APPENDIX F

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Section No.

APPENDIX F

Section 1

Outfall 009 – November 17 & 18, 2012

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-30145-1

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:	440-30145-1
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 009	440-30145-1	S211071-01	Water	11/18/2012 5:29:00 AM	1613B, 245.1, 245.1 Diss, 314.0, 900. 901.1, 903.1, 904, 905, 906, D5471

II. Sample Management

No anomalies were observed regarding sample management. Eberline did not note the sample temperature upon receipt; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at TestAmerica-Irvine within the temperature limits of 4°C ±2°C. The recorded temperature upon receipt at TestAmerica-West Sacramento was below the temperature limits; however, the sample containers 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. Custody seals were intact upon receipt at Eberline and TestAmerica-West Sacramento. As the samples were couriered to TestAmerica-Irvine, 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 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: December 28, 2012

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

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

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

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

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

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 15 native compounds (calibration by isotope dilution) and ≤35% for the two 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 reported detects reported for 1,2,3,4,6,7,8-HpCDD, 1,2,3,4,6,7,8-HpCDF, OCDD, and totals for TCDD, HpCDD, and HpCDF. Some method blank results were reported as EMPCs; however, the reviewer deemed it appropriate to use all method blank results to qualify sample results. Sample detects below the reporting

limits for 1,2,3,4,6,7,8-HpCDF and OCDD were qualified as nondetected, "U," at the levels of contamination. Total TCDD and 1,2,3,4,6,7,8-HpCDD were not detected in the associated sample. Totals for HpCDD and HpCDF were qualified as estimated, "U," as all peaks comprising the sample totals were present in the method blank at comparable concentrations.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria.

- 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: This SDG had no identified field duplicate samples.

- Internal Standards Performance: The labeled internal standard recoveries for the sample 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 reportable sample concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL. Results reported as EMPCs previously qualified as method blank contamination were not further qualified as EMPCs.

B. EPA METHOD 245.1—Mercury

Reviewed By: P. Meeks
Date Reviewed: January 2, 2013

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

- Holding Times: The analytical holding time, 28 days, was met.

- Calibration: Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 85-115%. The CRI recoveries were within the control limits of 70-130%.

- Blanks: Method blanks and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

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

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for dissolved mercury. Recoveries and the RPD were within the method-established control limits.

- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

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

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

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

C. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks
Date Reviewed: January 2, 2013

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-20, Rev. 0), EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The analytical holding time, 28 days, was met.

- Calibration: Calibration criteria were met. The initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110%. The IPC recovery was within the method-established control limit of 80-120%, and the ICCS recovery was within the method-established control limit of 75-125%.

- Blanks: The method blank and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the method-established QC limits of 85-115%.

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG. Recoveries and the RPD were within the method-established control limits of 85-115% and ≤15%, respectively.

- 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 between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.

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

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

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

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: January 2, 2013

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174,* and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The tritium sample was analyzed within 180 days of collection. All remaining aliquots were preserved within the five-day holding time.

- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

  The detector efficiencies were greater than 20%. The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The strontium-90 chemical yield was nominally below 40%; therefore, nondetected strontium-90 in the sample was qualified as estimated, "UJ." All remaining chemical yields were at least 40% and were considered acceptable. The gamma spectroscopy analytes were determined at the maximum photopeak energy. The kinetic phosphorescence analyzer (KPA) was calibrated immediately prior to the sample analysis. All KPA calibration check standard recoveries were within 90-110% and were deemed acceptable.

- Blanks: There were no analytes detected in the method blanks or the KPA CCBs.

- Blank Spikes and Laboratory Control Samples: Radium-228 was recovered at 123%, above the control limits of 83-117%; however, radium-228 was not detected in the site sample. The remaining recoveries were within laboratory-established control limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for all analytes. All RPDs were within the laboratory-established control limits.

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

- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.67 for naturally occurring uranium.

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

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

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

Validated Sample Result Forms 440-30145-1

Analysis Method 1613B

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	0.000049	0.0000058	ug/L		U	
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.000049	0.0000005	ug/L	J,DX MB	U	B
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000049	0.0000006	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000049	0.0000006	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000049	0.0000007	ug/L		U	
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000049	0.0000006	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000049	0.0000006	ug/L		U	
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.000049	0.0000005	ug/L		U	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000049	0.0000004	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000049	0.0000013	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000049	0.0000008	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000049	0.0000005	ug/L		U	
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000049	0.0000009	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.0000099	0.0000009	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.0000099	0.0000005	ug/L		U	
OCDD	3268-87-9	ND	0.000099	0.0000011	ug/L	J,DX MB	U	B
OCDF	39001-02-0	0.000005	0.000099	0.0000012	ug/L	J,DX	J	DNQ
Total HpCDD	37871-00-4	ND	0.000049	0.0000058	ug/L	J,DX MB	U	B
Total HpCDF	38998-75-3	ND	0.000049	0.0000006	ug/L	J,DX MB	U	B
Total HxCDD	34465-46-8	ND	0.000049	0.0000005	ug/L		U	
Total HxCDF	55684-94-1	ND	0.000049	0.0000004	ug/L		U	
Total PeCDD	36088-22-9	ND	0.000049	0.0000013	ug/L		U	
Total PeCDF	30402-15-4	ND	0.000049	0.0000008	ug/L		U	
Total TCDD	41903-57-5	ND	0.0000099	0.0000009	ug/L		U	
Total TCDF	30402-14-3	ND	0.0000099	0.0000005	ug/L		U	

Analysis Method 245.1

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/L		U	
Mercury, Dissolved	7439-97-6	ND	0.20	0.10	ug/L		U	

Analysis Method 314.0

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Perchlorate	14797-73-0	ND	4.0	0.95	ug/L		U	

Analysis Method Gamma Spec K-40 CS-137

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	1.69	20	4.35	pCi/L	U	U	
Potassium-40	13966002	-33.6	25	63.7	pCi/L	U	U	

Analysis Method Gross Alpha

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	0.657	3	0.332	pCi/L	J	J	DNQ
Gross Beta	12587472	2.47	4	0.938	pCi/L	J	J	DNQ

Analysis Method Radium Combined

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	0.048	1	0.665	pCi/L	U	U	
Radium-228	15262201	-0.066	1	0.88	pCi/L	U	U	

Analysis Method Strontium 90

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	0.066	2	1.7	pCi/L	U	UJ	C

Analysis Method Tritium

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	-39.8	500	163	pCi/L	U	U	

Analysis Method Uranium, Combined

Sample Name Outfall 009 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-30145-1 **Sample Date:** 11/18/2012 5:29:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total	NA	1.02	1	0.022	pCi/L			

APPENDIX F

Section 2

Outfall 009 – November 17 & 18, 2012

Test America Analytical Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-30115-1
Client Project/Site: Simi-Annual Outfall 009
Revision: 1

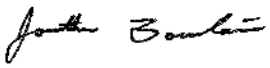
For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Attn: Bronwyn Kelly

Authorized for release by:
1/4/2013 6:42:22 PM

Jonathan Bousselaire
Project Manager I
jonathan.bousselaire@testamericainc.com

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.



Jonathan Bousselaire
Project Manager I
1/4/2013 6:42:22 PM

Table of Contents

Sample Summary

Client: MWH Americas Inc
Project/Site: Simi-Annual Outfall 009

TestAmerica Job ID: 440-30115-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-30115-1	Outfall 009	Water	11/17/12 12:40	11/17/12 18:05
440-30145-1	Outfall 009	Water	11/18/12 05:29	11/19/12 10:09
440-30145-2	Trip Blank-Eberline	Water	11/19/12 13:50	11/19/12 10:09

Job ID: 440-30115-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-30145-1

Comments
No additional comments.

Receipt
The samples were received on 11/17/2012 6:05 PM and 11/19/2012 10:09 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6º C and 4.1º C.

HPLC
No analytical or quality issues were noted.

Dioxin
Method(s) 1613B: Ion abundance ratios are outside criteria for the following samples and for the MBs: (MB 320-6838/1-A). Quantitation is based on the theoretical ion abundance ratio; therefore, these analytes have been reported as an estimated maximum possible concentration (EMPC).

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
Method(s) 1664A: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 70445. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

No other analytical or quality issues were noted.

Dioxin Prep
No analytical or quality issues were noted.

Client Sample ID: Outfall 009 — **Lab Sample ID: 440-30115-1**
Date Collected: 11/17/12 12:40 — **Matrix: Water**
Date Received: 11/17/12 18:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		11/30/12 08:12	11/30/12 09:42	1

Client Sample ID: Outfall 009 — **Lab Sample ID: 440-30145-1**
Date Collected: 11/18/12 05:29 — **Matrix: Water**
Date Received: 11/19/12 10:09

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		0.50	0.40	mg/L			11/19/12 16:30	1
Nitrate Nitrite as N	0.93		0.26	0.11	mg/L			11/19/12 16:30	1
Sulfate	10		0.50	0.40	mg/L			11/19/12 16:30	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			11/23/12 23:16	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.0000099	0.00000090	ug/L		12/04/12 09:41	12/08/12 23:04	1
2,3,7,8-TCDF	ND		0.0000099	0.00000054	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,7,8-PeCDD	ND		0.000049	0.0000013	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,7,8-PeCDF	ND		0.000049	0.00000088	ug/L		12/04/12 09:41	12/08/12 23:04	1
2,3,4,7,8-PeCDF	ND		0.000049	0.00000096	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,4,7,8-HxCDD	ND		0.000049	0.00000061	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,6,7,8-HxCDD	ND		0.000049	0.00000062	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,7,8,9-HxCDD	ND		0.000049	0.00000051	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,4,7,8-HxCDF	ND		0.000049	0.00000071	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,6,7,8-HxCDF	ND		0.000049	0.00000064	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,7,8,9-HxCDF	ND		0.000049	0.00000047	ug/L		12/04/12 09:41	12/08/12 23:04	1
2,3,4,6,7,8-HxCDF	ND		0.000049	0.00000051	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,4,6,7,8-HpCDD	ND		0.000049	0.0000058	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,4,6,7,8-HpCDF	0.0000023	J,DX MB	0.000049	0.00000052	ug/L		12/04/12 09:41	12/08/12 23:04	1
1,2,3,4,7,8,9-HpCDF	ND		0.000049	0.00000069	ug/L		12/04/12 09:41	12/08/12 23:04	1
OCDD	0.000062	J,DX MB	0.000099	0.0000011	ug/L		12/04/12 09:41	12/08/12 23:04	1
OCDF	0.0000056	J,DX	0.000099	0.0000012	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total TCDD	ND		0.0000099	0.00000090	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total TCDF	ND		0.0000099	0.00000054	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total PeCDD	ND		0.000049	0.0000013	ug/L		12/04/12 09:41	12/08/12 23:04	1

Client Sample ID: Outfall 009
Date Collected: 11/18/12 05:29
Date Received: 11/19/12 10:09

Lab Sample ID: 440-30145-1
Matrix: Water

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PeCDF	ND		0.000049	0.00000088	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total HxCDD	ND		0.000049	0.00000051	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total HxCDF	ND		0.000049	0.00000047	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total HpCDD	**0.000012**	**J,DX MB**	0.000049	0.0000058	ug/L		12/04/12 09:41	12/08/12 23:04	1
Total HpCDF	**0.0000044**	**J,DX MB**	0.000049	0.00000060	ug/L		12/04/12 09:41	12/08/12 23:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*46*		*25 - 164*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-2,3,7,8-TCDF	*47*		*24 - 169*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,7,8-PeCDD	*40*		*25 - 181*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,7,8-PeCDF	*43*		*24 - 185*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-2,3,4,7,8-PeCDF	*43*		*21 - 178*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,4,7,8-HxCDD	*54*		*32 - 141*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,6,7,8-HxCDD	*48*		*28 - 130*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,4,7,8-HxCDF	*55*		*26 - 152*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,6,7,8-HxCDF	*52*		*26 - 123*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,7,8,9-HxCDF	*53*		*29 - 147*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-2,3,4,6,7,8-HxCDF	*55*		*28 - 136*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*58*		*23 - 140*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*57*		*28 - 143*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*59*		*26 - 138*	*12/04/12 09:41*	*12/08/12 23:04*	*1*
13C-OCDD	*54*		*17 - 157*	*12/04/12 09:41*	*12/08/12 23:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*95*		*35 - 197*	*12/04/12 09:41*	*12/08/12 23:04*	*1*

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		11/28/12 14:31	11/29/12 10:52	1
Copper	**3.8**		2.0	0.50	ug/L		11/28/12 14:31	11/29/12 10:52	1
Lead	**0.56**	**J,DX**	1.0	0.20	ug/L		11/28/12 14:31	11/29/12 10:52	1
Antimony	**0.38**	**J,DX**	2.0	0.30	ug/L		11/28/12 14:31	11/29/12 10:52	1
Selenium	ND		2.0	0.50	ug/L		11/28/12 14:31	11/29/12 10:52	1
Thallium	ND		1.0	0.20	ug/L		11/28/12 14:31	11/29/12 10:52	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		11/29/12 11:32	11/30/12 11:25	1
Copper	**4.0**		2.0	0.50	ug/L		11/29/12 11:32	11/30/12 11:25	1
Lead	**0.29**	**J,DX**	1.0	0.20	ug/L		11/29/12 11:32	11/29/12 17:38	1
Antimony	**0.48**	**J,DX**	2.0	0.30	ug/L		11/29/12 11:32	11/30/12 11:25	1
Selenium	ND		2.0	0.50	ug/L		11/29/12 11:32	11/29/12 17:38	1
Thallium	ND		1.0	0.20	ug/L		11/29/12 11:32	11/29/12 17:38	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		11/28/12 11:20	11/28/12 21:10	1

Client Sample ID: Outfall 009

Lab Sample ID: 440-30145-1

Date Collected: 11/18/12 05:29

Matrix: Water

Date Received: 11/19/12 10:09

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		11/29/12 11:30	11/30/12 02:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**72**		10	10	mg/L			11/23/12 08:26	1
Total Suspended Solids	ND		10	10	mg/L			11/21/12 16:49	1
Cyanide, Total	ND		5.0	3.0	ug/L		11/23/12 21:25	11/24/12 01:53	1

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cs-137	1.69	U	20		pCi/L		11/30/12 00:00	12/06/12 00:00	1
K-40	-33.6	U	25		pCi/L		11/30/12 00:00	12/06/12 00:00	1

Method: Gross Alpha - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Beta	2.47	J	4		pCi/L		12/07/12 00:00	12/11/12 10:33	1
GrossAlpha	0.657	J	3		pCi/L		12/07/12 00:00	12/11/12 10:33	1

Method: Radium Combined - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ra-226	0.048	U	1		pCi/L		12/17/12 00:00	12/17/12 12:45	1
Ra-228	-0.066	U	1		pCi/L		12/17/12 00:00	12/17/12 12:45	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sr-90	0.066	U	2		pCi/L		12/11/12 00:00	12/11/12 11:00	1

Method: Tritium - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-39.8	U	500		pCi/L		12/06/12 00:00	12/06/12 17:30	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
U Total	**1.02**		1		pCi/L		12/04/12 00:00	12/04/12 00:00	1

Client Sample ID: Trip Blank-Eberline

Lab Sample ID: 440-30145-2

Date Collected: 11/19/12 13:50

Matrix: Water

Date Received: 11/19/12 10:09

Method: Gamma Spec K-40 CS-137 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cs-137	-1.29	U	20		pCi/L		11/30/12 00:00	12/04/12 00:00	1
K-40	-3.32	U	25		pCi/L		11/30/12 00:00	12/04/12 00:00	1

Method: Gross Alpha - Gross Alpha/Beta

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Beta	-0.233	U	4		pCi/L		12/07/12 00:00	12/11/12 10:33	1
GrossAlpha	-0.005	U	3		pCi/L		12/07/12 00:00	12/11/12 10:33	1

Method: Radium Combined - RAD-226-228 combined

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ra-226	0.013	U	1		pCi/L		12/17/12 00:00	12/17/12 14:46	1

Client: MWH Americas Inc
Project/Site: Simi-Annual Outfall 009

TestAmerica Job ID: 440-30115-1

Client Sample ID: Trip Blank-Eberline
Date Collected: 11/19/12 13:50
Date Received: 11/19/12 10:09

Lab Sample ID: 440-30145-2
Matrix: Water

Method: Radium Combined - RAD-226-228 combined (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ra-228	0.048	U	1		pCi/L		12/17/12 00:00	12/17/12 14:46	1

Method: Strontium 90 - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sr-90	-0.149	U	2		pCi/L		12/11/12 00:00	12/11/12 11:00	1

Method: Uranium, Combined - General Sub Contract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
U Total	0	U	1		pCi/L		12/04/12 00:00	12/04/12 00:00	1

Client Sample ID: Outfall 009

Lab Sample ID: 440-30115-1

Date Collected: 11/17/12 12:40

Matrix: Water

Date Received: 11/17/12 18:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	1664A			1055 mL	1000 mL	70413	11/30/12 08:12	DA	TAL IRV
Total/NA	Analysis	1664A		1			70445	11/30/12 09:42	DA	TAL IRV

Client Sample ID: Outfall 009

Lab Sample ID: 440-30145-1

Date Collected: 11/18/12 05:29

Matrix: Water

Date Received: 11/19/12 10:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	1 mL		67854	11/19/12 16:30	CH	TAL IRV
Total/NA	Analysis	300.0		1	1 mL		67855	11/19/12 16:30	NN	TAL IRV
Total/NA	Analysis	314.0		1	1 mL		68796	11/23/12 23:16	TN	TAL IRV
Total/NA	Prep	1613B			1010.3 mL	20.0 uL	6838	12/04/12 09:41	ML	TAL WSC
Total/NA	Analysis	1613B		1			7138	12/08/12 23:04	NK	TAL WSC
Total Recoverable	Prep	200.2			50 mL	50 mL	69894	11/28/12 14:31	ND	TAL IRV
Total Recoverable	Analysis	200.8		1			70187	11/29/12 10:52	NH	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	70170	11/29/12 11:32	DT	TAL IRV
Dissolved	Analysis	200.8		1			70390	11/29/12 17:38	RC	TAL IRV
Dissolved	Analysis	200.8		1			70481	11/30/12 11:25	RC	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	69972	11/29/12 11:30	MM	TAL IRV
Dissolved	Analysis	245.1		1			70499	11/30/12 02:04	DB	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	69566	11/28/12 11:20	MM	TAL IRV
Total/NA	Analysis	245.1		1			70534	11/28/12 21:10	DB	TAL IRV
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	68676	11/21/12 16:49	DK	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	68816	11/23/12 08:26	XL	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	68974	11/23/12 21:25	BT	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1			68977	11/24/12 01:53	BT	TAL IRV
Total/NA	Prep	General Prep		1			8629_P	11/30/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8629	12/06/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/07/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha		1			8629	12/11/12 10:33		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/11/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/17/12 00:00		Eber-Rich
Total/NA	Analysis	Radium Combined		1			8629	12/17/12 12:45		Eber-Rich
Total/NA	Analysis	Strontium 90		1			8629	12/11/12 11:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/06/12 00:00		Eber-Rich
Total/NA	Analysis	Tritium		1			8629	12/06/12 17:30		Eber-Rich
Total/NA	Analysis	Uranium, Combined		1			8629	12/04/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/04/12 00:00		Eber-Rich

Client: MWH Americas Inc
Project/Site: Simi-Annual Outfall 009

TestAmerica Job ID: 440-30115-1

Client Sample ID: Trip Blank-Eberline

Lab Sample ID: 440-30145-2

Date Collected: 11/19/12 13:50

Matrix: Water

Date Received: 11/19/12 10:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	General Prep		1			8629_P	11/30/12 00:00		Eber-Rich
Total/NA	Analysis	Gamma Spec K-40 CS-137		1			8629	12/04/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/07/12 00:00		Eber-Rich
Total/NA	Analysis	Gross Alpha		1			8629	12/11/12 10:33		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/11/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/17/12 00:00		Eber-Rich
Total/NA	Analysis	Radium Combined		1			8629	12/17/12 14:46		Eber-Rich
Total/NA	Analysis	Strontium 90		1			8629	12/11/12 11:00		Eber-Rich
Total/NA	Analysis	Uranium, Combined		1			8629	12/04/12 00:00		Eber-Rich
Total/NA	Prep	General Prep		1			8629_P	12/04/12 00:00		Eber-Rich

Laboratory References:

Eber-Rich = Eberline - Richmond, 2030 Wright Avenue, Richmond, CA 94804

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL WSC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-67854/4
Matrix: Water
Analysis Batch: 67854

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	ND		0.26	0.11	mg/L			11/19/12 10:32	1

Lab Sample ID: MB 440-67855/4
Matrix: Water
Analysis Batch: 67855

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			11/19/12 10:32	1
Sulfate	ND		0.50	0.40	mg/L			11/19/12 10:32	1

Lab Sample ID: LCS 440-67855/2
Matrix: Water
Analysis Batch: 67855

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.86		mg/L		97	90 - 110
Sulfate	10.0	9.76		mg/L		98	90 - 110

Lab Sample ID: 440-30145-1 MS
Matrix: Water
Analysis Batch: 67855

Client Sample ID: Outfall 009
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.3		5.00	6.78		mg/L		89	80 - 120
Sulfate	10		10.0	19.5		mg/L		94	80 - 120

Lab Sample ID: 440-30145-1 MSD
Matrix: Water
Analysis Batch: 67855

Client Sample ID: Outfall 009
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.3		5.00	6.47		mg/L		83	80 - 120	5	20
Sulfate	10		10.0	20.6		mg/L		104	80 - 120	5	20

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 440-68796/35
Matrix: Water
Analysis Batch: 68796

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			11/23/12 19:44	1

Lab Sample ID: LCS 440-68796/36
Matrix: Water
Analysis Batch: 68796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	25.0	25.9		ug/L		104	85 - 115

Method: 314.0 - Perchlorate (IC) (Continued)

Lab Sample ID: MRL 440-68796/2 MRL
Matrix: Water
Analysis Batch: 68796

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate			4.00	3.24	J,DX	ug/L		81			

Lab Sample ID: 440-30505-A-1 MS
Matrix: Water
Analysis Batch: 68796

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate	ND		25.0	25.4		ug/L		102	80 - 120		

Lab Sample ID: 440-30505-A-1 MSD
Matrix: Water
Analysis Batch: 68796

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	ND		25.0	25.4		ug/L		102	80 - 120	0	20

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-6838/1-A
Matrix: Water
Analysis Batch: 7138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6838

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.00000029	ug/L		12/04/12 09:41	12/08/12 14:34	1
2,3,7,8-TCDF	ND		0.000010	0.00000018	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,7,8-PeCDD	ND		0.000050	0.00000034	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,7,8-PeCDF	ND		0.000050	0.00000025	ug/L		12/04/12 09:41	12/08/12 14:34	1
2,3,4,7,8-PeCDF	ND		0.000050	0.00000023	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,4,7,8-HxCDD	ND		0.000050	0.00000019	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.00000019	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,7,8,9-HxCDD	ND		0.000050	0.00000016	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,4,7,8-HxCDF	ND		0.000050	0.00000019	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,6,7,8-HxCDF	ND		0.000050	0.00000017	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,7,8,9-HxCDF	ND		0.000050	0.00000013	ug/L		12/04/12 09:41	12/08/12 14:34	1
2,3,4,6,7,8-HxCDF	ND		0.000050	0.00000013	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,4,6,7,8-HpCDD	0.000000856	J,DX	0.000050	0.00000018	ug/L		12/04/12 09:41	12/08/12 14:34	1
1,2,3,4,6,7,8-HpCDF	0.000000552	J,DX	0.000050	0.00000020	ug/L		12/04/12 09:41	12/08/12 14:34	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-6838/1-A
Matrix: Water
Analysis Batch: 7138

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6838

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.00000023	ug/L		12/04/12 09:41	12/08/12 14:34	1
OCDD	0.00000409	J,DX	0.00010	0.00000022	ug/L		12/04/12 09:41	12/08/12 14:34	1
OCDF	ND		0.00010	0.00000075	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total TCDD	0.00000211	J,DX	0.000010	0.00000029	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total TCDF	ND		0.000010	0.00000018	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total PeCDD	ND		0.000050	0.00000034	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total PeCDF	ND		0.000050	0.00000023	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total HxCDD	ND		0.000050	0.00000016	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total HxCDF	ND		0.000050	0.00000013	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total HpCDD	0.00000164	J,DX	0.000050	0.00000018	ug/L		12/04/12 09:41	12/08/12 14:34	1
Total HpCDF	0.000000552	J,DX	0.000050	0.00000022	ug/L		12/04/12 09:41	12/08/12 14:34	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*48*		*25 - 164*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-2,3,7,8-TCDF	*48*		*24 - 169*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,7,8-PeCDD	*54*		*25 - 181*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,7,8-PeCDF	*49*		*24 - 185*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-2,3,4,7,8-PeCDF	*57*		*21 - 178*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*32 - 141*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,6,7,8-HxCDD	*65*		*28 - 130*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,4,7,8-HxCDF	*71*		*26 - 152*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,6,7,8-HxCDF	*70*		*26 - 123*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,7,8,9-HxCDF	*70*		*29 - 147*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-2,3,4,6,7,8-HxCDF	*73*		*28 - 136*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*75*		*23 - 140*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*74*		*28 - 143*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*26 - 138*	*12/04/12 09:41*	*12/08/12 14:34*	*1*
13C-OCDD	*73*		*17 - 157*	*12/04/12 09:41*	*12/08/12 14:34*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*91*		*35 - 197*	*12/04/12 09:41*	*12/08/12 14:34*	*1*

Lab Sample ID: LCS 320-6838/2-A
Matrix: Water
Analysis Batch: 7138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.000200	0.000197		ug/L		98	67 - 158
2,3,7,8-TCDF	0.000200	0.000214		ug/L		107	75 - 158
1,2,3,7,8-PeCDD	0.00100	0.000985		ug/L		99	70 - 142

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-6838/2-A
Matrix: Water
Analysis Batch: 7138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6838

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3,7,8-PeCDF			0.00100	0.00109		ug/L		109	80 - 134		
2,3,4,7,8-PeCDF			0.00100	0.00101		ug/L		101	68 - 160		
1,2,3,4,7,8-HxCDD			0.00100	0.000999		ug/L		100	70 - 164		
1,2,3,6,7,8-HxCDD			0.00100	0.00103		ug/L		103	76 - 134		
1,2,3,7,8,9-HxCDD			0.00100	0.000938		ug/L		94	64 - 162		
1,2,3,4,7,8-HxCDF			0.00100	0.000970		ug/L		97	72 - 134		
1,2,3,6,7,8-HxCDF			0.00100	0.00105		ug/L		105	84 - 130		
1,2,3,7,8,9-HxCDF			0.00100	0.00103		ug/L		103	78 - 130		
2,3,4,6,7,8-HxCDF			0.00100	0.00104		ug/L		104	70 - 156		
1,2,3,4,6,7,8-HpCDD			0.00100	0.000994		ug/L		99	70 - 140		
1,2,3,4,6,7,8-HpCDF			0.00100	0.00107		ug/L		107	82 - 122		
1,2,3,4,7,8,9-HpCDF			0.00100	0.000960		ug/L		96	78 - 138		
OCDD			0.00200	0.00208		ug/L		104	78 - 144		
OCDF			0.00200	0.00216		ug/L		108	63 - 170		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,7,8-TCDD	*55*		*20 - 175*
13C-2,3,7,8-TCDF	*55*		*22 - 152*
13C-1,2,3,7,8-PeCDD	*57*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*56*		*21 - 192*
13C-2,3,4,7,8-PeCDF	*61*		*13 - 328*
13C-1,2,3,4,7,8-HxCDD	*74*		*21 - 193*
13C-1,2,3,6,7,8-HxCDD	*65*		*25 - 163*
13C-1,2,3,4,7,8-HxCDF	*74*		*19 - 202*
13C-1,2,3,6,7,8-HxCDF	*69*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*70*		*17 - 205*
13C-2,3,4,6,7,8-HxCDF	*72*		*22 - 176*
13C-1,2,3,4,6,7,8-HpCDD	*74*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*72*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*79*		*20 - 186*
13C-OCDD	*71*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*94*		*35 - 197*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-69894/1-A
Matrix: Water
Analysis Batch: 70187

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 69894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		11/28/12 14:31	11/29/12 09:44	1
Copper	ND		2.0	0.50	ug/L		11/28/12 14:31	11/29/12 09:44	1
Lead	ND		1.0	0.20	ug/L		11/28/12 14:31	11/29/12 09:44	1
Antimony	ND		2.0	0.30	ug/L		11/28/12 14:31	11/29/12 09:44	1
Selenium	ND		2.0	0.50	ug/L		11/28/12 14:31	11/29/12 09:44	1
Thallium	ND		1.0	0.20	ug/L		11/28/12 14:31	11/29/12 09:44	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-69894/2-A
Matrix: Water
Analysis Batch: 70187

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 69894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	78.9		ug/L		99	85 - 115
Copper	80.0	80.1		ug/L		100	85 - 115
Lead	80.0	79.7		ug/L		100	85 - 115
Antimony	80.0	78.6		ug/L		98	85 - 115
Selenium	80.0	80.2		ug/L		100	85 - 115
Thallium	80.0	80.8		ug/L		101	85 - 115

Lab Sample ID: 440-30756-A-11-B MS
Matrix: Water
Analysis Batch: 70187

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 69894

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	76.6		ug/L		96	70 - 130
Copper	350		80.0	433	BB	ug/L		100	70 - 130
Lead	0.20	J,DX	80.0	78.1		ug/L		97	70 - 130
Antimony	0.50	J,DX	80.0	79.0		ug/L		98	70 - 130
Selenium	ND		80.0	77.7		ug/L		97	70 - 130
Thallium	ND		80.0	80.6		ug/L		101	70 - 130

Lab Sample ID: 440-30756-A-11-C MSD
Matrix: Water
Analysis Batch: 70187

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 69894

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	77.6		ug/L		97	70 - 130	1	20
Copper	350		80.0	430	BB	ug/L		96	70 - 130	1	20
Lead	0.20	J,DX	80.0	78.5		ug/L		98	70 - 130	1	20
Antimony	0.50	J,DX	80.0	80.1		ug/L		99	70 - 130	1	20
Selenium	ND		80.0	79.8		ug/L		100	70 - 130	3	20
Thallium	ND		80.0	80.5		ug/L		101	70 - 130	0	20

Lab Sample ID: MB 440-67901/1-C
Matrix: Water
Analysis Batch: 70390

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 70170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.20	ug/L		11/29/12 11:32	11/29/12 17:28	1
Selenium	ND		2.0	0.50	ug/L		11/29/12 11:32	11/29/12 17:28	1
Thallium	ND		1.0	0.20	ug/L		11/29/12 11:32	11/29/12 17:28	1

Lab Sample ID: MB 440-67901/1-C
Matrix: Water
Analysis Batch: 70481

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 70170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		11/29/12 11:32	11/30/12 11:20	1
Copper	ND		2.0	0.50	ug/L		11/29/12 11:32	11/30/12 11:20	1
Antimony	ND		2.0	0.30	ug/L		11/29/12 11:32	11/30/12 11:20	1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-67901/2-C
Matrix: Water
Analysis Batch: 70390

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	80.0	81.3		ug/L		102	85 - 115
Selenium	80.0	78.1		ug/L		98	85 - 115
Thallium	80.0	83.1		ug/L		104	85 - 115

Lab Sample ID: LCS 440-67901/2-C
Matrix: Water
Analysis Batch: 70481

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	82.6		ug/L		103	85 - 115
Copper	80.0	83.6		ug/L		105	85 - 115
Antimony	80.0	82.6		ug/L		103	85 - 115

Lab Sample ID: 440-30145-1 MS
Matrix: Water
Analysis Batch: 70390

Client Sample ID: Outfall 009
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.29	J,DX	80.0	78.9		ug/L		98	70 - 130
Selenium	ND		80.0	77.3		ug/L		97	70 - 130
Thallium	ND		80.0	79.7		ug/L		100	70 - 130

Lab Sample ID: 440-30145-1 MS
Matrix: Water
Analysis Batch: 70481

Client Sample ID: Outfall 009
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	81.9		ug/L		102	70 - 130
Copper	4.0		80.0	86.9		ug/L		104	70 - 130
Antimony	0.48	J,DX	80.0	81.5		ug/L		101	70 - 130

Lab Sample ID: 440-30145-1 MSD
Matrix: Water
Analysis Batch: 70390

Client Sample ID: Outfall 009
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.29	J,DX	80.0	79.2		ug/L		99	70 - 130	0	20
Selenium	ND		80.0	77.7		ug/L		97	70 - 130	1	20
Thallium	ND		80.0	78.6		ug/L		98	70 - 130	1	20

Lab Sample ID: 440-30145-1 MSD
Matrix: Water
Analysis Batch: 70481

Client Sample ID: Outfall 009
Prep Type: Dissolved
Prep Batch: 70170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	81.8		ug/L		102	70 - 130	0	20
Copper	4.0		80.0	86.2		ug/L		103	70 - 130	1	20
Antimony	0.48	J,DX	80.0	82.3		ug/L		102	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-69566/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70534 — **Prep Batch: 69566**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		11/28/12 11:20	11/28/12 20:22	1

Lab Sample ID: LCS 440-69566/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70534 — **Prep Batch: 69566**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.88		ug/L		99	85 - 115

Lab Sample ID: 440-30121-F-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70534 — **Prep Batch: 69566**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	7.63		ug/L		95	70 - 130

Lab Sample ID: 440-30121-F-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70534 — **Prep Batch: 69566**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	7.75		ug/L		97	70 - 130	2	20

Lab Sample ID: MB 440-67901/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 70499 — **Prep Batch: 69972**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		11/29/12 11:30	11/30/12 01:59	1

Lab Sample ID: LCS 440-67901/2-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 70499 — **Prep Batch: 69972**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.86		ug/L		98	85 - 115

Lab Sample ID: 440-30145-1 MS — **Client Sample ID: Outfall 009**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 70499 — **Prep Batch: 69972**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	6.79		ug/L		85	70 - 130

Lab Sample ID: 440-30145-1 MSD — **Client Sample ID: Outfall 009**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 70499 — **Prep Batch: 69972**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	6.80		ug/L		85	70 - 130	0	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-70413/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70445 — **Prep Batch: 70413**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		11/30/12 08:12	11/30/12 09:42	1

Lab Sample ID: LCS 440-70413/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70445 — **Prep Batch: 70413**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	18.2		mg/L		91	78 - 114

Lab Sample ID: LCSD 440-70413/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 70445 — **Prep Batch: 70413**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	20.0	17.3		mg/L		87	78 - 114	5	11

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-68816/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 68816

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			11/23/12 08:26	1

Lab Sample ID: LCS 440-68816/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 68816

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	958		mg/L		96	90 - 110

Lab Sample ID: 440-30064-M-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 68816

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	320		336		mg/L		4	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-68676/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 68676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	10	mg/L			11/21/12 16:49	1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: LCS 440-68676/2
Matrix: Water
Analysis Batch: 68676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	1010		mg/L		101	85 - 115		

Lab Sample ID: 440-30121-D-6 DU
Matrix: Water
Analysis Batch: 68676

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	100			99.0		mg/L				1	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-68974/1-A
Matrix: Water
Analysis Batch: 68977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 68974

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		5.0	3.0	ug/L		11/23/12 21:25	11/24/12 01:52	1

Lab Sample ID: LCS 440-68974/2-A
Matrix: Water
Analysis Batch: 68977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 68974

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			100	101		ug/L		101	90 - 110		

Lab Sample ID: 440-29847-E-3-B MS
Matrix: Water
Analysis Batch: 68977

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 68974

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	ND		100	101		ug/L		101	70 - 115		

Lab Sample ID: 440-29847-E-3-C MSD
Matrix: Water
Analysis Batch: 68977

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 68974

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		100	97.1		ug/L		97	70 - 115	4	15

Method: 5174 -

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
U Total	0	U	1		pCi/L		12/04/12 00:00	12/04/12 00:00	1

Method: 5174 - (Continued)

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
U Total	62.5	58.4		pCi/L		93	80 - 120

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
U Total	0.158		0.164	J	pCi/L		4	

Method: 900 - 900

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gross Beta	-0.26	U	4		pCi/L		12/07/12 00:00	12/10/12 16:11	1
GrossAlpha	-0.103	U	3		pCi/L		12/07/12 00:00	12/10/12 16:11	1

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gross Beta	33.3	31.7		pCi/L		95	70 - 130
GrossAlpha	37	46		pCi/L		124	70 - 130

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
Gross Beta	6.26		6.14		pCi/L		2	
GrossAlpha	1.66		1.98	J	pCi/L		18	

Method: 901.1 - 901.1

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cs-137	-0.768	U	20		pCi/L		11/30/12 00:00	12/05/12 00:00	1
K-40	-2.69	U	25		pCi/L		11/30/12 00:00	12/05/12 00:00	1

Method: 901.1 - 901.1 (Continued)

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cobalt-60			120	114		pCi/L		95	80 - 120		
Cs-137			145	150		pCi/L		103	80 - 120		

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Cs-137	-0.113			-0.329	U	pCi/L				0	
K-40	2.02			3.58	U	pCi/L				0	

Method: 903.1 - 903.1

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ra-226	-0.19	U	1		pCi/L		12/17/12 00:00	12/17/12 12:45	1

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ra-226			50.1	51.9		pCi/L		104	80 - 120		

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Ra-226	0.114			0.282	U	pCi/L				0	

Method: 904 - 904

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ra-228	0.132	U	1		pCi/L		12/11/12 00:00	12/11/12 17:39	1

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ra-228			4.1	3.35		pCi/L		82	60 - 140		

Method: 904 - 904 (Continued)

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Ra-228	-0.032			0.22	U	pCi/L				0	

Method: 905 - 905

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sr-90	-0.135	U	2		pCi/L		12/11/12 00:00	12/11/12 11:00	1

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sr-90			16.7	17		pCi/L		102	80 - 120		

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Sr-90	-0.031			-0.093	U	pCi/L				0	

Method: 906 - 906

Lab Sample ID: S211070-04
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tritium	-23.7	U	500		pCi/L		12/06/12 00:00	12/06/12 17:30	1

Lab Sample ID: S211070-03
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Tritium			2140	1890		pCi/L		88	80 - 120		

Lab Sample ID: S211070-05
Matrix: WATER
Analysis Batch: 8628

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 8628_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Tritium	-12.6			-61.5	U	pCi/L				0	

HPLC/IC

Analysis Batch: 67854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	300.0	
440-30145-1 MS	Outfall 009	Total/NA	Water	300.0	
440-30145-1 MSD	Outfall 009	Total/NA	Water	300.0	
LCS 440-67854/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-67854/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 67855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	300.0	
440-30145-1 MS	Outfall 009	Total/NA	Water	300.0	
440-30145-1 MSD	Outfall 009	Total/NA	Water	300.0	
LCS 440-67855/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-67855/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 68796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	314.0	
440-30505-A-1 MS	Matrix Spike	Total/NA	Water	314.0	
440-30505-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	314.0	
LCS 440-68796/36	Lab Control Sample	Total/NA	Water	314.0	
MB 440-68796/35	Method Blank	Total/NA	Water	314.0	
MRL 440-68796/2 MRL	Lab Control Sample	Total/NA	Water	314.0	

Specialty Organics

Prep Batch: 6838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	1613B	
LCS 320-6838/2-A	Lab Control Sample	Total/NA	Water	1613B	
MB 320-6838/1-A	Method Blank	Total/NA	Water	1613B	

Analysis Batch: 7138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	1613B	6838
LCS 320-6838/2-A	Lab Control Sample	Total/NA	Water	1613B	6838
MB 320-6838/1-A	Method Blank	Total/NA	Water	1613B	6838

Metals

Prep Batch: 69566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30121-F-2-B MS	Matrix Spike	Total/NA	Water	245.1	
440-30121-F-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-30145-1	Outfall 009	Total/NA	Water	245.1	
LCS 440-69566/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-69566/1-A	Method Blank	Total/NA	Water	245.1	

Prep Batch: 69894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total Recoverable	Water	200.2	

Metals (Continued)

Prep Batch: 69894 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30756-A-11-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-30756-A-11-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
LCS 440-69894/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-69894/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 69972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Dissolved	Water	245.1	
440-30145-1 MS	Outfall 009	Dissolved	Water	245.1	
440-30145-1 MSD	Outfall 009	Dissolved	Water	245.1	
LCS 440-67901/2-B	Lab Control Sample	Dissolved	Water	245.1	
MB 440-67901/1-B	Method Blank	Dissolved	Water	245.1	

Prep Batch: 70170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Dissolved	Water	200.2	
440-30145-1 MS	Outfall 009	Dissolved	Water	200.2	
440-30145-1 MSD	Outfall 009	Dissolved	Water	200.2	
LCS 440-67901/2-C	Lab Control Sample	Dissolved	Water	200.2	
MB 440-67901/1-C	Method Blank	Dissolved	Water	200.2	

Analysis Batch: 70187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total Recoverable	Water	200.8	69894
440-30756-A-11-B MS	Matrix Spike	Total Recoverable	Water	200.8	69894
440-30756-A-11-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	69894
LCS 440-69894/2-A	Lab Control Sample	Total Recoverable	Water	200.8	69894
MB 440-69894/1-A	Method Blank	Total Recoverable	Water	200.8	69894

Analysis Batch: 70390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Dissolved	Water	200.8	70170
440-30145-1 MS	Outfall 009	Dissolved	Water	200.8	70170
440-30145-1 MSD	Outfall 009	Dissolved	Water	200.8	70170
LCS 440-67901/2-C	Lab Control Sample	Dissolved	Water	200.8	70170
MB 440-67901/1-C	Method Blank	Dissolved	Water	200.8	70170

Analysis Batch: 70481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Dissolved	Water	200.8	70170
440-30145-1 MS	Outfall 009	Dissolved	Water	200.8	70170
440-30145-1 MSD	Outfall 009	Dissolved	Water	200.8	70170
LCS 440-67901/2-C	Lab Control Sample	Dissolved	Water	200.8	70170
MB 440-67901/1-C	Method Blank	Dissolved	Water	200.8	70170

Analysis Batch: 70499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Dissolved	Water	245.1	69972
440-30145-1 MS	Outfall 009	Dissolved	Water	245.1	69972
440-30145-1 MSD	Outfall 009	Dissolved	Water	245.1	69972
LCS 440-67901/2-B	Lab Control Sample	Dissolved	Water	245.1	69972

Metals (Continued)

Analysis Batch: 70499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-67901/1-B	Method Blank	Dissolved	Water	245.1	69972

Analysis Batch: 70534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30121-F-2-B MS	Matrix Spike	Total/NA	Water	245.1	69566
440-30121-F-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	69566
440-30145-1	Outfall 009	Total/NA	Water	245.1	69566
LCS 440-69566/2-A	Lab Control Sample	Total/NA	Water	245.1	69566
MB 440-69566/1-A	Method Blank	Total/NA	Water	245.1	69566

General Chemistry

Analysis Batch: 68676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30121-D-6 DU	Duplicate	Total/NA	Water	SM 2540D	
440-30145-1	Outfall 009	Total/NA	Water	SM 2540D	
LCS 440-68676/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-68676/1	Method Blank	Total/NA	Water	SM 2540D	

Analysis Batch: 68816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30064-M-1 DU	Duplicate	Total/NA	Water	SM 2540C	
440-30145-1	Outfall 009	Total/NA	Water	SM 2540C	
LCS 440-68816/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-68816/1	Method Blank	Total/NA	Water	SM 2540C	

Prep Batch: 68974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-29847-E-3-B MS	Matrix Spike	Total/NA	Water	Distill/CN	
440-29847-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/CN	
440-30145-1	Outfall 009	Total/NA	Water	Distill/CN	
LCS 440-68974/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 440-68974/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 68977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-29847-E-3-B MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	68974
440-29847-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	68974
440-30145-1	Outfall 009	Total/NA	Water	SM 4500 CN E	68974
LCS 440-68974/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	68974
MB 440-68974/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	68974

Prep Batch: 70413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30115-1	Outfall 009	Total/NA	Water	1664A	
LCS 440-70413/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-70413/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-70413/1-A	Method Blank	Total/NA	Water	1664A	

General Chemistry (Continued)

Analysis Batch: 70445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30115-1	Outfall 009	Total/NA	Water	1664A	70413
LCS 440-70413/2-A	Lab Control Sample	Total/NA	Water	1664A	70413
LCSD 440-70413/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	70413
MB 440-70413/1-A	Method Blank	Total/NA	Water	1664A	70413

Subcontract

Analysis Batch: 8628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
S211070-03	Lab Control Sample	Total/NA	WATER	900	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	904	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	901.1	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	906	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	903.1	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	905	8628_P
S211070-03	Lab Control Sample	Total/NA	WATER	5174	8628_P
S211070-04	Method Blank	Total/NA	WATER	900	8628_P
S211070-04	Method Blank	Total/NA	WATER	904	8628_P
S211070-04	Method Blank	Total/NA	WATER	901.1	8628_P
S211070-04	Method Blank	Total/NA	WATER	906	8628_P
S211070-04	Method Blank	Total/NA	WATER	903.1	8628_P
S211070-04	Method Blank	Total/NA	WATER	905	8628_P
S211070-04	Method Blank	Total/NA	WATER	5174	8628_P
S211070-05	Duplicate	Total/NA	WATER	900	8628_P
S211070-05	Duplicate	Total/NA	WATER	904	8628_P
S211070-05	Duplicate	Total/NA	WATER	901.1	8628_P
S211070-05	Duplicate	Total/NA	WATER	906	8628_P
S211070-05	Duplicate	Total/NA	WATER	903.1	8628_P
S211070-05	Duplicate	Total/NA	WATER	905	8628_P
S211070-05	Duplicate	Total/NA	WATER	5174	8628_P

Analysis Batch: 8629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	Gamma Spec K-40 CS-137	8629_P
440-30145-1	Outfall 009	Total/NA	Water	Gross Alpha	8629_P
440-30145-1	Outfall 009	Total/NA	Water	Radium Combined	8629_P
440-30145-1	Outfall 009	Total/NA	Water	Strontium 90	8629_P
440-30145-1	Outfall 009	Total/NA	Water	Tritium	8629_P
440-30145-1	Outfall 009	Total/NA	Water	Uranium, Combined	8629_P
440-30145-2	Trip Blank-Eberline	Total/NA	Water	Gamma Spec K-40 CS-137	8629_P
440-30145-2	Trip Blank-Eberline	Total/NA	Water	Gross Alpha	8629_P
440-30145-2	Trip Blank-Eberline	Total/NA	Water	Radium Combined	8629_P
440-30145-2	Trip Blank-Eberline	Total/NA	Water	Strontium 90	8629_P
440-30145-2	Trip Blank-Eberline	Total/NA	Water	Uranium, Combined	8629_P

Subcontract (Continued)

Prep Batch: 8628_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
S211070-03	Lab Control Sample	Total/NA	WATER	General Prep	
S211070-04	Method Blank	Total/NA	WATER	General Prep	
S211070-05	Duplicate	Total/NA	WATER	General Prep	

Prep Batch: 8629_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-30145-1	Outfall 009	Total/NA	Water	General Prep	
440-30145-2	Trip Blank-Eberline	Total/NA	Water	General Prep	

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

Dioxin

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
MB	Analyte present in the method blank

Metals

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
BB	Sample > 4X spike concentration

Subcontract

Qualifier	Qualifier Description
U	The RESULT is less than the MDA (Minimum Detectable Activity). If the MDA is blank, the ERROR is used as the limit.
J	The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: MWH Americas Inc
Project/Site: Simi-Annual Outfall 009

TestAmerica Job ID: 440-30115-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-13
California	NELAP	9	1108CA	01-31-13
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-13
Hawaii	State Program	9	N/A	01-31-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	01-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-13
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-13

Laboratory: TestAmerica Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-14
Alaska (UST)	State Program	10	UST-055	12-18-12
Arizona	State Program	9	AZ0708	08-11-13
Arkansas DEQ	State Program	6	88-0691	06-17-13
California	NELAP	9	1119CA	01-31-13
Colorado	State Program	8	N/A	08-31-13
Connecticut	State Program	1	PH-0691	06-30-13
Florida	NELAP	4	E87570	06-30-13
Guam	State Program	9	N/A	08-31-13
Hawaii	State Program	9	N/A	01-31-13
Illinois	NELAP	5	200060	03-17-13
Kansas	NELAP	7	E-10375	10-31-13
Louisiana	NELAP	6	30612	06-30-13
Michigan	State Program	5	9947	01-31-13
Nevada	State Program	9	CA44	07-31-13
New Jersey	NELAP	2	CA005	06-30-13
New York	NELAP	2	11666	04-01-13
Northern Mariana Islands	State Program	9	MP0007	01-31-13
Oregon	NELAP	10	CA200005	03-28-13
Pennsylvania	NELAP	3	68-01272	03-31-13
South Carolina	State Program	4	87014	06-30-13
Texas	NELAP	6	T104704399-08-TX	05-31-13
US Fish & Wildlife	Federal		LE148388-0	02-28-13
USDA	Federal		P330-11-00436	12-30-14
Utah	NELAP	8	QUAN1	01-31-13
Washington	State Program	10	C581	05-05-13
West Virginia	State Program	3	9930C	12-31-12
West Virginia DEP	State Program	3	334	07-31-13
Wyoming	State Program	8	8TMS-Q	01-31-13

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-30115-1

Login Number: 30115

List Source: TestAmerica Irvine

List Number: 1

Creator: Perez, Angel

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Rick B.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-30115-1

Login Number: 30145

List Source: TestAmerica Irvine

List Number: 1

Creator: Escalante, Maria

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Not requested on COC.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: MWH Americas Inc

Job Number: 440-30115-1

Login Number: 30145
List Number: 1
Creator: Hytrek, Cheryl

List Source: TestAmerica Sacramento
List Creation: 11/21/12 01:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX F

Section 3

Outfall 019 – October 3 & 4, 2012

MEC^X Data Validation Report

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-25324-1

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:	440-25324-1
Project Manager:	B. Kelly
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica-Irvine

Table 1. Sample Identification

Client ID	Laboratory ID	Sub-Laboratory ID	Matrix	Collected	Method
Outfall 019	440-25512-1	S210013-01, G2J060425-001	Water	10/4/2012 10:25:00 AM	1613B, 180.1, 200.7, 200.7 diss, 245.1, 245.1 diss 314.0, 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM D-5174
Outfall 019	440-25324-1	N/A	Water	10/3/2012 10:00:00 AM	120.1

II. Sample Management

No anomalies were observed regarding sample management. The samples were received below the temperature limit at 0.1°C upon receipt at TestAmerica-West Sacramento; however, as the samples were not noted to be frozen or damaged, no qualifications were required. The temperature upon receipt was not noted by Eberline; however, due to the nonvolatile nature of the analytes, no qualifications were required. The samples in this SDG were received at the TestAmerica-Irvine within the temperature limits of 4°C ±2°C. According to the case narrative for this SDG, the samples were received intact, on ice, and properly preserved, if applicable. The COCs were appropriately signed and dated by field and/or laboratory personnel. Custody seals were intact upon receipt at Eberline. Custody seals were not utilized in shipping the packages via FedEx to TestAmerica-West Sacramento. As the samples were delivered to TestAmerica-Irvine via courier, 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 1613—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: November 15, 2012

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

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

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

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

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

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq$20% for the 15 native compounds (calibration by isotope dilution) and $\leq$35% for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.

    - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.

- Blanks: The method blank had detects reported above the EDL for numerous isomers and their totals, including OCDD and OCDF. Some method blank results were reported as EMPCs; however, the reviewer deemed it appropriate to evaluate all method blank results for the purpose of qualifying sample results. Sample results for the individual isomer blank contaminants were qualified as nondetected "U," at the level of contamination. Total

HxCDD was not qualified for method blank contamination, as the single peak comprising the sample total was not reportable in the method blank. Total HxCDF and HpCDD were qualified as nondetected, "U," as all peaks comprising the sample totals were also present in the method blank at comparable concentrations.

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

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

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

    - Field Duplicates: This SDG had no identified field duplicate samples.

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

- 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 reportable sample concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Any detects reported between the estimated detection limit (EDL) and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

B. EPA METHODS 200.7 and 245.1—Zinc and Mercury

Reviewed By: P. Meeks
Date Reviewed: November 14, 2012

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

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

- Calibration: Mercury initial calibration r^2 values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP metals and 85-115% for mercury. CRDL/CRI recoveries were within the control limits of 70-130%. A total of 24 environmental samples were analyzed between the CCV/CCB pairs for total mercury. As the sample was analyzed two samples before an acceptable CCV/CCB pair, no qualifications were deemed necessary.

- 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 method-established QC limits.

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

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for total and dissolved zinc and dissolved mercury. Recoveries and RPDs were within method-established QC limits.

- Serial Dilution: No serial dilution analyses were performed on the sample in this SDG.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either “J+” or “J-“; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, “J,” and coded with “DNQ,” in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

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

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

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

C. EPA METHOD 314.0—Perchlorate

Reviewed By: P. Meeks
Date Reviewed: November 14, 2012

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-20, Rev. 0), EPA Method 314.0*, and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The analytical holding time, 28 days, was met.

- Calibration: Calibration criteria were met. The initial calibration r^2 value was ≥0.995 and all initial and continuing calibration recoveries were within 90-110%. The IPC recovery was within the method-established control limit of 80-120%, and the ICCS recovery was within the method-established control limit of 75-125%.

- Blanks: Method blanks and CCBs had no detects.

- Blank Spikes and Laboratory Control Samples: The recovery was within the method-established QC limits of 85-115%.

- Laboratory Duplicates: No laboratory duplicate analysis was 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.

- Sample Result Verification: Calculations were verified and the sample result reported on the sample result summary was verified against the raw data. No transcription errors or calculation errors were noted. Reported nondetects are valid to the reporting limit.

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

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

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

D. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: November 14, 2012

The sample listed in Table 1 for this analyses were validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174,* and the *National Functional Guidelines for Inorganic Data Review* (10/04).

- Holding Times: The tritium sample was analyzed within 180 days of collection. All remaining aliquots were preserved within the five-day holding time.

- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

  The gross alpha detector efficiency was less than 20%; therefore, nondetected gross alpha in the sample was qualified as estimated, "UJ." The remaining detector efficiencies were greater than 20%.

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

- Blanks: There were no analytes detected in the method blanks or the KPA CCBs.

- Blank Spikes and Laboratory Control Samples: The total uranium recovery was below the control limit; therefore, total uranium detected in the sample was qualified as estimated, "J." The remaining recoveries were within laboratory-established control limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for all analytes. All RPDs were within the laboratory-established control limits.

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

- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDAs reported on the sample result form were verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDA and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDA. Total uranium, normally reported in aqueous units, was converted to pCi/L using the conversion factor of 0.6872 for naturally occurring uranium.

- 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.

E. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: November 14, 2012

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 Methods 120.1, 180.1*, and the *National Functional Guidelines for Inorganic Data Review* (7/02).

- Holding Times: The 48-hour turbidity holding time was exceeded by two hours; therefore, the nondetected result for turbidity in the sample was qualified as estimated, "UJ." The specific conductance holding time, 28 days, was met.

- Calibration: Calibration criteria were met. The initial and continuing calibration recoveries affecting sample results were within 90-110%.

- Blanks: Turbidity was reported in the method blank at 0.05 NTU and in both bracketing CCBs, at 0.05 and 0.04 NTU; therefore, turbidity reported in the sample was qualified as nondetected, "U," at the level of contamination. Method blanks and CCBs had no other detects.

- Blank Spikes and Laboratory Control Samples: Recoveries were within laboratory-established QC limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for specific conductance and turbidity. The RPDs were within the laboratory-established control limit.

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

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method

detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

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

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

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

Validated Sample Result Forms 440-25324-1

Analysis Method 120.1

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25324-1 **Sample Date:** 10/3/2012 10:00:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Specific Conductance	STL00244	870	1.0	1.0	umhos/c			

Analysis Method 1613B

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8-HpCDD	35822-46-9	ND	0.000050	0.0000016	ug/L	J Q B	U	B
1,2,3,4,6,7,8-HpCDF	67562-39-4	ND	0.000050	0.0000016	ug/L		U	
1,2,3,4,7,8,9-HpCDF	55673-89-7	ND	0.000050	0.0000019	ug/L		U	
1,2,3,4,7,8-HxCDD	39227-28-6	ND	0.000050	0.0000012	ug/L		U	
1,2,3,4,7,8-HxCDF	70648-26-9	ND	0.000050	0.0000012	ug/L	J B	U	B
1,2,3,6,7,8-HxCDD	57653-85-7	ND	0.000050	0.0000011	ug/L		U	
1,2,3,6,7,8-HxCDF	57117-44-9	ND	0.000050	0.0000012	ug/L	J Q B	U	B
1,2,3,7,8,9-HxCDD	19408-74-3	ND	0.000050	0.0000010	ug/L		U	
1,2,3,7,8,9-HxCDF	72918-21-9	ND	0.000050	0.0000015	ug/L		U	
1,2,3,7,8-PeCDD	40321-76-4	ND	0.000050	0.0000036	ug/L		U	
1,2,3,7,8-PeCDF	57117-41-6	ND	0.000050	0.0000034	ug/L		U	
2,3,4,6,7,8-HxCDF	60851-34-5	ND	0.000050	0.0000012	ug/L	J B	U	B
2,3,4,7,8-PeCDF	57117-31-4	ND	0.000050	0.0000036	ug/L		U	
2,3,7,8-TCDD	1746-01-6	ND	0.000010	0.0000019	ug/L		U	
2,3,7,8-TCDF	51207-31-9	ND	0.000010	0.0000024	ug/L		U	
OCDD	3268-87-9	ND	0.00010	0.0000024	ug/L	J Q B	U	B
OCDF	39001-02-0	ND	0.00010	0.0000022	ug/L	J Q B	U	B
Total HpCDD	37871-00-4	ND	0.000050	0.0000016	ug/L	J Q B	U	B
Total HpCDF	38998-75-3	ND	0.000050	0.0000016	ug/L		U	
Total HxCDD	34465-46-8	0.000002	0.000050	0.0000011	ug/L	J B	J	DNQ
Total HxCDF	55684-94-1	ND	0.000050	0.0000012	ug/L	J Q B	U	B
Total PeCDD	36088-22-9	ND	0.000050	0.0000036	ug/L		U	
Total PeCDF	30402-15-4	ND	0.000050	0.0000034	ug/L		U	
Total TCDD	41903-57-5	ND	0.000010	0.0000019	ug/L		U	
Total TCDF	55722-27-5	ND	0.000010	0.0000024	ug/L		U	

Analysis Method 180.1

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Turbidity	STL00189	ND	0.10	0.040	NTU	J,DX MB	UJ	B, H

Analysis Method 200.7 Rev 4.4

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness, as CaCO3	STL00009	320	0.33	0.17	mg/L	MB		
Hardness, as CaCO3, Dissolved	STL00009	310	0.33	0.17	mg/L			
Zinc	7440-66-6	ND	20	6.0	ug/L		U	
Zinc, Dissolved	7440-66-6	ND	20	6.0	ug/L		U	

Analysis Method 245.1

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	7439-97-6	ND	0.20	0.10	ug/L		U	
Mercury, Dissolved	7439-97-6	ND	0.20	0.10	ug/L		U	

Analysis Method 314.0

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Perchlorate	14797-73-0	ND	4.0	0.95	ug/L		U	

Analysis Method 5174

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Uranium, Total	NA	0.234	1	0.021	pCi/L	J	J	DNQ, L

Analysis Method 900

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha	12587461	0.523	3	1.85	pCi/L	U	UJ	C
Gross Beta	12587472	2.4	4	2.45	pCi/L	U	U	

Analysis Method 901.1

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045973	0.533	20	2.35	pCi/L	U	U	
Potassium-40	13966002	-2.53	25	25.4	pCi/L	U	U	

Analysis Method 903.1

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982633	0.506	1	0.721	pCi/L	U	U	

Analysis Method 904

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262201	0.112	1	0.739	pCi/L	U	U	

Analysis Method 905

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098972	0.111	2	0.8	pCi/L	U	U	

Analysis Method 906

Sample Name Outfall 019 **Matrix Type:** Water **Validation Level:** IV

Lab Sample Name: 440-25512-1 **Sample Date:** 10/4/2012 10:25:00 AM

Analyte	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028178	-121	500	189	pCi/L	U	U	

APPENDIX F

Section 4

Outfall 019 – October 3 & 4, 2012

Test America Analytical Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-25324-1
Client Project/Site: Quarterly Outfall 019
Revision: 1

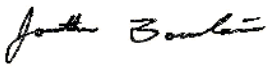
For:
MWH Americas Inc
618 Michillinda Avenue, Suite 200
Arcadia, California 91007

Attn: Bronwyn Kelly

Authorized for release by:
11/9/2012 12:09:44 PM

Jonathan Bousselaire
Project Manager I
jonathan.bousselaire@testamericainc.com

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.



Jonathan Bousselaire
Project Manager I
11/9/2012 12:09:44 PM

Table of Contents

Sample Summary

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-25324-1	Outfall 019	Water	10/03/12 10:00	10/03/12 18:55
440-25324-2	Trip Blank	Water	10/03/12 10:00	10/03/12 18:55
440-25512-1	Outfall 019	Water	10/04/12 10:25	10/04/12 17:50
440-25512-2	Trip Blank-Eberline	Water	10/05/12 13:45	10/04/12 17:50

Job ID: 440-25324-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-25324-1 and 440-25512

Comments
No additional comments.

Receipt
The samples were received on 10/3/2012 6:55 PM and 10/4/2012 5:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.9º C, 4.4º C and 5.2º C.

GC/MS VOA
No analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 58522. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 625: The continuing calibration verification (CCV) for several analytes associated with batch 59081 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 625, 8270C LL: The method blank, LCS and LCSD associated with batch 58522 contained bis(2-ethylhexyl)phthalate greater than one-half the reporting limit (RL). The data have been qualified and reported. Bis(2-ethylhexyl)phthalate was not detected in the samples except for job 25508.

Method(s) 625, 8270C LL: The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for batch 58522 exceeded control limits for several analytes. Low recoveries are possibly due to less than optimal extraction conditions such as fluctuations in heating mantle temp, condenser water temp, ambient light, angle of apparatus, spike solvent, etc. A possible loss of extraction volume may also be a cause for the low recoveries in the LCSD analysis.

Method(s) 625: The continuing calibration verification (CCV) for benzyl alcohol associated with batch 59355 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

HPLC
Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for chloride in batch 56703 were outside control limits due to matrix effects. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for nitrite in batch 56702 were outside control limits due to matrix effects. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for nitrate in batch 56702 were outside control limits due to matrix effects. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 608: The continuing calibration verification (CCV) for d-BHC, DDE, Endrin aldehyde associated with batch 57792 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

Job ID: 440-25324-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

Metals

Method(s) 245.1, 7470A: More than 10 samples were run between bracketed continuing calibration checks. The data was not impacted, so the samples were not re-analyzed.

No other analytical or quality issues were noted.

General Chemistry

Method(s) SM5210B: The samples in the batch 57011 fof the method SM5210B have BOD blank exceeded the limit. Also the laboratory control sample(LCS) and laboratory control sample dup(LCSD) exceeded control limits. The target analyte was not detected in the associated samples: therefore the data have been reported.

No other analytical or quality issues were noted.

1613B, Dioxins/Furans with Totals

Some analytes in this sample and the associated method blank (MB) have an ion abundance ratio that is outside of criteria. The analytes are considered as an "estimated maximum possible concentration" (EMPC) because the quantitation is based on the theoretical ion abundance ratio. Analytical results are reported with a "Q" flag.

Some analytes are reported at a concentration below the estimated detection limit (EDL). The data is reported as a positive detection because the peaks elute at the correct retention time for both characteristic ions and have a signal to noise ratio greater than the method required 2.5:1.

The MB has a detection of OCDF slightly above the reporting limit (RL) which rounds to the RL concentration of 0.00010 ug/L. This sample has OCDF detected at a concentration well below the RL as noted with a “J” flag. Thus, analytical results have been reported without the need to re-extract.

There are no other anomalies associated with this project.

Organic Prep

No analytical or quality issues were noted.

Client Sample ID: Outfall 019

Lab Sample ID: 440-25324-1

Date Collected: 10/03/12 10:00

Matrix: Water

Date Received: 10/03/12 18:55

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 19:44	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 19:44	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			10/10/12 19:44	1
Trichlorotrifluoroethane(F-113)	ND		5.0	0.50	ug/L			10/10/12 19:44	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			10/10/12 19:44	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			10/10/12 19:44	1
Benzene	ND		0.50	0.28	ug/L			10/10/12 19:44	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			10/10/12 19:44	1
Chloroform	ND		0.50	0.33	ug/L			10/10/12 19:44	1
Ethylbenzene	ND		0.50	0.25	ug/L			10/10/12 19:44	1
Tetrachloroethene	ND		0.50	0.32	ug/L			10/10/12 19:44	1
Toluene	ND		0.50	0.36	ug/L			10/10/12 19:44	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			10/10/12 19:44	1
Trichloroethene	ND		0.50	0.26	ug/L			10/10/12 19:44	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			10/10/12 19:44	1
Xylenes, Total	ND		1.5	0.90	ug/L			10/10/12 19:44	1
Vinyl chloride	ND		0.50	0.40	ug/L			10/10/12 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/10/12 19:44*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*10/10/12 19:44*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/10/12 19:44*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		10/12/12 06:16	10/12/12 10:59	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**870**		1.0	1.0	umhos/cm			10/12/12 07:54	1
Settleable Solids	ND		0.10	0.10	mL/L/Hr			10/04/12 09:23	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-25324-2

Date Collected: 10/03/12 10:00

Matrix: Water

Date Received: 10/03/12 18:55

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 21:08	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 21:08	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			10/10/12 21:08	1
Trichlorotrifluoroethane(F-113)	ND		5.0	0.50	ug/L			10/10/12 21:08	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			10/10/12 21:08	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			10/10/12 21:08	1
Benzene	ND		0.50	0.28	ug/L			10/10/12 21:08	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			10/10/12 21:08	1
Chloroform	ND		0.50	0.33	ug/L			10/10/12 21:08	1
Ethylbenzene	ND		0.50	0.25	ug/L			10/10/12 21:08	1
Tetrachloroethene	ND		0.50	0.32	ug/L			10/10/12 21:08	1
Toluene	ND		0.50	0.36	ug/L			10/10/12 21:08	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			10/10/12 21:08	1
Trichloroethene	ND		0.50	0.26	ug/L			10/10/12 21:08	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			10/10/12 21:08	1

Client Sample ID: Trip Blank

Lab Sample ID: 440-25324-2

Date Collected: 10/03/12 10:00

Matrix: Water

Date Received: 10/03/12 18:55

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		1.5	0.90	ug/L			10/10/12 21:08	1
Vinyl chloride	ND		0.50	0.40	ug/L			10/10/12 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*10/10/12 21:08*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*10/10/12 21:08*	*1*
Toluene-d8 (Surr)	*105*		*80 - 120*		*10/10/12 21:08*	*1*

Client Sample ID: Outfall 019

Lab Sample ID: 440-25512-1

Date Collected: 10/04/12 10:25

Matrix: Water

Date Received: 10/04/12 17:50

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND	BA	5.69	0.0948	ug/L		10/11/12 13:13	10/15/12 09:18	1
Bis(2-ethylhexyl) phthalate	ND	LQ	4.74	1.61	ug/L		10/11/12 13:13	10/15/12 09:18	1
N-Nitrosodimethylamine	ND		4.74	0.0948	ug/L		10/11/12 13:13	10/15/12 09:18	1
Pentachlorophenol	ND		4.74	0.379	ug/L		10/11/12 13:13	10/15/12 09:18	1
2,4-Dinitrotoluene	ND	LR BA	4.74	0.190	ug/L		10/11/12 13:13	10/15/12 09:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*40 - 120*	*10/11/12 13:13*	*10/15/12 09:18*	*1*
2-Fluorobiphenyl	*69*		*50 - 120*	*10/11/12 13:13*	*10/15/12 09:18*	*1*
2-Fluorophenol	*66*		*30 - 120*	*10/11/12 13:13*	*10/15/12 09:18*	*1*
Nitrobenzene-d5	*78*		*45 - 120*	*10/11/12 13:13*	*10/15/12 09:18*	*1*
Phenol-d6	*68*		*35 - 120*	*10/11/12 13:13*	*10/15/12 09:18*	*1*
Terphenyl-d14	*92*		*50 - 125*	*10/11/12 13:13*	*10/15/12 09:18*	*1*

Method: 608 Pesticides - Organochlorine Pesticides Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		0.0047	0.0024	ug/L		10/08/12 13:15	10/09/12 19:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*35 - 115*	*10/08/12 13:15*	*10/09/12 19:47*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**36**		5.0	4.0	mg/L			10/05/12 01:42	10
Nitrate as N	ND		0.11	0.080	mg/L			10/05/12 01:30	1
Nitrate Nitrite as N	ND		0.26	0.11	mg/L			10/05/12 01:30	1
Sulfate	**160**		5.0	4.0	mg/L			10/05/12 01:42	10
Nitrite as N	ND		0.15	0.11	mg/L			10/05/12 01:30	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			10/18/12 12:44	1

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Analyte	Result	Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000019	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total TCDD	ND		0.000010	0.0000019	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,7,8-PeCDD	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/13/12 00:23	0.99

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Client Sample ID: Outfall 019
Date Collected: 10/04/12 10:25
Date Received: 10/04/12 17:50

Lab Sample ID: 440-25512-1
Matrix: Water

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Analyte	Result	Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total PeCDD	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,4,7,8-HxCDD	ND		0.000050	0.0000012	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,6,7,8-HxCDD	ND		0.000050	0.0000011	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,7,8,9-HxCDD	ND		0.000050	0.0000010	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total HxCDD	**0.0000020**	**J B**	0.000050	0.0000011	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,4,6,7,8-HpCDD	**0.0000028**	**J Q B**	0.000050	0.0000016	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total HpCDD	**0.0000048**	**J Q B**	0.000050	0.0000016	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
OCDD	**0.0000099**	**J Q B**	0.00010	0.0000024	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
2,3,7,8-TCDF	ND		0.000010	0.0000024	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total TCDF	ND		0.000010	0.0000024	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,7,8-PeCDF	ND		0.000050	0.0000034	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
2,3,4,7,8-PeCDF	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total PeCDF	ND		0.000050	0.0000034	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,4,7,8-HxCDF	**0.0000014**	**J B**	0.000050	0.0000012	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,6,7,8-HxCDF	**0.00000097**	**J Q B**	0.000050	0.0000012	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
2,3,4,6,7,8-HxCDF	**0.0000010**	**J B**	0.000050	0.0000012	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000015	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total HxCDF	**0.0000034**	**J Q B**	0.000050	0.0000012	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,4,6,7,8-HpCDF	ND		0.000050	0.0000016	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.0000019	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
Total HpCDF	ND		0.000050	0.0000016	ug/L		10/11/12 13:00	10/13/12 00:23	0.99
OCDF	**0.0000048**	**J Q B**	0.00010	0.0000022	ug/L		10/11/12 13:00	10/13/12 00:23	0.99

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*109*		*35 - 197*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*

Internal Standard	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*59*		*25 - 164*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,7,8-PeCDD	*56*		*25 - 181*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,4,7,8-HxCDD	*62*		*32 - 141*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,6,7,8-HxCDD	*66*		*28 - 130*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-OCDD	*53*		*17 - 157*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-2,3,7,8-TCDF	*64*		*24 - 169*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,7,8-PeCDF	*56*		*24 - 185*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-2,3,4,7,8-PeCDF	*61*		*21 - 178*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,6,7,8-HxCDF	*68*		*26 - 123*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-2,3,4,6,7,8-HxCDF	*64*		*28 - 136*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,7,8,9-HxCDF	*60*		*29 - 147*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,4,6,7,8-HpCDF	*64*		*28 - 143*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,4,7,8,9-HpCDF	*61*		*26 - 138*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*
13C-1,2,3,4,7,8-HxCDF	*59*		*26 - 152*	*10/11/12 13:00*	*10/13/12 00:23*	*0.99*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		20	6.0	ug/L		10/11/12 10:53	10/11/12 21:01	1
Hardness, as CaCO3	**320**	**MB**	0.33	0.17	mg/L		10/11/12 10:53	10/12/12 20:04	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		20	6.0	ug/L		10/11/12 13:02	10/11/12 22:28	1

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Client Sample ID: Outfall 019
Date Collected: 10/04/12 10:25
Date Received: 10/04/12 17:50

Lab Sample ID: 440-25512-1
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	**310**		0.33	0.17	mg/L		10/11/12 13:02	10/12/12 20:22	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		10/10/12 11:57	10/11/12 10:35	1
Copper	**1.1**	**J,DX**	2.0	0.50	ug/L		10/10/12 11:57	10/11/12 10:35	1
Lead	ND		1.0	0.20	ug/L		10/10/12 11:57	10/11/12 10:35	1
Selenium	ND		2.0	0.50	ug/L		10/10/12 11:57	10/11/12 10:35	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		10/11/12 12:41	10/11/12 18:09	1
Copper	ND		2.0	0.50	ug/L		10/11/12 12:41	10/11/12 18:09	1
Lead	ND		1.0	0.20	ug/L		10/11/12 12:41	10/11/12 18:09	1
Selenium	ND		2.0	0.50	ug/L		10/11/12 12:41	10/11/12 18:09	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		10/07/12 17:05	10/08/12 17:00	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		10/10/12 17:05	10/11/12 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	**0.090**	**J,DX MB**	0.10	0.040	NTU			10/05/12 11:59	1
Total Dissolved Solids	**560**		10	10	mg/L			10/10/12 08:53	1
Total Suspended Solids	ND		10	10	mg/L			10/08/12 22:00	1
Cyanide, Total	ND		5.0	3.0	ug/L		10/06/12 18:12	10/08/12 14:34	1
Ammonia (as N)	**0.280**	**J,DX**	0.400	0.157	mg/L		10/08/12 22:15	10/08/12 22:44	1
Total Organic Carbon	ND		1.0	0.75	mg/L			10/10/12 09:41	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			10/04/12 23:02	1
Biochemical Oxygen Demand	ND	LQ	2.0	0.50	mg/L			10/05/12 14:13	1

Client Sample ID: Outfall 019

Lab Sample ID: 440-25324-1

Date Collected: 10/03/12 10:00

Matrix: Water

Date Received: 10/03/12 18:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	58263	10/10/12 19:44	RM	TAL IRV
Total/NA	Analysis	SM 2540F		1	1070 mL	1070 mL	56713	10/04/12 09:23	DAE	TAL IRV
Total/NA	Analysis	120.1		1			58715	10/12/12 07:54	XL	TAL IRV
Total/NA	Prep	1664A			1055 mL	1000 mL	58686	10/12/12 06:16	DA	TAL IRV
Total/NA	Analysis	1664A		1			58786	10/12/12 10:59	DA	TAL IRV

Client Sample ID: Trip Blank

Lab Sample ID: 440-25324-2

Date Collected: 10/03/12 10:00

Matrix: Water

Date Received: 10/03/12 18:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	58263	10/10/12 21:08	RM	TAL IRV

Client Sample ID: Outfall 019

Lab Sample ID: 440-25512-1

Date Collected: 10/04/12 10:25

Matrix: Water

Date Received: 10/04/12 17:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1055 mL	2 mL	58522	10/11/12 13:13	AG	TAL IRV
Total/NA	Analysis	625		1			59081	10/15/12 09:18	AI	TAL IRV
Total/NA	Prep	608			1060 mL	2 mL	57573	10/08/12 13:15	AB	TAL IRV
Total/NA	Analysis	608 Pesticides		1			57792	10/09/12 19:47	DD	TAL IRV
Total/NA	Analysis	300.0		1	1 mL	1.0 mL	56702	10/05/12 01:30	NN	TAL IRV
Total/NA	Analysis	300.0		10	1 mL	1.0 mL	56703	10/05/12 01:42	NN	TAL IRV
Total/NA	Analysis	314.0		1	1 mL	1.0 mL	59988	10/18/12 12:44	MN	TAL IRV
Total	Prep	3542			I010.41 mL	20 uL	2284041_P	10/11/12 13:00	EN	TAL WSC
Total	Analysis	1613B		0.99			2284041	10/13/12 00:23	SO	TAL WSC
Total/NA	Prep	245.1			20 mL	20 mL	57206	10/07/12 17:05	MM	TAL IRV
Total/NA	Analysis	245.1		1			57681	10/08/12 17:00	DB	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	58170	10/10/12 11:57	DT	TAL IRV
Total Recoverable	Analysis	200.8		1			58532	10/11/12 10:35	YS	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	58228	10/10/12 17:05	MM	TAL IRV
Dissolved	Analysis	245.1		1			58633	10/11/12 17:20	DB	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	58504	10/11/12 12:41	ND	TAL IRV
Dissolved	Analysis	200.8		1			58637	10/11/12 18:09	YS	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	58460	10/11/12 10:53	DT	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			58711	10/11/12 21:01	NH	TAL IRV
Dissolved	Prep	200.2			50 mL	50 mL	58515	10/11/12 13:02	ND	TAL IRV
Dissolved	Analysis	200.7 Rev 4.4		1			58713	10/11/12 22:28	NH	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			59110	10/12/12 20:04	FR	TAL IRV
Dissolved	Analysis	200.7 Rev 4.4		1			59111	10/12/12 20:22	FR	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	56940	10/04/12 23:02	CC	TAL IRV
Total/NA	Analysis	SM5210B		1			57011	10/05/12 14:13	TAI	TAL IRV

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Client Sample ID: Outfall 019
Date Collected: 10/04/12 10:25
Date Received: 10/04/12 17:50

Lab Sample ID: 440-25512-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	180.1		1			57077	10/05/12 11:59	DAE	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	57338	10/06/12 18:12	BT	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1			57602	10/08/12 14:34	SL	TAL IRV
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	57719	10/08/12 22:00	DK	TAL IRV
Total/NA	Prep	SM 4500 NH3 B			50 mL	50 mL	57720	10/08/12 22:15	NC	TAL IRV
Total/NA	Analysis	SM 4500 NH3 C		1			57724	10/08/12 22:44	NC	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	58115	10/10/12 08:53	XL	TAL IRV
Total/NA	Analysis	SM 5310B		1			58364	10/10/12 09:41		TAL IRV

Laboratory References:

Eber-Rich = Eberline - Richmond, 2030 Wright Avenue, Richmond, CA 94804

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

TAL WSC = TestAmerica West Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-58263/4
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 18:48	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			10/10/12 18:48	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			10/10/12 18:48	1
Trichlorotrifluoroethane(F-113)	ND		5.0	0.50	ug/L			10/10/12 18:48	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			10/10/12 18:48	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			10/10/12 18:48	1
Benzene	ND		0.50	0.28	ug/L			10/10/12 18:48	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			10/10/12 18:48	1
Chloroform	ND		0.50	0.33	ug/L			10/10/12 18:48	1
Ethylbenzene	ND		0.50	0.25	ug/L			10/10/12 18:48	1
Tetrachloroethene	ND		0.50	0.32	ug/L			10/10/12 18:48	1
Toluene	ND		0.50	0.36	ug/L			10/10/12 18:48	1
Trichlorofluoromethane	ND		0.50	0.34	ug/L			10/10/12 18:48	1
Trichloroethene	ND		0.50	0.26	ug/L			10/10/12 18:48	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			10/10/12 18:48	1
Xylenes, Total	ND		1.5	0.90	ug/L			10/10/12 18:48	1
Vinyl chloride	ND		0.50	0.40	ug/L			10/10/12 18:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*10/10/12 18:48*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*10/10/12 18:48*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/10/12 18:48*	*1*

Lab Sample ID: LCS 440-58263/5
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	29.9		ug/L		120	65 - 135
1,1,2-Trichloroethane	25.0	22.0		ug/L		88	70 - 125
1,1-Dichloroethane	25.0	24.6		ug/L		98	70 - 125
1,1-Dichloroethene	25.0	22.8		ug/L		91	70 - 125
1,2-Dichloroethane	25.0	30.1		ug/L		120	60 - 140
Benzene	25.0	22.2		ug/L		89	70 - 120
Carbon tetrachloride	25.0	32.6		ug/L		130	65 - 140
Chloroform	25.0	27.4		ug/L		110	70 - 130
Ethylbenzene	25.0	26.4		ug/L		106	75 - 125
Tetrachloroethene	25.0	25.8		ug/L		103	70 - 125
Toluene	25.0	26.5		ug/L		106	70 - 120
Trichlorofluoromethane	25.0	34.2		ug/L		137	65 - 145
Trichloroethene	25.0	26.6		ug/L		107	70 - 125
cis-1,2-Dichloroethene	25.0	24.8		ug/L		99	70 - 125
m,p-Xylene	50.0	55.3		ug/L		111	75 - 125
o-Xylene	25.0	27.4		ug/L		110	75 - 125
Xylenes, Total	75.0	82.7		ug/L		110	70 - 125
Vinyl chloride	25.0	28.6		ug/L		114	55 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-58263/5
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	*114*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 440-25324-1 MS
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Outfall 019
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	28.3		ug/L		113	65 - 140
1,1,2-Trichloroethane	ND		25.0	22.5		ug/L		90	65 - 130
1,1-Dichloroethane	ND		25.0	23.3		ug/L		93	65 - 130
1,1-Dichloroethene	ND		25.0	22.0		ug/L		88	60 - 130
1,2-Dichloroethane	ND		25.0	29.8		ug/L		119	60 - 140
Benzene	ND		25.0	21.7		ug/L		87	65 - 125
Carbon tetrachloride	ND		25.0	31.6		ug/L		126	65 - 140
Chloroform	ND		25.0	25.9		ug/L		104	65 - 135
Ethylbenzene	ND		25.0	25.8		ug/L		103	65 - 130
Tetrachloroethene	ND		25.0	26.0		ug/L		104	65 - 130
Toluene	ND		25.0	26.1		ug/L		104	70 - 125
Trichlorofluoromethane	ND		25.0	33.0		ug/L		132	60 - 145
Trichloroethene	ND		25.0	25.9		ug/L		104	65 - 125
cis-1,2-Dichloroethene	ND		25.0	23.9		ug/L		95	65 - 130
m,p-Xylene	ND		50.0	52.9		ug/L		106	65 - 130
o-Xylene	ND		25.0	26.1		ug/L		104	65 - 125
Xylenes, Total	ND		75.0	79.0		ug/L		105	60 - 130
Vinyl chloride	ND		25.0	27.2		ug/L		109	45 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*111*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 440-25324-1 MSD
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Outfall 019
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.1		ug/L		112	65 - 140	1	20
1,1,2-Trichloroethane	ND		25.0	21.7		ug/L		87	65 - 130	4	25
1,1-Dichloroethane	ND		25.0	23.7		ug/L		95	65 - 130	2	20
1,1-Dichloroethene	ND		25.0	21.9		ug/L		88	60 - 130	1	20
1,2-Dichloroethane	ND		25.0	29.2		ug/L		117	60 - 140	2	20
Benzene	ND		25.0	22.0		ug/L		88	65 - 125	1	20
Carbon tetrachloride	ND		25.0	31.4		ug/L		126	65 - 140	1	25
Chloroform	ND		25.0	25.9		ug/L		103	65 - 135	0	20
Ethylbenzene	ND		25.0	25.6		ug/L		103	65 - 130	1	20
Tetrachloroethene	ND		25.0	25.8		ug/L		103	65 - 130	1	20
Toluene	ND		25.0	25.6		ug/L		102	70 - 125	2	20
Trichlorofluoromethane	ND		25.0	32.6		ug/L		130	60 - 145	1	25

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-25324-1 MSD
Matrix: Water
Analysis Batch: 58263

Client Sample ID: Outfall 019
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene	ND		25.0	25.5		ug/L		102	65 - 125	2	20
cis-1,2-Dichloroethene	ND		25.0	24.2		ug/L		97	65 - 130	1	20
m,p-Xylene	ND		50.0	52.9		ug/L		106	65 - 130	0	25
o-Xylene	ND		25.0	25.7		ug/L		103	65 - 125	1	20
Xylenes, Total	ND		75.0	78.6		ug/L		105	60 - 130	1	20
Vinyl chloride	ND		25.0	28.4		ug/L		114	45 - 140	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*110*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-58522/1-A
Matrix: Water
Analysis Batch: 59081

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		6.00	0.100	ug/L		10/11/12 13:13	10/15/12 00:47	1
Bis(2-ethylhexyl) phthalate	86.23	EY	5.00	1.70	ug/L		10/11/12 13:13	10/15/12 00:47	1
N-Nitrosodimethylamine	ND		5.00	0.100	ug/L		10/11/12 13:13	10/15/12 00:47	1
Pentachlorophenol	ND		5.00	0.400	ug/L		10/11/12 13:13	10/15/12 00:47	1
2,4-Dinitrotoluene	ND		5.00	0.200	ug/L		10/11/12 13:13	10/15/12 00:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*81*		*40 - 120*	*10/11/12 13:13*	*10/15/12 00:47*	*1*
2-Fluorobiphenyl	*62*		*50 - 120*	*10/11/12 13:13*	*10/15/12 00:47*	*1*
2-Fluorophenol	*56*		*30 - 120*	*10/11/12 13:13*	*10/15/12 00:47*	*1*
Nitrobenzene-d5	*65*		*45 - 120*	*10/11/12 13:13*	*10/15/12 00:47*	*1*
Phenol-d6	*57*		*35 - 120*	*10/11/12 13:13*	*10/15/12 00:47*	*1*
Terphenyl-d14	*82*		*50 - 125*	*10/11/12 13:13*	*10/15/12 00:47*	*1*

Lab Sample ID: LCS 440-58522/2-A
Matrix: Water
Analysis Batch: 59081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,6-Trichlorophenol	10.0	7.526		ug/L		75	20 - 139
Bis(2-ethylhexyl) phthalate	10.0	30.55	EY LQ	ug/L		306	61 - 126
N-Nitrosodimethylamine	10.0	5.553		ug/L		56	20 - 143
Pentachlorophenol	10.0	6.249		ug/L		62	20 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*77*		*40 - 120*
2-Fluorobiphenyl	*66*		*50 - 120*
2-Fluorophenol	*59*		*30 - 120*
Nitrobenzene-d5	*72*		*45 - 120*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-58522/2-A
Matrix: Water
Analysis Batch: 59081

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58522

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d6	*62*		*35 - 120*
Terphenyl-d14	*80*		*50 - 125*

Lab Sample ID: LCSD 440-58522/3-A
Matrix: Water
Analysis Batch: 59355

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 58522

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	10.0	5.329	J,DX BA	ug/L		53	20 - 139	34	30
Bis(2-ethylhexyl) phthalate	10.0	33.21	LQ EY	ug/L		332	61 - 126	8	20
N-Nitrosodimethylamine	10.0	4.762	J,DX	ug/L		48	20 - 143	15	20
Pentachlorophenol	10.0	5.561		ug/L		56	20 - 137	12	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*60*		*40 - 120*
2-Fluorobiphenyl	*52*		*50 - 120*
2-Fluorophenol	*35*		*30 - 120*
Nitrobenzene-d5	*56*		*45 - 120*
Phenol-d6	*36*		*35 - 120*
Terphenyl-d14	*75*		*50 - 125*

Method: 608 Pesticides - Organochlorine Pesticides Low level

Lab Sample ID: MB 440-57573/1-A
Matrix: Water
Analysis Batch: 57792

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57573

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	ND		0.0050	0.0025	ug/L		10/08/12 13:15	10/09/12 13:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*35 - 115*	*10/08/12 13:15*	*10/09/12 13:41*	*1*

Lab Sample ID: LCS 440-57573/2-A
Matrix: Water
Analysis Batch: 57792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	0.500	0.507		ug/L		101	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*89*		*35 - 115*

Method: 608 Pesticides - Organochlorine Pesticides Low level (Continued)

Lab Sample ID: 440-25204-A-1-A MS
Matrix: Water
Analysis Batch: 57792

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 57573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	ND		0.500	0.441		ug/L		88	40 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*71*		*35 - 115*

Lab Sample ID: 440-25204-A-1-B MSD
Matrix: Water
Analysis Batch: 57792

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 57573

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
alpha-BHC	ND		0.500	0.438		ug/L		88	40 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*70*		*35 - 115*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-56702/4
Matrix: Water
Analysis Batch: 56702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.080	mg/L			10/04/12 09:43	1
Nitrate Nitrite as N	ND		0.26	0.11	mg/L			10/04/12 09:43	1
Nitrite as N	ND		0.15	0.11	mg/L			10/04/12 09:43	1

Lab Sample ID: LCS 440-56702/2
Matrix: Water
Analysis Batch: 56702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.10		mg/L		97	90 - 110
Nitrate Nitrite as N	2.65	2.56		mg/L		97	90 - 110
Nitrite as N	1.52	1.46		mg/L		96	90 - 110

Lab Sample ID: 440-25458-E-1 MS
Matrix: Water
Analysis Batch: 56702

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.5		11.3	12.0		mg/L		85	80 - 120
Nitrate Nitrite as N	2.5	J,DX	26.5	27.2		mg/L		93	80 - 120
Nitrite as N	ND		15.2	15.2		mg/L		100	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-25458-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56702

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	2.5		11.3	11.0	LN	mg/L		75	80 - 120	9	20
Nitrate Nitrite as N	2.5	J,DX	26.5	24.9		mg/L		84	80 - 120	9	20
Nitrite as N	ND		15.2	13.9		mg/L		91	80 - 120	9	20

Lab Sample ID: MB 440-56703/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56703

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.40	mg/L			10/04/12 09:43	1
Sulfate	ND		0.50	0.40	mg/L			10/04/12 09:43	1

Lab Sample ID: LCS 440-56703/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56703

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.93		mg/L		99	90 - 110
Sulfate	10.0	9.81		mg/L		98	90 - 110

Lab Sample ID: 440-25458-E-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56703

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	120		50.0	160		mg/L		89	80 - 120
Sulfate	250		100	333		mg/L		86	80 - 120

Lab Sample ID: 440-25458-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 56703

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	120		50.0	155	LN	mg/L		79	80 - 120	3	20
Sulfate	250		100	328		mg/L		81	80 - 120	1	20

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 440-59988/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59988

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			10/18/12 07:35	1

Lab Sample ID: LCS 440-59988/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 59988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	25.0	28.2		ug/L		113	85 - 115

Lab Sample ID: 440-26242-D-1 MS
Matrix: Water
Analysis Batch: 59988

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perchlorate	3.7	J,DX	25.0	30.2		ug/L		106	80 - 120		

Lab Sample ID: 440-26242-D-1 MSD
Matrix: Water
Analysis Batch: 59988

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	3.7	J,DX	25.0	30.8		ug/L		109	80 - 120	2	20

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B)

Lab Sample ID: G2J100000041B
Matrix: Water
Analysis Batch: 2284041

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2284041_P

Analyte	MB Result	MB Qualifier	ML	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000018	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total TCDD	ND		0.000010	0.0000018	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,7,8-PeCDD	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total PeCDD	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,4,7,8-HxCDD	0.0000010	J Q	0.000050	0.0000012	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.0000011	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,7,8,9-HxCDD	0.0000021	J Q	0.000050	0.0000011	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total HxCDD	0.0000031	J Q	0.000050	0.0000012	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,4,6,7,8-HpCDD	0.0000034	J	0.000050	0.0000012	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total HpCDD	0.0000071	J	0.000050	0.0000012	ug/L		10/11/12 13:00	10/12/12 22:54	1
OCDD	0.0000070	J Q	0.00010	0.0000019	ug/L		10/11/12 13:00	10/12/12 22:54	1
2,3,7,8-TCDF	ND		0.000010	0.0000022	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total TCDF	ND		0.000010	0.0000022	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,7,8-PeCDF	ND		0.000050	0.0000032	ug/L		10/11/12 13:00	10/12/12 22:54	1
2,3,4,7,8-PeCDF	ND		0.000050	0.0000036	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total PeCDF	ND		0.000050	0.0000032	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,4,7,8-HxCDF	0.0000022	J	0.000050	0.00000087	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,6,7,8-HxCDF	0.0000016	J	0.000050	0.00000085	ug/L		10/11/12 13:00	10/12/12 22:54	1
2,3,4,6,7,8-HxCDF	0.0000013	J Q	0.000050	0.00000084	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,7,8,9-HxCDF	ND		0.000050	0.0000011	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total HxCDF	0.0000069	J Q	0.000050	0.00000090	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,4,6,7,8-HpCDF	0.0000080	J	0.000050	0.0000010	ug/L		10/11/12 13:00	10/12/12 22:54	1
1,2,3,4,7,8,9-HpCDF	0.0000041	J Q	0.000050	0.0000016	ug/L		10/11/12 13:00	10/12/12 22:54	1
Total HpCDF	0.000014	J Q	0.000050	0.0000013	ug/L		10/11/12 13:00	10/12/12 22:54	1
OCDF	0.00010		0.00010	0.0000042	ug/L		10/11/12 13:00	10/12/12 22:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*109*		*35 - 197*	*10/11/12 13:00*	*10/12/12 22:54*	*1*

Internal Standard	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*64*		*25 - 164*	*10/11/12 13:00*	*10/12/12 22:54*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*25 - 181*	*10/11/12 13:00*	*10/12/12 22:54*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*32 - 141*	*10/11/12 13:00*	*10/12/12 22:54*	*1*
13C-1,2,3,6,7,8-HxCDD	*78*		*28 - 130*	*10/11/12 13:00*	*10/12/12 22:54*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*63*		*23 - 140*	*10/11/12 13:00*	*10/12/12 22:54*	*1*

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2J100000041B
Matrix: Water
Analysis Batch: 2284041

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 2284041_P

Internal Standard	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-OCDD	67		17 - 157	10/11/12 13:00	10/12/12 22:54	1
13C-2,3,7,8-TCDF	69		24 - 169	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,7,8-PeCDF	68		24 - 185	10/11/12 13:00	10/12/12 22:54	1
13C-2,3,4,7,8-PeCDF	72		21 - 178	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,6,7,8-HxCDF	82		26 - 123	10/11/12 13:00	10/12/12 22:54	1
13C-2,3,4,6,7,8-HxCDF	81		28 - 136	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,7,8,9-HxCDF	76		29 - 147	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,4,6,7,8-HpCDF	76		28 - 143	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,4,7,8,9-HpCDF	74		26 - 138	10/11/12 13:00	10/12/12 22:54	1
13C-1,2,3,4,7,8-HxCDF	72		26 - 152	10/11/12 13:00	10/12/12 22:54	1

Lab Sample ID: G2J100000041C
Matrix: Water
Analysis Batch: 2284041

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2284041_P

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2,3,7,8-TCDD			0.000200	0.000217		ug/L		108	67 - 158		
1,2,3,7,8-PeCDD			0.00100	0.000985		ug/L		98	70 - 142		
1,2,3,4,7,8-HxCDD			0.00100	0.000990	B	ug/L		99	70 - 164		
1,2,3,6,7,8-HxCDD			0.00100	0.000973		ug/L		97	76 - 134		
1,2,3,7,8,9-HxCDD			0.00100	0.00101	B	ug/L		101	64 - 162		
1,2,3,4,6,7,8-HpCDD			0.00100	0.00105	B	ug/L		105	70 - 140		
OCDD			0.00200	0.00211	B	ug/L		106	78 - 144		
2,3,7,8-TCDF			0.000200	0.000215		ug/L		107	75 - 158		
1,2,3,7,8-PeCDF			0.00100	0.00105		ug/L		105	80 - 134		
2,3,4,7,8-PeCDF			0.00100	0.00103		ug/L		103	68 - 160		
1,2,3,4,7,8-HxCDF			0.00100	0.00101	B	ug/L		101	72 - 134		
1,2,3,6,7,8-HxCDF			0.00100	0.00106	B	ug/L		106	84 - 130		
2,3,4,6,7,8-HxCDF			0.00100	0.00104	B	ug/L		104	70 - 156		
1,2,3,7,8,9-HxCDF			0.00100	0.00102		ug/L		102	78 - 130		
1,2,3,4,6,7,8-HpCDF			0.00100	0.00102	B	ug/L		102	82 - 122		
1,2,3,4,7,8,9-HpCDF			0.00100	0.000991	B	ug/L		99	78 - 138		
OCDF			0.00200	0.00219	B	ug/L		110	63 - 170		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	113		31 - 191

Internal Standard	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	72		20 - 175
13C-1,2,3,7,8-PeCDD	71		21 - 227
13C-1,2,3,4,7,8-HxCDD	67		21 - 193
13C-1,2,3,6,7,8-HxCDD	80		25 - 163
13C-1,2,3,4,6,7,8-HpCDD	65		26 - 166
13C-OCDD	73		13 - 199
13C-2,3,7,8-TCDF	75		22 - 152
13C-1,2,3,7,8-PeCDF	74		21 - 192
13C-2,3,4,7,8-PeCDF	78		13 - 328
13C-1,2,3,6,7,8-HxCDF	75		21 - 159

Method: 1613B - Dioxins/Furans, HRGC/HRMS (1613B) (Continued)

Lab Sample ID: G2J100000041C
Matrix: Water
Analysis Batch: 2284041

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 2284041_P

Internal Standard	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-2,3,4,6,7,8-HxCDF	*75*		*22 - 176*
13C-1,2,3,7,8,9-HxCDF	*73*		*17 - 205*
13C-1,2,3,4,6,7,8-HpCDF	*74*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*20 - 186*
13C-1,2,3,4,7,8-HxCDF	*70*		*19 - 202*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-58460/1-A
Matrix: Water
Analysis Batch: 58711

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		20	6.0	ug/L		10/11/12 10:53	10/11/12 20:29	1

Lab Sample ID: MB 440-58460/1-A
Matrix: Water
Analysis Batch: 59110

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	0.237	J,DX	0.33	0.17	mg/L		10/11/12 10:53	10/12/12 19:32	1

Lab Sample ID: LCS 440-58460/2-A
Matrix: Water
Analysis Batch: 58711

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.500	0.425		mg/L		85	85 - 115
Manganese	500	501		ug/L		100	85 - 115
Zinc	500	487		ug/L		97	85 - 115

Lab Sample ID: LCS 440-58460/2-A
Matrix: Water
Analysis Batch: 59110

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2.50	2.66		mg/L		107	85 - 115
Magnesium	2.50	2.40		mg/L		96	85 - 115

Lab Sample ID: 440-25512-1 MS
Matrix: Water
Analysis Batch: 58711

Client Sample ID: Outfall 019
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	0.015		0.500	0.523		mg/L		102	70 - 130
Manganese	ND		500	502		ug/L		100	70 - 130
Zinc	ND		500	486		ug/L		97	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-25512-1 MS
Matrix: Water
Analysis Batch: 59110

Client Sample ID: Outfall 019
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	89		2.50	94.8	BB	mg/L		248	70 - 130
Magnesium	23		2.50	28.9	BB	mg/L		229	70 - 130

Lab Sample ID: 440-25512-1 MSD
Matrix: Water
Analysis Batch: 58711

Client Sample ID: Outfall 019
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	0.015		0.500	0.498		mg/L		96	70 - 130	5	20
Manganese	ND		500	491		ug/L		98	70 - 130	2	20
Zinc	ND		500	479		ug/L		96	70 - 130	1	20

Lab Sample ID: 440-25512-1 MSD
Matrix: Water
Analysis Batch: 59110

Client Sample ID: Outfall 019
Prep Type: Total Recoverable
Prep Batch: 58460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	89		2.50	87.3	BB	mg/L		-52	70 - 130	8	20
Magnesium	23		2.50	26.6	BB	mg/L		133	70 - 130	9	20

Lab Sample ID: MB 440-57979/1-D
Matrix: Water
Analysis Batch: 58713

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 58515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		20	6.0	ug/L		10/11/12 13:02	10/11/12 22:23	1

Lab Sample ID: MB 440-57979/1-D
Matrix: Water
Analysis Batch: 59111

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 58515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	ND		0.33	0.17	mg/L		10/11/12 13:02	10/12/12 20:17	1

Lab Sample ID: LCS 440-57979/2-D
Matrix: Water
Analysis Batch: 58713

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	500	518		ug/L		104	85 - 115
Zinc	500	474		ug/L		95	85 - 115

Lab Sample ID: LCS 440-57979/2-D
Matrix: Water
Analysis Batch: 59111

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2.50	2.78		mg/L		111	85 - 115
Iron	0.500	0.557		mg/L		111	85 - 115
Magnesium	2.50	2.55		mg/L		102	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-25512-1 MS
Matrix: Water
Analysis Batch: 58713

Client Sample ID: Outfall 019
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	ND		500	459		ug/L		92	70 - 130
Zinc	ND		500	452		ug/L		90	70 - 130

Lab Sample ID: 440-25512-1 MS
Matrix: Water
Analysis Batch: 59111

Client Sample ID: Outfall 019
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	88		2.50	92.0	BB	mg/L		173	70 - 130
Iron	ND		0.500	0.536		mg/L		107	70 - 130
Magnesium	23		2.50	27.7	BB	mg/L		194	70 - 130

Lab Sample ID: 440-25512-1 MSD
Matrix: Water
Analysis Batch: 58713

Client Sample ID: Outfall 019
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	ND		500	468		ug/L		94	70 - 130	2	20
Zinc	ND		500	454		ug/L		91	70 - 130	1	20

Lab Sample ID: 440-25512-1 MSD
Matrix: Water
Analysis Batch: 59111

Client Sample ID: Outfall 019
Prep Type: Dissolved
Prep Batch: 58515

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	88		2.50	88.0	BB	mg/L		12	70 - 130	4	20
Iron	ND		0.500	0.542		mg/L		108	70 - 130	1	20
Magnesium	23		2.50	26.6	BB	mg/L		149	70 - 130	4	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-58170/1-A
Matrix: Water
Analysis Batch: 58532

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 58170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		10/10/12 11:57	10/11/12 10:29	1
Copper	ND		2.0	0.50	ug/L		10/10/12 11:57	10/11/12 10:29	1
Lead	ND		1.0	0.20	ug/L		10/10/12 11:57	10/11/12 10:29	1
Selenium	ND		2.0	0.50	ug/L		10/10/12 11:57	10/11/12 10:29	1

Lab Sample ID: LCS 440-58170/2-A
Matrix: Water
Analysis Batch: 58532

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 58170

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	79.5		ug/L		99	85 - 115
Copper	80.0	80.5		ug/L		101	85 - 115
Lead	80.0	79.6		ug/L		99	85 - 115
Selenium	80.0	79.8		ug/L		100	85 - 115

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-25512-A-1-C MS
Matrix: Water
Analysis Batch: 58532

Client Sample ID: 440-25512-A-1-C MS
Prep Type: Total Recoverable
Prep Batch: 58170

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	78.2		ug/L		98	70 - 130
Copper	1.1		80.0	74.2		ug/L		91	70 - 130
Lead	ND		80.0	74.9		ug/L		94	70 - 130
Selenium	ND		80.0	77.5		ug/L		97	70 - 130

Lab Sample ID: 440-25512-A-1-D MSD
Matrix: Water
Analysis Batch: 58532

Client Sample ID: 440-25512-A-1-D MSD
Prep Type: Total Recoverable
Prep Batch: 58170

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	77.2		ug/L		96	70 - 130	1	20
Copper	1.1		80.0	72.5		ug/L		89	70 - 130	2	20
Lead	ND		80.0	75.0		ug/L		94	70 - 130	0	20
Selenium	ND		80.0	77.7		ug/L		97	70 - 130	0	20

Lab Sample ID: MB 440-57979/1-C
Matrix: Water
Analysis Batch: 58637

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 58504

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.10	ug/L		10/11/12 12:41	10/11/12 17:58	1
Copper	ND		2.0	0.50	ug/L		10/11/12 12:41	10/11/12 17:58	1
Lead	ND		1.0	0.20	ug/L		10/11/12 12:41	10/11/12 17:58	1
Selenium	ND		2.0	0.50	ug/L		10/11/12 12:41	10/11/12 17:58	1

Lab Sample ID: LCS 440-57979/2-C
Matrix: Water
Analysis Batch: 58637

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 58504

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	78.9		ug/L		99	85 - 115
Copper	80.0	77.3		ug/L		97	85 - 115
Lead	80.0	80.8		ug/L		101	85 - 115
Selenium	80.0	76.1		ug/L		95	85 - 115

Lab Sample ID: 440-25807-C-3-C MS
Matrix: Water
Analysis Batch: 58637

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 58504

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	78.2		ug/L		98	70 - 130
Copper	1.8	J,DX	80.0	72.0		ug/L		88	70 - 130
Lead	ND		80.0	78.8		ug/L		98	70 - 130
Selenium	ND		80.0	77.3		ug/L		97	70 - 130

Lab Sample ID: 440-25807-C-3-D MSD
Matrix: Water
Analysis Batch: 58637

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 58504

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	79.2		ug/L		99	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-25807-C-3-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 58637 — **Prep Batch: 58504**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	1.8	J,DX	80.0	73.9		ug/L		90	70 - 130	3	20
Lead	ND		80.0	77.5		ug/L		97	70 - 130	2	20
Selenium	ND		80.0	78.6		ug/L		98	70 - 130	2	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-57206/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57681 — **Prep Batch: 57206**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		10/07/12 17:05	10/08/12 16:16	1

Lab Sample ID: LCS 440-57206/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57681 — **Prep Batch: 57206**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	7.92		ug/L		99	85 - 115

Lab Sample ID: 250-7260-K-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57681 — **Prep Batch: 57206**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	9.10		ug/L		114	70 - 130

Lab Sample ID: 250-7260-K-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57681 — **Prep Batch: 57206**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	8.87		ug/L		111	70 - 130	3	20

Lab Sample ID: MB 440-57979/1-B — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 58633 — **Prep Batch: 58228**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		10/10/12 17:05	10/11/12 17:12	1

Lab Sample ID: LCS 440-57979/2-B — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 58633 — **Prep Batch: 58228**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.06		ug/L		101	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-25512-K-1-J MS
Matrix: Water
Analysis Batch: 58633

Client Sample ID: 440-25512-K-1-J MS
Prep Type: Dissolved
Prep Batch: 58228

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	8.57		ug/L		107	70 - 130

Lab Sample ID: 440-25512-K-1-K MSD
Matrix: Water
Analysis Batch: 58633

Client Sample ID: 440-25512-K-1-K MSD
Prep Type: Dissolved
Prep Batch: 58228

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	8.55		ug/L		107	70 - 130	0	20

Method: 120.1 - Conductivity, Specific Conductance

Lab Sample ID: MB 440-58715/3
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	1.0	umhos/cm			10/12/12 07:54	1

Lab Sample ID: LCS 440-58715/4
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	659	709		umhos/cm		108	90 - 110

Lab Sample ID: 440-25324-1 DU
Matrix: Water
Analysis Batch: 58715

Client Sample ID: Outfall 019
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	870		871		umhos/cm		0.3	5

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-58686/1-A
Matrix: Water
Analysis Batch: 58786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 58686

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		10/12/12 06:16	10/12/12 10:59	1

Lab Sample ID: LCS 440-58686/2-A
Matrix: Water
Analysis Batch: 58786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 58686

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	16.9		mg/L		84	78 - 114

Method: 1664A - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 440-58686/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58786 — **Prep Batch: 58686**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM			20.0	16.5		mg/L		82	78 - 114	2	11

Lab Sample ID: 440-25646-A-1-A MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58786 — **Prep Batch: 58686**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM	ND		19.1	16.3		mg/L		85	78 - 114		

Lab Sample ID: 440-25646-A-1-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58786 — **Prep Batch: 58686**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	ND		20.4	18.5		mg/L		91	78 - 114	13	18

Method: 180.1 - Turbidity, Nephelometric

Lab Sample ID: MB 440-57077/6 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57077

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Turbidity	0.0500	J,DX	0.10	0.040	NTU			10/05/12 11:59	1

Lab Sample ID: MRL 440-57077/3 MRL — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57077

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Turbidity			0.100	0.120	J,DX	NTU		120			

Lab Sample ID: 440-25391-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57077

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Turbidity	0.060	J,DX MB		0.0500	J,DX	NTU				18	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-58115/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			10/10/12 08:53	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-58115/2
Matrix: Water
Analysis Batch: 58115

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1020		mg/L		102	90 - 110		

Lab Sample ID: 440-25607-H-1 DU
Matrix: Water
Analysis Batch: 58115

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	630			629		mg/L				0.8	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 440-57719/1
Matrix: Water
Analysis Batch: 57719

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	10	mg/L			10/08/12 22:00	1

Lab Sample ID: LCS 440-57719/2
Matrix: Water
Analysis Batch: 57719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	996		mg/L		100	85 - 115		

Lab Sample ID: 440-25454-A-1 DU
Matrix: Water
Analysis Batch: 57719

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	4900			4950		mg/L				2	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-57338/1-A
Matrix: Water
Analysis Batch: 57602

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 57338

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		5.0	3.0	ug/L		10/06/12 18:12	10/08/12 14:33	1

Lab Sample ID: LCS 440-57338/2-A
Matrix: Water
Analysis Batch: 57602

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 57338

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			100	107		ug/L		107	90 - 110		

Method: SM 4500 CN E - Cyanide, Total (Low Level) (Continued)

Lab Sample ID: 440-25015-A-3-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57602 — **Prep Batch: 57338**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		100	106		ug/L		106	70 - 115

Lab Sample ID: 440-25015-A-3-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57602 — **Prep Batch: 57338**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		100	106		ug/L		106	70 - 115	0	15

Method: SM 4500 NH3 C - Ammonia

Lab Sample ID: MB 440-57720/2-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57724 — **Prep Batch: 57720**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	ND		0.400	0.157	mg/L		10/08/12 22:15	10/08/12 22:44	1

Lab Sample ID: LCS 440-57720/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57724 — **Prep Batch: 57720**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	10.0	9.800		mg/L		98	85 - 115

Lab Sample ID: 440-25512-1 MS — **Client Sample ID: Outfall 019**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57724 — **Prep Batch: 57720**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.280	J,DX	10.0	10.08		mg/L		98	70 - 120

Lab Sample ID: 440-25512-1 MSD — **Client Sample ID: Outfall 019**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 57724 — **Prep Batch: 57720**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia (as N)	0.280	J,DX	10.0	10.36		mg/L		101	70 - 120	3	15

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 440-58364/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 58364

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.75	mg/L			10/10/12 09:05	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 440-58364/8
Matrix: Water
Analysis Batch: 58364

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.80		mg/L		98	90 - 110

Lab Sample ID: 440-25607-G-1 MS
Matrix: Water
Analysis Batch: 58364

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	ND		5.00	5.81		mg/L		116	80 - 120

Lab Sample ID: 440-25607-G-1 MSD
Matrix: Water
Analysis Batch: 58364

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	ND		5.00	5.67		mg/L		113	80 - 120	2	20

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 440-56940/4
Matrix: Water
Analysis Batch: 56940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			10/04/12 23:01	1

Lab Sample ID: LCS 440-56940/3
Matrix: Water
Analysis Batch: 56940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.250	0.243		mg/L		97	90 - 110

Lab Sample ID: 440-25327-A-2 MS
Matrix: Water
Analysis Batch: 56940

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.075	J,DX	0.250	0.278		mg/L		81	50 - 125

Lab Sample ID: 440-25327-A-2 MSD
Matrix: Water
Analysis Batch: 56940

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	0.075	J,DX	0.250	0.277		mg/L		81	50 - 125	1	20

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Method: SM5210B - BOD, 5 Day

Lab Sample ID: USB 440-57011/1 USB
Matrix: Water
Analysis Batch: 57011

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	1.65	J,DX	2.0	0.50	mg/L			10/05/12 09:02	1

Lab Sample ID: LCS 440-57011/4
Matrix: Water
Analysis Batch: 57011

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Biochemical Oxygen Demand			199	239	LQ	mg/L		120	85 - 115		

Lab Sample ID: LCSD 440-57011/5
Matrix: Water
Analysis Batch: 57011

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Biochemical Oxygen Demand			199	249	LQ	mg/L		125	85 - 115	4	20

GC/MS VOA

Analysis Batch: 58263

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25324-1	Outfall 019	Total/NA	Water	624	
440-25324-1 MS	Outfall 019	Total/NA	Water	624	
440-25324-1 MSD	Outfall 019	Total/NA	Water	624	
440-25324-2	Trip Blank	Total/NA	Water	624	
LCS 440-58263/5	Lab Control Sample	Total/NA	Water	624	
MB 440-58263/4	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 58522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	625	
LCS 440-58522/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 440-58522/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 440-58522/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 59081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	625	58522
LCS 440-58522/2-A	Lab Control Sample	Total/NA	Water	625	58522
MB 440-58522/1-A	Method Blank	Total/NA	Water	625	58522

Analysis Batch: 59355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 440-58522/3-A	Lab Control Sample Dup	Total/NA	Water	625	58522

GC Semi VOA

Prep Batch: 57573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25204-A-1-A MS	Matrix Spike	Total/NA	Water	608	
440-25204-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	608	
440-25512-1	Outfall 019	Total/NA	Water	608	
LCS 440-57573/2-A	Lab Control Sample	Total/NA	Water	608	
MB 440-57573/1-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 57792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25204-A-1-A MS	Matrix Spike	Total/NA	Water	608 Pesticides	57573
440-25204-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	608 Pesticides	57573
440-25512-1	Outfall 019	Total/NA	Water	608 Pesticides	57573
LCS 440-57573/2-A	Lab Control Sample	Total/NA	Water	608 Pesticides	57573
MB 440-57573/1-A	Method Blank	Total/NA	Water	608 Pesticides	57573

HPLC/IC

Analysis Batch: 56702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25458-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-25458-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
440-25512-1	Outfall 019	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 56702 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-56702/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-56702/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 56703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25458-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-25458-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	
440-25512-1	Outfall 019	Total/NA	Water	300.0	
LCS 440-56703/2	Lab Control Sample	Total/NA	Water	300.0	
MB 440-56703/4	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 59988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	314.0	
440-26242-D-1 MS	Matrix Spike	Total/NA	Water	314.0	
440-26242-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	314.0	
LCS 440-59988/4	Lab Control Sample	Total/NA	Water	314.0	
MB 440-59988/5	Method Blank	Total/NA	Water	314.0	

Specialty Organics

Analysis Batch: 2284041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total	Water	1613B	
G2J100000041B	Method Blank	Total	Water	1613B	
G2J100000041C	Lab Control Sample	Total	Water	1613B	

Prep Batch: 2284041_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total	Water	3542	
G2J100000041B	Method Blank	Total	Water	3542	
G2J100000041C	Lab Control Sample	Total	Water	3542	

Metals

Prep Batch: 57206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-7260-K-1-B MS	Matrix Spike	Total/NA	Water	245.1	
250-7260-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-25512-1	Outfall 019	Total/NA	Water	245.1	
LCS 440-57206/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-57206/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 57681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-7260-K-1-B MS	Matrix Spike	Total/NA	Water	245.1	57206
250-7260-K-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	57206
440-25512-1	Outfall 019	Total/NA	Water	245.1	57206
LCS 440-57206/2-A	Lab Control Sample	Total/NA	Water	245.1	57206
MB 440-57206/1-A	Method Blank	Total/NA	Water	245.1	57206

Metals (Continued)

Prep Batch: 58170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total Recoverable	Water	200.2	
440-25512-A-1-C MS	440-25512-A-1-C MS	Total Recoverable	Water	200.2	
440-25512-A-1-D MSD	440-25512-A-1-D MSD	Total Recoverable	Water	200.2	
LCS 440-58170/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-58170/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 58228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	245.1	
440-25512-K-1-J MS	440-25512-K-1-J MS	Dissolved	Water	245.1	
440-25512-K-1-K MSD	440-25512-K-1-K MSD	Dissolved	Water	245.1	
LCS 440-57979/2-B	Lab Control Sample	Dissolved	Water	245.1	
MB 440-57979/1-B	Method Blank	Dissolved	Water	245.1	

Prep Batch: 58460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total Recoverable	Water	200.2	
440-25512-1 MS	Outfall 019	Total Recoverable	Water	200.2	
440-25512-1 MSD	Outfall 019	Total Recoverable	Water	200.2	
LCS 440-58460/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-58460/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 58504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	200.2	
440-25807-C-3-C MS	Matrix Spike	Dissolved	Water	200.2	
440-25807-C-3-D MSD	Matrix Spike Duplicate	Dissolved	Water	200.2	
LCS 440-57979/2-C	Lab Control Sample	Dissolved	Water	200.2	
MB 440-57979/1-C	Method Blank	Dissolved	Water	200.2	

Prep Batch: 58515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	200.2	
440-25512-1 MS	Outfall 019	Dissolved	Water	200.2	
440-25512-1 MSD	Outfall 019	Dissolved	Water	200.2	
LCS 440-57979/2-D	Lab Control Sample	Dissolved	Water	200.2	
MB 440-57979/1-D	Method Blank	Dissolved	Water	200.2	

Analysis Batch: 58532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total Recoverable	Water	200.8	58170
440-25512-A-1-C MS	440-25512-A-1-C MS	Total Recoverable	Water	200.8	58170
440-25512-A-1-D MSD	440-25512-A-1-D MSD	Total Recoverable	Water	200.8	58170
LCS 440-58170/2-A	Lab Control Sample	Total Recoverable	Water	200.8	58170
MB 440-58170/1-A	Method Blank	Total Recoverable	Water	200.8	58170

Analysis Batch: 58633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	245.1	58228
440-25512-K-1-J MS	440-25512-K-1-J MS	Dissolved	Water	245.1	58228
440-25512-K-1-K MSD	440-25512-K-1-K MSD	Dissolved	Water	245.1	58228
LCS 440-57979/2-B	Lab Control Sample	Dissolved	Water	245.1	58228

Metals (Continued)

Analysis Batch: 58633 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-57979/1-B	Method Blank	Dissolved	Water	245.1	58228

Analysis Batch: 58637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	200.8	58504
440-25807-C-3-C MS	Matrix Spike	Dissolved	Water	200.8	58504
440-25807-C-3-D MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	58504
LCS 440-57979/2-C	Lab Control Sample	Dissolved	Water	200.8	58504
MB 440-57979/1-C	Method Blank	Dissolved	Water	200.8	58504

Analysis Batch: 58711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
440-25512-1 MS	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
440-25512-1 MSD	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
LCS 440-58460/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	58460
MB 440-58460/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	58460

Analysis Batch: 58713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
440-25512-1 MS	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
440-25512-1 MSD	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
LCS 440-57979/2-D	Lab Control Sample	Dissolved	Water	200.7 Rev 4.4	58515
MB 440-57979/1-D	Method Blank	Dissolved	Water	200.7 Rev 4.4	58515

Analysis Batch: 59110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
440-25512-1 MS	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
440-25512-1 MSD	Outfall 019	Total Recoverable	Water	200.7 Rev 4.4	58460
LCS 440-58460/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	58460
MB 440-58460/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	58460

Analysis Batch: 59111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
440-25512-1 MS	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
440-25512-1 MSD	Outfall 019	Dissolved	Water	200.7 Rev 4.4	58515
LCS 440-57979/2-D	Lab Control Sample	Dissolved	Water	200.7 Rev 4.4	58515
MB 440-57979/1-D	Method Blank	Dissolved	Water	200.7 Rev 4.4	58515

General Chemistry

Analysis Batch: 56713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25324-1	Outfall 019	Total/NA	Water	SM 2540F	

Analysis Batch: 56940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25327-A-2 MS	Matrix Spike	Total/NA	Water	SM 5540C	
440-25327-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5540C	

General Chemistry (Continued)

Analysis Batch: 56940 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM 5540C	
LCS 440-56940/3	Lab Control Sample	Total/NA	Water	SM 5540C	
MB 440-56940/4	Method Blank	Total/NA	Water	SM 5540C	

Analysis Batch: 57011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM5210B	
LCS 440-57011/4	Lab Control Sample	Total/NA	Water	SM5210B	
LCSD 440-57011/5	Lab Control Sample Dup	Total/NA	Water	SM5210B	
USB 440-57011/1 USB	Method Blank	Total/NA	Water	SM5210B	

Analysis Batch: 57077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25391-A-1 DU	Duplicate	Total/NA	Water	180.1	
440-25512-1	Outfall 019	Total/NA	Water	180.1	
MB 440-57077/6	Method Blank	Total/NA	Water	180.1	
MRL 440-57077/3 MRL	Lab Control Sample	Total/NA	Water	180.1	

Prep Batch: 57338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25015-A-3-B MS	Matrix Spike	Total/NA	Water	Distill/CN	
440-25015-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/CN	
440-25512-1	Outfall 019	Total/NA	Water	Distill/CN	
LCS 440-57338/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 440-57338/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 57602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25015-A-3-B MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	57338
440-25015-A-3-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	57338
440-25512-1	Outfall 019	Total/NA	Water	SM 4500 CN E	57338
LCS 440-57338/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	57338
MB 440-57338/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	57338

Analysis Batch: 57719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25454-A-1 DU	Duplicate	Total/NA	Water	SM 2540D	
440-25512-1	Outfall 019	Total/NA	Water	SM 2540D	
LCS 440-57719/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-57719/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 57720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM 4500 NH3 B	
440-25512-1 MS	Outfall 019	Total/NA	Water	SM 4500 NH3 B	
440-25512-1 MSD	Outfall 019	Total/NA	Water	SM 4500 NH3 B	
LCS 440-57720/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
MB 440-57720/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 57724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM 4500 NH3 C	57720

General Chemistry (Continued)

Analysis Batch: 57724 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1 MS	Outfall 019	Total/NA	Water	SM 4500 NH3 C	57720
440-25512-1 MSD	Outfall 019	Total/NA	Water	SM 4500 NH3 C	57720
LCS 440-57720/1-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 C	57720
MB 440-57720/2-A	Method Blank	Total/NA	Water	SM 4500 NH3 C	57720

Analysis Batch: 58115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM 2540C	
440-25607-H-1 DU	Duplicate	Total/NA	Water	SM 2540C	
LCS 440-58115/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-58115/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 58364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25512-1	Outfall 019	Total/NA	Water	SM 5310B	
440-25607-G-1 MS	Matrix Spike	Total/NA	Water	SM 5310B	
440-25607-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5310B	
LCS 440-58364/8	Lab Control Sample	Total/NA	Water	SM 5310B	
MB 440-58364/9	Method Blank	Total/NA	Water	SM 5310B	

Prep Batch: 58686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25324-1	Outfall 019	Total/NA	Water	1664A	
440-25646-A-1-A MS	Matrix Spike	Total/NA	Water	1664A	
440-25646-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	1664A	
LCS 440-58686/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-58686/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-58686/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 58715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25324-1	Outfall 019	Total/NA	Water	120.1	
440-25324-1 DU	Outfall 019	Total/NA	Water	120.1	
LCS 440-58715/4	Lab Control Sample	Total/NA	Water	120.1	
MB 440-58715/3	Method Blank	Total/NA	Water	120.1	

Analysis Batch: 58786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-25324-1	Outfall 019	Total/NA	Water	1664A	58686
440-25646-A-1-A MS	Matrix Spike	Total/NA	Water	1664A	58686
440-25646-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	1664A	58686
LCS 440-58686/2-A	Lab Control Sample	Total/NA	Water	1664A	58686
LCSD 440-58686/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	58686
MB 440-58686/1-A	Method Blank	Total/NA	Water	1664A	58686

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
BA	Relative percent difference out of control
LR	LCS/LCSD recovery below method control limits
LQ	LCS/LCSD recovery above method control limits
EY	Result exceeds normal dynamic range; reported as a min. est.
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

HPLC/IC

Qualifier	Qualifier Description
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

DIOXIN

Qualifier	Qualifier Description
J	Estimated result. Result is less than the reporting limit.
B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
Q	Estimated maximum possible concentration (EMPC).

Metals

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
MB	Analyte present in the method blank
BB	Sample > 4X spike concentration

General Chemistry

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
MB	Analyte present in the method blank
LQ	LCS/LCSD recovery above method control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
RER	Relative error ratio
DER	Duplicate error ratio (normalized absolute difference)
DLC	Decision level concentration
RL	Reporting Limit or Requested Limit (Radiochemistry only)

Certification Summary

Client: MWH Americas Inc
Project/Site: Quarterly Outfall 019

TestAmerica Job ID: 440-25324-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-13
California	NELAC	9	1108CA	01-31-13
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	01-23-13
Hawaii	State Program	9	N/A	01-31-13
Nevada	State Program	9	CA015312007A	07-31-13
New Mexico	State Program	6	N/A	01-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-13
Oregon	NELAC	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-13

Laboratory: TestAmerica West Sacramento

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-14
Alaska (UST)	State Program	10	UST-055	12-18-12
Arizona	State Program	9	AZ0708	08-11-13
Arkansas DEQ	State Program	6	88-0691	06-17-13
California	NELAC	9	1119CA	01-31-13
Colorado	State Program	8	N/A	08-31-13
Connecticut	State Program	1	PH-0691	06-30-13
Florida	NELAC	4	E87570	06-30-13
Guam	State Program	9	N/A	08-31-13
Hawaii	State Program	9	N/A	01-31-13
Illinois	NELAC	5	200060	03-17-13
Kansas	NELAC	7	E-10375	10-31-12
Louisiana	NELAC	6	30612	06-30-13
Michigan	State Program	5	9947	01-31-13
New Jersey	NELAC	2	CA005	06-30-13
New York	NELAC	2	11666	04-01-13
Northern Mariana Islands	State Program	9	MP0007	01-31-13
Oregon	NELAC	10	CA200005	03-28-13
Pennsylvania	NELAC	3	68-01272	03-31-13
South Carolina	State Program	4	87014	06-30-13
Texas	NELAC	6	T104704399-08-TX	05-31-13
US Fish & Wildlife	Federal		LE148388-0	02-28-13
USDA	Federal		P330-11-00436	12-30-14
Utah	NELAC	8	QUAN1	01-31-13
Washington	State Program	10	C581	05-05-13
West Virginia	State Program	3	9930C	12-31-12
West Virginia DEP	State Program	3	334	07-31-13
Wisconsin	State Program	5	998204680	08-31-13
Wyoming	State Program	8	8TMS-Q	01-31-13