APPENDIX G

Section 3

Outfall 001, February 3, 2008 MECX Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRB0146

Prepared by

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

I. INTRODUCTION

Task Order Title: Contract Task Order:	Boeing SSFL NPDES 1261.100D.00
Sample Delivery Group:	IRB0146
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 001	IRB0146-01	30224-001, 8020462-01, 973193, 8694-001	Water	02/03/08 1145	120.1, 160.2, 160.5, 180.1, 200.7, 200.8, 245.1, 415.1, 625, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, 1613, 8315M, ASTM D-5174, SM2340-B, SM5540-C

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at TestAmerica-Irvine above the temperature limits; however, the samples had insufficient time to cool in transit. The sample was received at Eberline, Truesdail, and Vista within the temperature limits of $4^{\circ}C \pm 2^{\circ}C$. The sample was received marginally below the temperature limit at Weck; however, the sample was not noted to be damaged or frozen. According to the case narrative for this SDG, the sample was received intact at all laboratories. The FedEx courier did not relinquish custody of the sample to Eberline. The remaining COCs were appropriately signed and dated by field and/or laboratory personnel. As the sample was couriered to TestAmerica-Irvine, Truesdail, and Weck, custody seals were not required. Custody seals were intact upon arrival at Eberline and Vista. If necessary, the client ID was added to the sample result summary by the reviewer.

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

Data Qualifier Reference Table

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

Qualification Code Reference Table

Qualification Code Reference Table Cont.

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

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: K. Shadowlight Date Reviewed: March 22, 2008

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

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - o GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 16 native compounds (calibration by isotope dilution) and ≤35% for the one native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613 QC limits for all standards.
 - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of each analytical sequence. The VERs were acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613. The ion abundance ratios and relative retention times were within the method QC limits.
- Blanks: OCDD was reported in the method blank at 0.00000899μ/L; however, the concentration of OCDD in the sample exceeded five times the amount in the method blank

and required no qualifications. The method blank had no other target compound detects above the EDL.

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

B. EPA METHODS 200.7, 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks Date Reviewed: March 26, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC^{X} Data Validation Procedure for Metals (DVP-5, Rev. 0 and DVP-21, Rev. 0), EPA Methods 200.7, 200.8 and 245.1, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: The analytical holding times, 6 months for metals and 28 days for mercury, were met.
- Tuning: The mass calibration and resolution checks criteria were met. All tuning solution %RSDs were ≤5%, and all masses of interest were calibrated to ≤0.1 amu and ≤0.9 amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration r² values were ≥0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP-MS metals and 85-115% for mercury. All CRI/CRA and check standard recoveries were within the control limits of 70-130%.
- Blanks: There were no applicable detects in the method blanks or CCBs.
- Interference Check Samples: ICSA/B analyses were performed in association with all analyses except total antimony. Recoveries were within the method-established control limits. Most analytes were reported in the ICSA solutions. No 6010 analytes required qualification as the concentrations of the interferents were not significant. For the 6020 analytes, the reviewer was not able to ascertain if the detections were indicative of matrix interference.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for the total and dissolved 6010 and 6020 analytes. Matrix spike recoveries are not evaluated when the native concentration exceeds the spiked amount by 4x or more. All recoveries and RPDs were within the laboratory-established control limits. Evaluation of mercury method accuracy was based on LCS results.
- Serial Dilution: No serial dilution analyses were performed.
- Internal Standards Performance: All sample internal standard intensities were within 30-120% of the internal standard intensities measured in the initial calibration. The bracketing CCV and CCB internal standard intensities were within 80-120% of the internal standard intensities measured in the initial calibration.
- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

The reviewer noted that antimony and boron were detected at slightly higher concentrations in the dissolved metals sample fraction. The difference between the antimony and boron results are within the sensitivity limits of the analytical instrument and, therefore, the reviewer considered the results to be equivalent.

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

Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
- Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks Date Reviewed: March 28, 2008

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, ASTM Method D-5174,* and the *National Functional Guidelines for Inorganic Data Review* (2/94).

- Holding Times: The tritium sample was analyzed within 180 days of collection. Aliquots for gross alpha and gross beta, were prepared within the five-day analytical holding time for unpreserved samples. Aliquots for radium-226, radium-228, strontium-90, total uranium, and gamma spectroscopy were prepared beyond the five-day holding time for unpreserved samples; therefore, results for these analytes were qualified as estimated, "J," for detects and, "UJ," for nondetects.
- 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, gross alpha detected in the sample was qualified as an estimated detect, "J." The gross beta detector efficiency was greater than 20%.

The tritium aliquot was spiked for efficiency determination; therefore, no calibration was necessary. The tritium detector efficiency for the sample was at least 20% and was considered acceptable. The strontium chemical yield was at least 70% and was considered acceptable. The strontium continuing calibration results were within the laboratory control limits. The radium-226 continuing calibration results were within the laboratory-established control limits. The radium-228 tracer, yttrium oxalate, yields were greater than 70%. 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.
- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratoryestablished control limits.

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

D. EPA METHOD 625—Semivolatile Organic Compounds (SVOCs)

Reviewed By: L. Calvin Date Reviewed: April 2, 2008

The sample listed in Table 1 for this analysis were validated based on the guidelines outlined in the *MEC[×]* Data Validation Procedure for Semivolatile Organics (DVP-3, Rev. 0), EPA Method 625 and the National Functional Guidelines for Organic Data Review (2/94).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted within seven days of collection and analyzed within 40 days of extraction.
- GC/MS Tuning: The DFTPP tunes met the method abundance criteria. Samples were analyzed within 12 hours of the DFTPP injection time.
- Calibration: Calibration criteria were met. Initial calibration average RRFs were ≥0.05 and %RSDs ≤35% or r² >0.995 for all target compounds. The sample was analyzed immediately following the initial calibration. The midpoint of the initial calibration, processed as a continuing calibration, had a %D >20% for hexachlorocyclopentadiene. The nondetect for hexachlorocyclopentadiene was qualified as estimated, "UJ," in the sample.
- Blanks: The method blank had detects between the MDL and the RL for bis(2-ethylhexyl)phthalate at 2.82 μ g/L, butyl benzyl phthalate at 2.46 μ g/L, and diethyl phthalate

at 0.160 μ g/L. Sample detects between the MDL and the RL for the same compounds were qualified as nondetects, "U," at the reporting limits.

- Blank Spikes and Laboratory Control Samples: Benzidine was recovered below the QC limits but ≥10% in the LCS only, and the RPD for benzidine exceeded the QC limit. The nondetect for benzidine was qualified as estimated, "UJ," in the sample for the RPD outlier. Remaining recoveries and RPDs were within laboratory-established QC limits.
- Surrogate Recovery: Recoveries were within laboratory-established QC limits.
- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were not performed on the sample of this SDG. Evaluation of method accuracy and precision was based on LSC/LSCD results.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.
- Internal Standards Performance: The internal standard area counts and retention times were within the control limits established by the continuing calibration standards: -50%/+100% for internal standard areas and ±30 seconds for retention times.
- Compound Identification: Compound identification was verified. The laboratory analyzed for semivolatile compounds by EPA Method 625. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.
- Compound Quantification and Reported Detection Limits: Compound quantification was verified. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Any results reported between the MDL and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the reporting limit.
- Tentatively Identified Compounds: TICs were not reported by the laboratory for this SDG.
- System Performance: Review of the raw data indicated no problems with system performance.

E. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks Date Reviewed: March 31, 2008

The sample listed in Table 1 for this analysis 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, 160.5, 180.1, 415.1, 8315M, Standard Method SM5540-C, and the National Functional Guidelines for Inorganic Data Review (2/94).

- Holding Times: Analytical holding times, 24 hours for conductivity, 48 hours for settleable solids and turbidity, and 28 days for TOC were met. The hydrazine aliquot was derivitized within three days of collection and analyzed within three days of derivitization. The holding time for residual chlorine is immediate; therefore, residual chlorine detected in the sample was qualified as an estimated detect, "J."
- Calibration: The hydrazines and TOC initial calibration r² were ≥0.995 and the ICV and CCV recoveries and the hydrazines QCS recoveries were within the laboratory-established control limits. Check standard recoveries for the remaining applicable methods were acceptable. Calibration is not applicable to settleable solids.
- Blanks: Turbidity was detected in the method blank but not at a concentration sufficient to qualify the site sample. A bracketing TOC CCB was reported as the TOC method blank; however, a single standard cannot be reported as both a method blank and a CCB. As the method blank and CCB would have been prepared from the same high-purity water, the reviewer chose to report the standard as the CCB. Method blanks and CCBs had no other detects.
- Blank Spikes and Laboratory Control Samples: Recoveries and RPDs were within laboratory-established QC limits. The LCS is not applicable to conductivity, settleable solids, or turbidity. An LCS was not reported for residual chlorine; however, as the check standards were acceptably recovered, no qualifications were required. A bracketing TOC CCV was reported as the TOC LCS; however, a single standard cannot be reported as both a CCV and a CCV. As the LCS and CCV would have been prepared from the same high-purity water and stock solutions, the reviewer chose to report the standard as the CCV.
- Laboratory Duplicates: A laboratory duplicate analyses were performed for the sample in this SDG for residual chlorine only. The RPD was within the laboratory-established control limit.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. For the applicable methods, method accuracy was evaluated based on the LCS results.
- Sample Result Verification: Review is not applicable at a Level V validation. Detects reported below the reporting limit were qualified as estimated, "J," and coded with "DNQ,"

in order to comply with the NPDES permit. Nondetects are valid to the reporting limit. Turbidity was reported from a 20× dilution.

- 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.

				Paul Press		Laboratory Data				
_	Name: Test	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30224-001	Date Received:	sived:	5-Feb-08
	ollected: ollected:	3-Feb-08 1145		Sample Size:	1.02 L	QC Batch No.: Date Analyzed DB-5:	9953 19-Feb-08	Date Extracted: Date Analyzed I	Date Extracted: Date Analyzed DB-225:	15-Feb-08 NA
	Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	ıdard	%R I	LCL-UCL ^d	Oualifiers
3-	2,3,7,8-TCDD	- CN	0.000000556	556		IS 13C-2,3,7,8-TCDD	CDD	87.6	25-164	
_	1,2,3,7,8-PeCDD	Ð	0.000000581	581		13C-1,2,3,7,8-PeCDD	PeCDD	78.2	25 - 181	
	1,2,3,4,7,8-HxCDD	B	0.00000225	25	四年1137年1138年118日	13C-1,2,3,4,7,8-HxCDD	8-HxCDD	81.5	32 - 141	語く言語語
_	1,2,3,6,7,8-HxCDD	Q	0.00000224	24	A DESCRIPTION OF THE PROPERTY OF T	13C-1,2,3,6,7,8-HxCDD	8-HxCDD	82.0	28 - 130	
>	1,2,3,7,8,9-HxCDD	Ŕ	0.00000215	15		13C-1,2,3,4,6,7,8-HpCDD	7,8-HpCDD	86.2	23 - 140	
BAL	1,2,3,4,6,7,8-HpCDD	0.0000118	the local distribution of the second	In the second	L	13C-OCDD		77.2	17-157	
	OCDD	0.000105		の時代のないである	В	13C-2,3,7,8-TCDF	CDF	92.8	24 - 169	新い族に
4.	2,3,7,8-TCDF	R	0.00000105	05	and the second sec	13C-1,2,3,7,8-PeCDF	PeCDF	75.4	24 - 185	
	1,2,3,7,8-PeCDF	QQ	0.000000759	759	「「「「「「」」」	13C-2,3,4,7,8-PeCDF	PeCDF	77.2	21-178	
-	2,3,4,7,8-PeCDF	£	0.000000755	755	And the second sec	13C-1,2,3,4,7,8-HxCDF	8-HxCDF	77.5	26 - 152	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	1,2,3,4,7,8-HxCDF	R	0.000000784	784		13C-1,2,3,6,7,8-HxCDF	8-HxCDF	77.5	26-123	
	1,2,3,6,7,8-HxCDF	Ð	0.000000843	843	The second second second second second	13C-2,3,4,6,7,8-HxCDF	8-HxCDF	77.3	28 - 136	
-	2,3,4,6,7,8-HxCDF	Ð	0.000000916	916	S. States and	13C-1,2,3,7,8,9-HxCDF	9-HxCDF	82.6	29 - 147	
	1,2,3,7,8,9-HxCDF	Ð	0.00000118	18		13C-1,2,3,4,6,7,8-HpCDF	7,8-HpCDF	L'LL	28 - 143	
anais	1,2,3,4,6,7,8-HpCDF	0.00000354	ないとなって			13C-1,2,3,4,7,8,9-HpCDF	8,9-HpCDF	84.4	26-138	
	1,2,3,4,7,8,9-HpCDF	R	0.0000012	21		13C-OCDF	and the second	80.6	17 - 157	
Shar	OCDF	0.00000727		ないであると	The second se	CRS 37CI-2,3,7,8-TCDD	rcod	89.0	35 - 197	
	Totals					Footnotes				
-	Total TCDD	Ð	0.000000896	896		a. Sample specific estimated detection limit.	ated detection limit.			
-3 - Y	Total PeCDD	Q	0.00000160	50		b. Estimated maximum possible concentration.	possible concentration.			Supervised and
-	Total HxCDD	Ŋ	0.00000370	70		c. Method detection limit.				
-	Total HpCDD.	0.0000251				d. Lower control limit - upper control limit.	upper control limit.		ないないないで	
-	Total TCDF	Q	0.00000105	35						
山	Total PeCDF	R		0.000000440	0440		の実施を見たいない			
日	Total HxCDF	R		0.00000161	161					
	Total HpCDF	0.00000816						いたな語言		の一般の



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

Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 0	01 - Water) - cont.								
Reporting Units: mg/l									
Barium	EPA 200.7-Diss	8B04145	0.0060	0.010	0.029	1	02/04/08	02/05/08	
Boron JIDNQ	EPA 200.7-Diss	8B04145	0.020	0.050	0.045	1	02/04/08	02/05/08	J
Calcium	EPA 200.7-Diss	8B04145	0.050	0.10	28	1	02/04/08	02/05/08	MHA
Iron	EPA 200.7-Diss	8B04145	0.015	0.040	0.63	1	02/04/08	02/05/08	
Magnesium	EPA 200.7-Diss	8B04145	0.012	0.020	8.6	1	02/04/08	02/05/08	MHA
Hardness (as CaCO3)	SM2340B	8B04145	1.0	1.0	110	1	02/04/08	02/05/08	

EVEL IV

TestAmerica Irvine

Joseph Doak Project Manager

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

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<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

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

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

Report Number: IRB0146

Sampleo

Sampled: 02/03/08 Received: 02/03/08

METALS

Project ID: Annual Outfall 001

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - W	ater) - cont.								
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8	8B04080	0.20	2.0	0.43	1	02/04/08	02/05/08	J
Arsenic U	EPA 200.7	8B04079	7.0	10	ND	1	02/04/08	02/04/08	
Beryllium 🗸	EPA 200.7	8B04079	0.90	2.0	ND	1	02/04/08	02/04/08	
Cadmium J/DNQ	EPA 200.8	8B04080	0.11	1.0	0.16	1	02/04/08	02/04/08	J
Chromium	EPA 200.7	8B04079	2.0	5.0	19	1	02/04/08	02/04/08	
Cobalt J/DNQ	EPA 200.7	8B04079	2.0	10	4.3	1	02/04/08	02/04/08	J
Copper	EPA 200.8	8B04080	0.75	2.0	9.4	1	02/04/08	02/04/08	
Lead	EPA 200.8	8B04080	0.30	1.0	6.4	1	02/04/08	02/04/08	
Manganese	EPA 200.7	8B04079	7.0	20	220	1	02/04/08	02/04/08	
Nickel	EPA 200.7	8B04079	2.0	10	14	1	02/04/08	02/04/08	
Selenium JONQ	EPA 200.8	8B04080	0.30	2.0	0.51	1	02/04/08	02/04/08	J
Silver U	EPA 200.8	8B04080	0.30	1.0	ND	1	02/04/08	02/04/08	
Thallium J& DNQ	EPA 200.8	8B04080	0.20	1.0	0.27	1	02/04/08	02/04/08	J
Vanadium	EPA 200.7	8B04079	3.0	10	35	1	02/04/08	02/04/08	
Zinc	EPA 200.7	8B04079	6.0	20	47	1	02/04/08	02/04/08	
LEVEL IV									

PM 3/31/08

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

Report Number: IRB0146

Project ID: Annual Outfall 001

Sampled: 02/03/08 Received: 02/03/08

METALS MDL Reporting Sample Dilution Date Date Data Method Limit Result Factor Extracted Analyzed Qualifiers Analyte Batch Limit Sample ID: IRB0146-01 (Outfall 001 - Water) - cont. Reporting Units: mg/l Hardness as CaCO3 02/04/08 SM2340B [CALC] N/A 0.33 120 1 02/04/08 0.0060 02/04/08 02/04/08 Barium EPA 200.7 8B04079 0.010 0.13 1 Boron EPA 200.7 8B04079 0.020 0.050 0.040 1 02/04/08 02/04/08 J J/DNQ Calcium EPA 200.7 8B04079 0.050 0.10 30 1 02/04/08 02/04/08 0.015 0.040 02/04/08 02/04/08 Iron EPA 200.7 8B04079 17 1 1 Magnesium EPA 200.7 8B04079 0.012 0.020 12 02/04/08 02/04/08

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001	- Water) - cont.								
Reporting Units: ug/l									
Antimony J/DNQ	EPA 200.8-Diss	8B05112	0.20	2.0	0.47	1	02/05/08	02/05/08	J
Arsenic U	EPA 200.7-Diss	8B04145	7.0	10	ND	1	02/04/08	02/05/08	
Beryllium 🗸	EPA 200.7-Diss	8B04145	0.90	2.0	ND	1	02/04/08	02/05/08	
Cadmium J/DNQ	EPA 200.8-Diss	8B05112	0.11	1.0	0.13	1	02/05/08	02/05/08	J
Chromium U	EPA 200.7-Diss	8B04145	2.0	5.0	ND	1	02/04/08	02/05/08	
Cobalt 🗸	EPA 200.7-Diss	8B04145	2.0	10	ND	1	02/04/08	02/05/08	
Copper	EPA 200.8-Diss	8B05112	0.75	2.0	2.5	1	02/05/08	02/05/08	
Lead JONG	EPA 200.8-Diss	8B05112	0.30	1.0	0.38	1	02/05/08	02/05/08	J
Manganese 🗸	EPA 200.7-Diss	8B04145	7.0	20	16	1	02/04/08	02/05/08	J
Nickel U	EPA 200.7-Diss	8B04145	2.0	10	ND	1	02/04/08	02/05/08	
Selenium	EPA 200.8-Diss	8B05112	0.30	2.0	ND	1	02/05/08	02/05/08	
Silver	EPA 200.8-Diss	8B05112	0.30	1.0	ND	1	02/05/08	02/05/08	
Thallium	EPA 200.8-Diss	8B05112	0.20	1.0	ND	1	02/05/08	02/05/08	
Vanadium	EPA 200.7-Diss	8B04145	3.0	10	ND	1	02/04/08	02/05/08	
Zinc V	EPA 200.7-Diss	8B04145	6.0	20	ND	1	02/04/08	02/05/08	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

Metals by EPA 200 Series Methods

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 -	Water) - cont.								
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8B0171	0.050	0.20	ND	1	02/06/08	02/07/08	
Mercury, Total	EPA 245.1	W8B0171	0.050	0.20	ND	1	02/06/08	02/07/08	

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ANALYSIS RESULTS

SDG g Work Order g Received Date g	8802040-01			Contract	TA IRVINE PROJECT# IRB014	6	_
Client	Lab						
Sample ID	Sample ID	Collected	Analyzed	Nuclide	Results ± 20	Units	MDA
Outfall 001							
IRB0146-01	8694-001	02/03/08	02/28/08	GrossAlpha	6.24 ± 1.3	pCi/L	1.1 J/R
			02/28/08	Gross Beta	6.85 ± 0.94	pCi/L	1.3
	<u>,</u>		02/27/08	Ra-228	0.479 ± 0.20	pCi/L	0.49 UJ/H
			02/23/08	K-40 (G)	U .	pCi/L	13
	*		02/23/08	Cs-137 (G)	υ	pCi/L	0.98 🗸
			02/28/08	H-3	-21.7 ± 83	pCi/L	150 U
			03/03/08	Ra-226	0.051 ± 0.34	pCi/L	0.64 UJ/H
			02/18/08	Sr-90	0.160 ± 0.31	pCi/L	0.65 🗸
			02/26/08	Total U	1.22 ± 0:13	pCi/L	0.022 J/H
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				1 EU	EL IV		

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

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

Analyte		Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 0	01 - Wate	r)								
Reporting Units: ug/l	or - man	.,								
1,2,4-Trichlorobenzene	U	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
1,2-Dichlorobenzene	T	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
1,2-Diphenylhydrazine/Azobenzene		EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
1,3-Dichlorobenzene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
1,4-Dichlorobenzene		EPA 625	8B03026	0.19	0.47	ND	0.943	02/03/08	02/07/08	
Acenaphthene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Acenaphthylene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Anthracene	V.	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Benzidine	UTAT	EPA 625	8B03026	0.94	4.7	ND	0.943	02/03/08	02/07/08	L6
Benzo(a)anthracene	IN	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Hexachlorobutadiene	1	EPA 625	8B03026	0.19	1.9	ND	0.943	02/03/08	02/07/08	
Benzo(a)pyrene		EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
Naphthalene		EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Benzo(b)fluoranthene		EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
Benzo(g,h,i)perylene		EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Benzo(k)fluoranthene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Bis(2-chloroethoxy)methane		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Bis(2-chloroethyl)ether		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Bis(2-chloroisopropyl)ether		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Bis(2-ethylhexyl)phthalate	B	EPA 625	8B03026	1.6	4.7	1.7	0.943	02/03/08	02/07/08	L1, J
4-Bromophenyl phenyl ether		EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	and the
Butyl benzyl phthalate	VB	EPA 625	8B03026	0.66	4.7	1.9	0.943	02/03/08	02/07/08	J
2-Chloronaphthalene	JANO	JEPA 625	8B03026	0.094	0.47	0.19	0.943	02/03/08	02/07/08	J
4-Chlorophenyl phenyl ether	K	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Chrysene	1	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Dibenz(a,h)anthracene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Di-n-butyl phthalate		EPA 625	8B03026	0.19	1.9	ND	0.943	02/03/08	02/07/08	
3,3-Dichlorobenzidine		EPA 625	8B03026	0.38	4.7	ND	0.943	02/03/08	02/07/08	
Diethyl phthalate	B	EPA 625	8B03026	0.094	0.94	0.15	0.943	02/03/08	02/07/08	B, J
Dimethyl phthalate		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	-10
2,4-Dinitrophenol		EPA 625	8B03026	0.85	4.7	ND	0.943	02/03/08	02/07/08	
2,4-Dinitrotoluene		EPA 625	8B03026	0.19	4.7	ND	0.943	02/03/08	02/07/08	
2,6-Dinitrotoluene		EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Di-n-octyl phthalate		EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Fluoranthene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Fluorene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Hexachlorobenzene	VI	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Hexachlorocyclopentadiene	UJ/C	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Hexachloroethane	UL.	EPA 625	8B03026	0.19	2.8	ND	0.943	02/03/08	02/07/08	
Indeno(1,2,3-cd)pyrene		EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
Isophorone	V	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

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

Analyte		Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Out	tfall 001 - V	Vater) - cont.								
Reporting Units: ug/l										
Nitrobenzene	U	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
N-Nitrosodimethylamine	I	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
N-Nitroso-di-n-propylamine		EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
N-Nitrosodiphenylamine		EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Pentachlorophenol		EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
Phenanthrene	1	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Pyrene		EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
2,4,6-Trichlorophenol	V	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Surrogate: 2-Fluorophenol (3)	0-120%)					68 %				
Surrogate: Phenol-d6 (35-120	1%)					80 %				
Surrogate: 2,4,6-Tribromophe	enol (40-120	1%)				114%				
Surrogate: Nitrobenzene-d5 (-	45-120%)					84 %				
Surrogate: 2-Fluorobiphenyl	(50-120%)					90 %				
Surrogate: Terphenyl-d14 (50	-125%)					99 %				
1	evel	TV								

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

Project ID: Annual Outfall 001

INORGANICS

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

		1111	JNGA	NIC S					
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - W	ater) - cont.								
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B04061	1.3	4.8	ND	1	02/04/08	02/04/08	
Ammonia-N (Distilled)	EPA 350.2	8B07098	0.30	0.50	ND	1	02/07/08	02/08/08	
Biochemical Oxygen Demand	€¥ EPA 405.1	8B04070	0.59	2.0	1.3	1	02/04/08	02/09/08	J
Chloride 😽	EPA 300.0	8B04043	0.25	0.50	22	1	02/04/08	02/04/08	
Fluoride	EPA 300.0	8B04043	0.15	0.50	0.29	1	02/04/08	02/04/08	J
Nitrate-N	EPA 300.0	8B04043	0.060	0.11	2.4	1	02/04/08	02/04/08	
Nitrite-N	EPA 300.0	8B04043	0.090	0.15	ND	1	02/04/08	02/04/08	
Nitrate/Nitrite-N	EPA 300.0	8B04043	0.15	0.26	2.4	1	02/04/08	02/04/08	
Residual Chlorine J/H	EPA 330.5	8B04074	0.10	0.10	0.17	1	02/04/08	02/04/08	HFT
Sulfate	EPA 300.0	8B04043	0.20	0.50	50	1	02/04/08	02/04/08	M-3
Surfactants (MBAS)	SM5540-C	8B04097	0.044	0.10	0.10	1	02/04/08	02/04/08	
Total Dissolved Solids	SM2540C	8B07122	10	10	290	1	02/07/08	02/07/08	
Total Organic Carbon	EPA 415.1	8B13078	0.50	1.0	9.8	1	02/13/08	02/13/08	
Total Suspended Solids	EPA 160.2	8B04128	10	10	120	1	02/04/08	02/04/08	
								. / /	

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* Analysis not Validated

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

		INC	ORGA	NICS					
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 00)	1 - Water) - cont.								
Reporting Units: ml/l/hr Total Settleable Solids	EPA 160.5	8B04066	0.10	0.10	0.10	1	02/04/08	02/04/08	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

		INC	DRGA	NICS						
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IRB0146-01 (Outfall 001 -	Water) - cont.									
Reporting Units: NTU										
Turbidity	EPA 180.1	8B04067	0.80	20	350	20	02/04/08	02/04/08		

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 MWH-Pasadena/Boeing
 Project ID: Annual Outfall 001

 618 Michillinda Avenue, Suite 200
 Sampled: 02/03/08

 Arcadia, CA 91007
 Report Number: IRB0146
 Received: 02/03/08

 Attention: Bronwyn Kelly
 INORGANICS
 INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001	- Water) - cont.								
Reporting Units: umhos/cm Specific Conductance	EPA 120.1	8B08056	1.0	1.0	310	1	02/07/08	02/07/08	

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					14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 82780-7008 [7]4] 730-6239 - FAX (7]4] 730-6462 - www.trussdad.com	5TIN, CALIFORNIA 62780-7008 730-6462 • www.truesdad.com	00
						,	
Client: TestAmerica Analytical-Irvine 17461 Derlan Avenue, Suite 100 Irvine, CA 92614-5817	Ilyticai-Irvine srue, Suite 100 5817		REPORT		Laboratory No: Report Date:	973193 February 19, 2008	
Attention: Joseph Doak Sample: Water / 1 Sample Project Name: IRB0146 P.O. Number: IRB0146 Method Number: 8315 (Modified) Investigation: Hydrazines					sampling Date: Receiving Date: Extraction Date: Analysis Date: Units: Reported By:	February 3, 2008 February 4, 2008 February 6, 2008 Hg/L JS	
		Anal	Analytical Results				
Samula ID Samula Decrint	Sample Amount (ml.)	Dilution Factor	Monomethyl Hudravina	u-Dimethyl Hudrazine	Hydrazine	Qualifier Codee	
	100	1	QN	QN	QN	None	
tfall ool	100	1	ON U	ON U		None	
			0.56	0.32	0.15		
PQL			5.0	5.0	1.00		
Sample Reporting Limits			5.0	5.0	1.00		
				<		۶.	
				X	1	5	
Note: Results based on detector #1 (UV=365nm) data.	5nm) data.			Analytical Service	Xuan Dang, Project Manager AnaMitcal Services. Truesdail Laboratories. Inc.		
				* Analysis not	not Vali data	1	
				creat	LEVEL IU	7	
This report applies only to the samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories, this report is submitted and accepted for the accusive use of the client to whom it is addressed and upon the condition that it is not to be used, in whole or in part, in any advertising or publicity matter without prior written authorization from Truesdal! Laboratories.	Investigated and is not ne I accepted for the exclusi om Truesdal! Laboratorie	ecessarily indicative ive use of the client s.	of the quality or condition of , to whom it is addressed and	pparently identicat or sim upon the condition that it	litar products. As a mutual pr is not to be used, in whole o	rotection to clients, the public, r in part, in any advertising or	

APPENDIX G

Section 4

Outfall 001, February 3, 2008 Test America Analytical Laboratory Report

<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

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

LABORATORY REPORT

Prepared For: MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project: Annual Outfall 001

Sampled: 02/03/08 Received: 02/03/08 Issued: 03/07/08 10:22

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

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

ADDITIONAL

INFORMATION:

This is a revised report to calculate QC results utilizing the same Low Level calibration curve as the sample.

LABORATORY ID	CLIENT ID	MATRIX
IRB0146-01	Outfall 001	Water
IRB0146-02	Trip Blank	Water

Reviewed By:

Joseph Dock

TestAmerica Irvine Joseph Doak Project Manager



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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - Wa	ater)								
Reporting Units: mg/l									
EFH (C13 - C22)	EPA 8015B	8B04063	0.095	0.48	ND	0.952	02/04/08	02/05/08	
Surrogate: n-Octacosane (40-125%)					54 %				

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - V	Vater) - cont.								
Reporting Units: mg/l									
GRO (C4 - C12)	EPA 8015 Mod.	8B07041	0.025	0.10	ND	1	02/07/08	02/07/08	
Surrogate: 4-BFB (FID) (65-140%)					118 %				

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

VOLATILE ORGANICS by GCMS SIM											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: IRB0146-01 (Outfall 001 -	- Water) - cont.										
Reporting Units: ug/l											
1,4-Dioxane	EPA 8260B-SIM	8B04013	1.0	2.0	ND	1	02/04/08	02/04/08			
Surrogate: Dibromofluoromethane (80-	-120%)				100 %						

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

	PUR	GEABLES	S BY G	C/MS (EF	PA 624)				
		D (1	MDL	Reporting	Sample	Dilution	Date	Date	Data Oualifiers
Analyte	Method	Batch	Limit	Limit	Result	ractor	Extracted	Analyzed	Quanners
Sample ID: IRB0146-01 (Outfall 001 - Wat	er) - cont.								
Reporting Units: ug/l									
1,1,1-Trichloroethane	EPA 624	8B04007	0.30	0.50	ND	1	02/04/08	02/04/08	
1,1,2,2-Tetrachloroethane	EPA 624	8B04007	0.24	0.50	ND	1	02/04/08	02/04/08	
1,1,2-Trichloroethane	EPA 624	8B04007	0.30	0.50	ND	1	02/04/08	02/04/08	
1,1-Dichloroethane	EPA 624	8B04007	0.27	0.50	ND	1	02/04/08	02/04/08	
1,1-Dichloroethene	EPA 624	8B04007	0.42	0.50	ND	1	02/04/08	02/04/08	
1,2-Dichloroethane	EPA 624	8B04007	0.28	0.50	ND	1	02/04/08	02/04/08	
Benzene	EPA 624	8B04007	0.28	0.50	ND	1	02/04/08	02/04/08	
1,2-Dichlorobenzene	EPA 624	8B04007	0.32	0.50	ND	1	02/04/08	02/04/08	
Carbon tetrachloride	EPA 624	8B04007	0.28	0.50	ND	1	02/04/08	02/04/08	
1,2-Dichloropropane	EPA 624	8B04007	0.35	0.50	ND	1	02/04/08	02/04/08	
Chloroform	EPA 624	8B04007	0.33	0.50	ND	1	02/04/08	02/04/08	
1,3-Dichlorobenzene	EPA 624	8B04007	0.35	0.50	ND	1	02/04/08	02/04/08	
Ethylbenzene	EPA 624	8B04007	0.25	0.50	ND	1	02/04/08	02/04/08	
1,4-Dichlorobenzene	EPA 624	8B04007	0.37	0.50	ND	1	02/04/08	02/04/08	
Tetrachloroethene	EPA 624	8B04007	0.32	0.50	ND	1	02/04/08	02/04/08	
Toluene	EPA 624	8B04007	0.36	0.50	ND	1	02/04/08	02/04/08	
Bromodichloromethane	EPA 624	8B04007	0.30	0.50	ND	1	02/04/08	02/04/08	
Trichloroethene	EPA 624	8B04007	0.26	0.50	ND	1	02/04/08	02/04/08	
Bromoform	EPA 624	8B04007	0.40	0.50	ND	1	02/04/08	02/04/08	
Trichlorofluoromethane	EPA 624	8B04007	0.34	0.50	ND	1	02/04/08	02/04/08	
Bromomethane	EPA 624	8B04007	0.42	1.0	ND	1	02/04/08	02/04/08	
Trichlorotrifluoroethane (Freon 113)	EPA 624	8B04007	0.50	5.0	ND	1	02/04/08	02/04/08	
Vinyl chloride	EPA 624	8B04007	0.30	0.50	ND	1	02/04/08	02/04/08	
Chlorobenzene	EPA 624	8B04007	0.36	0.50	ND	1	02/04/08	02/04/08	
Xylenes, Total	EPA 624	8B04007	0.90	1.5	ND	1	02/04/08	02/04/08	
Chloroethane	EPA 624	8B04007	0.40	1.0	ND	1	02/04/08	02/04/08	
Chloromethane	EPA 624	8B04007	0.40	0.50	ND	1	02/04/08	02/04/08	
cis-1,3-Dichloropropene	EPA 624	8B04007	0.22	0.50	ND	1	02/04/08	02/04/08	
Dibromochloromethane	EPA 624	8B04007	0.28	0.50	ND	1	02/04/08	02/04/08	
Methylene chloride	EPA 624	8B04007	0.95	1.0	ND	1	02/04/08	02/04/08	
trans-1,2-Dichloroethene	EPA 624	8B04007	0.27	0.50	ND	1	02/04/08	02/04/08	
trans-1,3-Dichloropropene	EPA 624	8B04007	0.32	0.50	ND	1	02/04/08	02/04/08	
Surrogate: Dibromofluoromethane (80-120%					110 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)				92 %				

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THE LEADER IN ENVIRONMENTAL TESTING

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

Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

PURGEABLES BY GC/MS (EPA 624) MDL Reporting Sample Dilution Date Data Date Method Limit **Oualifiers** Analyte Batch Limit Result Factor Extracted Analyzed Sample ID: IRB0146-02 (Trip Blank - Water) **Reporting Units: ug/l** EPA 624 8B04007 0.30 0.50 ND 02/04/08 02/04/08 1,1,1-Trichloroethane 1 8B04007 0.24 0.50 ND 02/04/08 02/04/08 1,1,2,2-Tetrachloroethane EPA 624 1 ND 1,1,2-Trichloroethane EPA 624 8B04007 0.30 0.50 1 02/04/08 02/04/08 1,1-Dichloroethane EPA 624 8B04007 0.27 0.50 ND 1 02/04/08 02/04/08 8B04007 ND 02/04/08 02/04/08 1,1-Dichloroethene EPA 624 0.42 0.50 1 1.2-Dichloroethane EPA 624 8B04007 0.28 0.50 ND 1 02/04/08 02/04/08 Benzene EPA 624 8B04007 0.28 0.50 ND 1 02/04/08 02/04/08 8B04007 0.32 0.50 ND 1 02/04/08 02/04/08 1,2-Dichlorobenzene EPA 624 Carbon tetrachloride EPA 624 8B04007 0.28 0.50 ND 1 02/04/08 02/04/08 1,2-Dichloropropane EPA 624 8B04007 0.35 0.50 ND 1 02/04/08 02/04/08 Chloroform 8B04007 0.33 ND 1 02/04/08 02/04/08 EPA 624 0.50 1,3-Dichlorobenzene 8B04007 ND 02/04/08 02/04/08 EPA 624 0.35 0.50 1 8B04007 0.25 ND 02/04/08 02/04/08 Ethylbenzene EPA 624 0.50 1 ND 1,4-Dichlorobenzene EPA 624 8B04007 0.37 0.50 1 02/04/08 02/04/08 Tetrachloroethene EPA 624 8B04007 0.32 0.50 ND 1 02/04/08 02/04/08 8B04007 0.36 ND 1 Toluene EPA 624 0.50 02/04/08 02/04/08 Bromodichloromethane EPA 624 8B04007 0.30 0.50 ND 1 02/04/08 02/04/08 Trichloroethene EPA 624 8B04007 0.26 0.50 ND 1 02/04/08 02/04/08 8B04007 0.40 0.50 ND 02/04/08 02/04/08 Bromoform EPA 624 1 Trichlorofluoromethane EPA 624 8B04007 0.34 0.50 ND 1 02/04/08 02/04/08 0.42 ND Bromomethane EPA 624 8B04007 1.0 1 02/04/08 02/04/08 Trichlorotrifluoroethane (Freon 113) 8B04007 0.50 5.0 ND 1 02/04/08 02/04/08 EPA 624 Vinyl chloride 8B04007 0.30 0.50 ND 1 02/04/08 02/04/08 EPA 624 8B04007 0.36 ND 02/04/08 Chlorobenzene EPA 624 0.50 1 02/04/08 Xylenes, Total EPA 624 8B04007 0.90 1.5 ND 1 02/04/08 02/04/08 ND Chloroethane EPA 624 8B04007 0.40 1.0 1 02/04/08 02/04/08 8B04007 0.40 ND 1 02/04/08 02/04/08 Chloromethane EPA 624 0.50 cis-1,3-Dichloropropene EPA 624 8B04007 0.22 0.50 ND 1 02/04/08 02/04/08 Dibromochloromethane EPA 624 8B04007 0.28 0.50 ND 1 02/04/08 02/04/08 Methylene chloride EPA 624 8B04007 0.95 1.0 ND 1 02/04/08 02/04/08 trans-1,2-Dichloroethene EPA 624 8B04007 0.27 0.50 ND 1 02/04/08 02/04/08 8B04007 ND 02/04/08 trans-1,3-Dichloropropene EPA 624 0.32 0.50 1 02/04/08 Surrogate: Dibromofluoromethane (80-120%) 110 % Surrogate: Toluene-d8 (80-120%) 103 % 91%

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Surrogate: 4-Bromofluorobenzene (80-120%)

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

PURGEABLES-- GC/MS (EPA 624) MDL Reporting Sample Dilution Date Date Data Qualifiers Method Batch Limit Limit Result Factor Extracted Analyte Analyzed Sample ID: IRB0146-01 (Outfall 001 - Water) Reporting Units: ug/l EPA 624 8B04007 4.0 5.0 ND 02/04/08 02/04/08 Acrolein 1 Acrylonitrile EPA 624 8B04007 0.70 2.0 ND 02/04/08 02/04/08 1 8B04007 5.0 ND 02/04/08 02/04/08 2-Chloroethyl vinyl ether EPA 624 1.8 1 Surrogate: Dibromofluoromethane (80-120%) 110 % Surrogate: Toluene-d8 (80-120%) 102 % Surrogate: 4-Bromofluorobenzene (80-120%) 92% Sample ID: IRB0146-02 (Trip Blank - Water) Reporting Units: ug/l 8B04007 Acrolein EPA 624 4.0 5.0 ND 1 02/04/08 02/04/08 Acrylonitrile EPA 624 8B04007 0.70 2.0 ND 02/04/08 02/04/08 1 2-Chloroethyl vinyl ether EPA 624 8B04007 1.8 5.0 ND 1 02/04/08 02/04/08 Surrogate: Dibromofluoromethane (80-120%) 110 % Surrogate: Toluene-d8 (80-120%) 103 % Surrogate: 4-Bromofluorobenzene (80-120%) 91 %

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THE LEADER IN ENVIRONMENTAL TESTING

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

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 -)	Water)								
Reporting Units: ug/l									
1,2-Dichloro-1,1,2-trifluoroethane	EPA 624 (MOD.)	8B04007	N/A	2.5	ND	1	02/04/08	02/04/08	
Cyclohexane	EPA 624 (MOD.)	8B04007	N/A	2.5	ND	1	02/04/08	02/04/08	
Sample ID: IRB0146-02 (Trip Blank - V	Water)								
Reporting Units: ug/l									
1,2-Dichloro-1,1,2-trifluoroethane	EPA 624 (MOD.)	8B04007	N/A	2.5	ND	1	02/04/08	02/04/08	
Cyclohexane	EPA 624 (MOD.)	8B04007	N/A	2.5	ND	1	02/04/08	02/04/08	

THE LEADER IN ENVIRONMENTAL TESTING

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

ACID & BASE/NEUTRALS BY GC/MS (EPA 625)										
4	Method	Batch	MDL Limit	Reporting Limit	-	Dilution	Date	Date	Data Oualifiers	
Analyte		Datch	Limit	Limit	Result	ractor	Extracted	Analyzed	Quaimers	
Sample ID: IRB0146-01 (Outfall 001 - W Reporting Units: ug/l	'ater)									
1,2,4-Trichlorobenzene	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		
1,2-Dichlorobenzene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
1,2-Diphenylhydrazine/Azobenzene	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		
1,3-Dichlorobenzene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
1,4-Dichlorobenzene	EPA 625	8B03026	0.19	0.47	ND	0.943	02/03/08	02/07/08		
Acenaphthene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Acenaphthylene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Anthracene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	ТĆ	
Benzidine Banza (a) anthronom	EPA 625	8B03026	0.94	4.7	ND	0.943	02/03/08	02/07/08	L6	
Benzo(a)anthracene Hexachlorobutadiene	EPA 625 EPA 625	8B03026	0.094 0.19	4.7 1.9	ND ND	0.943 0.943	02/03/08 02/03/08	02/07/08 02/07/08		
Benzo(a)pyrene	EPA 625 EPA 625	8B03026 8B03026	0.19	1.9	ND	0.943	02/03/08	02/07/08		
Naphthalene	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		
Benzo(b)fluoranthene	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08		
Benzo(g,h,i)perylene	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08		
Benzo(k)fluoranthene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Bis(2-chloroethoxy)methane	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Bis(2-chloroethyl)ether	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Bis(2-chloroisopropyl)ether	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Bis(2-ethylhexyl)phthalate	EPA 625	8B03026	1.6	4.7	1.7	0.943	02/03/08	02/07/08	L1, J	
4-Bromophenyl phenyl ether	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		
Butyl benzyl phthalate	EPA 625	8B03026	0.66	4.7	1.9	0.943	02/03/08	02/07/08	J	
2-Chloronaphthalene	EPA 625	8B03026	0.094	0.47	0.19	0.943	02/03/08	02/07/08	J	
4-Chlorophenyl phenyl ether	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Chrysene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Dibenz(a,h)anthracene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Di-n-butyl phthalate 3,3-Dichlorobenzidine	EPA 625	8B03026	0.19 0.38	1.9 4.7	ND ND	0.943	02/03/08 02/03/08	02/07/08		
Diethyl phthalate	EPA 625 EPA 625	8B03026 8B03026	0.38	4.7 0.94	0.15	0.943 0.943	02/03/08	02/07/08 02/07/08	B, J	
Dimethyl phthalate	EPA 625	8B03026	0.094	0.47	0.13 ND	0.943	02/03/08	02/07/08	D, J	
2,4-Dinitrophenol	EPA 625	8B03026	0.85	4.7	ND	0.943	02/03/08	02/07/08		
2,4-Dinitrotoluene	EPA 625	8B03026	0.19	4.7	ND	0.943	02/03/08	02/07/08		
2,6-Dinitrotoluene	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08		
Di-n-octyl phthalate	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08		
Fluoranthene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Fluorene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08		
Hexachlorobenzene	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		
Hexachlorocyclopentadiene	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08		
Hexachloroethane	EPA 625	8B03026	0.19	2.8	ND	0.943	02/03/08	02/07/08		
Indeno(1,2,3-cd)pyrene	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08		
Isophorone	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08		

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

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

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - Wat	er) - cont.								
Reporting Units: ug/l									
Nitrobenzene	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
N-Nitrosodimethylamine	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
N-Nitroso-di-n-propylamine	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
N-Nitrosodiphenylamine	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Pentachlorophenol	EPA 625	8B03026	0.094	1.9	ND	0.943	02/03/08	02/07/08	
Phenanthrene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
Pyrene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
2,4,6-Trichlorophenol	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Surrogate: 2-Fluorophenol (30-120%)					68 %				
Surrogate: Phenol-d6 (35-120%)					80~%				
Surrogate: 2,4,6-Tribromophenol (40-120%)					114 %				
Surrogate: Nitrobenzene-d5 (45-120%)					84 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					90 %				
Surrogate: Terphenyl-d14 (50-125%)					99 %				

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THE LEADER IN ENVIRONMENTAL TESTING

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

Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - Wate	er) - cont.								
Reporting Units: ug/l									
Aldrin	EPA 608	8B04071	0.0014	0.0047	ND	0.943	02/04/08	02/06/08	
alpha-BHC	EPA 608	8B04071	0.0024	0.0047	ND	0.943	02/04/08	02/06/08	
beta-BHC	EPA 608	8B04071	0.0038	0.0094	ND	0.943	02/04/08	02/06/08	
delta-BHC	EPA 608	8B04071	0.0033	0.0047	ND	0.943	02/04/08	02/06/08	
gamma-BHC (Lindane)	EPA 608	8B04071	0.0028	0.0094	ND	0.943	02/04/08	02/06/08	
Chlordane	EPA 608	8B04071	0.028	0.094	ND	0.943	02/04/08	02/06/08	
4,4'-DDD	EPA 608	8B04071	0.0019	0.0047	ND	0.943	02/04/08	02/06/08	
4,4'-DDE	EPA 608	8B04071	0.0028	0.0047	ND	0.943	02/04/08	02/06/08	
4,4'-DDT	EPA 608	8B04071	0.0038	0.0094	ND	0.943	02/04/08	02/06/08	
Dieldrin	EPA 608	8B04071	0.0019	0.0047	ND	0.943	02/04/08	02/06/08	
Endosulfan I	EPA 608	8B04071	0.0019	0.0047	ND	0.943	02/04/08	02/06/08	
Endosulfan II	EPA 608	8B04071	0.0028	0.0047	ND	0.943	02/04/08	02/06/08	
Endosulfan sulfate	EPA 608	8B04071	0.0028	0.0094	ND	0.943	02/04/08	02/06/08	
Endrin	EPA 608	8B04071	0.0019	0.0047	ND	0.943	02/04/08	02/06/08	
Endrin aldehyde	EPA 608	8B04071	0.0019	0.0094	ND	0.943	02/04/08	02/06/08	
Endrin ketone	EPA 608	8B04071	0.0028	0.0094	ND	0.943	02/04/08	02/06/08	
Heptachlor	EPA 608	8B04071	0.0028	0.0094	ND	0.943	02/04/08	02/06/08	
Heptachlor epoxide	EPA 608	8B04071	0.0024	0.0047	ND	0.943	02/04/08	02/06/08	
Methoxychlor	EPA 608	8B04071	0.0033	0.0047	ND	0.943	02/04/08	02/06/08	
Toxaphene	EPA 608	8B04071	0.066	0.094	ND	0.943	02/04/08	02/06/08	
Surrogate: Decachlorobiphenyl (45-120%)					79 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					71 %				

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

TOTAL PCBS (EPA 608)										
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IRB0146-01 (Outfall 001 - Wat	ter) - cont.									
Reporting Units: ug/l										
Aroclor 1016	EPA 608	8B04071	0.42	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1221	EPA 608	8B04071	0.24	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1232	EPA 608	8B04071	0.24	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1242	EPA 608	8B04071	0.24	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1248	EPA 608	8B04071	0.24	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1254	EPA 608	8B04071	0.24	0.47	ND	0.943	02/04/08	02/06/08		
Aroclor 1260	EPA 608	8B04071	0.28	0.47	ND	0.943	02/04/08	02/06/08		
Surrogate: Decachlorobiphenyl (45-120%)					88 %					

THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METALS MDL Reporting Sample Dilution Date Date Data Analyte Method Batch Limit Limit Result Factor Extracted Analyzed Qualifiers Sample ID: IRB0146-01 (Outfall 001 - Water) - cont. Reporting Units: mg/l 02/04/08 Hardness as CaCO3 SM2340B [CALC] N/A 0.33 120 02/04/08 1 Barium EPA 200.7 8B04079 0.0060 0.010 0.13 1 02/04/08 02/04/08 EPA 200.7 8B04079 0.020 0.040 J Boron 0.050 1 02/04/08 02/04/08 EPA 200.7 8B04079 0.050 0.10 30 02/04/08 02/04/08 Calcium 1 EPA 200.7 8B04079 0.015 0.040 17 02/04/08 02/04/08 Iron 1 8B04079 0.020 02/04/08 02/04/08 Magnesium EPA 200.7 0.012 12 1

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METALS									
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 - Wa	ter) - cont.								
Reporting Units: ug/l									
Antimony	EPA 200.8	8B04080	0.20	2.0	0.43	1	02/04/08	02/05/08	J
Arsenic	EPA 200.7	8B04079	7.0	10	ND	1	02/04/08	02/04/08	
Beryllium	EPA 200.7	8B04079	0.90	2.0	ND	1	02/04/08	02/04/08	
Cadmium	EPA 200.8	8B04080	0.11	1.0	0.16	1	02/04/08	02/04/08	J
Chromium	EPA 200.7	8B04079	2.0	5.0	19	1	02/04/08	02/04/08	
Cobalt	EPA 200.7	8B04079	2.0	10	4.3	1	02/04/08	02/04/08	J
Copper	EPA 200.8	8B04080	0.75	2.0	9.4	1	02/04/08	02/04/08	
Lead	EPA 200.8	8B04080	0.30	1.0	6.4	1	02/04/08	02/04/08	
Manganese	EPA 200.7	8B04079	7.0	20	220	1	02/04/08	02/04/08	
Nickel	EPA 200.7	8B04079	2.0	10	14	1	02/04/08	02/04/08	
Selenium	EPA 200.8	8B04080	0.30	2.0	0.51	1	02/04/08	02/04/08	J
Silver	EPA 200.8	8B04080	0.30	1.0	ND	1	02/04/08	02/04/08	
Thallium	EPA 200.8	8B04080	0.20	1.0	0.27	1	02/04/08	02/04/08	J
Vanadium	EPA 200.7	8B04079	3.0	10	35	1	02/04/08	02/04/08	
Zinc	EPA 200.7	8B04079	6.0	20	47	1	02/04/08	02/04/08	

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

DISSOLVED METALS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: IRB0146-01 (Outfall 001 - V	Water) - cont.										
Reporting Units: mg/l											
Barium	EPA 200.7-Diss	8B04145	0.0060	0.010	0.029	1	02/04/08	02/05/08			
Boron	EPA 200.7-Diss	8B04145	0.020	0.050	0.045	1	02/04/08	02/05/08	J		
Calcium	EPA 200.7-Diss	8B04145	0.050	0.10	28	1	02/04/08	02/05/08	MHA		
Iron	EPA 200.7-Diss	8B04145	0.015	0.040	0.63	1	02/04/08	02/05/08			
Magnesium	EPA 200.7-Diss	8B04145	0.012	0.020	8.6	1	02/04/08	02/05/08	MHA		
Hardness (as CaCO3)	SM2340B	8B04145	1.0	1.0	110	1	02/04/08	02/05/08			

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Project ID: Annual Outfall 001

DISSOLVED METALS

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

MDL Reporting Sample Dilution Date Date Data Qualifiers Method Limit Result Factor Extracted Analyte Batch Limit Analyzed Sample ID: IRB0146-01 (Outfall 001 - Water) - cont. Reporting Units: ug/l EPA 200.8-Diss 8B05112 0.20 2.0 0.47 02/05/08 02/05/08 J Antimony 1 EPA 200.7-Diss 8B04145 7.0 10 ND 02/04/08 02/05/08 Arsenic 1 2.0 ND Beryllium EPA 200.7-Diss 8B04145 0.90 02/04/08 02/05/08 1 Cadmium 0.13 EPA 200.8-Diss 8B05112 0.11 1.0 1 02/05/08 02/05/08 J 8B04145 5.0 ND 02/04/08 02/05/08 Chromium EPA 200.7-Diss 2.0 1 Cobalt EPA 200.7-Diss 8B04145 2.0 10 ND 1 02/04/08 02/05/08 Copper EPA 200.8-Diss 8B05112 0.75 2.0 2.5 1 02/05/08 02/05/08 EPA 200.8-Diss 8B05112 0.30 0.38 02/05/08 02/05/08 Lead 1.0 1 I Manganese EPA 200.7-Diss 8B04145 7.0 20 16 1 02/04/08 02/05/08 J Nickel EPA 200.7-Diss 8B04145 2.0 10 ND 1 02/04/08 02/05/08 Selenium EPA 200.8-Diss 8B05112 0.30 2.0 ND 1 02/05/08 02/05/08 Silver EPA 200.8-Diss 8B05112 0.30 ND 02/05/08 02/05/08 1.0 1 Thallium EPA 200.8-Diss 8B05112 0.20 ND 02/05/08 02/05/08 1.0 1 ND Vanadium EPA 200.7-Diss 8B04145 3.0 10 1 02/04/08 02/05/08 Zinc EPA 200.7-Diss 8B04145 6.0 20 ND 1 02/04/08 02/05/08

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Project ID: Annual Outfall 001

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

INORGANICS									
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRB0146-01 (Outfall 001 -	Water) - cont.								
Reporting Units: mg/l									
Hexane Extractable Material (Oil &	EPA 1664A	8B04061	1.3	4.8	ND	1	02/04/08	02/04/08	
Grease)									
Ammonia-N (Distilled)	EPA 350.2	8B07098	0.30	0.50	ND	1	02/07/08	02/08/08	
Biochemical Oxygen Demand	EPA 405.1	8B04070	0.59	2.0	1.3	1	02/04/08	02/09/08	J
Chloride	EPA 300.0	8B04043	0.25	0.50	22	1	02/04/08	02/04/08	
Fluoride	EPA 300.0	8B04043	0.15	0.50	0.29	1	02/04/08	02/04/08	J
Nitrate-N	EPA 300.0	8B04043	0.060	0.11	2.4	1	02/04/08	02/04/08	
Nitrite-N	EPA 300.0	8B04043	0.090	0.15	ND	1	02/04/08	02/04/08	
Nitrate/Nitrite-N	EPA 300.0	8B04043	0.15	0.26	2.4	1	02/04/08	02/04/08	
Residual Chlorine	EPA 330.5	8B04074	0.10	0.10	0.17	1	02/04/08	02/04/08	HFT
Sulfate	EPA 300.0	8B04043	0.20	0.50	50	1	02/04/08	02/04/08	M-3
Surfactants (MBAS)	SM5540-C	8B04097	0.044	0.10	0.10	1	02/04/08	02/04/08	
Total Dissolved Solids	SM2540C	8B07122	10	10	290	1	02/07/08	02/07/08	
Total Organic Carbon	EPA 415.1	8B13078	0.50	1.0	9.8	1	02/13/08	02/13/08	
Total Suspended Solids	EPA 160.2	8B04128	10	10	120	1	02/04/08	02/04/08	

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor		Date Analyzed	Data Qualifiers		
Sample ID: IRB0146-01 (Outfall 001	- Water) - cont.										
Reporting Units: ml/l/hr											
Total Settleable Solids	EPA 160.5	8B04066	0.10	0.10	0.10	1	02/04/08	02/04/08			

Project ID: Annual Outfall 001

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MWH-Pasadena/BoeingProject ID:Annual Outfall 001618 Michillinda Avenue, Suite 200Sampled:02/03/08Arcadia, CA 91007Report Number:IRB0146Received:02/03/08Attention:Bronwyn KellyEnter State S

INORGANICS										
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers	
Sample ID: IRB0146-01 (Outfall 001 -	Water) - cont.									
Reporting Units: NTU										
Turbidity	EPA 180.1	8B04067	0.80	20	350	20	02/04/08	02/04/08		

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers		
Sample ID: IRB0146-01 (Outfall 001 - W	ater) - cont.										
Reporting Units: ug/l											
Chromium VI	EPA 218.6	8B04054	0.20	1.0	ND	1	02/04/08	02/04/08			
Total Cyanide	EPA 335.2	8B04112	2.2	5.0	ND	1	02/04/08	02/04/08			
Perchlorate	EPA 314.0	8B04064	0.65	1.0	ND	1	02/04/08	02/05/08			

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

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

INORGANICS											
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor		Date Analyzed	Data Qualifiers		
Sample ID: IRB0146-01 (Outfall 001 -	- Water) - cont.										
Reporting Units: umhos/cm											
Specific Conductance	EPA 120.1	8B08056	1.0	1.0	310	1	02/07/08	02/07/08			

Project ID: Annual Outfall 001

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

Metals by EPA 200 Series Methods												
Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers			
Sample ID: IRB0146-01 (Outfall 001 - Wa	ater) - cont.											
Reporting Units: ug/l												
Mercury, Dissolved	EPA 245.1	W8B0171	0.050	0.20	ND	1	02/06/08	02/07/08				
Mercury, Total	EPA 245.1	W8B0171	0.050	0.20	ND	1	02/06/08	02/07/08				

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 001 (IRB0146-01) - Water	r				
EPA 160.5	2	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 09:00	02/04/2008 09:00
EPA 180.1	2	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 09:00	02/04/2008 09:00
EPA 218.6	1	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 07:00	02/04/2008 07:30
EPA 300.0	2	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 05:00	02/04/2008 06:21
EPA 330.5	1	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 10:00	02/04/2008 10:00
EPA 405.1	2	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 16:00	02/09/2008 13:30
EPA 624	3	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 00:00	02/04/2008 10:02
Filtration	1	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 07:00	02/04/2008 07:00
SM5540-C	2	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 13:33	02/04/2008 20:15
Sample ID: Trip Blank (IRB0146-02) - Water	•				
EPA 624	3	02/03/2008 11:45	02/03/2008 18:25	02/04/2008 00:00	02/04/2008 11:28



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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04063 Extracted: 02/04/08	-										
Blank Analyzed: 02/05/2008 (8B04063-B	LK1)										
EFH (C13 - C22)	ND	0.50	0.10	mg/l							
Surrogate: n-Octacosane	0.138			mg/l	0.200		69	40-125			
LCS Analyzed: 02/05/2008 (8B04063-BS	1)										MNR1
EFH (C13 - C40)	0.573	0.50	0.10	mg/l	0.750		76	40-115			
Surrogate: n-Octacosane	0.141			mg/l	0.200		70	40-125			
LCS Dup Analyzed: 02/05/2008 (8B0406	3-BSD1)										
EFH (C13 - C40)	0.660	0.50	0.10	mg/l	0.750		88	40-115	14	25	
Surrogate: n-Octacosane	0.152			mg/l	0.200		76	40-125			

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B07041 Extracted: 02/07/08	<u>.</u>										
Blank Analyzed: 02/07/2008 (8B07041-B	LK1)										
GRO (C4 - C12)	ND	0.10	0.025	mg/l							
Surrogate: 4-BFB (FID)	0.0115			mg/l	0.0100		115	65-140			
LCS Analyzed: 02/07/2008 (8B07041-BS	1)										
GRO (C4 - C12)	0.801	0.10	0.025	mg/l	0.800		100	80-120			
Surrogate: 4-BFB (FID)	0.0190			mg/l	0.0100		190	65-140			ZX
Matrix Spike Analyzed: 02/07/2008 (8B0	7041-MS1)				Sou	rce: IRB	0223-05				
GRO (C4 - C12)	0.237	0.10	0.025	mg/l	0.220	ND	108	65-140			
Surrogate: 4-BFB (FID)	0.0140			mg/l	0.0100		140	65-140			
Matrix Spike Dup Analyzed: 02/07/2008	(8B07041-M	SD1)			Sou	rce: IRB	0223-05				
GRO (C4 - C12)	0.242	0.10	0.025	mg/l	0.220	ND	110	65-140	2	20	
Surrogate: 4-BFB (FID)	0.0138			mg/l	0.0100		138	65-140			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GCMS SIM

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04013 Extracted: 02/04/08	_										
Blank Analyzed: 02/04/2008 (8B04013-B	LK1)										
1,4-Dioxane	ND	2.0	1.0	ug/l							
Surrogate: Dibromofluoromethane	0.980			ug/l	1.00		98	80-120			
LCS Analyzed: 02/04/2008 (8B04013-BS)	l)										
1,4-Dioxane	8.78	2.0	1.0	ug/l	10.0		88	70-125			
Surrogate: Dibromofluoromethane	0.970			ug/l	1.00		97	80-120			
Matrix Spike Analyzed: 02/04/2008 (8B0	4013-MS1)				Sou	rce: IRA2	2967-02				
1,4-Dioxane	9.74	2.0	1.0	ug/l	10.0	1.95	78	70-130			
Surrogate: Dibromofluoromethane	1.02			ug/l	1.00		102	80-120			
Matrix Spike Dup Analyzed: 02/04/2008	(8B04013-M	SD1)			Sou	rce: IRA2	2967-02				
1,4-Dioxane	10.7	2.0	1.0	ug/l	10.0	1.95	88	70-130	9	30	
Surrogate: Dibromofluoromethane	1.01			ug/l	1.00		101	80-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8B04007 Extracted: 02/04/08	<u>}</u>										
Blank Analyzed: 02/04/2008 (8B04007-B											
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,1-Trichloroethane	ND	0.50	0.30	ug/l							
1,1,2,2-Tetrachloroethane	ND	0.50	0.24	ug/l							
1,1,2-Trichloroethane	ND	0.50	0.30	ug/l							
1,1-Dichloroethane	ND	0.50	0.27	ug/l							
1,1-Dichloroethene	ND	0.50	0.42	ug/l							
1,2-Dichloroethane	ND	0.50	0.28	ug/l							
Benzene	ND	0.50	0.28	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.32	ug/l							
Carbon tetrachloride	ND	0.50	0.28	ug/l							
1,2-Dichloropropane	ND	0.50	0.35	ug/l							
Chloroform	ND	0.50	0.33	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.35	ug/l							
Ethylbenzene	ND	0.50	0.25	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.37	ug/l							
Tetrachloroethene	ND	0.50	0.32	ug/l							
Toluene	ND	0.50	0.36	ug/l							
Bromodichloromethane	ND	0.50	0.30	ug/l							
Trichloroethene	ND	0.50	0.26	ug/l							
Bromoform	ND	0.50	0.40	ug/l							
Trichlorofluoromethane	ND	0.50	0.34	ug/l							
Bromomethane	ND	1.0	0.42	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Vinyl chloride	ND	0.50	0.30	ug/l							
Chlorobenzene	ND	0.50	0.36	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							
Chloroethane	ND	1.0	0.40	ug/l							
Chloromethane	ND	0.50	0.40	ug/l							
cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l							
Dibromochloromethane	ND	0.50	0.28	ug/l							
Methylene chloride	ND	1.0	0.95	ug/l							
trans-1,2-Dichloroethene	ND	0.50	0.27	ug/l							
trans-1,3-Dichloropropene	ND	0.50	0.32	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Xylenes, Total	ND	1.5	0.90	ug/l							

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
·		Linnt	MDL	emis	Level	ittsuit	JURLE	Linnts	NI D	Linnt	Quanners
Batch: 8B04007 Extracted: 02/04/08	8										
Blank Analyzed: 02/04/2008 (8B04007-E	BLK1)										
Surrogate: Dibromofluoromethane	27.7			ug/l	25.0		111	80-120			
Surrogate: Toluene-d8	25.2			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	22.9			ug/l	25.0		91	80-120			
LCS Analyzed: 02/04/2008 (8B04007-BS	51)										
1,1,1-Trichloroethane	30.6	0.50	0.30	ug/l	25.0		122	65-135			
1,1,1-Trichloroethane	30.6	0.50	0.30	ug/l	25.0		122	65-135			
1,1,2,2-Tetrachloroethane	27.3	0.50	0.24	ug/l	25.0		109	55-130			
1,1,2-Trichloroethane	25.9	0.50	0.30	ug/l	25.0		103	70-125			
1,1-Dichloroethane	29.2	0.50	0.27	ug/l	25.0		117	70-125			
1,1-Dichloroethene	25.5	0.50	0.42	ug/l	25.0		102	70-125			
1,2-Dichloroethane	27.2	0.50	0.28	ug/l	25.0		109	60-140			
Benzene	25.9	0.50	0.28	ug/l	25.0		103	70-120			
1,2-Dichlorobenzene	26.5	0.50	0.32	ug/l	25.0		106	75-120			
Carbon tetrachloride	29.8	0.50	0.28	ug/l	25.0		119	65-140			
1,2-Dichloropropane	26.7	0.50	0.35	ug/l	25.0		107	70-125			
Chloroform	30.2	0.50	0.33	ug/l	25.0		121	70-130			
1,3-Dichlorobenzene	26.4	0.50	0.35	ug/l	25.0		106	75-120			
Ethylbenzene	27.1	0.50	0.25	ug/l	25.0		108	75-125			
1,4-Dichlorobenzene	24.3	0.50	0.37	ug/l	25.0		97	75-120			
Tetrachloroethene	22.8	0.50	0.32	ug/l	25.0		91	70-125			
Toluene	26.1	0.50	0.36	ug/l	25.0		104	70-120			
Bromodichloromethane	29.9	0.50	0.30	ug/l	25.0		120	70-135			
Trichloroethene	24.6	0.50	0.26	ug/l	25.0		99	70-125			
Bromoform	22.2	0.50	0.40	ug/l	25.0		89	55-130			
Trichlorofluoromethane	34.8	0.50	0.34	ug/l	25.0		139	65-145			
Bromomethane	29.3	1.0	0.42	ug/l	25.0		117	65-140			
Vinyl chloride	29.8	0.50	0.30	ug/l	25.0		119	55-135			
Chlorobenzene	24.8	0.50	0.36	ug/l	25.0		99	75-120			
Xylenes, Total	78.7	1.5	0.90	ug/l	75.0		105	70-125			
Chloroethane	30.1	1.0	0.40	ug/l	25.0		120	60-140			
Chloromethane	28.5	0.50	0.40	ug/l	25.0		114	50-140			
cis-1,3-Dichloropropene	24.0	0.50	0.22	ug/l	25.0		96	75-125			
Dibromochloromethane	25.6	0.50	0.28	ug/l	25.0		103	70-140			
Methylene chloride	27.1	1.0	0.95	ug/l	25.0		108	55-130			
trans-1,2-Dichloroethene	29.8	0.50	0.27	ug/l	25.0		119	70-125			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyta	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Analyte		Linnt	MDL	Units	Level	Result	70KEU	Linnts	KFD	Linnt	Quanners
Batch: 8B04007 Extracted: 02/04/08	<u>}</u>										
LCS A	1)										
LCS Analyzed: 02/04/2008 (8B04007-BS		0.50	0.22	л	25.0		06	70 125			
trans-1,3-Dichloropropene	24.1	0.50	0.32	ug/l	25.0		96	70-125			
Xylenes, Total	78.7	1.5	0.90	ug/l	75.0		105	70-125			
Surrogate: Dibromofluoromethane	27.9			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	25.5			ug/l	25.0 25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	26.0			ug/l	25.0		104	80-120			
Matrix Spike Analyzed: 02/04/2008 (8B0	04007-MS1)				Sou	rce: IRB	0146-01				
1,1,1-Trichloroethane	29.1	0.50	0.30	ug/l	25.0	ND	117	65-140			
1,1,1-Trichloroethane	29.1	0.50	0.30	ug/l	25.0	ND	117	65-140			
1,1,2,2-Tetrachloroethane	27.0	0.50	0.24	ug/l	25.0	ND	108	55-135			
1,1,2-Trichloroethane	24.6	0.50	0.30	ug/l	25.0	ND	98	65-130			
1,1-Dichloroethane	27.8	0.50	0.27	ug/l	25.0	ND	111	65-130			
1,1-Dichloroethene	24.9	0.50	0.42	ug/l	25.0	ND	100	60-130			
1,2-Dichloroethane	26.1	0.50	0.28	ug/l	25.0	ND	104	60-140			
Benzene	25.1	0.50	0.28	ug/l	25.0	ND	101	65-125			
1,2-Dichlorobenzene	25.7	0.50	0.32	ug/l	25.0	ND	103	75-125			
Carbon tetrachloride	28.4	0.50	0.28	ug/l	25.0	ND	113	65-140			
1,2-Dichloropropane	25.3	0.50	0.35	ug/l	25.0	ND	101	65-130			
Chloroform	28.9	0.50	0.33	ug/l	25.0	ND	116	65-135			
1,3-Dichlorobenzene	25.8	0.50	0.35	ug/l	25.0	ND	103	75-125			
Ethylbenzene	26.4	0.50	0.25	ug/l	25.0	ND	106	65-130			
1,4-Dichlorobenzene	23.6	0.50	0.37	ug/l	25.0	ND	94	75-125			
Tetrachloroethene	22.0	0.50	0.32	ug/l	25.0	ND	88	65-130			
Toluene	25.3	0.50	0.36	ug/l	25.0	ND	101	70-125			
Bromodichloromethane	28.8	0.50	0.30	ug/l	25.0	ND	115	70-135			
Trichloroethene	23.9	0.50	0.26	ug/l	25.0	ND	96	65-125			
Bromoform	21.5	0.50	0.40	ug/l	25.0	ND	86	55-135			
Trichlorofluoromethane	34.2	0.50	0.34	ug/l	25.0	ND	137	60-145			
Bromomethane	28.6	1.0	0.42	ug/l	25.0	ND	114	55-145			
Vinyl chloride	29.4	0.50	0.30	ug/l	25.0	ND	118	45-140			
Chlorobenzene	23.9	0.50	0.36	ug/l	25.0	ND	96	75-125			
Xylenes, Total	76.3	1.5	0.90	ug/l	75.0	ND	102	60-130			
Chloroethane	28.9	1.0	0.40	ug/l	25.0	ND	115	55-140			
Chloromethane	28.8	0.50	0.40	ug/l	25.0	ND	115	45-145			
cis-1,3-Dichloropropene	22.8	0.50	0.22	ug/l	25.0	ND	91	70-130			
Dibromochloromethane	24.4	0.50	0.28	ug/l	25.0	ND	98	65-140			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
·		Linnt	MDL	Units	Level	Kesuit	/orec	Linnts	KI D	Linnt	Quanners
Batch: 8B04007 Extracted: 02/04/08	<u>8</u>										
Matrix Spike Analyzed: 02/04/2008 (8B	04007-MS1)				Sou	rce: IRB	0146-01				
Methylene chloride	26.1	1.0	0.95	ug/l	25.0	ND	104	50-135			
trans-1,2-Dichloroethene	28.4	0.50	0.27	ug/l	25.0	ND	114	65-130			
trans-1,3-Dichloropropene	22.5	0.50	0.32	ug/l	25.0	ND	90	65-135			
Xylenes, Total	76.3	1.5	0.90	ug/l	75.0	ND	102	60-130			
Surrogate: Dibromofluoromethane	27.8			ug/l	25.0		111	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.7			ug/l	25.0		103	80-120			
Matrix Spike Dup Analyzed: 02/04/2008	8 (8B04007-N	ISD1)			Sou	rce: IRB	0146-01				
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	114	65-140	2	20	
1,1,1-Trichloroethane	28.6	0.50	0.30	ug/l	25.0	ND	114	65-140	2	20	
1,1,2,2-Tetrachloroethane	29.1	0.50	0.24	ug/l	25.0	ND	116	55-135	7	30	
1,1,2-Trichloroethane	26.1	0.50	0.30	ug/l	25.0	ND	104	65-130	6	25	
1,1-Dichloroethane	28.1	0.50	0.27	ug/l	25.0	ND	112	65-130	1	20	
1,1-Dichloroethene	25.1	0.50	0.42	ug/l	25.0	ND	100	60-130	1	20	
1,2-Dichloroethane	26.8	0.50	0.28	ug/l	25.0	ND	107	60-140	2	20	
Benzene	25.4	0.50	0.28	ug/l	25.0	ND	102	65-125	1	20	
1,2-Dichlorobenzene	25.8	0.50	0.32	ug/l	25.0	ND	103	75-125	1	20	
Carbon tetrachloride	27.6	0.50	0.28	ug/l	25.0	ND	110	65-140	3	25	
1,2-Dichloropropane	25.8	0.50	0.35	ug/l	25.0	ND	103	65-130	2	20	
Chloroform	28.8	0.50	0.33	ug/l	25.0	ND	115	65-135	0	20	
1,3-Dichlorobenzene	25.4	0.50	0.35	ug/l	25.0	ND	101	75-125	2	20	
Ethylbenzene	26.2	0.50	0.25	ug/l	25.0	ND	105	65-130	1	20	
1,4-Dichlorobenzene	23.4	0.50	0.37	ug/l	25.0	ND	94	75-125	1	20	
Tetrachloroethene	21.9	0.50	0.32	ug/l	25.0	ND	88	65-130	1	20	
Toluene	25.2	0.50	0.36	ug/l	25.0	ND	101	70-125	0	20	
Bromodichloromethane	29.0	0.50	0.30	ug/l	25.0	ND	116	70-135	1	20	
Trichloroethene	24.1	0.50	0.26	ug/l	25.0	ND	96	65-125	1	20	
Bromoform	22.6	0.50	0.40	ug/l	25.0	ND	91	55-135	5	25	
Trichlorofluoromethane	33.1	0.50	0.34	ug/l	25.0	ND	132	60-145	3	25	
Bromomethane	29.3	1.0	0.42	ug/l	25.0	ND	117	55-145	2	25	
Vinyl chloride	30.5	0.50	0.30	ug/l	25.0	ND	122	45-140	3	30	
Chlorobenzene	23.7	0.50	0.36	ug/l	25.0	ND	95	75-125	1	20	
Xylenes, Total	74.9	1.5	0.90	ug/l	75.0	ND	100	60-130	2	20	
Chloroethane	30.2	1.0	0.40	ug/l	25.0	ND	121	55-140	4	25	
Chloromethane	30.9	0.50	0.40	ug/l	25.0	ND	124	45-145	7	25	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04007 Extracted: 02/04/08	<u>}</u>										
Matrix Spike Dup Analyzed: 02/04/2008	(8B04007-M	(SD1)			Sou	rce: IRB	0146-01				
cis-1,3-Dichloropropene	23.2	0.50	0.22	ug/l	25.0	ND	93	70-130	2	20	
Dibromochloromethane	24.9	0.50	0.28	ug/l	25.0	ND	100	65-140	2	25	
Methylene chloride	27.0	1.0	0.95	ug/l	25.0	ND	108	50-135	3	20	
trans-1,2-Dichloroethene	28.5	0.50	0.27	ug/l	25.0	ND	114	65-130	1	20	
trans-1,3-Dichloropropene	23.4	0.50	0.32	ug/l	25.0	ND	94	65-135	4	25	
Xylenes, Total	74.9	1.5	0.90	ug/l	75.0	ND	100	60-130	2	20	
Surrogate: Dibromofluoromethane	27.6			ug/l	25.0		110	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.5			ug/l	25.0		102	80-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES-- GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04007 Extracted: 02/04/08	_										
Diarda Anglera J. 02/04/2000 (0D04007 D)	1121)										
Blank Analyzed: 02/04/2008 (8B04007-B)	,			-							
Acrolein	ND	5.0	4.0	ug/l							
Acrylonitrile	ND	2.0	0.70	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	1.8	ug/l							
Surrogate: Dibromofluoromethane	27.7			ug/l	25.0		111	80-120			
Surrogate: Toluene-d8	25.2			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	22.9			ug/l	25.0		91	80-120			
LCS Analyzed: 02/04/2008 (8B04007-BS1	l)										
2-Chloroethyl vinyl ether	29.5	5.0	1.8	ug/l	25.0		118	25-170			
Surrogate: Dibromofluoromethane	27.9			ug/l	25.0		112	80-120			
Surrogate: Toluene-d8	25.5			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	26.0			ug/l	25.0		104	80-120			
Matrix Spike Analyzed: 02/04/2008 (8B0-	4007-MS1)				Sou	rce: IRB()146-01				
2-Chloroethyl vinyl ether	27.8	5.0	1.8	ug/l	25.0	ND	111	25-170			
Surrogate: Dibromofluoromethane	27.8			ug/l	25.0		111	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.7			ug/l	25.0		103	80-120			
Matrix Spike Dup Analyzed: 02/04/2008	(8B04007-M	SD1)			Sou	rce: IRB()146-01				
2-Chloroethyl vinyl ether	31.1	5.0	1.8	ug/l	25.0	ND	124	25-170	11	25	
Surrogate: Dibromofluoromethane	27.6			ug/l	25.0		110	80-120			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	25.5			ug/l	25.0		102	80-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result %RE(%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04007 Extracted: 02/04/08	<u>8</u>									
Blank Analyzed: 02/04/2008 (8B04007-B	SLK1)									
1,2-Dichloro-1,1,2-trifluoroethane	ND	2.5	N/A	ug/l						
Cyclohexane	ND	2.5	N/A	ug/l						

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
-		Linnt	MDL	emis	Level	ittsuit	JUREC	Linits	ΜD	Linnt	Quanners
Batch: 8B03026 Extracted: 02/03/08	-										
Blank Analyzed: 02/07/2008 (8B03026-B	L K1)										
1,2,4-Trichlorobenzene	ND	1.0	0.10	ug/l							
1,2-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,2-Diphenylhydrazine/Azobenzene	ND	1.0	0.10	ug/l							
1,3-Dichlorobenzene	ND	0.50	0.10	ug/l							
1,4-Dichlorobenzene	ND	0.50	0.20	ug/l							
Acenaphthene	ND	0.50	0.10	ug/l							
2-Methylnaphthalene	ND	1.0	0.10	ug/l							
2-Methylphenol	ND	2.0	0.10	ug/l							
2-Nitroaniline	ND	5.0	0.10	ug/l							
3-Nitroaniline	ND	5.0	0.20	ug/l							
Acenaphthylene	ND	0.50	0.10	ug/l							
4-Nitroaniline	ND	5.0	0.50	ug/l							
Anthracene	ND	0.50	0.10	ug/l							
Aniline	ND	10	0.30	ug/l							
Benzidine	ND	5.0	1.0	ug/l							
Benzoic acid	ND	20	3.0	ug/l							
Benzyl alcohol	ND	5.0	0.10	ug/l							
Benzo(a)anthracene	ND	5.0	0.10	ug/l							
Hexachlorobutadiene	ND	2.0	0.20	ug/l							
Benzo(a)pyrene	ND	2.0	0.10	ug/l							
Naphthalene	ND	1.0	0.10	ug/l							
Benzo(b)fluoranthene	ND	2.0	0.10	ug/l							
Benzo(g,h,i)perylene	ND	5.0	0.10	ug/l							
Benzo(k)fluoranthene	ND	0.50	0.10	ug/l							
Bis(2-chloroethoxy)methane	ND	0.50	0.10	ug/l							
Bis(2-chloroethyl)ether	ND	0.50	0.10	ug/l							
Bis(2-chloroisopropyl)ether	ND	0.50	0.10	ug/l							
Bis(2-ethylhexyl)phthalate	2.82	5.0	1.7	ug/l							J
4-Bromophenyl phenyl ether	ND	1.0	0.10	ug/l							
Butyl benzyl phthalate	2.46	5.0	0.70	ug/l							J
4-Chloroaniline	ND	2.0	0.10	ug/l							
2-Chloronaphthalene	ND	0.50	0.10	ug/l							
4-Chloro-3-methylphenol	ND	2.0	0.20	ug/l							
4-Chlorophenyl phenyl ether	ND	0.50	0.10	ug/l							
2-Chlorophenol	ND	1.0	0.20	ug/l							

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
·							,				C
Batch: 8B03026 Extracted: 02/03/08	-										
Blank Analyzed: 02/07/2008 (8B03026-B	L K1)										
Chrysene	ND	0.50	0.10	ug/l							
Dibenz(a,h)anthracene	ND	0.50	0.10	ug/l							
Dibenzofuran	ND	0.50	0.10	ug/l							
Di-n-butyl phthalate	ND	2.0	0.20	ug/l							
3,3-Dichlorobenzidine	ND	5.0	0.40	ug/l							
2,4-Dichlorophenol	ND	2.0	0.20	ug/l							
Diethyl phthalate	0.160	1.0	0.10	ug/l							J
2,4-Dimethylphenol	ND	2.0	0.30	ug/l							
Dimethyl phthalate	ND	0.50	0.10	ug/l							
4,6-Dinitro-2-methylphenol	ND	5.0	0.20	ug/l							
2,4-Dinitrophenol	ND	5.0	0.90	ug/l							
2,4-Dinitrotoluene	ND	5.0	0.20	ug/l							
2,6-Dinitrotoluene	ND	5.0	0.10	ug/l							
Di-n-octyl phthalate	ND	5.0	0.10	ug/l							
Fluoranthene	ND	0.50	0.10	ug/l							
Fluorene	ND	0.50	0.10	ug/l							
Hexachlorobenzene	ND	1.0	0.10	ug/l							
Hexachlorocyclopentadiene	ND	5.0	0.10	ug/l							
Hexachloroethane	ND	3.0	0.20	ug/l							
Indeno(1,2,3-cd)pyrene	ND	2.0	0.10	ug/l							
Isophorone	ND	1.0	0.10	ug/l							
4-Methylphenol	ND	5.0	0.20	ug/l							
Nitrobenzene	ND	1.0	0.10	ug/l							
2-Nitrophenol	ND	2.0	0.10	ug/l							
4-Nitrophenol	ND	5.0	2.5	ug/l							
N-Nitrosodimethylamine	ND	2.0	0.10	ug/l							
N-Nitroso-di-n-propylamine	ND	2.0	0.10	ug/l							
N-Nitrosodiphenylamine	ND	1.0	0.10	ug/l							
Pentachlorophenol	ND	2.0	0.10	ug/l							
Phenanthrene	ND	0.50	0.10	ug/l							
Phenol	ND	1.0	0.30	ug/l							
Pyrene	ND	0.50	0.10	ug/l							
2,4,5-Trichlorophenol	ND	2.0	0.20	ug/l							
2,4,6-Trichlorophenol	ND	1.0	0.10	ug/l							
Surrogate: 2-Fluorophenol	13.5			ug/l	20.0		68	30-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8B03026 Extracted: 02/03/08	<u>}</u>										
Blank Analyzed: 02/07/2008 (8B03026-B	LK1)										
Surrogate: Phenol-d6	16.1			ug/l	20.0		81	35-120			
Surrogate: 2,4,6-Tribromophenol	19.0			ug/l	20.0		95	40-120			
Surrogate: Nitrobenzene-d5	8.34			ug/l	10.0		83	45-120			
Surrogate: 2-Fluorobiphenyl	8.58			ug/l	10.0		86	50-120			
Surrogate: Terphenyl-d14	9.30			ug/l	10.0		93	50-125			
LCS Analyzed: 02/07/2008 (8B03026-BS	1)										MNR1
1,2,4-Trichlorobenzene	6.60	1.0	0.10	ug/l	10.0		66	45-120			
1,2-Dichlorobenzene	6.52	0.50	0.10	ug/l	10.0		65	40-120			
1,2-Diphenylhydrazine/Azobenzene	9.26	1.0	0.10	ug/l	10.0		93	60-120			
1,3-Dichlorobenzene	6.12	0.50	0.10	ug/l	10.0		61	35-120			
1,4-Dichlorobenzene	6.12	0.50	0.20	ug/l	10.0		61	35-120			
Acenaphthene	8.10	0.50	0.10	ug/l	10.0		81	60-120			
2-Methylnaphthalene	8.14	1.0	0.10	ug/l	10.0		81	55-120			
2-Methylphenol	7.32	2.0	0.10	ug/l	10.0		73	50-120			
2-Nitroaniline	9.76	5.0	0.10	ug/l	10.0		98	65-120			
3-Nitroaniline	9.06	5.0	0.20	ug/l	10.0		91	60-120			
Acenaphthylene	8.94	0.50	0.10	ug/l	10.0		89	60-120			
4-Nitroaniline	8.48	5.0	0.50	ug/l	10.0		85	55-125			
Anthracene	8.80	0.50	0.10	ug/l	10.0		88	65-120			
Aniline	7.70	10	0.30	ug/l	10.0		77	35-120			J
Benzidine	1.24	5.0	1.0	ug/l	10.0		12	30-160			L6, J
Benzoic acid	5.78	20	3.0	ug/l	10.0		58	25-120			J
Benzyl alcohol	7.04	5.0	0.10	ug/l	10.0		70	50-120			
Benzo(a)anthracene	9.50	5.0	0.10	ug/l	10.0		95	65-120			
Hexachlorobutadiene	5.90	2.0	0.20	ug/l	10.0		59	40-120			
Benzo(a)pyrene	10.2	2.0	0.10	ug/l	10.0		102	55-130			
Naphthalene	7.60	1.0	0.10	ug/l	10.0		76	55-120			
Benzo(b)fluoranthene	8.46	2.0	0.10	ug/l	10.0		85	55-125			
Benzo(g,h,i)perylene	9.22	5.0	0.10	ug/l	10.0		92	45-135			
Benzo(k)fluoranthene	9.28	0.50	0.10	ug/l	10.0		93	50-125			
Bis(2-chloroethoxy)methane	8.96	0.50	0.10	ug/l	10.0		90	55-120			
Bis(2-chloroethyl)ether	7.68	0.50	0.10	ug/l	10.0		77	50-120			
Bis(2-chloroisopropyl)ether	7.68	0.50	0.10	ug/l	10.0		77	45-120			
Bis(2-ethylhexyl)phthalate	13.1	5.0	1.7	ug/l	10.0		131	65-130			L, L1
4-Bromophenyl phenyl ether	8.16	1.0	0.10	ug/l	10.0		82	60-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B03026 Extracted: 02/03/08	8										
Datch: 0005020 Extracted: 02/05/00	<u> </u>										
LCS Analyzed: 02/07/2008 (8B03026-BS	51)										MNR1
Butyl benzyl phthalate	11.3	5.0	0.70	ug/l	10.0		113	55-130			
4-Chloroaniline	7.86	2.0	0.10	ug/l	10.0		79	55-120			
2-Chloronaphthalene	7.56	0.50	0.10	ug/l	10.0		76	60-120			
4-Chloro-3-methylphenol	8.74	2.0	0.20	ug/l	10.0		87	60-120			
4-Chlorophenyl phenyl ether	9.08	0.50	0.10	ug/l	10.0		91	65-120			
2-Chlorophenol	7.38	1.0	0.20	ug/l	10.0		74	45-120			
Chrysene	9.16	0.50	0.10	ug/l	10.0		92	65-120			
Dibenz(a,h)anthracene	9.80	0.50	0.10	ug/l	10.0		98	50-135			
Dibenzofuran	8.94	0.50	0.10	ug/l	10.0		89	65-120			
Di-n-butyl phthalate	10.1	2.0	0.20	ug/l	10.0		101	60-125			
3,3-Dichlorobenzidine	6.80	5.0	0.40	ug/l	10.0		68	45-135			
2,4-Dichlorophenol	8.20	2.0	0.20	ug/l	10.0		82	55-120			
Diethyl phthalate	10.3	1.0	0.10	ug/l	10.0		103	55-120			
2,4-Dimethylphenol	8.70	2.0	0.30	ug/l	10.0		87	40-120			
Dimethyl phthalate	9.40	0.50	0.10	ug/l	10.0		94	30-120			
4,6-Dinitro-2-methylphenol	8.86	5.0	0.20	ug/l	10.0		89	45-120			
2,4-Dinitrophenol	8.84	5.0	0.90	ug/l	10.0		88	40-120			
2,4-Dinitrotoluene	9.46	5.0	0.20	ug/l	10.0		95	65-120			
2,6-Dinitrotoluene	9.30	5.0	0.10	ug/l	10.0		93	65-120			
Di-n-octyl phthalate	11.5	5.0	0.10	ug/l	10.0		115	65-135			
Fluoranthene	9.74	0.50	0.10	ug/l	10.0		97	60-120			
Fluorene	9.30	0.50	0.10	ug/l	10.0		93	65-120			
Hexachlorobenzene	8.18	1.0	0.10	ug/l	10.0		82	60-120			
Hexachlorocyclopentadiene	7.94	5.0	0.10	ug/l	10.0		79	25-120			
Hexachloroethane	5.94	3.0	0.20	ug/l	10.0		59	35-120			
Indeno(1,2,3-cd)pyrene	9.44	2.0	0.10	ug/l	10.0		94	45-135			
Isophorone	8.12	1.0	0.10	ug/l	10.0		81	50-120			
4-Methylphenol	7.70	5.0	0.20	ug/l	10.0		77	50-120			
Nitrobenzene	8.02	1.0	0.10	ug/l	10.0		80	55-120			
2-Nitrophenol	8.18	2.0	0.10	ug/l	10.0		82	50-120			
4-Nitrophenol	10.4	5.0	2.5	ug/l	10.0		104	45-120			
N-Nitrosodimethylamine	7.88	2.0	0.10	ug/l	10.0		79	45-120			
N-Nitroso-di-n-propylamine	8.88	2.0	0.10	ug/l	10.0		89	45-120			
N-Nitrosodiphenylamine	9.54	1.0	0.10	ug/l	10.0		95	60-120			
Pentachlorophenol	7.84	2.0	0.10	ug/l	10.0		78	50-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
·		2		cints	20,01	1000000	,01120	2			Quanto 5
Batch: 8B03026 Extracted: 02/03/0	<u>o</u>										
LCS Analyzed: 02/07/2008 (8B03026-BS	51)										MNR1
Phenanthrene	8.30	0.50	0.10	ug/l	10.0		83	65-120			
Phenol	7.66	1.0	0.30	ug/l	10.0		77	40-120			
Pyrene	9.14	0.50	0.10	ug/l	10.0		91	55-125			
2,4,5-Trichlorophenol	8.94	2.0	0.20	ug/l	10.0		89	55-120			
2,4,6-Trichlorophenol	7.78	1.0	0.10	ug/l	10.0		78	55-120			
Surrogate: 2-Fluorophenol	13.7			ug/l	20.0		68	30-120			
Surrogate: Phenol-d6	16.1			ug/l	20.0		80	35-120			
Surrogate: 2,4,6-Tribromophenol	19.7			ug/l	20.0		98	40-120			
Surrogate: Nitrobenzene-d5	8.40			ug/l	10.0		84	45-120			
Surrogate: 2-Fluorobiphenyl	7.54			ug/l	10.0		75	50-120			
Surrogate: Terphenyl-d14	9.00			ug/l	10.0		90	50-125			
LCS Dup Analyzed: 02/07/2008 (8B0302	26-BSD1)										
1,2,4-Trichlorobenzene	5.76	1.0	0.10	ug/l	10.0		58	45-120	14	20	
1,2-Dichlorobenzene	5.88	0.50	0.10	ug/l	10.0		59	40-120	10	25	
1,2-Diphenylhydrazine/Azobenzene	9.04	1.0	0.10	ug/l	10.0		90	60-120	2	25	
1,3-Dichlorobenzene	5.62	0.50	0.10	ug/l	10.0		56	35-120	9	25	
1,4-Dichlorobenzene	5.88	0.50	0.20	ug/l	10.0		59	35-120	4	25	
Acenaphthene	7.80	0.50	0.10	ug/l	10.0		78	60-120	4	20	
2-Methylnaphthalene	7.62	1.0	0.10	ug/l	10.0		76	55-120	7	20	
2-Methylphenol	6.82	2.0	0.10	ug/l	10.0		68	50-120	7	20	
2-Nitroaniline	8.52	5.0	0.10	ug/l	10.0		85	65-120	14	20	
3-Nitroaniline	8.18	5.0	0.20	ug/l	10.0		82	60-120	10	25	
Acenaphthylene	8.54	0.50	0.10	ug/l	10.0		85	60-120	5	20	
4-Nitroaniline	7.62	5.0	0.50	ug/l	10.0		76	55-125	11	20	
Anthracene	8.14	0.50	0.10	ug/l	10.0		81	65-120	8	20	
Aniline	8.70	10	0.30	ug/l	10.0		87	35-120	12	30	J
Benzidine	5.62	5.0	1.0	ug/l	10.0		56	30-160	128	35	<i>R-2</i>
Benzoic acid	6.46	20	3.0	ug/l	10.0		65	25-120	11	30	J
Benzyl alcohol	6.80	5.0	0.10	ug/l	10.0		68	50-120	3	20	
Benzo(a)anthracene	9.12	5.0	0.10	ug/l	10.0		91	65-120	4	20	
Hexachlorobutadiene	5.26	2.0	0.20	ug/l	10.0		53	40-120	11	25	
Benzo(a)pyrene	9.76	2.0	0.10	ug/l	10.0		98	55-130	5	25	
Naphthalene	6.50	1.0	0.10	ug/l	10.0		65	55-120	16	20	
Benzo(b)fluoranthene	8.28	2.0	0.10	ug/l	10.0		83	55-125	2	25	
Benzo(g,h,i)perylene	9.22	5.0	0.10	ug/l	10.0		92	45-135	0	25	

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte Re	Reporti sult Limi	0	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B03026 Extracted: 02/03/08						,				Z
Batch: 8B03020 Extracted: 02/03/08										
LCS Dup Analyzed: 02/07/2008 (8B03026-BS	D1)									
Benzo(k)fluoranthene 9.	02 0.50	0.10	ug/l	10.0		90	50-125	3	20	
Bis(2-chloroethoxy)methane 8.	06 0.50	0.10	ug/l	10.0		81	55-120	11	20	
Bis(2-chloroethyl)ether 7.	24 0.50	0.10	ug/l	10.0		72	50-120	6	20	
Bis(2-chloroisopropyl)ether 6.	94 0.50	0.10	ug/l	10.0		69	45-120	10	20	
Bis(2-ethylhexyl)phthalate	.8 5.0	1.7	ug/l	10.0		118	65-130	11	20	
4-Bromophenyl phenyl ether 7.	84 1.0	0.10	ug/l	10.0		78	60-120	4	25	
Butyl benzyl phthalate 10).8 5.0	0.70	ug/l	10.0		108	55-130	4	20	
4-Chloroaniline 8.	14 2.0	0.10	ug/l	10.0		81	55-120	4	25	
2-Chloronaphthalene 7.	48 0.50	0.10	ug/l	10.0		75	60-120	1	20	
4-Chloro-3-methylphenol 7.	72 2.0	0.20	ug/l	10.0		77	60-120	12	25	
4-Chlorophenyl phenyl ether 8.	74 0.50	0.10	ug/l	10.0		87	65-120	4	20	
2-Chlorophenol 6.	78 1.0	0.20	ug/l	10.0		68	45-120	8	25	
Chrysene 9.	00 0.50	0.10	ug/l	10.0		90	65-120	2	20	
Dibenz(a,h)anthracene 8.	86 0.50	0.10	ug/l	10.0		89	50-135	10	25	
Dibenzofuran 8.	36 0.50	0.10	ug/l	10.0		84	65-120	7	20	
Di-n-butyl phthalate 9.	60 2.0	0.20	ug/l	10.0		96	60-125	5	20	
3,3-Dichlorobenzidine 6.	76 5.0	0.40	ug/l	10.0		68	45-135	1	25	
2,4-Dichlorophenol 7.	60 2.0	0.20	ug/l	10.0		76	55-120	8	20	
Diethyl phthalate 9.	86 1.0	0.10	ug/l	10.0		99	55-120	4	30	
2,4-Dimethylphenol 7.	96 2.0	0.30	ug/l	10.0		80	40-120	9	25	
Dimethyl phthalate 9.	12 0.50	0.10	ug/l	10.0		91	30-120	3	30	
4,6-Dinitro-2-methylphenol 8.	38 5.0	0.20	ug/l	10.0		84	45-120	6	25	
2,4-Dinitrophenol 8.	46 5.0	0.90	ug/l	10.0		85	40-120	4	25	
2,4-Dinitrotoluene 9.	38 5.0	0.20	ug/l	10.0		94	65-120	1	20	
2,6-Dinitrotoluene 8.	52 5.0	0.10	ug/l	10.0		85	65-120	9	20	
Di-n-octyl phthalate 11	.1 5.0	0.10	ug/l	10.0		111	65-135	4	20	
Fluoranthene 9.	06 0.50	0.10	ug/l	10.0		91	60-120	7	20	
Fluorene 8.	82 0.50	0.10	ug/l	10.0		88	65-120	5	20	
Hexachlorobenzene 8.	02 1.0	0.10	ug/l	10.0		80	60-120	2	20	
Hexachlorocyclopentadiene 7.	62 5.0	0.10	ug/l	10.0		76	25-120	4	30	
Hexachloroethane 5.	68 3.0	0.20	ug/l	10.0		57	35-120	4	25	
Indeno(1,2,3-cd)pyrene 8.	92 2.0	0.10	ug/l	10.0		89	45-135	6	25	
Isophorone 7.	86 1.0	0.10	ug/l	10.0		79	50-120	3	20	
4-Methylphenol 6.	60 5.0	0.20	ug/l	10.0		66	50-120	15	20	
Nitrobenzene 7.	46 1.0	0.10	ug/l	10.0		75	55-120	7	25	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B03026 Extracted: 02/03/08	_										
LCS Dup Analyzed: 02/07/2008 (8B0302	6-BSD1)										
2-Nitrophenol	7.92	2.0	0.10	ug/l	10.0		79	50-120	3	25	
4-Nitrophenol	9.52	5.0	2.5	ug/l	10.0		95	45-120	9	30	
N-Nitrosodimethylamine	6.94	2.0	0.10	ug/l	10.0		69	45-120	13	20	
N-Nitroso-di-n-propylamine	7.98	2.0	0.10	ug/l	10.0		80	45-120	11	20	
N-Nitrosodiphenylamine	8.86	1.0	0.10	ug/l	10.0		89	60-120	7	20	
Pentachlorophenol	7.60	2.0	0.10	ug/l	10.0		76	50-120	3	25	
Phenanthrene	8.12	0.50	0.10	ug/l	10.0		81	65-120	2	20	
Phenol	7.50	1.0	0.30	ug/l	10.0		75	40-120	2	25	
Pyrene	8.84	0.50	0.10	ug/l	10.0		88	55-125	3	25	
2,4,5-Trichlorophenol	8.16	2.0	0.20	ug/l	10.0		82	55-120	9	30	
2,4,6-Trichlorophenol	7.36	1.0	0.10	ug/l	10.0		74	55-120	6	30	
Surrogate: 2-Fluorophenol	12.1			ug/l	20.0		61	30-120			
Surrogate: Phenol-d6	14.8			ug/l	20.0		74	35-120			
Surrogate: 2,4,6-Tribromophenol	19.0			ug/l	20.0		95	40-120			
Surrogate: Nitrobenzene-d5	7.62			ug/l	10.0		76	45-120			
Surrogate: 2-Fluorobiphenyl	7.12			ug/l	10.0		71	50-120			
Surrogate: Terphenyl-d14	8.94			ug/l	10.0		89	50-125			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Ameliote	Decult	Reporting	MDI	Unita	Spike	Source	0/ DEC	%REC	DDD	RPD Limit	Data Ovalifians
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8B04071 Extracted: 02/04/08	<u>}_</u>										
Blank Analyzed: 02/06/2008 (8B04071-B	SLK1)										
Aldrin	ND	0.0050	0.0015	ug/l							
alpha-BHC	ND	0.0050	0.0025	ug/l							
beta-BHC	ND	0.010	0.0040	ug/l							
delta-BHC	ND	0.0050	0.0035	ug/l							
gamma-BHC (Lindane)	ND	0.010	0.0030	ug/l							
Chlordane	ND	0.10	0.030	ug/l							
4,4'-DDD	ND	0.0050	0.0020	ug/l							
4,4'-DDE	ND	0.0050	0.0030	ug/l							
4,4'-DDT	ND	0.010	0.0040	ug/l							
Dieldrin	ND	0.0050	0.0020	ug/l							
Endosulfan I	ND	0.0050	0.0020	ug/l							
Endosulfan II	ND	0.0050	0.0030	ug/l							
Endosulfan sulfate	ND	0.010	0.0030	ug/l							
Endrin	ND	0.0050	0.0020	ug/l							
Endrin aldehyde	ND	0.010	0.0020	ug/l							
Endrin ketone	ND	0.010	0.0030	ug/l							
Heptachlor	ND	0.010	0.0030	ug/l							
Heptachlor epoxide	ND	0.0050	0.0025	ug/l							
Methoxychlor	ND	0.0050	0.0035	ug/l							
Toxaphene	ND	0.10	0.070	ug/l							
Surrogate: Decachlorobiphenyl	0.473			ug/l	0.500		95	45-120			
Surrogate: Tetrachloro-m-xylene	0.447			ug/l	0.500		89	35-115			
											MDD1
LCS Analyzed: 02/05/2008 (8B04071-BS	-	0.0050	0.0015	4	0.500		07	40 115			MNR1
Aldrin	0.437	0.0050	0.0015	ug/l	0.500		87	40-115			
alpha-BHC	0.482	0.0050	0.0025	ug/l	0.500		96	45-115			
beta-BHC	0.475	0.010	0.0040	ug/l	0.500		95	55-115			
delta-BHC	0.490	0.0050	0.0035	ug/l	0.500		98	55-115			
gamma-BHC (Lindane)	0.485	0.010	0.0030	ug/l	0.500		97	45-115			
4,4'-DDD	0.490	0.0050	0.0020	ug/l	0.500		98	55-120			
4,4'-DDE	0.451	0.0050	0.0030	ug/l	0.500		90	50-120			
4,4'-DDT	0.494	0.010	0.0040	ug/l	0.500		99	55-120			
Dieldrin	0.472	0.0050	0.0020	ug/l	0.500		94	55-115			
Endosulfan I	0.440	0.0050	0.0020	ug/l	0.500		88	55-115			
Endosulfan II	0.476	0.0050	0.0030	ug/l	0.500		95	55-120			
Endosulfan sulfate	0.476	0.010	0.0030	ug/l	0.500		95	60-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04071 Extracted: 02/04/08	_										
LCS Analyzed: 02/05/2008 (8B04071-BS	1)										MNR1
Endrin	0.482	0.0050	0.0020	ug/l	0.500		96	55-115			
Endrin aldehyde	0.449	0.010	0.0020	ug/l	0.500		90	50-120			
Endrin ketone	0.471	0.010	0.0030	ug/l	0.500		94	55-120			
Heptachlor	0.468	0.010	0.0030	ug/l	0.500		94	45-115			
Heptachlor epoxide	0.453	0.0050	0.0025	ug/l	0.500		91	55-115			
Methoxychlor	0.474	0.0050	0.0035	ug/l	0.500		95	60-120			
Surrogate: Decachlorobiphenyl	0.464			ug/l	0.500		93	45-120			
Surrogate: Tetrachloro-m-xylene	0.433			ug/l	0.500		87	35-115			
LCS Dup Analyzed: 02/05/2008 (8B0407	1-BSD1)										
Aldrin	0.433	0.0050	0.0015	ug/l	0.500		87	40-115	1	30	
alpha-BHC	0.474	0.0050	0.0025	ug/l	0.500		95	45-115	2	30	
beta-BHC	0.466	0.010	0.0040	ug/l	0.500		93	55-115	2	30	
delta-BHC	0.480	0.0050	0.0035	ug/l	0.500		96	55-115	2	30	
gamma-BHC (Lindane)	0.476	0.010	0.0030	ug/l	0.500		95	45-115	2	30	
4,4'-DDD	0.481	0.0050	0.0020	ug/l	0.500		96	55-120	2	30	
4,4'-DDE	0.450	0.0050	0.0030	ug/l	0.500		90	50-120	0	30	
4,4'-DDT	0.483	0.010	0.0040	ug/l	0.500		97	55-120	2	30	
Dieldrin	0.463	0.0050	0.0020	ug/l	0.500		93	55-115	2	30	
Endosulfan I	0.439	0.0050	0.0020	ug/l	0.500		88	55-115	0	30	
Endosulfan II	0.466	0.0050	0.0030	ug/l	0.500		93	55-120	2	30	
Endosulfan sulfate	0.466	0.010	0.0030	ug/l	0.500		93	60-120	2	30	
Endrin	0.471	0.0050	0.0020	ug/l	0.500		94	55-115	2	30	
Endrin aldehyde	0.441	0.010	0.0020	ug/l	0.500		88	50-120	2	30	
Endrin ketone	0.460	0.010	0.0030	ug/l	0.500		92	55-120	2	30	
Heptachlor	0.461	0.010	0.0030	ug/l	0.500		92	45-115	2	30	
Heptachlor epoxide	0.444	0.0050	0.0025	ug/l	0.500		89	55-115	2	30	
Methoxychlor	0.464	0.0050	0.0035	ug/l	0.500		93	60-120	2	30	
Surrogate: Decachlorobiphenyl	0.453			ug/l	0.500		91	45-120			
Surrogate: Tetrachloro-m-xylene	0.430			ug/l	0.500		86	35-115			

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

TOTAL PCBS (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04071 Extracted: 02/04/08	<u>.</u>										
Blank Analyzed: 02/05/2008 (8B04071-B	LK1)										
Aroclor 1016	ND	0.50	0.45	ug/l							
Aroclor 1221	ND	0.50	0.25	ug/l							
Aroclor 1232	ND	0.50	0.25	ug/l							
Aroclor 1242	ND	0.50	0.25	ug/l							
Aroclor 1248	ND	0.50	0.25	ug/l							
Aroclor 1254	ND	0.50	0.25	ug/l							
Aroclor 1260	ND	0.50	0.30	ug/l							
Surrogate: Decachlorobiphenyl	0.484			ug/l	0.500		97	45-120			
LCS Analyzed: 02/05/2008 (8B04071-BS	2)										MNR1
Aroclor 1016	3.71	0.50	0.45	ug/l	4.00		93	50-115			
Aroclor 1260	3.92	0.50	0.30	ug/l	4.00		98	60-120			
Surrogate: Decachlorobiphenyl	0.462			ug/l	0.500		92	45-120			
LCS Dup Analyzed: 02/05/2008 (8B0407	1-BSD2)										
Aroclor 1016	3.60	0.50	0.45	ug/l	4.00		90	50-115	3	30	
Aroclor 1260	3.98	0.50	0.30	ug/l	4.00		100	60-120	2	25	
Surrogate: Decachlorobiphenyl	0.489			ug/l	0.500		98	45-120			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04079 Extracted: 02/04/08				e intes	20101	Ttosurv	, unde				Q
Blank Analyzed: 02/04/2008 (8B04079-B	LK1)										
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Cobalt	ND	10	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
LCS Analyzed: 02/04/2008 (8B04079-BS	1)										
Arsenic	504	10	7.0	ug/l	500		101	85-115			
Barium	0.526	0.010	0.0060	mg/l	0.500		105	85-115			
Beryllium	510	2.0	0.90	ug/l	500		102	85-115			
Boron	0.514	0.050	0.020	mg/l	0.500		103	85-115			
Calcium	2.65	0.10	0.050	mg/l	2.50		106	85-115			
Chromium	517	5.0	2.0	ug/l	500		103	85-115			
Cobalt	502	10	2.0	ug/l	500		100	85-115			
Iron	0.529	0.040	0.015	mg/l	0.500		106	85-115			
Magnesium	2.63	0.020	0.012	mg/l	2.50		105	85-115			
Manganese	514	20	7.0	ug/l	500		103	85-115			
Nickel	513	10	2.0	ug/l	500		103	85-115			
Vanadium	503	10	3.0	ug/l	500		101	85-115			
Zinc	507	20	6.0	ug/l	500		101	85-115			

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04079 Extracted: 02/04/08	_										
Matrix Spike Analyzed: 02/04/2008 (8B0	4079-MS1)				Sou	irce: IRB	0153-01				
Arsenic	496	10	7.0	ug/l	500	ND	99	70-130			
Barium	0.534	0.010	0.0060	mg/l	0.500	0.0216	103	70-130			
Beryllium	503	2.0	0.90	ug/l	500	ND	101	70-130			
Boron	0.503	0.050	0.020	mg/l	0.500	ND	101	70-130			
Calcium	53.7	0.10	0.050	mg/l	2.50	52.8	38	70-130			MHA
Chromium	502	5.0	2.0	ug/l	500	2.15	100	70-130			
Cobalt	482	10	2.0	ug/l	500	ND	96	70-130			
Iron	0.590	0.040	0.015	mg/l	0.500	0.0952	99	70-130			
Magnesium	9.71	0.020	0.012	mg/l	2.50	7.62	84	70-130			
Manganese	490	20	7.0	ug/l	500	ND	98	70-130			
Nickel	495	10	2.0	ug/l	500	ND	99	70-130			
Vanadium	487	10	3.0	ug/l	500	ND	97	70-130			
Zinc	496	20	6.0	ug/l	500	9.15	97	70-130			
Matrix Spike Analyzed: 02/04/2008 (8B0	4079-MS2)				Sou	irce: IRB)155-01				
Arsenic	509	10	7.0	ug/l	500	ND	102	70-130			
Barium	0.528	0.010	0.0060	mg/l	0.500	0.00624	104	70-130			
Beryllium	515	2.0	0.90	ug/l	500	ND	103	70-130			
Boron	0.503	0.050	0.020	mg/l	0.500	ND	101	70-130			
Calcium	8.02	0.10	0.050	mg/l	2.50	5.65	95	70-130			
Chromium	522	5.0	2.0	ug/l	500	ND	104	70-130			
Cobalt	501	10	2.0	ug/l	500	ND	100	70-130			
Iron	0.872	0.040	0.015	mg/l	0.500	0.382	98	70-130			
Magnesium	3.33	0.020	0.012	mg/l	2.50	0.768	102	70-130			
Manganese	515	20	7.0	ug/l	500	ND	103	70-130			
Nickel	515	10	2.0	ug/l	500	ND	103	70-130			
Vanadium	501	10	3.0	ug/l	500	ND	100	70-130			
Zinc	538	20	6.0	ug/l	500	32.2	101	70-130			

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04079 Extracted: 02/04/08	<u>}_</u>										
Matrix Spike Dup Analyzed: 02/04/2008	(8B04070 N	ISD1)			Sou	rce: IRB	153 01				
Arsenic	506	10	7.0	ug/l	500	ND	101	70-130	2	20	
Barium	0.530	0.010	0.0060	mg/l	0.500	0.0216	101	70-130	1	20	
Beryllium	516	2.0	0.90	ug/l	500	0.0210 ND	102	70-130	3	20	
Boron	0.499	0.050	0.020	mg/l	0.500	ND	100	70-130	1	20	
Calcium	53.2	0.10	0.050	mg/l	2.50	52.8	19	70-130	1	20	MHA
Chromium	512	5.0	2.0	ug/l	500	2.15	102	70-130	2	20	
Cobalt	492	10	2.0	ug/l	500	ND	98	70-130	2	20	
Iron	0.596	0.040	0.015	mg/l	0.500	0.0952	100	70-130	1	20	
Magnesium	9.64	0.020	0.012	mg/l	2.50	7.62	81	70-130	1	20	
Manganese	501	20	7.0	ug/l	500	ND	100	70-130	2	20	
Nickel	507	10	2.0	ug/l	500	ND	101	70-130	2	20	
Vanadium	497	10	3.0	ug/l	500	ND	99	70-130	2	20	
Zinc	513	20	6.0	ug/l	500	9.15	101	70-130	3	20	
Batch: 8B04080 Extracted: 02/04/08	<u>}</u>										
Blank Analyzed: 02/04/2008-02/05/2008	(8B04080-BI	L K1)									
Antimony	ND	2.0	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/04/2008-02/05/2008 (8	3B04080-BS1)									
Antimony	84.2	2.0	0.20	ug/l	80.0		105	85-115			
Cadmium	83.7	1.0	0.11	ug/l	80.0		105	85-115			
Copper	83.0	2.0	0.75	ug/l	80.0		104	85-115			
Lead	83.3	1.0	0.30	ug/l	80.0		104	85-115			
Selenium	82.5	2.0	0.30	ug/l	80.0		103	85-115			
Silver	83.1	1.0	0.30	ug/l	80.0		104	85-115			
Thallium	83.4	1.0	0.20	ug/l	80.0		104	85-115			

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
·		Linit	MDL	emis	Lever	nesun	, und e	Linits	IN D	Linnt	Quanners
Batch: 8B04080 Extracted: 02/04/08	-										
Matrix Spike Analyzed: 02/04/2008-02/0	5/2008 (8B04	080-MS1)			Sou	rce: IRB	0150-01				
Antimony	82.0	2.0	0.20	ug/l	80.0	0.423	102	70-130			
Cadmium	80.7	1.0	0.11	ug/l	80.0	0.208	101	70-130			
Copper	78.5	2.0	0.75	ug/l	80.0	1.69	96	70-130			
Lead	76.9	1.0	0.30	ug/l	80.0	0.512	96	70-130			
Selenium	75.1	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	78.5	1.0	0.30	ug/l	80.0	ND	98	70-130			
Thallium	79.0	1.0	0.20	ug/l	80.0	ND	99	70-130			
Matrix Spike Analyzed: 02/04/2008-02/09	5/2008 (8B04	080-MS2)			Sou	rce: IRB)152-01				
Antimony	80.5	2.0	0.20	ug/l	80.0	1.58	99	70-130			
Cadmium	79.1	1.0	0.11	ug/l	80.0	0.164	99	70-130			
Copper	82.5	2.0	0.75	ug/l	80.0	4.75	97	70-130			
Lead	84.1	1.0	0.30	ug/l	80.0	6.01	98	70-130			
Selenium	75.5	2.0	0.30	ug/l	80.0	ND	94	70-130			
Silver	78.1	1.0	0.30	ug/l	80.0	ND	98	70-130			
Thallium	80.7	1.0	0.20	ug/l	80.0	ND	101	70-130			
Matrix Spike Dup Analyzed: 02/04/2008-	-02/05/2008 (8B04080-MS	D1)		Sou	rce: IRB)150-01				
Antimony	83.6	2.0	0.20	ug/l	80.0	0.423	104	70-130	2	20	
Cadmium	81.2	1.0	0.11	ug/l	80.0	0.208	101	70-130	1	20	
Copper	79.1	2.0	0.75	ug/l	80.0	1.69	97	70-130	1	20	
Lead	78.6	1.0	0.30	ug/l	80.0	0.512	98	70-130	2	20	
Selenium	76.6	2.0	0.30	ug/l	80.0	ND	96	70-130	2	20	
Silver	79.3	1.0	0.30	ug/l	80.0	ND	99	70-130	1	20	
Thallium	80.1	1.0	0.20	ug/l	80.0	ND	100	70-130	1	20	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

DISSOLVED METALS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8B04145 Extracted: 02/04/08											
Blank Analyzed: 02/05/2008 (8B04145-BL	K1)										
Arsenic	ND	10	7.0	ug/l							
Barium	ND	0.010	0.0060	mg/l							
Beryllium	ND	2.0	0.90	ug/l							
Boron	ND	0.050	0.020	mg/l							
Calcium	ND	0.10	0.050	mg/l							
Chromium	ND	5.0	2.0	ug/l							
Cobalt	ND	10	2.0	ug/l							
Iron	ND	0.040	0.015	mg/l							
Magnesium	ND	0.020	0.012	mg/l							
Manganese	ND	20	7.0	ug/l							
Nickel	ND	10	2.0	ug/l							
Hardness (as CaCO3)	ND	1.0	1.0	mg/l							
Vanadium	ND	10	3.0	ug/l							
Zinc	ND	20	6.0	ug/l							
LCS Analyzed: 02/05/2008 (8B04145-BS1))										
Arsenic	1000	10	7.0	ug/l	1000		100	85-115			
Barium	0.971	0.010	0.0060	mg/l	1.00		97	85-115			
Beryllium	981	2.0	0.90	ug/l	1000		98	85-115			
Boron	0.966	0.050	0.020	mg/l	1.00		97	85-115			
Calcium	1.09	0.10	0.050	mg/l	1.00		109	85-115			
Chromium	995	5.0	2.0	ug/l	1000		100	85-115			
Cobalt	997	10	2.0	ug/l	1000		100	85-115			
Iron	0.995	0.040	0.015	mg/l	1.00		99	85-115			
Magnesium	1.04	0.020	0.012	mg/l	1.00		104	85-115			
Manganese	1020	20	7.0	ug/l	1000		102	85-115			
Nickel	1020	10	2.0	ug/l	1000		102	85-115			
Vanadium	960	10	3.0	ug/l	1000		96	85-115			
Zinc	1040	20	6.0	ug/l	1000		104	85-115			

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04145 Extracted: 02/04/08											
	-										
Matrix Spike Analyzed: 02/05/2008 (8B0	4145-MS1)				Sou	rce: IRB	0146-01				
Arsenic	1020	10	7.0	ug/l	1000	ND	102	70-130			
Barium	0.999	0.010	0.0060	mg/l	1.00	0.0294	97	70-130			
Beryllium	997	2.0	0.90	ug/l	1000	ND	100	70-130			
Boron	1.02	0.050	0.020	mg/l	1.00	0.0451	97	70-130			
Calcium	28.3	0.10	0.050	mg/l	1.00	28.0	23	70-130			MHA
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130			
Cobalt	1000	10	2.0	ug/l	1000	ND	100	70-130			
Iron	1.62	0.040	0.015	mg/l	1.00	0.635	99	70-130			
Magnesium	9.21	0.020	0.012	mg/l	1.00	8.60	61	70-130			MHA
Manganese	1030	20	7.0	ug/l	1000	15.7	102	70-130			
Nickel	1020	10	2.0	ug/l	1000	ND	102	70-130			
Vanadium	982	10	3.0	ug/l	1000	ND	98	70-130			
Zinc	1040	20	6.0	ug/l	1000	ND	104	70-130			
Matrix Spike Dup Analyzed: 02/05/2008	(8B04145-M	SD1)			Sou	rce: IRB	0146-01				
Arsenic	1020	10	7.0	ug/l	1000	ND	102	70-130	0	20	
Barium	1.02	0.010	0.0060	mg/l	1.00	0.0294	99	70-130	2	20	
Beryllium	996	2.0	0.90	ug/l	1000	ND	100	70-130	0	20	
Boron	1.05	0.050	0.020	mg/l	1.00	0.0451	100	70-130	3	20	
Calcium	28.1	0.10	0.050	mg/l	1.00	28.0	6	70-130	1	20	MHA
Chromium	1010	5.0	2.0	ug/l	1000	ND	101	70-130	1	20	
Cobalt	1010	10	2.0	ug/l	1000	ND	101	70-130	1	20	
Iron	1.64	0.040	0.015	mg/l	1.00	0.635	101	70-130	1	20	
Magnesium	9.33	0.020	0.012	mg/l	1.00	8.60	72	70-130	1	20	MHA
Manganese	1050	20	7.0	ug/l	1000	15.7	104	70-130	2	20	
Nickel	1030	10	2.0	ug/l	1000	ND	103	70-130	1	20	
Vanadium	1010	10	3.0	ug/l	1000	ND	101	70-130	3	20	
Zinc	1100	20	6.0	ug/l	1000	ND	110	70-130	5	20	

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
·		Limit	MDL	Units	Level	Kesuit	/OKEC	Linnts	KI D	Linnt	Quanners
Batch: 8B05112 Extracted: 02/05/08	_										
Blank Analyzed: 02/05/2008 (8B05112-B	I V 1)										
•	ND	2.0	0.20								
Antimony Cadmium	ND	2.0	0.20	ug/l ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.75	ug/l							
Selenium	ND	2.0	0.30	ug/l							
Silver	ND	1.0	0.30	ug/l							
Thallium	ND	1.0	0.20	ug/l							
mannum	ND	1.0	0.20	ug/1							
LCS Analyzed: 02/05/2008 (8B05112-BS	1)										
Antimony	80.4	2.0	0.20	ug/l	80.0		100	85-115			
Cadmium	80.6	1.0	0.11	ug/l	80.0		101	85-115			
Copper	83.3	2.0	0.75	ug/l	80.0		104	85-115			
Lead	83.7	1.0	0.30	ug/l	80.0		105	85-115			
Selenium	82.1	2.0	0.30	ug/l	80.0		103	85-115			
Silver	82.0	1.0	0.30	ug/l	80.0		102	85-115			
Thallium	82.4	1.0	0.20	ug/l	80.0		103	85-115			
Matrix Spike Analyzed: 02/05/2008 (8B0	5112-MS1)				Sou	rce: IRB	0146-01				
Antimony	79.9	2.0	0.20	ug/l	80.0	0.473	99	70-130			
Cadmium	78.6	1.0	0.11	ug/l	80.0	0.130	98	70-130			
Copper	80.8	2.0	0.75	ug/l	80.0	2.50	98	70-130			
Lead	77.8	1.0	0.30	ug/l	80.0	0.385	97	70-130			
Selenium	78.1	2.0	0.30	ug/l	80.0	ND	98	70-130			
Silver	79.1	1.0	0.30	ug/l	80.0	ND	99	70-130			
Thallium	80.0	1.0	0.20	ug/l	80.0	ND	100	70-130			
Matrix Spike Dup Analyzed: 02/05/2008	(8B05112-M	ISD1)			Sou	rce: IRB	0146-01				
Antimony	81.9	2.0	0.20	ug/l	80.0	0.473	102	70-130	3	20	
Cadmium	80.3	1.0	0.11	ug/l	80.0	0.130	100	70-130	2	20	
Copper	82.1	2.0	0.75	ug/l	80.0	2.50	100	70-130	2	20	
Lead	78.4	1.0	0.30	ug/l	80.0	0.385	98	70-130	1	20	
Selenium	79.0	2.0	0.30	ug/l	80.0	ND	99	70-130	1	20	
Silver	80.7	1.0	0.30	ug/l	80.0	ND	101	70-130	2	20	
Thallium	80.9	1.0	0.20	ug/l	80.0	ND	101	70-130	1	20	

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source	%REC	%REC	RPD	RPD Limit	Data Qualifiers
		Linnt	MDL	Units	Level	Kesuit	/orec	Linnts	KI D	Linnt	Quanners
Batch: 8B04043 Extracted: 02/04/08	-										
Blank Analyzed: 02/04/2008 (8B04043-B	LK1)										
Chloride	ND	0.50	0.25	mg/l							
Fluoride	ND	0.50	0.15	mg/l							
Nitrate-N	ND	0.11	0.060	mg/l							
Nitrite-N	ND	0.15	0.090	mg/l							
Nitrate/Nitrite-N	ND	0.26	0.15	mg/l							
Sulfate	ND	0.50	0.20	mg/l							
LCS Analyzed: 02/04/2008 (8B04043-BS	1)										
Chloride	5.33	0.50	0.25	mg/l	5.00		107	90-110			
Fluoride	5.14	0.50	0.15	mg/l	5.00		103	90-110			
Nitrate-N	1.19	0.11	0.060	mg/l	1.13		106	90-110			
Nitrite-N	1.65	0.15	0.090	mg/l	1.52		109	90-110			
Sulfate	10.6	0.50	0.20	mg/l	10.0		106	90-110			M-3
Matrix Spike Analyzed: 02/04/2008 (8B0	4043-MS1)				Sou	irce: IRB	0146-01				
Chloride	27.0	0.50	0.25	mg/l	5.00	21.6	109	80-120			
Fluoride	5.30	0.50	0.15	mg/l	5.00	0.288	100	80-120			
Nitrate-N	3.59	0.11	0.060	mg/l	1.13	2.36	109	80-120			
Nitrite-N	1.77	0.15	0.090	mg/l	1.52	ND	116	80-120			
Matrix Spike Analyzed: 02/04/2008 (8B0	4043-MS2)				Sou	irce: IRB	0156-01				
Chloride	27.7	0.50	0.25	mg/l	5.00	22.9	96	80-120			
Fluoride	5.01	0.50	0.15	mg/l	5.00	0.306	94	80-120			
Nitrate-N	2.90	0.11	0.060	mg/l	1.13	1.73	103	80-120			
Nitrite-N	1.59	0.15	0.090	mg/l	1.52	ND	105	80-120			
Matrix Spike Dup Analyzed: 02/04/2008	(8B04043-M	ISD1)			Sou	irce: IRB	0146-01				
Chloride	27.2	0.50	0.25	mg/l	5.00	21.6	112	80-120	1	20	
Fluoride	5.46	0.50	0.15	mg/l	5.00	0.288	103	80-120	3	20	
Nitrate-N	3.64	0.11	0.060	mg/l	1.13	2.36	113	80-120	1	20	
Nitrite-N	1.81	0.15	0.090	mg/l	1.52	ND	119	80-120	2	20	

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04054 Extracted: 02/04/08	<u>.</u>										
Blank Analyzed: 02/04/2008 (8B04054-B	LK1)										
Chromium VI	ND	1.0	0.20	ug/l							
LCS Analyzed: 02/04/2008 (8B04054-BS	1)										
Chromium VI	50.1	1.0	0.20	ug/l	50.0		100	90-110			
Matrix Spike Analyzed: 02/04/2008 (8B0	4054-MS1)				Sou	rce: IRB	0156-01				
Chromium VI	46.5	1.0	0.20	ug/l	50.0	ND	93	90-110			
Matrix Spike Analyzed: 02/04/2008 (8B0	4054-MS2)				Sou	rce: IRB	0201-01				
Chromium VI	41.8	1.0	0.20	ug/l	50.0	ND	84	90-110			M2
Matrix Spike Dup Analyzed: 02/04/2008	(8B04054-M	SD1)			Sou	rce: IRB	0156-01				
Chromium VI	48.5	1.0	0.20	ug/l	50.0	ND	97	90-110	4	10	
Batch: 8B04061 Extracted: 02/04/08	_										
Blank Analyzed: 02/04/2008 (8B04061-B	LK1)										
Hexane Extractable Material (Oil & Grease)	1.40	5.0	1.4	mg/l							J
LCS Analyzed: 02/04/2008 (8B04061-BS	1)										MNR1
Hexane Extractable Material (Oil & Grease)	19.5	5.0	1.4	mg/l	20.2		97	78-114			
LCS Dup Analyzed: 02/04/2008 (8B0406	1-BSD1)										
Hexane Extractable Material (Oil & Grease)	18.2	5.0	1.4	mg/l	20.2		90	78-114	7	11	
Batch: 8B04064 Extracted: 02/04/08	<u> </u>										
Blank Analyzed: 02/05/2008 (8B04064-B	LK1)										
Perchlorate	ND	1.0	0.65	ug/l							

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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04064 Extracted: 02/04/08	_										
LCS Analyzed: 02/05/2008 (8B04064-BS) Perchlorate	l) 49.5	1.0	0.65	ug/l	50.0		99	85-115			
Matrix Spike Analyzed: 02/05/2008 (8B0	4064-MS1)				Sou	rce: IRA	2656-01				
Perchlorate	48.0	1.0	0.65	ug/l	50.0	1.16	94	80-120			
Matrix Spike Dup Analyzed: 02/05/2008	(8B04064-M	SD1)			Sou	rce: IRA	2656-01				
Perchlorate	47.5	1.0	0.65	ug/l	50.0	1.16	93	80-120	1	20	
Batch: 8B04067 Extracted: 02/04/08	_										
Blank Analyzed: 02/04/2008 (8B04067-B) Turbidity	L K1) 0.120	1.0	0.040	NTU							J
Duplicate Analyzed: 02/04/2008 (8B0406	7-DUP1)				Sou	rce: IRB	0158-01				
Turbidity	3.31	1.0	0.040	NTU		3.24			2	20	
Batch: 8B04070 Extracted: 02/04/08	_										
Blank Analyzed: 02/09/2008 (8B04070-B	LK1)										
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 02/09/2008 (8B04070-BS) Biochemical Oxygen Demand	1) 218	100	30	mg/l	198		110	85-115			
LCS Dup Analyzed: 02/09/2008 (8B0407) Biochemical Oxygen Demand	D-BSD1) 218	100	30	mg/l	198		110	85-115	0	20	

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Report Number: IRB0146

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04074 Extracted: 02/04/08	_										
Duplicate Analyzed: 02/04/2008 (8B0407	4-DUP1)				Sou	rce: IRB	0146-01				
Residual Chlorine	0.170	0.10	0.10	mg/l		0.170			0	20	
Batch: 8B04097 Extracted: 02/04/08	<u>'</u>										
Blank Analyzed: 02/04/2008 (8B04097-B	LK1)										
Surfactants (MBAS)	ND	0.10	0.044	mg/l							
LCS Analyzed: 02/04/2008 (8B04097-BS	1)										
Surfactants (MBAS)	0.252	0.10	0.044	mg/l	0.250		101	90-110			
Matrix Spike Analyzed: 02/04/2008 (8B0	4097-MS1)				Sou	rce: IRB	0156-01				
Surfactants (MBAS)	0.268	0.10	0.044	mg/l	0.250	ND	107	50-125			
Matrix Spike Dup Analyzed: 02/04/2008	(8B04097-MS	D1)			Sou	rce: IRB	0156-01				
Surfactants (MBAS)	0.265	0.10	0.044	mg/l	0.250	ND	106	50-125	1	20	
Batch: 8B04112 Extracted: 02/04/08											
Blank Analyzed: 02/04/2008 (8B04112-B	LK1)										
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 02/04/2008 (8B04112-BS	1)										
Total Cyanide	184	5.0	2.2	ug/l	200		92	90-110			
Matrix Spike Analyzed: 02/04/2008 (8B0	4112-MS1)				Sou	rce: IRA	3072-06				
Total Cyanide	189	5.0	2.2	ug/l	200	ND	94	70-115			

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04112 Extracted: 02/04/08	_										
Matrix Spike Dup Analyzed: 02/04/2008	(8B04112-MSI	D1)			Sou	rce: IRA	3072-06				
Total Cyanide	189	5.0	2.2	ug/l	200	ND	95	70-115	0	15	
Batch: 8B04128 Extracted: 02/04/08	-										
Blank Analyzed: 02/04/2008 (8B04128-B	LK1)										
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 02/04/2008 (8B04128-BS)	1)										
Total Suspended Solids	971	10	10	mg/l	1000		97	85-115			
Duplicate Analyzed: 02/04/2008 (8B0412	8-DUP1)				Sou	rce: IRB	0070-02				
Total Suspended Solids	ND	10	10	mg/l		ND				10	
Batch: 8B07098 Extracted: 02/07/08	-										
Blank Analyzed: 02/08/2008 (8B07098-B	LK1)										
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 02/08/2008 (8B07098-BS)	1)										
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0		104	80-115			
Matrix Spike Analyzed: 02/08/2008 (8B0	7098-MS1)				Sou	rce: IRB	0146-01				
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0	ND	101	70-120			
Matrix Spike Dup Analyzed: 02/08/2008	(8B07098-MSI	D1)			Sou	rce: IRB	0146-01				
Ammonia-N (Distilled)	9.80	0.50	0.30	mg/l	10.0	ND	98	70-120	3	15	

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MWH-Pasadena/Boeing

Attention: Bronwyn Kelly

Arcadia, CA 91007

618 Michillinda Avenue, Suite 200

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

Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B07122 Extracted: 02/07/08	<u>}</u>										
Blank Analyzed: 02/07/2008 (8B07122-B	LK1)										
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 02/07/2008 (8B07122-BS	1)										
Total Dissolved Solids	990	10	10	mg/l	1000		99	90-110			
Duplicate Analyzed: 02/07/2008 (8B0712	2-DUP1)				Sou	rce: IRB	0146-01				
Total Dissolved Solids	296	10	10	mg/l		292			1	10	
Batch: 8B08056 Extracted: 02/07/08	<u>}_</u>										
LCS Analyzed: 02/07/2008 (8B08056-BS	1)										
Specific Conductance	550	1.0	1.0	umhos/cm	530		104	90-110			
Duplicate Analyzed: 02/07/2008 (8B0805	6-DUP1)				Sou	rce: IRB	0076-01				
Specific Conductance	1140	1.0	1.0	umhos/cm		1140			0	5	
Batch: 8B13078 Extracted: 02/13/08	<u>}</u>										
Blank Analyzed: 02/13/2008 (8B13078-B	LK1)										
Total Organic Carbon	ND	1.0	0.50	mg/l							
LCS Analyzed: 02/13/2008 (8B13078-BS	1)										
Total Organic Carbon	9.74	1.0	0.50	mg/l	10.0		97	90-110			
Matrix Spike Analyzed: 02/13/2008 (8B1	3078-MS1)				Sou	rce: IRB	0138-02				
Total Organic Carbon	11.8	1.0	0.50	mg/l	5.00	7.04	96	80-120			

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12.4

1.0

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107

7.04

80-120

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

Total Organic Carbon

Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

20

5

METHOD BLANK/QC DATA

INORGANICS

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 8B13078 Extracted: 02/13/08	-										
Matrix Spike Dup Analyzed: 02/13/2008	(8B13078-M	SD1)			Sou	rce: IRB	0138-02				

mg/l

5.00

0.50

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: W8B0171 Extracted: 02/06/0	8										
Blank Analyzed: 02/07/2008 (W8B0171-	,										
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 02/07/2008 (W8B0171-B	S1)										
Mercury, Dissolved	1.04	0.20	0.050	ug/l	1.00		104	85-115			
Mercury, Total	1.04	0.20	0.050	ug/l	1.00		104	85-115			
Matrix Spike Analyzed: 02/07/2008 (W8	B0171-MS1)				Sou	rce: 8020	543-01				
Mercury, Dissolved	1.02	0.20	0.050	ug/l	1.00	ND	102	70-130			
Mercury, Total	1.02	0.20	0.050	ug/l	1.00	ND	102	70-130			
Matrix Spike Analyzed: 02/07/2008 (W8	B0171-MS2)				Sou	rce: 8020	544-01				
Mercury, Dissolved	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130			
Mercury, Total	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130			
Matrix Spike Dup Analyzed: 02/07/2008	(W8B0171-M	SD1)			Sou	rce: 8020	543-01				
Mercury, Dissolved	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130	2	20	
Mercury, Total	1.04	0.20	0.050	ug/l	1.00	ND	104	70-130	2	20	
Matrix Spike Dup Analyzed: 02/07/2008	(W8B0171-M	SD2)			Sou	rce: 8020	544-01				
Mercury, Dissolved	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130	0	20	
Mercury, Total	1.05	0.20	0.050	ug/l	1.00	ND	105	70-130	0	20	

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

Compliance Check

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

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
IRB0146-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.48	4.8	10
IRB0146-01	608-Pesticides (LowRL)	alpha-BHC	ug/l	0.0020	0.0047	0.01
IRB0146-01	624-Boeing 001/002 Q (Fr113+X)	, L1,1-Dichloroethene	ug/l	0	0.50	3.2
IRB0146-01	624-Boeing 001/002 Q (Fr113+X)	, LTrichloroethene	ug/l	0	0.50	5
IRB0146-01	625+NDMA, LL	2,4,6-Trichlorophenol	ug/l	0	0.94	6.5
IRB0146-01	625+NDMA, LL	2,4-Dinitrotoluene	ug/l	0	4.7	9.1
IRB0146-01	625+NDMA, LL	Bis(2-ethylhexyl)phthalate	ug/l	1.74	4.7	4
IRB0146-01	625+NDMA, LL	N-Nitrosodimethylamine	ug/l	0	1.9	8.1
IRB0146-01	625+NDMA, LL	Pentachlorophenol	ug/l	0	1.9	8.2
IRB0146-01	Ammonia-N, Titr (350.2) w/dist	Ammonia-N (Distilled)	mg/l	0	0.50	2
IRB0146-01	Antimony-200.8	Antimony	ug/l	0.43	2.0	6
IRB0146-01	Arsenic-200.7	Arsenic	ug/l	5.16	10	10
IRB0146-01	Barium-200.7	Barium	mg/l	0.13	0.010	1
IRB0146-01	Beryllium-200.7	Beryllium	ug/l	0.68	2.0	4
IRB0146-01	BOD	Biochemical Oxygen Demand	mg/l	1.34	2.0	20
IRB0146-01	Cadmium-200.8	Cadmium	ug/l	0.16	1.0	2
IRB0146-01	Chloride - 300.0	Chloride	mg/l	22	0.50	150
IRB0146-01	Chlorine, Residual	Residual Chlorine	mg/l	0.17	0.10	0.1
IRB0146-01	Chromium VI-218.6	Chromium VI	ug/l	0	1.0	8.1
IRB0146-01	Chromium-200.7	Chromium	ug/l	19	5.0	8.1
IRB0146-01	Copper-200.8	Copper	ug/l	9.45	2.0	7.1
IRB0146-01	Cyanide-335.2 5ppb	Total Cyanide	ug/l	-1	5.0	5
IRB0146-01	Fluoride-300.0	Fluoride	mg/l	0.29	0.50	1.6
IRB0146-01	Hg_w 245.1	Mercury, Total	ug/l	0.044	0.20	0.2
IRB0146-01	Iron-200.7	Iron	mg/l	17	0.040	0.3
IRB0146-01	Lead-200.8	Lead	ug/l	6.35	1.0	2.6
IRB0146-01	Manganese-200.7	Manganese	ug/l	222	20	50
IRB0146-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.10	0.10	0.5
IRB0146-01	Nickel-200.7	Nickel	ug/l	14	10	35
IRB0146-01	Nitrate-N, 300.0	Nitrate-N	mg/l	2.36	0.11	8
IRB0146-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
IRB0146-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	2.36	0.26	8
IRB0146-01	Perchlorate 314.0 (1ppb_IC6)	Perchlorate	ug/l	0	1.0	6
IRB0146-01	Selenium-200.8	Selenium	ug/l	0.51	2.0	4.1
IRB0146-01	Settleable Solids	Total Settleable Solids	ml/l/hr	0.100	0.10	0.1
IRB0146-01	Silver-200.8	Silver	ug/l	0.076	1.0	2
IRB0146-01	Sulfate-300.0	Sulfate	mg/l	50	0.50	300

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MWH-Pasade 618 Michilling Arcadia, CA 9 Attention: Bro	da Avenue, Suite 200 91007	Project ID: Annual Outfall 001 Report Number: IRB0146		1	led: 02/03/08 ved: 02/03/08	
IRB0146-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	292	10	950
IRB0146-01	Thallium-200.8	Thallium	ug/l	0.27	1.0	2
IRB0146-01	TSS - EPA 160.2	Total Suspended Solids	mg/l	123	10	15
IRB0146-01	Zinc-200.7	Zinc	ug/l	47	20	54

Compliance Check

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

						Compliance
LabNumber	Analysis	Analyte	Units	Result	MRL	Limit
IRB0146-02	624-Boeing 001/002	Q (Fr113+X), L1,1-Dichloroethene	ug/l	0	0.50	3.2
IRB0146-02	624-Boeing 001/002	Q (Fr113+X), LTrichloroethene	ug/l	0	0.50	5

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THE LEADER IN ENVIRONMENTAL TESTING

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MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

DATA QUALIFIERS AND DEFINITIONS

B Analyte was detec	cted in the associated Method Blank.
---------------------	--------------------------------------

- **HFT** The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
- J Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- L Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- L1 Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
- L6 Per the EPA methods, benzidine is known to be subject to oxidative losses during solvent concentration.
- M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
- **M-3** Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
- **MHA** Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- MNR1 There was no MS/MSD analyzed with this batch due to insufficient sample volume. See Blank Spike/Blank Spike Duplicate.
- **R-2** The RPD exceeded the acceptance limit.
- **ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- **RPD** Relative Percent Difference

ADDITIONAL COMMENTS

For TICs:

All identifications are tentative and concentrations are estimates based upon spectral comparison to the EPA/NIH library.

For 1,2-Diphenylhydrazine:

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

For GRO (C4-C12):

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

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

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



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Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 120.1	Water	Х	Х
EPA 160.2	Water	Х	Х
EPA 160.5	Water	Х	Х
EPA 1664A	Water		
EPA 180.1	Water	Х	Х
EPA 200.7-Diss	Water	Х	Х
EPA 200.7	Water	Х	Х
EPA 200.8-Diss	Water	Х	Х
EPA 200.8	Water	Х	Х
EPA 218.6	Water	Х	Х
EPA 300.0	Water	Х	Х
EPA 314.0	Water	Х	Х
EPA 330.5	Water	Х	Х
EPA 335.2	Water	Х	Х
EPA 350.2	Water		Х
EPA 405.1	Water	Х	Х
EPA 415.1	Water	Х	Х
EPA 608	Water	Х	Х
EPA 624 (MOD.)	Water		Х
EPA 624	Water	Х	Х
EPA 625	Water	Х	Х
EPA 8015 Mod.	Water	Х	Х
EPA 8015B	Water	Х	Х
EPA 8260B-SIM	Water		
Filtration	Water	N/A	N/A
SM2340B	Water	Х	Х
SM2540C	Water	Х	
SM5540-C	Water	Х	Х

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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB California Cert #1775

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chrnic Samples: IRB0146-01

Analysis Performed: Bioassay-Acute 96hr Samples: IRB0146-01

TestAmerica Irvine

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THE LEADER IN ENVIRONMENTAL TESTING

MWH-Pasadena/Boeing 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Attention: Bronwyn Kelly Project ID: Annual Outfall 001

Report Number: IRB0146

Sampled: 02/03/08 Received: 02/03/08

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

Eberline Services

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec Samples: IRB0146-01

- Analysis Performed: Gross Alpha Samples: IRB0146-01
- Analysis Performed: Gross Beta Samples: IRB0146-01
- Analysis Performed: Radium, Combined Samples: IRB0146-01
- Analysis Performed: Strontium 90 Samples: IRB0146-01
- Analysis Performed: Tritium Samples: IRB0146-01
- Analysis Performed: Uranium, Combined Samples: IRB0146-01

Truesdail Laboratories-SUB California Cert #1237

14201 Franklin Avenue - Tustin, CA 92680

Analysis Performed: Hydrazine Samples: IRB0146-01

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

1104 Windfield Way - El Dorado Hills, CA 95762

Analysis Performed: 1613-Dioxin-HR-Alta Samples: IRB0146-01

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745 Method Performed: EPA 245.1 Samples: IRB0146-01

TestAmerica Irvine

Client Name/Address:)e/Addr∈	Client Name/Address:		Project:							Ą	VAL Y	SIS R	ANAL YSIS REQUIRED	RED		
MWH-Arcadia	cadia			Boeing-SSFL NPDES	L NPDES										-		
618 Michillinda Avenue, Suite 200 Arcadia, CA 91007	nda Aven v 91007	ue, Suite 2	00	Annual Outfall 001	fall 001		.nM .92					·		ticides	əuənı	E Field readings:	
Test Americ a Contact: Joseph Doak	a Contact.	Joseph D	oak				,97 . , Ni,			eravo	(9				otont	625) Temp = 48.7	0
Project Manager: Bronwyn Kelly	inager:	Bronwyn	Kelly	Phone Number	ber:		, Ba, t, Cr		cou	recc	2A8I				iniO	OC PH = 7.6	
Sampler: Barros, R.	Bar	2° osa		(ozo)	- PC		יז אפ, כס נסעפו לק, B לס לש לש לש לש לש לש לש לש לש לש לש לש לש	(9.81) IoS 9) əse	letot)	09b (V) str		, Nitri TDS Vitv	E) N-		Time of	11
11145	MARLSCAL,	- 4 -		(626) 568-6515	5		Pb, F	Z) (IV	6) (G	əpiu	actar	siolds		ejuou	S TCF	рч , А	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservative	Bottle #	,85 ,48 ,µO	Cr (TCL	бyа	μns	Perc	μnΤ	nmA	- 5'4'(Comments	
Outfall 001	8	1L Poly	-	02-63-08	HNO ₃	1A	×				 	+				24 TAT	
Outfall 001 Dup	8	1L Poly	-		HNO3	1B	×									24 TAT	
	N	1L Poly	1		ċ	10		×		<u>†</u>					+	24 TAT	
Outfall 001	8	1L Poly	-		None	2	· •	×	 								
Outfall 001	>	1L Amber	7		None	3A, 3B			×					<u> </u>			
Outfall 001	N	1L Amber	2		Ę	4A, 4B			×			+	-		-		
Outfall 001	3	500 ml Poly	+		NaOH	رم. ا				×	+	+			-		-
Outfall 001	N	1L Poly	-		None	9					×			<u> </u>			
Outfall 001	8	500 ml Poly	2		None	7A, 7B				<u> </u>	×						
Outfall 001	M	500 ml Poly	2		None	8A, 8B	1				-	×				24 TAT	
Outfall 001	N	500 ml Poly	-		None	ი	-					×		_		24 TAT	
Outfali 001	×	500 ml Poly	2		None	10A, 10B			<u> </u>		+	+	×				
Outfall 001	8	500 ml Poly	-		H ₂ SO4	11								×			
Outfall 001	×	1L Amber	2	>	None	12A, 12B						-		×			
Outfall 001		1L Amber	2	03-03-08	None	13A, 13B									×		
Relinquished By	By ,	4		Date/Time:		Received By	6		Date	Date/Time;/					-		
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Belinquished By	- Ke			Date/Time:		Received By			Date	Date/Time:			48 Hours	nrs	₽	10 Days	
A A		Z	J	12/18/18	25								72 Hours	urs –		Normal	
Relinquished By	By ^V			Date/Time:		Received By	(Date	Date/Time:			- Samp	le Integr	Sample Integrity: (check)	(1)	

Page 2 of 2				:	Comments						Unfiltered and unpreserved analysis	•							Filter w/in 24hrs of receipt at lab.			ime: (check) 5 Days	10 Days	Normal	Sample Integrity: (check) 7.0/5,0
		Metals: Cu, e, Mn, Sb, Ni, Se, Ag, ardness as	Ba, F Cr,	ار, B, B, I e, Cd, ار, Co, ا	H ,d9 As, B TI, Zn														×			Turn around Time: 24 Hours	48 Hours	72 Hours	Sample Integr Intact
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	menandra mana ana ana ana ana ana ana ana ana a	S			Bottle #	14A, 14B, 14C, 14D, 14E	15A, 15B, 15C	16A, 16B, 16C	17	18	19A 19B	20A, 20B	21A	21B, 21C	22A	22B	23A, 23B	24A, 24B	25	26A, 26B, 26C	27A, 27B, 27C	Received By	Received By		Received By
CHAIN OF		Boeing-SSFL NPDES Annual Outfall 001	umber:	-009 ו ber: ג_6515	Preservative	Ę	None	HCI	НĊІ	None	None None	None	НĊ	нсі	None	None	None	None	None	HCI	None	205		528,	
	Project:	soeing-S Annual (Phone Number	(020) 200-0091 Fax Number: (626) 568-6515	Sampling	02-03-08													20-50-08			Date/Time:	Date/Time:	158 1	Date/Time:
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3a Versiol	ess	nue, Suite t: Joseph	Bronwyr	(1825)	. IO	VOAs	VOAs	VOAs	250 ml Glass	150 ml Poly	2.5 Gal Cube 500 ml Amber	1L Amber	VOAs	VOAs	1L Amber	1L Amber	1L Amber	1 Gal Cube	1L Poly	VOAs	VOAs			3	
meric	me/Addr	rcadia linda Ave A 91007 ca Contac	anager:	AAR	Sample		3	>	3	N	N	×	M	N	w	M	×	8	×	N	N	d By	dBy	6	dĒby
Test America Version 12/20/07	Client Name/Address	MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007 Test America Contact: Joseph Doak	Project Manager: Bronwyn Kelly	Sampler: MARISCAL,	Sample	Outfall 001	Outfall 001	Outfall 001	Outfall 001	Outfall 001	Outfall 001	Outfall 001	Outfall 001	Outfall 001 Dup	Outfall 001	Outfall 001 Dup	Outfall 001	Outfall 001	Outfall 001	Trip Blanks	Trip Blanks	Relinquished By	Relinquished By	K	Relinquished By

LABORATORY REPORT

- February 12, 2008 Date:
- **Client:** TestAmerica – Irvine 17461 Derian Ave., Suite 100 Irvine, CA 92614 Attn: Joseph Doak



"dedicated to providing quality aquatic toxicity testing"

4350 Transport Street, Unit 107 Ventura, CA 93003 (805) 650-0546 FAX (805) 650-0756 CA DOHS ELAP Cert. No.: 1775

- Laboratory No.: A-08020402-001 Sample ID.: IRB0146-01 (Outfall 001)
- **Sample Control:** The sample was received by ATL within the recommended hold time, in a chilled state, and with the chain of custody record attached. Testing was conducted on only one sample per client instruction.

02/03/08
02/04/08
4°C
0.0 mg/l
02/04/08 to 02/11/08

Sample Analysis: The following analyses were performed on your sample:

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

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

Result Summary:

Acute:	Survival	<u>TUa</u>
Fathead Minnow:	100%	0.0
Chronic:	NOEC	TUc
Ceriodaphnia Survival:	100%	1.0
Ceriodaphnia Reproduction:	100%	1.0

Quality Control:

Reviewed and approved by:

Joseph A Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST EPA Method 2000.0



Start Date: 02/04/2008

TEST SUMMARY

TEST DATA

Species: *Pimephales promelas*. Age: <u>14</u> (1-14) days. Regulations: NPDES. Test solution volume: 250 ml. Feeding: prior to renewal at 48 hrs. Number of replicates: 2. Dilution water: Moderately hard reconstituted water. Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture. Test type: Static-Renewal. Test Protocol: EPA-821-R-02-012. Endpoints: Percent Survival at 96 hrs. Test chamber: 600 ml beakers. Temperature: 20 +/- 1°C. Number of fish per chamber: 10. QA/QC Batch No.: RT-080204.

	,	L	LSI DATA	L							
		°C	DO	рН	# D	Dead	Analyst & Time				
			DO	рп	А	В	of Readings				
INITIAL	Control	20-1	8.6	7-8	0	Ø	2				
	100%	19-8	9-6	7.5	U	0	1400				
24 Hr	Control	19.3	7.8	7.5	0	Ó	14a				
24 Hr	100%	19.4	8.0	7.3	0	Ò	1330				
48 Hr	Control	19.5	2.6	7.7		0	n'n				
48 11	100%	19.5	7.1	7.6	_0_	\Box	1400				
Domouvol	Control	20.5	8.8	2.8	\mathcal{O}	0	2				
Renewal	100%	19.6	10.5	7.3	\mathcal{O}	Ó	1400				
72 Hr	Control	19.3	8.0	7.4	0	0	L				
/2111	100%	19.4	7.8	7.2	0	0	1200				
96 Hr	Control	19.5	8.2	7.3	\mathcal{O}	0	L				
90 11	100%	19.7	8.2	7.2	Ō	0	1300				
100% 19.7 8.2 7.2 0 100% Comments: Sample as received: Chlorine: 0.0 mg/l; pH: 7.5 ; Conductivity: 2.61 umho; Temp: 4°C; DO: <u>9.7</u> mg/l; Alkalinity: <u>56</u> mg/l; Hardness: <u>115 mg/l; NH₃-N: <u>0r3 mg/l</u> Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? Yes / No. Control: Alkalinity: <u>64</u> mg/l; Hardness: <u>96</u> mg/l; Conductivity: <u>250</u> umho. Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / No. Sample used for renewal is the original sample kept at 0-6°C with minimal headspace. Dissolved Oxygen (DO) readings in mg/l O₂. </u>											
		F	RESULTS								

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

Aquatic Testing Laboratories



CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

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

CERIODAPHNIA CHRONIC BIOASSAY EPA METHOD 1002.0



Lab No.: A-08020402-001 Client/ID: Test America – IRB0146-01 (Outfall 001) Date Tested: 02/04/08 to 02/11/08

TEST SUMMARY

Test type: Daily static-renewal. Species: *Ceriodaphnia dubia*. Age: < 24 hrs; all released within 8 hrs. Test vessel size: 30 ml. Number of test organisms per vessel: 1. Temperature: 25 +/- 1°C. Dilution water: Mod. hard reconstituted (MHRW). QA/QC Batch No.: RT-080204. Endpoints: Survival and Reproduction. Source: In-laboratory culture. Food: .1 ml YTC, algae per day. Test solution volume: 15 ml. Number of replicates: 10. Photoperiod: 16/8 hrs. light/dark cycle. Test duration: 7 days. Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	24.5
100% Sample	100%	26.7
Sample not statistically	significantly less than Co	ontrol for either endpoint.

CHRONIC TOXICITY

Survival NOEC	100%
Survival TUc	1.0
Reproduction NOEC	100%
Reproduction TUc	1.0

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% survival)
≥15 young per surviving control female	Pass (24.5 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 5.6%)
Statistically significantly different concentrations relative difference > 13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

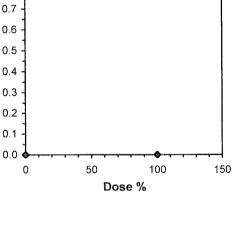
			Cerioda	iphnia Sur	vival and	Reprodu	iction Tes	t-7 Day S	Survival	
0.0	2/4/2008 1 2/11/2008 2/3/2008 1	14:00	Lab ID:	8020402c CAATL-Aq FWCH-EP	juatic Test	ting Labs		/pe:	Outfall 00 EFF2-Indu CD-Ceriod	
Conc-%	1	2	3	4	5	6	7	8	9	10
			1 0000	4 0000	4 0000	4 0000	1 0000	1 0000	1 0000	1 0000

Conc-%	1	2	- 3	4	5	6	1	0	3	10	
 D-Control 100	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000		1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	

<u></u>				Not			Fisher's	1-Tailed	lsot	onic
Conc-%	Mean	N-Mean	Resp	Resp	Total	Ν	Exact P	Critical	Mean	N-Mean
D-Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Test (1-tail, (0.05)	NOEC	LOEC	ChV	TU		
ct Test		100	>100		1		
vs D-Control							
			Line	ar Interpo	lation (200 Resa	mples)	
%	SD	95%	D CL	Skew			
>100							
>100							
>100					1.4) (
>100					0		
>100						4	
>100					0.	3 -	
>100					0.	7	
					9 0.	5 -	
					uo 0.	5 -	
					0.	4 -	
	ct Test vs D-Control >100 >100 >100 >100 >100 >100 >100	% SD >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100	ct Test 100 vs D-Control 100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100 >100	ct Test 100 >100 vs D-Control % SD 95% CL >100 >100 >100 >100 >100 >100 >100 >100 >100	ct Test 100 >100 vs D-Control Linear Interpo % SD 95% CL Skew >100 >100 >100 >100 >100 >100 >100 >100	ct Test 100 >100 1 vs D-Control Linear Interpolation (200 Resa % SD 95% CL Skew >100 >100 1.0 >100 >100 1.0 >100 0.3 >100 0.3 >100 0.3 >100 0.3 >100 0.3	ct Test 100 >100 Linear Interpolation (200 Resamples) % SD 95% CL >100 >100 >100 1.0 >100 0.9 >100 0.9 >100 0.8

0.1



Reviewed by:

			Ceriod	aphnia Su	rvival and	Reprod	uction Tes	st-Reproc	luction		
Start Date:	2/4/2008 1	5:00	Test ID:	8020402c			Sample ID):	Outfall 00	1	
End Date:	2/11/2008	14:00	Lab ID:	CAATL-Aq	uatic Tes	ting Labs	Sample Ty	/pe:	EFF2-Indu	ustrial	
Sample Date:	2/3/2008 1	1:45	Protocol:	FWCH-EP	A-821-R-	02-013	Test Spec	ies:	CD-Cerioo	laphnia dubia	
Comments:											
Conc-%	1	2	3	4	5	6	7	8	9	10	
D-Control	25.000	25.000	22.000	24.000	26.000	26.000	27.000	25.000	24.000	21.000	

27.000

29.000

26.000

28.000

26.000

24.000

27.000

28.000

24.000

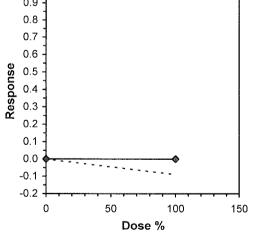
100

28.000

				Transforn	n: Untran	sformed			1-Tailed	Isotonic		
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	Ν	t-Stat	Critical	MSD	Mean	N-Mean
D-Control	24.500	1.0000	24.500	21.000	27.000	7.514	10				25.600	1.0000
100	26.700	1.0898	26.700	24.000	29.000	6.378	10	-2.774	1.734	1.375	25.600	1.0000

Auxiliary Tests	Statistic		Critical		Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.9225		0.905		-0.651	-0.4299
F-Test indicates equal variances (p = 0.82)	1.16858		6.54109			
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences	1.37516	0.05613	24.2	3.14444	0.01251	1, 18
Treatments vs D-Control						

			Lii	near Interpolation	i (200 Resamples)	
Point	%	SD	95% CL	Skew		
IC05	>100					
IC10	>100					
IC15	>100				1.0 	
IC20	>100				0.9	
IC25	>100				4	
IC40	>100				0.8 -	
IC50	>100				0.7 -	
					0.01	



Reviewed by

CERIODAPHNIA DUBIA CHRONIC BIOASSAY EPA METHOD 1002.0 Raw Data Sheet



Start Date: 02/04/2008

Lab No.: A-08020402-001

Client ID: TestAmerica - IRB0146-01 (Outfall 001)

e nome no .	(one ib): Yesti interfed (mebor fo of (Outluif oof)					Stal		Start	tart Date. 02/04/2008		100						
		DA	Y 1		DAY 2		DAY	3	DA	AY 4		DAY 5		DA	AY 6	D	AY 7
		0 hr	24hr	- 0 h	· 24hı	. 01	hr	24hr	0 hr	24hr	0 h	nr 2	24hr	0 hr	24hr	0 hr	24hr
Analyst I	nitials:		m	R	- 2	$\overline{\mathcal{R}}$	~ /	ŝ	R	Bm	R		200	2	6	1_	n
Time of R	eadings:	15ci	11000) fot	U Ilaz	0 /46		100	Ner	1500	150	1001	400	140	1330	1370	Mar
	DO	78	8.3	2.5	284	2	3 8	8.3	8.3	8.4	8	1 7	19	7.8	7.4	7-4	80
Control	pН	7-4	7.7	2.5	- 7.0	7.	/	7.8	7.6	7.5	7.		.3 -	25	7.4	7.5	5
	Temp	249	24.2	24.0	7 24.7	7 25	32	4.9	25.6				22	25.7	24.5	24.9	242
	DO	7.4	8.4	8.	3 8.1	0 10	T	8.7	10.8	8.0	11.	T	.71	10,9	8-6	10.8	80
100%	рН	7-3	7.6	7.5	5 7.7	2.	47	1.6	7.4	7.3	7.	32	./ .	7.4	21	7.4	7.6
	Temp	246	<u>24.3</u>	24.0	0 24.	8 24	4 5	4.9	24.5	25.1	24	. 8 25	5.12	4.5	245	2,5	24.3
	Ad	ditional P	Paramet	ers					Cor	ntrol]	100% San	nple	
		nductivity								01					261	1	
		alinity (m	-							08					56		
	Ha	rdness (m	g/l CaC(O ₃)			┃			6					115	en 1	
	An	imonia (m	g/l NH ₃ ·	-N)						2-1					0.3	5	
Source of Neonates																	
Rep	licate:		A	В		С	D		E	F		G		Н	I		J
Bro	od ID:	3	A	30	<u> </u>	D	<u>3E</u>		3I	41)	40	4	E	ЧG	2	r 17
		Day				Numl	per of Y	loung I	Produced								
Sample	Sample			A E	c C	D	Е	F	G	н	I	J	Total You		No. Live Adults		nalyst nitials
]		0	00	\mathcal{O}	0	C	0	0	Ċ	c	\circ		10		h
		2		0 C		C	O	C	C	\mathcal{C}	C	\sim	\sim		10		n
		3		4 3	32	3	3	3	3	3	3	4	3 (10		2
Control		4		<u> </u>	10	0	Ø	2	7	\mathcal{O}	Ø	0	20	c	10		2
		5	C	26		2	\underline{b}	16		6	2	5	61		10		A
		6		36	$\rangle 0$	14	$\frac{o}{S}$	0	17	\mathcal{O}	\mathcal{O}	0	41		10		
		7 Total	- <u> </u>	<u>5/16</u>			$\frac{1}{2}$	(16)	(15)	16	14	12	8				\sum
-//2		Total					26	26		25	24	21	24		10		
		1			$\frac{0}{0}$	0	<u> </u>	0	0	0		0			10		5
		3		4 6	1 2	2	<u></u> Z	4	5	0	0	2	0	Ent	10		
					ッデ	8	6	5	0	8	$\frac{1}{2}$	6	4-	524	10		$\frac{r}{2}$
100%		5		, T	1	0	Ö	$\overline{\Delta}$	6	0	5		27		10		$\overline{}$
		6	1	76) 0	0	0	0	18	\mathcal{O}	δ	\mathcal{O}	35		10		
		7	- h	3/16	5 15	17	14	16	TISI	112	17	18	13	1-7	10		m
		Total	TE	82		27	24	27	1 al	26	28	26	26		11		7/4
	<u></u>															11	

Circled fourth brood not used in statistical analysis.

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



SUBCONTRACT ORDER

TestAmerica Irvine

IRB0146

SENDING LABORATORY:

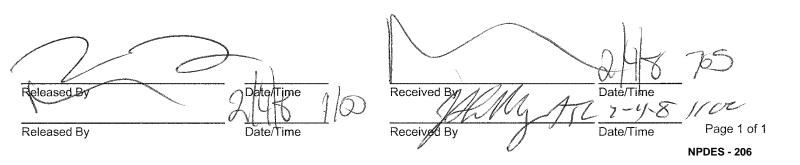
TestAmerica Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Joseph Doak

RECEIVING LABORATORY:

Aquatic Testing Laboratories-SUB 4350 Transport Street, Unit 107 Ventura, CA 93003 Phone :(805) 650-0546 Fax: (805) 650-0756 Project Location: California Receipt Temperature: <u>°</u> C Id

Ice: / Ν Y

Analysis	Units	Jnits Due Expires		n geg by gebier stady er sy part of the stady stady stady of the stady stady stady stady stady stady stady stad	Comments
Sample ID: IRB0146-01	Water		Sampled:	02/03/08 11:45	
Bioassay-7 dy Chrnic	N/A	02/13/08	02/04/08 23:45		Cerio, EPA/821-R02-013, Sub to AqTox
					Labs
Bioassay-Acute 96hr	% Survival	02/13/08	02/04/08 23:45		FH minnow, EPA/821-R02-012, Sub to AqTox Labs
Level 4 Data Package - Ou	t N/A	02/13/08	03/02/08 11:45		ATTOLEDS
Containers Supplied:					
1 gal Poly (AT)	1 gal Poly (AU)				





REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE Method 2000.0 Reference Toxicant - SDS



QA/QC Batch No.: RT-080204

Species: *Pimephales promel*as. Age: <u>4</u> days old. Regulations: NPDES. Test chamber volume: 250 ml. Feeding: Prior to renewal at 48 hrs. Temperature: 20 +/- 1°C. Number of replicates: 2. Dilution water: MHSF.

\TEST SUMMARY

Source: In-lab culture. Test type: Static-Renewal. Test Protocol: EPA-821-R-02-012. Endpoints: LC50 at 96 hrs. Test chamber: 600 ml glass beakers. Aeration: None. Number of organisms per chamber: 10. Photoperiod: 16/8 hrs light/dark.

TEST DATA

		INITIAI	۱			24 Hr				48 Hr			
Date/Time:	2-4	-8	1430	2-5	-5-08 1330 2-6-08 143			\sim					
Analyst:		m			han Ra								
	°C	DO	pН	°C	DO	pН	# E	Dead	°C	DO	рН	# C	Dead
							А	В		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		А	В
Control	19.8	8.4	7-4	19.1	7.9	2.5	ω	0	19,4	7.2	7.6	0	0
1.0 mg/l	19.9	8.4	7.5	19.1	7.8	7.4	2)	U	19,4	69	7.6	0	0
2.0 mg/l	19.9	8.5	7.5	19.0	2.6	2.4	Ő	0	19.4	6.6	7.5	\mathcal{D}	0
4.0 mg/l	200	8.5	7-5	19.0	8.0	2.4	0	1	19.4	6.7	7.5	2	O
8.0 mg/l	20.0	8.6	7-5	19.1	8.0	7.4	10	10	* Waterskylester + +	approxite/dejoots	Belgy paper (e	Mayverst	ineeding data and
	RENEWAL			72 Hr				96 Hr					
Date/Time:	2-6-	05	1430	2-7-0	28		12	los	2-8	-08			1300
Analyst:		Â			la ku			1922					
	°C	DO	pН	°C	DO	pН	# D	ead	°C	DO	pН	# D	ead
							A	В				А	В
Control	20.3	8.9	7.8	19.4	2.5	7.7	\mathcal{O}	_0_	19.2	8.0	7.5	0	ρ
1.0 mg/l	20.3	8.9	7.8	19.3	7.5	7.6	0	0	19.2	8.0	7.5	0	Ō
2.0 mg/l	20.3	8.8	7.8	19.3	7.7	7.5	0	0	19.3	8.1	7.4	0	\mathcal{O}
4.0 mg/l	20.3	8.8	7.8	19.3	7.6	7.5	\mathcal{O}	\mathcal{O}	19.3	8.2	7.4	0	1
8.0 mg/l	Bash-de bay ,	and the former of the former o	-Allowing graphic	Distance of the	Manager	-800abbbergebeld (* 1 %)	Magnet 11	ka _{Makeda}	effelikieskour	Brindhair in .			anger shadoo
Comments:	Comments: Control: Alkalinity: <u>79</u> mg/l; Hardness: <u>96</u> mg/l; Conductivity: <u>789</u> umho. SDS: Alkalinity: <u>69</u> mg/l; Hardness: <u>67</u> mg/l; Conductivity: <u>790</u> umho.												
Concentration-response relationship acceptable? (see attached computer analysis): (Yes (response curve normal) No (dose interrupted indicated or non-normal)													

				Acute Fish Test-96	Hr Survival	
Start Date:	2/4/2008	14:30	Test ID:	RT-080204	Sample ID:	REF-Ref Toxicant
End Date:	2/8/2008	13:00	Lab ID:	CAATL-Aquatic Testing Lab	s Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	2/4/2008		Protocol:	ACUTE-EPA-821-R-02-012	Test Species:	PP-Pimephales promelas
Comments:						
Conc-mg/L	1	2				
D Control	1 0000	1 0000				

	•		
D-Control	1.0000	1.0000	
1	1.0000	1.0000	
2	1.0000	1.0000	
4	0.8000	0.8000	
8	0.0000	0.0000	

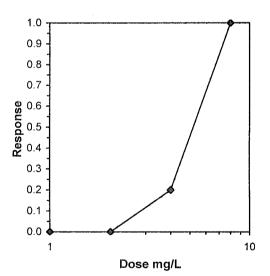
	/449-9-9- 		Tra	ansform:	Arcsin So	uare Roof		Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	0.8000	0.8000	1.1071	1.1071	1.1071	0.000	2	4	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Trimmed Spearman-Karber

Statistic

Auxiliary Tests Normality of the data set cannot be confirmed Equality of variance cannot be confirmed

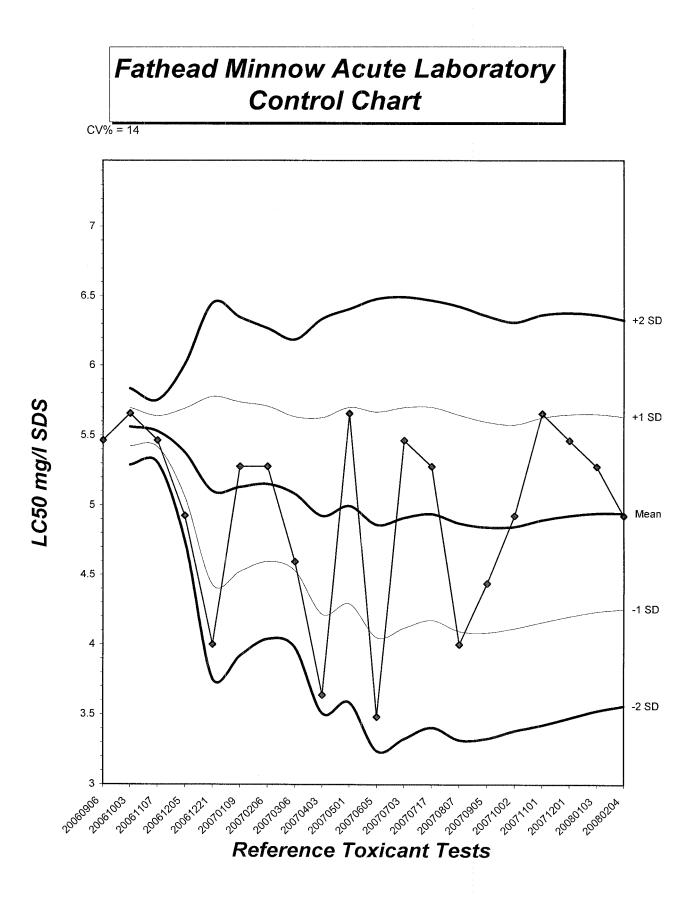
Trim Level	EC50	95%	CL
0.0%	4.9246	4.3503	5.5747
5.0%	5.0215	4.3576	5.7866
10.0%	5.1038	4.2923	6.0686
20.0%	5.1874	4.7084	5.7150
Auto-0.0%	4.9246	4.3503	5.5747



Critical

Skew

Kurt



TEST ORGANISM LOG



FATHEAD MINNOW - LARVAL (Pimephales promelas)

QA/QC BATCH NO.: RT-080204
SOURCE: In-Lab Culture
DATE HATCHED: $01 \cdot 21 \cdot 08$
APPROXIMATE QUANTITY:
GENERAL APPEARANCE:
MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING:
DATE USED IN LAB: $2/4/08$
AVERAGE FISH WEIGHT: gm
TEST LOADING LIMITS: 0.65 gm/liter
200 ml test solution volume = 0.013 gm mean fish weight limit 250 ml test solution volume = 0.016 gm mean fish weight limit
ACCLIMATION WATER QUALITY:
Temp.: <u>198</u> °C pH: <u>79</u> Ammonia: <u>201</u> mg/l NH ₃ -N
DO: <u>7.4</u> mg/l Alkalinity: <u>6.4</u> mg/l Hardness: 9.6 mg/l

READINGS RECORDED BY:

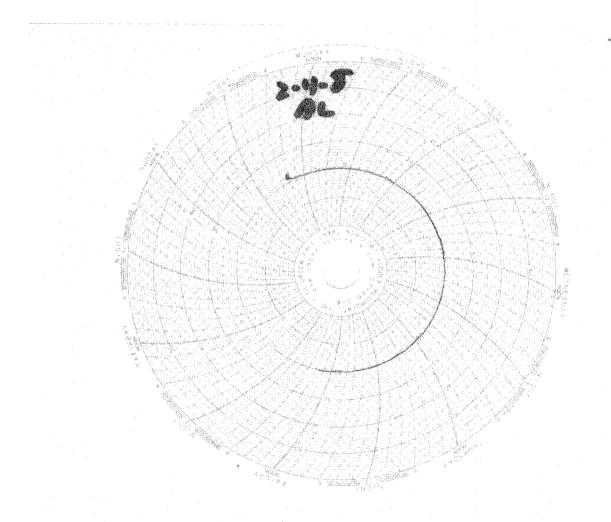
Mathy

DATE: 2-4-8



Laboratory Temperature Chart

QA/QC Batch No: RT-080202 Date Tested: 02/02/08 to 02/06/08 Acceptable Range: 20+/- 1°C





CERIODAPHNIA SURVIVAL AND REPRODUCTION TEST

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

CERIODAPHNIA CHRONIC BIOASSAY EPA METHOD 1002.0 REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-080204

Date Tested: 02/04/08 to 02/11/08

TEST SUMMARY

Test type: Daily static-renewal. Species: *Ceriodaphnia dubia*. Age: <24 hrs; all released within 8 hrs. Test vessel size: 30 ml. Number of test organisms per vessel: 1. Temperature: 25 +/- 1°C. Dilution water: Mod. hard reconstituted (MHRW). Reference Toxicant: Sodium chloride (NaCl). Endpoints: Survival and Reproduction. Source: In-laboratory culture. Food: .1 ml YTC, algae per day. Test solution volume: 20 ml. Number of replicates: 10. Photoperiod: 16/8 hrs. light/dark cycle. Test duration: 7 days. Statistics: ToxCalc computer program.

Sample Concentration	Percent Surv	ival	Mean Number of Young Per Female								
Control	100%		25.3								
0.25 g/l	100%		26.4								
0.5 g/l	100%		26.5								
1.0 g/l	100%		18.5 *								
2.0 g/l	90%		7.2	*							
4.0 g/l	0%	*	0	**							
* Statistically significantly less than control at P = 0.05 level ** Reproduction data from concentrations greater than survival NOEC are excluded from statistical analysis.											

RESULTS SUMMARY

CHRONIC TOXICITY

Survival LC50	2.6 g/1
Reproduction IC25	0.93 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% Survival)
≥15 young per surviving control female	Pass (25.3 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD < 47% for reproduction	Pass (PMSD = 9.9%)
Stat. sig. diff. conc. relative difference > 13%	Pass (Stat. sig. diff. conc. $= 26.9\%$)
Concentration response relationship acceptable	Pass (Response curve normal)

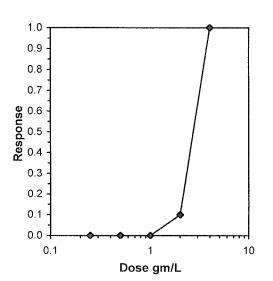
<u></u>			Ceriod	aphnia Sur	vival and	Reprod	uction Tes	t-7 Day S	Survival	
Start Date:	2/4/2008 1	5:00	Test ID:	RT-080204	4c		Sample ID):	REF-Ref 1	oxicant
End Date:	2/11/2008	14:00	Lab ID:	CAATL-Ac	uatic Tes	ting Labs	Sample Ty	/pe:	NACL-Soc	lium chloride
Sample Date:	2/4/2008		Protocol:	Protocol: FWCH-EPA-821-F			Test Spec	ies:	CD-Cerioc	laphnia dubia
Comments:										
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000

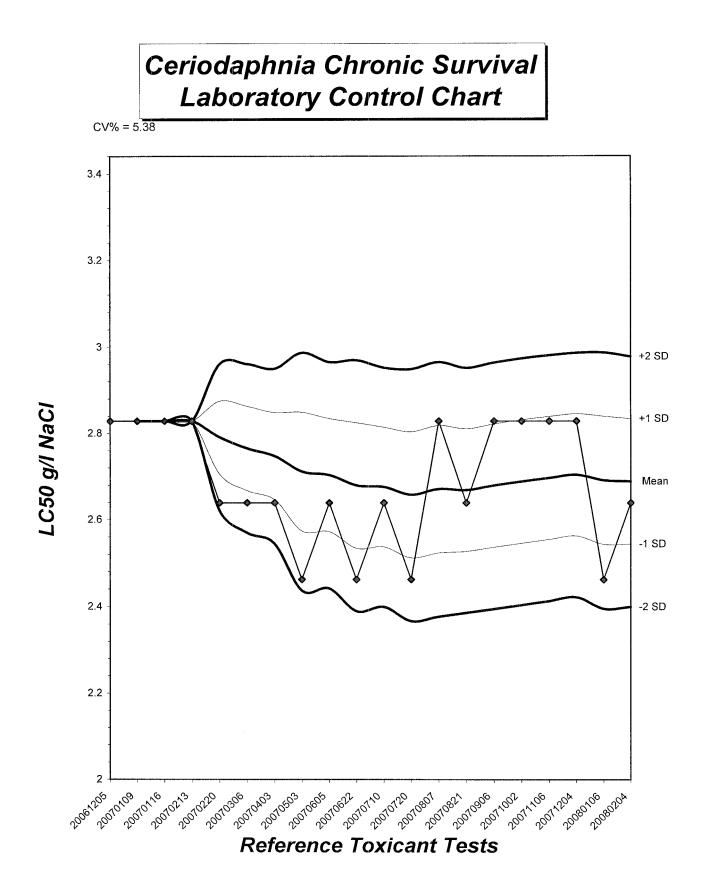
4 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

				Not			Fisher's	1-Tailed	Number	Total
Conc-gm/L	Mean	N-Mean	Resp	Resp	Total	Ν	Exact P	Critical	Resp	Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	0.9000	0.9000	1	9	10	10	0.5000	0.0500	1	10
4	0.0000	0.0000	10	0	10	10			10	10

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	
Fisher's Exact Test	2	4	2.82843		
Treatments vs D-Control					
			Trimmed S	Spearman-Karber	

Trim Level	EC50	95%	CL
0.0%	2.6390	2.3138	3.0099
5.0%	2.6984	2.2899	3.1798
10.0%	2.7216	2.5094	2.9517
20.0%	2.7216	2.5094	2.9517
Auto-0.0%	2.6390	2.3138	3.0099



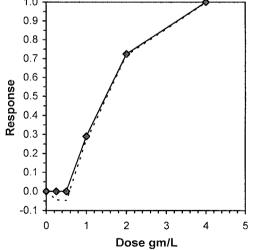


			Ceriod	aphnia Su	rvival and	Reprod	uction Tes	st-Repro	duction	
Start Date:	2/4/2008 1	5:00	Test ID:	RT-08020	4c		Sample ID):	REF-Ref T	oxicant
End Date:	2/11/2008	14:00	Lab ID:	CAATL-Ac	luatic Tes	ting Labs	Sample Ty	/pe:	NACL-Soc	lium chloride
Sample Date:	2/4/2008		Protocol:	FWCH-EF	A-821-R-	02-013	Test Spec	ies:	CD-Cerioc	laphnia dubia
Comments:										
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	24.000	22.000	25.000	29.000	25.000	25.000	24.000	26.000	27.000	26.000
0.25	25.000	26.000	29.000	27.000	26.000	25.000	27.000	27.000	25.000	27.000
0.5	25.000	27.000	26.000	30.000	25.000	27.000	27.000	28.000	26.000	24.000
1	19.000	22.000	24.000	17.000	14.000	18.000	20.000	18.000	16.000	17.000
2	12.000	8.000	4.000	4.000	3.000	2.000	6.000	12.000	11.000	10.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

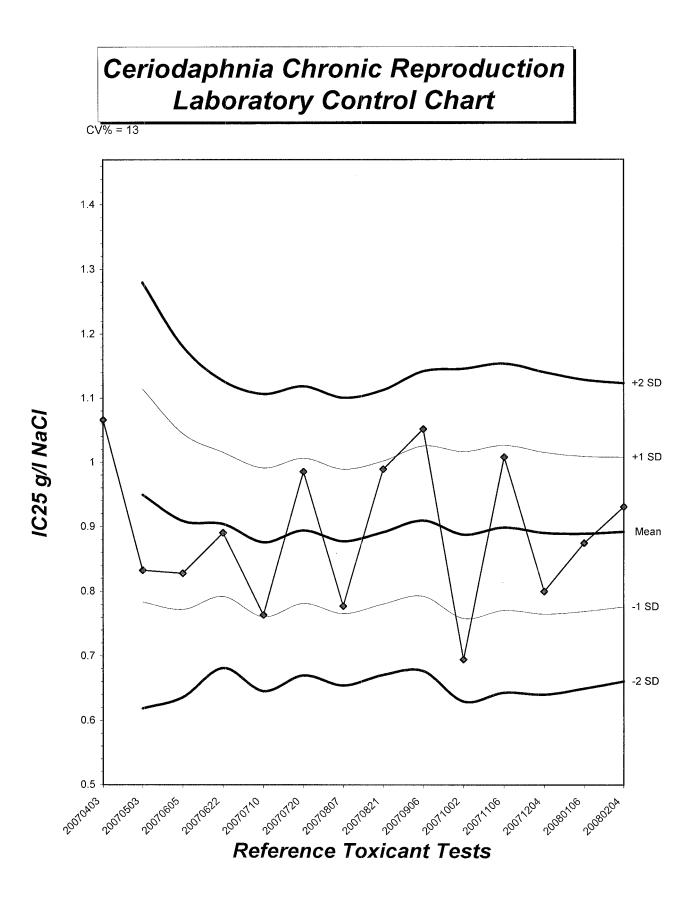
				Transform	n: Untran	sformed	Rank	1-Tailed	Isoto	Isotonic		
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	Ν	Sum	Critical	Mean	N-Mean	
D-Control	25.300	1.0000	25.300	22.000	29.000	7.465	10			26.067	1.0000	
0.25	26.400	1.0435	26.400	25.000	29.000	4.791	10	126.00	76.00	26.067	1.0000	
0.5	26.500	1.0474	26.500	24.000	30.000	6.475	10	124.50	76.00	26.067	1.0000	
*1	18.500	0.7312	18.500	14.000	24.000	15.759	10	57.50	76.00	18.500	0.7097	
*2	7.200	0.2846	7.200	2.000	12.000	53.911	10	55.00	76.00	7.200	0.2762	
4	0.000	0.0000	0.000	0.000	0.000	0.000	10			0.000	0.0000	

Auxiliary Tests					Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates nor	ition (p >	0.05)		0.96604	0.947	0.25066	0.00896	
Bartlett's Test indicates unequal	variances (o = 9.42E	-03)		13.4148	13.2767		
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	<u> </u>			
Steel's Many-One Rank Test	0.5	1	0.70711					
Treatments vs D-Control								

gm/L 0.5861 0.6722	SD 0.0133 0.0221	95% 0.5527	CL 0.6099	Skew			
			0.6099	0 7006	han bahan menungkan menungkan menungkan di kenangkan di Katalan dari kenangkan dari bahar dapat dari bahar dari		
0.6722	0.0221			-0.1030			
	0.0221	0.6345	0.7198	0.3536			
0.7584	0.0319	0.7090	0.8296	0.5420	1.0	»	
0.8445	0.0421	0.7795	0.9395	0.5923	001		
0.9306	0.0516	0.8512	1.0476	0.5147	4		
1.2531	0.0676	1.1276	1.3772	-0.0019	0.8 -		
1.4838	0.0691	1.3665	1.6234	0.2328	0.7 -	p	
					0.6 -		
	0.8445 0.9306 1.2531	0.84450.04210.93060.05161.25310.0676	0.84450.04210.77950.93060.05160.85121.25310.06761.1276	0.84450.04210.77950.93950.93060.05160.85121.04761.25310.06761.12761.3772	0.84450.04210.77950.93950.59230.93060.05160.85121.04760.51471.25310.06761.12761.3772-0.0019	0.8445 0.0421 0.7795 0.9395 0.5923 0.9 0.9306 0.0516 0.8512 1.0476 0.5147 0.9 1.2531 0.0676 1.1276 1.3772 -0.0019 0.8 1.4838 0.0691 1.3665 1.6234 0.2328 0.7	0.8445 0.0421 0.7795 0.9395 0.5923 0.9 0.9306 0.0516 0.8512 1.0476 0.5147 0.8 1.2531 0.0676 1.1276 1.3772 -0.0019 0.8 1.4838 0.0691 1.3665 1.6234 0.2328 0.7



Reviewed by:



NPDES - 218

CERIODAPHNIA DUBIA CHRONIC BIOASSAY Reference Toxicant - NaCl Reproduction and Survival Raw Data Sheet

QA/QC No.: RT-080204

Start Date: 02/04/2008

S I				Nu	mber	r of Y	oung	Prod	uced			Total	No.	Analyst
Sample	Day	Α	В	С	D	E	F	G	н	I	J	Live Young	Live Adults	Initials
	1	0	C	0	0	0	Ó	Ø	O	\mathcal{O}	\mathcal{O}	Ċ	10	2
	2	C	0	C	C	C	\mathcal{C}	C	C	C	c	\mathcal{O}	10	2
	3	ч	3	3	ej	LJ	3	3	LJ	3	3	34	10	n
Control	4	0	7	6	0	\mathcal{O}	O	0	\mathcal{O}	\mathcal{O}	0	13	10	2
Control	5	6	12	\mathcal{O}	10	6	5	\geq	6	9	2	68	10	k
	6	14	0	0	15	0	0	0	16	\mathcal{O}	0	45	10	h
	7	(16)	(S)	16	\mathcal{O}	15	17	14	0	15	16	93	10	M
	Total	24	22	25	29	25	25	24	26	27	26	253	JV.	2
	1	0	Ċ	C	0	\mathcal{O}	0	\mathcal{O}	Ø	C	\mathcal{O}	\mathcal{O}	10	2
	2	0	0	\mathcal{O}	0	C	\mathcal{O}	\mathcal{O}	C	0	\mathcal{O}	C	10	A
	3	3	3	Ч	5	S	Ĵ	3	5	3	3	35	10	K
0.25 g/l	4	0	2	8	\mathcal{O}	0	\mathcal{O}	0	0	\mathcal{O}	0	15	10	~
0.20 g/1	5	6	0	17	ID	8	6	\geq	\geq	8	2	76	10	\square
	6	\mathcal{O}	16	\mathcal{O}	12	15	16	[7	0	0	\mathcal{O}	76	10	M
	7	16	Ð	16	B)	1 è	\mathcal{O}	\mathcal{O}	ß	14	17	62	10	K
<u></u>	Total	25	26	29	27	26	25	27	27	25	27	264	10	
	1	\mathcal{O}	υ	\mathcal{O}	$\cdot \mathcal{O}$	\mathcal{O}	C	C	\mathcal{O}	\mathcal{O}	\mathcal{O}	\mathcal{O}	10	n
	2	0	O	\mathcal{O}	\mathcal{C}	\mathcal{O}	\mathcal{O}	\mathcal{O}	\mathcal{O}	\mathcal{O}	\mathcal{C}	\mathcal{O}	10	A
	3	3	Ц	3	5	3	Ч	4	5	3	ŝ	37	10	n
0.5 g/l	4	0	8	\mathcal{O}	\mathcal{O}	\mathcal{O}	\mathcal{O}	0	\mathcal{O}	Ô	\mathcal{O}	8	10	2
0.5 g/1	5	6	15	2	8	$\overline{2}$	6	2	8	b	\geq	79	10	A
	6	16	0	0	17	0	0	Ò	15	0	Õ	12748	IV	K
	7	3	\overline{n}	16	(12)	15	17	16	B	15	14	93	10	h
	Total	25	27	26	30	25	27	27	28	26	24	265	10	2
Circled fourth 7 th day only us	Circled fourth brood not used in statistical analysis. 7^{th} day only used if <60% of the surviving control females have produced their third brood.													



CERIODAPHNIA DUBIA CHRONIC BIOASSAY Reference Toxicant - NaCl Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-080204

Start Date: 02/04/2008

				Nı	imbe	r of Y	oung l	Produ	ced			Total	No.	Analyst
Sample	Day	Α	В	С	D	E	F	G	н	Ι	J	Live Young	Live Adults	Initials
	1	0	\mathcal{O}	0	0	Ø	0	0	\sim	Ċ	\mathcal{O}	0	10	M
	2	0	0	\mathcal{O}	0	0	C	0	C	0	\mathcal{O}	C	10	Z
	3	2	M	Z	2	Ś	N	M	Μ	Ņ	ž	25	10	2
1.0 (1	4	0	\mathcal{O}	6	\circ	4	5	0	C	0	0	15	10	2
1.0 g/l	5	5	6	16	5	0	0	4	5	Ц	5	50	10	h
	6	12	13	\mathcal{O}	10	0	h	13	10	\mathcal{O}	\mathcal{O}	69	10	1
	7	B	(2)	(10)	Q	8	D	0	0	9	9	26	10	\square
	Total	19	22	24	17	14	18	2D	18	16	17	185	10	2
	1	0	0	0	0	0	0	\mathcal{O}	Ó	C	C	0	10	2
	2	0	0	0	0	c	C	C	C	\mathcal{O}	C	C	10	2
	3	0	2	2	C	0	0	2	3	3	Z	14	10	h
0 0 //	4	3	0	0	2	3	2	0	C.	C	0	10	10	2
2.0 g/l	5	0	3	2	C	C	0	2	ч	3	Ч	18	10	1
	6	5	3	\mathcal{O}	0	X	0	\mathcal{O}	5	\mathcal{O}	0	13	9	V
	7	4	D	0	2	6.tonjonnej	0	2	5	5	Ч	17	9	M
	Total	12	8	4	4	3	2	6	12	}	10	72	9	\mathbb{C}
	1	X	X	X	$\left \right>$	×	\times	\times	\times	\times	X	0	\mathcal{O}	2
	2		w(Zijessand			augasease	يمعدون		gattaire.	genera.	finger ^{alls}			
	3			Quantinope out	allmenter.	Printerio .	dirangaya.au	(Chapterpaire.	gamena.	arr Balling		(*100-Yesting)	and meaning
	4			·	oreanti		64007 marg	,	Phistophysic	the state of the s	sounnis	~ ·	a a supplication of the second se	annan ann an tha ann an ann ann an ann ann ann ann ann
4.0 g/l	5	-	*************	400-000 an.			1000000mm	-paragerina-a	, and all the second	Jacobian (San San San San San San San San San San	eanns	Otoma	guilling graves.	
	6	Cartinity of a many sector		. bran.			pageorie and a second			filing you	anna ann an ann an ann an ann an ann an		h ^{redsk} iter _{ter}	partresigners and
	7	terminey	Quarter a room				or many	Participantes	destandard	rauna		a naga naga naga naga naga naga naga na	ADIC ROWSENDER.	Control of California Party
	Total	\Box	0	\bigcirc	\circ	0	0	0	0	\circ	\bigcirc	\sim	\bigcirc	\langle
	h brood not us sed if <60% c						les hav	e proc	luced 1	heir tl	nird b	rood.		(

CERIODAPHNIA DUBIA CHRONIC BIOASSAY Reference Toxicant - NaCl Water Chemistries Raw Data Sheet

QA/QC No.: RT-080204

Start Date: 02/04/2008

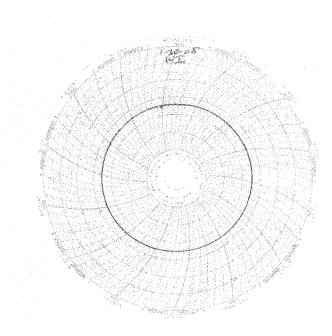
Initial Pand			DA	XY 1	DA	Y 2	DA	XY 3	D	AY 4	DA	AY 5	DA	AY 6	DA	AY 7
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Analyst I	nitials:	F	Rm	R	han	R	h	h	hm	Rom	m	R	2	N	h
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Time of R	eadings:	1400	1600	1600	1600	1600	1600	1600	1520	1500	1400	1900	330	378	1400
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		DO	27	8.3	7.8	8.4	7.3	8.2	8.3	8.0	8.1	8.0	7.8	80	シフ	8.1
DO 7.7 8.3 7.9 8.4 7.3 8.3 8.4 8.1 8.0 7.4 8.0 7.4 8.0 7.5 8.0 7.5 8.7 0.25 g/l PH 7.5 8.0 2.4 2.4 7.4 2.5 2.4 7.7 7.5 7.9 2.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.4 7.4 7.4 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.5 7.4 7.4 7.4 7.4 7.7 7.5<	Control	рН	24	8.0	7.5	2.8	7.7	2.7	2.6	7.7	2.5	7.9	7.5	7.8	7.5	7.9
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		Temp	244	24.5	24.9	24.4	25,2	24.7	25.4	24.4	25.2	25.0	25.3	24.6	250	243
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		DO	7.7	8.3	7.9	8.4	7.3	8.3	8.3	80	8.1	8.0	2.8	80	7.8	8.3
Temp 245 24.5 24.7 25.2 25.0 25.4 24.7 24.2 24.2 0.5 g/l PH 7.7 8.4 7.4 8.3 7.3 8.3 8.1 8.1 8.0 7.8 7.4 28 8.4 0.5 g/l PH 7.6 8.0 7.7 7.8 7.7 7.8 8.0 7.4 8.4 7.4 26 7.4 26 7.4 26 7.4 26 7.4 26 7.4 27 7.4 7.7 7.8 8.1 8.1 8.1 8.1 2.5 7.4 26 7.4 26 24.5 10 g/l PH 7.6 8.1 7.7 2.8 7.7 7.7 2.5 8.0 7.5 7.4 26 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 24.5 <td>0.25 g/l</td> <td>pН</td> <td>7.5</td> <td>8.0</td> <td>2.6</td> <td>28</td> <td>7.7</td> <td>2.8</td> <td>2.10</td> <td></td> <td></td> <td></td> <td>Color</td> <td>2-4</td> <td>25</td> <td></td>	0.25 g/l	pН	7.5	8.0	2.6	28	7.7	2.8	2.10				Color	2-4	25	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Temp	245	24.5	24.9	24.3	25.3	24.7	25.6	,24.4	25.2		25.4	24.7		242
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		DO	72	8.4	7.9	8.3	1.3	8.3	8.3	8.1	8.1	8.0	7.8	7.4	7.8	8.4
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0.5 g/l	pН	2-6	8.0	7.1	7.9	7.7	2.8	2.7	2.7	2.5	8.0	7.5	7.4	2-6	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Temp	246	24.5	24.8	24.3	<u>25.3</u>	24.7	25.7	24.5	25.3	25.0	25.4	246	25.0	
$ \begin{array}{ c c c c c c c } \hline Temp & 24.4 & 2.4 & 2.4 & 2.4 & 2.4 & 2.5 & 2.4 & 2.4 & 2.5 & 2.4 & 2.5 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.4 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 3 & 2.5 & 7 & 2.5 & 7 & 7$		DO	7-8	8.4	2.9	8.5	2.3	82	8.3	8.1	8.1	81	2.8	80	29	8.4
DO 7.8 8.4 2.9 8.2 7.3 8.7 8.7 8.0 8.1 7.8 8.0 2.6 7.5 8.0 8.1 7.8 8.0 2.6 7.5 8.0 8.1 7.8 8.0 2.6 7.5 8.0 8.1 7.8 8.0 8.1 7.8 8.0 8.4 7.5 7.	1.0 g/l	pН	<u> </u>	8.1			· · · · ·	2.8	2.7	2.7	2.5	8.0	7.5	79	7-6	80
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Temp	24.0	<u>24.5</u>	24.7	24.3	25.4	24.8	25.7	245	25.3	25.1	25.5	24.8	251	24)
$\frac{1}{100} \frac{1}{100} \frac{1}$		DO	7-8	8.4	7.9	8.2	2.3	8.2	8.3	8.2	8.0	8.1	7.8	80	2.8	8.4
Image: Angle of the second	2.0 g/l	pH	7.7			7.9	7.7	7.8	7.7	2.2	7.5	8.0	7.5	80	7.5	7.5
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		Temp	24.0	24.5	24.6	24.4	<u>25.6</u>	24.8	<u>25, 5</u>	24.5	25.4	25-1	25.6	24.7	25.1	247
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		DO	79	8.3	- All and a second		1460anu.	Standard Market 197 -	Jackson and	Genterman		and the second	illewood W 1	4m.,	(⁶⁰⁰ 1999)	~
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	4.0 g/l		7.7	and the second se	4anum -	Acquerit P v -	attuelantet.	Manager of Source of Source	ANNO 16.	-	anatoria and	Jinhaláns,	1400000000 · · ·	~	40.000 millionan	
Additional ParametersHigh ConcentrationDay 1Day 3Day 3Day 5Day 1Day 3Day 5 $Day 1$ $Day 1$ $Day 3$ $Day 5$ $Day 1$ $Day 3$ $Day 5$ $Conductivity (\mu S)$ $3 \circ 1$ 290 285 6420 3370 $32/0$ $Alkalinity (mg/1 CaCO_3)$ 68 64 64 69 65 65 Hardness (mg/1 CaCO_3) 98 96 95 349 98 97 Source of NeonatesReplicate:ABCDEFGHIJJJJJJ					-2006 ¹⁰⁻⁷⁻	heating in a		and the second	Sterran .	gradiani	Crangelingers	\$10000 SAV		biagor-		
Additional ParametersDay 1Day 3Day 5Day 1Day 3Day 3Day 5 $Onductivity (\mu S)$ $3 O 1$ $2 9 0$ $2 8 S$ $6 4 2 0$ $3 3 7 0$ $3 2 / 0$ $Alkalinity (mg/l CaCO_3)$ $6 8$ $6 4$ $6 4$ $6 9$ $6 5$ $6 5$ Hardness (mg/l CaCO_4) $9 8$ $9 6$ $9 5$ $9 9$ $9 7$ Source of NeonatesReplicate:ABCDEFGHIJ		Dis			1 (DO) 1	reading	s are in	mg/1 (D_2 ; Tem	perature	(Temp) reading		gs are in	are in °C.		
Conductivity (μS) 301 290 285 6 μ20 3370 3210 Alkalinity (mg/l CaCO ₃) 68 64 64 69 65 65 Hardness (mg/l CaCO ₃) 98 96 95 98 97 Source of Neonates Replicate: A B C D E F G H I J	l l	Additional I	Paramete	ers				Contr	<u>ol</u>				High Co	ncentrat	ion	
Alkalinity (mg/l CaCO ₃) G Replicate: A B C D E F G H I J		<u> </u>							1					Day 3	D	ay 5
Hardness (mg/l CaCO ₃) 98 96 95 99 97 Source of Neonates Replicate: A B C D E F G H I J		Welden and Ballyne and											3	370	32	210
Source of Neonates Replicate: A B C D E F G H I J																
Replicate: A B C D E F G H I J			ig/i CaUL				l		aonatos	7>				8	9	
	Repl	icate:		A	В	С	T			F		- T	Н	т		
					Participant and a second s	I C				TIH				<u> </u>	$\frac{1}{2}$	

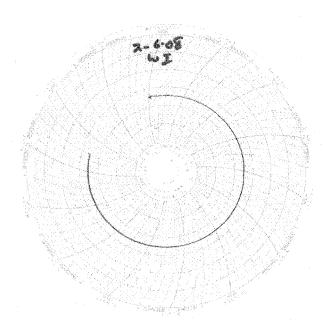




Laboratory Temperature Chart

QA/QC Batch No: RT-080204 Date Tested: 02/04/08 to 02/11/08 Acceptable Range: 25+/- 1°C





TRUESDAIL LABORATORIES, INC. INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES Established 1931 14201 FRANKLIN AVENUE TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 February 19, 2008 www.truesdail.com Client: TestAmerica - Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614 Attention: Joseph Doak **Project Name: IRB0146** Date Received: 2/4/08 Project Number: IRB0146 Truesdail Project: 973193

Samples Cross-reference

<u>Truesdail ID</u>	<u>Client ID</u>	<u>Matrix</u>	Date Sampled	<u>Time Sampled</u>	Analysis Requested
973193-1	IRB0146-01	Water	02/03/08	1145	Hydrazines by EPA 8315M

Respectfully Submitted, TRUESDAIL LABORATORIES, INC.

<u>97/~</u> <u>K - ľ.</u>

K.R.P. Iyer Quality Control/Quality Assurance Officer

Xuan Huong Dang Project Manager 002

TRUESDAIL LABORATORIES, INC.

INDEPENDENT TESTING, FORENSIC SCIENCE, AND ENVIRONMENTAL ANALYSES

Established 1931 14201 FRANKLIN AVENUE TUSTIN, CALIFORNIA 92780-7008 (714) 730-6239 · FAX (714) 730-6462 www.truesdail.com

February 19, 2008

Client: TestAmerica - Irvine 17461 Derian Avenue, Suite 100 Irvine, CA 92614 Attention: Joseph Doak Project Name: IRB0146

IRB0146

Date Received: 02/04/08 Truesdail Project: 973193

Case Narrative

Project Number:

Sample Receipt The sample was received at 4 °C and in good condition. It was kept in a refrigerator until analysis. Thereafter, it is being kept in ambient storage for an additional 2 months before disposal. Any anomalies would be noted in the "Comments" section. The analysis was performed as requested on the chain-of-custody. Analysis Quality Control The analytical results for each batch of samples performed include a minimum of one set of laboratory control sample/laboratory control sample duplicate (LCS/LCSD), one matrix spike (MS) and a reagent blank (Method blank). Any exceptions or problems would be noted in the "Comments" section. Matrix spike and matrix spike duplicate were done on a sample from a different Comments TestAmerica Project, 973194-1 (IRB0147-01), as the method requirement per batch of 20 samples. All quality assurance requirements set forth by the method specification and all quality control recoveries were within the laboratory acceptance limits. No anomalies or nonconformance events occurred during the course of analysis.

The results are quantitated down to the MDL level.

Respectfully Submitted, TRUESDAIL LABORATORIES, INC.

K.R.P. Iyer Quality Assurance Officer

Xuan Huong Dang Project Manage 003

Note: Results based on detector #1 (UV=365mm) data. Xuan Dang, Project Manager Analytical Services, Truesdail Laboratories, Inc. This report apples only to the samples, investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, and these laboratories this tended for the exclusive use of the client to whom it is addressed and upon the condition that it is not to be used. In whole or in part, the public, and these laboratories this report to be used. In whole or in part, the public, the public, the public, the public or condition of apparently identical or similar products. As a mutual protection to clients, the public, the public, the public or condition of apparently identical or similar products. As a mutual protection to clients, the public, the public, the public or condition of the	MDL PQL Sample Reporting Limits	707223-MB 973193	Sample ID Sample Descript		Attention: Sample: Project Name: P.O. Number: Method Number: Investigation:	Client:	TRUESDAIL LABOR Excellence in Independent Testing
detector #1 (UV=365 he sample, or samples, in		Method Blank IRB0146-01	Descript		Joseph Doak Water / 1 Sample IRB0146 IRB0146 8315 (Modified) Hydrazines	TestAmerica Analytical-Irvine 17461 Derian Avenue, Suite 100	LABORATORIES, INC.
nm) data. num) data.		100	Sample Amount (mL)		Ō	yticat-irvine nue, Suite 100	aies, Inc.
ve use of the client t			Factor	Analy			
of the quality or condition of	<u>0.56</u> 5.0	dn GN	Monometnyi Hydrazine	Analytical Results	· · ·	REPORT	
Analytical Service	0.32 5.0	ND	u-Ulmetnyi Hydrazine				
Xuan Dang, Project Manager Analytical Services, Truesdail Laboratories, Inc.	0.15 1.00	2 ND	Hydrazine		Report Date: Receiving Date: Extraction Date: Analysis Date: Units: Reported By:	Laboratory No:	Establis 14201 FRANKLIN AVENUE - TU (7) 4] 730-6239 - FAX (7) 4
is, Inc.		None	Qualitier Codes		February 18, 2006 February 3, 2008 February 4, 2008 February 5, 2008 February 6, 2008 JS JS	973193	Established 1931 14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 182780-7008 (714) 730-6239 - FAX (714) 730-6462 - www.tuesdaal.com
ς <u>σ</u>		ı	H	-			004 NPDES - 225

Hydrazine	u-Dimethyl Hydrazine	Monomethyl Hydrazine	rameter			riyulazına	u-urineviyi nyarazine	Monomethyl Hydrazine	rarameter		P.O. Number: Method Number: /nvestigation: Run Batch No.:	Client Contact: Sample: Sample (D:	Client	EXCELLENCE IN INDEPENDENT TESTING
			ug/L I	Spiked Conc.		5.0	25.0	25.0	Value (ug/L)	ICV	•••••			
	45.6	47.7	LCS	Conc	LCS/LCSD						IRB0148 8315 (Modified) Hydrazines Extraction: 4269; Analysis: 597	Joseph Doak Water / 1 Sample IRB0146	TestAmerica Analytical-Irvine 1746† Derlan Avenue, Suite 100 /rvine. CA 92614-5817	STING
8.04	43.6	44.5	LCSD	Recovered Concentration	D	5.21	28.5	28.6	Measured Value (ug/L)		Analysis:		alytical-l renue, Su 1-5817	
0.0	0.0	0.0	NB	2						,			rvine ulte 100	Ţ Ţ
85.1 1	91.1	95.4	5 3-	Percent Recovery (%)	Qua	104	114	115	Percent Recovery		Quality			
	87.2		LCSD	ont 77 (%)	lity Co	8115	85-115	85-115	Limits		Cont			
5.71%	4.36%	6.99%	RPD	LCS/	ntrol/C						rol/Qu:			
PASS	PASS	PASS		Flag	luality	PASS	PASS	PASS	riag gair		Quality Control/Quality Assurance Calibra			
8	20	20	XD	Control Limits	Assu	E	: <u>F</u>	Ι <u>ς</u>	1 2	סוי	losura			
70-130	70-130	70-130	% Rec.		ance	Hydrazine	Jimethyi I	nomethy	Parameter	QCS	nce C			
7.61	38.7	36.7	MS	° -	Quality Control/Quality Assurance Spikes Report		u-Dimethyi Hydrazine	Monomethyl Hydrazine			libration			
7.87	40.2	36. 8	MSD	Recovered Concentration	eport				Theo Val		tion Report			
0.00	0.00	0.00	Sample	ğ ă		10.0	50.0	50.0	Theoretical Value (ug/L)		a		51	
76.1	77.5	73.4	SW	Per Recov		9.25	49.0	48.8	Measured Value (ug/L)		m –	, g p	1201 FRAN 14} 730-4	
78.7	80.4	73.6	MSD	Percent Recovery (%)		Ch I		8			Receiving Date: Extraction Date: Analysis Date: Reported By:	Project Lab. No.: Spiked Sample (D: Report Date: Sampling Date:	ALIN AVENUE TUS	m
3.38%	3.65%	0.25%	RPD	NSD		<u>92.5</u>	98.0	97.6	Percent Recovery		g Date: 1 Date: 1 Date; ed By:	ect Lab. No.: d Sample (D: Report Date: mpling Date:	UE TUSTI (1714) 730	Established 1931
PASS	PASS	PASS		Flag		85-115	85-115	85-115	Control Limits		Februan Februan JS	973193 973194 Februan Februan	14201 FRAMKLIN AVENUE · TUSTIN, CALIFORNIA 82780-7008 [714] 730-6239 · FAX [714] 730-6462 · www.tuesdail.com	1931
20	22	20	%D	Acc		5	15	15	F 3		February 4, 2008 February 5, 2008 February 6, 2008 JS	973193 973194 February 19, 2008 February 3, 2008	INIA 8278; ww.truesda	
37-128	42-109	11-134	% Rec.	Accuracy Control Limits		PASS	PASS	PASS	Flag			8	D-7008 HI.com	•

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

Analytical Services, Truesdall Laboratories, Inc.

Xuan Dang, Project Manager

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Note. Results based on detector #1 (UV=385nm) data.

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ND ICV ND ND ICV ICV ICV ICV ICV ICV ICV ICV ICV ICV	SP FPE	Code	Client: Attention: Project Name: Investigation:	TRUESD Excellence IN I
 Method Detection Limit Practical Quantitation Limit Not Detected: Analyte is not detected at or above the method detection limit. Not Applicable Initial Calibration Verification: First source calibration standard run at a mid-level spike prior to samples. Quality Control Standard: Second source calibration standard run at a mid-level spike after all samples. Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate). Method Blank: Reagent water extracted and run with each batch of 20 samples to demonstrate that all analytes are not detected from the extraction Laboratory Control Spike: Second source standard spiked into blank matrix and extracted and run with each batch of 20 samples (run in duplicate). Matrix Spike: Second source standard spiked into sample matrix and extracted and run with each batch of 20 samples (run in duplicate). Relative Percent Difference: A calculated value of the deviation between the spikes and spike duplicates to measure precision. J-flags: Any result found between the MDL and the PQL will be reported with a "J" attached. 	Force Peak Start: Peak start needs to be adjusted to the baseline Force Peak End: Peak end needs to be adjusted to the baseline Split Peak: Background or co-eluting peaks need to be split.	Qualifier Codes and Definitions	Client: TestAmerica Analytical-Irvine 17461 Derlan Avenue, Sulte 100 Irvine, CA 92614-5817 Attention: Joseph Doak act Name: IRB0146 I Number: 8315 (Modified) stigation: Hydrazines	TRUESDAIL LABORATORIES, INC. Excellence in Independent Testing
analytes are not detected from the extraction process. each batch of 20 samples (run in duplicate). of 20 samples (run in duplicate). s to measure precision.			Laboratory No: 973193 Report Date: February 19, 2008 Sampling Date: February 3, 2008 Receiving Date: February 4, 2008 Analysis Date: February 6, 2008 Reported By: JS	Established 1931 14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 92780-7308 (7 14) 730-6239 - FAX (7 14) 730-6462 - www.truesdill.com
				006

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

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Section 2.0

SAMPLE CHECK-IN RECORDS

Chain of Custody

Sample Integrity and Analysis Discrepancy Form

Internal Chain of Custody

SUBCONTRACT ORDER

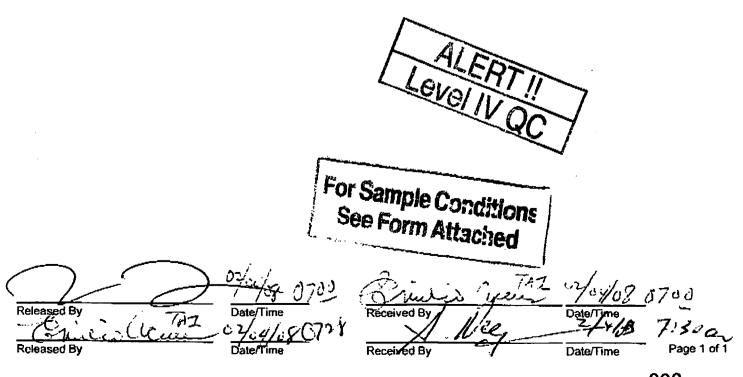
TestAmerica Irvine

IRB0146

97	3]	9_	2

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica Irvine 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022	Truesdail Laboratories-SUB 14201 Franklin Avenue Rec 'd 02/01/08 Tustin, CA 92680 s22d 97 3 1 9 3 Phone :(714) 730-6239 97 3 1 9 3
Fax: (949) 260-3297 Project Manager: Joseph Doak	Fax: (714) 730-6462 Project Location: California Receipt Temperature:^C Icc: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0146-01	Water		Sampled: 02/03/08 11:45	
Hydrazine-OUT	%	02/13/08	02/06/08 11:45	Sub Truesdail for
Level 4 Data Package	N/A	02/13/08	03/02/08 11:45	Monomethylhydrazine, J flags
Containers Supplied:				
1 L Amber (AR)	1 L Amber (A	NS)		





February 23, 2008

Vista Project I.D.: 30224

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

Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on February 05, 2008 under your Project Name "IRB0146". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

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

Sincerely,

Mache Moro

Martha M. Maier Laboratory Director



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



Section I: Sample Inventory Report Date Received: 2/5/2008

<u>Vista Lab. ID</u>

<u>Client Sample ID</u>

30224-001

IRB0146-01

SECTION II

Method Blank							EPA Method 1613	hod 1613
Matrix: Aqueous	IS	QC Batch No.:	9953		Lab Sample: 0-MB001			
Sample Size: 1.00 L		Date Extracted:	: 15-Feb-08	08	Date Analyzed DB-5: 19-Feb-08		Date Analyzed DB-225:	NA
Analyte C	Conc. (ug/L)	DL ^a	EMPC ^b Qu	Qualifiers	Labeled Standard	%R	rcr-ucr ^d c	Oualifiers
2,3,7,8-TCDD	ND	0.000000705			<u>IS</u> 13C-2,3,7,8-TCDD	82.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.000000681			13C-1,2,3,7,8-PeCDD	75.4	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000165			13C-1,2,3,4,7,8-HxCDD	81.7	32 - 141	
1,2,3,6,7,8-HxCDD	ŊŊ	0.00000174			13C-1,2,3,6,7,8-HxCDD	83.0	28 - 130	
1,2,3,7,8,9-HxCDD		0.00000162			13C-1,2,3,4,6,7,8-HpCDD	85.6	23 - 140	
1,2,3,4,6,7,8-HpCDD	ND	0.00000511			13C-OCDD	73.4	17 - 157	
ocdd	0.00000899			ſ	13C-2,3,7,8-TCDF	88.8	24 - 169	л.
2,3,7,8-TCDF	ND	0.000000647			13C-1,2,3,7,8-PeCDF	74.4	24 - 185	
1,2,3,7,8-PeCDF		0.000000731			13C-2,3,4,7,8-PeCDF	77.1	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000752		• • ••••••	13C-1,2,3,4,7,8-HxCDF	75.8	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.000000943			13C-1,2,3,6,7,8-HxCDF	77.6	5 26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.000000974			13C-2,3,4,6,7,8-HxCDF	78.0	28 - 136	
2,3,4,6,7,8-HxCDF	Ŋ	0.00000105			13C-1,2,3,7,8,9-HxCDF	81.9		
1,2,3,7,8,9-HxCDF	N	0.00000136			13C-1,2,3,4,6,7,8-HpCDF	75.7	28 - 143	
1,2,3,4,6,7,8-HpCDF	Ŋ	0.00000333			13C-1,2,3,4,7,8,9-HpCDF	82.1		× .
1,2,3,4,7,8,9-HpCDF	D N	0.00000202		5	13C-OCDF	76.2	17 - 157	:
OCDF	ND	0.00000591			CRS 37CI-2,3,7,8-TCDD	85.1	35 - 197	
Totals					Footnotes			
Total TCDD	ND Sector 25	0.000000705			a. Sample specific estimated detection limit.			
Total PeCDD	NU T	0.00000122			b. Estimated maximum possible concentration.			
Total HDCDD	B	0.00000511			d. Lower control limit - upper control limit.			
Total TCDF	QN	0.000000647						-
Total PeCDF	B	0.000000742			11、12、11、11、12、11、11、11、11、11、11、11、11、1			
Total HxCDF Total HvCDF	ND ND ND	0.00000107 0.00000335						
Analyst: MAS					Approved By: William J	William J. Luksemburg	g 22-Feb-2008 15:47	5:47

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OPR Results							EPA	EPA Method 1613	1613
Matrix: Aqueous Sample Size: 1.00 L	QC Bat Date E	QC Batch No.: Date Extracted:	9953 15-Feb-08	Lab Sample: Date Anal	yzed DB-5:	0-OPR001 18-Feb-08	Date Analyz	Date Analyzed DB-225:	NA
Analyte	Spike Conc. Conc. (ng/	(ng/mL)	OPR Limits	Labele	Labeled Standard		%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0 9.	9.20	6.7 - 15.8	IS 13C-2	13C-2,3,7,8-TCDD		85.8	25 - 164	
1,2,3,7,8-PeCDD	50.0 46	46.7	35 - 71	13C-1	[3C-1,2,3,7,8-PeCDD	Ð	77.1	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	47.0	35 - 82	13C-1	13C-1,2,3,4,7,8-HxCDD	CDD	82.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0 47	47.2	38 - 67	13C-1	[3C-1,2,3,6,7,8-HxCDD	CDD	84.0	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	47.7	32 - 81	13C-1	3C-1,2,3,4,6,7,8-HpCDD	pCDD	88.0	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0 46	46.1	35 - 70	13C-0	3C-OCDD		78.1	17 - 157	
OCDD	100	94.4	78 - 144	13C-2	13C-2,3,7,8-TCDF		90.2	24 - 169	
2,3,7,8-TCDF	10.0 8.	8.71	7.5 - 15.8	13C-1	13C-1,2,3,7,8-PeCDF	ĿF	76.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	45.3	40 - 67	13C-2	13C-2,3,4,7,8-PeCDF	Γ,	79.4	21 - 178	
2,3,4,7,8-PeCDF	50.0 45	45.1	34 - 80	13C-1	13C-1,2,3,4,7,8-HxCDF	CDF	78.9	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	46.8	36 - 67	13C-1	13C-1,2,3,6,7,8-HxCDF	CDF	80.4	26 - 123	
1,2,3,6,7,8-HxCDF	50.0 46	46.8	42 - 65	13C-2	13C-2,3,4,6,7,8-HxCDF	CDF	79.1	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	47.3	35 - 78	13C-1	13C-1,2,3,7,8,9-HxCDF	CDF	84.1	29 - 147	
1,2,3,7,8,9-HxCDF		46.1	39 - 65	13C-1	13C-1,2,3,4,6,7,8-HpCDF	pCDF	78.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	46.8	41 - 61	13C-1	13C-1,2,3,4,7,8,9-HpCDF	pCDF	85.9	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0 46	46.7	39 - 69	13C-OCDF	CDF		82.2	17 - 157	
OCDF	100	93.5	63 - 170	CRS 37Cl-2	37Cl-2,3,7,8-TCDD		88.4	35 - 197	
Analyst: MAS				Appro	Approved By: W	William J. Luksemburg		22-Feb-2008 15:47	:47

Page 5 of 282

Project 30224

Sample ID: IRB0	IRB0146-01							EPA M	EPA Method 1613
Client Data			Sample Data		Laboratory Data				
Name: Test.	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30224-001	Date Received:	eived:	5-Feb-08
Project: IKB0146 Date Collected: 3-Feb-08 Time Collected: 1146)146 5-08		Sample Size:	1.02 L	QC Batch No.: Date Analyzed DB-5:	9953 19-Feh-08	Date Extracted: Date Analyzed I	Date Extracted: Date Analyzed DB-225:	15-Feb-08 NA
	Conc. (ug/L.)	DL ^a	EMPC ^b	Oualifiers	Labeled Standard	ldard	%R	rcr-ucr ^d	Oualifiers
		0.000000556	56		<u>IS</u> 13C-2.3.7.8-TCDD	CDD	87.6	25 - 164	
1.2.3.7.8-PeCDD	Q	0.000000581	81		13C-1,2,3,7,8-PeCDD	PeCDD	78.2	25 - 181	
1,2,3,4,7,8-HxCDD	Ŋ	0.00000225	2		13C-1,2,3,4,7,8-HxCDD	8-HxCDD	81.5	32 - 141	
1,2,3,6,7,8-HxCDD	DN	0.00000224	4		13C-1,2,3,6,7,8-HxCDD	8-HxCDD	82.0	28 - 130	
1,2,3,7,8,9-HxCDD	Q	0.00000215	S		13C-1,2,3,4,6,7,8-HpCDD	7,8-HpCDD	86.2	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000118			ŗ,	13C-OCDD	· · · · · · · · · · · · · · · · · · ·	77.2	17 - 157	
OCDD	0.000105			A	13C-2,3,7,8-TCDF	CDF	92.8	24 - 169	
2,3,7,8-TCDF	QN	0.00000105	S	;	13C-1,2,3,7,8-PeCDF	PeCDF	75.4	24 - 185	
1,2,3,7,8-PeCDF	UN	0.000000759	59		13C-2,3,4,7,8-PeCDF	PeCDF	77.2	21 - 178	
2,3,4,7,8-PeCDF	ND	0.000000755	55		13C-1,2,3,4,7,8-HxCDF	8-HxCDF	77.5	26 - 152	
1,2,3,4,7,8-HxCDF	N	0.000000784	84		13C-1,2,3,6,7,8-HxCDF	8-HxCDF	77.5	26 - 123	
1,2,3,6,7,8-HxCDF	QN	0.000000843	43		13C-2,3,4,6,7,8-HxCDF	8-HxCDF	77.3	28 - 136	2
2,3,4,6,7,8-HxCDF	Q	0.000000916	16		13C-1,2,3,7,8,9-HxCDF	9-HxCDF	82.6	29 - 147	
1,2,3,7,8,9-HxCDF	Æ	0.00000118	8	1 - - - - - -	13C-1,2,3,4,6,7,8-HpCDF	7,8-HpCDF	<i>L.LL</i>	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000354				13C-1,2,3,4,7,8,9-HpCDF	8,9-HpCDF	84.4	26 - 138	
1,2,3,4,7,8,9-HpCDF	Ð	0.00000121			13C-OCDF		80.6	17 - 157	-
OCDF	0.00000727				CRS 37CI-2,3,7,8-TCDD	CDD	89.0	35 - 197	
Totals					Footnotes				
Total TCDD		0.00000896	96		a. Sample specific estimated detection limit.	tted detection limit.			
Total PeCDD	Q	0.00000160	0		b. Estimated maximum possible concentration.	ossible concentration.			
Total HxCDD	ND 0 000051	0.00000370	0		 c. Method detection limit. d. Lower control limit. 	ner control limit.			
	ON	0 00000105	5						
Total PeCDF	Ð		0.000000440	440					
Total HxCDF	QN		0.00000161	61					
Total HpCDF	0.0000081 6								
Analyst: MAS					Approved By:	William J. Luksemburg	csemburg	22-Feb-2008 15:47	15:47

Project 30224

APPENDIX

)

DATA QUALIFIERS & ABBREVIATIONS

В	This compound was also detected in the method blank.
D	Dilution
E	The amount detected is above the High Calibration Limit.
Р	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
н	The signal-to-noise ratio is greater than 10:1.
I	Chemical Interference
J	The amount detected is below the Low Calibration Limit.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated detection limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that correspond to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

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

CERTIFICATIONS

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

SUBCONTRACT ORDER

TestAmerica Irvine

IRB0146

20224

SENDING LABORATORY:	RECEIVING LABORATORY:	1.6°C
TestAmerica Irvine	Vista Analytical Laboratory- SUB	1.0 C
17461 Derian Avenue. Suite 100	1104 Windfield Way	
irvine, CA 92614	El Dorado Hills, CA 95762	
Phone: (949) 261-1022	Phone :(916) 673-1520	
Fax: (949) 260-3297	Fax: (916) 673-0106	
Project Manager: Joseph Doak	Project Location: California	
	Receipt Temperature:°C	Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0146-01	Water		Sampled: 02/03/08 11:45	
1613-Dioxin-HR-Alta	ug/l	02/13/08	02/10/08 11:45	J flags,17 congeners,no
-≊ Level 4 + EDD-OUT	N/A	02/13/08	03/02/08 11:45	TEQ,ug/L,sub=Vista **LEVEL IV QC, ACCESS 7 EDD**
Containers Supplied:				
1 L Amber (F)	1 L Amber (G)			

2/4/08 17:08 Released By Date/Time

17:00 ate/Time Date/Time Page 1 of 1

Released By

Date/Time

Reg

Rece

SUBCONTRACT ORDER

TestAmerica Irvine IRB0146

8020462

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Weck Laboratories, Inc 14859 E. Clark Avenue City of Industry, CA 91745 Phone :(626) 336-2139 Fax: (626) 336-2634 Project Location: California Receipt Temperature: <u>°C</u> Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0146-01	Water		Sampled: 02/03/08 1 ⁻	1:45
Level 4 Data Package - We	c N/A	02/13/08	03/02/08 11:45	Include Element transfer EDD
Mercury - 245.1, Diss -OUT	mg/l	02/13/08	03/02/08 11:45	Sub to Weck, Boeing, J flags, rpt in ug/L
Mercury - 245.1-OUT	mg/l	02/05/08	03/02/08 11:45	Sub to Weck, Boeing, J flags, rpt in ug/L
Containers Supplied:				
	125 mL Poly AX)	/ w/HNO3		

Λ	- HHES 1000	BALcoe	~ ~ 24/08 1000
Released By	Dạte/,Time	Received By	Date/Time
Bokeen	2408 1345	1-11-1	62/04/00 (3-4)
Released By	Date/Time	Received By	
			-



Weck Laboratories, Inc.

Analytical Laboratory Services - Since 1964

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

CERTIFICATE OF ANALYSIS

Client:	TestAmerica, Inc Irvine	Report D	ate:	02/08/08 15:44
	17461 Derian Ave, Suite 100	Received	Date:	02/04/08 13:45
	Irvine, CA 92614	Turn Aro	ound:	1 day
	Attention: Joseph Doak	Work Order #: 802	20462	
	Phone: (949) 261-1022 Fax: (949) 260-3297	Client Project: IRI	B0146	

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

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

Dear Joseph Doak :

Enclosed are the results of analyses for samples received 02/04/08 13:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 1.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by: in

Kim G Tu

Project Manager







Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

> Date Received: 02/04/08 13:45 Date Reported: 02/08/08 15:44

Weck Laboratories, Inc. 14859 E. Clark Ave.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRB0146-01	Client		8020462-01	Water	02/03/08 11:45

Report ID: 8020462

Project ID: IRB0146



Date Received: 02/04/08 13:45 Date Reported: 02/08/08 15:44

IRB0146-01	8020462-01 (Water)
------------	--------------------

Report ID: 8020462

Project ID: IRB0146

Date Sampled: 02/03/08 11:45

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Dissolved Mercury, Total	ND ND	0.050 0.050	ug/l ug/l	0.20 0.20	1	EPA 245.1 EPA 245.1	W8B0171 W8B0171	02/06/08 02/06/08	02/07/08 jlp 02/07/08 jlp	



Report ID: 8020462 Project ID: IRB0146 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

 Date Received:
 02/04/08 13:45

 Date Reported:
 02/08/08 15:44

QUALITY CONTROL SECTION



Date Received: 02/04/08 13:45 Date Reported: 02/08/08 15:44

Metals by EPA 200 Series Methods - Quality Control

Report ID: 8020462

Project ID: IRB0146

							%REC			
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W8B0171 - EPA 245.1										
Blank (W8B0171-BLK1)				Analyzed:	02/07/08					
Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							
LCS (W8B0171-BS1)				Analyzed:	02/07/08					
Mercury, Dissolved	1.04	0.20	ug/l	1.00		104	85-115			
Mercury, Total	1.04	0.20	ug/l	1.00		104	85-115			
Matrix Spike (W8B0171-MS1)	Se	ource: 8020543	-01	Analyzed: 02/07/08						
Mercury, Dissolved	1.02	0.20	ug/l	1.00	ND	102	70-130			
Mercury, Total	1.02	0.20	ug/l	1.00	ND	102	70-130			
Matrix Spike (W8B0171-MS2)	Se	ource: 8020544	-01	Analyzed: 02/07/08						
Mercury, Dissolved	1.05	0.20	ug/l	1.00	ND	105	70-130			
Mercury, Total	1.05	0.20	ug/l	1.00	ND	105	70-130			
Matrix Spike Dup (W8B0171-MSD1)	Se	ource: 8020543	-01	Analyzed:	Analyzed: 02/07/08					
Mercury, Dissolved	1.04	0.20	ug/l	1.00	ND	104	70-130	2	20	
Mercury, Total	1.04	0.20	ug/l	1.00	ND	104	70-130	2	20	
Matrix Spike Dup (W8B0171-MSD2)	Se	ource: 8020544	-01	Analyzed: 02/07/08						
Mercury, Dissolved	1.05	0.20	ug/l	1.00	ND	105	70-130	0	20	
Mercury, Total	1.05	0.20	ug/l	1.00	ND	105	70-130	0	20	



Report ID: 8020462 Project ID: IRB0146 Weck Laboratories, Inc. 14859 E. Clark Ave. Industry, CA 91745 Phone 626.336.2139 Fax 626.336.2634

Date Received: 02/04/08 13:45 Date Reported: 02/08/08 15:44

Notes and Definitions

- ND NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- % Rec Percent Recovery
- Sub Subcontracted analysis, original report available upon request
- MDL Method Detection Limit
- MDA Minimum Detectable Activity

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

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

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

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



March 10, 2008

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

Reference:	Test America Project Nos.	IRB0073, IRB0146, IRB0147, IRB0148, IRB0149, IRB0150, IRB0151, IRB0152, IRB0153, IRB0154 IRB0156, IRB0480, IRB0751
	Eberline Services NELAP Ce	ert #01120CA
	Eberline Services Reports	R802024-8693, R802040-8694, R802041-8695,
	-	R802042-8696, R802043-8697, R802044-8698
		R802045-8699, R802046-8600, R802047-8601
		R802048-8602, R802049-8603, R802054-8604
		R802084-8608

Dear Mr. Doak:

Attached are data reports for thirteen water samples. Eleven of the samples were received at Eberline Services on February 5, one on February 7, and one on February 9, 2008. The samples were analyzed according to the accompanying Test America Subcontract Order Forms, the requested analyses were: gross alpha/gross beta (EPA 900.0), tritium (H-3, EPA906.0), Sr-90 (EPA905.0), Ra-226 (EPA903.1), Ra-228 (EPA 904.0), total uranium (ASTM D-5174), and gamma spectroscopy (EPA901.1, K-40 and Cs-137 only). The parenthetical G after a nuclide indicates that the result was obtained by gamma spectroscopy; a "U" in the results column indicates that the nuclide was not detected greater than the indicated minimum detectable activity (MDA). The samples were not filtered prior to analysis. The samples were analyzed in batches with common QC samples. Batch quality control samples consisted of LCS's, blank analyses, duplicate analyses, and matrix spike analyses (gross alpha/gross beta, H-3, Ra-226, Total-U only). All samples were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melisia Mamon

Melissa Mannion Senior Program Manager

MCM/njv

Enclosure: Report on CD

Analytical Services 2030 Wright Avenue P.O. Box 4040 Richmond, California 94804-0040 (510) 235-2633 Fax (510) 235-0438 Toll Free (800) 841-5487 www.eberlineservices.com NPDES - 247

Eberline Services

ANALYSIS RESULTS

SDG	8694	Client	TA IRVINE
Work Order	R802040-01	Contract	PROJECT# IRB0146
Received Date	02/05/08	Matrix	WATER

Client	Lab					
Sample ID	Sample ID	Collected Analyzed	Nuclide	<u>Results ± 20</u>	Units	MDA
IRB0146-01	8694-001	02/03/08 02/28/08	GrossAlpha	6.24 ± 1.3	pCi/L	1.1
		02/28/08	Gross Beta	6.85 ± 0.94	pCi/L	1.3
		02/27/08	Ra-228	0.479 ± 0.20	pCi/L	0.49
		02/23/08	K-40 (G)	U	pCi/L	13
		02/23/08	Cs-137 (G)	U	pCi/L	0.98
		02/28/08	H-3	-21.7 ± 83	pCi/L	150
		03/03/08	Ra-226	0.051 ± 0.34	pCi/L	0.64
		02/18/08	Sr-90	0.160 ± 0.31	pCi/L	0.65
		02/26/08	Total U	1.22 ± 0.13	pCi/L	0.022

Certified by 20
Report Date 03/11/08
Page 1

Eberline Services

QC RESULTS

SDG <u>8694</u> Work Order <u>R802040-01</u> Received Date <u>02/05/08</u>			Client <u>TA IRVINE</u> Contract <u>PROJECT# IRB0146</u> Matrix <u>WATER</u>			
Lab						
ample ID	Nuclide	Results	Units	Amount Added	MDA	Evaluation
LCS						
8693-002	GrossAlpha	10.6 ± 0.82	pCi/Smpl	10.2	0.31	104% recovery
	Gross Beta	9.07 ± 0.36	pCi/Smpl	9.38	0.28	97% recovery
	Ra-228	8.40 ± 0.59	pCi/Smpl	8.66	0.88	97% recovery
	Co-60 (G)	214 ± 14	pCi/Smpl	224	9.1	96% recovery
	Cs-137 (G)	240 ± 12	pCi/Smpl	236	9.2	102% recovery
	Am-241 (G)	255 ± 26	pCi/Smpl	254	31	100% recovery
	H - 3	222 ± 12	pCi/Smpl	239	13	93% recovery
	Ra-226	5.35 ± 0.24	pCi/Smpl	5.02	0.076	107% recovery
	Sr-90	10.7 ± 0.80	pCi/Smpl	9.39	0.37	114% recovery
	Total U	1.12 ± 0.13	pCi/Smpl	1.13	0.004	99% recovery
BLANK						
8693-003	GrossAlpha	-0.103 ± 0.17	pCi/Smpl	NA	0.34	<mda< td=""></mda<>
	Gross Beta	-0.111 ± 0.15	pCi/Smpl	NA	0.27	<mda< td=""></mda<>
	Ra-228	0.239 ± 0.48	pCi/Smpl	NA	0.68	<mda< td=""></mda<>
	K-40 (G)	U	pCi/Smpl	NA	110	<mda< td=""></mda<>
	Cs-137 (G)	U	pCi/Smpl	NA	5.4	<mda< td=""></mda<>
	H-3	-1.64 ± 8.3	pCi/Smpl	NA	15	<mda< td=""></mda<>
	Ra-226	0.016 ± 0.034	pCi/Smpl	NA	0.062	<mda< td=""></mda<>
	Sr-90	0.099 ± 0.15	pCi/Smpl	NA	0.27	<mda< td=""></mda<>
	Total U	0.00E 00 ± 1.9E-04	pCi/Smpl	NA	4.5E-04	<mda< td=""></mda<>
	DUPLICATES		_	ORIGINALS	5	

						3	σ
Sample ID Nuclide	Results $\pm 2\sigma$	MDA	Sample ID	<u>Results ± 20</u>	MDA	<u>RPD (To</u>	t) <u>Eval</u>
8693-004 GrossAlpha	1.03 ± 1.0	1.5	8693-001	0.763 ± 0.99	1.3	-	0 satis.
Gross Beta	15.0 ± 1.2	1.6		14.2 ± 0.93	0.97	5	46 satis.
Ra-228	0.099 ± 0.18	0.48		0.295 ± 0.19	0.49	-	0 satis.
K-40 (G)	24.8 ± 7.8	4.9		24.0 ± 11	8.2	3	86 satis.
Cs-137 (G)	U	0.53		U	0.86	-	0 satis.
H - 3	-6.31 ± 84	150		7.12 ± 78	130	-	0 satis.
Ra-226	0.583 ± 0.52	0.81		0.426 ± 0.44	0.70	-	0 satis.
Sr-90	-0.021 ± 0.29	0.71		0.026 ± 0.31	0.72	-	0 satis.
Total U	0.611 ± 0.067	0.022		0.578 ± 0.064	0.022	6	30 satis.

Certified by
Report Date 03/11/08
Page 2

Eberline Services

QC	RΕ	នប	L	т	S

	SDG	8694			Client <u>TA IRV</u>	INE			
	Work Order	<u>R802040-01</u>			Contract PR0JEC	T# IRB01	.46		
	Received Date	02/05/08			Matrix <u>WATER</u>	·			
1									
	SPIKED	SAMPLE		OR:	IGINAL SAMPLE				
2	Sample ID <u>Nuclid</u> e	Results ± 2σ	MDA	Sample ID	<u>Results ± 20</u>	MDA	<u>Added</u>	%Recv	

SPIKED SAMPL	JE		OR.	IGINAL SAMPLE			
Sample ID Nuclide	<u>Results ± 2σ</u>	MDA	Sample ID	<u>Results ± 2σ</u>	MDA	Added	%Rect
8693-005 GrossAlpha	95.8 ± 5.5	1.4	8693-001	0.763 ± 0.99	1.3	71.2	133
Gross Beta	77.9 ± 2.0	1.5		14.2 ± 0.93	0.97	62.5	102
H-3	15500 ± 300	150		7.12 ± 78	130	16000	97
Ra-226	120 ± 4.8	0.69		0.426 ± 0.44	0.70	112	107
Total U	109 ± 13	2.2		0.578 ± 0.064	0.022	113	96
Total U	109 ± 13	2.2		0.578 ± 0.064	0.022	113	96

Certified by 20
Report Date 03/11/08
Page 3

SUBCONTRACT ORDER

TestAmerica Irvine

IRB0146

SENDING LABORATORY:

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

RECEIVING LABORATORY:

Eberline Services 2030 Wright Avenue Richmond, CA 94804 Phone :(510) 235-2633 Fax: (510) 235-0438 Project Location: California Receipt Temperature: ______,0__°C

Ice: Ν

Analysis	Units	Due	Expires	Comments
Sample ID: IRB0146-01	Water		Sampled: 02/03/08 11:45	
EDD + Level 4	N/A	02/13/08	03/02/08 11:45	Excel EDD email to pm,Include Std logs for LvI IV
Gamma Spec-O	mg/kg	02/13/08	02/02/09 11:45	Out to Eberline, k-40 and cs-137 only
Gross Alpha-O	pCi/L	02/13/08	08/01/08 11:45	Out to Eberline, Boeing
Gross Beta-O	pCi/L	02/13/08	08/01/08 11:45	Out to Eberline, Boeing
Radium, Combined-O	pCi/L	02/13/08	02/02/09 11:45	Out to Eberline, Boeing
Strontium 90-0	pCi/L	02/13/08	02/02/09 11:45	Out to Eberline, Boeing
Tritium-O	pCi/L	02/13/08	02/02/09 11:45	Out to Eberline, Boeing
Uranium, Combined-O	pCi/L	02/13/08	02/02/09 11:45	Out to Eberline, Boeing
Containers Supplied:				
2.5 gal Poly (AI)	500 mL Amł	per (AJ)		

Released By

2/4/28 1700 Date/Time

Date/Time

2/4 08 200 Received By Date/Time 05 08 09:30 02 Page 1 of 1 Received By Date/Time

Released By

NPDES - 251

	DND, CA LABORATORY
Shent TEST AMETRICA	SITY INTE STA
Date: Time received by 6568 09: 2000 N	NO 125 0146
Container I No 16 Utest Requested	c TAT (Davs F.C. Received Mes.] [Né 🗢 []
	INSPECTION
Custoov seals on shipping container in	
2 Dustoom seals on shipping container c	
Custoov seals or sample containers in	
 Sustoom seals on sample containers, d 	Jaled U signed Size Novie - Novie
Pracking material is	Ave: Sin V
 Number of samples in shipping contail 	ner Sample Marri: W
Number di containers per sample	2 10r see 200
5 Samples are in correct container	er V No
^L ^L 'aderwork agrees with samples. ¹	res 🖌 No
ic camples have label inazardi	iabelo - Flad iabelo - Appropriate sample iaries il 🗸
samples are in good condition	Leaking Broken Container Missurpol
Le camples are Preserved . No: pr	reserved Y DF Preservative
13 Describe any anomalies	
12 Was F. M. notified of any anomalies" 15 Inspected by	Date 02/05/08 Time 10:45
Sustomer BetalSamma for Shartope	
Sample No. opr. mEt/n:	Vribe Sample NC con mEtrim wide
IRB0146-1 262	
·	
Champer Ser INC	
a/Gamma Meter Ser No/0048 Y	Calibration date
$\omega_{\text{obstandard}}$ and ω_{eter} Set NC	Lalibration date 09 WAY 07

Form SCF-61 07-30-67

over 55 vears on quality nuclear carvicer