

APPENDIX G

Section 8

Outfall 002, January 25, 2008

Test America Analytical Laboratory Report

LABORATORY REPORT

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

Project: Routine Outfall 002

Sampled: 01/25/08
Received: 01/25/08
Issued: 02/28/08 08:09

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.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

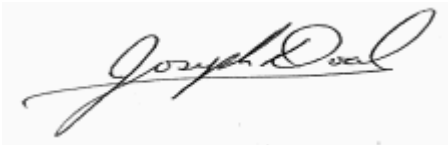
COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

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

ADDITIONAL INFORMATION: This is a final report to include all subcontract data.

LABORATORY ID	CLIENT ID	MATRIX
IRA2496-01	Outfall 002	Water
IRA2496-02	Trip Blanks	Water

Reviewed By:



TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

PURGEABLES BY GC/MS (EPA 624)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water)									
Reporting Units: ug/l									
Benzene	EPA 624	8A29009	0.28	2.0	ND	1	01/29/08	01/29/08	
Carbon tetrachloride	EPA 624	8A29009	0.28	5.0	ND	1	01/29/08	01/29/08	
Chloroform	EPA 624	8A29009	0.33	2.0	ND	1	01/29/08	01/29/08	
1,1-Dichloroethane	EPA 624	8A29009	0.27	2.0	ND	1	01/29/08	01/29/08	
1,2-Dichloroethane	EPA 624	8A29009	0.28	2.0	ND	1	01/29/08	01/29/08	
1,1-Dichloroethene	EPA 624	8A29009	0.42	3.0	ND	1	01/29/08	01/29/08	
Ethylbenzene	EPA 624	8A29009	0.25	2.0	ND	1	01/29/08	01/29/08	
Tetrachloroethene	EPA 624	8A29009	0.32	2.0	ND	1	01/29/08	01/29/08	
Toluene	EPA 624	8A29009	0.36	2.0	ND	1	01/29/08	01/29/08	
1,1,1-Trichloroethane	EPA 624	8A29009	0.30	2.0	ND	1	01/29/08	01/29/08	
1,1,2-Trichloroethane	EPA 624	8A29009	0.30	2.0	ND	1	01/29/08	01/29/08	
Trichloroethene	EPA 624	8A29009	0.26	5.0	1.0	1	01/29/08	01/29/08	J
Trichlorofluoromethane	EPA 624	8A29009	0.34	5.0	ND	1	01/29/08	01/29/08	
Vinyl chloride	EPA 624	8A29009	0.30	5.0	ND	1	01/29/08	01/29/08	
Xylenes, Total	EPA 624	8A29009	0.90	4.0	ND	1	01/29/08	01/29/08	
Surrogate: Dibromofluoromethane (80-120%)					99 %				
Surrogate: Toluene-d8 (80-120%)					101 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					90 %				
Sample ID: IRA2496-02 (Trip Blanks - Water)									
Reporting Units: ug/l									
Benzene	EPA 624	8A29009	0.28	2.0	ND	1	01/29/08	01/29/08	
Carbon tetrachloride	EPA 624	8A29009	0.28	5.0	ND	1	01/29/08	01/29/08	
Chloroform	EPA 624	8A29009	0.33	2.0	ND	1	01/29/08	01/29/08	
1,1-Dichloroethane	EPA 624	8A29009	0.27	2.0	ND	1	01/29/08	01/29/08	
1,2-Dichloroethane	EPA 624	8A29009	0.28	2.0	ND	1	01/29/08	01/29/08	
1,1-Dichloroethene	EPA 624	8A29009	0.42	3.0	ND	1	01/29/08	01/29/08	
Ethylbenzene	EPA 624	8A29009	0.25	2.0	ND	1	01/29/08	01/29/08	
Tetrachloroethene	EPA 624	8A29009	0.32	2.0	ND	1	01/29/08	01/29/08	
Toluene	EPA 624	8A29009	0.36	2.0	ND	1	01/29/08	01/29/08	
1,1,1-Trichloroethane	EPA 624	8A29009	0.30	2.0	ND	1	01/29/08	01/29/08	
1,1,2-Trichloroethane	EPA 624	8A29009	0.30	2.0	ND	1	01/29/08	01/29/08	
Trichloroethene	EPA 624	8A29009	0.26	5.0	ND	1	01/29/08	01/29/08	
Trichlorofluoromethane	EPA 624	8A29009	0.34	5.0	ND	1	01/29/08	01/29/08	
Vinyl chloride	EPA 624	8A29009	0.30	5.0	ND	1	01/29/08	01/29/08	
Xylenes, Total	EPA 624	8A29009	0.90	4.0	ND	1	01/29/08	01/29/08	
Surrogate: Dibromofluoromethane (80-120%)					95 %				
Surrogate: Toluene-d8 (80-120%)					99 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					92 %				

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Project Manager

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

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: IRA2496-01 (Outfall 002 - Water)									
Reporting Units: ug/l									
Bis(2-ethylhexyl)phthalate	EPA 625	8A29057	1.6	4.8	5.7	0.966	01/29/08	01/31/08	
2,4-Dinitrotoluene	EPA 625	8A29057	0.19	8.7	ND	0.966	01/29/08	01/31/08	
N-Nitrosodimethylamine	EPA 625	8A29057	0.097	7.7	ND	0.966	01/29/08	01/31/08	
Pentachlorophenol	EPA 625	8A29057	0.097	7.7	ND	0.966	01/29/08	01/31/08	
2,4,6-Trichlorophenol	EPA 625	8A29057	0.097	5.8	ND	0.966	01/29/08	01/31/08	
Surrogate: 2-Fluorophenol (30-120%)					73 %				
Surrogate: Phenol-d6 (35-120%)					76 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					114 %				
Surrogate: Nitrobenzene-d5 (45-120%)					80 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					85 %				
Surrogate: Terphenyl-d14 (50-125%)					104 %				

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Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: ug/l									
alpha-BHC	EPA 608	8A29059	0.0024	0.0094	ND	0.943	01/29/08	01/29/08	
Surrogate: Decachlorobiphenyl (45-120%)					80 %				
Surrogate: Tetrachloro-m-xylene (35-115%)					62 %				

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MWH-Pasadena/Boeing
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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: mg/l									
Barium	EPA 200.8	8A26027	0.00040	0.0010	0.065	1	01/26/08	01/26/08	
Iron	EPA 200.7	8A26028	0.015	0.040	4.3	1	01/26/08	01/28/08	
Sample ID: IRA2496-01 (Outfall 002 - Water)									
Reporting Units: ug/l									
Arsenic	EPA 200.8	8A26027	0.70	1.0	2.4	1	01/26/08	01/26/08	
Beryllium	EPA 200.8	8A26027	0.20	0.50	0.29	1	01/26/08	01/26/08	J
Cadmium	EPA 200.8	8A26027	0.11	1.0	0.18	1	01/26/08	01/26/08	J
Chromium	EPA 200.8	8A26027	0.70	2.0	9.7	1	01/26/08	01/26/08	
Copper	EPA 200.8	8A26027	0.75	2.0	8.4	1	01/26/08	01/26/08	
Lead	EPA 200.8	8A26027	0.30	1.0	7.1	1	01/26/08	01/26/08	
Manganese	EPA 200.8	8A26027	0.75	1.0	120	1	01/26/08	01/28/08	
Nickel	EPA 200.8	8A26027	0.90	2.0	7.2	1	01/26/08	01/26/08	
Selenium	EPA 200.8	8A26027	0.30	2.0	ND	1	01/26/08	01/26/08	
Zinc	EPA 200.7	8A26028	6.0	20	36	1	01/26/08	01/28/08	

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Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: mg/l									
Barium	EPA 200.8-Diss	8B04109	0.00080	0.0020	0.019	2	02/04/08	02/05/08	
Iron	EPA 200.7-Diss	8A25155	0.015	0.040	0.10	1	01/25/08	01/26/08	
Sample ID: IRA2496-01 (Outfall 002 - Water)									
Reporting Units: ug/l									
Arsenic	EPA 200.8-Diss	8B04109	1.4	2.0	ND	2	02/04/08	02/05/08	RL1
Beryllium	EPA 200.8-Diss	8B04109	0.40	1.0	ND	2	02/04/08	02/05/08	RL1
Cadmium	EPA 200.8-Diss	8B04109	0.22	2.0	ND	2	02/04/08	02/05/08	RL1
Chromium	EPA 200.8-Diss	8B04109	1.4	4.0	ND	2	02/04/08	02/05/08	RL1
Copper	EPA 200.8-Diss	8B04109	1.5	4.0	3.1	2	02/04/08	02/05/08	RL1, J
Lead	EPA 200.8-Diss	8B04109	0.60	2.0	ND	2	02/04/08	02/05/08	RL1
Manganese	EPA 200.8-Diss	8B04109	1.5	2.0	7.7	2	02/04/08	02/05/08	
Nickel	EPA 200.8-Diss	8B04109	1.8	4.0	2.2	2	02/04/08	02/05/08	RL1, J
Selenium	EPA 200.8-Diss	8B04109	0.60	4.0	ND	2	02/04/08	02/05/08	RL1
Zinc	EPA 200.7-Diss	8A25155	6.0	20	ND	1	01/25/08	01/26/08	

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Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - 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	8A29110	0.30	0.50	ND	1	01/29/08	01/29/08	
Biochemical Oxygen Demand	EPA 405.1	8A25151	0.59	2.0	2.6	1	01/25/08	01/30/08	
Chloride	EPA 300.0	8A25053	0.25	0.50	17	1	01/25/08	01/25/08	
Nitrate-N	EPA 300.0	8A25053	0.060	0.11	1.2	1	01/25/08	01/25/08	
Nitrite-N	EPA 300.0	8A25053	0.090	0.15	ND	1	01/25/08	01/25/08	
Nitrate/Nitrite-N	EPA 300.0	8A25053	0.15	0.26	1.2	1	01/25/08	01/25/08	
Sulfate	EPA 300.0	8A25053	0.20	0.50	52	1	01/25/08	01/25/08	
Surfactants (MBAS)	SM5540-C	8A25148	0.044	0.10	0.064	1	01/25/08	01/25/08	J
Total Dissolved Solids	SM2540C	8A31077	10	10	210	1	01/31/08	01/31/08	
Total Suspended Solids	EPA 160.2	8A30131	10	10	140	1	01/30/08	01/30/08	

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Sampled: 01/25/08

Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: ml/l/hr									
Total Settleable Solids	EPA 160.5	8A26035	0.10	0.10	0.30	1	01/26/08	01/26/08	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8A26036	0.20	5.0	140	5	01/26/08	01/26/08	

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: ug/l									
Total Cyanide	EPA 335.2	8A28126	2.2	5.0	ND	1	01/28/08	01/28/08	
Perchlorate	EPA 314.0	8A28071	1.5	4.0	ND	1	01/28/08	01/28/08	

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	8A31072	1.0	1.0	310	1	01/31/08	01/31/08	

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MWH-Pasadena/Boeing
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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

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: IRA2496-01 (Outfall 002 - Water) - cont.									
Reporting Units: ug/l									
Mercury, Dissolved	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	
Mercury, Total	EPA 245.1	W8A1034	0.050	0.20	ND	1	01/29/08	01/30/08	

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: Outfall 002 (IRA2496-01) - Water					
EPA 160.5	2	01/25/2008 09:40	01/25/2008 18:20	01/26/2008 13:00	01/26/2008 13:00
EPA 180.1	2	01/25/2008 09:40	01/25/2008 18:20	01/26/2008 16:00	01/26/2008 16:00
EPA 300.0	2	01/25/2008 09:40	01/25/2008 18:20	01/25/2008 19:00	01/25/2008 19:45
EPA 405.1	2	01/25/2008 09:40	01/25/2008 18:20	01/25/2008 20:58	01/30/2008 15:00
SM5540-C	2	01/25/2008 09:40	01/25/2008 18:20	01/25/2008 20:08	01/25/2008 22:33

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NPDES - 374

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Attention: Bronwyn Kelly

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Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

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: 8A29009 Extracted: 01/29/08											
Blank Analyzed: 01/29/2008 (8A29009-BLK1)											
Benzene	ND	2.0	0.28	ug/l							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	0.50	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	3.0	0.42	ug/l							
Ethylbenzene	ND	2.0	0.25	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	5.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
Vinyl chloride	ND	5.0	0.30	ug/l							
Xylenes, Total	ND	4.0	0.90	ug/l							
Surrogate: Dibromofluoromethane	23.8			ug/l	25.0		95	80-120			
Surrogate: Toluene-d8	25.1			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	22.7			ug/l	25.0		91	80-120			
LCS Analyzed: 01/29/2008 (8A29009-BS1)											
Benzene	24.3	2.0	0.28	ug/l	25.0		97	70-120			
Carbon tetrachloride	24.4	5.0	0.28	ug/l	25.0		98	65-140			
Chloroform	26.0	2.0	0.33	ug/l	25.0		104	70-130			
1,1-Dichloroethane	25.1	2.0	0.27	ug/l	25.0		100	70-125			
1,2-Dichloroethane	26.2	2.0	0.28	ug/l	25.0		105	60-140			
1,1-Dichloroethene	21.8	3.0	0.42	ug/l	25.0		87	70-125			
Ethylbenzene	25.8	2.0	0.25	ug/l	25.0		103	75-125			
Tetrachloroethene	23.4	2.0	0.32	ug/l	25.0		93	70-125			
Toluene	25.0	2.0	0.36	ug/l	25.0		100	70-120			
1,1,1-Trichloroethane	25.0	2.0	0.30	ug/l	25.0		100	65-135			
1,1,2-Trichloroethane	25.6	2.0	0.30	ug/l	25.0		103	70-125			
Trichloroethene	24.3	5.0	0.26	ug/l	25.0		97	70-125			
Trichlorofluoromethane	28.0	5.0	0.34	ug/l	25.0		112	65-145			
Vinyl chloride	28.2	5.0	0.30	ug/l	25.0		113	55-135			
Xylenes, Total	77.3	4.0	0.90	ug/l	75.0		103	70-125			

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS (EPA 624)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29009 Extracted: 01/29/08											
LCS Analyzed: 01/29/2008 (8A29009-BS1)											
Surrogate: Dibromofluoromethane	25.1			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	24.9			ug/l	25.0		100	80-120			
Surrogate: 4-Bromofluorobenzene	24.8			ug/l	25.0		99	80-120			
Matrix Spike Analyzed: 01/29/2008 (8A29009-MS1) Source: IRA1824-09											
Benzene	25.8	2.0	0.28	ug/l	25.0	0.650	101	65-125			
Carbon tetrachloride	24.8	5.0	0.28	ug/l	25.0	ND	99	65-140			
Chloroform	26.5	2.0	0.33	ug/l	25.0	ND	106	65-135			
1,1-Dichloroethane	25.5	2.0	0.27	ug/l	25.0	ND	102	65-130			
1,2-Dichloroethane	33.8	2.0	0.28	ug/l	25.0	6.28	110	60-140			
1,1-Dichloroethane	22.0	3.0	0.42	ug/l	25.0	ND	88	60-130			
Ethylbenzene	26.4	2.0	0.25	ug/l	25.0	ND	106	65-130			
Tetrachloroethene	24.6	2.0	0.32	ug/l	25.0	1.01	94	65-130			
Toluene	25.9	2.0	0.36	ug/l	25.0	ND	103	70-125			
1,1,1-Trichloroethane	25.5	2.0	0.30	ug/l	25.0	ND	102	65-140			
1,1,2-Trichloroethane	28.2	2.0	0.30	ug/l	25.0	ND	113	65-130			
Trichloroethene	27.8	5.0	0.26	ug/l	25.0	2.84	100	65-125			
Trichlorofluoromethane	28.3	5.0	0.34	ug/l	25.0	ND	113	60-145			
Vinyl chloride	29.0	5.0	0.30	ug/l	25.0	ND	116	45-140			
Xylenes, Total	79.1	4.0	0.90	ug/l	75.0	ND	106	60-130			
Surrogate: Dibromofluoromethane	25.3			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	25.6			ug/l	25.0		102	80-120			
Surrogate: 4-Bromofluorobenzene	24.8			ug/l	25.0		99	80-120			
Matrix Spike Dup Analyzed: 01/29/2008 (8A29009-MSD1) Source: IRA1824-09											
Benzene	25.1	2.0	0.28	ug/l	25.0	0.650	98	65-125	3	20	
Carbon tetrachloride	24.2	5.0	0.28	ug/l	25.0	ND	97	65-140	3	25	
Chloroform	26.1	2.0	0.33	ug/l	25.0	ND	104	65-135	2	20	
1,1-Dichloroethane	24.8	2.0	0.27	ug/l	25.0	ND	99	65-130	3	20	
1,2-Dichloroethane	32.7	2.0	0.28	ug/l	25.0	6.28	106	60-140	3	20	
1,1-Dichloroethane	21.8	3.0	0.42	ug/l	25.0	ND	87	60-130	1	20	
Ethylbenzene	25.4	2.0	0.25	ug/l	25.0	ND	101	65-130	4	20	
Tetrachloroethene	24.0	2.0	0.32	ug/l	25.0	1.01	92	65-130	2	20	
Toluene	24.7	2.0	0.36	ug/l	25.0	ND	99	70-125	4	20	
1,1,1-Trichloroethane	24.8	2.0	0.30	ug/l	25.0	ND	99	65-140	3	20	
1,1,2-Trichloroethane	27.3	2.0	0.30	ug/l	25.0	ND	109	65-130	3	25	

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

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: 8A29009 Extracted: 01/29/08											
Matrix Spike Dup Analyzed: 01/29/2008 (8A29009-MSD1)						Source: IRA1824-09					
Trichloroethene	27.1	5.0	0.26	ug/l	25.0	2.84	97	65-125	2	20	
Trichlorofluoromethane	27.7	5.0	0.34	ug/l	25.0	ND	111	60-145	2	25	
Vinyl chloride	25.6	5.0	0.30	ug/l	25.0	ND	103	45-140	12	30	
Xylenes, Total	74.8	4.0	0.90	ug/l	75.0	ND	100	60-130	6	20	
Surrogate: Dibromofluoromethane	25.2			ug/l	25.0		101	80-120			
Surrogate: Toluene-d8	25.4			ug/l	25.0		101	80-120			
Surrogate: 4-Bromofluorobenzene	24.1			ug/l	25.0		96	80-120			

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Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

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

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29057 Extracted: 01/29/08											
Blank Analyzed: 01/31/2008 (8A29057-BLK1)											
Bis(2-ethylhexyl)phthalate	ND	5.0	1.7	ug/l							
2,4-Dinitrotoluene	ND	9.0	0.20	ug/l							
N-Nitrosodimethylamine	ND	8.0	0.10	ug/l							
Pentachlorophenol	ND	8.0	0.10	ug/l							
2,4,6-Trichlorophenol	ND	6.0	0.10	ug/l							
Surrogate: 2-Fluorophenol	14.9			ug/l	20.0		75	30-120			
Surrogate: Phenol-d6	16.3			ug/l	20.0		81	35-120			
Surrogate: 2,4,6-Tribromophenol	18.4			ug/l	20.0		92	40-120			
Surrogate: Nitrobenzene-d5	8.42			ug/l	10.0		84	45-120			
Surrogate: 2-Fluorobiphenyl	8.88			ug/l	10.0		89	50-120			
Surrogate: Terphenyl-d14	10.6			ug/l	10.0		106	50-125			
LCS Analyzed: 01/31/2008 (8A29057-BS1)											
Bis(2-ethylhexyl)phthalate	11.3	5.0	1.7	ug/l	10.0		113	65-130			
2,4-Dinitrotoluene	11.2	9.0	0.20	ug/l	10.0		112	65-120			
N-Nitrosodimethylamine	8.42	8.0	0.10	ug/l	10.0		84	45-120			
Pentachlorophenol	8.90	8.0	0.10	ug/l	10.0		89	50-120			
2,4,6-Trichlorophenol	8.46	6.0	0.10	ug/l	10.0		85	55-120			
Surrogate: 2-Fluorophenol	15.6			ug/l	20.0		78	30-120			
Surrogate: Phenol-d6	17.1			ug/l	20.0		86	35-120			
Surrogate: 2,4,6-Tribromophenol	21.2			ug/l	20.0		106	40-120			
Surrogate: Nitrobenzene-d5	8.44			ug/l	10.0		84	45-120			
Surrogate: 2-Fluorobiphenyl	8.82			ug/l	10.0		88	50-120			
Surrogate: Terphenyl-d14	9.24			ug/l	10.0		92	50-125			
LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)											
Bis(2-ethylhexyl)phthalate	11.3	5.0	1.7	ug/l	10.0		113	65-130	1	20	
2,4-Dinitrotoluene	10.2	9.0	0.20	ug/l	10.0		102	65-120	9	20	
N-Nitrosodimethylamine	7.74	8.0	0.10	ug/l	10.0		77	45-120	8	20	J
Pentachlorophenol	8.24	8.0	0.10	ug/l	10.0		82	50-120	8	25	
2,4,6-Trichlorophenol	8.06	6.0	0.10	ug/l	10.0		81	55-120	5	30	
Surrogate: 2-Fluorophenol	14.4			ug/l	20.0		72	30-120			
Surrogate: Phenol-d6	16.3			ug/l	20.0		82	35-120			
Surrogate: 2,4,6-Tribromophenol	19.6			ug/l	20.0		98	40-120			
Surrogate: Nitrobenzene-d5	7.74			ug/l	10.0		77	45-120			
Surrogate: 2-Fluorobiphenyl	7.68			ug/l	10.0		77	50-120			

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

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: 8A29057 Extracted: 01/29/08											
LCS Dup Analyzed: 01/31/2008 (8A29057-BSD1)											
Surrogate: Terphenyl-d14	8.94			ug/l	10.0		89	50-125			

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MWH-Pasadena/Boeing
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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

ORGANOCHLORINE PESTICIDES (EPA 608)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A29059 Extracted: 01/29/08											
Blank Analyzed: 01/29/2008 (8A29059-BLK1)											
alpha-BHC	ND	0.010	0.0025	ug/l							
Surrogate: Decachlorobiphenyl	0.417			ug/l	0.500		83	45-120			
Surrogate: Tetrachloro-m-xylene	0.376			ug/l	0.500		75	35-115			
LCS Analyzed: 01/29/2008 (8A29059-BS1)											
alpha-BHC	0.450	0.010	0.0025	ug/l	0.500		90	45-115			MNR1
Surrogate: Decachlorobiphenyl	0.459			ug/l	0.500		92	45-120			
Surrogate: Tetrachloro-m-xylene	0.392			ug/l	0.500		78	35-115			
LCS Dup Analyzed: 01/29/2008 (8A29059-BSD1)											
alpha-BHC	0.341	0.010	0.0025	ug/l	0.500		68	45-115	28	30	
Surrogate: Decachlorobiphenyl	0.338			ug/l	0.500		68	45-120			
Surrogate: Tetrachloro-m-xylene	0.302			ug/l	0.500		60	35-115			

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Data Qualifiers
Batch: 8A26027 Extracted: 01/26/08											
Blank Analyzed: 01/26/2008-01/28/2008 (8A26027-BLK1)											
Arsenic	ND	1.0	0.70	ug/l							
Barium	ND	0.0010	0.00040	mg/l							
Beryllium	ND	0.50	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Chromium	ND	2.0	0.70	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Manganese	ND	1.0	0.75	ug/l							
Nickel	ND	2.0	0.90	ug/l							
Selenium	ND	2.0	0.30	ug/l							
LCS Analyzed: 01/26/2008-01/28/2008 (8A26027-BS1)											
Arsenic	86.8	1.0	0.70	ug/l	80.0		108	85-115			
Barium	0.0869	0.0010	0.00040	mg/l	0.0800		109	85-115			
Beryllium	87.4	0.50	0.20	ug/l	80.0		109	85-115			
Cadmium	85.7	1.0	0.11	ug/l	80.0		107	85-115			
Chromium	88.4	2.0	0.70	ug/l	80.0		110	85-115			
Copper	86.0	2.0	0.75	ug/l	80.0		108	85-115			
Lead	90.0	1.0	0.30	ug/l	80.0		112	85-115			
Manganese	80.8	1.0	0.75	ug/l	80.0		101	85-115			
Nickel	87.6	2.0	0.90	ug/l	80.0		110	85-115			
Selenium	86.9	2.0	0.30	ug/l	80.0		109	85-115			
Matrix Spike Analyzed: 01/26/2008-01/28/2008 (8A26027-MS1)											
						Source: IRA2496-01					
Arsenic	83.1	1.0	0.70	ug/l	80.0	2.45	101	70-130			
Barium	0.146	0.0010	0.00040	mg/l	0.0800	0.0648	101	70-130			
Beryllium	77.2	0.50	0.20	ug/l	80.0	0.288	96	70-130			
Cadmium	80.7	1.0	0.11	ug/l	80.0	0.182	101	70-130			
Chromium	90.8	2.0	0.70	ug/l	80.0	9.66	101	70-130			
Copper	89.3	2.0	0.75	ug/l	80.0	8.44	101	70-130			
Lead	93.9	1.0	0.30	ug/l	80.0	7.12	108	70-130			
Manganese	198	1.0	0.75	ug/l	80.0	120	97	70-130			
Nickel	87.4	2.0	0.90	ug/l	80.0	7.24	100	70-130			
Selenium	79.5	2.0	0.30	ug/l	80.0	ND	99	70-130			

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Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A26027 Extracted: 01/26/08											
Matrix Spike Dup Analyzed: 01/26/2008-01/28/2008 (8A26027-MSD1)						Source: IRA2496-01					
Arsenic	82.0	1.0	0.70	ug/l	80.0	2.45	99	70-130	1	20	
Barium	0.143	0.0010	0.00040	mg/l	0.0800	0.0648	97	70-130	2	20	
Beryllium	75.5	0.50	0.20	ug/l	80.0	0.288	94	70-130	2	20	
Cadmium	79.0	1.0	0.11	ug/l	80.0	0.182	98	70-130	2	20	
Chromium	88.3	2.0	0.70	ug/l	80.0	9.66	98	70-130	3	20	
Copper	88.0	2.0	0.75	ug/l	80.0	8.44	99	70-130	1	20	
Lead	91.7	1.0	0.30	ug/l	80.0	7.12	106	70-130	2	20	
Manganese	196	1.0	0.75	ug/l	80.0	120	96	70-130	1	20	
Nickel	86.9	2.0	0.90	ug/l	80.0	7.24	100	70-130	1	20	
Selenium	75.9	2.0	0.30	ug/l	80.0	ND	95	70-130	5	20	

Batch: 8A26028 Extracted: 01/26/08

Blank Analyzed: 01/28/2008 (8A26028-BLK1)

Iron	ND	0.040	0.015	mg/l
Zinc	ND	20	6.0	ug/l

LCS Analyzed: 01/28/2008 (8A26028-BS1)

Iron	0.521	0.040	0.015	mg/l	0.500	104	85-115
Zinc	500	20	6.0	ug/l	500	100	85-115

Matrix Spike Analyzed: 01/28/2008 (8A26028-MS1)

Source: IRA2498-01

Iron	0.722	0.040	0.015	mg/l	0.500	0.156	113	70-130
Zinc	702	20	6.0	ug/l	500	216	97	70-130

Matrix Spike Dup Analyzed: 01/28/2008 (8A26028-MSD1)

Source: IRA2498-01

Iron	0.732	0.040	0.015	mg/l	0.500	0.156	115	70-130	1	20
Zinc	717	20	6.0	ug/l	500	216	100	70-130	2	20

TestAmerica Irvine

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25155 Extracted: 01/25/08											
Blank Analyzed: 01/26/2008 (8A25155-BLK1)											
Iron	ND	0.040	0.015	mg/l							
Zinc	ND	20	6.0	ug/l							
LCS Analyzed: 01/26/2008 (8A25155-BS1)											
Iron	1.02	0.040	0.015	mg/l	1.00		102	85-115			
Zinc	1000	20	6.0	ug/l	1000		100	85-115			
Matrix Spike Analyzed: 01/26/2008 (8A25155-MS1) Source: IRA2496-01											
Iron	1.14	0.040	0.015	mg/l	1.00	0.104	104	70-130			
Zinc	1020	20	6.0	ug/l	1000	ND	102	70-130			
Matrix Spike Dup Analyzed: 01/26/2008 (8A25155-MSD1) Source: IRA2496-01											
Iron	1.11	0.040	0.015	mg/l	1.00	0.104	101	70-130	3	20	
Zinc	985	20	6.0	ug/l	1000	ND	99	70-130	3	20	
Batch: 8B04109 Extracted: 02/04/08											
Blank Analyzed: 02/05/2008 (8B04109-BLK1)											
Arsenic	ND	1.0	0.70	ug/l							
Barium	ND	0.0010	0.00040	mg/l							
Beryllium	ND	0.50	0.20	ug/l							
Cadmium	ND	1.0	0.11	ug/l							
Chromium	ND	2.0	0.70	ug/l							
Copper	ND	2.0	0.75	ug/l							
Lead	ND	1.0	0.30	ug/l							
Manganese	ND	1.0	0.75	ug/l							
Nickel	ND	2.0	0.90	ug/l							
Selenium	ND	2.0	0.30	ug/l							

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Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8B04109 Extracted: 02/04/08											
LCS Analyzed: 02/05/2008 (8B04109-BS1)											
Arsenic	80.2	1.0	0.70	ug/l	80.0		100	85-115			
Barium	0.0819	0.0010	0.00040	mg/l	0.0800		102	85-115			
Beryllium	80.6	0.50	0.20	ug/l	80.0		101	85-115			
Cadmium	79.8	1.0	0.11	ug/l	80.0		100	85-115			
Chromium	76.8	2.0	0.70	ug/l	80.0		96	85-115			
Copper	82.8	2.0	0.75	ug/l	80.0		104	85-115			
Lead	81.1	1.0	0.30	ug/l	80.0		101	85-115			
Manganese	80.6	1.0	0.75	ug/l	80.0		101	85-115			
Nickel	82.7	2.0	0.90	ug/l	80.0		103	85-115			
Selenium	78.1	2.0	0.30	ug/l	80.0		98	85-115			
Matrix Spike Analyzed: 02/05/2008 (8B04109-MS1) Source: IRA2700-02											
Arsenic	92.9	2.0	1.4	ug/l	80.0	13.2	100	70-130			
Barium	0.128	0.0020	0.00080	mg/l	0.0800	0.0403	109	70-130			
Beryllium	85.5	1.0	0.40	ug/l	80.0	ND	107	70-130			
Cadmium	75.8	2.0	0.22	ug/l	80.0	0.549	94	70-130			
Chromium	130	4.0	1.4	ug/l	80.0	21.2	136	70-130			MI
Copper	92.5	4.0	1.5	ug/l	80.0	8.18	105	70-130			
Lead	74.2	2.0	0.60	ug/l	80.0	0.618	92	70-130			
Manganese	114	2.0	1.5	ug/l	80.0	14.2	124	70-130			
Nickel	122	4.0	1.8	ug/l	80.0	27.8	118	70-130			
Selenium	95.3	4.0	0.60	ug/l	80.0	15.1	100	70-130			
Matrix Spike Dup Analyzed: 02/05/2008 (8B04109-MSD1) Source: IRA2700-02											
Arsenic	89.1	2.0	1.4	ug/l	80.0	13.2	95	70-130	4	20	
Barium	0.119	0.0020	0.00080	mg/l	0.0800	0.0403	98	70-130	7	20	
Beryllium	86.8	1.0	0.40	ug/l	80.0	ND	108	70-130	2	20	
Cadmium	73.0	2.0	0.22	ug/l	80.0	0.549	91	70-130	4	20	
Chromium	120	4.0	1.4	ug/l	80.0	21.2	124	70-130	8	20	
Copper	88.7	4.0	1.5	ug/l	80.0	8.18	101	70-130	4	20	
Lead	75.1	2.0	0.60	ug/l	80.0	0.618	93	70-130	1	20	
Manganese	113	2.0	1.5	ug/l	80.0	14.2	124	70-130	1	20	
Nickel	119	4.0	1.8	ug/l	80.0	27.8	114	70-130	3	20	
Selenium	93.4	4.0	0.60	ug/l	80.0	15.1	98	70-130	2	20	

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 Project Manager

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

Project ID: Routine Outfall 002
Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A25053 Extracted: 01/25/08											
Blank Analyzed: 01/25/2008 (8A25053-BLK1)											
Chloride	ND	0.50	0.25	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: 01/25/2008 (8A25053-BS1)											
Chloride	4.93	0.50	0.25	mg/l	5.00		99	90-110			
Nitrate-N	1.18	0.11	0.060	mg/l	1.13		105	90-110			
Nitrite-N	1.53	0.15	0.090	mg/l	1.52		101	90-110			
Sulfate	10.2	0.50	0.20	mg/l	10.0		102	90-110			
Matrix Spike Analyzed: 01/25/2008 (8A25053-MS1) Source: IRA2375-01											
Chloride	9.73	0.50	0.25	mg/l	5.00	4.99	95	80-120			
Nitrate-N	4.04	0.11	0.060	mg/l	1.13	2.87	104	80-120			
Nitrite-N	1.53	0.15	0.090	mg/l	1.52	ND	100	80-120			
Sulfate	25.6	0.50	0.20	mg/l	10.0	15.9	96	80-120			
Matrix Spike Analyzed: 01/25/2008 (8A25053-MS2) Source: IRA2478-01											
Chloride	12.3	0.50	0.25	mg/l	5.00	7.60	95	80-120			
Nitrate-N	3.39	0.11	0.060	mg/l	1.13	2.15	110	80-120			
Nitrite-N	1.58	0.15	0.090	mg/l	1.52	ND	104	80-120			
Sulfate	19.9	0.50	0.20	mg/l	10.0	9.44	104	80-120			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25053-MSD1) Source: IRA2375-01											
Chloride	9.76	0.50	0.25	mg/l	5.00	4.99	95	80-120	0	20	
Nitrate-N	4.05	0.11	0.060	mg/l	1.13	2.87	104	80-120	0	20	
Nitrite-N	1.53	0.15	0.090	mg/l	1.52	ND	100	80-120	0	20	
Sulfate	25.7	0.50	0.20	mg/l	10.0	15.9	98	80-120	1	20	

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A25148 Extracted: 01/25/08</u>											
Blank Analyzed: 01/25/2008 (8A25148-BLK1)											
Surfactants (MBAS)	ND	0.10	0.044	mg/l							
LCS Analyzed: 01/25/2008 (8A25148-BS1)											
Surfactants (MBAS)	0.274	0.10	0.044	mg/l	0.250		109	90-110			
Matrix Spike Analyzed: 01/25/2008 (8A25148-MS1)											
Surfactants (MBAS)	0.283	0.10	0.044	mg/l	0.250	ND	113	50-125			
Matrix Spike Dup Analyzed: 01/25/2008 (8A25148-MSD1)											
Surfactants (MBAS)	0.276	0.10	0.044	mg/l	0.250	ND	111	50-125	3	20	
<u>Batch: 8A25151 Extracted: 01/25/08</u>											
Blank Analyzed: 01/30/2008 (8A25151-BLK1)											
Biochemical Oxygen Demand	ND	2.0	0.59	mg/l							
LCS Analyzed: 01/30/2008 (8A25151-BS1)											
Biochemical Oxygen Demand	196	100	30	mg/l	198		99	85-115			
LCS Dup Analyzed: 01/30/2008 (8A25151-BSD1)											
Biochemical Oxygen Demand	198	100	30	mg/l	198		100	85-115	2	20	
<u>Batch: 8A26036 Extracted: 01/26/08</u>											
Blank Analyzed: 01/26/2008 (8A26036-BLK1)											
Turbidity	0.0900	1.0	0.040	NTU							J

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MWH-Pasadena/Boeing
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 Attention: Bronwyn Kelly

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 8A26036 Extracted: 01/26/08											
Duplicate Analyzed: 01/26/2008 (8A26036-DUP1)						Source: IRA2525-03					
Turbidity	1.82	1.0	0.040	NTU		1.88			3	20	
Batch: 8A28071 Extracted: 01/28/08											
Blank Analyzed: 01/28/2008 (8A28071-BLK1)											
Perchlorate	ND	4.0	1.5	ug/l							
LCS Analyzed: 01/28/2008 (8A28071-BS1)											
Perchlorate	54.0	4.0	1.5	ug/l	50.0		108	85-115			
Matrix Spike Analyzed: 01/28/2008 (8A28071-MS1)						Source: IRA2506-01					
Perchlorate	55.4	4.0	1.5	ug/l	50.0	ND	111	80-120			
Matrix Spike Dup Analyzed: 01/28/2008 (8A28071-MSD1)						Source: IRA2506-01					
Perchlorate	55.2	4.0	1.5	ug/l	50.0	ND	110	80-120	0	20	
Batch: 8A28126 Extracted: 01/28/08											
Blank Analyzed: 01/28/2008 (8A28126-BLK1)											
Total Cyanide	ND	5.0	2.2	ug/l							
LCS Analyzed: 01/28/2008 (8A28126-BS1)											
Total Cyanide	197	5.0	2.2	ug/l	200		99	90-110			
Matrix Spike Analyzed: 01/28/2008 (8A28126-MS1)						Source: IRA2156-01					
Total Cyanide	203	5.0	2.2	ug/l	200	ND	101	70-115			

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A28126 Extracted: 01/28/08</u>											
Matrix Spike Dup Analyzed: 01/28/2008 (8A28126-MSD1)						Source: IRA2156-01					
Total Cyanide	199	5.0	2.2	ug/l	200	ND	99	70-115	2	15	
<u>Batch: 8A29110 Extracted: 01/29/08</u>											
Blank Analyzed: 01/29/2008 (8A29110-BLK1)											
Ammonia-N (Distilled)	ND	0.50	0.30	mg/l							
LCS Analyzed: 01/29/2008 (8A29110-BS1)											
Ammonia-N (Distilled)	10.1	0.50	0.30	mg/l	10.0		101	80-115			
Matrix Spike Analyzed: 01/29/2008 (8A29110-MS1)						Source: IRA2355-01					
Ammonia-N (Distilled)	10.4	0.50	0.30	mg/l	10.0	ND	104	70-120			
Matrix Spike Dup Analyzed: 01/29/2008 (8A29110-MSD1)						Source: IRA2355-01					
Ammonia-N (Distilled)	10.6	0.50	0.30	mg/l	10.0	ND	106	70-120	3	15	
<u>Batch: 8A30131 Extracted: 01/30/08</u>											
Blank Analyzed: 01/30/2008 (8A30131-BLK1)											
Total Suspended Solids	ND	10	10	mg/l							
LCS Analyzed: 01/30/2008 (8A30131-BS1)											
Total Suspended Solids	953	10	10	mg/l	1000		95	85-115			
Duplicate Analyzed: 01/30/2008 (8A30131-DUP1)						Source: IRA2772-01					
Total Suspended Solids	3120	10	10	mg/l		3060			2	10	

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
<u>Batch: 8A31072 Extracted: 01/31/08</u>											
Duplicate Analyzed: 01/31/2008 (8A31072-DUP1)						Source: IRA2944-01					
Specific Conductance	128	1.0	1.0	umhos/cm		128			0	5	
<u>Batch: 8A31077 Extracted: 01/31/08</u>											
Blank Analyzed: 01/31/2008 (8A31077-BLK1)											
Total Dissolved Solids	ND	10	10	mg/l							
LCS Analyzed: 01/31/2008 (8A31077-BS1)											
Total Dissolved Solids	1000	10	10	mg/l	1000		100	90-110			
Duplicate Analyzed: 01/31/2008 (8A31077-DUP1)						Source: IRA2619-03					
Total Dissolved Solids	ND	10	10	mg/l		ND				10	
<u>Batch: 8B04061 Extracted: 02/04/08</u>											
Blank Analyzed: 02/04/2008 (8B04061-BLK1)											
Hexane Extractable Material (Oil & Grease)	1.40	5.0	1.4	mg/l							J
LCS Analyzed: 02/04/2008 (8B04061-BS1)											
Hexane Extractable Material (Oil & Grease)	19.5	5.0	1.4	mg/l	20.2		97	78-114			MNR1
LCS Dup Analyzed: 02/04/2008 (8B04061-BSD1)											
Hexane Extractable Material (Oil & Grease)	18.2	5.0	1.4	mg/l	20.2		90	78-114	7	11	

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
 Received: 01/25/08

METHOD BLANK/QC DATA

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W8A1034 Extracted: 01/29/08											
Blank Analyzed: 01/30/2008 (W8A1034-BLK1)											
Mercury, Dissolved	ND	0.20	0.050	ug/l							
Mercury, Total	ND	0.20	0.050	ug/l							
LCS Analyzed: 01/30/2008 (W8A1034-BS1)											
Mercury, Dissolved	0.986	0.20	0.050	ug/l	1.00		99	85-115			
Mercury, Total	0.986	0.20	0.050	ug/l	1.00		99	85-115			
Matrix Spike Analyzed: 01/30/2008 (W8A1034-MS1) Source: 8012803-01											
Mercury, Dissolved	2.06	0.40	0.10	ug/l	2.00	ND	103	70-130			
Mercury, Total	2.06	0.40	0.10	ug/l	2.00	ND	103	70-130			
Matrix Spike Dup Analyzed: 01/30/2008 (W8A1034-MSD1) Source: 8012803-01											
Mercury, Dissolved	2.02	0.40	0.10	ug/l	2.00	ND	101	70-130	2	20	
Mercury, Total	2.02	0.40	0.10	ug/l	2.00	ND	101	70-130	2	20	

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

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
IRA2496-01	1664-HEM	Hexane Extractable Material (Oil & Greas	mg/l	0.67	4.8	15
IRA2496-01	608-Pest Boeing 001/002 Q (LL)	alpha-BHC	ug/l	0	0.0094	0.03
IRA2496-01	625-Boeing 001/002 Q-LL	2,4,6-Trichlorophenol	ug/l	0	5.8	13
IRA2496-01	625-Boeing 001/002 Q-LL	2,4-Dinitrotoluene	ug/l	0	8.7	18
IRA2496-01	625-Boeing 001/002 Q-LL	Bis(2-ethylhexyl)phthalate	ug/l	5.66	4.8	4
IRA2496-01	625-Boeing 001/002 Q-LL	N-Nitrosodimethylamine	ug/l	0	7.7	16
IRA2496-01	625-Boeing 001/002 Q-LL	Pentachlorophenol	ug/l	0	7.7	16
IRA2496-01	Ammonia-N, Titr (350.2) w/dist	Ammonia-N (Distilled)	mg/l	0.28	0.50	10
IRA2496-01	Arsenic-200.8	Arsenic	ug/l	2.45	1.0	10
IRA2496-01	Beryllium-200.8	Beryllium	ug/l	0.29	0.50	4
IRA2496-01	BOD	Biochemical Oxygen Demand	mg/l	2.57	2.0	30
IRA2496-01	Cadmium-200.8	Cadmium	ug/l	0.18	1.0	3.1
IRA2496-01	Chloride - 300.0	Chloride	mg/l	17	0.50	150
IRA2496-01	Chromium-200.8	Chromium	ug/l	9.66	2.0	16
IRA2496-01	Copper-200.8	Copper	ug/l	8.44	2.0	14
IRA2496-01	Cyanide-335.2 5ppb	Total Cyanide	ug/l	-1	5.0	8.5
IRA2496-01	Hg_w 245.1	Mercury, Total	ug/l	0.016	0.20	2
IRA2496-01	Iron-200.7	Iron	mg/l	4.31	0.040	0.3
IRA2496-01	Lead-200.8	Lead	ug/l	7.12	1.0	5.2
IRA2496-01	Manganese-200.8	Manganese	ug/l	120	1.0	50
IRA2496-01	MBAS - SM5540-C	Surfactants (MBAS)	mg/l	0.064	0.10	0.5
IRA2496-01	Nickel-200.8	Nickel	ug/l	7.24	2.0	96
IRA2496-01	Nitrate-N, 300.0	Nitrate-N	mg/l	1.16	0.11	8
IRA2496-01	Nitrite-N, 300.0	Nitrite-N	mg/l	0	0.15	1
IRA2496-01	Nitrogen, NO3+NO2 -N	Nitrate/Nitrite-N	mg/l	1.16	0.26	8
IRA2496-01	Perchlorate 314.0-DEFAULT	Perchlorate	ug/l	0	4.0	6
IRA2496-01	Selenium-200.8	Selenium	ug/l	0.24	2.0	5
IRA2496-01	Settleable Solids	Total Settleable Solids	ml/l/hr	0.30	0.10	0.3
IRA2496-01	Sulfate-300.0	Sulfate	mg/l	52	0.50	300
IRA2496-01	TDS - SM 2540C	Total Dissolved Solids	mg/l	214	10	950
IRA2496-01	TSS - EPA 160.2	Total Suspended Solids	mg/l	139	10	45
IRA2496-01	Zinc-200.7	Zinc	ug/l	36	20	120

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.

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08

Received: 01/25/08

LabNumber	Analysis	Analyte	Units	Result	MRL	Compliance Limit
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Joseph Doak
Project Manager

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DATA QUALIFIERS AND DEFINITIONS

- J** Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
- M1** The MS and/or MSD were above the acceptance limits due to sample matrix interference. 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.
- RL1** Reporting limit raised due to sample matrix effects.
- ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD** Relative Percent Difference

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Joseph Doak
Project Manager

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IRA2496 <Page 32 of 34>
NPDES - 393

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

Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

Certification Summary

TestAmerica Irvine

Method	Matrix	Nelac	California
EPA 120.1	Water	X	X
EPA 160.2	Water	X	X
EPA 160.5	Water	X	X
EPA 1664A	Water		
EPA 180.1	Water	X	X
EPA 200.7-Diss	Water	X	X
EPA 200.7	Water	X	X
EPA 200.8-Diss	Water	X	X
EPA 200.8	Water	X	X
EPA 300.0	Water	X	X
EPA 314.0	Water	X	X
EPA 335.2	Water	X	X
EPA 350.2	Water		X
EPA 405.1	Water	X	X
EPA 608	Water	X	X
EPA 624	Water	X	X
EPA 625	Water	X	X
SM2540C	Water	X	
SM5540-C	Water	X	X

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

Subcontracted Laboratories

Aquatic Testing Laboratories-SUB *California Cert #1775*

4350 Transport Street, Unit 107 - Ventura, CA 93003

Analysis Performed: Bioassay-7 dy Chnric

Samples: IRA2496-01

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Project ID: Routine Outfall 002

Report Number: IRA2496

Sampled: 01/25/08
Received: 01/25/08

Eberline Services

2030 Wright Avenue - Richmond, CA 94804

Analysis Performed: Gamma Spec
Samples: IRA2496-01

Analysis Performed: Gross Alpha
Samples: IRA2496-01

Analysis Performed: Gross Beta
Samples: IRA2496-01

Analysis Performed: Radium, Combined
Samples: IRA2496-01

Analysis Performed: Strontium 90
Samples: IRA2496-01

Analysis Performed: Tritium
Samples: IRA2496-01

Analysis Performed: Uranium, Combined
Samples: IRA2496-01

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: IRA2496-01

Weck Laboratories, Inc

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

Method Performed: EPA 245.1
Samples: IRA2496-01

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IRAD 4976

CHAIN OF CUSTODY FORM

Test America Version 12/20/07

Client Name/Address: MWH-Arcadia 618 Michillinda Avenue, Suite 200 Arcadia, CA 91007		Project: Boeing-SSFL NPDES Routine Outfall 002					
Test America Contact: Joseph Doak Project Manager: Bronwyn Kelly Sampler: R BARRON J MARRISON R BARRON		Phone Number: (626) 568-6691 Fax Number: (626) 568-6515					
Sample Description	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #		
Outfall 002	W	1L Poly	1	HNO ₃	1A		
Outfall 002 Dup	W	1L Poly	1	HNO ₃	1B		
Outfall 002	W	1L Poly	1	None	2		
Outfall 002	W	1L Amber	2	None	3A, 3B		
Outfall 002	W	1L Amber	2	HCl	4A, 4B		
Outfall 002	W	500 ml Poly	1	NaOH	5		
Outfall 002	W	1L Poly	1	None	6		
Outfall 002	W	500 ml Poly	2	None	7A, 7B		
Outfall 002	W	500 ml Poly	2	None	8A, 8B		
Outfall 002	W	500 ml Poly Poly 1L	1	None	9		
Outfall 002	W	500 ml Poly	2	None	10A, 10B		
Outfall 002	W	500 ml Poly	1	H ₂ SO ₄	11		
Outfall 002	W	1L Amber	2	None	12A, 12B		
Outfall 002	W	1L Amber	2	None	13A, 13B		
Relinquished By: <i>[Signature]</i>		Date/Time: 1-25-08 1510		Received By: <i>[Signature]</i>		Date/Time: 1/25/08 1510	
Relinquished By: <i>[Signature]</i>		Date/Time: 1/25/08 1820		Received By: <i>[Signature]</i>		Date/Time: 1/25/08 1820	
Relinquished By: <i>[Signature]</i>		Date/Time: 1/25/08 1820		Received By: <i>[Signature]</i>		Date/Time: 1/25/08 1820	

Field readings: Temp = 8.8 C 47.0 pH = 7.4 Time of readings =	Comments 24 TAT; As, Ba, Be, Cr, Fe, Mn, Ni exceeded 9/22/07 24 TAT
ANALYSIS REQUIRED	
2,4,6 TCP, 2,4 Dinitrotole	
Bis(2-ethylhexyl)phthalate	
NDMA, PCP (SVOCs 625)	
Alpha BHC (608)	
Ammonia-N (350.2)	
Turbidity, TDS, TSS	
Nitrate-N, Nitrite-N	
Perchlorate	
Cl ⁻ , SO ₄ ²⁻ , NO ₃ ⁻ , NO ₂ ⁻	
Surfactants (MBAS)	
BOD ₅ (20 degrees C)	
Cyanide (total recoverable)	
Oil & Grease (1664-HEM)	
TCDD (and all congeners)	
Settleable Solids	
Ba, Be, Cr, Fe, Mn, Ni	
Cd, Pb, Hg, Cd, Se, Zn, As	
Total Recoverable Metals	
Turn around Time: (check) 24 Hours <input type="checkbox"/> 5 Days <input type="checkbox"/> 48 Hours <input type="checkbox"/> 10 Days <input type="checkbox"/> 72 Hours <input type="checkbox"/> Normal <input checked="" type="checkbox"/>	Sample Integrity: (check) Intact <input checked="" type="checkbox"/> On Ice: <input type="checkbox"/>

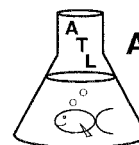
2020
1/25/08

CHAIN OF CUSTODY FORM

Test America Version 12/20/07

Sample Description	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #	ANALYSIS REQUIRED							Comments										
						VOCs 624 + xylenes	Gross Alpha (900.0), Gross Beta (900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total (903.0 or 903.1) & Radium 226 (904.0), Uranium (908.0), K-40, CS-137 (909.0 or 901.1)	Chronic Toxicity	Total Dissolved Metals: Cu, Pb, Hg, Cd, Se, Zn, As, Ba, Be, Cr, Fe, Mn, Ni														
Outfall 002	W	VOAs	5	HCl	14A, 14B, 14C, 14D, 14E	X																	
Outfall 002	W	2.5 Gal Cube 500 ml Amber	1	None	15A		X															Unfiltered and unpreserved analysis	
Outfall 002	W	1 Gal Cube	1	None	15B			X														Exceeded 9/22/07; (Normally test only if first and second rain event of the year)	
Outfall 002	W	1L Poly	1	None	16				X													Filter w/in 24hrs of receipt at lab; As, Ba, Be, Cr, Fe, Mn, Ni exceeded 9/22/07	
Trip Blanks	W	VOAs	3	HCl	18A, 18B, 18C	X																	
Relinquished By	Date/Time: 1-25-08 1510					Received By							Date/Time: 1/25/08 1510				Turn around Time: (check) 24 Hours ___ 5 Days ___ 48 Hours ___ 10 Days ___ 72 Hours ___ Normal ___						
Relinquished By	Date/Time: 1/25/08 1820					Received By							Date/Time: 1/25/08 1820				Sample Integrity: (check) Intact ___ X ___ On Ice: ___ 4.4/12.4						

LABORATORY REPORT



**Aquatic
Testing
Laboratories**

"dedicated to providing quality aquatic toxicity testing"

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

Date: February 3, 2008
Client: TestAmerica - Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Joseph Doak

Laboratory No.: A-08012604-001
Sample ID.: IRA2496-01 (Outfall 002)

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.

Date Sampled: 01/25/08
Date Received: 01/26/08
Temp. Received: 6°C
Chlorine (TRC): 0.0 mg/l
Date Tested: 01/26/08 to 02/02/08

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

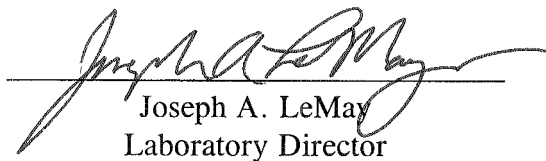
Ceriodaphnia dubia Survival and Reproduction Test (EPA Method 1002).

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

Result Summary:

Chronic:	<u>NOEC</u>	<u>TUc</u>
<i>Ceriodaphnia</i> Survival:	100%	1.0
<i>Ceriodaphnia</i> Reproduction:	100%	1.0

Quality Control: Reviewed and approved by:


Joseph A. LeMay
Laboratory Director

**CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0**



Lab No.: A-08012604-001
Client/ID: Test America – Outfall 002

Date Tested: 01/26/08 to 02/02/08

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-080106.

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%	24.8
100% Sample	100%	31.0
Sample not statistically significantly less than Control 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 (24.8 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 = 6.4%)
Statistically significantly different concentrations relative difference > 13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date: 1/26/2008 15:30	Test ID: 8012604	Sample ID: Outfall 002
End Date: 2/2/2008 14:30	Lab ID: CAATL-Aquatic Testing Labs	Sample Type: EFF2-Industrial
Sample Date: 1/25/2008 09:40	Protocol: EPA-821-R-02-013	Test Species: CD-Ceriodaphnia dubia

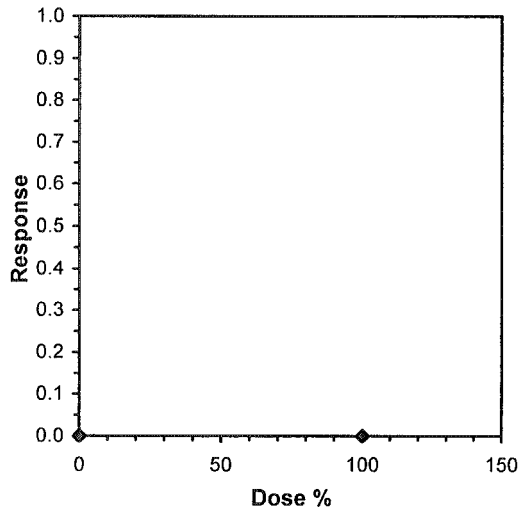
Comments:

Conc-%	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
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic 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

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs D-Control				

Point	%	SD	Linear Interpolation (200 Resamples)	
			95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/26/2008 15:30 Test ID: 8012604 Sample ID: Outfall 002
 End Date: 2/2/2008 14:30 Lab ID: CAATL-Aquatic Testing Labs Sample Type: EFF2-Industrial
 Sample Date: 1/25/2008 09:40 Protocol: EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia

Comments:

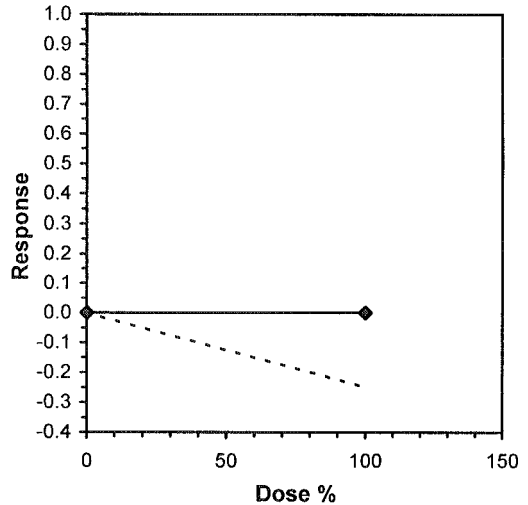
Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	22.000	24.000	26.000	24.000	25.000	26.000	27.000	26.000	22.000
100	31.000	28.000	30.000	33.000	33.000	33.000	27.000	34.000	31.000	30.000

Conc-%	Mean	N-Mean	Transform: Untransformed					N	t-Stat	1-Tailed Critical	MSD	Isotonic	
			Mean	Min	Max	CV%	Mean					N-Mean	
D-Control	24.800	1.0000	24.800	22.000	27.000	7.061	10				27.900	1.0000	
100	31.000	1.2500	31.000	27.000	34.000	7.450	10	-6.765	1.734	1.589	27.900	1.0000	

Auxiliary Tests	Statistic	Critical	Skew	Kurt		
Shapiro-Wilk's Test indicates normal distribution (p > 0.05)	0.936233	0.905	-0.51105	-0.6944		
F-Test indicates equal variances (p = 0.42)	1.73913	6.541086				
Hypothesis Test (1-tail, 0.05)	MSDu	MSDp	MSB	MSE	F-Prob	df
Homoscedastic t Test indicates no significant differences Treatments vs D-Control	1.589295	0.064084	192.2	4.2	2.4E-06	1, 18

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
EPA METHOD 1002.0 Raw Data Sheet



Lab No.: A-08012604-001

Client ID: TestAmerica - IRA2496-01 (Outfall 002)

Start Date: 01/26/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:		Rm	J	2	V	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Time of Readings:		1530	1430	1430	1500	1500	1500	1500	1500	1500	1600	1600	1500	1500	1430
Control	DO	8.0	7.8	7.7	8.1	7.9	7.7	8.9	8.2	8.1	7.9	8.2	7.8	8.0	8.2
	pH	7.8	7.6	7.4	7.6	7.8	8.0	8.0	7.9	7.8	7.9	7.7	7.8	7.6	7.6
	Temp	25.4	24.7	25.1	24.4	25.0	24.6	24.6	24.8	24.6	24.5	25.1	24.7	25.0	24.3
100%	DO	11.0	7.8	10.1	8.0	10.0	7.7	10.3	8.3	10.3	8.2	9.6	8.4	11.6	8.4
	pH	7.7	7.4	7.5	7.5	7.4	7.6	7.4	7.7	7.3	7.6	7.3	7.7	7.4	7.4
	Temp	24.4	25.0	24.8	24.3	25.0	24.6	24.6	24.9	25.3	24.5	24.5	24.7	24.3	24.2

Additional Parameters	Control	100% Sample
Conductivity (umohms)	290	280
Alkalinity (mg/l CaCO ₃)	66	60
Hardness (mg/l CaCO ₃)	98	210
Ammonia (mg/l NH ₃ -N)	<0.2	0.3

Source of Neonates											
Replicate:	A	B	C	D	E	F	G	H	I	J	
Brood ID:	B1	E1	G2	H2	I3	J3	A6	C5	G4	I5	

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	R
	2	0	0	0	0	0	0	0	0	0	0	0	10	R
	3	0	0	0	0	0	3	4	0	4	0	11	10	R
	4	4	3	5	3	4	0	0	5	0	4	28	10	R
	5	8	7	9	9	8	7	8	9	9	8	82	10	R
	6	14	12	10	0	0	15	0	0	0	0	51	10	R
	7	0	0	0	14	12	0	14	13	13	10	76	10	R
	Total	26	22	24	26	24	25	26	27	26	22	248	10	R
100%	1	0	0	0	0	0	0	0	0	0	0	10	R	
	2	0	0	0	0	0	0	0	0	0	0	10	R	
	3	4	3	4	3	5	4	4	0	0	4	31	10	R
	4	0	0	0	0	0	0	0	5	4	0	9	10	R
	5	11	10	11	13	12	13	8	12	11	10	111	10	R
	6	16	15	15	17	16	16	15	17	16	16	159	10	R
	7	0	0	(10)	(14)	0	0	(16)	0	0	0	0	10	R
	Total	31	28	30	33	33	33	27	34	31	30	310	10	R

Circled fourth brood not used in statistical analysis.

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

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2496


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: 6 °C Ice: Y N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2496-01	Water		Sampled: 01/25/08 09:40	
Bioassay-7 dy Chnric	N/A	02/05/08	01/26/08 21:40	Cerio, EPA/821-R02-013, Sub to Aquatic testing
<i>Containers Supplied:</i> 1 gal Poly (AC)				





Released By

1/26/08

Date/Time
1/26/08 1445

Date/Time



Received By


Date/Time
1-26-08 1445

Date/Time



***REFERENCE
TOXICANT
DATA***

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl



QA/QC Batch No.: RT-080106

Date Tested: 01/06/08 to 01/12/08

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: 6 days.
 Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival		Mean Number of Young Per Female	
Control	100%		20.5	
0.25 g/l	100%		19.5	
0.5 g/l	100%		19.5	
1.0 g/l	100%		14.0	*
2.0 g/l	80%		3.2	*
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.

CHRONIC TOXICITY

Survival LC50	2.5 g/l
Reproduction IC25	0.88 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% Survival)
≥15 young per surviving control female	Pass (20.5 young)
≥60% surviving controls had 3 broods	Pass (90% with 3 broods)
PMSD <47% for reproduction	Pass (PMSD = 19.1%)
Stat. sig. diff. conc. relative difference >13%	Pass (Stat. sig. diff. conc. = 31.7%)
Concentration response relationship acceptable	Pass (Response curve normal)

Ceriodaphnia Survival and Reproduction Test-Survival Day 6

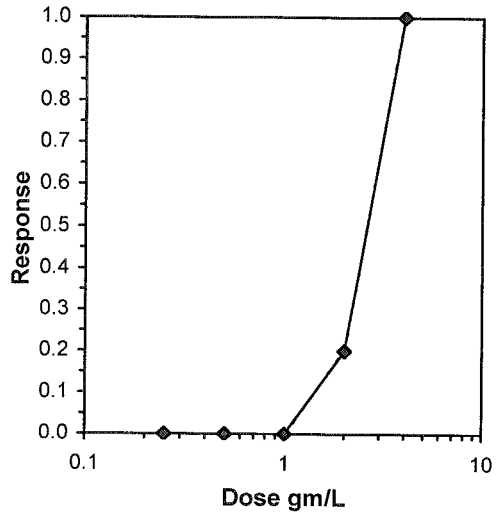
Start Date: 1/6/2008 13:00 Test ID: RT-080106c Sample ID: REF-Ref Toxicant
 End Date: 1/12/2008 13:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 1/6/2008 Protocol: FWCH-EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
 Comments:

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	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total 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	0.8000	0.8000	2	8	10	10	0.2368	0.0500	2	10
4	0.0000	0.0000	10	0	10	10			10	10

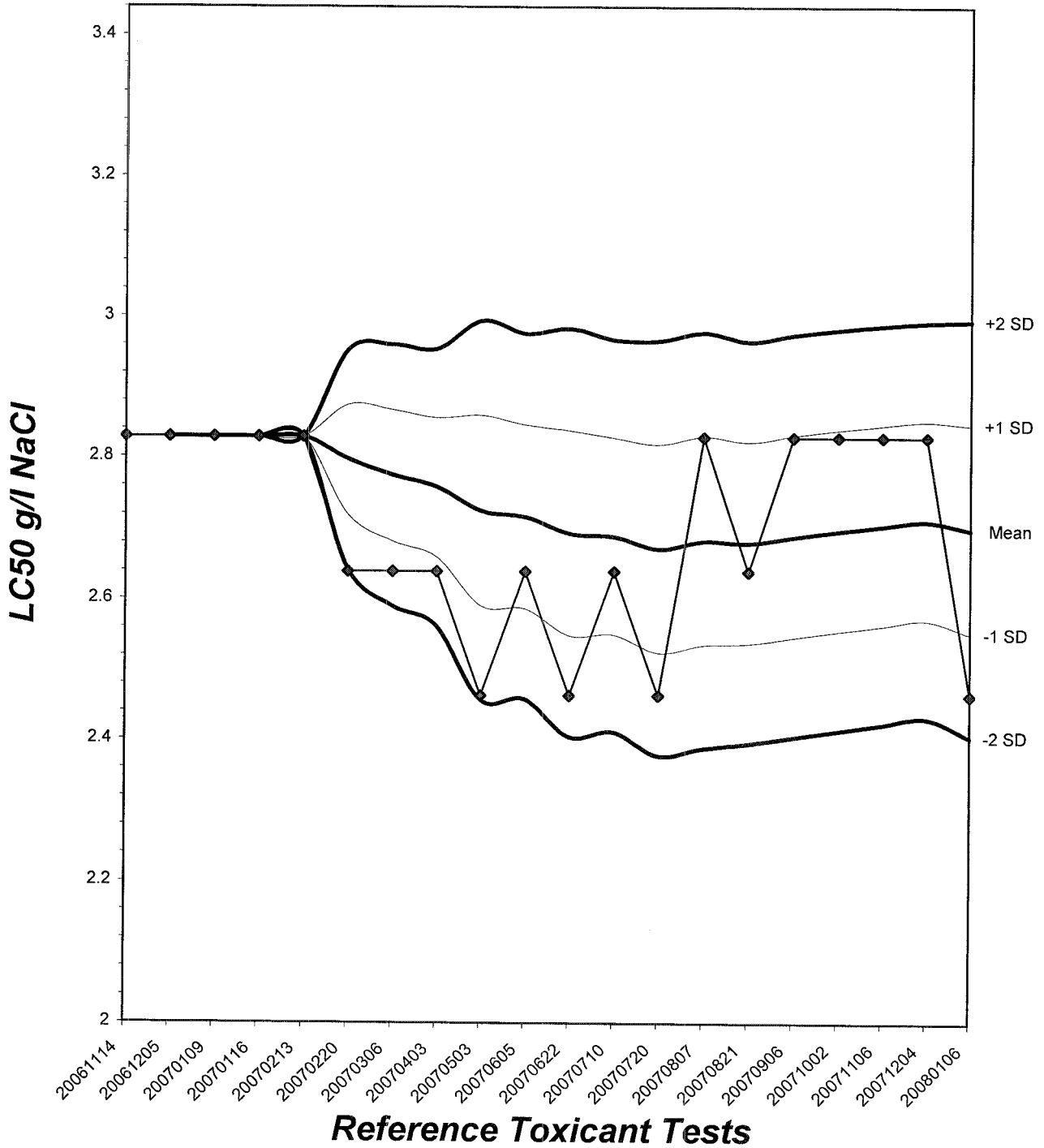
Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	2	4	2.82843	
Treatments vs D-Control				

Trimmed Spearman-Kärber			
Trim Level	EC50	95% CL	
0.0%	2.4623	2.0663	2.9342
5.0%	2.5108	2.0545	3.0683
10.0%	2.5519	1.9976	3.2599
20.0%	2.5937	2.2616	2.9745
Auto-0.0%	2.4623	2.0663	2.9342



Ceriodaphnia dubia Chronic Survival Laboratory Control Chart

CV% = 5.46



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date: 1/6/2008 13:00 Test ID: RT-080106c Sample ID: REF-Ref Toxicant
 End Date: 1/12/2008 13:00 Lab ID: CAATL-Aquatic Testing Labs Sample Type: NACL-Sodium chloride
 Sample Date: 1/6/2008 Protocol: FWCH-EPA-821-R-02-013 Test Species: CD-Ceriodaphnia dubia
 Comments:

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	23.000	11.000	21.000	21.000	23.000	20.000	19.000	22.000	20.000	25.000
0.25	12.000	24.000	19.000	22.000	9.000	20.000	21.000	21.000	22.000	25.000
0.5	21.000	19.000	21.000	22.000	16.000	12.000	22.000	21.000	22.000	19.000
1	19.000	9.000	9.000	19.000	14.000	10.000	16.000	17.000	19.000	8.000
2	8.000	2.000	2.000	5.000	4.000	3.000	3.000	5.000	0.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Conc-gm/L	Transform: Untransformed								Rank Sum	1-Tailed Critical	Isotonic	
	Mean	N-Mean	Mean	Min	Max	CV%	N	Mean			N-Mean	
D-Control	20.500	1.0000	20.500	11.000	25.000	18.432	10			20.500	1.0000	
0.25	19.500	0.9512	19.500	9.000	25.000	26.177	10	102.00	76.00	19.500	0.9512	
0.5	19.500	0.9512	19.500	12.000	22.000	16.617	10	94.50	76.00	19.500	0.9512	
*1	14.000	0.6829	14.000	8.000	19.000	32.819	10	62.50	76.00	14.000	0.6829	
*2	3.200	0.1561	3.200	0.000	8.000	76.263	10	55.00	76.00	3.200	0.1561	
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 non-normal distribution (p <= 0.05)	0.91281	0.947	-0.9793	0.67912
Bartlett's Test indicates equal variances (p = 0.25)	5.39	13.2767		

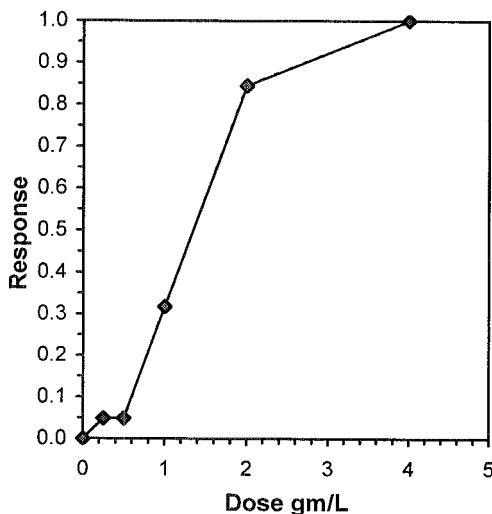
Hypothesis Test (1-tail, 0.05)

	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	0.5	1	0.70711	

Treatments vs D-Control

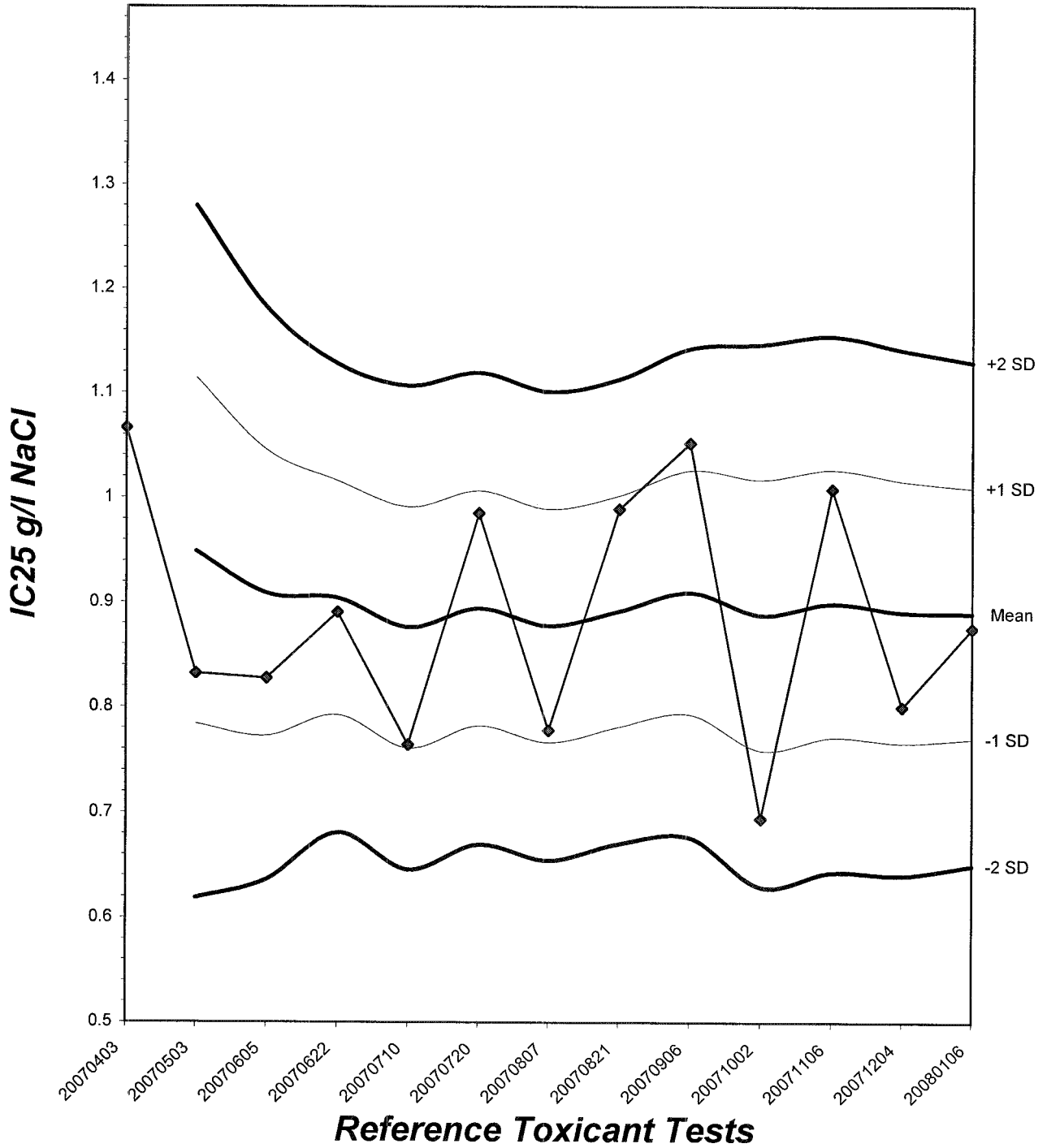
Linear Interpolation (200 Resamples)

Point	gm/L	SD	95% CL	Skew
IC05	0.5023	0.1876	0.0809 0.6178	-0.0659
IC10	0.5955	0.1768	0.1617 0.7497	-0.5184
IC15	0.6886	0.1424	0.2426 0.9253	-0.5389
IC20	0.7818	0.1259	0.4995 1.0352	0.2728
IC25	0.8750	0.1224	0.6413 1.1094	0.3153
IC40	1.1574	0.1139	0.9216 1.3331	-0.0890
IC50	1.3472	0.0972	1.1197 1.4847	-0.4227



***Ceriodaphnia dubia* Chronic Reproduction Laboratory Control Chart**

CV% = 13.5



CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl

Reproduction and Survival Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	2	0	0	0	3	0	3	0	8	10	
	4	4	3	0	4	3	2	0	2	0	3	21	10	
	5	9	8	7	7	6	7	6	7	6	7	70	10	
	6	10	0	12	10	14	11	10	13	11	15	106	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	23	11	21	21	23	20	19	22	20	25	205	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	3	0	2	0	0	3	0	11	10	
	4	4	0	2	0	3	6	4	2	0	3	24	10	
	5	8	8	7	5	6	0	7	6	7	8	62	10	
	6	0	13	10	14	0	12	10	13	12	14	98	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	12	24	19	22	9	20	21	21	22	25	195	10	
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	2	0	2	0	0	0	3	2	0	0	9	10	
	4	0	3	0	3	4	3	0	0	3	3	19	10	
	5	9	6	7	7	0	9	8	7	7	6	66	10	
	6	10	10	12	12	12	0	11	10	12	10	101	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	21	19	21	22	16	12	22	21	22	19	195	10	

Circled fourth brood not used in statistical analysis.

7th 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-080106

Start Date: 01/06/2008

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
1.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	h
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	3	0	0	2	0	5	10	
	4	3	2	2	3	0	0	3	2	0	2	17	10	
	5	5	7	7	4	5	7	5	4	7	6	57	10	
	6	11	0	0	12	9	0	8	11	10	0	65	10	
	7	-	-	-	-	-	-	-	-	-	-	-	-	
	Total	19	9	9	19	14	10	16	17	19	8	140	10	
2.0 g/l	1	0	0	0	0	0	0	0	X	0	0	9	h	
	2	0	0	0	0	0	0	0	-	0	0	9		
	3	0	0	0	0	0	0	0	-	0	0	9		
	4	2	0	2	3	0	0	0	2	-	0	9		9
	5	3	0	0	2	2	3	3	0	-	0	13		9
	6	3	2	0	0	2	0	0	3	-	X	10		8
	7	-	-	-	-	-	-	-	-	-	-	-		-
	Total	8	2	2	5	4	3	3	5	0	0	32		8
4.0 g/l	1	X	X	X	X	X	X	X	X	X	0	0	h	
	2	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	-	-	-	-	-	-	-	-		
	6	-	-	-	-	-	-	-	-	-	-	-		
	7	-	-	-	-	-	-	-	-	-	-	-		
	Total	0	0	0	0	0	0	0	0	0	0	0		0

Circled fourth brood not used in statistical analysis.

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

CERIODAPHNIA DUBIA CHRONIC BIOASSAY

Reference Toxicant - NaCl Water Chemistries Raw Data Sheet



QA/QC No.: RT-080106

Start Date: 01/06/2008

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7		
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	
Analyst Initials:		g	h	h	h	h	h	h	h	h	h	h	h	-	-	
Time of Readings:		1300	1330	1330	1300	1300	1230	1230	1300	1300	1300	1300	1300	1300	-	-
Control	DO	7.6	7.2	7.4	7.7	7.4	7.6	7.4	7.5	8.2	7.8	7.9	7.7	-	-	
	pH	7.6	7.4	7.4	7.3	7.3	7.2	7.2	7.7	7.5	7.6	7.9	7.6	-	-	
	Temp	24.3	25.1	25.4	24.8	24.1	24.9	24.9	25.1	24.4	25.0	24.6	25.1	-	-	
0.25 g/l	DO	7.5	7.3	7.5	7.5	7.5	7.7	7.3	7.4	8.2	7.8	7.9	7.7	-	-	
	pH	7.6	7.3	7.4	7.4	7.4	7.2	7.3	7.4	7.6	7.5	7.6	7.7	-	-	
	Temp	24.4	25.2	25.3	24.9	24.2	24.9	24.7	25.0	24.4	25.1	24.6	25.1	-	-	
0.5 g/l	DO	7.4	7.2	7.4	7.6	7.4	7.5	7.4	7.6	8.5	7.6	8.0	7.8	-	-	
	pH	7.5	7.3	7.4	7.4	7.4	7.2	7.3	7.5	7.6	7.5	7.7	7.7	-	-	
	Temp	24.3	25.1	25.3	24.9	24.1	25.2	24.6	24.9	24.4	24.9	24.4	24.9	-	-	
1.0 g/l	DO	7.5	7.2	7.6	7.7	7.3	7.8	7.4	7.4	8.4	7.8	7.7	7.7	-	-	
	pH	7.5	7.3	7.6	7.5	7.4	7.2	7.3	7.5	7.6	7.6	7.9	7.6	-	-	
	Temp	24.4	25.2	25.1	24.7	24.2	25.2	24.6	25.0	24.4	24.9	24.6	25.0	-	-	
2.0 g/l	DO	7.4	7.4	7.6	7.5	7.4	7.8	7.2	7.6	8.2	7.6	7.6	7.7	-	-	
	pH	7.5	7.4	7.6	7.6	7.4	7.3	7.2	7.6	7.5	7.6	7.9	7.6	-	-	
	Temp	24.5	25.1	25.0	24.6	24.2	25.3	24.8	25.2	24.4	24.8	24.6	25.1	-	-	
4.0 g/l	DO	7.5	7.8	-	-	-	-	-	-	-	-	-	-	-	-	
	pH	7.6	7.8	-	-	-	-	-	-	-	-	-	-	-	-	
	Temp	24.3	24.6	-	-	-	-	-	-	-	-	-	-	-	-	

Dissolved Oxygen (DO) readings are in mg/l O₂; Temperature (Temp) readings are in °C.

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	350	348	305	6400	3100	3210
Alkalinity (mg/l CaCO ₃)	66	65	63	65	66	64
Hardness (mg/l CaCO ₃)	98	97	98	98	97	98

Source of Neonates

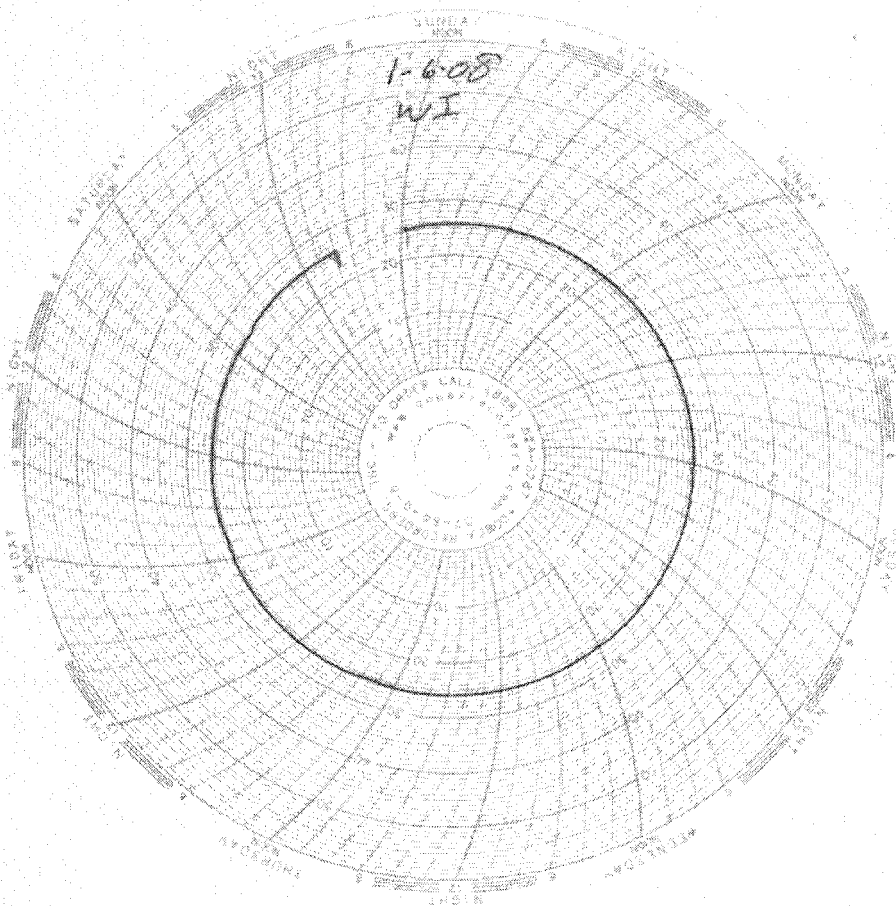
Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	2B	1B	3C	2C	2A	3D	3E	2E	3E	2G

Laboratory Temperature Chart

QA/QC Batch No: RT-080106

Date Tested: 01/06/08 to 01/12/08

Acceptable Range: 25+/- 1°C





February 27 2008

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

Reference: Eberline Services NELAP Cert #01120CA
Test America Project Nos. IRA2496, IRA2497, IRA2499, IRA2500
IRA2506, IRA2565
Eberline Services Reports R801170-8687, R801171-8688, R801172-8689
R801173-8690, R801174-8691, R801175-8692

Dear Mr. Doak:

Enclosed are results from the analyses of six water samples received on January 29, 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. All samples were batched with QC samples 8687-002, 003, 004, and 005, except for total uranium analysis; the QC samples for total-U analysis are 8682-002, 003, 004, and 005. 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 QC sample results were within the limits defined in Eberline Services Quality Control Procedures Manual.

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

Regards,

Melissa Mannion
Senior Program Manager

MCM/njv

Enclosure: Reports/CoC's


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

Eberline Services

ANALYSIS RESULTS

SDG <u>8687</u>	Client <u>TA IRVINE</u>
Work Order <u>R801170-01</u>	Contract <u>PROJECT# IRA2496</u>
Received Date <u>01/29/08</u>	Matrix <u>WATER</u>

Client	Lab						
<u>Sample ID</u>	<u>Sample ID</u>	<u>Collected</u>	<u>Analyzed</u>	<u>Nuclide</u>	<u>Results ± 2σ</u>	<u>Units</u>	<u>MDA</u>
IRA2496-01	8687-001	01/25/08	02/15/08	GrossAlpha	2.21 ± 1.1	pCi/L	1.4
			02/15/08	Gross Beta	4.33 ± 1.0	pCi/L	1.5
			02/20/08	Ra-228	0.159 ± 0.19	pCi/L	0.49
			02/12/08	K-40 (G)	U	pCi/L	12
			02/12/08	Cs-137 (G)	U	pCi/L	0.53
			02/21/08	H-3	-77.4 ± 91	pCi/L	160
			02/20/08	Ra-226	0.047 ± 0.45	pCi/L	0.83
			02/14/08	Sr-90	0.076 ± 0.32	pCi/L	0.68
			02/19/08	Total U	0.636 ± 0.070	pCi/L	0.022

Certified by <u></u>
Report Date <u>02/27/08</u>
Page 1

Eberline Services

QC RESULTS

SDG <u>8687</u> Work Order <u>R801170-01</u> Received Date <u>01/29/08</u>	Client <u>TA IRVINE</u> Contract <u>PROJECT# IRA2496</u> Matrix <u>WATER</u>
--	--

Lab	Sample ID	Nuclide	Results	Units	Amount Added	MDA	Evaluation
<u>LCS</u>							
	8682-002	GrossAlpha	10.6 ± 0.84	pCi/Smpl	10.1	0.29	105% recovery
		Gross Beta	9.49 ± 0.38	pCi/Smpl	9.39	0.29	101% recovery
		Ra-228	8.69 ± 0.54	pCi/Smpl	8.73	0.75	100% recovery
		Co-60 (G)	223 ± 11	pCi/Smpl	226	7.0	99% recovery
		Cs-137 (G)	253 ± 11	pCi/Smpl	236	8.1	107% recovery
		Am-241 (G)	215 ± 37	pCi/Smpl	252	47	85% recovery
		H-3	228 ± 14	pCi/Smpl	240	16	95% recovery
		Ra-226	5.92 ± 0.27	pCi/Smpl	5.58	0.085	106% recovery
		Sr-90	9.45 ± 0.73	pCi/Smpl	9.40	0.32	101% recovery
		Total U	1.06 ± 0.12	pCi/Smpl	1.13	0.004	94% recovery
<u>BLANK</u>							
	8682-003	GrossAlpha	0.006 ± 0.13	pCi/Smpl	NA	0.25	<MDA
		Gross Beta	-0.090 ± 0.27	pCi/Smpl	NA	0.44	<MDA
		Ra-228	-0.089 ± 0.33	pCi/Smpl	NA	0.78	<MDA
		K-40 (G)	U	pCi/Smpl	NA	190	<MDA
		Cs-137 (G)	U	pCi/Smpl	NA	7.4	<MDA
		H-3	-4.88 ± 9.0	pCi/Smpl	NA	15	<MDA
		Ra-226	-0.014 ± 0.026	pCi/Smpl	NA	0.071	<MDA
		Sr-90	0.078 ± 0.24	pCi/Smpl	NA	0.54	<MDA
		Total U	0.00E 00 ± 1.9E-04	pCi/Smpl	NA	4.4E-04	<MDA
<u>LCS</u>							

Certified by
 Report Date 02/27/08
 Page 2

Eberline Services

SDG <u>8687</u>	Client <u>TA IRVINE</u>
Work Order <u>R801170-01</u>	Contract <u>PROJECT# IRA2496</u>
Received Date <u>01/29/08</u>	Matrix <u>WATER</u>

K-40	(G)	U	pCi/Smpl	NA	26	<MDA
Cs-137	(G)	U	pCi/Smpl	NA	2.2	<MDA
H-3		-7.14 ± 9.0	pCi/Smpl	NA	16	<MDA
Ra-226		-0.013 ± 0.036	pCi/Smpl	NA	0.081	<MDA
Sr-90		0.036 ± 0.20	pCi/Smpl	NA	0.45	<MDA

DUPLICATES			
Sample ID	Nuclide	Results ± 2σ	MDA
8682-004	GrossAlpha	3.13 ± 2.1	2.2
	Gross Beta	42.1 ± 2.3	2.1
	Ra-228	0.070 ± 0.15	0.42
	K-40 (G)	42.6 ± 18	9.6
	Cs-137 (G)	U	0.92
	H-3	-73.7 ± 92	160
	Ra-226	0.111 ± 0.44	0.80
	Sr-90	-0.108 ± 0.44	1.1
	Total U	2.88 ± 0.32	0.022
8687-004	GrossAlpha	2.52 ± 1.2	1.5
	Gross Beta	4.02 ± 1.0	1.5
	Ra-228	0.123 ± 0.17	0.47
	K-40 (G)	U	35
	Cs-137 (G)	U	1.5
	H-3	-114 ± 91	160
	Ra-226	-0.221 ± 0.37	0.81
	Sr-90	-0.019 ± 0.24	0.58

ORIGINALS						3σ	
Sample ID	Results ± 2σ	MDA	RPD	(Tot)	Eval		
8682-001	2.52 ± 2.0	2.4	22	160	satis.		
	42.3 ± 2.4	2.4	0	44	satis.		
	0.145 ± 0.17	0.44	-	0	satis.		
	36.0 ± 19	13	17	102	satis.		
	U	1.1	-	0	satis.		
	-62.4 ± 94	160	-	0	satis.		
	-0.149 ± 0.46	0.96	-	0	satis.		
	0.032 ± 0.30	0.58	-	0	satis.		
	2.75 ± 0.30	0.022	5	30	satis.		
8687-001	2.21 ± 1.1	1.4	13	112	satis.		
	4.33 ± 1.0	1.5	7	66	satis.		
	0.159 ± 0.19	0.49	-	0	satis.		
	U	12	-	0	satis.		
	U	0.53	-	0	satis.		
	-77.4 ± 91	160	-	0	satis.		
	0.047 ± 0.45	0.83	-	0	satis.		
	0.076 ± 0.32	0.68	-	0	satis.		

SPIKED SAMPLE			
Sample ID	Nuclide	Results ± 2σ	MDA
8682-005	GrossAlpha	225 ± 12	2.5
	Gross Beta	192 ± 4.5	2.4
	H-3	15800 ± 310	160
	Ra-226	124 ± 4.7	0.94
	Total U	120 ± 15	2.2
8687-005	GrossAlpha	153 ± 7.3	1.3
	Gross Beta	107 ± 2.7	1.3
	H-3	14900 ± 300	160
	Ra-226	134 ± 4.9	0.85

ORIGINAL SAMPLE					
Sample ID	Results ± 2σ	MDA	Added	%Recv	
8682-001	2.52 ± 2.0	2.4	163	136	
	42.3 ± 2.4	2.4	145	103	
	-62.4 ± 94	160	16000	99	
	-0.149 ± 0.46	0.96	112	111	
	2.75 ± 0.30	0.022	113	104	
8687-001	2.21 ± 1.1	1.4	114	132	
	4.33 ± 1.0	1.5	103	100	
	-77.4 ± 91	160	16000	94	
	0.047 ± 0.45	0.83	123	109	

Certified by _____ *ND*

Report Date 02/27/08

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TestAmerica Irvine

IRA2496

REVISED

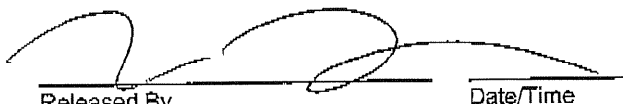
SENDING LABORATORY:

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: _____ °C Ice: Y / N

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2496-01	Water		Sampled: 01/25/08 09:40	
Gamma Spec-O	mg/kg	02/05/08	01/24/09 09:40	Out to Eberline, k-40 and cs-137 only
Gross Alpha-O	pCi/L	02/05/08	07/23/08 09:40	Out to Eberline
Gross Beta-O	pCi/L	02/05/08	07/23/08 09:40	Out to Eberline
Level 4 Data Package - Out	N/A	02/05/08	02/22/08 09:40	
Radium, Combined-O	pCi/L	02/05/08	01/24/09 09:40	Out to Eberline, 226 228
Strontium 90-O	pCi/L	02/05/08	01/24/09 09:40	Out to Eberline
Tritium-O	pCi/L	02/05/08	01/24/09 09:40	Out to Eberline
Uranium, Combined-O	pCi/L	02/05/08	01/24/09 09:40	Out to Eberline
<i>Containers Supplied:</i>				
2.5 gal Poly (AA)	500 mL Amber (AB)			



Released By

Date/Time

Received By

Date/Time

Released By

Date/Time

Received By

Date/Time

Handwritten initials and date: JH 10/29/08

Client: TEST AMERICA City: IRVINE State: CA

Date/Time received: 01/29/08 10:15 CoC No: 1RA2496

Container ID No: 16 CHEST Requested TAT (Days): _____ P.O. Received Yes: No:

INSPECTION

1 Custody seals on shipping container intact? Yes No N/A

2 Custody seals on shipping container dated & signed? Yes No N/A

3 Custody seals on sample containers intact? Yes No N/A

4 Custody seals on sample containers dated & signed? Yes No N/A

5 Packing material is: Yes No

6 Number of samples in shipping container: 1 Sample Matrix: W

7 Number of containers per sample: 2 (Or see CoC) _____

8 Samples are in correct container? Yes No

9 Paperwork agrees with samples? Yes No

10 Samples have Tape Hazard labels Rad labels Appropriate sample labels

11 Samples are in good condition? Leaking Broken Container Missing

12 Samples are Preserved Not preserved Preservative: _____

13 Describe any anomalies: _____

14 Was P.M. notified of any anomalies? Yes No Date: _____

15 Inspected by: [Signature] Date: 01/29/08 Time: 10:30

Customer Sample No	Beta/Gamma cpm	Ion Chamber mR/m'	Wide	Customer Sample No	Beta/Gamma cpm	Ion Chamber mR/m'	Wide
1RA2496-1	460						

Ion Chamber Ser. No: _____

Calibration date: _____

Alpha Meter Ser. No: _____

Calibration date: _____

Beta/Gamma Meter Ser. No: 100482

Calibration date: 09 MAY 07

February 09, 2008

Vista Project I.D.: 30208

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

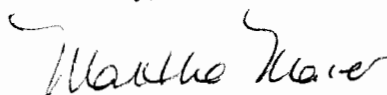
Dear Mr. Doak,

Enclosed are the results for the one aqueous sample received at Vista Analytical Laboratory on January 29, 2008 under your Project Name "IRA2496". This sample was extracted and analyzed using EPA Method 1613 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

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

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

Sincerely,



Martha M. Maier
Laboratory Director



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



Section I: Sample Inventory Report

Date Received: 1/29/2008

Vista Lab. ID

Client Sample ID

30208-001

IRA2496-01

SECTION II

Method Blank					EPA Method 1613				
Matrix:	Aqueous	QC Batch No.:	9921	Lab Sample:	0-MB001	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Sample Size:	1.00 L	Date Extracted:	2-Feb-08						
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers	
2,3,7,8-TCDD	ND	0.00000165			IS 13C-2,3,7,8-TCDD	73.6	25 - 164		
1,2,3,7,8-PeCDD	ND	0.00000120			13C-1,2,3,7,8-PeCDD	76.1	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.00000316			13C-1,2,3,4,7,8-HxCDD	74.4	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.00000300			13C-1,2,3,6,7,8-HxCDD	73.5	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.00000295			13C-1,2,3,4,6,7,8-HpCDD	77.2	23 - 140		
1,2,3,4,6,7,8-HpCDD	ND	0.00000197			13C-OCDD	65.9	17 - 157		
OCDD	ND	0.00000682			13C-2,3,7,8-TCDF	72.7	24 - 169		
2,3,7,8-TCDF	ND	0.000000988			13C-1,2,3,7,8-PeCDF	80.3	24 - 185		
1,2,3,7,8-PeCDF	ND	0.00000123			13C-2,3,4,7,8-PeCDF	66.6	21 - 178		
2,3,4,7,8-PeCDF	ND	0.00000151			13C-1,2,3,4,7,8-HxCDF	95.5	26 - 152		
1,2,3,4,7,8-HxCDF	ND	0.000000596			13C-1,2,3,6,7,8-HxCDF	77.3	26 - 123		
1,2,3,6,7,8-HxCDF	ND	0.000000816			13C-2,3,4,6,7,8-HxCDF	67.6	28 - 136		
2,3,4,6,7,8-HxCDF	ND	0.000000976			13C-1,2,3,7,8,9-HxCDF	76.1	29 - 147		
1,2,3,7,8,9-HxCDF	ND	0.00000111			13C-1,2,3,4,6,7,8-HpCDF	72.0	28 - 143		
1,2,3,4,6,7,8-HpCDF	ND	0.00000146			13C-1,2,3,4,7,8,9-HpCDF	75.2	26 - 138		
1,2,3,4,7,8,9-HpCDF	ND	0.00000154			13C-OCDF	71.7	17 - 157		
OCDF	ND	0.00000455			CRS 37Cl-2,3,7,8-TCDD	77.0	35 - 197		
Totals					Footnotes				
Total TCDD	ND	0.00000165			a. Sample specific estimated detection limit.				
Total PeCDD	ND	0.00000209			b. Estimated maximum possible concentration.				
Total HxCDD	ND	0.00000304			c. Method detection limit.				
Total HpCDD	0.00000138				d. Lower control limit - upper control limit.				
Total TCDF	ND	0.000000988							
Total PeCDF	ND	0.00000136							
Total HxCDF	ND	0.000000843							
Total HpCDF	ND	0.00000150							

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:17

OPR Results				EPA Method 1613			
Matrix:	Aqueous	QC Batch No.:	9921	Lab Sample:	0-OPR001		
Sample Size:	1.00 L	Date Extracted:	2-Feb-08	Date Analyzed DB-5:	6-Feb-08	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	Qualifier
2,3,7,8-TCDD	10.0	11.2	6.7 - 15.8	IS 13C-2,3,7,8-TCDD	77.8	25 - 164	
1,2,3,7,8-PeCDD	50.0	55.0	35 - 71	13C-1,2,3,7,8-PeCDD	74.8	25 - 181	
1,2,3,4,7,8-HxCDD	50.0	54.7	35 - 82	13C-1,2,3,4,7,8-HxCDD	74.8	32 - 141	
1,2,3,6,7,8-HxCDD	50.0	54.1	38 - 67	13C-1,2,3,6,7,8-HxCDD	75.4	28 - 130	
1,2,3,7,8,9-HxCDD	50.0	54.8	32 - 81	13C-1,2,3,4,6,7,8-HpCDD	80.9	23 - 140	
1,2,3,4,6,7,8-HpCDD	50.0	54.0	35 - 70	13C-OCDD	71.4	17 - 157	
OCDD	100	113	78 - 144	13C-2,3,7,8-TCDF	77.3	24 - 169	
2,3,7,8-TCDF	10.0	10.7	7.5 - 15.8	13C-1,2,3,7,8-PeCDF	73.3	24 - 185	
1,2,3,7,8-PeCDF	50.0	55.0	40 - 67	13C-2,3,4,7,8-PeCDF	66.3	21 - 178	
2,3,4,7,8-PeCDF	50.0	55.4	34 - 80	13C-1,2,3,4,7,8-HxCDF	90.2	26 - 152	
1,2,3,4,7,8-HxCDF	50.0	54.4	36 - 67	13C-1,2,3,6,7,8-HxCDF	73.1	26 - 123	
1,2,3,6,7,8-HxCDF	50.0	56.0	42 - 65	13C-2,3,4,6,7,8-HxCDF	69.8	28 - 136	
2,3,4,6,7,8-HxCDF	50.0	56.1	35 - 78	13C-1,2,3,7,8,9-HxCDF	74.7	29 - 147	
1,2,3,7,8,9-HxCDF	50.0	55.4	39 - 65	13C-1,2,3,4,6,7,8-HpCDF	71.2	28 - 143	
1,2,3,4,6,7,8-HpCDF	50.0	55.5	41 - 61	13C-1,2,3,4,7,8,9-HpCDF	77.2	26 - 138	
1,2,3,4,7,8,9-HpCDF	50.0	55.7	39 - 69	13C-OCDF	72.9	17 - 157	
OCDF	100	106	63 - 170	CRS 37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:17

Sample ID: IRA2496-01					EPA Method 1613			
Client Data			Sample Data		Laboratory Data			
Name:	Test America-Irvine, CA		Matrix:	Aqueous	Lab Sample:	30208-001	Date Received:	29-Jan-08
Project:	IRA2496		Sample Size:	1.01 L	QC Batch No.:	9921	Date Extracted:	2-Feb-08
Date Collected:	25-Jan-08				Date Analyzed DB-5:	7-Feb-08	Date Analyzed DB-225:	NA
Time Collected:	0940							
Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000925			IS 13C-2,3,7,8-TCDD	84.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000169			13C-1,2,3,7,8-PeCDD	76.5	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.00000232			13C-1,2,3,4,7,8-HxCDD	76.0	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000281			13C-1,2,3,6,7,8-HxCDD	76.4	28 - 130	
1,2,3,7,8,9-HxCDD	0.00000242			J	13C-1,2,3,4,6,7,8-HpCDD	80.7	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000860				13C-OCDD	67.1	17 - 157	
OCDD	0.00103				13C-2,3,7,8-TCDF	78.5	24 - 169	
2,3,7,8-TCDF	ND	0.00000812			13C-1,2,3,7,8-PeCDF	74.8	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000112			13C-2,3,4,7,8-PeCDF	65.9	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000121			13C-1,2,3,4,7,8-HxCDF	82.5	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000815			13C-1,2,3,6,7,8-HxCDF	72.7	26 - 123	
1,2,3,6,7,8-HxCDF	0.00000101			J	13C-2,3,4,6,7,8-HxCDF	70.3	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000102			13C-1,2,3,7,8,9-HxCDF	76.4	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.00000854			13C-1,2,3,4,6,7,8-HpCDF	71.8	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000188			J	13C-1,2,3,4,7,8,9-HpCDF	75.7	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.00000278			13C-OCDF	72.4	17 - 157	
OCDF	0.0000562				CRS 37Cl-2,3,7,8-TCDD	85.6	35 - 197	
Totals					Footnotes			
Total TCDD	ND	0.00000191			a. Sample specific estimated detection limit.			
Total PeCDD	ND	0.00000379			b. Estimated maximum possible concentration.			
Total HxCDD	0.0000208				c. Method detection limit.			
Total HpCDD	0.000185			B	d. Lower control limit - upper control limit.			
Total TCDF	0.00000236							
Total PeCDF	0.00000101		0.00000272					
Total HxCDF	0.0000153							
Total HpCDF	0.0000538							

Analyst: MAS

Approved By: William J. Luksemburg 08-Feb-2008 12:17

APPENDIX

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
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

IRA2496

30208

1.8°C

SENDING LABORATORY:

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

RECEIVING LABORATORY:

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

Analysis	Units	Due	Expires	Comments
Sample ID: IRA2496-01	Water		Sampled: 01/25/08 09:40	
1613-Dioxin-HR-Alta	ug/l	02/05/08	02/01/08 09:40	J flags, 17 congeners, no TEQ, ug/L, sub=Vista
EDD + Level 4	N/A	02/05/08	02/22/08 09:40	Excel EDD email to pm, include Std logs for Lvl IV
<i>Containers Supplied:</i>				
1 L Amber (D)	1 L Amber (E)			

Released By  1/28/08 1700
Date/Time

Released By _____
Date/Time

Received By FedEx 1/28/08 17:00
Date/Time

Received By Robina Benedict 1/29/08 1327
Date/Time

SAMPLE LOG-IN CHECKLIST



Vista Project #: 30208

TAT unspecified

Samples Arrival:	Date/Time 1/29/08 0905	Initials: YBSP	Location: WR-2
			Shelf/Rack: N/A
Logged In:	Date/Time 1/29/08 1327	Initials: YBSP	Location: WR-2
			Shelf/Rack: C 2
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> Cal
		<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
	<input type="checkbox"/> Other		
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C	1.8°C	Time:	0911
		Thermometer ID:	IR-1

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Airbill	Trk # 7904 34539950	<input checked="" type="checkbox"/>	
Sample Container Intact?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>
Na ₂ S ₂ O ₃ Preservation Documented?		COC	Sample Container
		<input checked="" type="checkbox"/> None	
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain
		<input checked="" type="checkbox"/> Return	Dispose

Comments:

SUBCONTRACT ORDER

TestAmerica Irvine

IRA2496

8012804

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: _____ °C Ice: Y / N


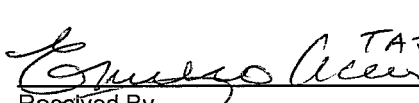
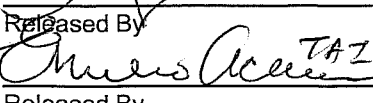
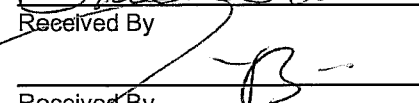
Analysis	Units	Due	Expires	Comments
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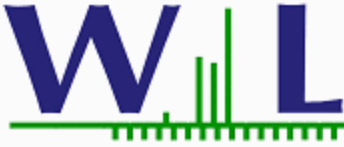
Sample ID: IRA2496-01	Water	Sampled: 01/25/08 09:40		
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Level 4 Data Package - Weck	N/A	02/05/08	02/22/08 09:40	
Mercury - 245.1, Diss -OUT	mg/l	02/05/08	02/22/08 09:40	Boeing, permit, J flags, OUT to weck
Mercury - 245.1-OUT	mg/l	01/28/08	02/22/08 09:40	Boeing, permit, J flags, OUT to weck

Containers Supplied:

125 mL Poly w/HNO3 125 mL Poly (AF)
(AE)

	01/28/08 0700		01/28/08 0700
Released By	Date/Time	Received By	Date/Time
	01/28/08 845		01/28/08
Released By	Date/Time	Received By	Date/Time



CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Joseph Doak

Report Date: 01/30/08 12:54
Received Date: 01/28/08 08:45
Turn Around: 1 day

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

Work Order #: 8012804
Client Project: IRA2496

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 01/28/08 08:45 with the Chain of Custody document. The samples were received in good condition. The samples were received at 7.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Kim G Tu

Project Manager





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

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012804
Project ID: IRA2496

Date Received: 01/28/08 08:45
Date Reported: 01/30/08 12:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IRA2496-01	Client		8012804-01	Water	01/25/08 09:40



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

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012804
Project ID: IRA2496

Date Received: 01/28/08 08:45
Date Reported: 01/30/08 12:54

IRA2496-01 8012804-01 (Water)

Date Sampled: 01/25/08 09:40

Metals by EPA 200 Series Methods

Analyte	Result	MDL	Units	Reporting Limit	Dilution Factor	Method	Batch Number	Date Prepared	Date Analyzed	Data Qualifiers
Mercury, Dissolved	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1034	01/29/08	01/30/08	jlp
Mercury, Total	ND	0.050	ug/l	0.20	1	EPA 245.1	W8A1034	01/29/08	01/30/08	jlp



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

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012804
Project ID: IRA2496

Date Received: 01/28/08 08:45
Date Reported: 01/30/08 12:54

QUALITY CONTROL SECTION



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

TestAmerica, Inc. - Irvine
 17461 Derian Ave, Suite 100
 Irvine CA, 92614

Report ID: 8012804
 Project ID: IRA2496

Date Received: 01/28/08 08:45
 Date Reported: 01/30/08 12:54

Metals by EPA 200 Series Methods - Quality Control

%REC

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch W8A1034 - EPA 245.1

Blank (W8A1034-BLK1)

Analyzed: 01/30/08

Mercury, Dissolved	ND	0.20	ug/l							
Mercury, Total	ND	0.20	ug/l							

LCS (W8A1034-BS1)

Analyzed: 01/30/08

Mercury, Dissolved	0.986	0.20	ug/l	1.00		99	85-115			
Mercury, Total	0.986	0.20	ug/l	1.00		99	85-115			

Matrix Spike (W8A1034-MS1)

Source: 8012803-01

Analyzed: 01/30/08

Mercury, Dissolved	2.06	0.40	ug/l	2.00	ND	103	70-130			
Mercury, Total	2.06	0.40	ug/l	2.00	ND	103	70-130			

Matrix Spike Dup (W8A1034-MSD1)

Source: 8012803-01

Analyzed: 01/30/08

Mercury, Dissolved	2.02	0.40	ug/l	2.00	ND	101	70-130	2	20	
Mercury, Total	2.02	0.40	ug/l	2.00	ND	101	70-130	2	20	



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

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 8012804
Project ID: IRA2496

Date Received: 01/28/08 08:45
Date Reported: 01/30/08 12:54

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.

APPENDIX G

Section 9

Outfall 002, February 3, 2008

MEC^X Data Validation Reports



DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: IRB0147

Prepared by

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

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES
 Contract Task Order: 1261.100D.00
 Sample Delivery Group: IRB0147
 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 002	IRB0147-01	30225-001, 8020460-01, 973194, 8695-001	Water	02/03/08 1300	120.1, 160.5, 180.1, 200.7, 200.8, 245.1, 415.1, 624, 625, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, 1613, 8315M, ASTM D-5174, SM2340-B, SM5540-C
Trip Blank	IRB0147-02	N/A	Water	02/03/08	624

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°C ±2°C. The samples were received marginally below the temperature limit at Weck; however, the samples were 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.

Data Qualifier Reference Table

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

Qualification Code Reference Table

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

Qualification Code Reference Table Cont.

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

III. Method Analyses

A. EPA METHOD 1613—Dioxin/Furans

Reviewed By: 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^x Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0)*, *USEPA Method 1613*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review (8/02)*.

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.
- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.
 - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was not analyzed prior to the initial calibration sequence or at the beginning of each analytical sequence; however, the first and last eluting congeners and isomer specificity compounds were added to the midpoint of the initial calibration and to the continuing calibration standards. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.
 - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.
- Calibration: Calibration criteria were met.
 - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs $\leq 20\%$ for the 16 native compounds (calibration by isotope dilution) and $\leq 35\%$ 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 0.00000899 μ /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 200.8, 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 200.8 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 $\leq 5\%$, and all masses of interest were calibrated to ≤ 0.1 amu and ≤ 0.9 amu at 10% peak height.

- Calibration: Calibration criteria were met. Mercury initial calibration r^2 values were ≥ 0.995 and all initial and continuing calibration recoveries were within 90-110% for the ICP-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 laboratory-established QC limits.
- Laboratory Duplicates: No laboratory duplicate analyses were performed.
- Matrix Spike/Matrix Spike Duplicate: No MS/MSD analyses were performed on the sample in this SDG. Evaluation of 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, selenium and zinc were detected at slightly higher concentrations in the dissolved metals sample fraction and that cadmium was detected slightly above the MDL in the dissolved metals fraction but was not detected in the total metals fraction. In all cases, the difference between the total and dissolved results was within the sensitivity limits of the analytical instrument and, therefore, the reviewer considered the total and dissolved results to be equivalent.

The reviewer noted that the dissolved arsenic result was $-8.3 \mu\text{g/L}$ in the raw data; therefore, the reviewer raised the arsenic MDL to the level of interference, $8.3 \mu\text{g/L}$.

- **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 laboratory-established 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 was validated based on the guidelines outlined in the *MEC^x 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 $\leq 35\%$ or $r^2 > 0.995$ 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 µg/L, butyl benzyl phthalate at 2.46 µg/L, and diethyl phthalate at 0.160 µg/L. Sample detects between the MDL and the RL for bis(2-ethylhexyl)phthalate and butyl benzyl phthalate were qualified as nondetects, "U," at the reporting limit.
- 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 r^2 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:** No laboratory duplicate analyses were performed for the sample in this SDG.
- **Matrix Spike/Matrix Spike Duplicate:** MS/MSD analyses were performed on the sample in this SDG for hydrazine. All recoveries and RPDs were within the laboratory-established control limits. 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.
- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:
 - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.
 - Field Duplicates: There were no field duplicate samples identified for this SDG.

Sample ID: IRB0147-01 Outfall 002 **EPA Method 1613**

Client Data
 Name: Test America-Irvine, CA
 Project: IRB0147
 Date Collected: 3-Feb-08
 Time Collected: 1300

Sample Data
 Matrix: Aqueous
 Sample Size: 1.01 L

Laboratory Data
 Lab Sample: 30225-001
 QC Batch No.: 9953
 Date Analyzed DB-5: 19-Feb-08
 Date Received: 5-Feb-08
 Date Extracted: 15-Feb-08
 Date Analyzed DB-225: NA

Analyte	Conc. (ug/L)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	ND	0.00000611			13C-2,3,7,8-TCDD	87.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.00000754			13C-1,2,3,7,8-PeCDD	77.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0000135			13C-1,2,3,4,7,8-HxCDD	79.4	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.00000243			13C-1,2,3,6,7,8-HxCDD	77.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0000135			13C-1,2,3,4,6,7,8-HpCDD	83.0	23 - 140	
1,2,3,4,6,7,8-HpCDD	0.0000152			J	13C-OCDD	75.2	17 - 157	
OCDD	0.000143			B	13C-2,3,7,8-TCDF	91.7	24 - 169	
2,3,7,8-TCDF	ND	0.00000588			13C-1,2,3,7,8-PeCDF	76.2	24 - 185	
1,2,3,7,8-PeCDF	ND	0.00000829			13C-2,3,4,7,8-PeCDF	77.6	21 - 178	
2,3,4,7,8-PeCDF	ND	0.00000801			13C-1,2,3,4,7,8-HxCDF	74.1	26 - 152	
1,2,3,4,7,8-HxCDF	ND	0.00000749			13C-1,2,3,6,7,8-HxCDF	74.2	26 - 123	
1,2,3,6,7,8-HxCDF	ND	0.00000784			13C-2,3,4,6,7,8-HxCDF	73.8	28 - 136	
2,3,4,6,7,8-HxCDF	ND	0.00000849			13C-1,2,3,7,8,9-HxCDF	78.3	29 - 147	
1,2,3,7,8,9-HxCDF	ND	0.0000110			13C-1,2,3,4,6,7,8-HpCDF	74.7	28 - 143	
1,2,3,4,6,7,8-HpCDF	0.0000432			J	13C-1,2,3,4,7,8,9-HpCDF	77.6	26 - 138	
1,2,3,4,7,8,9-HpCDF	ND	0.0000110			13C-OCDF	76.7	17 - 157	
OCDF	0.0000110			J	CRS 37Cl-2,3,7,8-TCDD	86.5	35 - 197	

Totals

Total TCDD	ND	0.0000116		
Total PeCDD	ND	0.00000163		
Total HxCDD	0.0000244	0.00000368		
Total HpCDD	0.0000291			
Total TCDF	0.0000162			
Total PeCDF	ND	0.000000447		
Total HxCDF	0.0000117			
Total HpCDF	0.0000101			

Footnotes

- a. Sample specific estimated detection limit.
- b. Estimated maximum possible concentration.
- c. Method detection limit.
- d. Lower control limit - upper control limit.

Analyst: MAS

Approved By: William J. Luksemburg 25-Feb-2008 12:39

Level IV

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: mg/l									
Hardness as CaCO3	SM2340B	[CALC]	N/A	0.33	170	1	02/04/08	02/04/08	
Barium	EPA 200.7	8B04079	0.0060	0.010	0.032	1	02/04/08	02/04/08	
Boron	EPA 200.7	8B04079	0.020	0.050	0.070	1	02/04/08	02/04/08	
Calcium	EPA 200.7	8B04079	0.050	0.10	46	1	02/04/08	02/04/08	
Iron	EPA 200.7	8B04079	0.015	0.040	0.62	1	02/04/08	02/04/08	
Magnesium	EPA 200.7	8B04079	0.012	0.020	13	1	02/04/08	02/04/08	

LEVEL IV

TestAmerica Irvine

Joseph Doak
Project Manager

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: ug/l									
Antimony	EPA 200.8	8B04080	0.20	2.0	0.40	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	ND	1	02/04/08	02/04/08	
Chromium	EPA 200.7	8B04079	2.0	5.0	2.1	1	02/04/08	02/04/08	J
Cobalt	EPA 200.7	8B04079	2.0	10	ND	1	02/04/08	02/04/08	
Copper	EPA 200.8	8B04080	0.75	2.0	3.1	1	02/04/08	02/04/08	
Lead	EPA 200.8	8B04080	0.30	1.0	0.38	1	02/04/08	02/04/08	J
Manganese	EPA 200.7	8B04079	7.0	20	16	1	02/04/08	02/04/08	J
Nickel	EPA 200.7	8B04079	2.0	10	2.7	1	02/04/08	02/04/08	J
Selenium	EPA 200.8	8B04080	0.30	2.0	0.38	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	ND	1	02/04/08	02/04/08	
Vanadium	EPA 200.7	8B04079	3.0	10	ND	1	02/04/08	02/04/08	
Zinc	EPA 200.7	8B04079	6.0	20	6.6	1	02/04/08	02/04/08	J

LEVEL IV

TestAmerica Irvine

Joseph Doak
 Project Manager

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: mg/l									
Barium	EPA 200.7-Diss	8B04145	0.0060	0.010	0.026	1	02/04/08	02/05/08	
Boron	EPA 200.7-Diss	8B04145	0.020	0.050	0.063	1	02/04/08	02/05/08	
Calcium	EPA 200.7-Diss	8B04145	0.050	0.10	44	1	02/04/08	02/05/08	
Iron	EPA 200.7-Diss	8B04145	0.015	0.040	0.059	1	02/04/08	02/05/08	
Magnesium	EPA 200.7-Diss	8B04145	0.012	0.020	12	1	02/04/08	02/05/08	
Hardness (as CaCO3)	SM2340B	8B04145	1.0	1.0	160	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 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.										
Reporting Units: ug/l										
Antimony	J/DNQ	EPA 200.8-Diss	8B05112	0.20	2.0	0.45	1	02/05/08	02/05/08	J
Arsenic	U/\$	EPA 200.7-Diss	8B04145	7.0 8.3	10	ND	1	02/04/08	02/05/08	
Beryllium	U	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	0.14	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	U	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	2.7	1	02/05/08	02/05/08	
Lead	U	EPA 200.8-Diss	8B05112	0.30	1.0	ND	1	02/05/08	02/05/08	
Manganese		EPA 200.7-Diss	8B04145	7.0	20	ND	1	02/04/08	02/05/08	
Nickel	↓	EPA 200.7-Diss	8B04145	2.0	10	ND	1	02/04/08	02/05/08	
Selenium	J/DNQ	EPA 200.8-Diss	8B05112	0.30	2.0	0.44	1	02/05/08	02/05/08	J
Silver	U	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	U	EPA 200.7-Diss	8B04145	3.0	10	ND	1	02/04/08	02/05/08	
Zinc	J/DNQ	EPA 200.7-Diss	8B04145	6.0	20	9.1	1	02/04/08	02/05/08	J

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - 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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Eberline Services

ANALYSIS RESULTS

SDG <u>8695</u>	Client <u>TA IRVINE</u>
Work Order <u>R802041-01</u>	Contract <u>PROJECT# IRB0147</u>
Received Date <u>02/05/08</u>	Matrix <u>WATER</u>

Client	Lab	Sample ID	Collected	Analyzed	Nuclide	Results + 2σ	Units	MDA	
		<u>Outfall-002</u>							
IRB0147-01	8695-001	02/03/08	02/27/08	02/27/08	GrossAlpha	0.505 ± 0.72	pCi/L	1.1	<u>UJ/R</u>
			02/27/08	02/27/08	Gross Beta	4.62 ± 0.77	pCi/L	1.0	
			02/27/08	02/27/08	Ra-228	0.062 ± 0.29	pCi/L	0.54	<u>UJ/H</u>
			02/23/08	02/23/08	K-40 (G)	U	pCi/L	33	<u>↓</u>
			02/23/08	02/23/08	Cs-137 (G)	U	pCi/L	1.5	<u>↓</u>
			02/28/08	02/28/08	H-3	-48.2 ± 81	pCi/L	150	<u>↓</u>
			03/03/08	03/03/08	Ra-226	-0.081 ± 0.31	pCi/L	0.68	<u>UJ/H</u>
			02/18/08	02/18/08	Sr-90	-0.034 ± 0.31	pCi/L	0.73	<u>↓</u>
			02/26/08	02/26/08	Total U	0.701 ± 0.077	pCi/L	0.022	<u>J/H</u>

LEVEL IV

Certified by <u>[Signature]</u>
Report Date <u>03/11/08</u>
Page 1

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

Project ID: Annual Outfall 002
 Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water)									
Reporting Units: ug/l									
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	
Benzidine	EPA 625	8B03026	0.94	4.7	ND	0.943	02/03/08	02/07/08	L6
Benzo(a)anthracene	EPA 625	8B03026	0.094	4.7	ND	0.943	02/03/08	02/07/08	
Hexachlorobutadiene	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	EPA 625	8B03026	1.6	4.7	2.1	0.943	02/03/08	02/07/08	B, 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	B, J
2-Chloronaphthalene	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
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	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	EPA 625	8B03026	0.094	0.94	ND	0.943	02/03/08	02/07/08	
Dimethyl phthalate	EPA 625	8B03026	0.094	0.47	ND	0.943	02/03/08	02/07/08	
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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TestAmerica Irvine

Joseph Doak
 Project Manager

Level IV

*u/c
 04-02-08*

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - 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%)					66 %				
Surrogate: Phenol-d6 (35-120%)					77 %				
Surrogate: 2,4,6-Tribromophenol (40-120%)					102 %				
Surrogate: Nitrobenzene-d5 (45-120%)					81 %				
Surrogate: 2-Fluorobiphenyl (50-120%)					86 %				
Surrogate: Terphenyl-d14 (50-125%)					94 %				

Level III

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 Project Manager

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: mg/l									
Hexane Extractable Material (Oil & Grease)	EPA 1664A	8B12074	1.3	4.8	1.6	1	02/12/08	02/12/08	J
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	1.4	1	02/04/08	02/09/08	J
Chloride	EPA 300.0	8B04043	0.25	0.50	24	1	02/04/08	02/04/08	
Fluoride	EPA 300.0	8B04043	0.15	0.50	0.34	1	02/04/08	02/04/08	J
Nitrate-N	EPA 300.0	8B04043	0.060	0.11	2.2	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	2.2	1	02/04/08	02/04/08	
Residual Chlorine	EPA 330.5	8B04074	0.10	0.10	0.14	1	02/04/08	02/04/08	HFT
Sulfate	EPA 300.0	8B04043	0.40	1.0	94	2	02/04/08	02/04/08	
Surfactants (MBAS)	SM5540-C	8B04097	0.044	0.10	0.18	1	02/04/08	02/04/08	
Total Dissolved Solids	SM2540C	8B07122	10	10	350	1	02/07/08	02/07/08	
Total Organic Carbon	EPA 415.1	8B13116	0.50	1.0	9.6	1	02/13/08	02/13/08	
Total Suspended Solids	EPA 160.2	8B04128	10	10	ND	1	02/04/08	02/04/08	

* Analysis not validated

pm 4/2/08

LEVEL IV

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

Project ID: Annual Outfall 002

Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - 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 002
Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: NTU									
Turbidity	EPA 180.1	8B04067	0.040	1.0	13	1	02/04/08	02/04/08	

LEVEL IV

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

Project ID: Annual Outfall 002
Report Number: IRB0147

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: IRB0147-01 (Outfall 002 - Water) - cont.									
Reporting Units: umhos/cm									
Specific Conductance	EPA 120.1	8B08056	1.0	1.0	440	1	02/07/08	02/07/08	

LEVEL IV

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Joseph Doak
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TRUESDAIL LABORATORIES, INC.

EXCELLENCE IN INDEPENDENT TESTING



Established 1931

14201 FRANKLIN AVENUE - TUSTIN, CALIFORNIA 92780-7006
(714) 730-6239 - FAX (714) 730-6462 - www.truesdail.com

Client: TestAmerica Analytical-Irvine
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5817

Attention: Joseph Doak
Sample: Water / 1 Sample
Project Name: IRB0147
P.O. Number: IRB0147
Method Number: 8315 (Modified)
Investigation: Hydrazines

REPORT

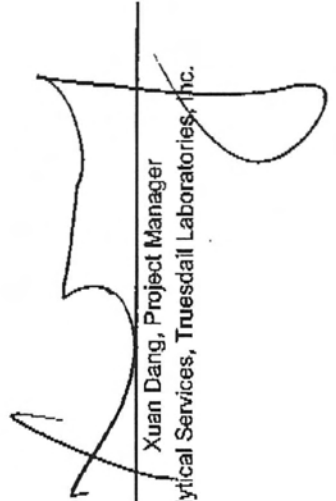
Laboratory No: 973194
Report Date: February 19, 2008
Sampling Date: February 3, 2008
Receiving Date: February 4, 2008
Extraction Date: February 5, 2008
Analysis Date: February 6, 2008
Units: µg/L
Reported By: JS

Analytical Results

Sample ID	Sample Descript	Sample Amount (mL)	Dilution Factor	Monomethyl Hydrazine	u-Dimethyl Hydrazine	Hydrazine	Qualifier Codes
707223-MB	* Method Blank	100	1	ND	ND	ND	None
973194 outfall 062	IRB0147-01	100	1	ND	ND	0.15	None
MDL				0.56	0.32	0.15	
PQL				5.0	5.0	1.00	
Sample Reporting Limits				5.0	5.0	1.00	

*Analysis not validated
LEVEL IV

Note: Results based on detector #1 (UV=365nm) data.


Xuan Dang, Project Manager
Analytical Services, Truesdail Laboratories, Inc.

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