									
Std3	1.00	10:43																X									
Std4	1.00	10:46																X									
Std5	1.00	10:48																X									
Std6	1.00	10:50																X									
ICB	1.00	10:53																X									
ICV	1.00	10:55																X									
RL	1.00	10:58																X									
CCV	1.00	11:00																X									
CCB	1.00	11:02																X									
CCV	1.00	12:29																X									
CCB	1.00	12:31																X									
MB9293522	1.00	12:33																X									
Check Sample	1.00	12:35																X									
INTRA-LAB QC	1.00	12:37																X									
LAB MS/MSD MS	1.00	12:46																X									
LAB MS/MSD MSD	1.00	12:48																X									
ISJ1378-01	1.00	12:55																X									
CCV	1.00	12:57																X									
CCB	1.00	13:00																X									

* - Denotes additional elements (other than the standard CLP elements) are represented on another Form 14

TestAmerica Denver

Sample Receiving Checklist

Lot #: D9516039\ Date/Time Received: 10·16·09 0900

Company Name & Sampling Site: TA IRVINE - BOEING - ISJ1378

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

Quote #: 72743

Special Instructions:

- Log total & Diss. as appropriate
- normal TAT

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

Unpacking Checks:

Cooler #(s): 1

Temperatures (°C): 0.3

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

TestAmerica Denver

Sample Receiving Checklist

Lot # D9516034I

Login Checks:

Initials

N/A Yes No

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

____

Labeling and Storage Checks:

Initials

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

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

0.3

SUBCONTRACT ORDER

TestAmerica Irvine

ISJ1378

SENDING LABORATORY:

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

RECEIVING LABORATORY:

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

Analysis	Units	Due	Expires	Interlab Price	Surch	Comments
Sample ID: ISJ1378-01	**Water**		Sampled: **10/14/09 09:00**			
Level 4 + EDD-OUT	N/A	10/23/09	11/11/09 09:00	$0.00	0%	Excel EDD email to pm,Include Std logs for Lvl IV
Mercury - 245.1, Diss -OUT	ug/l	10/23/09	11/11/09 09:00	$45.00	0%	Out to Denver Level 4 Boeing, permit, J flags
Mercury - 245.1-OUT	ug/l	10/23/09	11/11/09 09:00	$45.00	0%	Out to Denver Level 4 Boeing, permit, J flags

Containers Supplied:

250 mL Poly w/HNO3 (Dissolved) (AC) 1 L Poly w/HNO3 (Y)

Released By	Date/Time	Received By	Date/Time
	10/15/09 17:00	Fedex	10/15/09 17:00
Released By	Date/Time	Received By	Date/Time
			10/16/09 0800

Metals

Supporting Documentation

Sample Sequence, Instrument Printouts

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot ID: D9J160341

Client: TA-Irvine

Batch(es) #: 9Z93508 & 9Z93522

Associated Samples: 1

I certify that, to the best of my knowledge, the attached package represents a complete and accurate copy of the original data.

Signature/Date: Christopher Grisdale 10/21/09

Metals Raw Data RoadMap

LotID		*Metal*	*WorkOrder*	*Anal Date*	*TestDesc*	*Batch*	*File Id*	*Instr*
D9J160341	1	HG	LMQ301AC	20091021	M2451DS	9293522	091021AA	023
D9J160341	1	HG	LMQ301AA	20091021	M2451_L	9293508	091021AA	023

METALS
PREPARATION LOGS
ICP

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

SUPPLEMENTAL METALS PREP SHEET

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Hg PREP & ANALYSIS - WATERS

SOP: DEN-MT-0015 QC Batch #: 9293508

Prep Date: 10/21/09	Prep By: CGG	Analysis Date:10/21/09	Analyst: CGG
Balance ID: H53865		***Thermometer ID:*** MT 4025	

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	8:30	95	10:30	95

Purple color persists or black ppt present: [X] Yes [ ] No If "No", explain in Comments below.

Digestion Tube Lot # :

For dissolved mercury only, were samples filtered in the lab? [ ] Yes [X] No

One or more samples were filtered prior to analysis at the instrument. [X] Yes [ ] No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:

Reagents Used

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO_3	JT Baker	H12022		0.25
H_2SO_4	Fisher	G30047		0.5
HCl	JT Baker	H19031		used by instrument
10% $SnCl_2$	Fisher	G45629	STD-6425-09	added by instrument
NaCl / NH_2OH	Fisher	G28621	STD-6077-09	0.6
	Fisher	G42610		
$KMnO_4$	Fisher	G45641	STD-6424-09	1.5
$K_2S_2O_8$	Fisher	G45629	STD-5798-09	0.8

Parent Calibration Stock Standards

	Lot #	Verification #	Exp. Date
Second Source	B2-HG02064	STD-1957-09	04/02/10
Primary Calibration	K00200	STD-1955-09	04/02/10

Standards Preparation **Final digestate volume = 10 mls**

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

Second Source ICV Intermediate Stock Standard Prep **Standards Log #:** STD-6414-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments Total -245.1 - Boeing

I certify that all information above is correct and complete.

Signature: Chris Dindale ***Date:*** 10/21/09

REVIEWED BY: [signature] **Date:** 10/21/09

Batch Number: **9293508**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: US

Prep Date: ~~10/20/09~~ US 10/21/09
Due Date: 10/26/09

Lot	Work Order			Initial Weight/Volume
D9J200000 Water	**LMXVC**	B 1	Due Date: SDG:	10 mL
D9J200000 Water	**LMXVC**	C 2	Due Date: SDG:	10 mL
D9J160335 Water	**LMQ24** Total	3	Due Date: 10/26/09 SDG:	10 mL
D9J160335 Water	**LMQ24** Total	S 4	Due Date: 10/26/09 SDG:	10 mL
D9J160335 Water	**LMQ24** Total	D 5	Due Date: 10/26/09 SDG:	10 mL
D9J160338 Water	**LMQ3G** Total	6	Due Date: 10/26/09 SDG:	10 mL
D9J160339 Water	**LMQ3R** Total	7	Due Date: 10/26/09 SDG:	10 mL
D9J160341 Water	**LMQ30** Total	8	Due Date: 10/26/09 SDG:	10 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

US 10/21/09

Start 8:30	95°C
End 10:30	95°

SUPPLEMENTAL METALS PREP SHEET

(Used in conjunction with METALS PREP LOG/BATCH SUMMARY)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Denver

Hg PREP & ANALYSIS - WATERS

SOP: DEN-MT-0015 QC Batch #: 9293522

Prep Date: 10/21/09	Prep By: CGG	Analysis Date:10/21/09	Analyst: CGG
Balance ID: H53865		***Thermometer ID:*** MT 4025	

Digestion Cycles	Start Time	Temp °C	End Time	Temp °C
	8:30	95	10:30	95

Purple color persists or black ppt present: [X] Yes [ ] No If "No", explain in Comments below.

Digestion Tube Lot # :

For dissolved mercury only, were samples filtered in the lab? [ ] Yes [X] No

One or more samples were filtered prior to analysis at the instrument. [ ] Yes [X] No

If "yes", then the method blank and the LCS were also filtered in the same manner using the same type of filter.

Analyst(s) Initials:

Reagents Used

Reagent	Manufacturer	Lot #	Standards Log #	Vol (mL)
HNO_3	JT Baker	H12022		0.25
H_2SO_4	Fisher	G30047		0.5
HCl	JT Baker	H19031		used by instrument
10% $SnCl_2$	Fisher	G45629	STD-6425-09	added by instrument
NaCl / NH_2OH	Fisher	G28621	STD-6077-09	0.6
	Fisher	G42610		
$KMnO_4$	Fisher	G45641	STD-6424-09	1.5
$K_2S_2O_8$	Fisher	G45629	STD-5798-09	0.8

Parent Calibration Stock Standards

	Lot #	Verification #	Exp. Date
Second Source	B2-HG02064	STD-1957-09	04/02/10
Primary Calibration	K00200	STD-1955-09	04/02/10

Standards Preparation **Final digestate volume = 10 mls**

Standards	Final Conc	Parent Standard	Standards Log #	Vol (mL)	Pipette
Cal Working	10 mg/L	Primary Cal	See Attached Standards Log Printouts	1.00	7
Daily Cal Working	100 ug/L	Cal Working		1.00	7
ICAL 0.2	0.2 ug/L	Daily Cal Working		0.2	7
ICAL 0.5	0.5 ug/L	Daily Cal Working		0.5	7
ICAL 1	1.0 ug/L	Daily Cal Working		1.0	7
ICAL 2	2.0 ug/L	Daily Cal Working		2.0	7
ICAL 5	5.0 ug/L	Daily Cal Working		5.0	24
ICAL 10	10 ug/L	Daily Cal Working		10.0	24
CCV	5 ug/L	Daily Cal Working		5.0	7
ICV Intermed	700 ug/L	ICV Stock		0.70	7
ICV Daily Working	7.0 ug/L	ICV Intermed		1.00	7
LCS	5 ug/L	Daily Cal Working		0.5	7
MS/MSD	5 ug/L	Daily Cal Working		0.5	7
RL	0.2 ug/L	Daily Cal Working		0.2	7

Second Source ICV Intermediate Stock Standard Prep **Standards Log #:** STD-6414-09

NOTE: Details for each reagent & standard prep are documented in the attached Standards Preparation Logbook Record.

Comments Dissolved - Boeing

I certify that all information above is correct and complete.

Signature: Chris Grisdale ***Date:*** 10/21/09

REVIEWED BY: [illegible] **Date:** 10/21/09

Batch Number: **9293522**

TestAmerica Laboratories, Inc.
Metals Prep Log/ Batch Summary

Prepared By: CD

Prep Date: ~~10/20/09~~ CD 10/21/09
Due Date: 10/26/09

Lot	Work Order			Initial Weight/Volume
D9J200000 Water	**LMXWE**	B 1	Due Date: SDG:	10 mL
D9J200000 Water	**LMXWE**	C 2	Due Date: SDG:	10 mL
D9J160335 Water	**LMQ24** Dissolved	3	Due Date: 10/26/09 SDG:	10 mL
D9J160335 Water	**LMQ24** Dissolved	S 4	Due Date: 10/26/09 SDG:	10 mL
D9J160335 Water	**LMQ24** Dissolved	D 5	Due Date: 10/26/09 SDG:	10 mL
D9J160338 Water	**LMQ3G** Dissolved	6	Due Date: 10/26/09 SDG:	10 mL
D9J160339 Water	**LMQ3R** Dissolved	7	Due Date: 10/26/09 SDG:	10 mL
D9J160341 Water	**LMQ30** Dissolved	8	Due Date: 10/26/09 SDG:	10 mL

Comments:

B-BLANK; C-CHECK SAMPLE; L-CHECK SAMPLE DUPLICATE; P-SERIAL DILUTION; S-MATRIX SPIKE SAMPLE; D-MATRIX SPIKE DUPLICATE SAMPLE

METALS
SAMPLE DATA
CVAA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver

Standards Preparation Logbook Record

Oct-21-2009

Logbook: \\Densvr06\StdsLog\metals.std

STD1955-09, 1000 mg/L HG Calibration Stock Standard (ULTRA Analyst: GRISDALEC

Vendor: Ultra (Metals) Lot No.: K00200 Vendor's Expiration Date: 04-02-2010
Solvent: 2% HNO3
Date Prep./Opened: 04-02-2009 Date Received: 04-02-2009
Date Expires(1): 04-02-2010 (1 Year)
Date Expires(2): 04-02-2010 (None)
(METALS)-Inventory ID: 842

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	1,000.0	1,000.0

STD1957-09, Hg Inorganic Ventures ICV 100PPM std Analyst: GRISDALEC

Vendor: Inorganic Ventures Lot No.: B2-HG02064 Vendor's Expiration Date: 04-02-2010
Solvent: Neat
Date Prep./Opened: 04-02-2009 Date Received: 04-02-2009
Date Expires(1): 04-02-2010 (1 Year)
Date Expires(2): 04-02-2010 (None)
(METALS)-Inventory ID: 843

Component	Initial Conc (%)	Final Conc (%)
HG	100.00	100.00

STD6413-09, 10 mg/L Hg Calibration Std Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-20-2009
Date Expires(1): 11-20-2009 (1 Month)
Date Expires(2): 04-02-2010 (1 Month)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1955-09, 1000 mg/L HG Calibration Stock Standard (ULTRA Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 04-02-2010 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (mg/L)
HG	1,000.0	10.000

STD6414-09, Hg Inorganic Ventures ICV 700ppb

Analyst: grisdalec

Solvent: 1% HNO3 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-20-2009
Date Expires(1): 11-03-2009 (2 Weeks)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD1957-09, Hg Inorganic Ventures ICV 100PPM std Aliquot Amount (ml): 0.7000
Parent Date Expires(1): 04-02-2010 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (%)	Final Conc (ug/L)
HG	100.00	7,000,000

STD6415-09, 100 ppb Hg Calibration Std

Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6413-09, 10 mg/L Hg Calibration Std Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 11-20-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (mg/L)	Final Conc (ug/ml)
HG	10.000	0.1000

STD6416-09, Blank Daily Hg Calibration Std

Analyst: grisdalec

Vendor: Baker Lot No.: H12022
Solvent: 1% HN03
Date Prep./Opened: 10-21-2009
Date Expires(1): 04-21-2010 (6 Months)
Date Expires(2): 10-21-2010 (1 Year)
Date Verified: 12-31--4714 by 0 (Verification ID: -)

Component	Initial Conc (%)	Final Conc (%)
Nitric Acid	1.0000	1.0000

STD6418-09, 0.5 ppb Daily Hg Calibration Std

Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6415-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 0.5000
Parent Date Expires(1): 10-22-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	0.1000	0.0005

STD6419-09, 1.0 ppb Daily Hg Calibration Std

Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6415-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 10-22-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	0.1000	0.0010

STD6420-09, 2.0 ppb Daily Hg Calibration Std

Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6415-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 2.0000
Parent Date Expires(1): 10-22-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	0.1000	0.0020

STD6421-09, 5.0 ppb Daily Hg Calibration Std

Analyst: grisdalec

Solvent: 1% HN03 Lot No.: H12022 Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6415-09, 100 ppb Hg Calibration Std Aliquot Amount (ml): 5.0000
Parent Date Expires(1): 10-22-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	0.1000	0.0050

STD6422-09, 10.0 ppb Daily Hg Calibration Std — Analyst: grisdalec

Solvent: 1% HN03 — Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 10-21-2009 — Date Consumed: 12-06-2006
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6415-09, 100 ppb Hg Calibration Std — Aliquot Amount (ml): 10.000
Parent Date Expires(1): 10-22-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/ml)	Final Conc (ug/ml)
HG	0.1000	0.0100

STD6423-09, Hg Daily ICV 7ppb Calibration Std — Analyst: grisdalec

Solvent: 1% HNO3 — Lot No.: H12022 — Volume (ml): 100.00
Date Prep./Opened: 10-21-2009
Date Expires(1): 10-22-2009 (1 Day)
Date Expires(2): 04-02-2010 (None)
Date Verified: 12-31--4714 by - (Verification ID: 0)

Parent Std No.: STD6414-09, Hg Inorganic Ventures ICV 700ppb — Aliquot Amount (ml): 1.0000
Parent Date Expires(1): 11-03-2009 Parent Date Expires(2): 04-02-2010

Component	Initial Conc (ug/L)	Final Conc (ug/L)
HG	7,000,000	70,000

Reviewed By: Christopher Grisdale 10/21/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 10/21/09 15:58:20

Sequence: 091021AA **Date:** 10/21/09 10:37 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
1	Cal Blank				0.00	1.0	0.00	ppb		10/21/09 10:37		☐
2	Std1	= 0.200			0.20	1.0	0.20	ppb	100.0%	10/21/09 10:39		☐
3	Std2	= 0.500			0.50	1.0	0.50	ppb	100.0%	10/21/09 10:41		☐
4	Std3	= 1.00			1.00	1.0	1.00	ppb	100.0%	10/21/09 10:43		☐
5	Std4	= 2.00			2.00	1.0	2.00	ppb	100.0%	10/21/09 10:46		☐
6	Std5	= 5.00			5.00	1.0	5.00	ppb	100.0%	10/21/09 10:48		☐
7	Std6	= 10.0			10.00	1.0	10.00	ppb	100.0%	10/21/09 10:50		☐
8	ICB				-0.02	1.0	-0.02	ppb		10/21/09 10:53		☐
9	ICV	= 7.00			6.65	1.0	6.65	ppb	95.0%	10/21/09 10:55		☐
10	RL	= 0.200			0.19	1.0	0.19	ppb		10/21/09 10:58		☐
11	CCV	= 5.00			5.18	1.0	5.18	ppb	103.6%	10/21/09 11:00		☐
12	CCB				-0.02	1.0	-0.02	ppb		10/21/09 11:02		☐
13	LMXVCB	D9J200000	9293508		-0.01	1.0	-0.01	ppb		10/21/09 11:04		☐
14	LMXVCC	D9J200000 = 5.00	9293508		4.89	1.0	4.89	ppb	97.7%	10/21/09 11:06		☐
15	LMQ24	D9J160335-1	9293508	AQUEOUS	0.02	1.0	0.02	ppb		10/21/09 11:09		☐
16	LMQ24S	D9J160335-1 = 5.00	9293508	AQUEOUS	1.59	1.0	1.59	ppb		10/21/09 11:11		☐
17	LMQ24D	D9J160335-1 = 5.00	9293508	AQUEOUS	2.04	1.0	2.04	ppb		10/21/09 11:13		☐
~~18~~	~~LMQ24S~~	~~D9J160335-1 = 5.00~~	~~9293508~~	~~AQUEOUS~~	~~1.71~~	~~1.0~~	~~1.71~~	~~ppb~~		~~10/21/09 11:15~~	NA confirms above.	☐
~~19~~	~~LMQ24D~~	~~D9J160335-1 = 5.00~~	~~9293508~~	~~AQUEOUS~~	~~2.19~~	~~1.0~~	~~2.19~~	~~ppb~~		~~10/21/09 11:17~~	CJ 10/21/09	☐
20	LMQ3G	D9J160338-1	9293508	AQUEOUS	-0.06	1.0	-0.06	ppb		10/21/09 11:20		☐
21	LMQ3R	D9J160339-1	9293508	AQUEOUS	-0.02	1.0	-0.02	ppb		10/21/09 11:22		☐
22	LMQ30	D9J160341-1	9293508	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 11:24		☐
23	CCV	= 5.00			5.34	1.0	5.34	ppb	106.7%	10/21/09 11:26		☐
24	CCB				-0.03	1.0	-0.03	ppb		10/21/09 11:29		☐
25	LMTKEBT	D9J180000	9293533		-0.02	1.0	-0.02	ppb		10/21/09 11:31		☐
26	LMX0CCT	D9J200000 = 5.00	9293533		5.12	1.0	5.12	ppb	102.4%	10/21/09 11:33		☐
27	LMNGVT	D9J150315-2	9293533	LEACHATE	-0.02	1.0	-0.02	ppb		10/21/09 11:35		☐
28	LMNGVST	D9J150315-2 = 5.00	9293533	LEACHATE	5.45	1.0	5.45	ppb		10/21/09 11:38		☐
29	LMNGVDT	D9J150315-2 = 5.00	9293533	LEACHATE	5.54	1.0	5.54	ppb		10/21/09 11:40		☐
~~30~~	~~LMNGVST~~	~~D9J150315-2 = 5.00~~	~~9293533~~	~~LEACHATE~~	~~5.38~~	~~1.0~~	~~5.38~~	~~ppb~~		~~10/21/09 11:42~~	NA confirms above	☐
~~31~~	~~LMNGVDT~~	~~D9J150315-2 = 5.00~~	~~9293533~~	~~LEACHATE~~	~~5.45~~	~~1.0~~	~~5.45~~	~~ppb~~		~~10/21/09 11:44~~	CJ 10/21/09	☐
32	LMNHAT	D9J150315-5	9293533	LEACHATE	-0.02	1.0	-0.02	ppb		10/21/09 11:46		☐
33	LMNHET	D9J150315-6	9293533	LEACHATE	-0.02	1.0	-0.02	ppb		10/21/09 11:49		☐
34	LMNHJT	D9J150315-7	9293533	LEACHATE	-0.01	1.0	-0.01	ppb		10/21/09 11:51		☐

CJ 10/21/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 10/21/09 15:58:20

Sequence: 091021AA **Date:** 10/21/09 10:37 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
35	CCV	= 5.00			5.64	1.0	5.64	ppb	112.9%	10/21/09 11:53		☐
36	CCB				-0.03	1.0	-0.03	ppb		10/21/09 11:55		☐
37	LMXWPBF	D9J200000	9293528		-0.02	1.0	-0.02	ppb		10/21/09 11:58		☐
38	LMXWPCF	D9J200000 = 5.00	9293528		5.02	1.0	5.02	ppb	100.4%	10/21/09 12:00		☐
39	LMXE1F	D9J200249-1	9293528	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 12:02		☐
40	LMXE1SF			UNKNOWN	5.09	1.0	5.09	ppb		10/21/09 12:04		☐
41	LMXE1DF			UNKNOWN	5.36	1.0	5.36	ppb		10/21/09 12:06		☐
42	LMXE5F	D9J200249-3	9293528	AQUEOUS	-0.00	1.0	-0.00	ppb		10/21/09 12:09		☐
43	LMXE9F	D9J200249-5	9293528	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 12:11		☐
44	LMXECF	D9J200246-1	9293528	AQUEOUS	9.96	1.0	9.96	ppb		10/21/09 12:13		☐
45	LMXE6F	D9J200246-5	9293528	AQUEOUS	8.79	1.0	8.79	ppb		10/21/09 12:17		☐
46	CCV	= 5.00			5.60	1.0	5.60	ppb	111.9%	10/21/09 12:21		☐
47	CCB				-0.02	1.0	-0.02	ppb		10/21/09 12:23		☐
48	CCV	= 5.00			5.17	1.0	5.17	ppb	103.3%	10/21/09 12:29		☐
49	CCB				-0.02	1.0	-0.02	ppb		10/21/09 12:31		☐
50	LMXWEBF	D9J200000	9293522		-0.01	1.0	-0.01	ppb		10/21/09 12:33		☐
51	LMXWECF	D9J200000 = 5.00	9293522		5.17	1.0	5.17	ppb	103.5%	10/21/09 12:35		☐
52	LMQ24F	D9J160335-1	9293522	AQUEOUS	0.01	1.0	0.01	ppb		10/21/09 12:37		☐
~~53~~	~~LMQ24SF~~	~~D9J160335-1 = 5.00~~	~~9293522~~	~~AQUEOUS~~	~~3.48~~	~~1.0~~	~~3.48~~	~~ppb~~		~~10/21/09 12:42~~	NA use below.	☐
~~54~~	~~LMQ24DF~~	~~D9J160335-1 = 5.00~~	~~9293522~~	~~AQUEOUS~~	~~5.43~~	~~1.0~~	~~5.43~~	~~ppb~~		~~10/21/09 12:44~~		☐
55	LMQ24SF	D9J160335-1 = 5.00	9293522	AQUEOUS	3.13	1.0	3.13	ppb		10/21/09 12:46	CD 10/21/09	☐
56	LMQ24DF	D9J160335-1 = 5.00	9293522	AQUEOUS	2.97	1.0	2.97	ppb		10/21/09 12:48		☐
57	LMQ3GF	D9J160338-1	9293522	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 12:51		☐
58	LMQ3RF	D9J160339-1	9293522	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 12:53		☐
59	LMQ30F	D9J160341-1	9293522	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 12:55		☐
60	CCV	= 5.00			5.46	1.0	5.46	ppb	109.3%	10/21/09 12:57		☐
61	CCB				-0.02	1.0	-0.02	ppb		10/21/09 13:00		☐
62	LMXV3B	D9J200000	9293520		-0.02	1.0	-0.02	ppb		10/21/09 13:02		☐
63	LMXV3C	D9J200000 = 5.00	9293520		5.15	1.0	5.15	ppb	103.0%	10/21/09 13:04		☐
64	LMXE3	D9J200249-2	9293520	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 13:06		☐
65	LMXE3S			UNKNOWN	4.86	1.0	4.86	ppb		10/21/09 13:08		☐
66	LMXE3D			UNKNOWN	4.91	1.0	4.91	ppb		10/21/09 13:11		☐
67	LMXE7	D9J200249-4	9293520	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 13:13		☐
68	LMXFA	D9J200249-6	9293520	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 13:15		☐

CD 10/21/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 10/21/09 15:58:20

Sequence: 091021AA **Date:** 10/21/09 10:37 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
69	~~LMXEC~~	~~D0J200246-1~~	~~9293520~~	~~AQUEOUS~~	~~10.93~~	~~1.0~~	~~10.93~~	ppb		10/21/09 13:17		☐
70	LMXEC 10X	D9J200246-1	9293520	AQUEOUS	0.95	10.0	9.53	ppb		10/21/09 13:23		☐
71	~~LMXE0~~	~~D9J200246-3~~	~~9293520~~	~~AQUEOUS~~	~~10.71~~	~~1.0~~	~~10.71~~	ppb		~~10/21/09 13:25~~		☐
72	LMXE0 10X	D9J200246-3	9293520	AQUEOUS	1.10	10.0	10.95	ppb		10/21/09 13:30		☐
73	~~LMXE6~~	~~D9J200246-5~~	~~9293520~~	~~AQUEOUS~~	~~10.37~~	~~1.0~~	~~10.37~~	ppb		~~10/21/09 13:32~~		☐
74	LMXE6 10X	D9J200246-5	9293520	AQUEOUS	1.08	10.0	10.82	ppb		10/21/09 13:37		☐
75	CCV	= 5.00			5.22	1.0	5.22	ppb	104.4%	10/21/09 13:39	Samples > LR, see appropriate dilutions for each.	☐
76	CCB				0.01	1.0	0.01	ppb		10/21/09 13:42		☐
77	LML8NB	D9J150000	9288328		-0.02	1.0	-0.02	ppb		10/21/09 13:44		☐
78	LML8NC	D9J150000 = 5.00	9288328		5.16	1.0	5.16	ppb	103.2%	10/21/09 13:46		☐
79	LME16	D9J120128-1	9288328	AQUEOUS	0.27	1.0	0.27	ppb		10/21/09 13:48		☐
80	LME2L	D9J120128-2	9288328	AQUEOUS	0.51	1.0	0.52	ppb		10/21/09 13:50		☐
81	LME2M	D9J120128-3	9288328	AQUEOUS	1.77	1.0	1.77	ppb		10/21/09 13:53		☐
82	CCV	= 5.00			5.22	1.0	5.22	ppb	104.5%	10/21/09 13:55	CJ 10/21/09	☐
83	CCB				-0.08	1.0	-0.08	ppb		10/21/09 13:57		☐
84	LME2P	D9J120128-4	9288328	AQUEOUS	1.72	1.0	1.72	ppb		10/21/09 13:59		☐
85	~~LME2T~~	~~D9J120128-5~~	~~9288328~~	~~AQUEOUS~~	~~61.70~~	~~1.0~~	~~61.70~~	ppb		~~10/21/09 14:02~~		☐
86	LME2T 10X	D9J120128-5	9288328	AQUEOUS	8.42	10.0	84.24	ppb		10/21/09 14:07		☐
87	~~LME2W~~	~~D9J120128-6~~	~~9288328~~	~~AQUEOUS~~	~~72.17~~	~~1.0~~	~~72.17~~	ppb		~~10/21/09 14:09~~		☐
88	~~LME2W 10X~~	~~D9J120128-6~~	~~9288328~~	~~AQUEOUS~~	~~24.74~~	~~10.0~~	~~247.39~~	ppb		~~10/21/09 14:15~~		☐
89	LME2W 100X	D9J120128-6	9288328	AQUEOUS	3.53	100	353.00	ppb		10/21/09 14:20		☐
90	LME2X	D9J120128-7	9288328	AQUEOUS	0.56	1.0	0.56	ppb		10/21/09 14:22		☐
91	CCV	= 5.00			5.51	1.0	5.51	ppb	110.3%	10/21/09 14:24		☐
92	CCB				-0.04	1.0	-0.04	ppb		10/21/09 14:34		☐
93	LME24	D9J120128-8	9288328	AQUEOUS	3.18	1.0	3.18	ppb		10/21/09 14:36		☐
94	LME26	D9J120128-9	9288328	AQUEOUS	0.68	1.0	0.68	ppb		10/21/09 14:39		☐
95	~~LMGLV~~	~~D9J130167-1~~	~~9288328~~	~~AQUEOUS~~	~~1.58~~	~~1.0~~	~~-1.58~~	ppb		~~10/21/09 14:41~~	NA see rerun below	☐
96	LMGLV	D9J130167-1	9288328	AQUEOUS	-0.14	1.0	-0.14	ppb		10/21/09 14:45	CJ 10/21/09	☐
97	LMGLVS	D9J130167-1 = 5.00	9288328	AQUEOUS	5.20	1.0	5.20	ppb		10/21/09 14:47		☐
98	LMGLVD	D9J130167-1 = 5.00	9288328	AQUEOUS	5.16	1.0	5.16	ppb		10/21/09 14:49		☐
99	CCV	= 5.00			4.23	1.0	4.23	ppb	84.6%	10/21/09 14:52		☐
100	CCB				0.00	1.0	0.00	ppb		10/21/09 14:54		☐
101	LMGL0	D9J130167-2	9288328	AQUEOUS	-0.02	1.0	-0.02	ppb		10/21/09 14:56		☐
102	LMGL2	D9J130167-3	9288328	AQUEOUS	0.01	1.0	0.02	ppb		10/21/09 14:58		☐

✓ CJ 10/21/09

Denver

RUN SUMMARY

Method: CVHG - Mercury (Cold Vapor Mercury) | Instrument: A (023) | Reported: 10/21/09 15:58:20

Sequence: 091021AA **Date:** 10/21/09 10:37 **Analyst:** CGG **ICV:** _____ **CAL/CCV:** _____

#	Sample ID	Lot No.	Batch	Matrix	Raw	DF	Result	Units	%R	Analyzed Date	Comment	Q
103	LMGL5	D9J130167-4	9288328	AQUEOUS	-0.04	1.0	-0.04	ppb		10/21/09 15:01		☐
104	LMGL6	D9J130167-5	9288328	AQUEOUS	-0.01	1.0	-0.01	ppb		10/21/09 15:03		☐
105	LMGL8	D9J130167-6	9288328	AQUEOUS	-0.05	1.0	-0.05	ppb		10/21/09 15:05		☐
106	LMGDE	D9J130135-1	9288328	AQUEOUS	-0.06	1.0	-0.06	ppb		10/21/09 15:07		☐
107	LMJF2	D9J140137-1	9288328	AQUEOUS	4.27	1.0	4.27	ppb		10/21/09 15:10		☐
108	CCV	= 5.00			5.41	1.0	5.41	ppb	108.1%	10/21/09 15:12		☐
109	CCB				0.00	1.0	0.00	ppb		10/21/09 15:14		☐

10/21/09

Report Generated By CETAC QuickTrace
Analyst: grisdalec
Worksheet file: C:\Program Files\QuickTrace\Worksheets\091021AA.wsz
Date Started: 10/21/2009 9:53:06 AM
Comment:

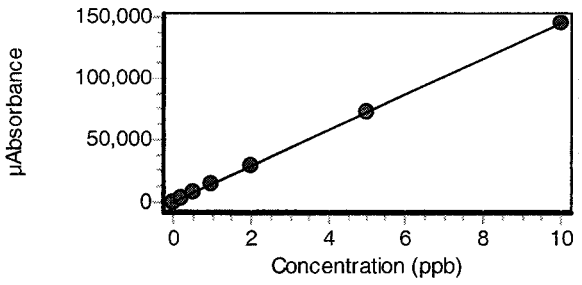
Results

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt. ODF	Vol.
Cal Blank	STD	10/21/09 10:37:13 am	0.000	16	19.07		1.00 1.00	1.00
Std1	STD	10/21/09 10:39:26 am	0.200	3027	0.19		1.00 1.00	1.00
Std2	STD	10/21/09 10:41:39 am	0.500	7416	0.23		1.00 1.00	1.00
Std3	STD	10/21/09 10:43:53 am	1.000	15047	0.24		1.00 1.00	1.00
Std4	STD	10/21/09 10:46:08 am	2.000	29584	0.27		1.00 1.00	1.00
Std5	STD	10/21/09 10:48:24 am	5.000	72999	0.32		1.00 1.00	1.00
Std6	STD	10/21/09 10:50:40 am	10.000	145092	0.40		1.00 1.00	1.00

Calibration

Equation: A = 296.279 + 14497.680C
R2: 0.99998
SEE: 264.9720
Flags:

10/21/09



ICB	ICB	10/21/09 10:53:33 am	-0.023	-40	3.59		1.00 1.00	1.00
ICV	ICV	10/21/09 10:55:49 am	6.648	96677	0.47		1.00 1.00	1.00
% Recovery 94.97								
RL	CRDL	10/21/09 10:58:01 am	0.185	2979	0.21		1.00 1.00	1.00
% Recovery 92.51								

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
CCV	CCV	10/21/09 11:00:17 am	5.179	75382	0.30		1.00	1.00
% Recovery 103.58							1.00	
CCB	CCB	10/21/09 11:02:29 am	-0.022	-29	11.08		1.00	1.00
							1.00	
LMXVCB	UNK	10/21/09 11:04:41 am	-0.012	119	2.19		1.00	1.00
							1.00	
LMXVCC	UNK	10/21/09 11:06:54 am	4.886	71134	0.27		1.00	1.00
							1.00	
LMQ24	UNK	10/21/09 11:09:07 am	0.019	570	0.77		1.00	1.00
							1.00	
LMQ24S	UNK	10/21/09 11:11:19 am	1.588	23322	0.22		1.00	1.00
							1.00	
LMQ24D	UNK	10/21/09 11:13:33 am	2.044	29923	0.17		1.00	1.00
							1.00	
~~LMQ24S~~	UNK	10/21/09 11:15:46 am	1.710	25087	0.73		1.00	1.00
							1.00	
NA Confirms above OJ 10/21/09								
~~LMQ24D~~	UNK	~~10/21/09 11:17:59 am~~	~~2.180~~	~~32027~~	~~0.12~~		1.00	1.00
							1.00	
LMQ3G	UNK	10/21/09 11:20:13 am	-0.058	-546	2.01		1.00	1.00
							1.00	
LMQ3R	UNK	10/21/09 11:22:26 am	-0.019	19	29.84		1.00	1.00
							1.00	
LMQ30	UNK	10/21/09 11:24:41 am	-0.011	139	2.46		1.00	1.00
							1.00	
CCV	CCV	10/21/09 11:26:56 am	5.335	77648	0.37		1.00	1.00
% Recovery 106.71							1.00	
CCB	CCB	10/21/09 11:29:08 am	-0.028	-114	1.50		1.00	1.00
							1.00	
LMTKEB	UNK	10/21/09 11:31:22 am	-0.018	41	1.90		1.00	1.00
							1.00	
LMX0CC	UNK	10/21/09 11:33:37 am	5.120	74520	0.52		1.00	1.00
							1.00	
LMNGV	UNK	10/21/09 11:35:52 am	-0.017	50	5.37		1.00	1.00
							1.00	

OJ 10/21/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
LMNGVS	UNK	10/21/09 11:38:07 am	5.446	79251	0.40		1.00	1.00 1.00
LMNGVD	UNK	10/21/09 11:40:19 am	5.539	80596	0.08		1.00	1.00 1.00
~~LMNGVS~~	~~UNK~~	~~10/21/09 11:42:34 am~~	5.383	78330	0.27		1.00	1.00 1.00
MA, Verifies above. CJ 10/21/09								
~~LMNGVD~~	~~UNK~~	~~10/21/09 11:44:46 am~~	5.447	79258	0.24		1.00	1.00 1.00
LMNHA	UNK	10/21/09 11:46:58 am	-0.017	46	13.65		1.00	1.00 1.00
LMNHE	UNK	10/21/09 11:49:11 am	-0.016	65	5.01		1.00	1.00 1.00
LMNHJ	UNK	10/21/09 11:51:23 am	-0.012	124	2.67		1.00	1.00 1.00
CCV	CCV	10/21/09 11:53:39 am	5.643	82110	0.11		1.00	1.00 1.00
% Recovery 112.86								
CCB	CCB	10/21/09 11:55:51 am	-0.028	-111	1.34		1.00	1.00 1.00
LMXWPB	UNK	10/21/09 11:58:04 am	-0.017	55	3.49		1.00	1.00 1.00
LMXWPC	UNK	10/21/09 12:00:17 pm	5.019	73058	0.22		1.00	1.00 1.00
LMXE1	UNK	10/21/09 12:02:30 pm	-0.014	92	2.00		1.00	1.00 1.00
LMXE1S	UNK	10/21/09 12:04:44 pm	5.093	74130	0.03		1.00	1.00 1.00
LMXE1D	UNK	10/21/09 12:06:58 pm	5.360	78004	0.17		1.00	1.00 1.00
LMXE5	UNK	10/21/09 12:09:13 pm	-0.005	230	1.18		1.00	1.00 1.00
LMXE9	UNK	10/21/09 12:11:27 pm	-0.012	123	0.81		1.00	1.00 1.00
LMXEC	UNK	10/21/09 12:13:42 pm	9.964	144756	1.18		1.00	1.00 1.00

CJ 10/21/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
LMXE6	UNK	10/21/09 12:17:32 pm	8.794	127786	0.28		1.00	1.00 1.00
CCV	CCV	10/21/09 12:21:38 pm	5.596	81426	0.03		1.00	1.00 1.00
% Recovery 111.92								
CCB	CCB	10/21/09 12:23:50 pm	-0.024	-48	5.54		1.00	1.00 1.00
CCV	CCV	10/21/09 12:29:09 pm	5.166	75196	0.41		1.00	1.00 1.00
% Recovery 103.33								
CCB	CCB	10/21/09 12:31:21 pm	-0.024	-59	2.16		1.00	1.00 1.00
LMXWEB	UNK	10/21/09 12:33:33 pm	-0.013	104	2.91		1.00	1.00 1.00
LMXWEC	UNK	10/21/09 12:35:46 pm	5.174	75314	0.02		1.00	1.00 1.00
LMQ24	UNK	10/21/09 12:37:58 pm	0.007	394	6.34	s	1.00	1.00 1.00
~~LMQ24S~~	UNK	10/21/09 12:42:13 pm	3.477	50698	1.16		1.00	1.00 1.00
NA use rerun results								
~~LMQ24D~~	UNK	10/21/09 12:44:26 pm	5.435	79096	0.07		1.00	1.00 1.00
LMQ24S	UNK	10/21/09 12:46:39 pm	3.131	45693	1.16		1.00	1.00 1.00
CJ 10/21/09								
LMQ24D	UNK	10/21/09 12:48:52 pm	2.970	43349	1.06		1.00	1.00 1.00
LMQ3G	UNK	10/21/09 12:51:06 pm	-0.008	181	0.48		1.00	1.00 1.00
LMQ3R	UNK	10/21/09 12:53:20 pm	-0.015	86	3.68		1.00	1.00 1.00
LMQ30	UNK	10/21/09 12:55:34 pm	-0.008	180	1.29		1.00	1.00 1.00
CCV	CCV	10/21/09 12:57:49 pm	5.463	79503	0.25		1.00	1.00 1.00
% Recovery 109.27								
CCB	CCB	10/21/09 01:00:02 pm	-0.024	-54	8.11		1.00	1.00 1.00

CJ 10/21/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
LMXV3B	UNK	10/21/09 01:02:16 pm	-0.016	65	6.58		1.00	1.00 1.00
LMXV3C	UNK	10/21/09 01:04:31 pm	5.149	74940	0.21		1.00	1.00 1.00
LMXE3	UNK	10/21/09 01:06:46 pm	-0.013	106	2.91		1.00	1.00 1.00
LMXE3S	UNK	10/21/09 01:08:58 pm	4.857	70710	0.21		1.00	1.00 1.00
LMXE3D	UNK	10/21/09 01:11:10 pm	4.912	71513	0.19		1.00	1.00 1.00
LMXE7	UNK	10/21/09 01:13:22 pm	-0.010	156	4.37		1.00	1.00 1.00
LMXFA	UNK	10/21/09 01:15:35 pm	-0.015	78	1.73		1.00	1.00 1.00
NA samples > LR see 10x dil. for all.								
~~LMXEC~~	~~UNK~~	~~10/21/09 01:17:48 pm~~	~~10.926~~	~~158701~~	~~0.18~~	~~O~~	~~1.00~~	~~1.00~~ 1.00
LMXEC* 10x dil.	UNK	10/21/09 01:23:04 pm	0.953	14120	6.57	s	1.00	1.00 10.00
cy 10/21/09								
~~LMXE0~~	~~UNK~~	~~10/21/09 01:25:18 pm~~	~~10.713~~	~~155607~~	~~0.09~~	~~O~~	~~1.00~~	~~1.00~~ 1.00
LMXE0* 10x dil.	UNK	10/21/09 01:30:19 pm	1.095	16168	0.33		1.00	1.00 10.00
~~LMXE6~~	~~UNK~~	~~10/21/09 01:32:33 pm~~	~~10.366~~	~~150586~~	~~0.35~~	~~O~~	~~1.00~~	~~1.00~~ 1.00
LMXE6* 10x dil.	UNK	10/21/09 01:37:34 pm	1.082	15986	0.68		1.00	1.00 10.00
CCV	CCV	10/21/09 01:39:50 pm	5.221	75987	0.93		1.00	1.00 1.00
% Recovery 104.42								
CCB	CCB	10/21/09 01:42:02 pm	0.011	451	27.21	s	1.00	1.00 1.00
LML8NB	UNK	10/21/09 01:44:16 pm	-0.020	7	171.04		1.00	1.00 1.00
LML8NC	UNK	10/21/09 01:46:30 pm	5.161	75118	0.33		1.00	1.00 1.00

10/21/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
LME16	UNK	10/21/09 01:48:44 pm	0.266	4147	3.82		1.00	1.00 1.00
LME2L	UNK	10/21/09 01:50:59 pm	0.515	7767	0.30		1.00	1.00 1.00
LME2M	UNK	10/21/09 01:53:14 pm	1.768	25932	0.68		1.00	1.00 1.00
CCV	CCV	10/21/09 01:55:29 pm	5.224	76036	0.62		1.00	1.00 1.00
% Recovery 104.49								
CCB	CCB	10/21/09 01:57:41 pm	-0.077	-815	32.76		1.00	1.00 1.00
LME2P	UNK	10/21/09 01:59:54 pm	1.723	25274	0.89		1.00	1.00 1.00
~~LME2T~~ NA, samples > LR	~~UNK~~	~~10/21/09 02:02:06 pm~~	~~61.697~~	~~894766~~	~~1.26~~	~~S~~	~~1.00~~	~~1.00~~ 1.00
LME2T* (10 x dil.) CJ 10/21/09	UNK	10/21/09 02:07:08 pm	8.424	122425	1.61		1.00	1.00 10.00
~~LME2W~~	~~UNK~~	~~10/21/09 02:09:55 pm~~	~~72.173~~	~~1046643~~	~~0.00~~	~~S~~	~~1.00~~	~~1.00~~ 1.00
~~LME2W*~~	~~UNK~~	~~10/21/09 02:15:00 pm~~	~~24.739~~	~~358949~~	~~1.61~~	~~O~~	~~1.00~~	~~1.00~~ 10.00
LME2W** (100 x dil.)	UNK	10/21/09 02:20:06 pm	3.530	51469	3.91		1.00	1.00 100.00
LME2X	UNK	10/21/09 02:22:19 pm	0.557	8377	7.03	s	1.00	1.00 1.00
CCV	CCV	10/21/09 02:24:35 pm	5.515	80255	0.43		1.00	1.00 1.00
% Recovery 110.31								
CCB	CCB	10/21/09 02:34:39 pm	-0.037	-240	2.07		1.00	1.00 1.00
LME24	UNK	10/21/09 02:36:52 pm	3.179	46386	1.37		1.00	1.00 1.00
LME26	UNK	10/21/09 02:39:05 pm	0.679	10147	2.43		1.00	1.00 1.00
~~LMCLV~~ NA, see rerun CJ 10/21/09	~~UNK~~	~~10/21/09 02:41:18 pm~~	~~1.582~~	~~22643~~	~~0.47~~		~~1.00~~	~~1.00~~ 1.00

CJ 10/21/09

Sample Name	Type	Date/Time	Conc (ppb)	µAbs	%RSD	Flags	Wt.	Vol. ODF
LMGLV	UNK	10/21/09 02:45:29 pm	-0.139	-1719	1.67		1.00	1.00 1.00
LMGLVS	UNK	10/21/09 02:47:43 pm	5.198	75656	0.09		1.00	1.00 1.00
LMGLVD	UNK	10/21/09 02:49:57 pm	5.163	75142	0.40		1.00	1.00 1.00
CCV	CCV	10/21/09 02:52:13 pm	4.232	61647	10.83	s	1.00	1.00 1.00
% Recovery 84.64								
CCB	CCB	10/21/09 02:54:25 pm	0.000	295	137.12	s	1.00	1.00 1.00
LMGL0	UNK	10/21/09 02:56:39 pm	-0.021	-8	175.22		1.00	1.00 1.00
LMGL2	UNK	10/21/09 02:58:54 pm	0.015	516	3.92		1.00	1.00 1.00
LMGL5	UNK	10/21/09 03:01:09 pm	-0.037	-247	3.01		1.00	1.00 1.00
LMGL6	UNK	10/21/09 03:03:22 pm	-0.009	160	13.07	s	1.00	1.00 1.00
LMGL8	UNK	10/21/09 03:05:35 pm	-0.045	-351	2.59		1.00	1.00 1.00
LMGDE	UNK	10/21/09 03:07:48 pm	-0.064	-625	0.57		1.00	1.00 1.00
LMJF2	UNK	10/21/09 03:10:01 pm	4.273	62239	0.44		1.00	1.00 1.00
CCV	CCV	10/21/09 03:12:16 pm	5.407	78684	1.16		1.00	1.00 1.00
% Recovery 108.14								
CCB	CCB	10/21/09 03:14:28 pm	0.004	353	21.85	s	1.00	1.00 1.00

10/21/09

Analysis Parameters

Instrument M-7500 Mercury Analyzer

Conditions

Gas flow (mL/min)	Sample Uptake (s)	Rinse (s)	Read delay (s)	Replicates (#)	Replicate time (s)	Pump speed (%)	Wavelength (nm)
100	35.00	90.00	66.00	4	1.50	50	253.65

Instrumental Zero

Zero before first sample: No

Zero periodically: No

Baseline Correction

#1 Start time (s)	#1 End time (s)	#2 Start time (s)	#2 End time (s)
26.00	30.00		

Standby Mode

Enabled: Yes

Standby Options: pump slow

Autodilution

Enabled: Yes

Condition: Saturate

Tube # range: 4:1 - 4:60

If no autodilution tubes remaining continue undiluted

Calibration

Settings

Algorithm	Through blank	Weighted fit	Cal. Type	Racalibration rate	Reslope rate	Reslope standard
Linear	No	No	Normal	0	0	N/A

Limits

Calibration slope		Reslope		Coeff. of
Lower (%)	Upper (%)	Lower (%)	Upper (%)	Determination
20	150	75	125	0.99500

Error action: Flag and continue

QC

GLP Override: Yes

QC Tests

10/21/09

CCB

Concentration (ppb)
0.2000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

ICB

Concentration (ppb)
0.2000

Failure flag: Z

Error action for manually inserted QC: Stop analysis

CCV

Concentration (ppb)	Low Limit %	High Limit %
5.0000	80.0000	120.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

ICV

Concentration (ppb)	Low Limit %	High Limit %
7.0000	90.0000	110.0000

Failure flag: Q

Error action for manually inserted QC: Stop analysis

CRDL

Concentration (ppb)	Low Limit %	High Limit %
0.2000	70.0000	130.0000

Failure flag: Y

Error action for manually inserted QC: Stop analysis

Vista
Analytical Laboratory

October 27, 2009

Vista Project I.D.: 32140

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

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on October 16, 2009 under your Project Name "ISJ1378". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com. 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: **10/16/2009**

Vista Lab. ID	Client Sample ID
32140-001	ISJ1378-01

SECTION II

Method Blank **EPA Method 1613**

Matrix: Aqueous | QC Batch No.: 2469 | Lab Sample: 0-MB001

Sample Size: 1.00 L | Date Extracted: 19-Oct-09 | Date Analyzed DB-5: 22-Oct-09 | Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL [a]	EMPC [b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000514		
1,2,3,7,8-PeCDD	ND	0.00000109		
1,2,3,4,7,8-HxCDD	ND	0.000000974		
1,2,3,6,7,8-HxCDD	ND	0.00000104		
1,2,3,7,8,9-HxCDD	ND	0.000000950		
1,2,3,4,6,7,8-HpCDD	ND	0.000000565		
OCDD	ND	0.00000249		
2,3,7,8-TCDF	ND	0.000000382		
1,2,3,7,8-PeCDF	ND	0.000000739		
2,3,4,7,8-PeCDF	ND	0.000000741		
1,2,3,4,7,8-HxCDF	ND	0.000000210		
1,2,3,6,7,8-HxCDF	ND	0.000000213		
2,3,4,6,7,8-HxCDF	ND	0.000000239		
1,2,3,7,8,9-HxCDF	ND	0.000000291		
1,2,3,4,6,7,8-HpCDF	ND	0.000000518		
1,2,3,4,7,8,9-HpCDF	ND	0.000000626		
OCDF	ND	0.00000165		

	Labeled Standard	%R	LCL-UCL [d]	Qualifiers
IS	13C-2,3,7,8-TCDD	94.1	25 - 164	
	13C-1,2,3,7,8-PeCDD	95.8	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	90.9	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	82.6	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	97.0	23 - 140	
	13C-OCDD	83.3	17 - 157	
	13C-2,3,7,8-TCDF	92.8	24 - 169	
	13C-1,2,3,7,8-PeCDF	96.3	24 - 185	
	13C-2,3,4,7,8-PeCDF	96.6	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	92.4	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	87.4	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	90.9	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	93.8	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	93.5	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	96.7	26 - 138	
	13C-OCDF	87.0	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	96.6	35 - 197	

Totals

Total TCDD	ND	0.000000514	
Total PeCDD	ND	0.00000109	
Total HxCDD	ND	0.000000988	
Total HpCDD	ND		0.000000786
Total TCDF	ND	0.000000382	
Total PeCDF	ND	0.000000740	
Total HxCDF	ND	0.000000237	
Total HpCDF	ND	0.000000569	

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH

Approved By: Martha M. Maier 27-Oct-2009 11:10

OPR Results **EPA Method 1613**

Matrix:	Aqueous	QC Batch No.:	2469	Lab Sample:	0-OPR001
Sample Size:	1.00 L	Date Extracted:	19-Oct-09	Date Analyzed DB-5:	22-Oct-09
				Date Analyzed DB-225:	NA

Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits		Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	8.78	6.7 - 15.8	IS	13C-2,3,7,8-TCDD	93.1	25 - 164	
1,2,3,7,8-PeCDD	50.0	45.4	35 - 71		13C-1,2,3,7,8-PeCDD	84.1	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	47.1	35 - 82		13C-1,2,3,4,7,8-HxCDD	89.9	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	48.1	38 - 67		13C-1,2,3,6,7,8-HxCDD	82.6	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	48.2	32 - 81		13C-1,2,3,4,6,7,8-HpCDD	90.3	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	47.4	35 - 70		13C-OCDD	78.8	17 - 157	
OCDD	100	96.5	78 - 144		13C-2,3,7,8-TCDF	96.2	24 - 169	
2,3,7,8-TCDF	10.0	8.55	7.5 - 15.8		13C-1,2,3,7,8-PeCDF	90.0	24 - 185	
1,2,3,7,8-PeCDF	50.0	46.3	40 - 67		13C-2,3,4,7,8-PeCDF	91.0	21 - 178	
2,3,4,7,8-PeCDF	50.0	46.5	34 - 80		13C-1,2,3,4,7,8-HxCDF	87.1	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	49.4	36 - 67		13C-1,2,3,6,7,8-HxCDF	83.3	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	48.8	42 - 65		13C-2,3,4,6,7,8-HxCDF	88.8	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	47.2	35 - 78		13C-1,2,3,7,8,9-HxCDF	91.9	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	48.4	39 - 65		13C-1,2,3,4,6,7,8-HpCDF	88.6	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	48.0	41 - 61		13C-1,2,3,4,7,8,9-HpCDF	90.7	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	46.8	39 - 69		13C-OCDF	79.4	17 - 157	
OCDF	100	102	63 - 170	CRS	37Cl-2,3,7,8-TCDD	96.7	35 - 197	

Analyst: JMH

Approved By: Martha M. Maier 27-Oct-2009 11:10

Sample ID: **ISJ1378-01** **EPA Method 1613**

Client Data		Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA	Matrix:	Aqueous	Lab Sample:	32140-001	Date Received:	16-Oct-09
Project:	ISJ1378	Sample Size:	1.02 L	QC Batch No.:	2469	Date Extracted:	19-Oct-09
Date Collected:	14-Oct-09			Date Analyzed DB-5:	22-Oct-09	Date Analyzed DB-225:	NA
Time Collected:	0900						

Analyte	Conc. (ug/L)	DL [a]	EMPC[b]	Qualifiers
2,3,7,8-TCDD	ND	0.000000554		
1,2,3,7,8-PeCDD	ND	0.000000645		
1,2,3,4,7,8-HxCDD	ND	0.00000137		
1,2,3,6,7,8-HxCDD	ND	0.00000144		
1,2,3,7,8,9-HxCDD	ND	0.00000147		
1,2,3,4,6,7,8-HpCDD	0.00000242			J
OCDD	0.0000176			J
2,3,7,8-TCDF	ND	0.000000491		
1,2,3,7,8-PeCDF	ND	0.000000661		
2,3,4,7,8-PeCDF	ND	0.000000670		
1,2,3,4,7,8-HxCDF	ND	0.000000378		
1,2,3,6,7,8-HxCDF	ND	0.000000380		
2,3,4,6,7,8-HxCDF	ND	0.000000424		
1,2,3,7,8,9-HxCDF	ND	0.000000483		
1,2,3,4,6,7,8-HpCDF	ND		0.000000692	
1,2,3,4,7,8,9-HpCDF	ND	0.000000489		
OCDF	ND		0.00000167	

	Labeled Standard	%R	LCL-UCL[d]	Qualifiers
IS	13C-2,3,7,8-TCDD	90.6	25 - 164	
	13C-1,2,3,7,8-PeCDD	94.6	25 - 181	
	13C-1,2,3,4,7,8-HxCDD	84.5	32 - 141	
	13C-1,2,3,6,7,8-HxCDD	74.8	28 - 130	
	13C-1,2,3,4,6,7,8-HpCDD	90.2	23 - 140	
	13C-OCDD	77.3	17 - 157	
	13C-2,3,7,8-TCDF	83.5	24 - 169	
	13C-1,2,3,7,8-PeCDF	82.8	24 - 185	
	13C-2,3,4,7,8-PeCDF	83.7	21 - 178	
	13C-1,2,3,4,7,8-HxCDF	87.0	26 - 152	
	13C-1,2,3,6,7,8-HxCDF	80.4	26 - 123	
	13C-2,3,4,6,7,8-HxCDF	83.6	28 - 136	
	13C-1,2,3,7,8,9-HxCDF	90.0	29 - 147	
	13C-1,2,3,4,6,7,8-HpCDF	89.7	28 - 143	
	13C-1,2,3,4,7,8,9-HpCDF	91.5	26 - 138	
	13C-OCDF	79.3	17 - 157	
CRS	37Cl-2,3,7,8-TCDD	102	35 - 197	

Totals

Total TCDD	ND	0.000000554		
Total PeCDD	ND	0.000000645		
Total HxCDD	ND	0.00000143		
Total HpCDD	0.00000530			
Total TCDF	ND	0.000000491		
Total PeCDF	ND	0.000000666		
Total HxCDF	ND	0.000000414		
Total HpCDF	0.000000721		0.00000141	

Footnotes

a. Sample specific estimated detection limit.

b. Estimated maximum possible concentration.

c. Method detection limit.

d. Lower control limit - upper control limit.

Analyst: JMH

Approved By: Martha M. Maier 27-Oct-2009 11:10

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

B	**This compound was also detected in the method blank.**
D	**Dilution**
E	**The amount detected is above the High Calibration Limit.**
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 Low Calibration Limit.**
*****	**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	CA413-2008
State of Arizona	AZ0639
State of Arkansas, DEQ	08-043-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	N/A
State of Connecticut	PH-0182
State of Florida, DEP	E87777
State of Indiana Department of Health	C-CA-02
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA08000
State of Louisiana, DEQ	01977
State of Maine	2008024
State of Michigan	9932
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	NFESC413
State of Nevada	CA004132007A
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	CA200001-006
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	TN02996
State of Texas	T104704189-08-TX
U.S. Army Corps of Engineers	N/A
State of Utah	CA16400
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

SUBCONTRACT ORDER

TestAmerica Irvine

ISJ1378

32140 1.3°C

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Vista Analytical Laboratory- SUB
1104 Windfield Way
El Dorado Hills, CA 95762
Phone :(916) 673-1520
Fax: (916) 673-0106
Project Location: CA - CALIFORNIA
Receipt Temperature:_____°C Ice: Y / N

Standard TAT is requested unless specific due date is requested. => Due Date: _____ Initials: _____

Analysis	Units	Expires	Comments
Sample ID: ISJ1378-01	**Water**	Sampled: **10/14/09 09:00**	
1613-Dioxin-HR-Alta	ug/l	10/21/09 09:00	J flags,17 congeners,no TEQ,ug/L,sub=Vista
Level 4 Data Package	N/A	11/11/09 09:00	Include Std logs
Containers Supplied:			
1 L Amber (AA)	1 L Amber (AB)		

Released By — Date/Time 10/15/09 17:00 — Received By Fedex — Date/Time 10/15/09 17:00

Released By — Date/Time — Received By Bonda Burnell — Date/Time 10/16/09 1030

SAMPLE LOG-IN CHECKLIST

Vista Analytical Laboratory

Vista Project #: 32140 **TAT** Standard

Samples Arrival:	**Date/Time** 10/16/09 0907	**Initials:** JBB	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 10/16/09 1106	**Initials:** RB	**Location:** WR-2 **Shelf/Rack:** B-2

Delivered By:	(FedEx)	UPS	Cal	DHL	Hand Delivered	Other
Preservation:	(Ice)	Blue Ice	Dry Ice	None		
Temp °C 1.3°C	**Time:** 0925	**Thermometer ID:** IR-2				

	YES	NO	NA
Adequate Sample Volume Received? A & B Bottle	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill Trk # 7970 2452 9090	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

$Na_2S_2O_3$ Preservation Documented?	COC	Sample Container	(None)		
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose

Comments:

APPENDIX G

Section 19

Arroyo Simi Receiving Water, November 4, 2009

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: ISK0609

Prepared by

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

I. INTRODUCTION

Task Order Title:	Boeing SSFL NPDES
Contract Task Order:	1261.100D.00
Sample Delivery Group:	ISK0609
Project Manager:	B. Kelly
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
Arroyo Simi-FP	ISK0609-01	CSK0143-01	Water	11/4/2009 10:55:00 AM	200.7, 525.2, SM2340B

II. Sample Management

No anomalies were observed regarding sample management. The sample in this SDG was received at TestAmerica-Irvine below the control limit; however, as the sample was not noted to be frozen or damaged, no qualifications were required. The sample was received within the temperature limits of 4°C ±2°C at TestAmerica-Ontario. According to the case narrative for this SDG, the sample was received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to the laboratories, custody seals were not required. If necessary, the client ID was added to the sample result summary by the reviewer.

Data Qualifier Reference Table

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

Qualification Code Reference Table

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

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. EPA METHOD 200.7—Metals and Hardness

Reviewed By: P. Meeks
Date Reviewed: December 17, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Method 200.7*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The analytical holding time, six months for ICP metals, was met.
- Tuning: Not applicable to this method.
- Calibration: Calibration criteria were met. The initial and continuing calibration recoveries were within 90-110% and the CRI recoveries were within 70-130%.
- Blanks: Method blanks and CCBs had no detects.
- Interference Check Samples: Recoveries were within the method-established control limits. There were no target compounds present in the ICSA solution at concentrations indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed on the sample in this SDG.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy was evaluated based on LCS results.
- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.
- Internal Standards Performance: Not applicable to this method.
- 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. The hardness calculation was checked and found to be acceptable. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

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

B. EPA METHOD 525.2— Semivolatile Organic Compounds (SVOCs)

Reviewed By: P. Meeks
Date Reviewed: December 17, 2009

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics (DVP-2, Rev. 0), EPA Method 8270C*, and the *National Functional Guidelines for Organic Data Review* (10/99).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted beyond the 24-hours holding time for diazinon; therefore, the nondetected result for diazinon was qualified as estimated, "UJ." The sample was analyzed within 30 days of extraction.

- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.

- Calibration: Calibration criteria were met. The initial calibration average RRFs were $\geq$0.05 and %RSD $\leq$30%. The continuing calibration RRFs were $\geq$0.05 and recoveries were within the method QC limits of 70-130%.

- Blanks: The method blank had no target compound detects above the MDL.

- Blank Spikes and Laboratory Control Samples: The recoveries and RPDs were within laboratory-established QC limits.

- Surrogate Recovery: Recoveries were within laboratory-established QC limits.

- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Method accuracy and precision were evaluated based on the LCS/LCSD results.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples.

Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

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

- Internal Standards Performance: The internal standard area counts and retention times were within the method control limits established by the continuing calibration standards of ±30%.

- Compound Identification: Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

- Tentatively Identified Compounds: TICs were not reported by the laboratory for this analysis.

- System Performance: Review of the raw data indicated no problems with system performance.

Validated Sample Result Forms: ISK0609

Analysis Method EPA 200.7

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISK0609-01 **Sample Date:** 11/4/2009 10:55:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Calcium	7440-70-2	190	0.10	0.050	mg/l			
Magnesium	7439-95-4	63	0.020	0.012	mg/l			

Analysis Method EPA 525.2

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISK0609-01 **Sample Date:** 11/4/2009 10:55:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	2921-88-2	ND	1.0	0.10	ug/l		U	
Diazinon	333-41-5	ND	0.25	0.24	ug/l	H-1	UJ	H

Analysis Method SM2340B

Sample Name Arroyo Simi-FP **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: ISK0609-01 **Sample Date:** 11/4/2009 10:55:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3		740	0.33	0.17	mg/l			

APPENDIX G

Section 20

Arroyo Simi Receiving Water, November 4, 2009

Test America Analytical Laboratory Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

LABORATORY REPORT

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

Project: Quarterly Arroyo Simi-Frontier Park

Sampled: 11/04/09
Received: 11/04/09
Issued: 11/17/09 17:43

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

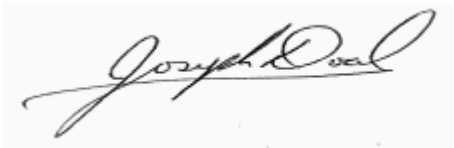
CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 1°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	No significant observations were made.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
ISK0609-01	Arroyo Simi-FP	Water

I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISK0609-01 (Arroyo Simi-FP - Water)									
Reporting Units: ug/l									
4,4'-DDD	EPA 608	9K09042	0.0020	0.0050	ND	1	CP	11/12/09	
4,4'-DDE	EPA 608	9K09042	0.0030	0.0050	ND	1	CP	11/12/09	
4,4'-DDT	EPA 608	9K09042	0.0040	0.010	ND	1	CP	11/12/09	
Dieldrin	EPA 608	9K09042	0.0020	0.0050	ND	1	CP	11/12/09	
Chlordane	EPA 608	9K09042	0.040	0.10	ND	1	CP	11/12/09	
Toxaphene	EPA 608	9K09042	0.25	0.50	ND	1	CP	11/12/09	
Surrogate: Decachlorobiphenyl (45-120%)					*97 %*				
Surrogate: Tetrachloro-m-xylene (35-115%)					*91 %*				

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

TOTAL PCBS (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISK0609-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: ug/l									
Aroclor 1016	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1221	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1232	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1242	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1248	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1254	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Aroclor 1260	EPA 608	9K09042	0.25	0.50	ND	1	DXD	11/10/09	
Surrogate: Decachlorobiphenyl (45-120%)					*92 %*				

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

METALS

Analyte	Method	Batch		Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISK0609-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]		0.33	**740**	1	LL	11/10/09	
Calcium	EPA 200.7	9K06048	0.050	0.10	**190**	1	LL	11/10/09	
Magnesium	EPA 200.7	9K06048	0.012	0.020	**63**	1	LL	11/10/09	

TestAmerica Irvine

Joseph Doak
Project Manager

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Arcadia, CA 91007
Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Analyst	Date Analyzed	Data Qualifiers
Sample ID: ISK0609-01 (Arroyo Simi-FP - Water) - cont.									
Reporting Units: ug/l									
Chlorpyrifos	EPA 525.2	C9K0511	0.10	1.0	ND	1	PM	11/06/09	
Diazinon	EPA 525.2	C9K0511	0.24	0.25	ND	1	PM	11/06/09	
Surrogate: 1,3-Dimethyl-2-nitrobenzene (70-130%)					*97 %*				
Surrogate: Triphenylphosphate (70-130%)					*114 %*				
Surrogate: Perylene-d12 (70-130%)					*95 %*				

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618 Michillinda Avenue, Suite 200
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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Arroyo Simi-FP (ISK0609-01) - Water					
EPA 525.2	1	11/04/2009 10:55	11/04/2009 18:00	11/05/2009 21:20	11/06/2009 19:49

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9K09042 Extracted: 11/09/09										
Blank Analyzed: 11/10/2009 (9K09042-BLK1)										
4,4'-DDD	ND	0.0050	ug/l							
4,4'-DDE	ND	0.0050	ug/l							
4,4'-DDT	ND	0.010	ug/l							
Aldrin	ND	0.0050	ug/l							
alpha-BHC	ND	0.0050	ug/l							
beta-BHC	ND	0.010	ug/l							
delta-BHC	ND	0.0050	ug/l							
Dieldrin	ND	0.0050	ug/l							
Endosulfan I	ND	0.0050	ug/l							
Endosulfan II	ND	0.0050	ug/l							
Endosulfan sulfate	ND	0.010	ug/l							
Endrin	ND	0.0050	ug/l							
Endrin aldehyde	ND	0.010	ug/l							
Endrin ketone	ND	0.010	ug/l							
gamma-BHC (Lindane)	ND	0.020	ug/l							
Heptachlor	ND	0.010	ug/l							
Heptachlor epoxide	ND	0.0050	ug/l							
Methoxychlor	ND	0.0050	ug/l							
Chlordane	ND	0.10	ug/l							
Toxaphene	ND	0.50	ug/l							
Surrogate: Decachlorobiphenyl	*0.463*		*ug/l*	*0.500*		*93*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.443*		*ug/l*	*0.500*		*89*	*35-115*			
LCS Analyzed: 11/10/2009 (9K09042-BS1)										**MNR1**
4,4'-DDD	0.433	0.0050	ug/l	0.500		87	55-120			
4,4'-DDE	0.415	0.0050	ug/l	0.500		83	50-120			
4,4'-DDT	0.407	0.010	ug/l	0.500		81	55-120			
Aldrin	0.391	0.0050	ug/l	0.500		78	40-115			
alpha-BHC	0.393	0.0050	ug/l	0.500		79	45-115			
beta-BHC	0.413	0.010	ug/l	0.500		83	55-115			
delta-BHC	0.410	0.0050	ug/l	0.500		82	55-115			
Dieldrin	0.413	0.0050	ug/l	0.500		83	55-115			
Endosulfan I	0.438	0.0050	ug/l	0.500		88	55-115			
Endosulfan II	0.458	0.0050	ug/l	0.500		92	55-120			
Endosulfan sulfate	0.449	0.010	ug/l	0.500		90	60-120			
Endrin	0.423	0.0050	ug/l	0.500		85	55-115			

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9K09042 Extracted: 11/09/09										
LCS Analyzed: 11/10/2009 (9K09042-BS1)										**MNR1**
Endrin aldehyde	0.450	0.010	ug/l	0.500		90	50-120			
Endrin ketone	0.436	0.010	ug/l	0.500		87	55-120			
gamma-BHC (Lindane)	0.397	0.020	ug/l	0.500		79	45-115			
Heptachlor	0.431	0.010	ug/l	0.500		86	45-115			
Heptachlor epoxide	0.433	0.0050	ug/l	0.500		87	55-115			
Methoxychlor	0.419	0.0050	ug/l	0.500		84	60-120			
Surrogate: Decachlorobiphenyl	*0.452*		*ug/l*	*0.500*		*90*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.423*		*ug/l*	*0.500*		*85*	*35-115*			
LCS Dup Analyzed: 11/10/2009 (9K09042-BSD1)										
4,4'-DDD	0.445	0.0050	ug/l	0.500		89	55-120	3	30	
4,4'-DDE	0.421	0.0050	ug/l	0.500		84	50-120	1	30	
4,4'-DDT	0.419	0.010	ug/l	0.500		84	55-120	3	30	
Aldrin	0.380	0.0050	ug/l	0.500		76	40-115	3	30	
alpha-BHC	0.376	0.0050	ug/l	0.500		75	45-115	4	30	
beta-BHC	0.410	0.010	ug/l	0.500		82	55-115	1	30	
delta-BHC	0.407	0.0050	ug/l	0.500		81	55-115	1	30	
Dieldrin	0.422	0.0050	ug/l	0.500		84	55-115	2	30	
Endosulfan I	0.443	0.0050	ug/l	0.500		89	55-115	1	30	
Endosulfan II	0.472	0.0050	ug/l	0.500		94	55-120	3	30	
Endosulfan sulfate	0.462	0.010	ug/l	0.500		92	60-120	3	30	
Endrin	0.435	0.0050	ug/l	0.500		87	55-115	3	30	
Endrin aldehyde	0.466	0.010	ug/l	0.500		93	50-120	3	30	
Endrin ketone	0.448	0.010	ug/l	0.500		90	55-120	3	30	
gamma-BHC (Lindane)	0.386	0.020	ug/l	0.500		77	45-115	3	30	
Heptachlor	0.419	0.010	ug/l	0.500		84	45-115	3	30	
Heptachlor epoxide	0.433	0.0050	ug/l	0.500		87	55-115	0	30	
Methoxychlor	0.433	0.0050	ug/l	0.500		87	60-120	3	30	
Surrogate: Decachlorobiphenyl	*0.468*		*ug/l*	*0.500*		*94*	*45-120*			
Surrogate: Tetrachloro-m-xylene	*0.401*		*ug/l*	*0.500*		*80*	*35-115*			

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Project ID: Quarterly Arroyo Simi-Frontier Park

Report Number: ISK0609

Sampled: 11/04/09
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METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9K09042 Extracted: 11/09/09										
Blank Analyzed: 11/09/2009 (9K09042-BLK1)										
Aroclor 1016	ND	0.50	ug/l							
Aroclor 1221	ND	0.50	ug/l							
Aroclor 1232	ND	0.50	ug/l							
Aroclor 1242	ND	0.50	ug/l							
Aroclor 1248	ND	0.50	ug/l							
Aroclor 1254	ND	0.50	ug/l							
Aroclor 1260	ND	0.50	ug/l							
Surrogate: Decachlorobiphenyl	*0.432*		*ug/l*	*0.500*		*86*	*45-120*			
LCS Analyzed: 11/10/2009 (9K09042-BS2)										
Aroclor 1016	3.33	0.50	ug/l	4.00		83	50-115			
Aroclor 1260	3.24	0.50	ug/l	4.00		81	60-120			
Surrogate: Decachlorobiphenyl	*0.427*		*ug/l*	*0.500*		*85*	*45-120*			
LCS Dup Analyzed: 11/10/2009 (9K09042-BSD2)										
Aroclor 1016	3.23	0.50	ug/l	4.00		81	50-115	3	30	
Aroclor 1260	3.13	0.50	ug/l	4.00		78	60-120	3	25	
Surrogate: Decachlorobiphenyl	*0.416*		*ug/l*	*0.500*		*83*	*45-120*			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 9K06048 Extracted: 11/06/09										
Blank Analyzed: 11/10/2009 (9K06048-BLK1)										
Calcium	0.0792	0.10	mg/l							*J*
Magnesium	ND	0.020	mg/l							
LCS Analyzed: 11/10/2009 (9K06048-BS1)										
Calcium	2.76	0.10	mg/l	2.50		110	85-115			
Magnesium	2.55	0.020	mg/l	2.50		102	85-115			
Matrix Spike Analyzed: 11/10/2009 (9K06048-MS1)					**Source: ISK0536-01**					
Calcium	45.6	0.10	mg/l	2.50	43.6	78	70-130			*MHA*
Magnesium	11.4	0.020	mg/l	2.50	8.95	98	70-130			
Matrix Spike Analyzed: 11/10/2009 (9K06048-MS2)					**Source: ISK0553-03**					
Calcium	490	0.20	mg/l	2.50	488	96	70-130			*MHA*
Magnesium	451	0.040	mg/l	2.50	455	-146	70-130			*MHA*
Matrix Spike Dup Analyzed: 11/10/2009 (9K06048-MSD1)					**Source: ISK0536-01**					
Calcium	45.7	0.10	mg/l	2.50	43.6	83	70-130	0	20	*MHA*
Magnesium	11.4	0.020	mg/l	2.50	8.95	99	70-130	0	20	

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METHOD BLANK/QC DATA

ORGANIC COMPOUNDS BY GC/MS (EPA 525.2)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: C9K0511 Extracted: 11/05/09										
Blank Analyzed: 11/06/2009 (C9K0511-BLK1)										
Chlorpyrifos	ND	1.0	ug/l							
Diazinon	ND	0.25	ug/l							
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.91*		*ug/l*	*5.00*		*98*	*70-130*			
Surrogate: Triphenylphosphate	*4.68*		*ug/l*	*5.00*		*94*	*70-130*			
Surrogate: Perylene-d12	*3.92*		*ug/l*	*5.00*		*78*	*70-130*			
LCS Analyzed: 11/06/2009 (C9K0511-BS1)										
Chlorpyrifos	5.28	1.0	ug/l	5.00		106	70-130			
Diazinon	5.17	0.25	ug/l	5.00		103	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.60*		*ug/l*	*5.00*		*92*	*70-130*			
Surrogate: Triphenylphosphate	*5.24*		*ug/l*	*5.00*		*105*	*70-130*			
Surrogate: Perylene-d12	*4.58*		*ug/l*	*5.00*		*92*	*70-130*			
Matrix Spike Analyzed: 11/06/2009 (C9K0511-MS1)					**Source: CSK0134-01**					
Chlorpyrifos	5.12	1.0	ug/l	5.00	ND	102	70-130			
Diazinon	5.51	0.25	ug/l	5.00	ND	110	70-130			
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.63*		*ug/l*	*5.00*		*93*	*70-130*			
Surrogate: Triphenylphosphate	*5.59*		*ug/l*	*5.00*		*112*	*70-130*			
Surrogate: Perylene-d12	*4.80*		*ug/l*	*5.00*		*96*	*70-130*			
Matrix Spike Dup Analyzed: 11/06/2009 (C9K0511-MSD1)					**Source: CSK0134-01**					
Chlorpyrifos	5.46	1.0	ug/l	5.00	ND	109	70-130	6	30	
Diazinon	5.75	0.25	ug/l	5.00	ND	115	70-130	4	30	
Surrogate: 1,3-Dimethyl-2-nitrobenzene	*4.91*		*ug/l*	*5.00*		*98*	*70-130*			
Surrogate: Triphenylphosphate	*5.65*		*ug/l*	*5.00*		*113*	*70-130*			
Surrogate: Perylene-d12	*4.77*		*ug/l*	*5.00*		*95*	*70-130*			

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Attention: Bronwyn Kelly

Project ID: Quarterly Arroyo Simi-Frontier Park
Report Number: ISK0609

Sampled: 11/04/09
Received: 11/04/09

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
ISK0609-01	608-PCB-low	Aroclor 1016	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1221	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1232	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1242	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1248	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1254	ug/l	0	0.50	0.5
ISK0609-01	608-PCB-low	Aroclor 1260	ug/l	0	0.50	0.5
ISK0609-01	608-Pesticides (LowRL)	4,4'-DDD	ug/l	0	0.0050	0.005
ISK0609-01	608-Pesticides (LowRL)	4,4'-DDE	ug/l	0	0.0050	0.005
ISK0609-01	608-Pesticides (LowRL)	4,4'-DDT	ug/l	0	0.010	0.01
ISK0609-01	608-Pesticides (LowRL)	Chlordane	ug/l	0	0.10	0.1
ISK0609-01	608-Pesticides (LowRL)	Dieldrin	ug/l	0	0.0050	0.005
ISK0609-01	608-Pesticides (LowRL)	Toxaphene	ug/l	0	0.50	0.1

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DATA QUALIFIERS AND DEFINITIONS

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

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Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 200.7	Water	X	X
EPA 608	Water	X	X
SM2340B	Water	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

TestAmerica - Ontario, CA *California Cert #1169, Arizona Cert #AZ0062, Nevada Cert #CA-242*

1014 E. Cooley Drive, Suite AB - Colton, CA 92324

Method Performed: EPA 525.2

Samples: ISK0609-01

TestAmerica Irvine

Joseph Doak
Project Manager

Test America Version 06/29/09

CHAIN OF CUSTODY FORM

1SK0609

Client Name/Address:	Project:
MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Boeing-SSFL NPDES Quarterly Arroyo Simi-Frontier Park
Project Manager: Bronwyn Kelly Sampler: S Dawson	Phone Number: (626) 568-6691 Fax Number: (626) 568-6515

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	Hardness as $CaCO_3$	PCBs (608)	Chlorpyrifos, Diazinon (525.2)	Chlordane, Dieldrin, Toxaphene (608), 4,4-DDD, 4,4-DDE, 4,4-DDT	Field readings: (Log in and include in report Temp and pH) Temp = 17.2°C = 63.0°F pH = 6.83 Water Velocity (Ft/second) = 1H5.57sec Time of readings = 1055 **Comments**
Arroyo Simi-FP	W	1L Poly	1	11/4/09 1055	HNO_3	1	X				
Arroyo Simi-FP	W	1L Amber	2		None	2A, 2B		X			
Arroyo Simi-FP	W	1L Amber	2		HCl	3A, 3B			X		Extract within 36-Hours of sampling
Arroyo Simi-FP	W	1L Amber	2		None	4A, 4B				X	

Relinquished By	Date/Time:	Received By	Date/Time:
	11/4/09 12:30		11-4-09 12:30
	11-4-09 18:00		11/04/09 1800

Turn around Time: (check)
24 Hours _____ 5 Days _____
48 Hours _____ 10 Days _____
72 Hours _____ Normal X

Sample Integrity: (check)
Intact X On Ice: X 0.8°C

Data Requirements: (check)
No Level IV ____ All Level IV ____
NPDES Level IV X

#153